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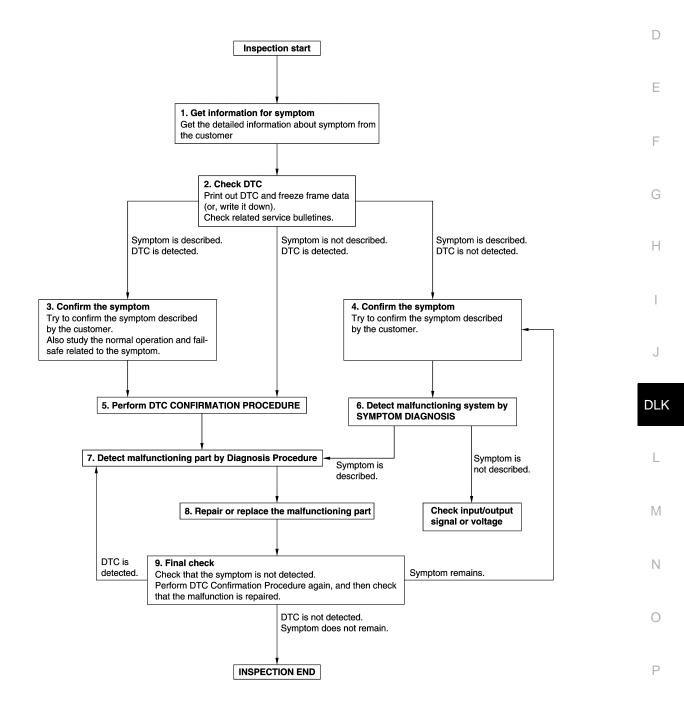
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# **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 



JMKIA8652GB

#### DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

### 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 <a href="BCS-74">BCS-74</a>, "DTC Inspection Priority Chart" (BCM), 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 CONFIR-MATION PROCEDURE.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Check according to GI-41, "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 CON-SULT.

### 7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

#### **DIAGNOSIS AND REPAIR WORK FLOW**

#### < BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to GI-41, "Intermittent Incident".

### 8.repair or replace the malfunctioning part

- Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replace-
- 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.

>> 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 ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000007772725

Perform the system initialization when replacing BCM, replacing Intelligent Key or registering an additional Intelligent Key.

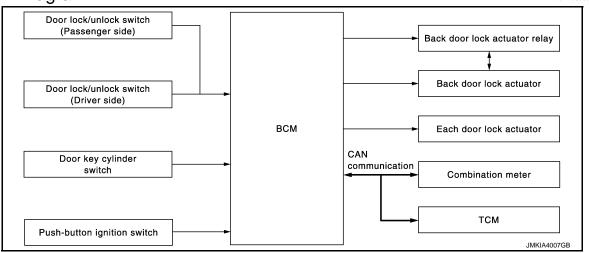
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to CONSULT operation manual for the NATS-IVIS/NVIS.

### SYSTEM DESCRIPTION

### POWER DOOR LOCK SYSTEM

System Diagram



### System Description

INFOID:0000000007772728

INFOID:0000000007772727

#### DOOR LOCK FUNCTION

Door Lock and Unlock Switch

- The door lock and unlock switch (driver side) is build into power window main switch.
- The door lock and unlock switch (passenger side) is build into front power window switch (passenger side).
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are unlocked.

Door Key Cylinder Switch

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", locks door lock actuator of all doors and fuel lid lock actuator.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the
  driver side door, turning it to "UNLOCK" again within 60 seconds after the first unlock operation unlocks all of
  the other doors actuator and fuel lid lock actuator. (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (LOCK OPERATION)

The interlock door lock function is the function that locks all doors linked with the vehicle speed or shift position. It has 2 types as per the following items.

Vehicle Speed Sensing Auto Door Lock\*1

All doors are locked when the vehicle speed reaches 24 km/h (15 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the combination meter via CAN communication becomes 24 km/h (15 miles) or more.

#### P Range Interlock Door Lock\*2

All doors are locked when shifting the selector lever from the P position to any position other than P. BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from the TCM via CAN communication is shifted from the P position to any position other than P.

Setting change of Automatic Door Lock/Unlock Function

The lock operation setting of the automatic door lock/unlock function can be changed.

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#### POWER DOOR LOCK SYSTEM

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

P range interlock door lock can be selected for M/T models, but automatic door lock/unlock function does not operate.

#### (A) With CONSULT

The ON/OFF switching of the automatic door lock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT.

#### **Without CONSULT**

The automatic door lock function ON/OFF can be switched by performing the following operation.

- Close all doors (door switch OFF)
- 2. Turn ignition switch ON
- Press and hold the door lock and unlock switch for 5 seconds or more in the lock direction within 20 seconds after turning the ignition switch ON.
- 4. The switching complete when the hazard lamp blinks.

 $OFF \rightarrow ON$  : 2 blinks  $ON \rightarrow OFF$  : 1 blink

#### AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNLOCK OPERATION)

The automatic door lock/unlock function is the function that unlocks all doors linked with the key position or shift position. It has 2 types as per the following items.

#### IGN OFF Interlock Door Unlock\*1

All doors are unlocked when the power supply position is changed from ON to OFF.

BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.

#### P Range Interlock Door Unlock\*2

All doors are unlocked when shifting the selector lever from any position other than the P to P position.

BCM outputs the unlock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from TCM via CAN communication is shifted from any position other than the P to P position.

Setting change of Automatic Door Lock/Unlock Function

The unlock operation setting of the automatic door lock/unlock function can be changed.

#### NOTE:

P range interlock door lock can be selected for M/T models, but automatic door lock/unlock function does not operate.

#### (P) With CONSULT

The ON/OFF switching of the automatic door lock/unlock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT.

#### **⋈** Without CONSULT

The automatic door lock/unlock function ON/OFF can be switched by performing the following operation.

- 1. Close all doors below (door switch OFF)
- 2. Turn ignition switch ON
- 3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
- 4. The switching is complete when the hazard lamp blinks.

 $OFF \rightarrow ON$  : 2 blinks  $ON \rightarrow OFF$  : 1 blink

\*1: This function is set to ON before delivery.

\*2: This function does not operate on M/T models.

#### [WITH INTELLIGENT KEY SYSTEM]

### Component Parts Location

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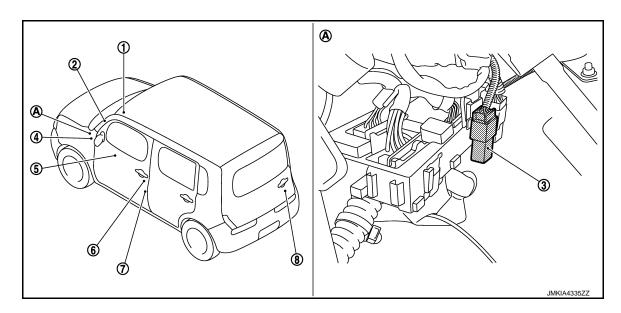
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- Push-button ignition switch (push switch)
- 4. BCM
  Refer to BCS-10, "Component Parts
  Location"
- 7. Front door switch (driver side)
- A. Behind the instrument lower panel LH (Left side)
- 2. Combination meter
- 5. Power window main switch (door lock and unlock switch)
- 8. Back door lock assembly
- 3. Back door lock actuator relay
- Front door lock assembly (driver side)

### Component Description

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Item	Function
ВСМ	Controls the door lock function
Door lock and unlock switch	Inputs lock or unlock signal to BCM
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door
Door key cylinder switch	Built-in driver side door lock assembly     Inputs lock or unlock signal to power window main switch     Power window main switch transmits door lock/unlock signal to BCM
Combination meter	Transmits vehicle speed signal to CAN communication line
TCM*	Transmits shift position signal to BCM via CAN communication line
Back door lock actuator relay	Controls the back door lock/unlock operation
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM

<sup>\*:</sup> With CVT models

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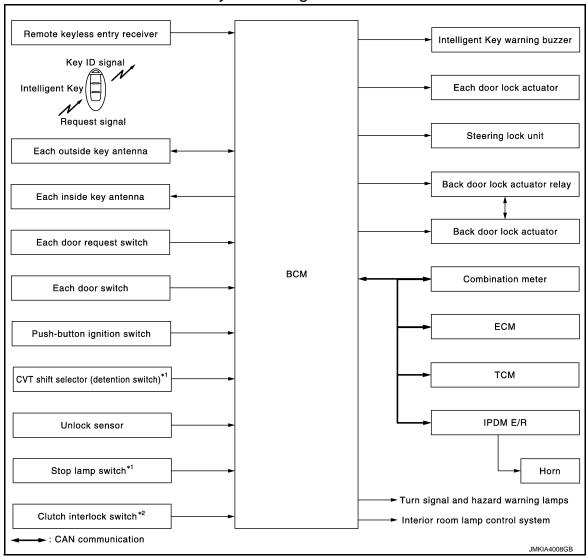
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# INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM

#### INTELLIGENT KEY SYSTEM: System Diagram

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- \*1: With CVT models
- \*2: With M/T models

### **INTELLIGENT KEY SYSTEM: System Description**

 The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/ unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communication between the Intelligent Key and the vehicle (BCM).
 CAUTION:

#### The driver should always carry the Intelligent Key

- The settings for each function can be changed with CONSULT.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with CONSULT.

Function	Description	Refer
Door lock	Lock/unlock can be performed by pressing the request switch	DLK-20
Remote keyless entry	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key	DLK-25

### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Function	Description	Refer
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle	DLK-30
Warning	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver	DLK-32
Engine start	The engine can be turned on while carrying the Intelligent Key	SEC-11
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state	INL-6
Panic alarm	When Intelligent Key panic alarm button is pressed, horn sounds	SEC-21

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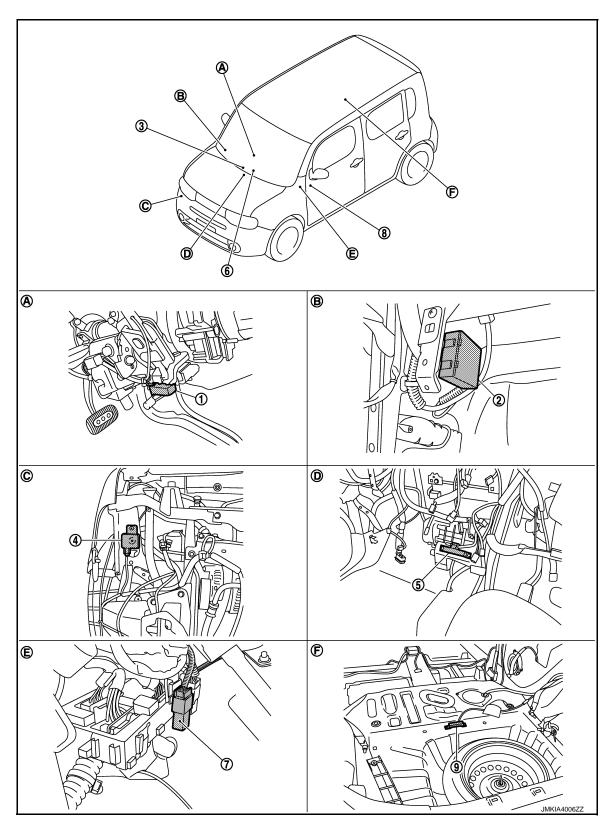
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### INTELLIGENT KEY SYSTEM : Component Parts Location

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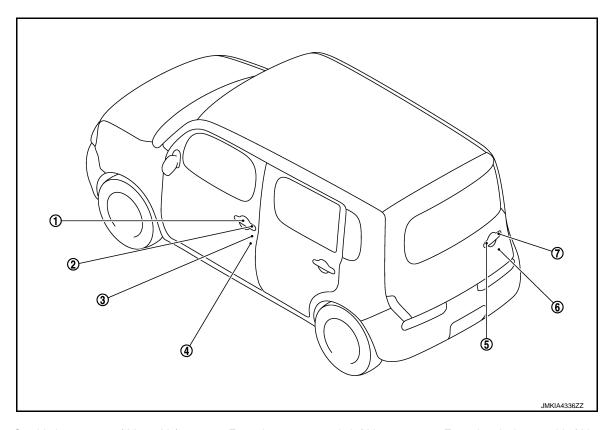
- CVT shift selector (detention switch)\*
- 4. Intelligent Key warning buzzer
- 2. Remote keyless entry receiver
- 5. Inside key antenna (instrument cen- 6. ter)
- Push-button ignition switch
- Combination meter

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

7.	Back door lock actuator relay	8.	BCM Refer to BCS-81, "Removal and Installation"	9.	Inside key antenna (luggage room)
A.	Integrated in CVT shift selector	B.	View with glove box assembly removed	C.	View with front bumper removed
D.	Behind the audio unit	E.	Behind the instrument lower panel LH (Left side)	F.	View with rear seat removed

\*: With CVT models



1. Outside key antenna (driver side)

Front door switch (driver side)

Back door request switch

- Front door request switch (driver side)
- Outside antenna (back door)
- Front door lock assembly (driver side)
- 6. Back door lock assembly

#### .......

### INTELLIGENT KEY SYSTEM: Component Description

INFOID:0000000007772734

Item	Function
BCM	Controls the Intelligent Key system
IPDM E/R	Sounds horn via CAN communication between BCM
Door lock actuator	Inputs lock/unlock signal from BCM and locks/unlocks each door
Door switch	Inputs door open/close condition to BCM
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM
Door request switch	Inputs lock/unlock operation to BCM
Intelligent Key	Transmits button operation to remote keyless entry receiver
Outside key antenna	Detects if Intelligent Key is outside the vehicle
Inside key antenna	Detects if Intelligent Key is inside the vehicle
Unlock sensor	Detects door lock condition of driver door
CVT shift selector (detention switch)*	Detects the P range position of CVT selector lever

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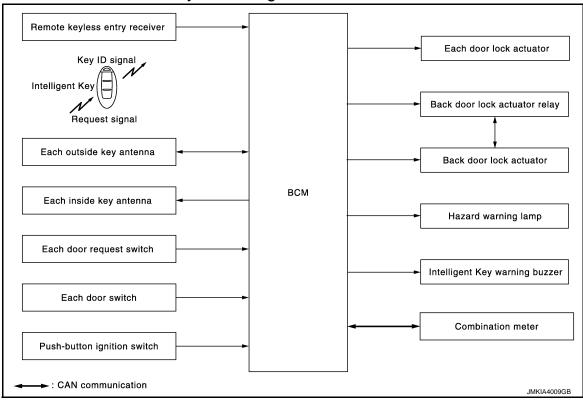
Item	Function
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound
Hazard warning lamp	Warns the user of the door lock/unlock condition and inappropriate operations with the lamps blink
Back door lock actuator relay	Controls the back door lock/unlock operation
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM

<sup>\*:</sup> With CVT models

#### DOOR LOCK FUNCTION

### DOOR LOCK FUNCTION: System Diagram

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### DOOR LOCK FUNCTION: System Description

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Only when pressing the request switch, it is possible to lock and unlock the door by carrying the Intelligent Key.

#### **OPERATION DESCRIPTION**

- When the BCM detects that each door request switch is pressed, it starts the outside key antenna and inside
  key antenna corresponding to the pressed door request switch and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM lock/unlock each door and sounds Intelligent Key buzzer warning (lock: 2 time, unlock: 1 times) at the same time as a reminder.

#### OPERATION CONDITION

If the following conditions are satisfied, door lock/unlock operation is performed if the door request switch is operated.

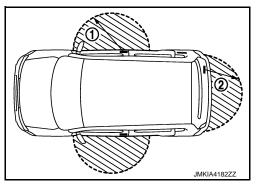
#### [WITH INTELLIGENT KEY SYSTEM]

Each request switch operation	Operation condition
Lock	<ul> <li>All doors are closed</li> <li>P position warning is not activated</li> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area</li> </ul>
Unlock	<ul> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area *</li> </ul>

<sup>\*:</sup> Even with a registered Intelligent Key remaining inside the vehicle, door locks can be unlocked from outside of the vehicle with a spare Intelligent Key as long as key IDs are different.

#### **OUTSIDE KEY ANTENNA DETECTION AREA**

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver, passenger door handles (1) and back door handle (2). However, this operating range depends on the ambient conditions.



#### SELECTIVE UNLOCK FUNCTION

#### **Lock Operation**

When an LOCK signal is sent from door request switch, all doors will be locked.

#### **Unlock Operation**

- When an UNLOCK signal from driver side door request switch is transmitted, driver side door unlocks. When another UNLOCK signal is transmitted within 60 seconds, passenger side door, rear doors and back door unlocks.
- When an UNLOCK signal from passenger side door request switch is transmitted, passenger side door unlocks. When another UNLOCK signal is transmitted within 60 seconds, driver side door, rear doors and back door unlocks.
- When an UNLOCK signal from back door request switch is transmitted, back door unlocks. When another UNLOCK signal is transmitted within 60 seconds, driver side door, passenger side door and rear doors unlocks.

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### HAZARD AND BUZZER REMINDER FUNCTION

During lock, unlock, operation by each door request switch, the hazard warning lamps and Intelligent Key warning buzzer will blink or honk as a reminder.

When doors are locked, unlocked by each door request switch, BCM honks Intelligent Key warning buzzer as a reminder and blinks.

Operating Function of Hazard and Buzzer Reminder

Operation	Hazard warning lamp blinks	Intelligent Key warning buzzer honk			
Unlock	Once	Once			
Lock	Twice	Twice			

Hazard and buzzer reminder does not operate in the following conditions.

- Ignition switch position is ON
- Door is open (only lock operation)

#### How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

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#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

#### **AUTO DOOR LOCK FUNCTION**

After door is unlocked by door request switch operation and if 60 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

Operating condition	<ul><li>Door switch is ON (door is open)</li><li>Door is locked</li><li>Push switch is pressed</li></ul>

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-40. "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

#### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Door lock function	Intelligent Key	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch	Combination meter
Door lock/unlock function	×	×	×	×	×	×	×			×			
Hazard and buzzer reminder function								×	×	×	×		×
Selective unlock function	×			×	×	×	×			×			
Auto door lock function	×				×					×		×	

### DOOR LOCK FUNCTION: Component Parts Location

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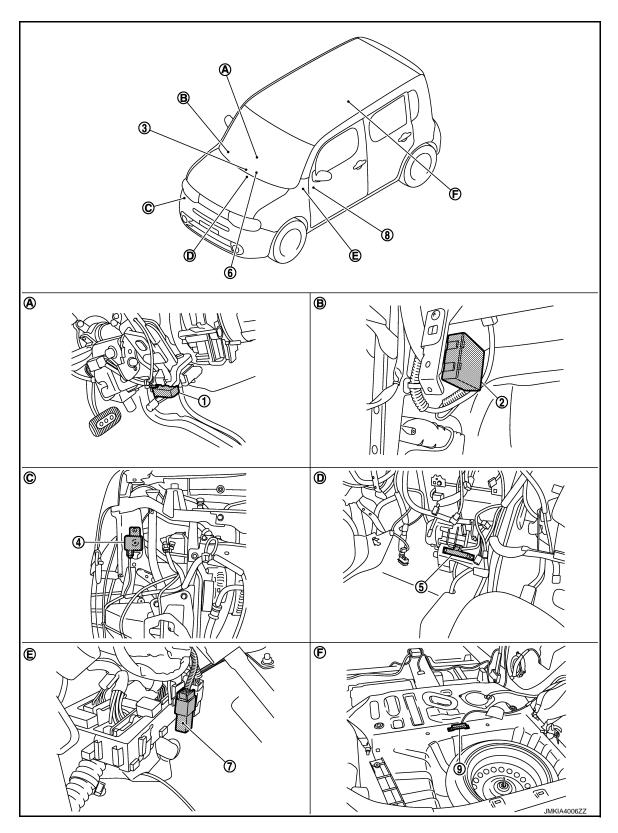
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- CVT shift selector (detention switch)\*
- 4. Intelligent Key warning buzzer
- 2. Remote keyless entry receiver
- 3. Push-button ignition switch
- 5. Inside key antenna (instrument cen- 6. ter)
  - Combination meter

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#### < SYSTEM DESCRIPTION >

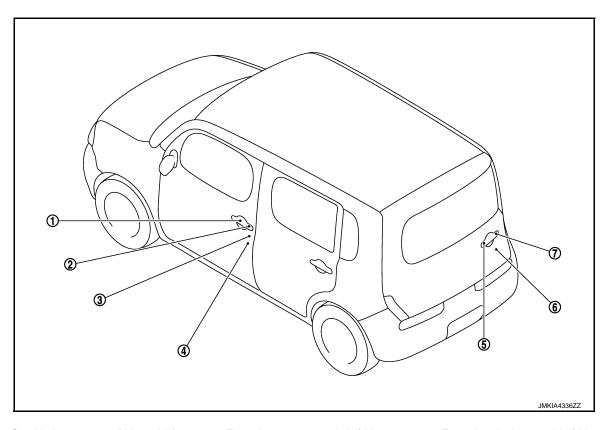
#### [WITH INTELLIGENT KEY SYSTEM]

- 7. Back door lock actuator relay
- 8. BCM Refer to BCS-81, "Removal and Installation"
- 9. Inside key antenna (luggage room)

- A. Integrated in CVT shift selector
- B. View with glove box assembly removed
- C. View with front bumper removed

- D. Behind the audio unit
- E. Behind the instrument lower panel LH (Left side)
- F. View with rear seat removed

\*: With CVT models



- 1. Outside key antenna (driver side)
- Front door request switch (driver side)
- 5. Outside antenna (back door)
- Front door lock assembly (driver side)
- 6. Back door lock assembly

4. Front door switch (driver side)7. Back door request switch

### DOOR LOCK FUNCTION: Component Description

INFOID:0000000007772738

Item	Function		
BCM	Controls the door lock function		
Door lock actuator Inputs lock/unlock signal from BCM and locks/unlocks each door			
Door switch	Inputs door open/close condition to BCM		
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM		
Door request switch	Inputs lock/unlock operation to BCM		
Intelligent Key	Transmits button operation to remote keyless entry receiver		
Outside key antenna	Detects if Intelligent Key is outside the vehicle		
Inside key antenna	Detects if Intelligent Key is inside the vehicle		
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM		
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound		

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

Item	Function
Back door lock actuator relay	Controls the back door lock/unlock operation
Hazard warning lamp	Warns the user of the door lock/unlock condition and in appropriate operations with the lamps blink

#### REMOTE KEYLESS ENTRY FUNCTION

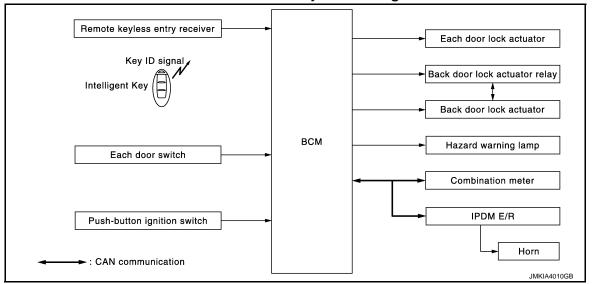
#### REMOTE KEYLESS ENTRY FUNCTION: System Diagram

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### REMOTE KEYLESS ENTRY FUNCTION: System Description

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The Intelligent Key has the same functions as the remote control entry system. Therefore, it can be used in the same manner as the remote controller by operating the door lock/unlock button.

#### **OPERATION**

Remote keyless entry system controls operation of the following items.

- Door lock/unlock
- Selective unlock
- Hazard and horn reminder
- Auto door lock

#### OPERATION AREA

To check that the Intelligent Key works normally, use within 1 m (3 ft) range of each doors, however the operable range may differ according to surroundings.

#### DOOR LOCK/UNLOCK FUNCTION

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal transmitted from Intelligent Key to BCM via remote keyless entry receiver.
- When BCM receives the door lock/unlock signal, it operates all door lock actuators and the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 2 times) as a reminder

#### OPERATION CONDITION

Remote controller operation	Operation condition
Lock	<ul><li>Panic alarm is not activated</li><li>P position warning is not activated</li></ul>
Unlock	Panic alarm is not activated

#### SELECTIVE UNLOCK FUNCTION

- When an LOCK signal is transmitted from Intelligent Key, all doors are locked.
- When an UNLOCK signal is transmitted from Intelligent Key once, driver side door is unlocked.

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#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

 Then, if an UNLOCK signal is transmitted from Intelligent Key again within 60 seconds, all other doors are unlocked.

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-38</u>, "DOOR LOCK: <u>CONSULT Function</u> (BCM - DOOR LOCK)".

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM blinks hazard warning lamps as a reminder and transmits horn chirp signal to IPDM E/R. IPDM E/R sounds horn as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating Function of Hazard and Horn Reminder

C mode		S mode					
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open	
Hazard warning lamp blinks	Twice	Once	_	Twice	_	_	
Horn sound	Once	_	_	_	_	_	

Hazard and horn reminder does not operate in the following condition.

- Ignition switch position is ON
- Door is open (only lock operation)

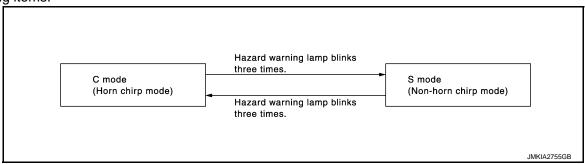
#### How to change hazard and horn reminder mode

### (II) With CONSULT

Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Without CONSULT

When LOCK and UNLOCK signals are sent from the Intelligent Key for more than 2 seconds at the same time, the hazard and horn reminder mode is changed and hazard warning lamp blinks and horn sounds as per the following items:



#### AUTO DOOR LOCK FUNCTION

After door is unlocked by Intelligent Key button operation and if 60 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

Operating condition	<ul><li>Door switch is ON (door is open)</li><li>Door is locked</li><li>Push switch is pressed</li></ul>
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Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-40</u>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

< SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Remote keyless entry functions	Intelligent Key	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	всм	Combination meter	Hazard warning lamp	Horn	IPDM E/R
Door lock/unlock function by remote control button	×	×	×		×	×				
Hazard and horn reminder function	×			×	×	×	×	×	×	×
Selective unlock function	×	×	×		×	×				
Auto door lock function	×				×	×				

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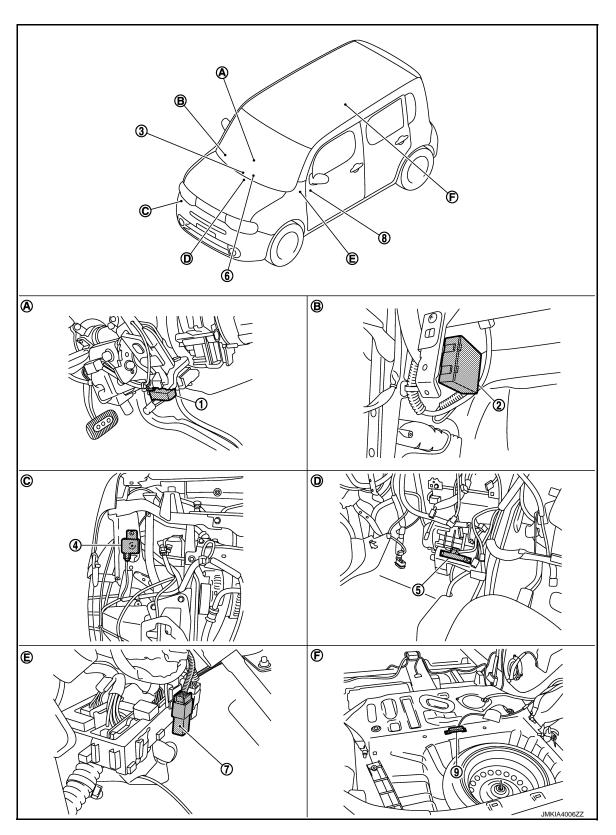
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REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location

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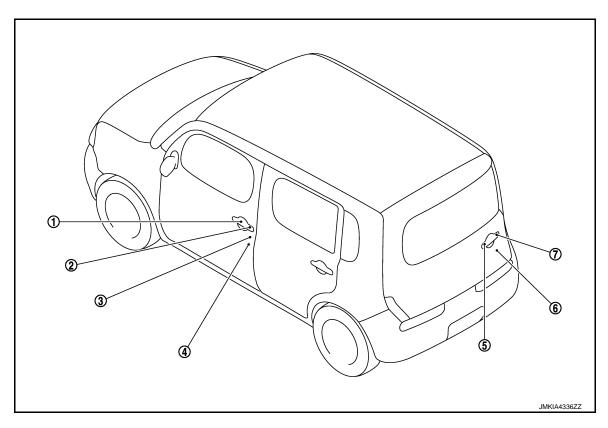


- CVT shift selector (detention switch)\*
- 4. Intelligent Key warning buzzer
- 2. Remote keyless entry receiver
- B. Push-button ignition switch
- 5. Inside key antenna (instrument cen- 6. ter)
- Combination meter

#### [WITH INTELLIGENT KEY SYSTEM]

7.	Back door lock actuator relay	8.	BCM Refer to BCS-81, "Removal and Installation"	9.	Inside key antenna (luggage room)
A.	Integrated in CVT shift selector	B.	View with glove box assembly removed	C.	View with front bumper removed
D.	Behind the audio unit	E.	Behind the instrument lower panel LH (Left side)	F.	View with rear seat removed

\*: With CVT models



- 1. Outside key antenna (driver side)
- Front door request switch (driver side)
- 4. Front door switch (driver side)7. Back door request switch
- 5. Outside antenna (back door)
- Front door lock assembly (driver side)
- 6. Back door lock assembly

### REMOTE KEYLESS ENTRY FUNCTION: Component Description

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Item	Function
BCM	Controls the door lock function and trunk open function
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door
Door switch	Inputs door open/close condition to BCM
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM
Intelligent Key	Transmits button operation to remote keyless entry receiver
Back door lock actuator relay	Controls back door lock/unlock operation
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound
Hazard warning lamp	Warns the user of the door lock/unlock condition and in appropriate operations with the lamps bli

# KEY REMINDER FUNCTION

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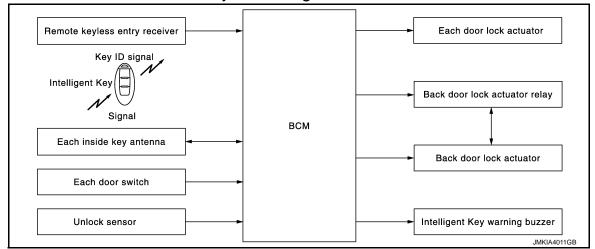
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### KEY REMINDER FUNCTION: System Diagram

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### KEY REMINDER FUNCTION: System Description

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Key reminder is the function that prevents the key from being left in the vehicle. Key reminder has the following 2 functions.

Key remainder function	Operation condition	Operation
Driver door closed*	Right after driver side door is closed under the following conditions  Door lock operation is performed  Driver side door is opened  Driver side door is in unlock state	All doors unlock
Door is open or closed	Right after all doors are closed under the following conditions  Intelligent Key is inside the vehicle  Any door is opened  All doors are locked by door lock and unlock switch or door lock knob	All doors unlock     Honk Intelligent Key warning buzzer

<sup>\*:</sup>If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation is perform in these cases.

#### **CAUTION:**

 The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function does not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.

# KEY REMINDER FUNCTION : Component Parts Location

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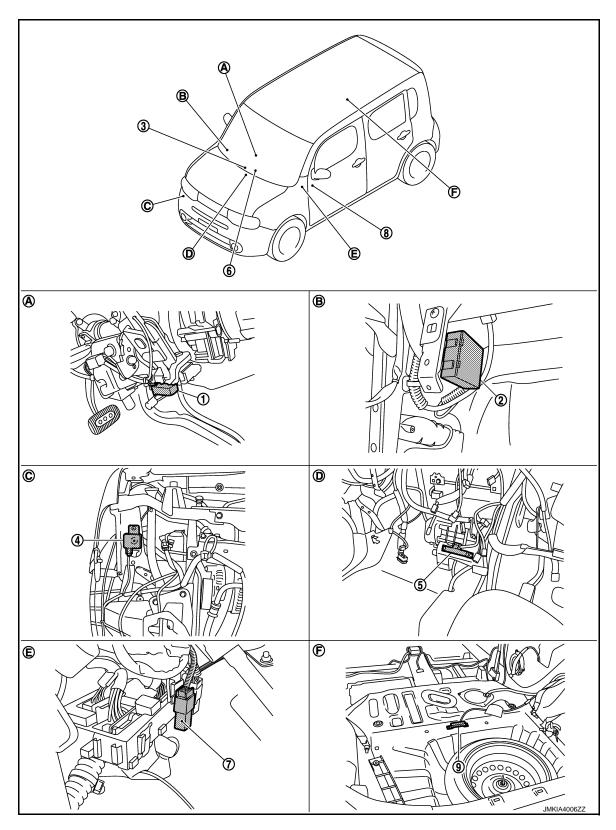
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- CVT shift selector (detention switch)\*
- 4. Intelligent Key warning buzzer
- 2. Remote keyless entry receiver

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- Inside key antenna (instrument cen- 6. ter)
- 3. Push-button ignition switch
  - Combination meter

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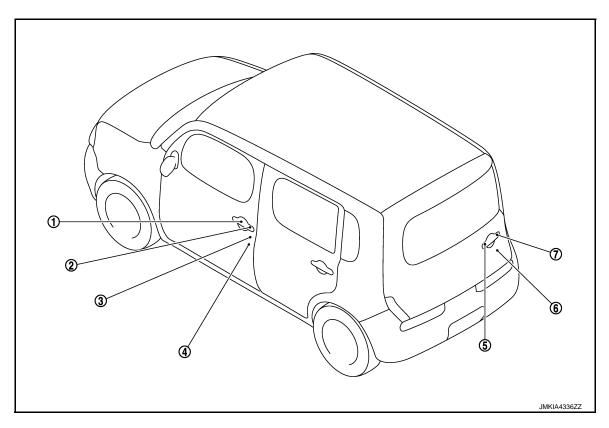
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#### [WITH INTELLIGENT KEY SYSTEM]

7.	Back door lock actuator relay	8.	BCM Refer to BCS-81, "Removal and Installation"	9.	Inside key antenna (luggage room)
A.	Integrated in CVT shift selector	В.	View with glove box assembly removed	C.	View with front bumper removed
D.	Behind the audio unit	E.	Behind the instrument lower panel LH (Left side)	F.	View with rear seat removed

\*: With CVT models



1. Outside key antenna (driver side)

Back door request switch

Front door switch (driver side)

- Front door request switch (driver side)
- 5. Outside antenna (back door)
- Front door lock assembly (driver side)
- 6. Back door lock assembly

### WARNING FUNCTION

### WARNING FUNCTION: System Description

INFOID:0000000007772746

#### **OPERATION DESCRIPTION**

The warning function are as per the following items and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, combination meter buzzer, KEY warning lamp, shift P warning lamp and engine start operation indicator lamp.

- Intelligent Key system malfunction
- OFF position warning
- P position warning
- ACC warning
- Take away warning
- · Door lock operation warning
- Engine start information
- Intelligent Key low battery warning
- Key ID warning

#### **OPERATION CONDITION**

Once the following condition from below is established, alert or warning is executed.

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### [WITH INTELLIGENT KEY SYSTEM]

Warning/Inforr	nation functions	Operation procedure
Intelligent Key system mal	lfunction	When a malfunction is detected on BCM, "KEY" warning lamp illuminates
OFF position warning	For internal	When condition A, B or condition C is satisfied  Condition A  Ignition switch: ACC position  Door switch (driver side): ON (Door is open)  Condition B  Turn ignition switch from ON to OFF while door is open  Condition C  Intelligent Key backside is contacted to ignition switch while brake pedal is depressed and ignition switch is LOCK or OFF (When the Intelligent Key battery is discharged)  Door switch (driver side): ON (Door is open)
	For external*	OFF position warning (For internal) is in active mode, driver side door is closed <b>NOTE:</b> OFF position (For external) active only when each of the sequence occurs as below: P position warning $\rightarrow$ ACC warning $\rightarrow$ OFF position warning (For internal) $\rightarrow$ OFF position warning (For internal)
P position warning*	For internal	<ul> <li>Shift position: Except P position</li> <li>Engine is running to stopped (Ignition switch is ON to OFF)</li> </ul>
	For external	Warning is activated when driver door is closed from the open position while the P position warning (for inside vehicle) is ON
ACC warning*		<ul> <li>When P position warning is in active mode, shift position changes P position.</li> <li>Ignition switch: ACC position</li> </ul>
	Door is open to close	<ul> <li>Ignition switch: Except LOCK position</li> <li>Door switch: ON to OFF (Door is open to close)</li> <li>Intelligent Key cannot be detected inside the vehicle</li> </ul>
Take away warning	Door is open	<ul> <li>Ignition switch: Except LOCK position</li> <li>Door switch: ON (Door is open)</li> <li>Key ID verification every 5 seconds when registered Intelligent Key cannot be detected inside the vehicle</li> </ul>
	Push button-ignition switch operation	<ul> <li>Ignition switch: Except LOCK position</li> <li>Press push-button ignition switch</li> <li>Intelligent Key cannot be detected inside the vehicle</li> </ul>
Door lock operation warning	ng	When door lock operation is requested while door lock operating condition of door request switch not satisfied
	Ignition switch is ON position	Ignition switch: ON position     Shift position: P position*     Engine is stopped
Engine start information	Ignition switch is except ON position	<ul> <li>Ignition switch: Except ON position</li> <li>Shift position: P position*</li> <li>Intelligent Key is in the passenger room after driver door is opened and closed.</li> </ul>
Engine start information	Ignition switch is ON position to OFF position	Ignition switch: ON position to OFF position     Shift position: P position     NOTE:     Engine start information turns ON for several seconds and then turns OFF, when ignition switch is turned to the ON position from the OFF position. Engine start information does not turn ON until opening and closing of driver door is detected again.
Intelligent Key low battery	warning	When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON
Key ID warning		When registered intelligent Key cannot be detected inside the vehicle after ignition switch is turned ON

<sup>\*:</sup> M/T models do not apply.

#### WARNING METHOD

The following table shows the alarm or warning methods with chime.

Warning/Information functions			Shift P	Warning	g chime	Engine start	
		"KEY" warn- ing lamp	warning lamp	Combination meter buzzer	Intelligent Key warning buzzer	operation in- dicator lamp	
Intelligent Key system malfunction		Indicate	_	_	_	_	
OFF position worning	For internal	_	_	Activate	_	_	
OFF position warning	For external*	_	_	_	Activate	_	
P position warning*	For internal	Blink (yellow)	Indicate	Activate	_	_	
	For external	Dillik (yellow)	_	_	Active	_	
ACC warning*		_	_	Activate	_		
	Door is open to close		_	Activate	Activate	_	
Take away warning	Door is open	Blink (yellow)	_	_	_	_	
Take away warning	Push-ignition switch operation		_	Activate	_	_	
Door lock operation warning		_	_	_	Activate	_	
Key ID warning		Blink (yellow)	_	_	_	_	
Engine start information		_	_	_	_	Indicate	
Intelligent Key low battery warning		Blink (green)	_	_	_	_	

<sup>\*:</sup> M/T models do not apply.

### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Warning function		Intelligent Key	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter warning buzzer	CAN communication system	BCM	Detention switch	"KEY" warning lamp
Intelligent Key system malfunction										×	×		×
OFF position warning	For internal			×					×	×	×		
	For external			×				×			×		
P position warning			×					×	×	×	×	×	
ACC warning			×						×	×	×	×	,
	Door is open or close	×		×		×		×	×	×	×		
Take away warning	Door is open	×		×		×				×	×		
	Push-button ignition switch operation	×	×			×			×	×	×		
Door lock operation warning		×		×	×	×	×	×			×		
Key ID warning			×			×				×	×		
Engine start information	Ignition switch is ON position	×	×			×				×	×	×	
Engine start information	Ignition switch is except ON position	×	×			×				×	×		
Intelligent Key low batter	y warning	×				×				×	×		

### WARNING FUNCTION: Component Parts Location

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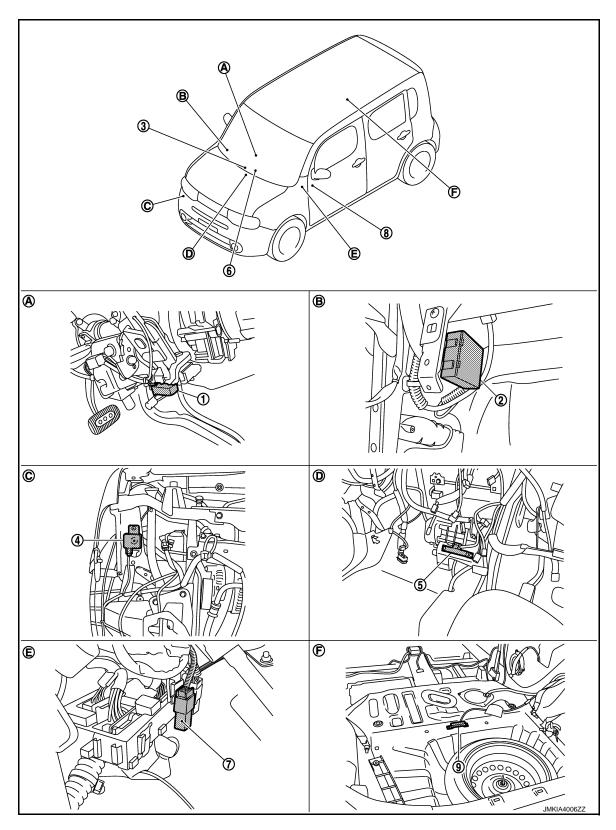
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- CVT shift selector (detention switch)\*
- 4. Intelligent Key warning buzzer
- 2. Remote keyless entry receiver
- 5. Inside key antenna (instrument cen- 6. ter)
- 3. Push-button ignition switch
  - Combination meter

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#### < SYSTEM DESCRIPTION >

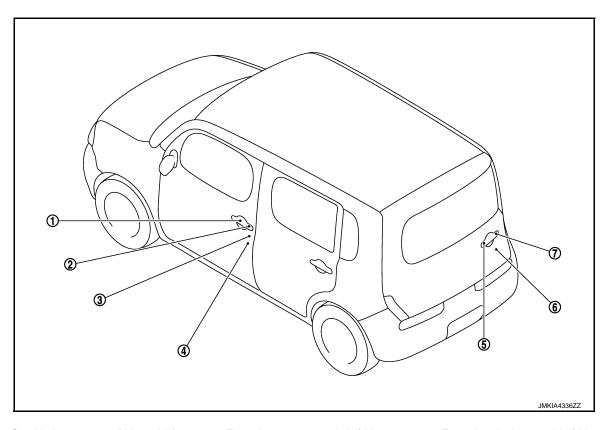
#### [WITH INTELLIGENT KEY SYSTEM]

- Back door lock actuator relay
- **BCM** 8. Refer to BCS-81, "Removal and Installation"
- Inside key antenna (luggage room)

- A. Integrated in CVT shift selector
- View with glove box assembly removed
- View with front bumper removed

- Behind the audio unit D.
- Behind the instrument lower panel LH (Left side)
- View with rear seat removed

\*: With CVT models



- Outside key antenna (driver side)
- Front door switch (driver side)
- Back door request switch
- Front door request switch (driver side)

**DLK-36** 

- Outside antenna (back door)
- Front door lock assembly (driver side)
- Back door lock assembly

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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#### 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> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>	

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

It can perform the diagnosis modes except the following for all sub system selection items.

x: Applicable item

System	Sub avatam calcation item	Diagnosis mode		
System	Sub system selection item	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	×	×	×
<ul><li>Automatic air conditioner</li><li>Manual air conditioner</li></ul>	AIR CONDITONER		×	×*
<ul><li>Intelligent Key system</li><li>Engine start system</li></ul>	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	ВСМ	×		
NVIS - NATS	IMMU	×	×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

<sup>\*:</sup> For models with automatic air conditioner, this model 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.

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#### < 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	r value) of the moment a particular DTC is detected	
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK" <sup>*</sup> )	
	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" (Vehicle is stopping and selector lever is except P position.)	
	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	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	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	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>		

#### NOTE:

- \*: Power position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (CVT models), 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 position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

DOOR LOCK

DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)

#### INFOID:0000000007772749

#### **BCM CONSULT FUNCTION**

CONSULT performs the following functions via CAN communication with BCM.

#### < SYSTEM DESCRIPTION >

# [WITH INTELLIGENT KEY SYSTEM]

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function
DATA MONITOR	The BCM input/output signals are displayed
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM

#### **WORK SUPPORT**

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operation with this mode  On: Operate  Off: Non-operation
AUTOMATIC DOOR LOCK SE- LECT	Automatic door lock function mode can be selected from the following in this mode  • VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH)  • P RANGE*: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	<ul> <li>Automatic door unlock function mode can be selected from the following in the mode</li> <li>MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 2*: All doors are unlocked when shifting the selector lever from any position other than the P to P position</li> <li>MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 4*: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position</li> <li>MODE 5: This item is displayed, but cannot be monitored</li> <li>MODE 6: This item is displayed, but cannot be monitored</li> </ul>
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode.  Off: non-operational  Unlock Only: door unlock operation only  Lock Only: door lock operation only  Lock/Unlock: lock/unlock operation

<sup>\*:</sup> P range interlock door lock can be selected for M/T models, but automatic door lock/unlock function does not operate.

#### **DATA MONITOR**

Monitor Item	Contents	
REQ SW-DR	Indicated [On/Off] condition of door request switch (driver side)	
REQ SW-AS	Indicated [On/Off] condition of door request switch (passenger side)	
REQ SW-BD/TR	Indicated [On/Off] condition of back door request switch	
DOOR SW-DR	Indicated [On/Off] condition of front door switch (driver side)	
DOOR SW-AS	Indicated [On/Off] condition of front door switch (passenger side)	
DOOR SW-RR	Indicated [On/Off] condition of rear door switch RH	
DOOR SW-RL	Indicated [On/Off] condition of rear door switch LH	
DOOR SW-BK	Indicated [On/Off] condition of back door switch	
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock unlock switch	
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock unlock switch	
KEY CYL LK-SW	Indicated [On/Off] condition of lock signal from door key cylinder	
KEY CYL UN-SW	Indicated [On/Off] condition of unlock signal from door key cylinder	

# **ACTIVE TEST**

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#### < SYSTEM DESCRIPTION >

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation The all door lock actuators are locked when "ALL LOCK" on CONSULT screen is touched The all door lock actuators are unlocked when "ALL UNLK" on CONSULT screen is touched The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT screen is touched The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT screen is touched The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT screen is touched

# **INTELLIGENT KEY**

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

INFOID:0000000007772750

### **WORK SUPPORT**

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode
AUTO LOCK SET	Auto door lock time can be changed in this mode  • MODE 1: OFF  • MODE 2: 30 sec  • MODE 3: 1 minute  • MODE 4: 2 minutes  • MODE 5: 3 minutes  • MODE 6: 4 minutes  • MODE 7: 5 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operation in this mode  On: Operate  Off: Non-operation
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this mode  On: Operate  Off: Non-operation
TRUNK/GLASS HATCH OPEN	NOTE: This item is displayed, but cannot be monitored
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode  • MODE 1: 0.5 sec  • MODE 2: Non-operation  • MODE 3: 1.5 sec
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be monitored
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operation with this mode  On: Operate  Off: Non-operation
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operation with this mode  On: Operate  Off: Non-operation
HAZARD ANSWER BACK	Hazard reminder function mode by door request switch and Intelligent Key button can be selected from the following with this mode  Lock Only: Door lock operation only  Unlock Only: Door unlock operation only  Lock/Unlock: Lock/unlock operation  Off: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode  • Horn Chirp: Sound horn  • Buzzer: Sound Intelligent Key warning buzzer  • Off: Non-operation

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Monitor item	Description
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operation with this mode  On: Operate  Off: Non-operation
SHORT CRANKING OUTPUT	Starter motor can operate during the times below
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  On: Operate  Off: Non-operation

# SELF-DIAG RESULT

Refer to BCS-75, "DTC Index".

#### **DATA MONITOR**

Monitor Item	Condition	
REQ SW -DR	Indicates [On/Off] condition of door request switch (driver side)	
REQ SW -AS	Indicates [On/Off] condition of door request switch (passenger side)	
REQ SW -BD/TR	Indicates [On/Off] condition of back door request switch	
PUSH SW	Indicates [On/Off] condition of push-button ignition switch	
CLUTCH SW*1	Indicates [On/Off] condition of clutch switch	
BRAKE SW 1	Indicates [On/Off]*2 condition of brake switch power supply	
BRAKE SW 2	Indicates [On/Off] condition of brake switch	
DETE/CANCL SW	Indicates [On/Off] condition of P position	
SFT PN/N SW	Indicates [On/Off] condition of P or N position	
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/Stall/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 combination meter by numerical value [Km/h]	
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h]	
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status	
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status	

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# [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
ID OK FLAG	Indicates [Set/Reset] condition of key ID
PRMT ENG STRT	Indicates [Set/Reset] condition of engine start possibility
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored
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-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

<sup>\*1:</sup> It is displayed but does not operate on M/T models.

#### **ACTIVE TEST**

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation  On: Operate  Off: Non-operation
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation  On: Operate  Off: Non-operation
INSIDE BUZZER	This test is able to check warning chime in combination meter operation  Take out: Take away warning chime sounds when CONSULT screen is touched  Key: Key warning chime sounds when CONSULT screen is touched  Knob: OFF position warning chime sounds when CONSULT screen is touched
INDICATOR	This test is able to check warning lamp operation  KEY ON: "KEY" Warning lamp illuminates when CONSULT screen is touched  "KEY" Warning lamp blinks when CONSULT screen is touched
INT LAMP	This test is able to check interior room lamp operation  On: Operate  Off: Non-operation
LCD	This test is able to check meter display information  BP N: Engine start operation indicator lamp indicate when CONSULT screen is touched BP I: Engine start operation indicator lamp indicate when CONSULT screen is touched ID NG: This item is displayed, but cannot be monitored ROTAT: This item is displayed, but cannot be monitored SFT P: Shift P warning lamp indicate when CONSULT screen is touched INSRT: This item is displayed, but cannot be monitored BATT: Key warning lamp indicator when CONSULT screen is touched NO KY: This item is displayed, but cannot be monitored OUTKEY: Engine start operation indicator lamp indicate when CONSULT screen is touched LK WN: Engine start operation indicator lamp indicate when CONSULT screen is touched
FLASHER	This test is able to check security hazard lamp operation The hazard lamps are activated after "LH/RH/Off" on CONSULT screen is touched
HORN	This test is able to check horn operation The horn is activated after "ON" on CONSULT screen is touched

<sup>\*2:</sup> OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

#### SYSTEM DESCRIPTION >

#### **IWITH INTELLIGENT KEY SYSTEM**

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Test item Description  This test is able to check CVT shift selector power supply On: Operate Off: Non-operation  ENGINE SW ILLUMI  This test is able to check push-ignition switch illumination ope Push-ignition switch illuminates when "ON" on CO  PUSH SWITCH INDICATOR TRUNK SACK DOOR  NOTE: This item is displayed, but cannot be monitored  TRUNK  TRUNK: CONSULT Function (BCM - TRUNK)  BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode DATA MONITOR  Monitor Item Contents  PUSH SW Indicates [On/Off] condition of push switch  UNLK SEN -DR Indicates [Con/Off] condition of vehicle speed signal from combinat  TRIBD OPEN SW TRUNK  TRUNK: CONSULT Function (BCM - TRUNK)  Diagnosis mode Function Description  Contents  PUSH SW Indicates [On/Off] condition of vehicle speed signal from combinat  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored	ONSULT screen is touched itch operation			
P RANGE  On: Operate Off: Non-operation  This test is able to check push-ignition switch illumination ope Push-ignition switch illumination illuminates when "ON" on CO PUSH SWITCH INDICATOR  TRUNK/BACK DOOR  NOTE: This item is displayed, but cannot be monitored  TRUNK  TRUNK: CONSULT Function (BCM - TRUNK)  BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode DATA MONITOR  Monitor Item  Monitor Item  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE:	ONSULT screen is touched itch operation on CONSULT screen is touched			
Push-ignition switch illumination illuminates when "ON" on CO  PUSH SWITCH INDICATOR  TRUNK/BACK DOOR  NOTE: This item is displayed, but cannot be monitored  TRUNK: CONSULT Function (BCM - TRUNK)  BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode  DATA MONITOR  Monitor Item  Monitor Item  Contents  PUSH SW  UNLK SEN -DR  VEH SPEED 1  Indicates [On/Off] condition of push switch  UNCE Indicates [Mr/h] condition of vehicle speed signal from combinat  NOTE: This item is displayed, but cannot be monitored  Push sw  Indicates [On/Off] condition of vehicle speed signal from combinat  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE:	ONSULT screen is touched itch operation on CONSULT screen is touched			
TRUNK/BACK DOOR  LOCK indicator in push-ignition switch illuminates when "ON" of NOTE: This item is displayed, but cannot be monitored  RUNK  RUNK: CONSULT Function (BCM - TRUNK)  BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode  DATA MONITOR  Monitor Item  Monitor Item  Contents  PUSH SW  UNLK SEN -DR  UNLK SEN -DR  VEH SPEED 1  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  NOTE: This item is displayed, but cannot be monitored  NOTE: This item is displayed, but cannot be monitored  NOTE:	on CONSULT screen is touched			
TRUNK TRUNK: CONSULT Function (BCM - TRUNK)  CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode  DATA MONITOR  Monitor Item  Monitor Item  Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  TRINK/HAT MNITR  NOTE:  TISNIK/HAT MNITR  Tris item is displayed, but cannot be monitored  NOTE:  TRINK/HAT MNITR	INFOID:000000007772751			
TRUNK : CONSULT Function (BCM - TRUNK)  BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode Function Description  DATA MONITOR The BCM input/output signals are displayed  DATA MONITOR  Monitor Item Contents  PUSH SW Indicates [On/Off] condition of push switch  UNLK SEN -DR Indicates [On/Off] condition of unlock sensor  VEH SPEED 1 Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW NOTE:  TRNIK/HAT MNTP NOTE:	INFOID:000000007772751			
BCM CONSULT FUNCTION CONSULT performs the following functions via CAN communication with BCM.  Diagnosis mode  The BCM input/output signals are displayed  DATA MONITOR  Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE:  TRINK/HAT MNITE  NOTE:	INFOID:000000007772751			
Diagnosis mode  Diagnosis mode  DATA MONITOR  The BCM input/output signals are displayed  DATA MONITOR  Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE:  TRNIK/HAT MNTR  NOTE:  TRNIK/HAT MNTR  NOTE:				
DATA MONITOR  The BCM input/output signals are displayed  DATA MONITOR  Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:				
Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:				
Monitor Item  Contents  PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:				
PUSH SW  Indicates [On/Off] condition of push switch  UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:				
UNLK SEN -DR  Indicates [On/Off] condition of unlock sensor  VEH SPEED 1  Indicates [Km/h] condition of vehicle speed signal from combinate  NOTE: This item is displayed, but cannot be monitored  NOTE:  NOTE:				
VEH SPEED 1 Indicates [Km/h] condition of vehicle speed signal from combinat  TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:  NOTE:				
TR/BD OPEN SW  NOTE: This item is displayed, but cannot be monitored  NOTE:				
TR/BD OPEN SW This item is displayed, but cannot be monitored  NOTE:	ation meter			
I PNK/HAT MNTP				
RKE-TR/BD NOTE: This item is displayed, but cannot be monitored				
ACTIVE TEST				
Test item Description				
TRUNK/GLASS HATCH  NOTE: This item is displayed, but cannot be monitored				

# DTC/CIRCUIT DIAGNOSIS

### **B2621 INSIDE ANTENNA**

Description INFOID:0000000007772752

- Detects whether Intelligent Key is inside the vehicle.
- · Installed in the instrument center.

DTC Logic INFOID:0000000007772753

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA	An excessive high or low voltage from inside antenna (instrument center) is sent to BCM	Inside key antenna (instrument center)     Harness or connector     [Inside key antenna (instrument center) circuit is open or shorted]

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" of "INTELLIGENT KEY". Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-44</u>, "<u>Diagnosis Procedure</u>".

NO >> Inside key antenna (instrument center) is OK.

# Diagnosis Procedure

INFOID:0000000007772754

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector Terminal		(-)	Condition	Signal (Reference value)	
Instrument center	M71	84, 85	Ground	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA3839GB
		0., 00		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA3838GB

#### Is the inspection result normal?

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

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# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect BCM connector and inside key antenna (instrument center) connector.
- Check continuity between BCM harness connector and inside key antenna (instrument center) harness connector.

В	CM	Inside key antenna	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M71	84	M105	1	Existed
IVI7 I	85	WITOS	2	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M71	84	Ground	Not existed
IVI / I	85		inot existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (instrument center). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (instrument center) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM			(-)	Condition	Signal (Reference value)
Connect	or	Terminal			
Instrument center	M71	84, 85	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA3839GB
				When Intelligent Key is not in the antenna detection area.	500 ms  JMKIA3838GB

#### Is the inspection result normal?

- YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-201, "INSTRUMENT CENTER:</u> Removal and Installation".
- NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

### **B2622 INSIDE ANTENNA**

Description INFOID:000000007772755

- Detects whether Intelligent Key is inside the vehicle.
- Installed in the luggage room.

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2622	INSIDE ANTENNA	An excessive high or low voltage from inside antenna (luggage room) is sent to BCM	<ul> <li>Inside key antenna (luggage room)</li> <li>Harness or connector [Inside key antenna (luggage room) circuit is open or shorted]</li> </ul>

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-46</u>, "<u>Diagnosis Procedure</u>".

NO >> Inside key antenna (luggage room) is OK.

### Diagnosis Procedure

INFOID:0000000007772757

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM		(–)	Condition	Signal (Reference value)	
Conr	nector	Terminal			(V)
Luggage	M71	86, 87	86. 87 Ground	When Intelligent Key is in the antenna detection area	1 s  JMKIA3839GB
room	1017 1	00, 07	Giound	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA3838GB

#### Is the inspection result normal?

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

# 2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM connector and inside key antenna (luggage room) connector.

#### **B2622 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

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2. Check continuity between BCM harness connector and inside key antenna (luggage room) harness connector.

В	CM	Inside key anteni	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M71	86	B82	1	Existed
1717 1	87	502	2	LAISIGU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M71	86	Ground	Not existed	
1717 1	87		INOL EXISTED	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# ${f 3.}$ CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (luggage room). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (luggage room) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM		(-)	Condition	Signal (Reference value)	
Conr	nector	Terminal			
Luggage	M71	86, 87	Ground	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA3839GB
room		35, 51	Gisana	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 500 ms JMKIA3838GB

#### Is the inspection result normal?

- YES >> Replace inside key antenna (luggage room). Refer to <u>DLK-202, "LUGGAGE ROOM: Removal and Installation"</u>.
- NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

Revision: 2011 November

>> INSPECTION END

# **B2626 OUTSIDE ANTENNA**

Description

- Detects whether Intelligent Key is outside the vehicle.
- Integrated in the outside handle (passenger side).

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2626	OUTSIDE ANTENNA	An excessive high or low voltage from front door right outside key antenna is sent to BCM	Front door right outside key antenna     Harness or connector     (Front door right outside key antenna circuit is open or shorted)

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Disconnect outside key antenna (passenger side) connector.
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is outside key antenna DTC detected?

YES >> Refer to <u>DLK-48</u>, "<u>Diagnosis Procedure</u>".

NO >> Outside key antenna (passenger side) is OK.

### Diagnosis Procedure

INFOID:0000000007772763

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM					Cianal	
		(–) Cond		dition	Signal (Reference value)	
Connector	Terminal				( 1 1 1 1 1 1 1 1 1 1 1 1	
	80, 81	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB	
M71	80, 81	Ground	operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0 500 ms  JMKIA5954GB	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

#### **B2626 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

- Disconnect BCM connector and outside key antenna (passenger side) connector.
- Check continuity between BCM harness connector and outside key antenna (passenger side) harness connector.

В	CM	Outside key anteni	Continuity		
Connector	Connector Terminal		Terminal	Continuity	
M71	80	80 D32		Existed	
IVI7 I	81	D32	2	Existed	

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M71	80	Ground	Not existed	
	81		Not existed	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# ${f 3.}$ CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace outside key antenna (passenger side). (New antenna or other antenna)
- 2. Connect BCM connector and outside key antenna (passenger side) connector.
- Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector Terminal		(–)	Condition		Signal (Reference value)
Connector	TOTTIIII				
M71	80, 81	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detec- tion area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB
Mili	00, 01	Clound	operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0 5 0 JMKIA5954GB

#### Is the inspection result normal?

YES >> Replace outside key antenna (passenger side). Refer to <u>DLK-189</u>, "OUTSIDE HANDLE : Removal and Installation".

NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

**DLK-49** Revision: 2011 November 2012 CUBE

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# **B2627 OUTSIDE ANTENNA**

Description INFOID:000000007772758

- Detects whether Intelligent Key is outside the vehicle.
- Integrated in the outside handle (driver side).

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2627	OUTSIDE ANTENNA	An excessive high or low voltage from front door left outside key antenna is sent to BCM	Front door left outside key antenna     Harness or connector     (Front door left outside key antenna circuit is open or shorted)

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Disconnect outside key antenna (driver side) connector.
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is outside key antenna DTC detected?

YES >> Refer to <u>DLK-50</u>, "<u>Diagnosis Procedure</u>".

NO >> Outside key antenna (driver side) is OK.

### Diagnosis Procedure

INFOID:0000000007772760

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM		(-)	Condition		Signal	
Connector	Terminal		33.14.113.1		(Reference value)	
M71	78, 79	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB	
	70,70	Giodila	operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0 500 ms	

#### Is the inspection result normal?

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

# 2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM connector and outside key antenna (driver side) connector.

#### **B2627 OUTSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

2. Check continuity between BCM harness connector and outside key antenna (driver side) harness connector.

В	CM	Outside key ante	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M71	78	78 D12		Existed	
1017-1	79	DIZ	2	LXISIGU	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M71	78			
1017-1	79		Not existed	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# ${f 3.}$ CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace outside key antenna (driver side). (New antenna or other antenna)
- 2. Connect BCM connector and outside key antenna (driver side) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

	(+) BCM Connector Terminal		Condition		Signal (Reference value)	
M71	78, 79	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB	
	. 6, . 6		operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0  JMKIA5954GB	

#### Is the inspection result normal?

YES >> Replace outside key antenna (driver side). Refer to <u>DLK-189</u>, "<u>OUTSIDE HANDLE</u>: Removal and Installation".

NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

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>> INSPECTION END

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# **B2628 OUTSIDE ANTENNA**

**Description** 

- Detects whether Intelligent Key is outside the vehicle.
- Integrated in the outside handle (back door).

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2628	OUTSIDE ANTENNA	An excessive high or low voltage from outside key antenna (back door) is sent to BCM	Outside key antenna (back door)     Harness or connector     [Outside key antenna (back door) circuit is open or shorted]

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Disconnect outside key antenna (back door) connector.
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is outside key antenna DTC detected?

YES >> Refer to <u>DLK-52</u>, "<u>Diagnosis Procedure</u>".

NO >> Outside key antenna (back door) is OK.

### Diagnosis Procedure

INFOID:0000000007772766

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM		(-)	Condition		Signal (Reference value)	
Connector	Terminal				(ixelefefice value)	
M71	82, 83	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 JMKIA5955GB	
	02, 00	Sisting	operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0 500 ms JMKIA5954GB	

#### Is the inspection result normal?

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

# 2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM connector and outside key antenna (back door) connector.

#### **B2628 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Check continuity between BCM harness connector and outside key antenna (back door) harness connector.

В	CM	Outside key ant	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M71	82 D108		1	Existed
IVI7 I	83	D100	2	LXISIGU

3. Check continuity between BCM harness connector and ground.

В	CM		
Connector	Terminal	Ground	Continuity
M71	82	Giodila	Not existed
1917 1	83		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# ${f 3.}$ CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace outside key antenna (back door). (New antenna or other antenna)
- Connect BCM and outside key antenna (back door) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

	+) CM Terminal	(–)	Condition		Signal (Reference value)
M71	82, 83	Ground	When the passenger door request switch is	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB
	7, 11		operated with power switch ON	When Intelligent Key is not in the antenna de- tection area (The dis- tance between Intelligent Key and an- tenna: Approx. 2 m)	(V) 15 10 5 0  JMKIA5954GB

#### Is the inspection result normal?

YES >> Replace outside key antenna (back door). Refer to <u>DLK-196, "OUTSIDE HANDLE : Removal and Installation".</u>

NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

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#### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000007772767

### 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	G	
Battery power Supply	8	

#### 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

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

(	+)	(-)	Voltage	
В	СМ		(Approx.)	
Connector	Terminal	Ground		
M70	70	Glound	Pottony voltogo	
IVI7 O	57		Battery voltage	

#### 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.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M70	67		Existed

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

#### [WITH INTELLIGENT KEY SYSTEM]

### **DOOR SWITCH**

Description INFOID:0000000007772768

Detects door open/close condition.

### Component Function Check

# 1. CHECK FUNCTION

Check ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR", "DOOR SW-BK") in "Data Monitor" mode with CONSULT.

Monitor item		Condition	Status
DOOR SW-DR	Driver side door	Open	ON
DOOK SW-DK	Driver side door	Closed	OFF
DOOR SW-AS	Daggargar aida dagr	Open	ON
DOOK SW-AS	Passenger side door	Closed	OFF
DOOD OW DI	Rear door LH	Open	ON
DOOR SW-RL	Real door Ln	Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
DOOK SW-KK	Real door KH	Closed	OFF
DOOR SW-BK	Back door	Open	ON
DOOK SW-DK	DACK UUUI	Closed	OFF

#### Is the inspection result normal?

YES >> Door switch is OK.

>> Refer to DLK-55, "Diagnosis Procedure". NO

# Diagnosis Procedure

# 1. CHECK DOOR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- Check signal between malfunctioning door switch harness connector and ground using oscilloscope.

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**DLK-55** Revision: 2011 November 2012 CUBE

	(+)					<u> </u>
	Door switch		(–)	(–) Condition		Signal (Reference value)
Conne	ector	Terminal				,
Driver side	B34	3		Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 *** 10ms PKIB4960J 7.0 - 8.0 V
					ON (When driver door opened)	0 V
Passenger side	B27	3		Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
			Ground		ON (When passenger door opened)	0 V
Rear LH	B71	3	Giodila	Rear LH door switch	OFF (When rear LH door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
					ON (When rear door LH opened)	0 V
Rear RH	B53	3	3	Rear RH door switch	OFF (When rear RH door closed)	(V) 15 10 5 0 +
					ON (When rear RH door opened)	0 V

#### [WITH INTELLIGENT KEY SYSTEM]

	(+) Door switch		(–)	Condition		Signal (Reference value)
Conne	ector	Terminal				(
Back door	B75	3	Ground	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 9.5 - 10.0 V
					ON (When back door opened)	0 V

#### Is the inspection result normal?

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

# 2.check door switch circuit

Disconnect BCM connector.

2. Check continuity between door switch harness connector and BCM harness connector.

Door switch			BC	Continuity		
Conr	nector	Terminal	Connector	Terminal	Continuity	
Driver side	B34			47		
Passenger side	B27	3			45	
Rear LH	B71		M69	48	Existed	
Rear RH	B53				46	
Back door	B75			43		

3. Check continuity between door switch harness connector and ground.

Door switch				Continuity
Connector		Terminal		Continuity
Driver side	B34			
Passenger side	B27		Ground	
Rear LH	B71	3		Not existed
Rear RH	B53			
Back door	B75			

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-81, "Removal and Installation". YES

NO >> Repair or replace harness.

# 3.check door switch

Refer to DLK-58, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-200, "Removal and Installation"</u>.

**DLK-57** 

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

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#### **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

# Component Inspection

INFOID:0000000007772771

# 1. CHECK DOOR SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check continuity between door switch terminals.

Door switch		Condition		Continuity
Terminal				Continuity
3	Ground part of door switch	Door switch	Pressed	Not existed
3	Ground part of door switch	Door switch	Released	Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunction door switch. Refer to <u>DLK-200, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# DOOR LOCK AND UNLOCK SWITCH

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000007772772

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000007772773

# 1. CHECK FUNCTION

Check "CDL LOCK SW" and "CDL UNLOCK SW" in BCM "Data Monitor" mode using CONSULT.

Monitor item	Cor	Status	
CDL LOCK SW		LOCK	ON
	Door lock and unlock switch	UNLOCK	OFF
CDL UNLOCK SW	Door lock and unlock switch	LOCK	OFF
		UNLOCK	ON

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-59</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000007772774

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect power window main switch connector.
- 3. Check signal between power window main switch harness connector and ground using oscilloscope.

(+)	(+)		6: 1	
Power window	Power window main switch		Signal (Reference value)	
Connector	Terminal		(**************************************	
	6			
D5	18	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Disconnect BCM connector and front power window switch (passenger side) connector.
- 2. Check continuity between BCM harness connector and power window main switch harness connector.

В	CM	Power windo	w main switch	Continuity
Connector	Terminal	Connector Terminal		Continuity
M66	12	D5	18	Existed
·	13		6	LXISIEU

Check continuity between BCM harness connector and ground.

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#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

	BCM		Continuity
Connector	Terminal	Ground	Continuity
M66	12	Ground	Not existed
IVIOO	13	Not ex	INOL EXISTED

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

	(+) BCM		Signal (Reference value)	
Connector	Terminal		(10.0.0.00 10.00)	
	12			
M66	13	Ground	(V) 15 10 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

# 4. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D6	17		Existed

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5.CHECK DOOR LOCK AND UNLOCK SWITCH

Refer to DLK-60, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace power window main switch. Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

#### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

#### DRIVER SIDE: Component Inspection

INFOID:0000000007772775

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch (door lock and unlock switch) connector.

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

3. Check continuity between power window main switch (door lock and unlock switch) terminals.

Power windo	Power window main switch		Condition	
Terminal		Condition		Continuity
6		Door lock and unlock switch	LOCK	Existed
0	17		UNLOCK	Not existed
10	17		LOCK	Existed
10	18		UNLOCK	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch. Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE: Description

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000007772777

INFOID:00000000007772776

# 1. CHECK FUNCTION

Check "CDL LOCK SW" and "CDL UNLOCK SW" in BCM "Data Monitor" mode using CONSULT.

Monitor item	Con	Status	
ODL LOOK OW		LOCK	ON
CDL LOCK SW	Door look and unlook quitab	UNLOCK	OFF
CDL UNLOCK SW	Door lock and unlock switch	LOCK	OFF
		UNLOCK	ON

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-61</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

# PASSENGER SIDE : Diagnosis Procedure

INFOID:00000000007772778

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

Turn ignition switch OFF.

2. Disconnect front power window switch (passenger side) connector.

3. Check signal between front power window switch (passenger side) harness connector and ground using oscilloscope.

(+) Front power window switch (passenger side)		(-)	Signal (Reference value)
Connector	Terminal		(Neierence value)
	1		
D25	2	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V

#### Is the inspection result normal?

YES >> GO TO 4.

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< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Disconnect BCM connector and power window main switch connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

В	CM	Front power window s	witch (passenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M66	12	D25	1	Existed
IVIOO	13	. D25	2	LAISIEU

3. Check continuity between BCM connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M66	12	Ground	Not existed
IVIOO	13		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check bcm output signal

- 1. Connect BCM connector.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

-	(+) BCM		Signal (Reference value)	
Connector	Terminal		(ixeleffice value)	
	12			
M66	13	Ground	(V) 15 10 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

# 4.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
M25	3		Existed

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

#### 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Check front power window switch (passenger side).

Refer to DLK-63, "PASSENGER SIDE: Component Inspection".

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front power window switch (passenger side). Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

# PASSENGER SIDE: Component Inspection

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# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window switch (passenger side) terminals.

Front power window switch (passenger side)  Terminal		Condition		Continuity
				Continuity
4			LOCK	Existed
1	3	Door lock and unlock switch	UNLOCK	Not existed
2			LOCK	Not existed
			UNLOCK	Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window switch (passenger side). Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

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[WITH INTELLIGENT KEY SYSTEM]

### DOOR LOCK ACTUATOR

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000007772780

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000007772781

INFOID:0000000007772782

# 1. CHECK FUNCTION

1. Use CONSULT to perform Active Test ("DOOR LOCK").

2. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-64</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE: Diagnosis Procedure

# 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect front door lock assembly (driver side) connector.

3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(+)					
Front door lock assembly (driver side)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D9	1 Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	
Da	2	Giodila	Door lock and unlock Switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-187, "DOOR LOCK: Removal and Installation".</u>

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- Disconnect BCM connector and all door lock actuator connector.
- Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M70	65	D9	1	Existed
IVI7O	66	D9	2	LAISIEU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M70	65	Ground	Not existed	
IVI7U	66			

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

#### PASSENGER SIDE

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

PASSENGER SIDE: Description

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Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000007772784

INFOID:0000000007772785

# 1. CHECK FUNCTION

- Use CONSULT to perform Active Test ("DOOR LOCK").
- Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-65, "PASSENGER SIDE: Diagnosis Procedure". D

### PASSENGER SIDE: Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect front door lock assembly (passenger side) connector.
- Check voltage between front door lock assembly (passenger side) harness connector and ground.

	(+)					
	Front door lock assembly (passenger side)		Condition		Voltage (V) (Approx.)	
Connector	Terminal					
D28	5	Cravad	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	
DZ6	6	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace front door lock assembly (passenger side). Refer to DLK-187, "DOOR LOCK: Removal and Installation".

NO >> GO TO 2.

# 2.check door lock actuator circuit

- Disconnect BCM connector and all door lock actuator.
- 2. Check continuity between BCM harness connector and front door lock assembly (passenger side) harness connector.

ВСМ		Front door lock assembly (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M70	59	D28	6	Existed
1917 0	65	520	5	LAISIEU

Check continuity between BCM harness connector and ground.

E	BCM		Continuity	
Connector	Terminal	Ground	Continuity	
M70	59		Not existed	
IVI / U	65		ivot existed	

**DLK-65** 

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

# **REAR LH: Description**

Revision: 2011 November

Locks/unlocks the door with the signal from BCM.

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#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

# REAR LH: Component Function Check

INFOID:0000000007772787

### 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-67, "REAR RH: Diagnosis Procedure".

### **REAR LH: Diagnosis Procedure**

INFOID:0000000007772788

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly LH connector.
- 3. Check voltage between rear door lock assembly LH harness connector and ground.

(+)					Valta va (V)	
Rear door lock assembly LH		(-)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				<b>(11</b> /	
D65	1	Ground	Door lock and unlock switch	Lock	$0 \to \text{Battery voltage} \to 0$	
D03	2	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to <u>DLK-191, "DOOR LOCK : Removal and Installation"</u>.

NO  $\gg$  GO TO 2.

# 2.check door lock actuator circuit

- Disconnect BCM connector and all door lock actuator connector.
- Check continuity between BCM harness connector and rear door lock assembly LH harness connector.

ВСМ		Rear door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M69	55	D65	2	Existed
M70	65	D03	1	LXISIEU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M69	55	Ground	Not existed	
M70	65		INOL EXISTED	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH : Description

INFOID:0000000007772789

INFOID:0000000007772790

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

# 1. CHECK FUNCTION

1. Use CONSULT to perform Active Test ("DOOR LOCK").

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#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

2.	Touch "ALL LOCK"	or "ALL UNLK" to check that it works normally
----	------------------	---

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-67</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

### REAR RH: Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect rear door lock assembly RH connector.
- 3. Check voltage between rear door lock assembly RH harness connector and ground.

	(-	(+)		\/alta=== (\) (\)		
	Rear door lock	assembly RH	(–)	(–) Condition		Voltage (V) (Approx.)
-	Connector	Terminal				
	D45	5	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
	D45	6	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace rear door lock assembly RH. Refer to <u>DLK-191, "DOOR LOCK : Removal and Installation"</u>.

NO  $\gg$  GO TO 2.

### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector and all door lock actuator connector.
- 2. Check continuity between BCM harness connector and rear door lock assembly RH harness connector.

В	CM	Rear door lock assembly RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M69	55	D45	6	Existed
M70	65	043	5	Existed

Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M69	55	Ground	Not existed
M70	65		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

BACK DOOR

BACK DOOR : Description

Locks/unlocks the door with the signal from BCM.

BACK DOOR: Component Function Check

# 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Back door lock actuator is OK.

NO >> Refer to <u>DLK-68</u>, "BACK DOOR : Diagnosis Procedure".

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# < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **BACK DOOR: Diagnosis Procedure**

INFOID:0000000007772794

# 1. CHECK BACK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect back door lock assembly connector.
- 3. Check voltage between back door lock assembly harness connector and ground.

(+) Back door lock assembly			Condition		\/altage (\/)	
		(–)			Voltage (V) (Approx.)	
Connector	Terminal				(11 - 7	
D106	2	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	
D100	3	Giouna	Door lock and unlock Switch	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace back door lock assembly. Refer to <a href="DLK-195">DLK-195</a>, "DOOR LOCK: Removal and Installation".

NO-1 >> GO TO 2 (lock signal).

NO-2 >> GO TO 3 (unlock signal).

## 2.CHECK BACK DOOR LOCK ACTUATOR LOCK CIRCUIT

- 1. Disconnect BCM connector and all door lock actuator connector.
- 2. Check continuity between BCM harness connector and back door lock assembly harness connector.

В	CM	Back door lock assembly		Continuity
Connector	Terminal	Connector Terminal		Continuity
M70	65	D106	3	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M70	65		Not existed	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check back door lock actuator unlock circuit

- 1. Remove back door lock actuator relay connector.
- Check continuity between back door lock actuator relay harness connector and back door lock assembly harness connector.

Back door loc	k actuator relay	Back door lock assembly		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M90	3	D106	2	Existed	

3. Check continuity between BCM harness connector and ground.

Back door lock	cactuator relay		Continuity	
Connector	Terminal	Ground	Continuity	
M90	3		Not existed	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-41, "Intermittent Incident"

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

>> INSPECTION END

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#### **BACK DOOR LOCK ACTUATOR RELAY**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### BACK DOOR LOCK ACTUATOR RELAY

Description

Controls back door lock actuator lock/unlock operation.

### Component Function Check

#### INFOID:0000000007772796

# 1. CHECK FUNCTION

- Use CONSULT to perform Active Test ("DOOR LOCK").
- Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Back door lock actuator relay is OK.

NO >> Refer to <u>DLK-68</u>, "BACK DOOR : <u>Diagnosis Procedure</u>".

### Diagnosis Procedure

#### INFOID:0000000007772797

# 1. CHECK FUSE

- 1. Turn ignition switch OFF.
- 2. Check 10 A fuse, [No. 10, located in fuse block (J/B)].

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK BACK DOOR LOCK ACTUATOR RELAY POWER CIRCUIT

- Remove back door lock actuator relay.
- 2. Check voltage between back door lock actuator relay harness connector and ground.

(+)			V. K 0.0	
Back door lock	actuator relay	(-) Voltage (V) (Approx.)		
Connector	Terminal		(* (***********************************	
M90	2	Ground	Pottory voltage	
- WI90	5	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK BACK DOOR LOCK ACTUATOR RELAY CIRCUIT 1

- 1. Install the back door lock relay.
- Check voltage between BCM harness connector and ground.

	+) CM	(-)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(, , , , , , , , , , , , , , , , , , ,	
M69	50	Ground Door lock and un-		LOCK	Battery voltage	
MOS	30	Ground	lock switch	UNLOCK	0	

#### Is the inspection result normal?

YES >> GO TO 6.

NO-1 (when voltage is fixed at 12V)>>Replace BCM. Refer to BCS-81, "Removal and Installation".

NO-2 (when voltage is fixed at 0V)>>GO TO 4.

### 4. CHECK BACK DOOR LOCK ACTUATOR RELAY CIRCUIT 1

- 1. Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

### BACK DOOR LOCK ACTUATOR RELAY

	(+)				
	ВСМ		(-)		Voltage (V) (Approx.)
Connector	Te	erminal			(Αρρίολ.)
M69		50	Groun	nd	Battery voltage
s the inspection results YES >> Replace NO >> GO TO 5	BCM. Refer to BC	S-81, "Remova	al and Installatio	<u>n"</u> .	
CHECK BACK DC	OR LOCK ACTUA	TOR RELAY (	CIRCUIT 2		
. Remove back do. Check continuity  Back door lock Connector		ness connecto	r and back door	lock actuator r	relay harness connecto
M90	1		169	50	Existed
	between BCM har			30	LAISteu
. Check continuity	between bein nar	ness connecto	i and ground.		
Back door	ock actuator relay		Continuity		Continuity
Connector	Terminal		Ground		Continuity
M90	1				Not existed
	pack door lock active replace harness. OR LOCK ACTUA	TOR RELAY (			nd.
Back door	ock actuator relay				Continuity
Connector	Terminal		Ground		
M90	4				Existed
s the inspection resu					
YES >> GO TO 7 NO >> Repair or	replace harness.				
$^{7}$ .CHECK BACK DC	OR LOCK ACTUA	TOR RELAY			
Check back door lock			"Component Ins	spection"	
s the inspection resu	<del>-</del>				
YES >> GO TO 8					
NO >> Replace	back door lock act				

# 8. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-41, "Intermittent Incident"

### >> INSPECTION END

# Component Inspection

# 1. CHECK BACK DOOR LOCK ACTUATOR RELAY

- 1. Turn ignition switch OFF.
- Remove back door lock actuator relay.
- Check continuity between back door lock actuator relay terminals.

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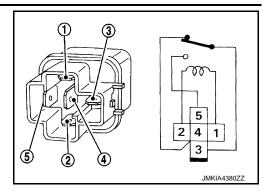
INFOID:0000000007772798

### **BACK DOOR LOCK ACTUATOR RELAY**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Back door lock actua- tor relay  Terminal		Condition	Continuity
	4	12 V direct current supply between terminals 1 and 2	Not existed
3		No current supply	Existed
3	5	12 V direct current supply between terminals 1 and 2	Existed
		No current supply	Not existed



#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock actuator relay.

#### DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR KEY CYLINDER SWITCH

Description INFOID:0000000007772799

Transmits lock/unlock operation to BCM.

Component Function Check

#### INFOID:0000000007772800

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## 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
KEY CYL LK-SW	Driver side door key cylinder	Lock	ON
		Neutral / Unlock	OFF
KEY CYL UN-SW	Driver side door key cyllinder	Unlock	ON
		Neutral / Lock	OFF

#### Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to <u>DLK-73</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000007772801

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect front door lock assembly (driver side) connector.

3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(+) Front door lock assembly (driver side)		(-)	Voltage (V) (Approx.)	
Connector	Terminal	-	(Арргох.)	
D9	5	Ground	(V) 15 10 5 0 JPMIA0587GB 8.0 - 8.5 V  Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

Disconnect BCM connector.

2. Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

В	СМ	Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M68	7	D9	5	Existed
IVIOO	8	D9	6	LAISIEU

#### DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M68	7	Giodila	Not existed
IVIOO	8		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

## 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock assembly (driver side)			Continuity
Connector	Terminal	Ground	Continuity
D9	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4. CHECK DOOR KEY CYLINDER SWITCH

Refer to DLK-74, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-187, "DOOR LOCK: Removal and Installation".</u>

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000007772802

## 1. CHECK DOOR KEY CYLINDER SWITCH

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) terminal.
- 3. Check continuity between front door lock assembly (driver side) terminals.

Front door lock assembly (driver side)  Terminal		Condition		Continuity
3	6	Driver eide deer key eylinder	Neutral / Lock	Not existed
6		Driver side door key cylinder	Lock	Existed
0		Neutral / Unlock	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-187, "DOOR LOCK: Removal and Installation".</u>

## **REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Continuity

Not existed

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REMOTE KEYLES	SS ENTRY RE	CEIVER		
Description				INFOID:000000007772803
Receives Intelligent Key o	peration and transm	nits to BCM.		
Component Function				WEO/D 0000000 <del>0777</del> 000
	TOTICON			INFOID:0000000007772804
1.CHECK FUNCTION				
<ol> <li>Select "INTELLIGENT</li> <li>Select "RKE OPE CO</li> </ol>				
<ol> <li>Select RRE OPE CO</li> <li>Check that the function</li> </ol>			owing conditions.	
Manitanten			O a maliki a m	
Monitor iter		ecks whether value chang	Condition	alligent Key
Is the inspection result nor		The state of the s	es when operating into	- Ingent Key
•	<u>mar:</u> ss entry receiver is (	OK.		
	75, "Diagnosis Proc			
Diagnosis Procedure	<b>!</b>			INFOID:0000000007772805
		EIVED DOWED 6: "		
1.CHECK REMOTE KEY		EIVER POWER SUF	-PLY	
<ol> <li>Turn ignition switch Ol</li> <li>Disconnect remote ke</li> </ol>		connector		
<ol> <li>Disconnect remote ke</li> <li>Check voltage betwee</li> </ol>			s connector and gr	ound.
(-				
Remote keyles		(-)		Voltage
Connector M87	Terminal 1	Ground		Battery voltage
	-	Ground		Dattery voltage
Is the inspection result nor YES >> GO TO 3.	<u>11141!</u>			
NO >> GO TO 2.				
2.DETECT MALFUNCTION	ONING PART			
Check the following.				
• 10 A fuse (No. 10)	d batura	andaaa satas	n and b - 11	
<ul> <li>Harness for open or sho</li> <li>Is the inspection result nor</li> </ul>		eyless entry receive	r and battery	
YES >> GO TO 6.	<u>IIIal!</u>			
	ace the malfunctioni	ing parts.		
3.CHECK REMOTE KEY		• .	RCUIT	
Disconnect BCM conn				
		connector and remote	e keyless entry red	eiver harness connector.
DOM		Domoto kard	antry receiver	
Connector	Terminal	Remote keyless Connector	Terminal	Continuity
M68	18	M87		Existed
				EXISTECT
<ol><li>Check continuity betw</li></ol>	een down namess c	omecioi and ground	u.	
	BCM			

Ground

Terminal

18

Connector M68

#### REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Reconnect BCM connector and remote keyless entry receiver connector.

2. Check signal between remote keyless entry receiver harness connector and ground using oscilloscope.

	s entry receiver	(–)	Condition	Signal (Reference value)
Connector	Terminal			(1.1616161166 14.166)
			Waiting	12 V
M87	2	Ground	Press the Intelligent Key lock or unlock button	(V) 15 10 5 0 200 ms

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace remote keyless entry receiver.

#### CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT

1. Disconnect BCM connector and remote keyless entry receiver connector.

2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	BCM		Remote keyless entry receiver	
Connector	Terminal	Connector Terminal		Continuity
M68	38	M87	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M68	38		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

#### 6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

#### **BACK DOOR REQUEST SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

# BACK DOOR REQUEST SWITCH

**Description** 

Transmits lock/unlock operation to BCM.

## Component Function Check

## 1. CHECK FUNCTION

Check ("REQSW-BD/TR") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
DEOSW/-RD/TP	SW-BD/TR Back door request switch	Pressed	ON
REQSW-DD/TR		Released	OFF

#### Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Refer to <u>DLK-77</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

# 1. CHECK BACK DOOR REQUEST SWITCH INPUT SIGNAL

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

(+)		( )	Voltage (V)	
Connector	equest switch Terminal	()	(Approx.)	
D107	1	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK BACK DOOR REQUEST SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and back door request switch harness connector.

В	BCM Back door request swit		equest switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M69	51	D107	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
 Connector	Terminal	Ground	Continuity
 M69	51		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair harness or connector.

# 3.check back door request switch ground circuit

Check continuity between back door request switch harness connector and ground.

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#### **BACK DOOR REQUEST SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

Back door request switch			Continuity
Connector	Terminal	Ground	Continuity
D107	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK BACK DOOR REQUEST SWITCH

Refer to DLK-78, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door request switch. Refer to <u>DLK-196, "OUTSIDE HANDLE : Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007772809

# 1. CHECK BACK DOOR REQUEST SWITCH

- Turn ignition switch OFF.
- 2. Disconnect back door request switch connector.
- 3. Check continuity between back door request switch terminals.

Back door request switch Terminal		Condition		Continuity
ľ	2	back door request switch	Released	Not existed

#### Is the inspection result normal?

NO

YES >> INSPECTION END

>> Replace back door request switch. Refer to <a href="DLK-196">DLK-196</a>, "OUTSIDE HANDLE: Removal and Installation".

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INFOID:0000000007772811

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## DOOR REQUEST SWITCH

Description

Transmits lock/unlock operation to BCM.

## Component Function Check

## 1. CHECK FUNCTION

Check ("REQ SW -DR" or "REQ SW -AS") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
REQ SW -DR	Driver side door request switch	Pressed	ON
REQ 3W -DR	Driver side door request switch	Released	OFF
REQ SW -AS	Passenger side door request switch	Pressed	ON
REQ 3W -A3		Released	OFF

#### Is the inspection result normal?

YES >> Front door request switch is OK.

NO >> Refer to <u>DLK-79</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

## 1. CHECK DOOR REQUEST SWITCH INPUT SIGNAL

Turn ignition switch OFF.

- 2. Disconnect malfunctioning front door request switch connector.
- 3. Check voltage between malfunctioning front door request switch harness connector and ground.

(+) Front door request switch			(–)	Voltage (V) (Approx.)
Connector		Terminal		(Αρριολ.)
Driver side	D11	2	Cround	Pottony voltogo
Passenger side	D31	2	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check door request switch circuit

Disconnect BCM connector.

Check continuity between malfunctioning front door request switch harness connector and BCM harness connector.

Front door request switch		В	Continuity		
Con	nector	Terminal	Connector	Terminal	Continuity
Driver side	D11	2	M71	75	Existed
Passenger side	D31	2	IVI7 I	100	Existed

3. Check continuity between malfunctioning front door request switch harness connector and ground.

Front door request switch				Continuity
Con	Connector Terminal		- Ground	Continuity
Driver side	D11	2	Ground	Not existed
Passenger side	D31	2		Not existed

#### Is the inspection result normal?

#### DOOR REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

## 3.check door request switch ground circuit

Check continuity between malfunctioning front door request switch harness connector and ground.

Front door request switch				Continuity	
Connector Terminal		Terminal	Ground	Continuity	
Driver side	D11	4	Giouna	Existed	
Passenger side	D31	<b>, ,</b>		EXISTECT	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR REQUEST SWITCH

Refer to DLK-80, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning front door request switch. Refer to <u>DLK-189</u>, "<u>OUTSIDE HANDLE</u>: <u>Removal and Installation</u>".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007772813

## 1. CHECK DOOR REQUEST SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning front door request switch connector.
- 3. Check continuity between malfunctioning front door request switch terminals.

Front door request switch  Terminal		Condition		Continuity
ı	2	Door request switch	Released	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunctioning front door request switch. Refer to <u>DLK-189</u>, "<u>OUTSIDE HANDLE</u>: Removal and Installation".

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## **UNLOCK SENSOR**

Description INFOID:0000000007772814

Detects door lock condition of driver side door.

## Component Function Check

## 1. CHECK FUNCTION

Check ("UNLK SEN -DR") in BCM "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
UNLK SEN -DR Driver side door	Driver side door	Lock	OFF
ONER SEN -DIX	Driver side door	Unlock	ON

#### Is the inspection result normal?

YES >> Unlock sensor is OK.

NO >> Refer to <u>DLK-81, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

1. CHECK UNLOCK SENSOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check signal between front door lock assembly (driver side) harness connector and ground with oscilloscope.

Front door lock ass	eembly (driver side)  Terminal	(-)	Signal (Reference value)
D9	3	Ground	(V) 15 10 5 0 *** 10ms

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK UNLOCK SENSOR CIRCUIT

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M68	31	D9	3	Existed

3. Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M68	31		Not existed

#### **UNLOCK SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check unlock sensor ground circuit

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock as	sembly (driver side)	Continuity	
Connector	Terminal	Ground	Continuity
D9	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4. CHECK UNLOCK SENSOR

Refer to DLK-82, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-187, "DOOR LOCK : Removal and Installation"</u>.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007772817

## 1. CHECK UNLOCK SENSOR

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check continuity between front door lock assembly (driver side) terminals.

Front door lock assembly (driver side)		Condition		Continuity
Terminal				Continuity
2	4	Driver side door	Unlock	Existed
3	4	Dilver side door	Lock	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-187, "DOOR LOCK : Removal and Installation".</u>

#### INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY WARNING BUZZER

Description INFOID:0000000007772818

Answers back and warns for an inappropriate operation.

## Component Function Check

# 1. CHECK FUNCTION

- Use CONSULT to perform BCM Active Test ("OUTSIDE BUZZER").
- Touch "ON" to check that it works normally.

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

>> Refer to DLK-83, "Diagnosis Procedure". NO

## Diagnosis Procedure

## 1. CHECK FUSE

Turn ignition switch OFF.

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

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

## 2.CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

Disconnect Intelligent Key warning buzzer connector.

Check voltage between Intelligent Key warning buzzer harness connector and ground.

(4	(+)		V-16 (A.A.
Intelligent Key	warning buzzer		Voltage (V) (Approx.)
Connector	Terminal		(11 - 7
E25	1	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK INTELLIGENT KEY WARNING BUZZER CIRCUIT

Disconnect BCM connector.

Check continuity between BCM harness connector and Intelligent Key warning buzzer harness connector.

ВСМ		Intelligent Key warning buzzer		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M71	93	E25	3	Existed	

3. Check continuity between BCM harness connector and ground.

В	ВСМ		Continuity
Connector	Terminal	Ground	Continuity
M71	93		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### $oldsymbol{4}.$ CHECK INTELLIGENT KEY WARNING BUZZER

Refer to DLK-84, "Component Inspection".

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#### INTELLIGENT KEY WARNING BUZZER

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-203</u>, "Removal and Installation".

## Component Inspection

INFOID:0000000007772821

# 1. CHECK INTELLIGENT KEY WARNING BUZZER

- 1. Turn ignition switch OFF.
- 2. Disconnect Intelligent Key warning buzzer connector.
- Connect battery power supply directly to Intelligent Key warning buzzer terminals and check the operation.

Intelligent Key	warning buzzer	
Teri	minal	Operation
(+)	(-)	
1	3	Buzzer sounds

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-203, "Removal and Installation"</u>.

## **INTELLIGENT KEY**

Description

The following functions are available when having and carrying electronic ID.

- Door lock/unlock
- Engine start

Remote control entry function and panic alarm function are available when operating on button.

## Component Function Check

# 1.CHECK FUNCTION

Check ("RKE OPE COUN1") in Data Monitor mode using CONSULT.

Monitor item	Condition
RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to <u>DLK-85</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

# 1. CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA. Refer to <u>DLK-205</u>, "Removal and Installation".

#### Standard: Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace Intelligent Key.

NO >> Replace Intelligent Key battery. Refer to <u>DLK-205</u>. "Removal and Installation".

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## **BUZZER (COMBINATION METER)**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# **BUZZER (COMBINATION METER)**

**Description** 

Performs operation method guide and warning with buzzer.

## Component Function Check

INFOID:0000000007772826

# 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("INSIDE BUZZER").
- 2. Touch "take out", "knob" or "key" to check that it works normally.

#### Is the inspection result normal?

Yes >> Buzzer (combination meter) is OK.

No >> Refer to <u>DLK-86</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000007772827

## 1. CHECK METER BUZZER CIRCUIT

Refer to WCS-25, "Component Function Check".

#### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace harness.

## 2.check intermittent incident

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

## **KEY WARNING LAMP**

# < DTC/CIRCUIT DIAGNOSIS > KEY WARNING LAMP

## [WITH INTELLIGENT KEY SYSTEM]

KEY WARNING LAMP	٨
Description	А
Performs operation method guide and warning together with buzzer.	В
Component Function Check	
1. CHECK FUNCTION	С
<ol> <li>Use CONSULT to perform Active Test ("INDICATOR").</li> <li>Touch "KEY IND" or "KEY ON" to check that it works normally.</li> <li>Is the inspection result normal?</li> <li>YES &gt;&gt; Key warning lamp is OK.</li> <li>NO &gt;&gt; Refer to <u>DLK-87</u>, "<u>Diagnosis Procedure</u>".</li> </ol>	D
Diagnosis Procedure	Е
1. CHECK KEY WARNING LAMP	F
Refer to MWI-4, "Work flow".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace harness.  2.CHECK INTERMITTENT INCIDENT	G
Refer to GI-41, "Intermittent Incident".	Н
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#### HAZARD FUNCTION

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### HAZARD FUNCTION

**Description** 

Performs answer-back for each operation with number of blinks.

## Component Function Check

INFOID:0000000007772832

# 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("FLASHER").
- 2. Touch "LH" or "RH" to check that it works normally.

#### Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-88</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000007772833

## 1. CHECK HAZARD SWITCH CIRCUIT

Refer to EXL-66, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

#### 2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

## POWER DOOR LOCK SYSTEM

## Wiring Diagram - POWER DOOR LOCK SYSTEM -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information". FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) UNLOCK → BETWEEN FULL STROKE AND N 80 BCM (BODY CONTROL MODULE)
(M69), (M69), (M70), (M71) BETWEEN FULL STROKE AND N DATA LINK CONNECTOR M4 M20 POWER DOOR LOCK SYSTEM (WITH INTELLIGENT KEY) 18 POWER WINDOW MAIN SWITCH D5. M20 P1 M77 10A 8 M22 DOOR LOCK AND UNLOCK SWITCH B2 2010/10/14 JCKWM5306GB

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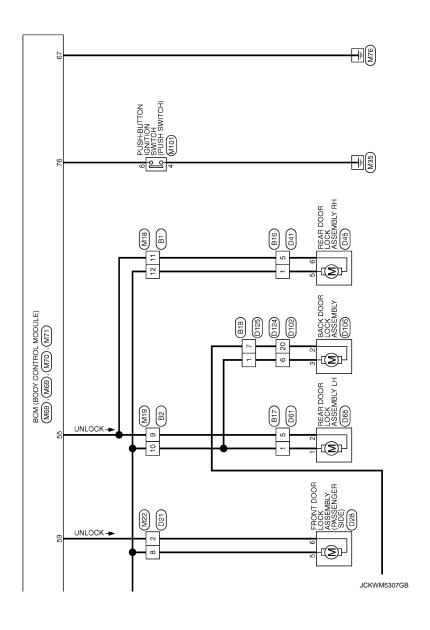
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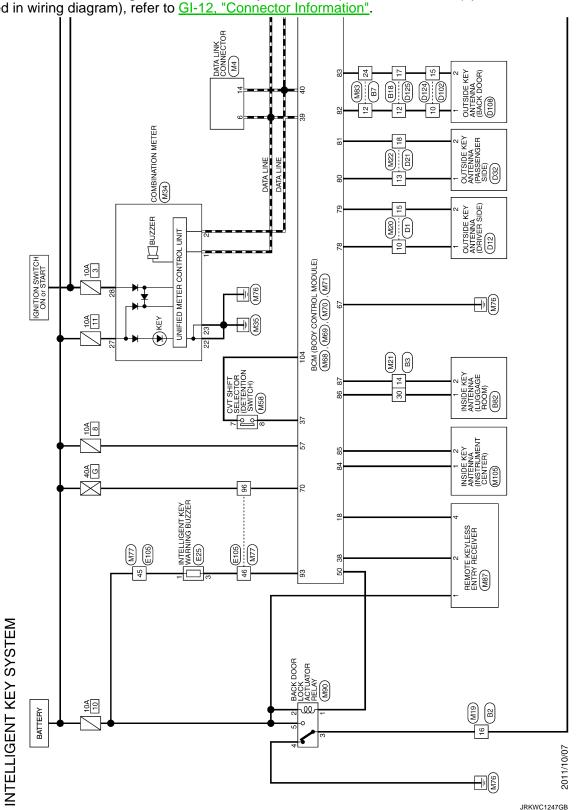


## INTELLIGENT KEY SYSTEM

## Wiring Diagram - INTELLIGENT KEY SYSTEM -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not

described in wiring diagram), refer to GI-12, "Connector Information".



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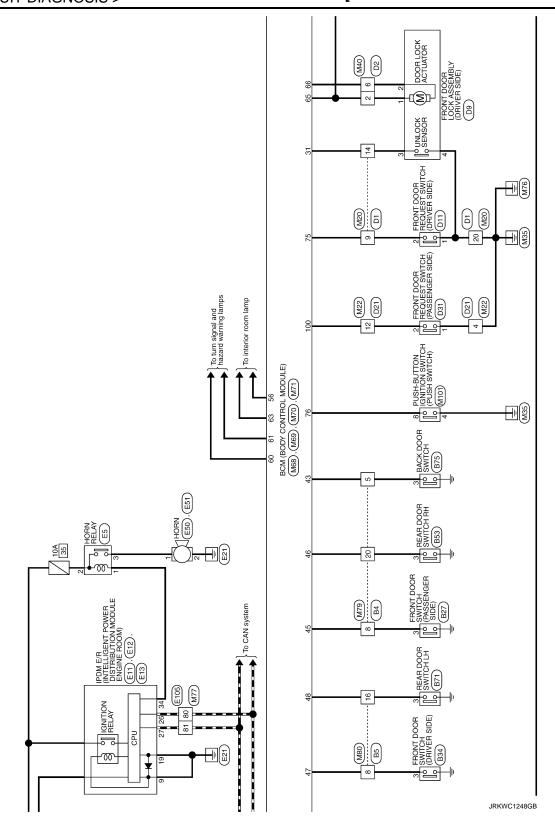
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REAR DOOR LOCK ASSEMBLY RH (D45) D41 M18 BACK DOOR LOCK ASSEMBLY (D106) BCM (BODY CONTROL MODULE) (M68), (M69), (M70), (M71) REAR DOOR LOCK ASSEMBLY LH (D65) (M19) B2 B17 (3) 2 M22 D21 JRKWC1249GB Α

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# **ECU DIAGNOSIS INFORMATION**

# BCM (BODY CONTROL MODULE)

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
TIX WIII EIXTII	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED INT	Other than front wiper switch INT	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED CTOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dia position
RR WIPER ON	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
DD WIDED INT	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
DD WACHED OW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DD WIDED OTOD	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TURN CIONAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL   AMD OW	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAND OW	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIQUET COM	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

# < ECU DIAGNOSIS INFORMATION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
DOOR SW-DR	Driver door closed	Off
DOOK SW-DK	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
DOOK SW-AS	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
JOOR SW-RL	Rear LH door opened	
DOOR SW-BK	Back door closed	Off
JOOK SW-BK	Back door opened	On
SDL LOOK SW	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
DI TINII OOK OW	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
VEN ON TIX ON	Other than driver door key cylinder LOCK position	Off
(EY CYL LK-SW	Driver door key cylinder LOCK position	On
(E) ( O) (( 11) 1 O) ((	Other than driver door key cylinder UNLOCK position	Off
(EY CYL UN-SW	Driver door key cylinder UNLOCK position	On
	Hazard switch is OFF	Off
IAZARD SW	Hazard switch is ON	On
	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
R/BD OPEN SW	NOTE: The item is indicated, but not monitored.	Off
FRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
-ANI ONI OIO	Blower fan OFF	Off
AN ON SIG	Blower fan ON	On
ID COND OW	Air conditioner OFF (A/C switch indicator OFF)	Off
AIR COND SW	Air conditioner ON (A/C switch indicator ON)	On
	LOCK button of the key is not pressed	Off
RKE-LOCK	LOCK button of the key is pressed	On
	UNLOCK button of the key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the key is pressed	On
	BACK DOOR OPEN button of the key is not pressed	Off
RKE-TR/BD	BACK DOOR OPEN button of the key is pressed	On
	PANIC button of the key is not pressed	Off
KE-PANIC	PANIC button of the key is pressed	On
	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
RKE-MODE CHG	LOCK/UNLOCK button of the key is pressed and held simultaneously	On
	Bright outside of the vehicle	Close to 5 V
OPTI SEN (DTCT)	Dark outside of the vehicle	Close to 0 V
	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V
OPTI SEN (FILT)	3 - 3 - 3	

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## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	NOTE: The item is indicated, but not monitored.	Off
RAIN SENSOR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -DR	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
NEQ 3W -A3	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
(LQ 3W -DD/TK	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
0011 000	Push-button ignition switch (push switch) is pressed	On
CLUCH SW	The clutch pedal is not depressed.	Off
CLOCITOW	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is not depressed	Off
SKAKE OW I	The brake pedal is depressed	On
	The brake pedal is depressed when No. 9 fuse is blown	Off
BRAKE SW 2	The brake pedal is not depressed when No. 9 fuse is blown, or No. 9 fuse is normal	On
DETE/CANCL SW	Selector lever in P position	Off
DETE/OANOL SW	Selector lever in any position other than P	On
FT PN/N SW	Selector lever in any position other than P and N	Off
71 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off
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
JNLK SEN -DR	Driver door is locked	Off
NACIO DIA	Driver door is unlocked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
OON OW II DIW	Push-button ignition switch (push-switch) is pressed	On
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
SININETT -17B	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
PETE SW -II DIVI	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
DELICINATE DIVI	Selector lever in P or N position	On
SET D -MET	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
PET N. MET	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

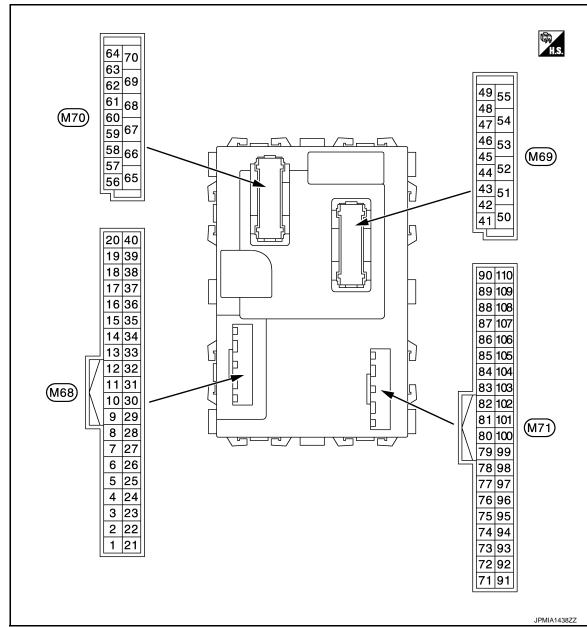
# < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LINGING STATE	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 speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	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 (Selector lever is in the P position except for M/T models)	Reset
	Ignition switch ON	Set
DDMT ENC STRT	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
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.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
OOM MINID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONTINUED	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
COM INWINDS	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFINIVI IDZ	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRM ID	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
NOT REGISTERED	BCM detects registered key ID, or BCM does not detect key ID.	ID OK
NOT REGISTERED	BCM detects non-registration key ID.	ID NG
TP 4	The ID of fourth key is not registered to BCM	Yet
17 4	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
IF 3	The ID of third key is registered to BCM	Done
TD 0	The ID of second key is not registered to BCM	Yet
TP 2	The ID of second key is registered to BCM	Done
TD 4	The ID of first key is not registered to BCM	Yet
TP 1	The ID of first key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID DECOT ELA	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
ID DECOT ED4	ID of front RH tire transmitter is registered	Done
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGST KRT	ID of rear RH tire transmitter is not registered	Yet
ID DECCT DI 4	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
WADNING LAMP	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

## TERMINAL LAYOUT



NOTE:

Connector colorM68, M70: Black

M69, M71: White

PHYSICAL VALUES

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	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output	Condition		value (Approx.)
					All switch OFF	0 V
					Turn signal switch RH	
					Lighting switch HI	(V)
2 (BR/W)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit-	Lighting switch 1ST	10 5 0 PKIB4958J 1.0 V
				tent dial 4)	Lighting switch 2ND	(V) 15 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10
		Ground Combination switch INPUT 4			All switch OFF	0 V
					Turn signal switch LH	
					Lighting switch PASS	(V) 15
3	Ground			Combination switch (Wiper intermittent dial 4)  Lighting switch 2ND  Combination switch (Wiper intermittent dial 4)  Front fog lamp switch Of	Lighting switch 2ND	10 5 0 ++10ms PKIB4958J 1.0 V
(GR)	Ground		Input			1.0 V
					Front fog lamp switch ON	(V) 15 10 5 0 +-10ms PKIB4956J
					All 11 055	0.8 V
					All switch OFF	0 V
					Front wiper switch LO	(V)
4 (L/Y)		Combination		Combination	Front wiper switch MIST Front wiper switch INT	(V) 15 10
	Ground	Ground Combination switch INPUT 3	Input	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	5 0 
						PKIB4958J 1.0 V

# < ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)				Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch (Wiper intermittent dial 4)  Rear washer ON	(V) 15 10
					(Wiper intermittent dial 4)  Any of the condition below with all switch OFF	5 0 10ms
5 (G)	Ground	Combination switch INPUT 2	Input	Combination switch	<ul><li>Wiper intermittent dial 1</li><li>Wiper intermittent dial 5</li><li>Wiper intermittent dial 6</li></ul>	PKIB4958J
						(V) 15
					Rear wiper switch ON (Wiper intermittent dial 4)	10ms
						PKIB4956J
					All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
					Rear wiper switch INT (Wiper intermittent dial 4)	5 0
					Wiper intermittent dial 3 (All switch OFF)	→ ←10ms PKIB4958J
						1.0 V
6 (L/R)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switch OFF	(V) 15 10 5
					<ul><li>Wiper intermittent dial 1</li><li>Wiper intermittent dial 2</li></ul>	→ <b>←10</b> ms
						РКIВ4952J 1.9 V
					Any of the condition below	(V) 15 10
					with all switch OFF  • Wiper intermittent dial 6  • Wiper intermittent dial 7	5 0
						0.8 V

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
7 (W/R)	Ground	Door key cylinder switch UNLOCK	Input	Door key cylinder switch	NEUTRAL position	(V) 15 10 5 0 PMIA0587GB 8.0 - 8.5 V
					UNLOCK position	0 V
8	Ground	Door key cylinder	Input	Door key cylin-	NEUTRAL position	12 V
(W/B)	Ground	switch LOCK	Input	der switch	LOCK position	0 V
9	Ground	Stop lamp switch 1	Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(R)	Ground	Stop lamp switch i	прис	switch	ON (Brake pedal is depressed)	Battery voltage
12 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V
					LOCK position	0 V
13 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 10 5 0 10 ms 10 ms 1.0 - 1.5 V
					UNLOCK position	0 V
14	Ground	Optical sensor	Innut	Ignition switch	When bright outside of the vehicle	Close to 5 V
(L/G)	Ground	Optical sellsol	Input	ON	When dark outside of the vehicle	Close to 0 V
15 (W/L)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V
					Pressed	0 V
17	Ground	Optical sensor pow-	Output	Ignition switch	OFF, ACC	0 V
(R/G)	Ciodila	er supply	Calput	-gindon switch	ON	5 V

## < ECU DIAGNOSIS INFORMATION >

## [WITH INTELLIGENT KEY SYSTEM]

	nal No.	Description				Value
+ (vvire	e color)	Signal name	Input/ Output	Condition		(Approx.)
18 (V)	Ground	Sensor ground	Input	Ignition switch O	N	0 V
21 (P/L)	Ground	NATS antenna amp.	Input/ Output	Intelligent Key: Intelligent Key battery is re- moved	Brake pedal: Depressed NOTE: Waveform varies each time when brake pedal is depressed	(V) 15 10 5 0 → 40ms JMKIA6232JP
					Brake pedal: Not de- pressed	12 V
					ON	0 V
23 (R/Y)	Ground	Security indicator lamp	Output	Security indicator	Blinking (Ignition switch OFF)	(V) <sub>15</sub> 10 5 0 ++1s JPMIA0590GB 12.0 V
					OFF	Battery voltage
24* <sup>1</sup> (SB)	Ground	Dongle link	Input/ Output	Ignition switch O	FF	5 V
25 (LG)	Ground	NATS antenna amp.	Input/ Output	During waiting	Brake pedal: Depressed NOTE: Waveform varies each time when brake pedal is depressed	(V) 15 10 5 0 → 40ms JMKIA6233JP
					Brake pedal: Not de- pressed	12 V
26* <sup>2</sup>	Ground	Thermo control amp.	Input	Ignition switch O	N	0 V
(GR)	Siound	monno control amp.	прис	Evaporator is ext	remely low temperature	12 V

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	nal No.	Description				Value				
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)				
		A/C ON (Automatic A/C)		A/C	OFF (A/C switch indicator: OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V				
27 (O)	Ground		Input		ON (A/C switch indicator: ON)	0 V				
(0)		A/C switch (Manual A/C)		A/C switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V				
					ON	0 V				
				Fan switch	Blower fan switch OFF	0 V				
		Blower fan switch (Automatic A/C)			Blower fan switch ON	(V) 15 10 5 0 + 10ms PKIB4960J				
28 (G/W)	Ground	Blower fan switch (Manual A/C)	Input	Input	Input	Input	Input	Fan switch	Blower fan switch OFF  Blower fan switch ON	7.0 - 8.0 V  (V) 15 10 5 0 +-10ms PIIB7730J 1.5 - 2.0 V 0 V
29					OFF	12 V				
(L/W)	Ground	Hazard switch	Input	Hazard switch	ON	0 V				
31 (G/B)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V				
					UNLOCK status (Unlock sensor switch ON)	0 V				

# < ECU DIAGNOSIS INFORMATION >

## [WITH INTELLIGENT KEY SYSTEM]

	nal No.	Description			O Bit	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
22		Complemention autical		Combination	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V	С
32 (LG)	Ground	Combination switch OUTPUT 5	Output	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	40	
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10	Е
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2	0 → +10ms	F
					<ul><li>Wiper intermittent dial 6</li><li>Wiper intermittent dial 7</li></ul>	PKIB4956J 1.0 V	G
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms	Н
						7.0 - 8.0 V	
33 (Y/L)	Ground	Combination switch OUTPUT 4	Output	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)		
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10	DLK
					Rear wiper switch INT (Wiper intermittent dial 4)	5 0	
					Any of the condition below with all switch OFF	+ +10ms	L
					<ul><li>Wiper intermittent dial 1</li><li>Wiper intermittent dial 5</li><li>Wiper intermittent dial 6</li></ul>	PKIB4958J 1.2 V	M

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	nal No.	Description				Value		
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)		
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 → 10ms PKIB4960J 7.0 - 8.0 V		
34 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)			
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10		
					Rear washer switch ON (Wiper intermittent dial 4)	5		
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	PKIB4958J 1.2 V		
-		Combination	Combination	Combination	All switch OFF	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V		
35 (R/L)	Ground	Combination switch OUTPUT 2	Output	switch (Wiper intermit-	Lighting switch 2ND	7.0 0.0 0		
						tent dial 4)	Lighting switch PASS	(V) 15
								Front wiper switch INT
					Front wiper switch HI	++10ms PKIB4958J		
36	Ocean bination assistab		Combination switch	All switch OFF	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V			
(L/O)	Ground	OUTPUT 1	Output	(Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0		
				torit diai +)	Turn signal switch LH			
					Front wiper switch LO (Front wiper switch MIST)			
					Front washer switch ON	→ ←10ms PKIB4958J		
						1.2 V		

## < ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description			-	Value	A						
+ (vvire	- COIOF)	Signal name	Input/ Output		Condition	(Approx.)	$\wedge$						
37	Ground	Selector lever P po-	Input	Selector lever	P position	0 V	В						
(G/O)	Giodila	sition switch	IIIput	Selector level	Any position other than P	12 V	D						
						Ignition switch OFF (Remote keyless entry communication)	Waiting  When operating either button on Intelligent Key	12 V  (V) 15 10 200 ms  JMMIA0572GB	C D				
38 (G/Y)	Ground	Receiver communication	Input/ Output						Output	t Ignition switch	Waiting	(V) 15 10 5 0 100 ms JMMIA0573GB	F
				ON (TPMS communication)		communication)	When rece	When receiving signal from tire pressure sensor	(V) 15 10 5 0 100 ms JMMIA0574GB	H			
39 (L)	Ground	CAN-H	Input/ Output		_	_	J						
40 (P)	Ground	CAN-L	Input/ Output		_	_	DLk						
43 (W)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 9.5 - 10.0 V	L M						
					ON (When back door opened)	0 V	N						
44		Rear wiper stop po-		Ignition switch	Rear wiper stop position	12 V							
(LG)	Ground	sition	Input	ON	Any position other than rear wiper stop position	0 V	O						

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
45 (SB)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
					ON (When passenger door opened)	0 V
46 (GR/L)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	(V) 15 10 5 0 10ms PKIB4960J 7.0 - 8.0 V
					ON (When rear RH door opened)	0 V
47 (BR/Y)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
					ON (When driver door opened)	0 V
48 (W/G)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
					ON (When rear door LH opened)	0 V
50	Ground	Back door lock actu-		Back door	LOCK (Actuator is activated)	0 V
(R/W)		ator relay control	,		Other than LOCK (Actuator is not activated)	Battery voltage
51 (W)	Ground	Back door request switch	Input	Back door request switch	ON (Pressed)  OFF (Not pressed)	0 V 12 V
54 (LG)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
(LG)					ON (Activated)	12 V

## < ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	:
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
55	Ground	Rear door UNLOCK	Output	Rear door	UNLOCK (Actuator is activated)	12 V	E
(G)	Giound	Neal GOOL OINLOCK	Output	INGAI UUUI	Other then UNLOCK (Actuator is not activated)	0 V	_
					p battery saver is activated. room lamp power supply)	0 V	_ (
56 (L)	Ground	Interior room lamp power supply	Output	vated.	p battery saver is not acti- rior room lamp power sup-	12 V	С
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch Ol	FF	Battery voltage	Е
59	Crownd	Passenger door UN-	Outrout	December door	UNLOCK (Actuator is activated)	12 V	F
(G)	Ground	LOCK	Output	Passenger door	Other then UNLOCK (Actuator is not activated)	0 V	- 1
					Turn signal switch OFF	0 V	(
60 (W/B)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 PKIC6370E	Н
					Turn signal switch OFF	6.0 V 0 V	_ 
61 (W/L)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1s 1s PKIC6370E	DL
63		Interior room lamp		Interior room	OFF	12 V	- [V
(BR)	Ground	control signal	Output	lamp	ON	0 V	-
65	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	12 V	N
(V)	Giound	All GOOIS LOOK	Output	All GOOLS	Other then LOCK (Actuator is not activated)	0 V	-
66	Ground	Driver door UN-	Output	Driver door	UNLOCK (Actuator is activated)	12 V	_ C
(L/B)	Ground	LOCK	Guipui	Dilvel dool	Other then UNLOCK (Actuator is not activated)	0 V	P
67 (B)	Ground	Ground	Output	Ignition switch O	N	0 V	
68 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch O	N	12 V	
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch O	FF	12 V	

## < ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)		Condition		Value		
+	-	Signal name	Input/ Output	Condition		(Approx.)
70 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
72* <sup>2</sup> (SB)	Ground	A/C indicator	Output	A/C indicator	OFF ON	12 V 0 V
75		Driver door request		Driver door re-	ON (Pressed)	0 V
(SB)	Ground	switch	Input	quest switch	OFF (Not pressed)	12 V
76		Push-button ignition		Push-button ig-	Pressed	0 V
(L/O)	Ground	switch (push switch)	Input	nition switch (push switch)	Not pressed	12 V
78	78 (LG) Ground Driver door antenna (+) Output When the driver door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0  JMKIA5954GB			
(LG)		(+)	Соправ	ed with ignition	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB
79	79 (V) Ground Criver door antenna Output door request switch is oper	When the driver door request	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0  JMKIA5954GB		
		( )	Output	switch is operated with ignition	When Intelligent Key is in the antenna detection area (The distance between In- telligent Key and antenna: 80 cm or less)	(V) 15 10 5 0  JMKIA5955GB

## < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value	А
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	
80	0	Passenger door an-	0.4.4	When the passenger door re-	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 5 0 JMKIA5954GB	B C
(BR/Y)	Ground	tenna (+)	Output	quest switch is operated with ignition switch ON	When Intelligent Key is in the antenna detection area (The distance between In- telligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 JMKIA5955GB	E
81 (L/Y) Grour		Ground Passenger door antenna (-)	Output	When the passenger door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 JMKIA5954GB	G H
	Ground				When Intelligent Key is in the antenna detection area (The distance between In- telligent Key and antenna: 80 cm or less)	(V) 15 10 500 ms  JMKIA5955GB	J DLK
82	Ground	Back door antenna (+)	Outout	When the back door request	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 JMKIA5954GB	M
(W/B)			switch is operated with ignition switch ON	When Intelligent Key is in the antenna detection area (The distance between In- telligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 JMKIA5955GB	O P	

	nal No.	Description				Value
+	color)	Signal name	Input/ Output	Condition		(Approx.)
83	Ground	Back door antenna (- )		When the back door request switch is operat- ed with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 JMKIA5954GB
(B/W)	Clound		Output		When Intelligent Key is in the antenna detection area (The distance between In- telligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 JMKIA5955GB
84	Ground	Room antenna (+) (Instrument center)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA5951GB
(Y/G)					When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA3839GB
85	Ground	Room antenna (-) (Instrument center) Output		Ignition switch ON	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA5951GB
(Y/L)			Output		When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA3839GB

## < ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)		0 10		Value		
+	color)	Signal name	Input/ Output	Condition		(Approx.)
86	Ground	Luggage room an-	Output	Ignition switch	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA5951GB
(P)	Glound	tenna (+)	Output	ŎN	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA3839GB
					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA5951GB
87 (L)	Ground	Luggage room antenna (-)	Output	Ignition switch ON	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA3839GB
90 (W/L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch illu- mination	ON OFF	12 V 0 V
91 (Y)	Ground	ACC/ON indicator lamp	Output	Ignition switch	OFF ACC or ON OFF	Battery voltage 0.5 V 0 V
92 (BR/R)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position  (V) 15 10 5 0 JPMIA1554GB 6.0 - 7.0 V

### < ECU DIAGNOSIS INFORMATION >

## [WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		9 111		Value
+	-	Signal name	Input/ Output	Condition		(Approx.)
93	Ground	Intelligent Key warn-	Output	Intelligent Key	Sounding	0 V
(GR/W)	Ground	ing buzzer	Output	warning buzzer	Not sounding	12 V
96	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BR/W)	Ground	ACC relay control	Output	ignition switch	ACC or ON	12 V
97	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	Battery voltage
(L/R)	Giodila	Starter relay control	Output	ON	When selector lever is not in P or N position	0 V
98	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V
(BR)	Ground	E/R) control	Output	ignition switch	ON	0 V
99	Ground	Ignition relay control	Output	Ignition switch	OFF or ACC	0 V
(W/R)	Ground	ignition relay control	Output	igilition switch	ON	12 V
100	Ground	Passenger door re-	Input	Passenger door	ON (Pressed)	0 V
(G)		iriput	request switch	OFF (Not pressed)	12 V	
102	Ground	Selector lever P/N	Input	Selector lever	P or N position	Battery voltage
(G)	Ground	position	mput	Selector level	Except P and N positions	0 V
		round Front defroster switch Input			A/C mode defroster ON position	0 V
103* <sup>2</sup> (G/Y)	Ground		Ignition switch ON	Other than A/C mode de- froster ON position	(V) 15 10 5 0 	
104 (Y/R)	Ground	CVT shift selector (detention switch) power supply	Output	Ignition switch O	N	12 V
105 (B/O)	Ground	Stop lamp switch 2	Input	Ignition switch O	FF	Battery voltage
106	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(Y/B)	Ciodila	lay control	Odiput	igilidon switch	ON	12 V

<sup>\*1:</sup> For Canada

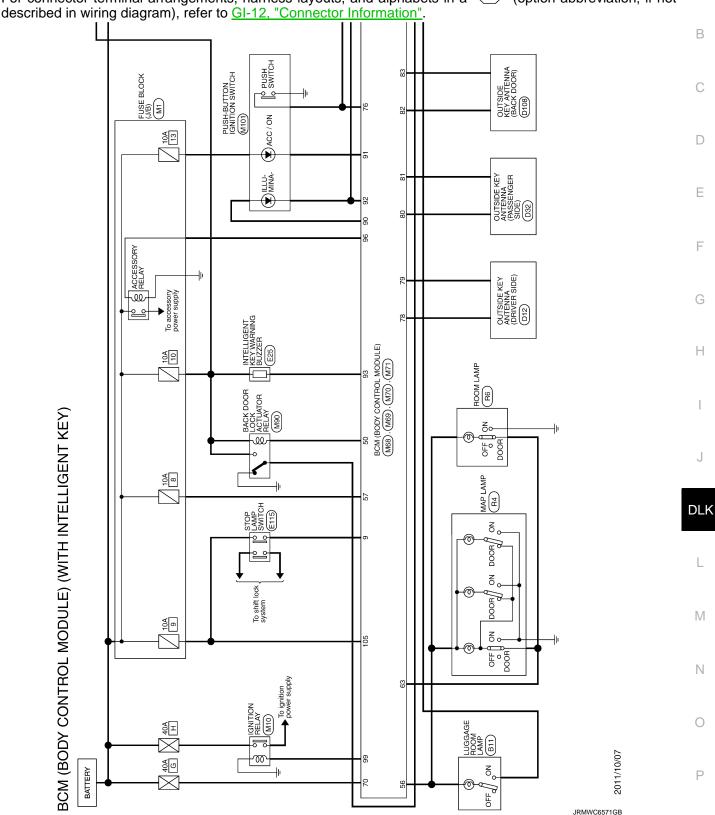
\*2: Manual air conditioner

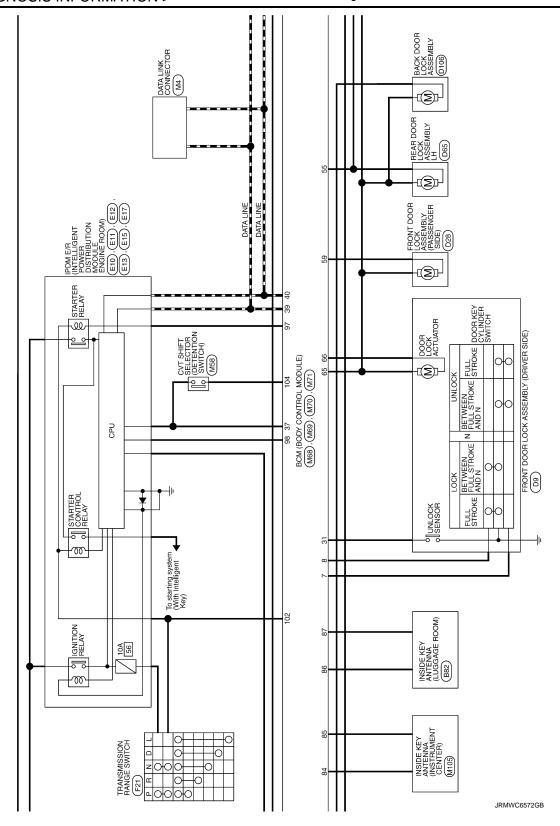
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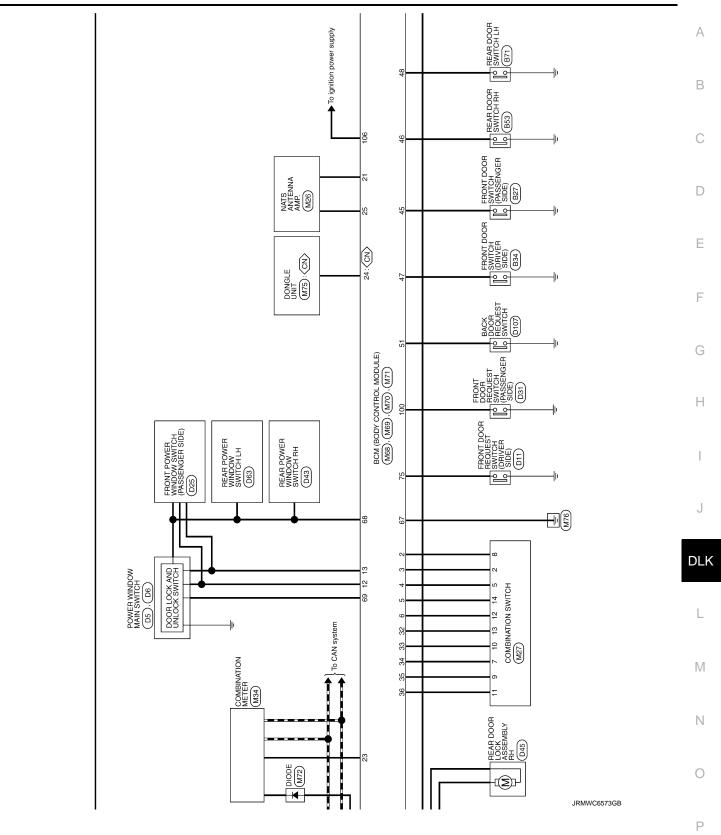
Α

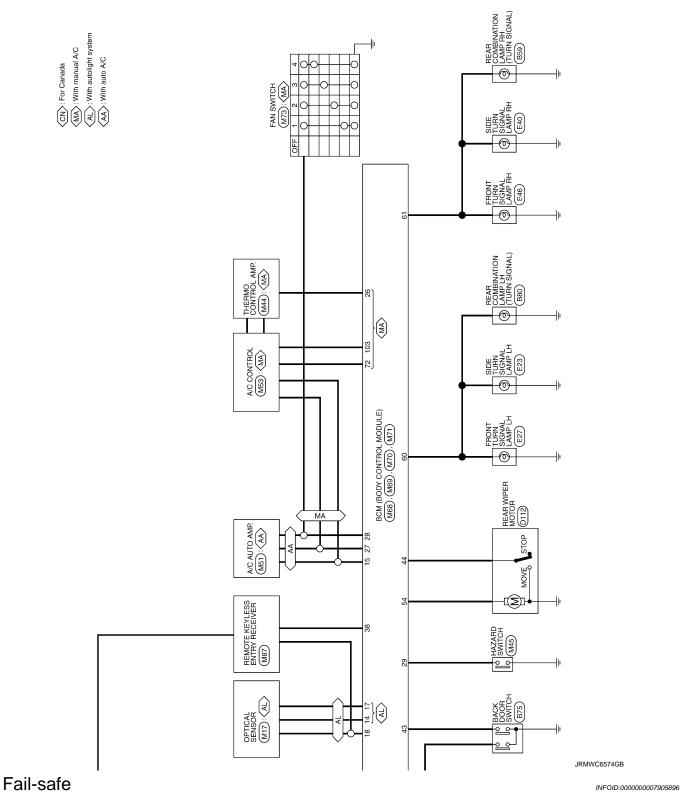
## Wiring Diagram - BCM -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not









FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

#### < ECU DIAGNOSIS INFORMATION >

#### [WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  • Starter relay control signal  • Starter relay status signal (CAN)
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilled Power position changes to ACC Receives engine status signal (CAN)
B26F1: IGN RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled  Ignition switch ON signal (CAN: Transmitted from BCM): ON  Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON
B26F2: IGN RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled Ignition switch ON signal (CAN: Transmitted from BCM): OFF Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF
B26F3: START CONT RLY ON	Inhibit engine cranking	When the following conditions are fulfilled  • Starter control relay signal (CAN: Transmitted from BCM): OFF  • Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF
B26F4: START CONT RLY OFF	Inhibit engine cranking	When the following conditions are fulfilled  • Starter control relay signal (CAN: Transmitted from BCM): ON  • Starter control relay signal (CAN: Transmitted from IPDM E/R): ON
B26F7: BCM	Inhibit engine cranking by Intelligent Key sys- tem	When room antenna and luggage room antenna functions normally

#### 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

- More than 1 minute is passed after the rear wiper stop.
- 2. Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

# FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

#### NOTE:

When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

## DTC Inspection Priority Chart

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

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

**DLK-119** 

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INFOID:0000000007905897

#### < ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Priority	DTC
3	B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI-SCANNING B2196: DONGLE NG B2198: NATS ANTENNA AMP
4	<ul> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSI STATUS</li> <li>B2604: PNP/CLUTCH SW</li> <li>B2605: PNP/CLUTCH SW</li> <li>B2605: PNP/CLUTCH SW</li> <li>B2608: STARTER RELAY</li> <li>B2607: ENG STATE SIG LOST</li> <li>B2614: BCM</li> <li>B2615: BCM</li> <li>B2616: BCM</li> <li>B2618: BCM</li> <li>B2617: IGN RELAY OFF</li> <li>B2667: IGN RELAY ON</li> <li>B26673: START CONT RLY ON</li> <li>B26675: BCM</li> <li>B2676: BCM</li> <li>B2677: BCM</li> <li>B2677: BCM</li> <li>B2678: BCM</li> <li>B2679: VHCL SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED</li> </ul>
5	<ul> <li>C1704: LOW PRESSURE FL</li> <li>C1705: LOW PRESSURE FR</li> <li>C1706: LOW PRESSURE RR</li> <li>C1707: LOW PRESSURE RL</li> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RR</li> </ul>
6	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA
7	B2626: OUTSIDE ANTENNA     B2627: OUTSIDE ANTENNA     B2628: OUTSIDE ANTENNA

DTC Index

#### 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 <a href="BCS-20">BCS-20</a>. "COM-MON ITEM: CONSULT Function (BCM - COMMON ITEM)".

< 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
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-40
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-41
U0415: VEHICLE SPEED	_	_	×	_	BCS-42
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-38
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-40
B2195: ANTI-SCANNING	×	_	_	_	SEC-41
B2196: DONGLE NG	×	_	_	_	SEC-42
B2198: NATS ANTENNA AMP	×	_	_	_	SEC-44
B2555: STOP LAMP	_	×	×	_	SEC-48
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-50
B2557: VEHICLE SPEED	_	×	×	_	SEC-52
B2562: LOW VOLTAGE	_	×	_	_	BCS-43
B2601: SHIFT POSITION	_	×	×	_	SEC-53
B2602: SHIFT POSITION	_	×	×	_	SEC-56
B2603: SHIFT POSI STATUS	_	×	×	_	SEC-59
B2604: PNP/CLUTCH SW	_	×	×	_	SEC-64
B2605: PNP/CLUTCH SW	_	×	×		SEC-67
B2608: STARTER RELAY	×	×	×	_	SEC-69
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-71
B2614: BCM	_	×	×	_	PCS-75
B2615: BCM	_	×	×	_	PCS-78
B2616: BCM	_	×	×	_	PCS-81
B2618: BCM	_	×	×	_	PCS-84
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-85
B2621: INSIDE ANTENNA	_	×	_	_	DLK-44
B2622: INSIDE ANTENNA	_	×	_	_	DLK-46
B2626: OUTSIDE ANTENNA	_	×	_	_	DLK-50
B2627: OUTSIDE ANTENNA	_	×	_	_	DLK-48
B2628: OUTSIDE ANTENNA	_	×	_	_	DLK-52
B26F1: IGN RELAY OFF	×	×	×	_	PCS-87
B26F2: IGN RELAY ON	×	×	×	_	PCS-89
B26F3: START CONT RLY ON	×	×	×	_	SEC-72
B26F4: START CONT RLY OFF	×	×	×	_	SEC-73
B26F6: BCM	_	×	×	_	PCS-91
B26F7: BCM	×	×	×	_	SEC-75
B26F8: BCM	_	×	×	_	SEC-76
B26FC: KEY REGISTRATION	_	×	×	_	SEC-77

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### < ECU DIAGNOSIS INFORMATION >

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
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	WT-22
C1706: LOW PRESSURE RR	_	_	_	×	<u> </u>
C1707: LOW PRESSURE RL	_	_	_	×	
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	WT-24
C1710: [NO DATA] RR	_	_	_	×	<u>VV 1-24</u>
C1711: [NO DATA] RL	_	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-27
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>vv 1-27</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-29</u>

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

< STIVIP TOWI DIAGNOSIS >		
SYMPTOM DIAGNOSIS		А
DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND U		$\wedge$
SWITCH		
ALL DOOR		В
ALL DOOR : Description	NFOID:00000000007772841	С
All doors do not lock/unlock using door lock and unlock switch.		
ALL DOOR : Diagnosis Procedure	NFOID:00000000007772842	D
1. CHECK POWER SUPPLY AND GROUND CIRCUIT		
Check power supply and ground circuit.		Е
Refer to <u>DLK-54, "BCM (BODY CONTROL MODULE)</u> : <u>Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u>		
YES >> GO TO 2.		F
NO >> Repair or replace the malfunctioning parts.		
2.CHECK DOOR LOCK AND UNLOCK SWITCH		0
Check door lock and unlock switch.  • Driver side: Refer to DLK-59, "DRIVER SIDE: Component Function Check".		G
Passenger side: Refer to <u>DLK-61</u> , " <u>PASSENGER SIDE</u> : Component Function Check".		
Is the inspection result normal?		Н
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.		
3. CHECK DOOR LOCK ACTUATOR		
Check front door lock assembly (driver side). Refer to <u>DLK-187</u> , " <u>DOOR LOCK</u> : <u>Removal and Installation</u> ".		1
Is the inspection result normal?		
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.		
4.CONFIRM THE OPERATION	D	DLK
Confirm the operation again.		
Is the result normal?		L
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".  NO >> GO TO 1.		
DRIVER SIDE		M
DRIVER SIDE : Description	NFOID:0000000007772843	
·		Ν
Driver side door does not lock/unlock using door lock and unlock switch.		
DRIVER SIDE : Diagnosis Procedure	NFOID:00000000007772844	0
1. CHECK DOOR LOCK ACTUATOR		
Check front door lock assembly (driver side).  Refer to DLK-64, "DRIVER SIDE: Component Function Check".		Р
Is the inspection result normal?		
YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.		
2.CONFIRM THE OPERATION		
Confirm the operation again.		

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

Is the result normal?

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

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000007772845

Passenger side door does not lock/unlock using door lock and unlock switch.

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000007772846

## 1. CHECK DOOR LOCK ACTUATOR

Check front door lock assembly (passenger side).

Refer to <u>DLK-65</u>, "PASSENGER SIDE: 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-41, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

**REAR LH: Description** 

INFOID:0000000007772847

Rear LH side door does not lock/unlock using door lock and unlock switch.

**REAR LH: Diagnosis Procedure** 

INFOID:0000000007772848

## 1. CHECK DOOR LOCK ACTUATOR

Check rear door lock assembly LH.

Refer to DLK-66, "REAR LH: 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-41, "Intermittent Incident".

NO >> GO TO 1.

REAR RH

**REAR RH**: Description

INFOID:0000000007772849

Rear RH side door does not lock/unlock using door lock and unlock switch.

**REAR RH: Diagnosis Procedure** 

INFOID:0000000007772850

## 1.CHECK DOOR LOCK ACTUATOR

Check rear door lock assembly RH.

Refer to DLK-66, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

Revision: 2011 November DLK-124 2012 CUBE

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH SYMPTOM DIAGNOSIS - [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
2.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-41, "Intermitt NO >> GO TO 1.	ent Incident".
BACK DOOR	
BACK DOOR : Description	INFOID:000000007772851
Back door does not lock/unlock using door lock and unlock switch	n.
BACK DOOR : Diagnosis Procedure	INFOID:0000000007772852
1. CHECK BACK DOOR LOCK ACTUATOR RELAY	
Check back door lock actuator relay.  Refer to DLK-70, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.	
2. CHECK DOOR LOCK ACTUATOR	
Check back door lock assembly.  Refer to DLK-67, "BACK DOOR: 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 inspection result normal?  YES >> Check intermittent incident. Refer to GI-41, "Intermitt	ent Incident"
NO >> GO TO 1.	<u></u>

Revision: 2011 November DLK-125 2012 CUBE

### DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERA-**TION**

### **Diagnosis Procedure**

INFOID:0000000007772853

## 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Refer to DLK-123, "ALL DOOR: Diagnosis Procedure".

## 2. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to DLK-73, "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-41, "Intermittent Incident".

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS > DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH Α **ALL DOOR** ALL DOOR: Description INFOID:0000000007772854 В All doors do not lock/unlock using all door request switches. ALL DOOR: Diagnosis Procedure INFOID:0000000007772855 CHECK REMOTE KEYLESS ENTRY FUNCTION Check remote keyless entry function. D Does door lock/unlock with Intelligent Key button? YES >> GO TO 2. NO >> Refer to DLK-25, "REMOTE KEYLESS ENTRY FUNCTION: System Description". Е 2.check "Lock/unlock by I-key" setting in "work support" Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT". F Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 3. NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT". 3.check door switch Check door switch. Н Refer to DLK-55, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". DLK NO >> GO TO 1. DRIVER SIDE **DRIVER SIDE: Description** INFOID:0000000007772856 All doors do not lock/unlock using driver side door request switch. M DRIVER SIDE: Diagnosis Procedure INFOID:0000000007772857  ${f 1}$  .CHECK DRIVER SIDE DOOR REQUEST SWITCH Check driver side door request switch. Refer to DLK-79, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK OUTSIDE KEY ANTENNA Check outside key antenna (driver side). Refer to DLK-50, "DTC Logic". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CONFIRM THE OPERATION

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH TOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

Confirm the operation again. Is the result normal?

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

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000007772858

All doors do not lock/unlock using passenger side door request switch.

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000007772859

## 1. CHECK PASSENGER SIDE DOOR REQUEST SWITCH

Check passenger side door request switch.

Refer to DLK-79, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK OUTSIDE KEY ANTENNA

Check outside key antenna (passenger side).

Refer to DLK-48, "DTC Logic".

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-41, "Intermittent Incident".

NO >> GO TO 1.

**BACK DOOR** 

**BACK DOOR: Description** 

INFOID:0000000007772860

All doors do not lock/unlock using back door request switch.

BACK DOOR: Diagnosis Procedure

INFOID:0000000007772861

## 1. CHECK BACK DOOR REQUEST SWITCH

Check back door request switch.

Refer to DLK-77, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CHECK OUTSIDE KEY ANTENNA

Check outside key antenna (back door).

Refer to <u>DLK-52</u>, "<u>DTC Logic</u>".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### ${f 3.}$ CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

Revision: 2011 November DLK-128 2012 CUBE

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

NO >> GO TO 1.

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## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

## Diagnosis Procedure

INFOID:0000000007772862

## 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Refer to <u>DLK-123</u>, "ALL <u>DOOR</u>: <u>Diagnosis Procedure"</u>.

## 2. CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.

Refer to DLK-75, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.check intelligent key

Check Intelligent Key.

Refer to DLK-85, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

#### SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000007772863 1. CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT" В Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)". C Is the inspection result normal? YES >> GO TO 2. NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT". 2.CONFIRM THE OPERATION D Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1. F Н J DLK M Ν

Revision: 2011 November DLK-131 2012 CUBE

### VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

## VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-ATF

### Diagnosis Procedure

INFOID:0000000007772864

### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

>> Refer to DLK-123, "ALL DOOR: Diagnosis Procedure". NO

2.check "automatic lock/unlock select" setting in "work support"

Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

3.check "automatic door lock select" setting in "work support"

Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

## 4. CHECK VEHICLE SPEED SIGNAL

Check combination meter for DTC.

Refer to MWI-57, "DTC Index".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

## IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OP	ERATE	٨
Diagnosis Procedure	D:0000000007772865	$\wedge$
1. CHECK POWER DOOR LOCK OPERATION		В
Check power door lock operation.		
Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.		С
NO >> Refer to <u>DLK-123</u> , "ALL <u>DOOR</u> : <u>Diagnosis Procedure"</u> .		
2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"		D
Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".  Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".		
Is the inspection result normal?		Е
YES >> GO TO 3.  NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".		
3. CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"		F
Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".		
Refer to <u>DLK-38</u> , " <u>DOOR LOCK</u> : <u>CONSULT Function (BCM - DOOR LOCK)</u> ".  Is the inspection result normal?		G
YES >> GO TO 4.		
NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT". $\bf 4.$ CHECK BCM		Н
Check BCM for DTC.		
Refer to BCS-75, "DTC Index".		I
Is the inspection result normal?  YES >> GO TO 5.		
NO >> Repair or replace the malfunctioning parts.		J
5.CONFIRM THE OPERATION		
Confirm the operation again.		DLK
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> .		
NO >> GO TO 1.		L
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# P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OP-FRATE

### Diagnosis Procedure

INFOID:0000000007772866

### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Refer to DLK-123, "ALL DOOR : Diagnosis Procedure".

2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"

Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

3.check "automatic door lock select" setting in "work support"

Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

4.CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"

Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-38, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".

#### CHECK TCM

Check TCM for DTC.

Refer to TM-179, "DTC Index".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

### 6.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

#### **AUTO DOOR LOCK OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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## AUTO DOOR LOCK OPERATION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000007772867 1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT" В Check "AUTO LOCK SET" setting in "WORK SUPPORT". Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)". C Is the inspection result normal? YES >> GO TO 2. NO >> Set "AUTO LOCK SET" setting in "WORK SUPPORT". D 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1. F Н J DLK M Ν

Revision: 2011 November DLK-135 2012 CUBE

## HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### HAZARD AND HORN REMINDER DOES NOT OPERATE

### Diagnosis Procedure

INFOID:0000000007772868

## 1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"

Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".

Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT".

2.check "horn with keyless lock" setting in "work support".

Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".

Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".

### 3. CHECK POWER POSITION

Check if ignition switch position is changing or not.

#### Does ignition switch position change?

YES >> GO TO 4.

NO >> Check BCM for DTC. Refer to BCS-75, "DTC Index".

#### 4.CHECK HAZARD FUNCTION

Check hazard function.

Refer to DLK-88, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### 5. CHECK HORN FUNCTION

Check horn function.

Refer to SEC-92, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-55, "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?

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

## HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HAZARD AND BUZZER REMINDER DOES NOT OPERATE	
Diagnosis Procedure	INFOID:0000000007772869
1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"	
Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".  Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Set "HAZARD ANSWER BACK" in "WORK SUPPORT".	
2.CHECK "ANS BACK I-KEY LOCK" SETTING IN "WORK SUPPORT"	
Check "ANS BACK I-KEY LOCK" setting in "WORK SUPPORT".  Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Set "ANS BACK I-KEY LOCK" in "WORK SUPPORT".	
3. CHECK "ANS BACK I-KEY UNLOCK" SETTING IN "WORK SUPPORT"	
Check "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".  Refer to DLK-40. "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	
Is the inspection result normal?	
YES >> GO TO 4.  NO >> Set "ANS BACK I-KEY UNLOCK" in "WORK SUPPORT".	
4.CHECK POWER POSITION	
Check if ignition switch position is changing or not.	
Does ignition switch position change?	
YES >> GO TO 5.  NO >> Check BCM for DTC. Refer to BCS-75, "DTC Index".	
5. CHECK HAZARD FUNCTION	
Check hazard function.  Refer to DLK-88, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	
6.check door switch	
Check door switch. Refer to DLK-55, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts.	
7. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to <u>DLK-83</u> , "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 8. NO >> Repair or replace the malfunctioning parts.	
8.CONFIRM THE OPERATION	
Confirm the operation again.	
<u>Is the result normal?</u>	

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

## HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## **KEY REMINDER FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

KEY REMINDER FUNCTION DOES NOT OPERATE	
Diagnosis Procedure	INFOID:0000000007772870
1. CHECK "ANTI KEY LOCK IN FUNCTI" SETTING IN "WORK SUPPORT"	
Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".  Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	
Is the inspection result normal?	
YES >> GO TO 2.  NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".	
2.CHECK DOOR SWITCH	
Check door switch. Refer to DLK-55, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.  3.CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	
• Instrument center: Refer to <u>DLK-44, "DTC Logic"</u> .	
Luggage room: Refer to <u>DLK-46, "DTC Logic"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
4.CHECK UNLOCK SENSOR	
Check unlock sensor.  Refer to <u>DLK-81, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
NO >> Repair or replace the malfunctioning parts.  5.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1.	

### OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## OFF POSITION WARNING DOES NOT OPERATE

## Diagnosis Procedure

INFOID:0000000007772871

## 1. CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

NO >> Check BCM for DTC. Refer to BCS-75, "DTC Index".

2.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-86, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-83, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4. CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-55, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

## P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Diagnosis Procedure	INFOID:00000000077728
1.CHECK POWER POSITION	
Check if ignition switch position is changing or not.  Does ignition switch position change?	
YES >> GO TO 2.	
NO >> Check BCM for DTC. Refer to BCS-75, "DTC Index".	
2.check detention switch	
Check BCM for DTC. Refer to <u>BCS-75, "DTC_Index"</u> .	
ls the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to <u>DLK-83, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
4.CHECK BUZZER (COMBINATION METER)	
Check buzzer (combination meter). Refer to <a href="DLK-86">DLK-86</a> , "Component Function Check".	
s the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5.CHECK DOOR SWITCH	
Check door switch (driver side).	
Refer to DLK-55, "Component Function Check".	
s the inspection result normal?	
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	
6.CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	
Instrument center: Refer to <u>DLK-44, "DTC Logic"</u> .	
<ul> <li>Luggage room: Refer to <u>DLK-46, "DTC Logic"</u>.</li> </ul>	
ls the inspection result normal?	
YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts.	
7.CHECK KEY WARNING LAMP	
Check key warning lamp.	
Refer to DLK-87, "Component Function Check".  Is the inspection result normal?	
YES >> GO TO 8.	
NO >> Repair or replace the malfunctioning parts.	
3.CHECK SHIFT P WARNING LAMP	
Check shift P warning lamp.	

### P POSITION WARNING DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace the malfunctioning parts.

## 9. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

### **ACC WARNING DOES NOT OPERATE**

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## [WITH INTELLIGENT KEY SYSTEM]

ACC WARNING DOES NOT OPERATE	٨
Diagnosis Procedure	А
1. CHECK POWER POSITION	В
Check if ignition switch position is changing or not.	
Does ignition switch position change?	
YES >> GO TO 2.	С
NO >> Check BCM for DTC. Refer to <u>BCS-75, "DTC_Index"</u> .	
2.CHECK BUZZER (COMBINATION METER)	D
Check buzzer (combination meter).	
Refer to DLK-86, "Component Function Check".	
Is the inspection result normal?	E
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.CHECK DETENTION SWITCH	F
Check BCM for DTC.	
Refer to BCS-75, "DTC Index".	G
Is the inspection result normal?	O
YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.	
4.CONFIRM THE OPERATION	Н
Confirm the operation again.	
Is the result normal?	I
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".	
NO >> GO TO 1.	1
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Revision: 2011 November DLK-143 2012 CUBE

#### TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### TAKE AWAY WARNING DOES NOT OPERATE

## Diagnosis Procedure

INFOID:0000000007772874

### 1. CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

NO >> Check BCM for DTC. Refer to BCS-75, "DTC Index".

## 2.check door switch

Check door switch.

Refer to DLK-55, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Instrument center: Refer to DLK-44, "DTC Logic".
- Luggage room: Refer to DLK-46, "DTC Logic".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-86, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## ${f 5.}$ CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-83, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.CHECK KEY WARNING LAMP

Check key warning lamp.

Refer to MWI-4, "Work flow".

#### 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?

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

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPE	RATE
Diagnosis Procedure	INFOID:0000000007772875
1. CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"	В
Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".  Refer to DLK-40, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".  Is the inspection result normal?	C
YES $>>$ GO TO 2. NO $>>$ Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". 2.CHECK INTELLIGENT KEY	D
Check Intelligent key. Refer to DLK-85, "Component Function Check".	
Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.  3. CHECK KEY WARNING LAMP	F
Check key warning lamp. Refer to DLK-87, "Component Function Check". Is the inspection result normal?	G
YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.  4.CHECK INSIDE KEY ANTENNA	Н
Check inside key antenna.  Instrument center: Refer to <a href="DLK-44">DLK-44</a> , "DTC Logic".  Luggage room: Refer to <a href="DLK-46">DLK-46</a> , "DTC Logic".	I
Is the inspection result normal?  YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.	J
5.CONFIRM THE OPERATION	DL
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".  NO >> GO TO 1.	L
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#### DOOR LOCK OPERATION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR LOCK OPERATION WARNING DOES NOT OPERATE

## Diagnosis Procedure

INFOID:0000000007772876

## 1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Does door lock/unlock using door request switch?

YES >> GO TO 2.

NO >> Refer to <u>DLK-127</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

## 2.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-83, "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-41, "Intermittent Incident".

NO >> GO TO 1.

### **KEY ID WARNING DOES NOT OPERATE**

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[WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]	
KEY ID WARNING DOES NOT OPERATE		А
Diagnosis Procedure	INFOID:0000000007772877	$\wedge$
1.CHECK INTELLIGENT KEY		В
Check Intelligent Key. Refer to DLK-85, "Component Function Check".		
Is the inspection result normal? YES >> GO TO 2.		С
NO >> Repair or replace the malfunctioning parts.		
2.CHECK KEY WARNING LAMP		D
Check key warning lamp.  Refer to <a href="https://doi.org/leg.2012/bl/bl/bl/bl/bl/bl/bl/bl/bl/bl/bl/bl/bl/&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;Е&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Is the inspection result normal?&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;_&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;YES &gt;&gt; GO TO 3. NO &gt;&gt; Repair or replace the malfunctioning parts.&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;F&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;3.CONFIRM THE OPERATION&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Confirm the operation again.  &lt;u&gt;Is the result normal?&lt;/u&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;G&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;YES &gt;&gt; Check intermittent incident. Refer to GI-41, " intermittent<="" td=""><td>Incident".</td><td></td></a>	Incident".	
NO >> GO TO 1.		Н
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#### **KEY WARNING LAMP DOES NOT ILLUMINATE**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## KEY WARNING LAMP DOES NOT ILLUMINATE

## Diagnosis Procedure

INFOID:0000000007772878

## 1. CHECK KEY WARNING LAMP

Check key warning lamp.

Refer to DLK-87, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2. CONFIRM THE OPERATION

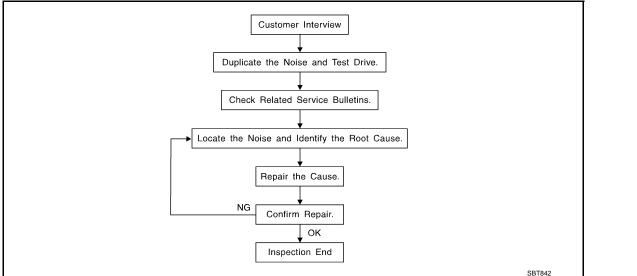
Confirm the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <a href="DLK-153">DLK-153</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics
  are provided so the customer, service adviser and technician are all speaking the same language when
  defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces

= higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping

- Creak (Like walking on an old wooden floor)

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  - Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
  - Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
- Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
  - Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
  - Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
- Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician
  may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed.

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#### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

#### LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- Removing the components in the area that is are suspected to be the cause of the noise.
   Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.
- Placing a piece of paper between components that are suspected to be the cause of the noise.
- Looking for loose components and contact marks.
   Refer to <u>DLK-151</u>, "Inspection Procedure".

#### REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- Separate components by repositioning or loosening and retightening the component, if possible.
- Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts Department.

#### **CAUTION:**

## Never use excessive force as many components are constructed of plastic and may be damaged.

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005:  $100 \times 135$  mm  $(3.94 \times 5.31$  in)/76884-71L01:  $60 \times 85$  mm  $(2.36 \times 3.35$  in)/76884-

71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick,  $30 \times 50$  mm (1.18  $\times$  1.97 in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

 $68370-4B000: 15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in}) \text{ pad/}68239-13E00: 5 \text{ mm} (0.20 \text{ in}) \text{ wide tape roll}$ 

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

**UHMW (TEFLON) TAPE** 

[WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS > Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Α Used in place of UHMW tape that is be visible or does not fit. Will only last a few months. SILICONE SPRAY Used when grease cannot be applied. В **DUCT TAPE** Used to eliminate movement. CONFIRM THE REPAIR Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet. Inspection Procedure D INFOID:0000000007772880 Refer to Table of Contents for specific component removal and installation information. INSTRUMENT PANEL Е Most incidents are caused by contact and movement between: 1. The cluster lid A and instrument panel F Acrylic lens and combination meter housing Instrument panel to front pillar garnish Instrument panel to windshield Instrument panel mounting pins Wiring harnesses behind the combination meter 7. A/C defroster duct and duct joint These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness. CAUTION: Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible. CENTER CONSOLE Components to pay attention to include: 1. Shifter assembly cover to finisher A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. DOORS Pay attention to the following: Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher N Wiring harnesses tapping 4. Door striker out of alignment causing a popping noise on starts and stops Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise. TRUNK Р Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer.

In addition look for the following:

- 1. Trunk lid dumpers out of adjustment
- Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

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#### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- Sunvisor shaft shaking in the holder
- Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### **SEATS**

When isolating seat noise it's important to note the position the seats in and the load placed on the seat when the noise occurs. These conditions should be duplicated when verifying and isolating the cause of the noise. Cause of seat noise include:

- Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### **Diagnostic Worksheet**

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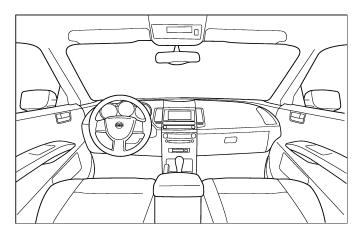


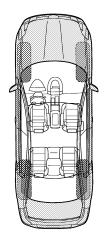
## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

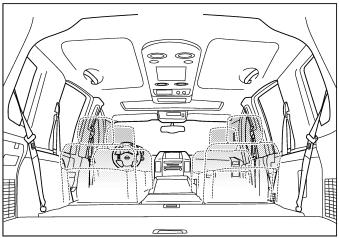
#### Dear Nissan Customer:

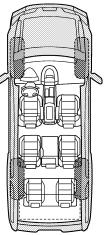
We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)
The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.









Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Briefly describe the location where the	noise occurs:			
II. WHEN DOES IT OCCUR? (please of anytime ☐ 1st time in the morning ☐ only when it is cold outside ☐ only when it is hot outside	check the boxes that apply)  after sitting out in the rain when it is raining or wet dry or dusty conditions other:			
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE			
through driveways over rough roads over speed bumps only about mph on acceleration coming to a stop on turns: left, right or either (circle) with passengers or cargo other:	squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor) rattle (like shaking a baby rattle) knock (like a knock at the door) tick (like a clock second hand) thump (heavy, muffled knock noise) buzz (like a bumble bee)			
after driving miles or r	minutes			
after driving miles or r  TO BE COMPLETED BY DEALERSH  Test Drive Notes:				
TO BE COMPLETED BY DEALERSH				
TO BE COMPLETED BY DEALERSH	YES NO Initials of person performing			

## **PRECAUTION**

#### **PRECAUTIONS**

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

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

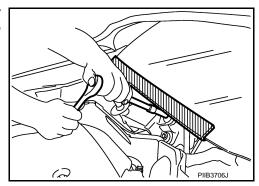
#### **WARNING:**

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

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



Work

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operational.
- · Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

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## **PREPARATION**

## **PREPARATION**

## Special Service Tools

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

Ta (Ken T	Description	
(J-39570) Chassis ear	SIIA0993E	Locates the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairs the cause of noise

## **Commercial Service Tools**

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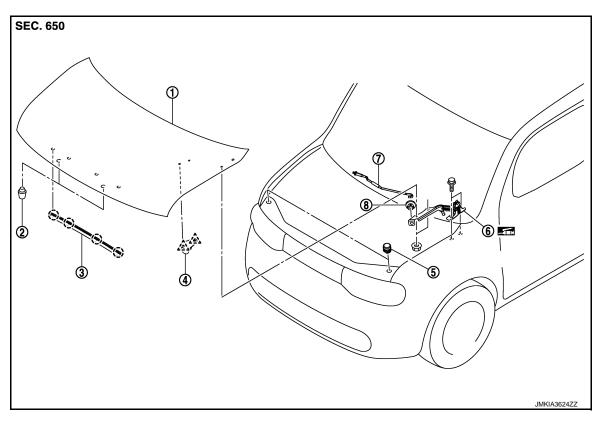
	Tool name	Description
Engine ear	SIIA0995E	Locates the noise
Remover tool	JMKIA3050ZZ	Removes the clips, pawls, and metal clips
Power tool	PIIB1407E	

## REMOVAL AND INSTALLATION

HOOD

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 



Hood bumper rubber (hood side)

- Hood assembly
- Clamp
- Hood support rod
- ( ): Clip

Hood bumper rubber (body side) 5. Grommet

8.

- Radiator core seal 3.
- 6. Hood hinge

 $/^{\cdot}$ : Pawl

Refer to GI-4, "Components" for symbols in the figure.

#### HOOD ASSEMBLY: Removal and Installation

**REMOVAL** 

1. Support hood lock assembly with the proper material to prevent it from falling.

**WARNING:** 

Bodily injury may occur if no supporting rod is holding hood open when removing hood stay.

Remove hood hinge mounting nuts on the hood to remove the hood assembly. CAUTION:

Perform work with 2 workers, because of its heavy weight.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- · Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the heads of hood hinge mounting bolts and nuts.

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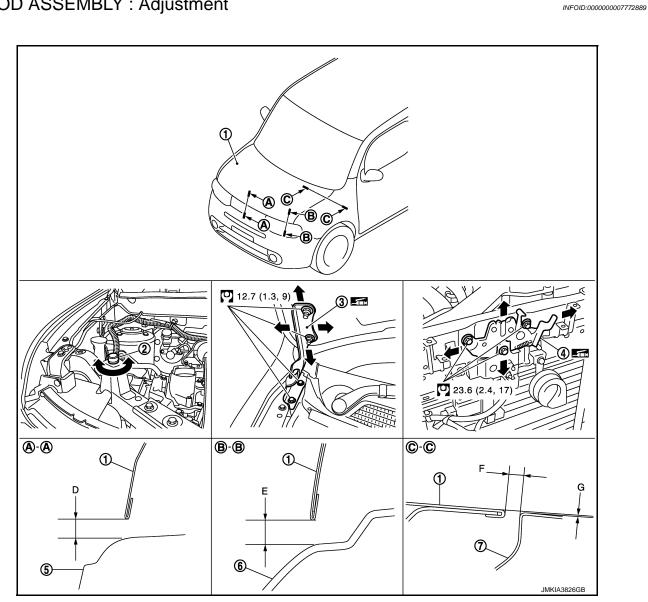
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**DLK-157** Revision: 2011 November 2012 CUBE • After installing, perform hood fitting adjustment. Refer to DLK-158, "HOOD ASSEMBLY: Adjustment".

**HOOD ASSEMBLY: Adjustment** 



- Hood assembly
- Hood lock assembly
- Hood bumper rubber 3.
- Front grille

Front combination lamp

Hood hinge

Front fender

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between hood and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

					Unit: mm (in)
Portion	Standard	Difference (RH/LH)			
Hood – Front grille	<b>A</b> – <b>A</b>	D	Clearance	6.0 - 10.0 (0.236 - 0.394)	< 2.0 (0.079)
Hood – Front combination lamp	B – B	Ε	Clearance	6.0 - 10.0 (0.236 - 0.394)	< 2.0 (0.079)
Hood – Front fender	C – C	F	Clearance	2.5 - 4.5 (0.098 - 0.177)	< 1.0 (0.039)
		G	Surface height	-1.0 -1.0 (-0.039 -0.039)	_

#### [WITH INTELLIGENT KEY SYSTEM]

- 1. Remove hood lock and adjust the surface height of hood, front grill and front fender according to the fitting standard dimension, by rotating hood bumper rubber (body side).
- Loosen hood hinge mounting nuts on the hood.
- Check that hood lock primary latch is securely engaged with striker by dropping hood from approximately 200 mm (7.874 in) height or by pressing lightly on the hood.
   CAUTION:

#### Never drop hood from a height of 300 mm (11.811 in) or more

- 4. Install as static closing face of hood is 94–490 N (9.6 50.0 kg, 21.1 110 lb).
- 5. After adjustment tighten lock bolts to the specified torque.

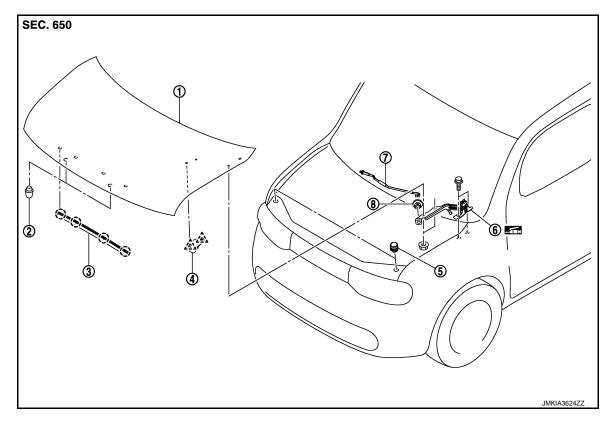
#### **CAUTION:**

- Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the heads of hood hinge mounting bolts and nuts.

**HOOD HINGE** 

**HOOD HINGE: Exploded View** 

INFOID:0000000007772890



- 1. Hood assembly
- Clamp
- Hood support rod
- 2. Hood bumper rubber (hood side)
- 5. Hood bumper rubber (body side)
- Grommet

- 3. Radiator core seal
- Hood hinge

(\_): Clip

,^∖ : Pawl

Refer to GI-4, "Components" for symbols in the figure.

#### **HOOD HINGE**: Removal and Installation

#### REMOVAL

- Remove hood assembly. Refer to <u>DLK-157</u>, "HOOD ASSEMBLY: Removal and Installation".
- Remove front fender. Refer to <u>DLK-164</u>, "<u>Removal and Installation</u>".

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- Remove cowl top. Refer to EXT-19, "Removal and Installation"
- Remove hood hinge mounting bolts, and then remove hood hinge.

#### **INSTALLATION**

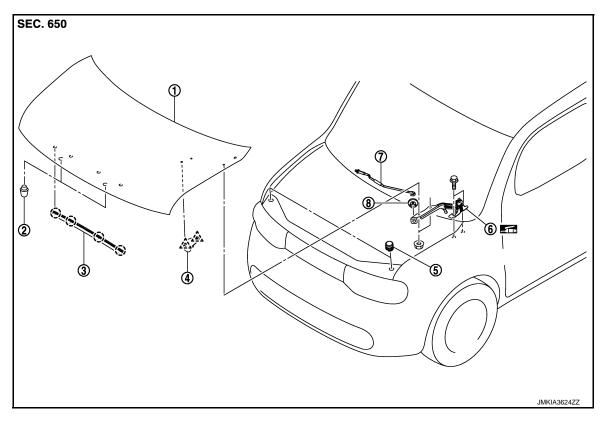
Install in the reverse order of removal.

#### **CAUTION:**

- Check hood hinge rotating part for poor lubrication. If necessary, apply grease.
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts
- After installation, perform hood fitting adjustment. Refer to DLK-158, "HOOD ASSEMBLY: Adjustment".

HOOD SUPPORT ROD

**HOOD SUPPORT ROD:** Exploded View



- 1. Hood assembly
- Clamp

( ): Clip ∠\_`\_: Pawl

- Hood support rod
- Hood bumper rubber (hood side)
- Hood bumper rubber (body side)
- Grommet

- 3. Radiator core seal
- Hood hinge 6.

Refer to GI-4, "Components" for symbols in the figure.

#### **HOOD SUPPORT ROD:** Removal and Installation

#### REMOVAL

Support hood assembly with a suitable material to prevent it from falling.

Bodily injury may occur if no supporting rod is holding the hood open when removing the hood support rod.

2. Pull hood support rod from grommet and remove.

#### **HOOD**

< REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

INSTALLATION

Install in the reverse order of removal.

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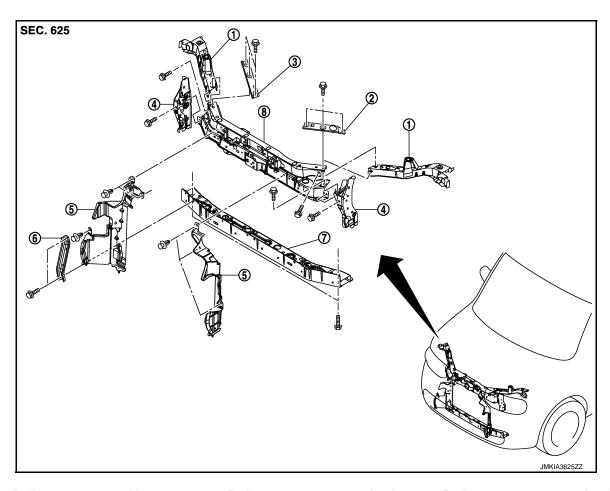
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#### RADIATOR CORE SUPPORT

Exploded View



- Radiator core support side
- 4. Radiator core reinforcement side
- 7. Radiator core support lower
- Radiator core support upper bracket 3. (LH)
- 5. Air guide
- 8. Radiator core support upper
- Radiator core support upper bracket (RH)
- 6. Radiator core lower stay

#### Removal and Installation

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## RADIATOR CORE SUPPORT UPPER REMOVAL

- Remove front bumper fascia and bumper reinforcement. Refer to <u>EXT-12</u>, "Removal and Installation".
- 2. Remove hood lock. Refer to <u>DLK-185, "Removal and Installation"</u>.
- Remove front combination lamps (LH/RH). Refer to <u>EXL-168</u>. "Removal and Installation".
- Remove air guide.
- 5. Remove horn. Refer to <a href="https://example.com/HRN-4">HRN-4</a>, "Removal and Installation".
- 6. Remove crash zone sensor. Refer to SR-21, "Removal and Installation".
- 7. Remove ambient sensor. Refer to <u>HAC-113, "Removal and Installation"</u>.
- 8. Disconnect all harness from radiator core support upper.
- 9. Remove air duct assembly. Refer to EM-24, "Removal and Installation".
- 10. Remove radiator core support upper bracket (LH/RH).
- 11. Remove mounting bolts, and then remove radiator core support upper.

#### **INSTALLATION**

#### **RADIATOR CORE SUPPORT**

#### < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

Install in the reverse order of removal.

#### **CAUTION:**

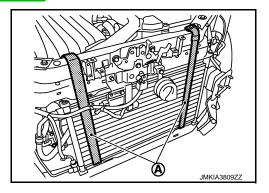
- · After installation, adjust the following parts.
- Front combination lamp: Refer to EXL-164, "Aiming Adjustment Procedure".

#### RADIATOR CORE SUPPORT LOWER

#### **REMOVAL**

- Remove front bumper fascia and bumper reinforcement. Refer to EXT-12, "Removal and Installation".
- 2. Remove air guide.
- Remove radiator core lower stay.
- 4. Remove clips of fender protector.
- Remove floor under cover. Refer to EXT-22, "Removal and Installation".
- 6. Use a belts (A) to suspend it to prevent it from falling. **CAUTION:**

Never damage radiator and condenser.



7. Remove mounting bolts, and then remove radiator core support lower.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- After installation, adjust the following parts.
- Front combination lamp: Refer to EXL-164, "Aiming Adjustment Procedure".

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**DLK-163** Revision: 2011 November 2012 CUBE

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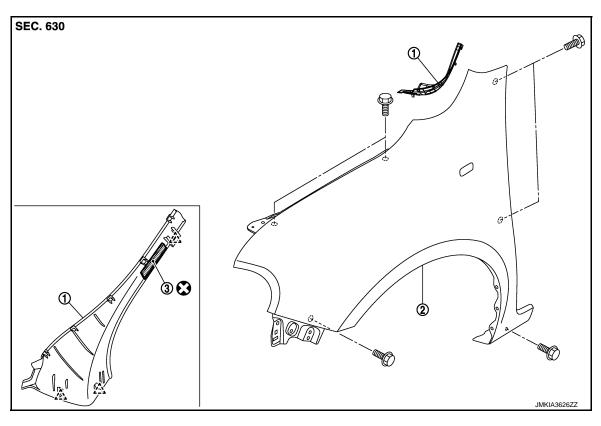
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#### FRONT FENDER

Exploded View



- 1. Front fender cover
- 2. Front fender assembly
- Doube-faced adhesive tape [t : 2.0 mm (0.079 in)]



Refer to GI-4, "Components" for symbols in the figure.

#### Removal and Installation

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#### **CAUTION:**

Use a shop cloth to protect the body from being damaged during removal and installation.

#### REMOVAL

- 1. Remove side turn signal lamp. Refer to EXL-175, "Removal and Installation".
- 2. Remove front grille. Refer to <a>EXT-17</a>, "Removal and Installation"</a>.
- 3. Remove front bumper fascia. Refer to <a href="EXT-12">EXT-12</a>, "Removal and Installation".
- 4. Remove front combination lamp. Refer to EXL-168, "Removal and Installation".
- 5. Remove clips and screws of fender protector. Refer to <u>EXT-21</u>, "FENDER PROTECTOR: Removal and Installation".
- 6. Remove front fender cover.
- Remove mounting bolts and remove front fender. CAUTION:

An viscous urethane foam is installed on the back surface of front fender. When removing the front fender, be careful to not deform the front fender while performing the procedure and removing the viscous urethane foam a little at a time.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

#### **FRONT FENDER**

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.
- After installation, adjust the following part.
- Hood assembly: Refer to <u>DLK-158</u>, "<u>HOOD ASSEMBLY: Adjustment</u>".
   Front door: Refer to <u>DLK-167</u>, "<u>DOOR ASSEMBLY: Adjustment</u>".
- Front combination lamp: Refer to EXL-163, "Description".

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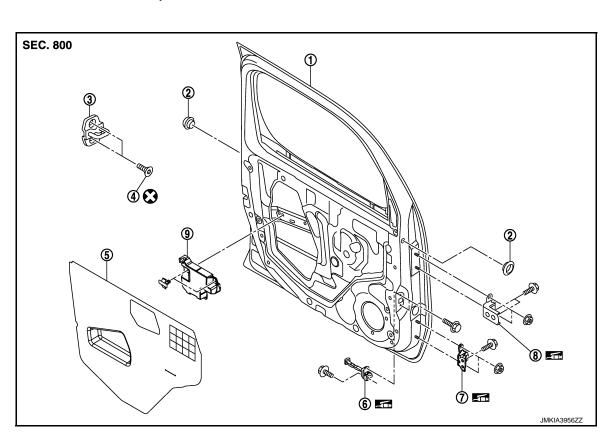
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# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View



- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- Grommet
- 5. Sealing screen
- 8. Door hinge (upper)
- 3. Door striker
- 6. Door check link

Refer to GI-4, "Components" for symbols in the figure.

#### DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- When removing and installing front door assembly, support door with a jack and shop cloth to protect door and body.

#### REMOVAL

- 1. Remove mounting bolts of door check link on the vehicle.
- 2. Remove front door harness grommet, and then pull out the harness from the vehicle.
- Disconnect front door harness connector.
- 4. Remove door hinge mounting nuts (door side), and then remove door assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- · Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-167</u>, "<u>DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

DOOR ASSEMBLY: Adjustment

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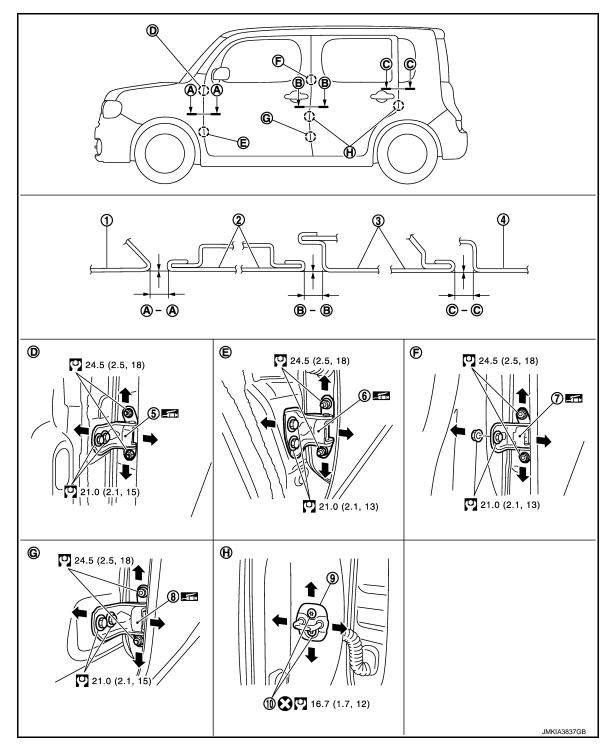
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- 1. Front fender
- Body side outer
- 7. Rear door hinge (upper)
- 10. TORX bolt

- 2. Front door
- Front door hinge (upper)
- 8. Rear door hinge (lower)
- Rear door
- 6. Front door hinge (lower)
- 9. Door striker

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and surface height between front door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

#### [WITH INTELLIGENT KEY SYSTEM]

Unit:mn					
Portion		Clearance	Surface height		
Front fender – Front door	<b>A</b> – <b>A</b>	3.5 - 5.5 (0.138 - 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)		
Front door – Rear door	B – B	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)		

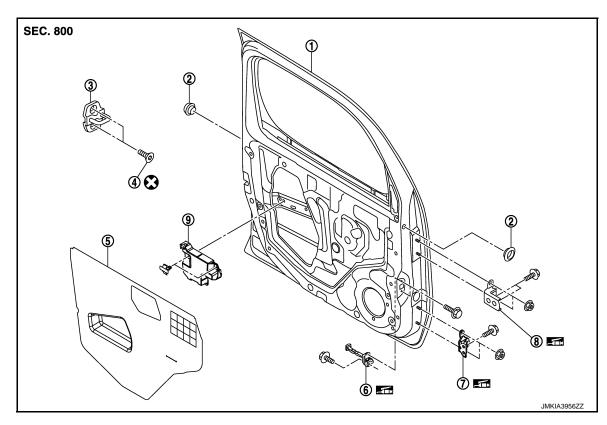
- Remove front fender. Refer to <u>DLK-164, "Removal and Installation"</u>.
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of front door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting bolts on body side.
- Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
- 7. After adjustment tighten bolts and nuts to the specified torque.
- 8. Install front fender. Refer to refer to <a href="DLK-164">DLK-164</a>, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction.

#### DOOR STRIKER

DOOR STRIKER: Exploded View



- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- 2. Grommet
- 5. Sealing screen
- 8. Door hinge (upper)
- 3. Door striker
- 6. Door check link

Refer to GI-4, "Components" for symbols in the figure.

DOOR STRIKER: Removal and Installation

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**REMOVAL** 

Remove TORX bolts, and then remove door striker.

#### **INSTALLATION**

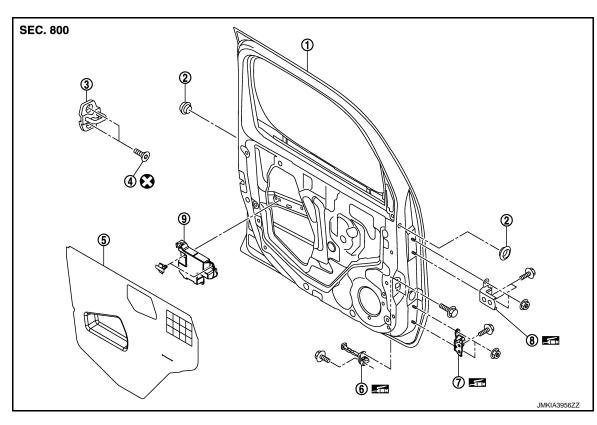
Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to <u>DLK-167, "DOOR ASSEMBLY:</u> Adjustment".

DOOR HINGE

DOOR HINGE: Exploded View



- 1. Front door panel
- 2. Grommet

3 Door striker

4. TORX bolt 5. Sealing screen Door check link

- 7. Door hinge (lower)
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

#### DOOR HINGE: Removal and Installation

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#### REMOVAL

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- When removing and installing front door assembly, support door with a jack and shop cloth to protect door and body.
- Remove front fender. Refer to <u>DLK-164</u>, "Removal and Installation". 1.
- Remove front door assembly. Refer to <u>DLK-166</u>, "DOOR ASSEMBLY: <u>Removal and Installation"</u>.
- 3. Remove front door hinge mounting bolts (body side), and then remove front door hinge.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Check front door open/close, lock/unlock operation after installation.

**DLK-169** Revision: 2011 November 2012 CUBE

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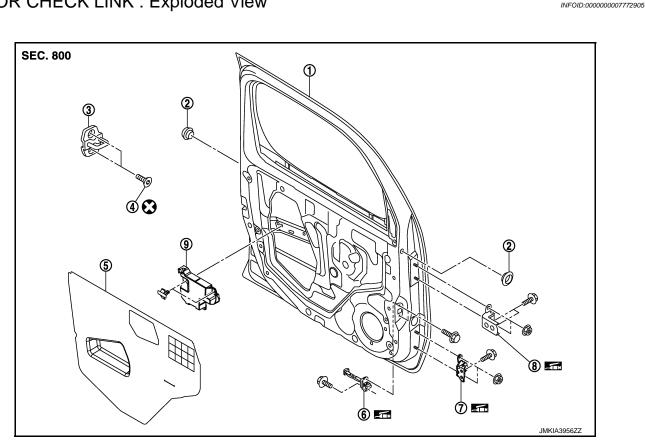
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- · Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-167, "DOOR ASSEMBLY: Adjustment"</u>.
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.
   DOOR CHECK LINK

DOOR CHECK LINK: Exploded View



- 1. Front door panel
- 2. Grommet

Door striker

4. TORX bolt

Sealing screen

Door check link

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- 7. Door hinge (lower)
- 8. Door hinge (upper)

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

#### DOOR CHECK LINK: Removal and Installation

#### **REMOVAL**

- 1. Remove front door finisher. Refer to <a href="INT-12">INT-12</a>, "Removal and Installation".
- 2. Fully close the front door window.
- Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 4. Remove front door speaker. Refer to AV-56, "Removal and Installation".
- 5. Remove mounting bolts of door check link on the vehicle.
- 6. Remove mounting bolts of door check link on door panel.
- 7. Take door check link out from the hole of door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check front door open/close operation after installation.

Revision: 2011 November DLK-170 2012 CUBE

## REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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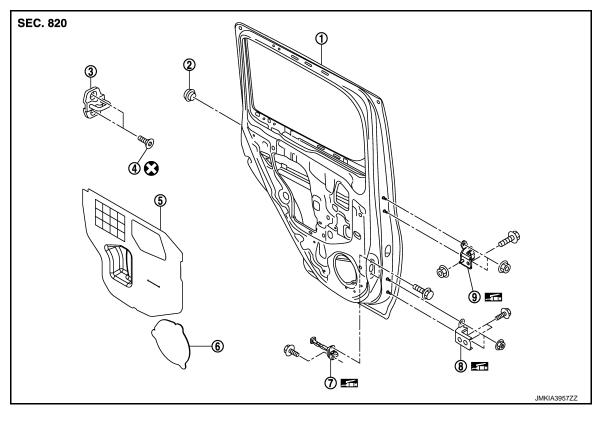
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- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- 2. Grommet
- Sealing screen (upper)
- Door hinge (lower)
- 3. Door striker
- Sealing screen (lower) 6.
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

#### DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

- Perform work with 2 workers, because of it's heavy weight.
- When removing and installing rear door assembly, support door with a jack and shop cloth to protect door and body.

#### REMOVAL

- 1. Remove rear door harness grommet, and then pull out door harness from the vehicle.
- Disconnect rear door harness connector. 2.
- 3. Remove mounting bolts of door check link on the vehicle.
- Remove door hinge mounting nuts (door side), and then remove rear door assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check rear door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
   After installation, perform the fitting adjustment. Refer to <a href="DLK-172">DLK-172</a>, "DOOR ASSEMBLY: Adjust-
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

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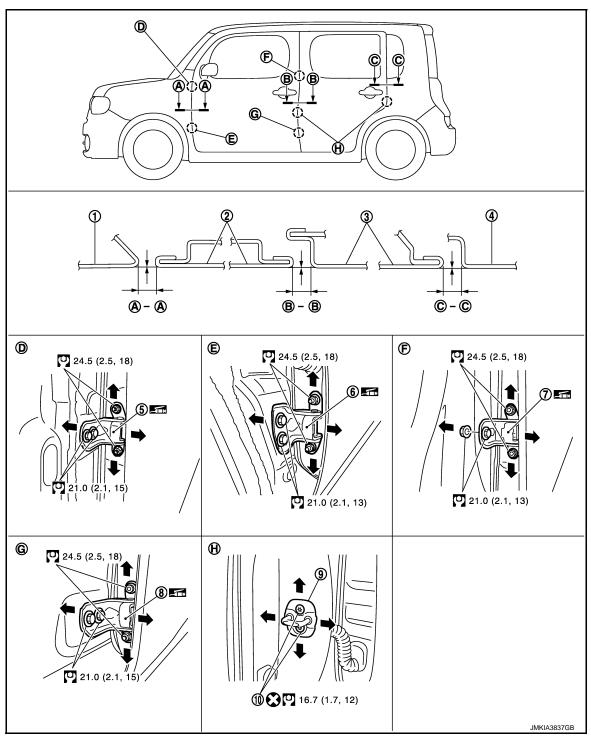
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DOOR ASSEMBLY: Adjustment

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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (upper)
- 10. TORX bolt

- 2. Front door
- 5. Front door hinge (upper)
- 8. Rear door hinge (lower)
- Rear door
- 6. Front door hinge (lower)
- 9. Door striker

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and surface height between rear door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

#### [WITH INTELLIGENT KEY SYSTEM]

Portion		Clearance	Surface height			
Front door – Rear door	B – B	3.4 - 5.4 (0.134 - 0.213)	-1.0 – 1.0 (-0.039 – 0.039)			
Rear door – Body side outer	C – C	3.5 - 5.5 (0.138 - 0.217)	-1.0 - 1.0 (-0.039 - 0.039)			

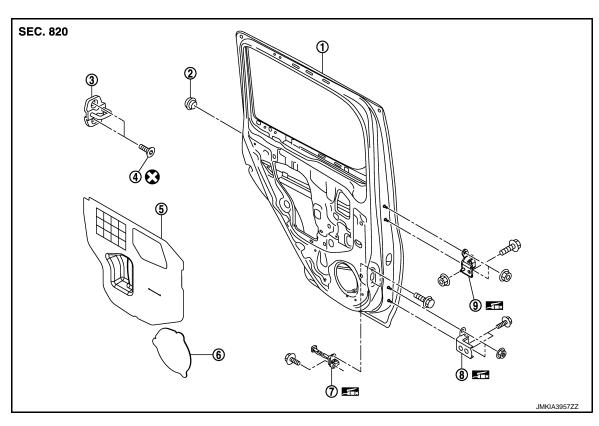
- Remove center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation". 1.
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of rear door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting nuts and bolts on body side.
- 6. Raise rear door at rear end to adjust clearance of rear door according to the fitting standard dimension.
- 7. After adjustment tighten bolts and nuts to the specified torque.
- Install center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation". 8.

#### DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction.

#### DOOR STRIKER

#### DOOR STRIKER: Exploded View



- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- Grommet 2.
- 5. Sealing screen (upper)
- Door hinge (lower)
- Door striker 3.
- 6. Sealing screen (lower)
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

#### DOOR STRIKER: Removal and Installation

#### REMOVAL

Remove TORX bolts, and then remove door striker.

**DLK-173** Revision: 2011 November 2012 CUBE

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#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

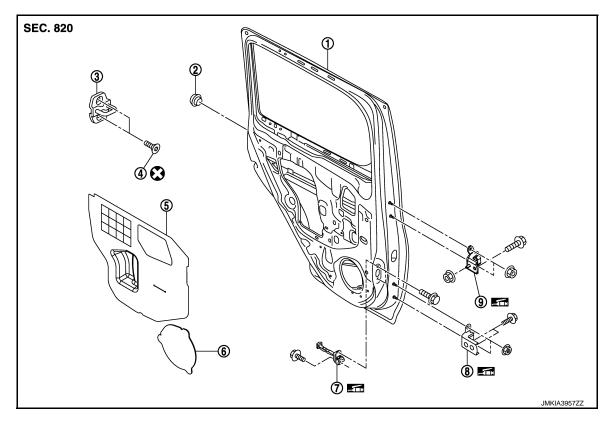
- Check rear door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to <u>DLK-172, "DOOR ASSEMBLY:</u> <u>Adjustment"</u>.

#### DOOR HINGE

**DOOR HINGE: Exploded View** 

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INFOID:0000000007772913



- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- 2. Grommet
- 5. Sealing screen (upper)
- 8. Door hinge (lower)
- 3. Door striker
- 6. Sealing screen (lower)
- 9. Door hinge (upper)

#### DOOR HINGE: Removal and Installation

Refer to GI-4, "Components" for symbols in the figure.

#### **CAUTION:**

- · Perform work with 2 workers, because of it's heavy weight.
- When removing and installing rear door assembly, support door with a jack and shop cloth to protect door and body.

#### **REMOVAL**

- 1. Remove rear door assembly. Refer to <u>DLK-171, "DOOR ASSEMBLY: Removal and Installation"</u>.
- Remove center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation".
- Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

#### **INSTALLATION**

Install in the reverse order of removal.

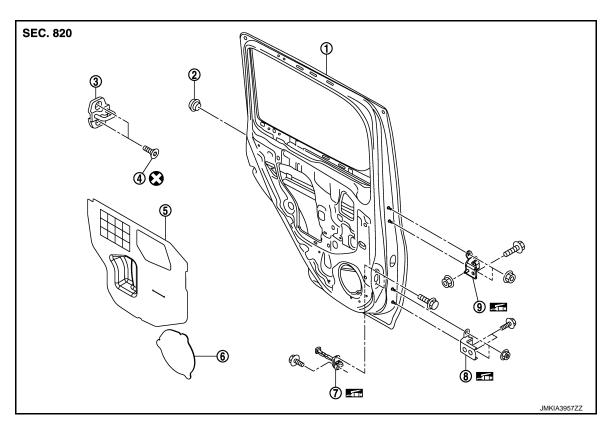
#### **CAUTION:**

- Check rear door open/close operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.

#### [WITH INTELLIGENT KEY SYSTEM]

- When removing and installing rear door assembly, perform the fitting adjustment. Refer to <u>DLK-172</u>. <u>"DOOR ASSEMBLY : Adjustment"</u>.
- After installing, apply the touch-up paint (the body color) onto the head of door hinge mounting nuts.
   DOOR CHECK LINK

DOOR CHECK LINK: Exploded View



- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- Grommet
- 5. Sealing screen (upper)
- 8. Door hinge (lower)
- Door striker
- 6. Sealing screen (lower)
- 9. Door hinge (upper)

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

#### DOOR CHECK LINK: Removal and Installation

1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".

- 2. Fully close the rear door window.
- 3. Remove rear door speaker. Refer to AV-58, "Removal and Installation".
- 4. Remove mounting bolts of the check link on the vehicle.
- 5. Remove mounting bolts of the check link on door panel.
- 6. Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

REMOVAL

Check rear door open/close operation after installation.

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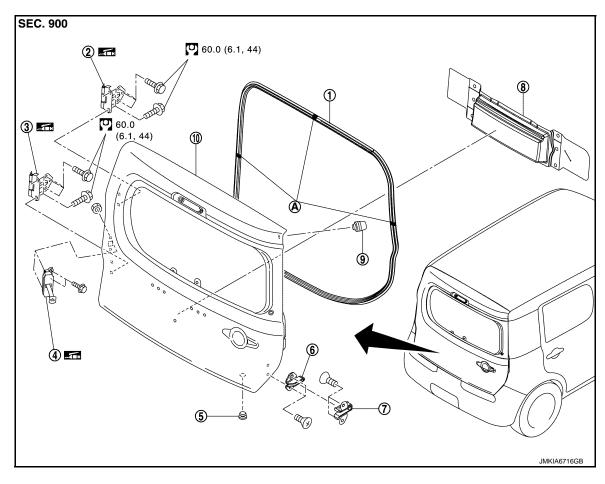
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Revision: 2011 November

# BACK DOOR BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY: Exploded View

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- 1. Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

#### BACK DOOR ASSEMBLY: Removal and Installation

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#### CAUTION:

Perform work with 2 workers, because of its heavy weight.

#### **REMOVAL**

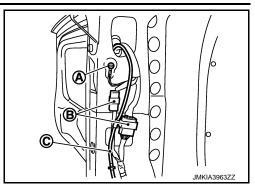
- 1. Remove back door finisher lower. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".
- Remove luggage side finisher (LH) (upper/lower). Refer to INT-24, "Removal and Installation".

#### **BACK DOOR**

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

3. Remove ground bolt (A) and disengage connections of harness connectors (B) and rear washer hose (C).



- 4. Remove back door harness grommet, and then pull out the harness from the vehcle.
- 5. Support back door with the proper material to prevent it from falling.
- 6. Remove mounting bolt of door check link on the vehcle.
- 7. Remove back door hinge mounting bolts (back door side), and then remove back door assembly.
- 8. Remove the following parts after removing back door assembly.
  - Back door finisher upper
  - · Sealing screen
  - Dovetail (male)
  - Dovetail (female)
  - · Door check link
  - Grommet
  - Bumper rubber

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close, lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-178, "BACK DOOR ASSEMBLY: Adjust-ment"</u>.

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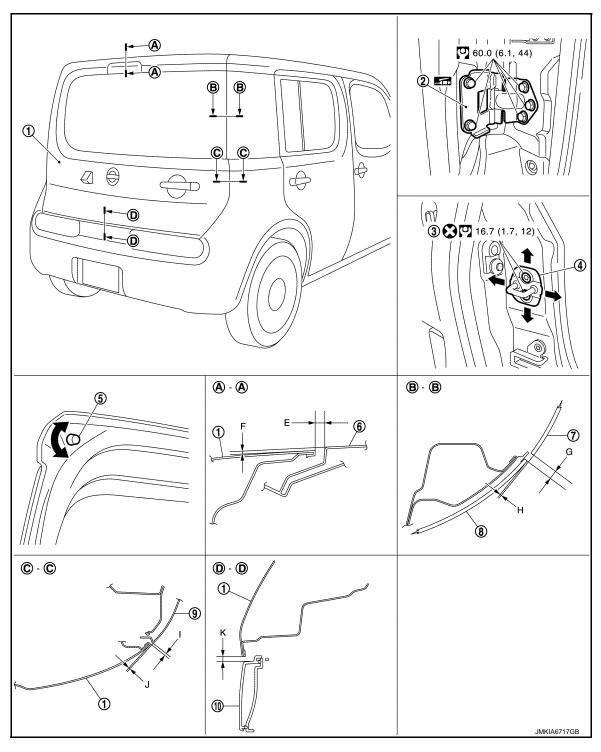
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## **BACK DOOR ASSEMBLY: Adjustment**

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- 1. Back door panel
- 4. Back door striker
- 7. Side window glass
- 10. Back door finisher
- Back door hinge
- 5. Back door bumper rubber
- 8. Back door glass

- 3. TORX bolt
- 6. Roof panel
- 9. Body side outer panel

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between back door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

#### [WITH INTELLIGENT KEY SYSTEM]

Unit: mm (in							
Portio	Standard	Difference (RH/LH)					
Back door – Roof	<b>A</b> – <b>A</b>	E	Clearance	6.1 - 9.9 (0.240 - 0.390)	_		
		F	Surface height	-0.6 - 1.4 (-0.024 - 0.055)	_		
Side window glass – Back door glass	B – B	G	Clearance	4.4 - 8.4 (0.173 - 0.331)	< 2.0 (0.079)		
		Н	Surface height	0 - 2.0 (0 - 0.079)	_		
Body side outer panel – Back	C – C	I	Clearance	4.0 - 6.0 (0.157 - 0.236)	< 1.0 (0.039)		
door	0-0	J	Surface height	-1.0 – 1.0 (-0.039 – 0.039)			
Back door – Back door finisher	<b>D</b> – <b>D</b>	K	Clearance	5.0 - 9.0 (0.197 - 0.354)	_		

- Loosen back door striker mounting bolts.
- 2. Loosen bumper rubber.
- 3. Adjust right and left clearances and clearances between rear bumper to the standard value specified in the table, by taping back door striker using a rubber hammer and adjusting back door striker and bumper rubber.
- 4. Finally tighten back door hinge, bumper rubber, and back door striker.

- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

#### BACK DOOR STRIKER ADJUSTMENT

Adjust back door striker so that becomes parallel with back door lock insertion direction.

#### BACK DOOR STRIKER

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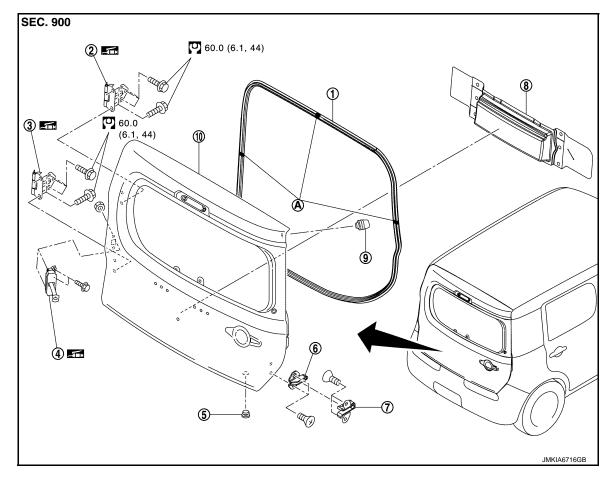
**DLK-179** Revision: 2011 November 2012 CUBE

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## BACK DOOR STRIKER: Exploded View

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- 1. Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- Dovetail male
- 9. Bumper rubber

Refer to  $\underline{\text{GI-4, "Components"}}$  for symbols in the figure.

#### BACK DOOR STRIKER: Removal and Installation

#### **REMOVAL**

Remove mounting bolts, and then remove back door striker.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- When removing and installing back door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-178, "BACK DOOR ASSEMBLY: Adjustment"</u>.

#### **BACK DOOR HINGE**

**BACK DOOR HINGE: Exploded View** 

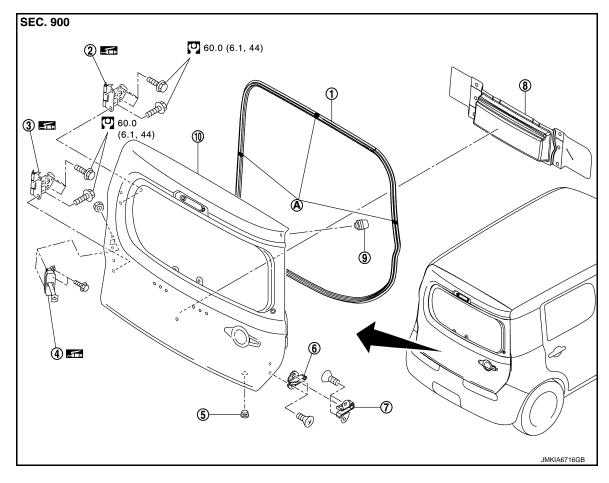


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- Back door weather-strip
- 4. Door check link
- Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- Grommet
- 8. Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- Bumper rubber

Refer to GI-4, "Components" for symbols in the figure.

# BACK DOOR HINGE: Removal and Installation

#### **CAUTION:**

Perform work with 2 workers, because of its heavy weight.

# REMOVAL

- Remove back door assembly. Refer to <u>DLK-176</u>, "BACK <u>DOOR ASSEMBLY</u>: <u>Removal and Installation"</u>.
- 2. Remove back door hinge mounting bolts (body side), and then remove back door hinge.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing back door assembly, perform the fitting adjustment. Refer to <u>DLK-178</u>, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

# DOOR CHECK LINK

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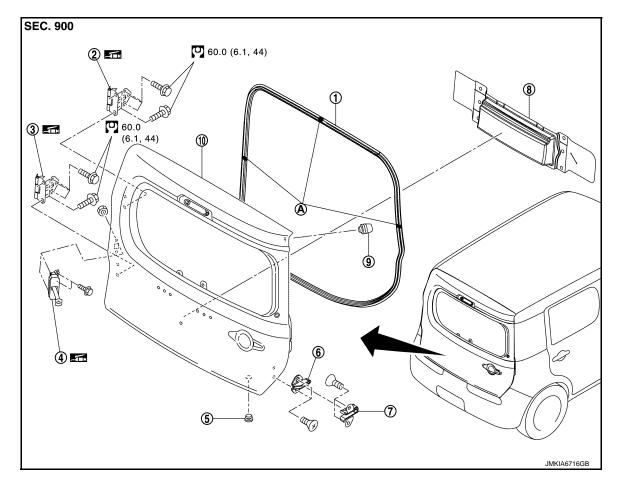
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# DOOR CHECK LINK: Exploded View

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- Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to <u>GI-4</u>, "Components" for symbols in the figure.

# DOOR CHECK LINK: Removal and Installation

#### **REMOVAL**

- Remove back door finisher lower. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".
- Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some part of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove mounting bolts of door check link on the vehicle.
- 4. Remove mounting nuts of door check link on the back door panel.
- 5. Take door check link out from the hole of back door panel.

# **INSTALLATION**

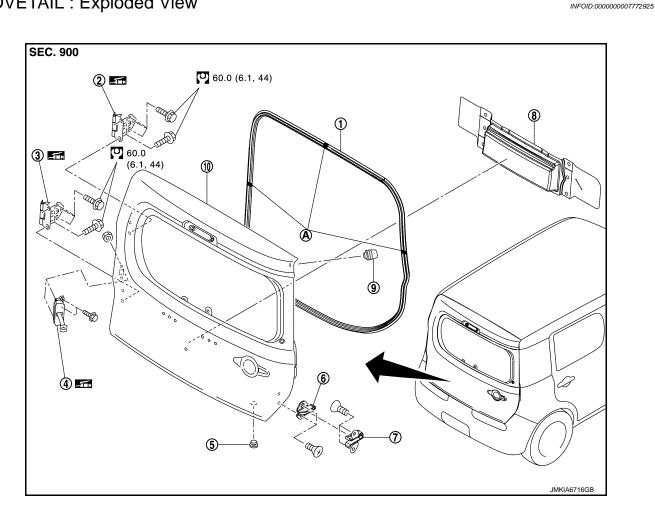
Install in the reverse order of removal.

#### CAUTION:

Check back door open/close operation after installation. DOVETAIL

# [WITH INTELLIGENT KEY SYSTEM]

**DOVETAIL: Exploded View** 



- Back door weather-strip
- Door check link
- Dovetail female
- 10. Back door panel

- Back door hinge (upper) 2.
- Grommet
- Sealing screen
- : Center mark

Refer to GI-4, "Components" for symbols in the figure.

- Back door hinge (lower) 3.
- Dovetail male 6.
- Bumper rubber

# **DOVETAIL**: Removal and Installation

# **REMOVAL**

- Remove mounting bolts, and then remove dovetai (male).
- Remove mounting bolts, and then remove dovetai (female).

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check back door open/close operation after installation.

BACK DOOR WEATHER-STRIP

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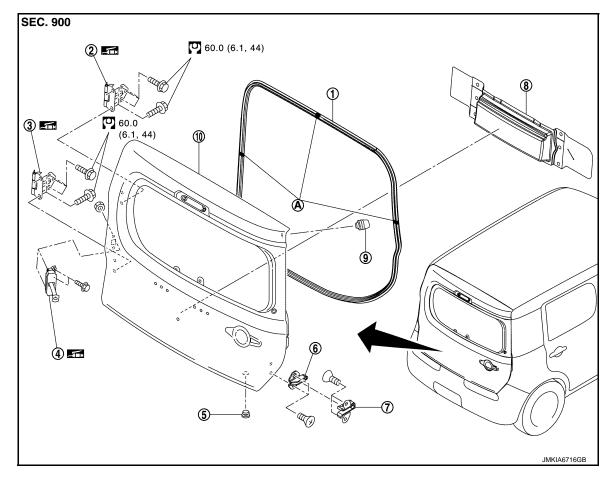
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# BACK DOOR WEATHER-STRIP: Exploded View

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- Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

# BACK DOOR WEATHER-STRIP: Removal and Installation

#### **REMOVAL**

Pull and remove engagement with body from weather-strip joint.

#### **CAUTION:**

Never pull strongly on weather-strip.

#### INSTALLATION

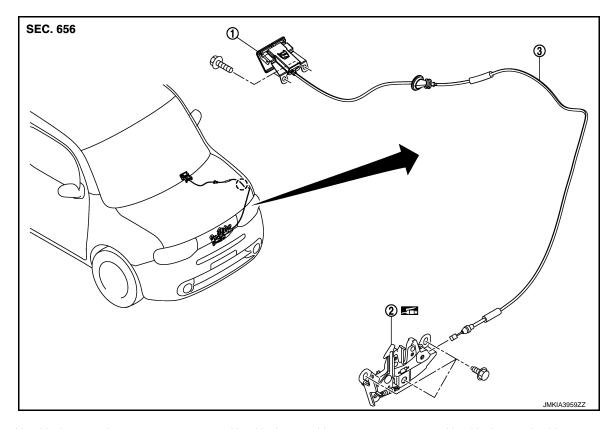
- 1. Working from the upper section, align weather-strip center mark (A) with vehicle center mark (cutting position) and install weather-strip onto the vehicle.
- 2. Pull weather-strip gently to ensure that there is no loose section.

#### NOTE:

Make sure that weather-strip is fit tightly at each corner and luggage rear plate.

# **HOOD LOCK**

Exploded View



- Hood lock opener lever
- Hood lock assembly
- 3. Hood lock control cable

( ) : Clip

Refer to GI-4, "Components" for symbols in the figure.

# Removal and Installation

REMOVAL

- 1. Remove front grille. Refer to EXT-17, "Removal and Installation".
- 2. Remove mounting bolts, and then remove hood lock assembly.
- 3. Disconnect hood lock cable from hood lock assembly.
- 4. Remove hood lock cable clip.
- 5. Remove fender protector (LH). Refer to EXT-21, "FENDER PROTECTOR: Removal and Installation".
- 6. Remove hood lock opener lever.
- 7. Disconnect hood lock cable from hood lock opener lever.
- 8. Remove grommet on the lower dash, and pull the hood lock control cable toward the passenger compartment.

#### **CAUTION:**

While pulling, never to damage (peeling) the outside of hood lock control cable.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Never to bend cable too much, keeping the radius 100 mm (3.937 in) or more.

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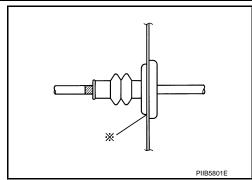
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#### [WITH INTELLIGENT KEY SYSTEM]

 Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \* mark) properly.



- Check that hood lock control cable is properly engaged with hood lock.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-158</u>, "<u>HOOD ASSEMBLY</u>: <u>Adjust-ment</u>".
- After installation, perform hood lock control inspection. Refer to <u>DLK-186, "Inspection"</u>.

Inspection INFOID:0000000007772931

#### NOTE:

If the hood lock cable is bent or deformed, replace it.

- 1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
- 2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20.0 mm (0.787 in). Also check that hood opener returns to the original position.
- 3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or below.
- Install so that static closing face of hood is 94 − 490 N·m (9.6 − 50.0 kg-m, 69 − 361 ft − lb).
   NOTE:
  - Exert vertical force on right side and left side of hood lock.
  - Never press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to hood lock.

# FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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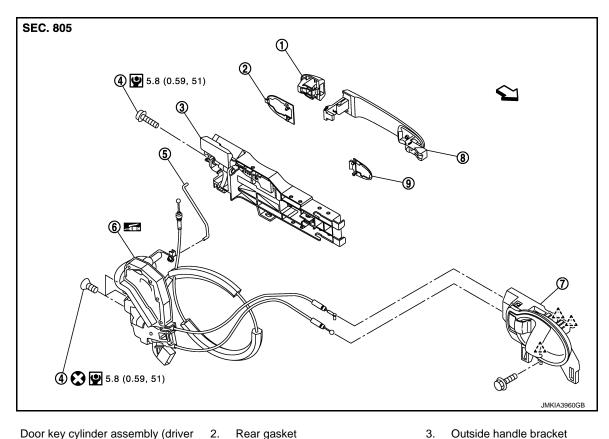
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1. Door key cylinder assembly (driver

> Outside handle escutcheon (passenger side)

4. TORX bolt 5. Key rod (driver side)

Outside handle

Door lock assembly

Front gasket

: Pawl ^\_` : Vehicle front  $\langle \neg$ 

Inside handle

Refer to GI-4, "Components" for symbols in the figure.

# DOOR LOCK: Removal and Installation

# REMOVAL

7.

Remove front door finisher. Refer to INT-12, "Removal and Installation".

2. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove front door glass. Refer to GW-18, "Removal and Installation".
- 4. Remove front door lower sash (rear). Refer to GW-18, "Removal and Installation".
- Remove outside handle. Refer to DLK-189, "OUTSIDE HANDLE: Removal and Installation".
- Remove inside handle. Refer to <u>DLK-188</u>, "INSIDE HANDLE: Removal and Installation".
- 7. Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly.

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**DLK-187** Revision: 2011 November 2012 CUBE

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

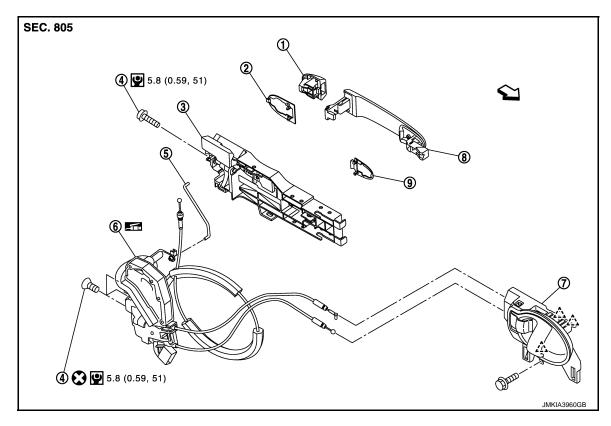
- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

# INSIDE HANDLE

# **INSIDE HANDLE: Exploded View**

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- Door key cylinder assembly (driver side)
- Rear gasket

Outside handle bracket

- Outside handle escutcheon (passenger side)
- 4. TORX bolt

- 5. Key rod (driver side)
- 6. Door lock assembly

7. Inside handle

8. Outside handle

9. Front gasket

∴ : Pawl ∴ : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

# INSIDE HANDLE: Removal and Installation

# **REMOVAL**

- 1. Remove front door finisher. Refer to INT-12, "Removal and Installation".
- 2. Remove inside handle mounting bolts, slide handle toward rear of vehicle, disengage handle from door panel, and remove inside handle.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation.

# OUTSIDE HANDLE

# **OUTSIDE HANDLE: Exploded View**

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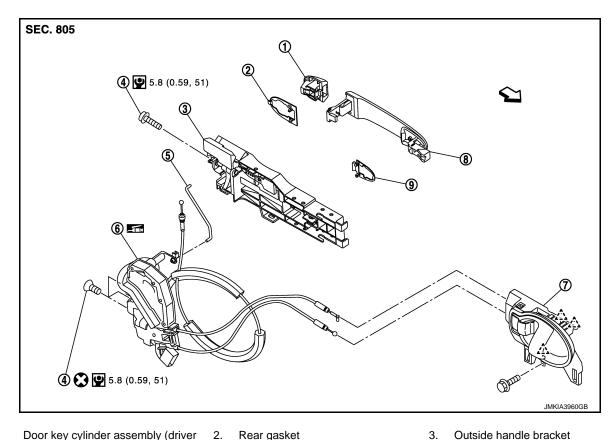
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1. Door key cylinder assembly (driver

Outside handle escutcheon (passenger side)

4. TORX bolt

7. Inside handle

: Pawl

⟨□ : Vehicle front

Key rod (driver side)

8. Outside handle Outside handle bracket

6. Door lock assembly

9. Front gasket

Refer to GI-4, "Components" for symbols in the figure.

# OUTSIDE HANDLE: Removal and Installation

INFOID:0000000007772937

#### **REMOVAL**

1. Remove front door finisher. Refer to <a href="INT-12">INT-12</a>, "Removal and Installation".

2. Fully close the front door glass.

Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

Remove front door lower sash (rear). Refer to <u>GW-18, "Removal and Installation"</u>.

5. Disconnect key rod (driver side).

6. Disconnect door antenna and door request switch connector and remove harness clamp (with Intelligent Key system) on outside handle bracket.

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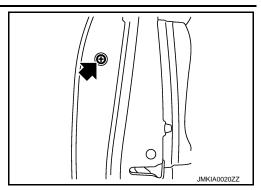
**DLK-189** Revision: 2011 November 2012 CUBE

# FRONT DOOR LOCK

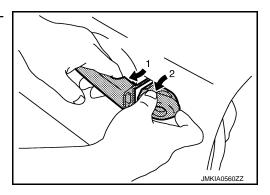
# < REMOVAL AND INSTALLATION >

# [WITH INTELLIGENT KEY SYSTEM]

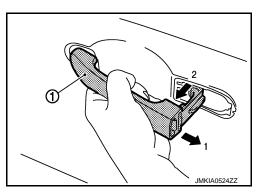
Remove door side grommet, and loosen TORX bolt from grommet hole.



8. While pulling outside handle, remove door key cylinder assembly (diver side) or outside handle escutcheon (passenger side).



9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 10. Remove front gasket and rear gasket.
- 11. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 12. Reach in to separate outside handle cable connection on outside handle bracket.

#### **INSTALLATION**

Install in the reverse order of removal.

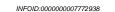
#### **CAUTION:**

- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

# REAR DOOR LOCK

DOOR LOCK

DOOR LOCK: Exploded View



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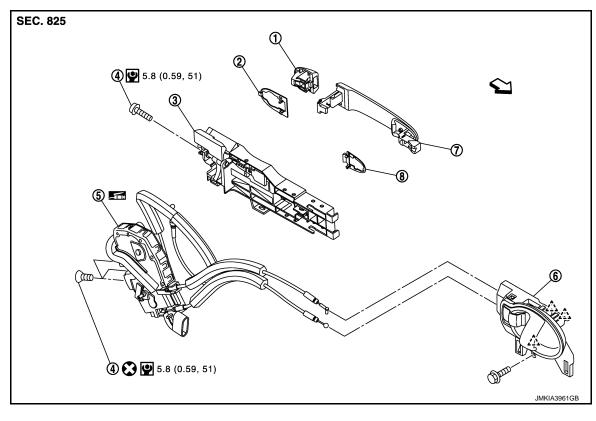
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- 1. Outside handle escutcheon
- 4. TORX bolt
- 7. Outside handle
- ^` : Pawl
- : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

- 2. Rear gasket
- 5. Door lock assembly
- 8. Front gasket

- 3. Outside handle bracket
- 6. Inside handle

# DOOR LOCK: Removal and Installation

# REMOVAL

- Remove rear door finisher. Refer to <u>INT-14, "Removal and Installation"</u>.
- 2. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove rear door glass. Refer to GW-23, "Removal and Installation".
- 4. Remove outside handle. Refer to <u>DLK-193, "OUTSIDE HANDLE: Removal and Installation"</u>.
- 5. Remove inside handle. Refer to DLK-192, "INSIDE HANDLE: Removal and Installation".
- 6. Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

• Check door open/close, lock/unlock operation after installation.

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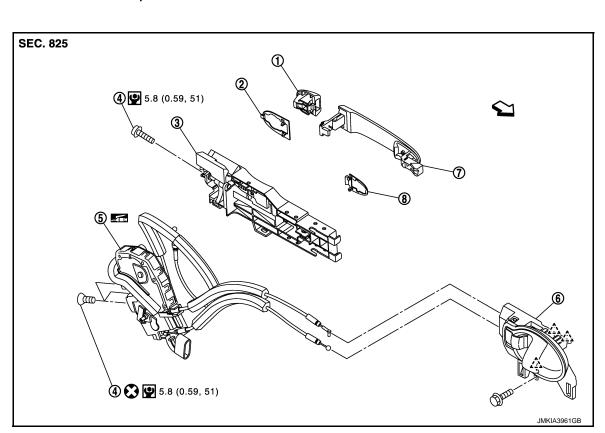
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• Check door lock cable is properly engaged with outside handle bracket.

INSIDE HANDLE

**INSIDE HANDLE: Exploded View** 



- 1. Outside handle escutcheon
- 4. TORX bolt
- Outside handle 7.
- : Pawl

- : Vehicle front

- 2. Rear gasket
- 5. Door lock assembly
- Front gasket

- 3. Outside handle bracket
- Inside handle 6.

Refer to GI-4, "Components" for symbols in the figure.

# INSIDE HANDLE: Removal and Installation

#### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- Remove inside handle mounting bolts, slide handle toward rear of vehicle, disengage handle from door panel, and remove inside handle.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation.

OUTSIDE HANDLE

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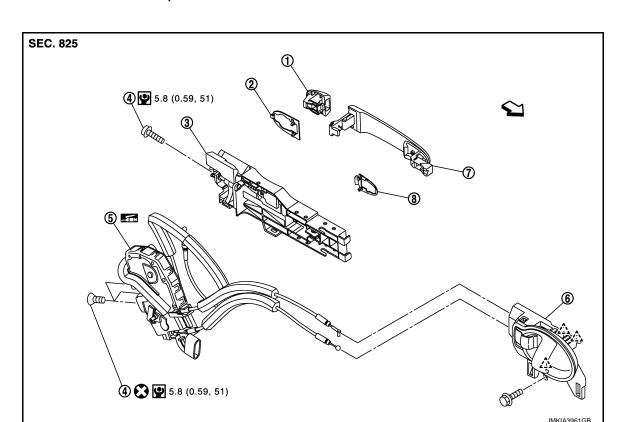
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# **OUTSIDE HANDLE: Exploded View**



- 1. Outside handle escutcheon
- 4. TORX bolt
- 7. Outside handle
- 八 : Pawl
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Refer to GI-4, "Components" for symbols in the figure.

- 2. Rear gasket
- 5. Door lock assembly
- 8. Front gasket

- Outside handle bracket
- 6. Inside handle

# OUTSIDE HANDLE: Removal and Installation

OUTSIDE HANDLE. Nemoval and installation

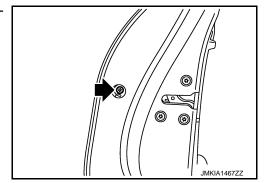
# **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 2. Fully close rear door glass.
- 3. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

Remove door side grommet, and loosen TORX bolt from grommet hole.



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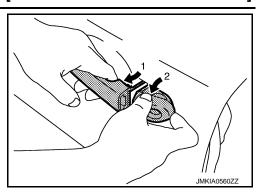
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# **REAR DOOR LOCK**

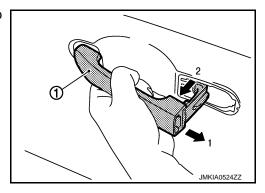
# < REMOVAL AND INSTALLATION >

# [WITH INTELLIGENT KEY SYSTEM]

5. While pulling outside handle, remove outside handle escutcheon



6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 9. Reach in to separate outside handle cable connection on outside handle bracket.

# **INSTALLATION**

Install in the reverse order of removal.

# **CAUTION:**

- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

# BACK DOOR LOCK

**DOOR LOCK** 

DOOR LOCK: Exploded View

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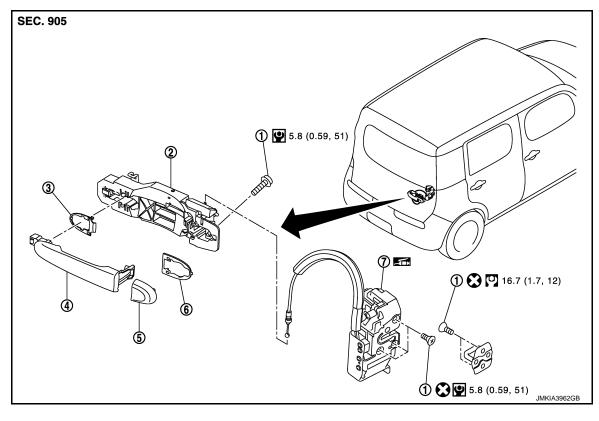
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- 1. TORX bolt
- 4. Outside handle
- 7. Back door lock assembly
- Outside handle bracket
  - Outside handle escutcheon
- 3. Rear gasket
- 6. Front gasket

# DOOR LOCK: Removal and Installation

Refer to GI-4, "Components" for symbols in the figure.

# REMOVAL

Remove back door finisher lower. Refer to <u>INT-27</u>, "Removal and Installation".

2. Remove sealing screen.

# NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove back door outside handle. Refer to <a href="DLK-196">DLK-196</a>, "OUTSIDE HANDLE: Removal and Installation".
- 4. Remove back door lock assembly mounting bolts.
- 5. Disconnect harness connector from back door lock assembly.
- 6. Remove back door lock assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- · Check back door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

# OUTSIDE HANDLE

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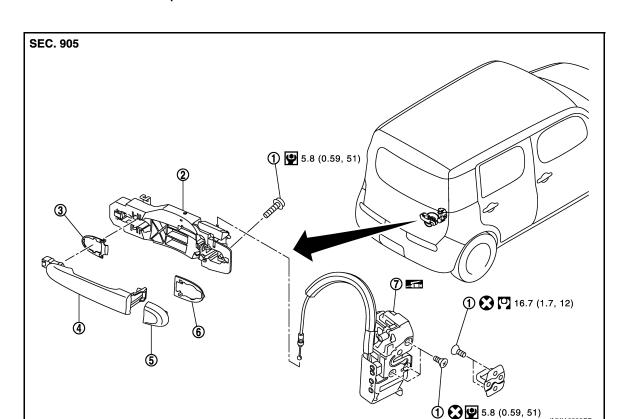
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# **OUTSIDE HANDLE: Exploded View**



- 1. TORX bolt
- 4. Outside handle
- 7. Back door lock assembly
- 2. Outside handle bracket
  - 5. Outside handle escutcheon
- 3. Rear gasket
- 6. Front gasket

OUTSIDE HANDLE: Removal and Installation

Refer to GI-4, "Components" for symbols in the figure.

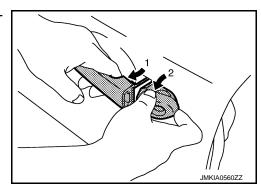
**REMOVAL** 

- Remove back door finisher lower. Refer to <u>INT-27</u>, "Removal and Installation".
- 2. Remove sealing screeen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Disconnect back door antenna and back door request switch connector and remove harness clamp (with intelligent key system) on outside handle bracket.
- 4. Remove mounting bolt of outside handle bracket.
- 5. While pulling outside handle, remove outside habdle escutcheon.

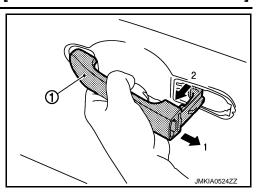


# **BACK DOOR LOCK**

# < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 9. Reach in to separate outside handle cable connection on outside handle bracket.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

# EMERGENCY LEVER

EMERGENCY LEVER : Unlock procedures

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# UNLOCK PROCEDURES

#### NOTE:

If back door lock cannot be unlocked due to a malfunction or battery discharge, follow the procedures to unlock back door.

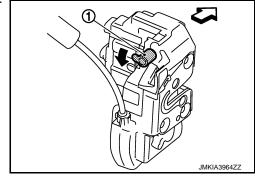
- Remove back door finisher lower. Refer to <u>INT-27</u>, "Removal and Installation".
- Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

3. From inside the vehicle, rotate emergency lever (1) toward lower direction and unlock.

<□ : Vehicle front



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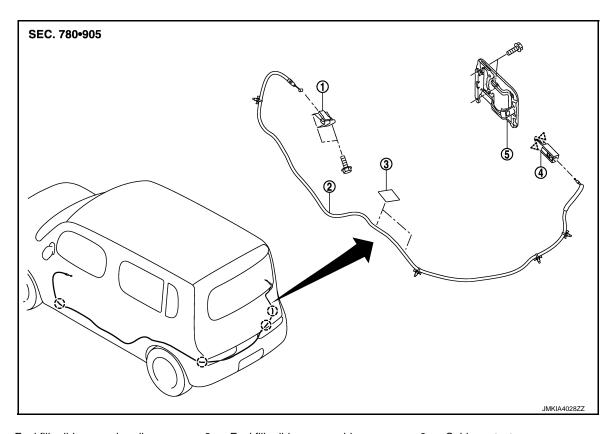
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# **FUEL FILLER LID OPENER**

Exploded View



- Fuel filler lid opener handle
- 4. Fuel filler lid lock assembly
- ( ) : Clip

- 2. Fuel filler lid opener cable
- 5. Fuel filler lid assembly

3. Cable protector

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# Removal and Installation

# **REMOVAL**

#### **FUEL FILLER LID**

- Fully open fuel filler lid.
- 2. Remove mounting screws, and then remove fuel filler lid.

#### FUEL FILLER LID OPENER CABLE

- 1. Fully open fuel filler lid.
- 2. Remove dash side finisher (LH). Refer to <a href="INT-16">INT-16</a>, "Removal and Installation".
- 3. Remove front kicking plate inner (LH). Refer to <a href="INT-16">INT-16</a>, "Removal and Installation".
- 4. Remove center pillar lower garnish (LH). Refer to INT-16, "Removal and Installation".
- Remove rear kicking plate inner (LH). Refer to <u>INT-16, "Removal and Installation"</u>.
- 6. Remove luggage side finisher (LH) (upper/lower). Refer to INT-24, "Removal and Installation".
- 7. Remove center seat belt retractor. Refer to <u>SB-11, "SEAT BELT RETRACTOR: Removal and Installation"</u>.
- 8. Remove mounting bolts, and then remove fuel filler lid opener handle.
- 9. Remove fuel filler lid opener cable from fuel filler lid opener handle.
- 10. Push fuel filler lid lock assembly front the vehicle, while pushing the pawls.

# **FUEL FILLER LID OPENER**

# < REMOVAL AND INSTALLATION >

# [WITH INTELLIGENT KEY SYSTEM]

- 11. Remove fuel filler lid opener cable from fuel filler lid lock assembly.
- 12. Pull up floor trim. Refer to <a href="INT-19">INT-19</a>, "Removal and Installation".
- 13. Remove fuel filler lid opener cable mounting clips.
- 14. Remove fuel filler lid opener cable.

# **INSTALLATION**

Install in the reverse order of removal.

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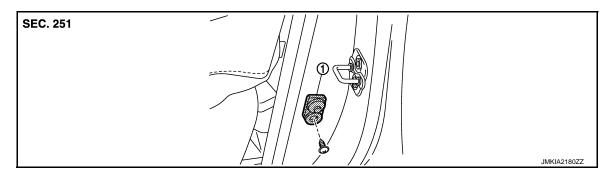
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# **DOOR SWITCH**

Exploded View



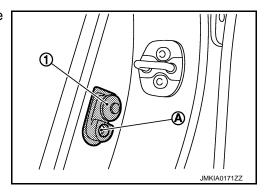
1. Door switch

# Removal and Installation

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# **REMOVAL**

1. Remove the door switch mounting bolt (A), and then remove door switch (1).



# **INSTALLATION**

Install in the reverse order of removal.

# [WITH INTELLIGENT KEY SYSTEM]

# INSIDE KEY ANTENNA INSTRUMENT CENTER

**INSTRUMENT CENTER:** Exploded View

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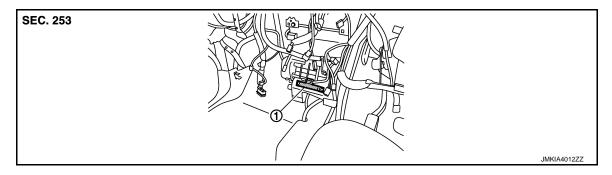
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Inside key antenna (instrument center)

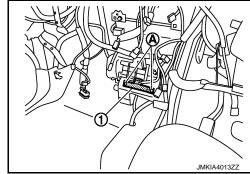
# INSTRUMENT CENTER: Removal and Installation

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# **REMOVAL**

Remove the audio unit. Refer to <u>AV-55, "Removal and Installation"</u>.

 Remove the inside key antenna (instrument center) mounting screw (A), and then remove inside key antenna (instrument center) (1).



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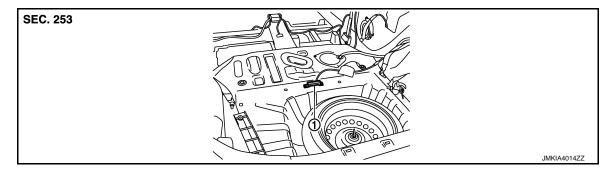
**INSTALLATION** 

Install in the reverse order of removal.

LUGGAGE ROOM

LUGGAGE ROOM: Exploded View

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1. Inside key antenna (luggage room)

# **INSIDE KEY ANTENNA**

< REMOVAL AND INSTALLATION >

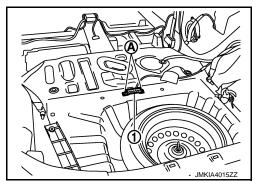
# [WITH INTELLIGENT KEY SYSTEM]

# LUGGAGE ROOM: Removal and Installation

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# **REMOVAL**

- 1. Remove the luggage floor finisher front. Refer to <a href="INT-24">INT-24</a>, "Removal and Installation".
- 2. Remove the inside key antenna (luggage room) mounting clip (A), and then remove inside key antenna (luggage room) (1).



# **INSTALLATION**

Install in the reverse order of removal.

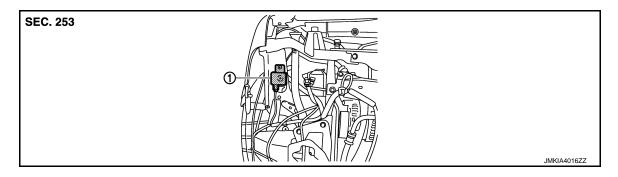
# INTELLIGENT KEY WARNING BUZZER

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

# INTELLIGENT KEY WARNING BUZZER

Exploded View

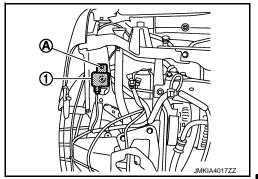


1. Intelligent Key warning buzzer

# Removal and Installation

# REMOVAL

- 1. Remove the front bumper. Refer to EXT-12, "Removal and Installation".
- 2. Remove the Intelligent Key warning buzzer mounting bolt (A), and then remove the Intelligent Key warning buzzer (1).



# **INSTALLATION**

Install in the reverse order of removal.

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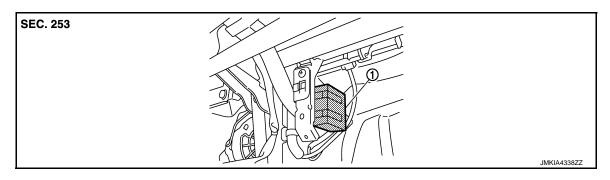
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# REMOTE KEYLESS ENTRY RECEIVER

Exploded View



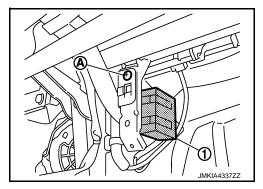
1. Remote keyless entry receiver

# Removal and Installation

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# **REMOVAL**

- 1. Remove the glove box assembly. Refer to IP-13, "Removal and Installation".
- 2. Remove the remote keyless entry receiver mounting bolt (A), and then remove remote keyless entry receiver (1).



# **INSTALLATION**

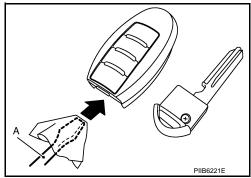
Install in the reverse order of removal.

# INTELLIGENT KEY BATTERY

# Removal and Installation

1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

- Insert a remover tool (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part. CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



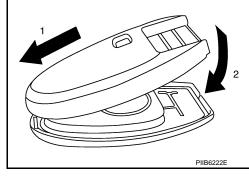
3. Replace the battery with new one.

Battery replacement :Coin-type lithium battery (CR2025)

4. Align the tips of the upper and lower parts, and then push them together until it is securely closed.

#### **CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- After replacing the battery, check that all Intelligent Key functions work normally.



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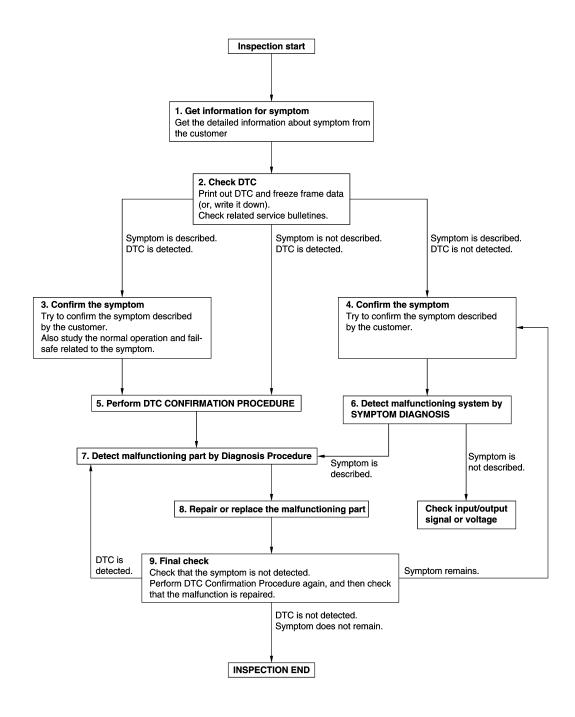
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 



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# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

# 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).
- 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.)
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- 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.

# ${f 3.}$ 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.

# f 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-74, "DTC Inspection Priority Chart" (BCM), 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

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIR-MATION PROCEDURE.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Check according to GI-41, "Intermittent Incident".

# $\mathsf{6}.$ 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 CON-

# .DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

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# **DIAGNOSIS AND REPAIR WORK FLOW**

#### [WITHOUT 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-41, "Intermittent Incident".

# 8.repair or replace the malfunctioning part

- 1. Repair or replace the malfunctioning part.
- 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.

# **INSPECTION AND ADJUSTMENT**

# [WITHOUT INTELLIGENT KEY SYSTEM] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT Α ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description В INFOID:0000000007772963 Perform the system initialization when replacing or registering keyfob and ignition key. ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement INFOID:0000000007772964 Refer to the CONSULT Operation Manual-NATS. D Е F Н

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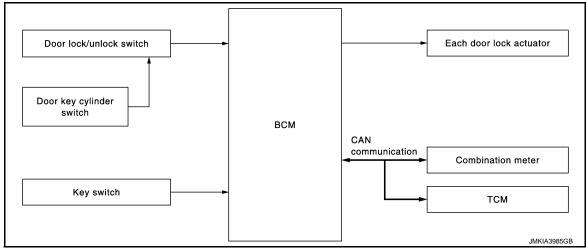
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# SYSTEM DESCRIPTION

# POWER DOOR LOCK SYSTEM

# System Diagram

INFOID:0000000007772965



# System Description

INFOID:0000000007772966

#### DOOR LOCK FUNCTION

- The door lock and unlock switch (driver side) is build into power window main switch.
- The door lock and unlock switch (passenger side) is on door trim.
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors and are unlocked.

#### Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the
  driver side door lock actuator; turning it to "UNLOCK" again within 60 seconds after the first unlock operation
  unlocks all of the other doors. (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-217</u>, "DOOR LOCK: <u>CONSULT Function</u> (BCM - DOOR LOCK)".

#### KEY REMINDER FUNCTION

When door lock and unlock switch are operated while key is inserted into key switch and any door is open, door locks once but immediately unlocks. This operation prevents keyfob from being left in the vehicle.

# AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (LOCK OPERATION)

The interlock door lock function is the function that locks all doors linked with the vehicle speed or shift position. It has 2 types as follows.

#### Vehicle Speed Sensing Auto Door Lock\*1

All doors are locked when the vehicle speed reaches 15 miles or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the combination meter via CAN communication becomes 24 km/h (15 miles) or more.

# P Range Interlock Door Lock\*2

All doors are locked when shifting the selector lever from the P position to any position other than P. BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from the TCM via CAN communication is shifted from the P position to any position other than P.

Setting change of Automatic Door Lock/Unlock Function

# **POWER DOOR LOCK SYSTEM**

< SYSTEM DESCRIPTION >	[WITHOUT INTELLIGENT KEY SYSTEM]
The lock operation setting of the automatic door lock/unlock	function can be changed.
With CONSULT The ON/OFF switching of the automatic door lock function unlock function can be performed at the WORK SUPPORT	
Without CONSULT The automatic door lock function ON/OFF can be switched I	by performing the following operation
Close all doors (door switch OFF)	by performing the following operation.
Turn ignition switch ON	
<ol><li>Press and hold the door lock and unlock switch for 5 se onds after turning the ignition switch ON.</li></ol>	econds or more in the lock direction within 20 sec-
4. The switching is completed when the hazard warning la	mp blinks.
$OFF \to ON$ : 2 blinks	
$ON \rightarrow OFF$ : 1 blink	
AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNI The automatic door lock/unlock function is the function tha shift position. It has 2 types as follows.	
IGN OFF Interlock Door Unlock*1 All doors are unlocked when the power supply position is ch BCM outputs the unlock signal to all door lock actuators v changed from ignition switch ON to OFF.	
P Range Interlock Door Unlock* <sup>2</sup> All doors are unlocked when shifting the selector lever from BCM outputs the unlock signal to all door lock actuators wl position and the shift signal received from TCM via CAN conthe P to P position.	hen it detects that the ignition switch is in the ON
Key out Interlock Door Unlock When ignition key is removed from ignition knob switch, all owner BCM detects that ignition key is removed from ignition door lock actuators.	doors unlock. on knob switch, BCM transmits unlock signal to all
Setting change of Automatic Door Lock/Unlock Function The unlock operation setting of the automatic door lock/unlo  (B) With CONSULT	ock function can be changed.
The ON/OFF switching of the automatic door lock/unlock fur lock/unlock function can be performed at the WORK SUPPO Without CONSULT	
The automatic door lock/unlock function ON/OFF can be sw	ritched by performing the following operation.
Close all doors below (door switch OFF)	,
2. Turn ignition switch ON	
3. Press and hold the door lock and unlock switch for 5 seconds after turning the power supply position ON.	seconds or more in the unlock direction within 20
4. The switching is completed when the hazard warning la	mp blinks.
OFF → ON : 2 blinks	

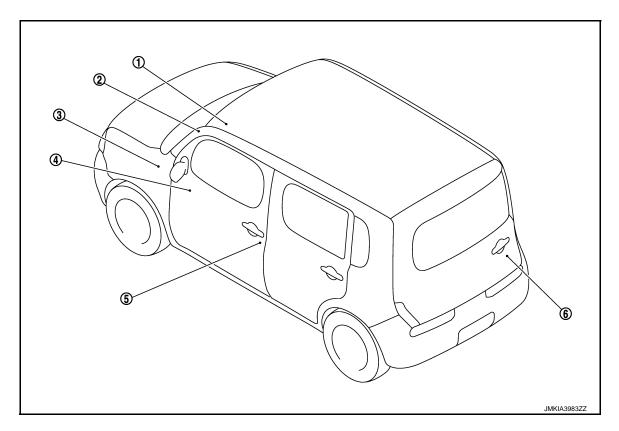
 $ON \rightarrow OFF$ : 1 blink

\*1: This function is set to ON before delivery.
\*2: This function does not operate on M/T models.

**DLK-211** 2012 CUBE Revision: 2011 November

# Component Parts Location

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- 1. Key switch
- 4. Power window main switch (door lock and unlock switch)
- 2. Combination meter
  Refer to MWI-8, "METER SYSTEM:
  Component Parts Location"
- 5. Front door lock assembly (driver side)
- 3. BCM M Refer to BCS-142, "Removal and Installation"
- 6. Back door lock assembly

# Component Description

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Item	Function		
BCM	Controls the door lock function and room lamp function		
Door lock and unlock switch	Input lock or unlock signal to BCM		
Door lock actuator	Input lock/unlock signal from BCM and locks/unlocks each door		
Door switch	Input door open/close condition to BCM		
Door key cylinder switch	<ul> <li>Input lock or unlock signal to power window main switch</li> <li>Power window main switch transmits door lock/unlock signal to BCM</li> </ul>		
TCM	Transmit shift position signal to BCM via CAN communication line		
Key switch	Input ignition switch ON/OFF condition to BCM		

# System Diagram

Remote keyless entry receiver

Key ID signal

Remote keyless entry receiver

Key ID signal

Remote keyless entry receiver

Key ID signal

Fach door lock actuator

Turn signal and hazard warning lamps

Interior room lamp control system

# System Description

DOOR LOCK AND UNLOCK OPERATION

- When door lock and unlock button of keyfob is pressed, door lock and unlock signal transmits from keyfob to BCM via remote keyless entry receiver.
- When BCM receives the door lock and unlock signal, it operates door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 1 time) as a reminder.

#### OPERATION CONDITION

If the following conditions are satisfied, door lock/unlock operation is performed if the keyfob is operated.

Remote controller operation	Operation condition
Lock/unlock	Key switch is off

#### **OPERATION AREA**

To ensure that the keyfob works effectively, use within 100 cm (3 ft) range of each door, however the operable range may differ according to surroundings.

#### SELECTIVE UNLOCK OPERATION

When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door.

# HAZARD AND HORN REMINDER

When the doors are locked or unlocked by keyfob, power is supplied to sound horn and flash hazard warning lamps as a reminder

The hazard and horn reminder has C mode (horn chirp mode) and S mode (non-horn chirp mode).

How to Change Hazard and Horn Reminder Modes

# With CONSULT

Hazard reminder has modes 1, 2, 3 and 4, and horn reminder can be turned ON/OFF with any lock mode.

Hazard reminder setting	Mode 1		Mode 2		Mode 3		Mode 4	
Keyfob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp blink	_	_	_	Once	Twice	_	Twice	Once

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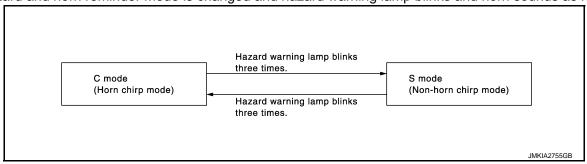
#### [WITHOUT INTELLIGENT KEY SYSTEM]

Horn reminder setting	ON		OFF	
Keyfob operation	Lock	Unlock	Lock	Unlock
Horns sound	Once	_	_	_

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN). Hazard reminder can be changed using "HAZARD LAMP SET" mode in "WORK SUPPORT". Horn reminder can be changed using "HORN CHIRP SET" mode in "WORK SUPPORT". Refer to DLK-219, "MULTI REMOTE ENT: CONSULT Function (BCM - MULTI REMOTE ENT)".

# **W** Without CONSULT

When LOCK and UNLOCK signals are sent from the Intelligent Key for more than 2 seconds at the same time, the hazard and horn reminder mode is changed and hazard warning lamp blinks and horn sounds as follows:



# AUTO DOOR LOCK FUNCTION

After door is unlocked by keyfob button operation and if 60 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

Operating condition	<ul> <li>Door switch is ON (door is open)</li> <li>Door is locked</li> <li>Push switch is pressed</li> <li>Ignition switch is ON</li> </ul>
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Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-</u>219, "MULTI REMOTE ENT: CONSULT Function (BCM - MULTI REMOTE ENT)".

#### INTERIOR ROOM LAMP CONTROL FUNCTION

Interior room lamp is controlled according to door lock/unlock state, refer to INL-6, "System Description".

# REGISTER, CHECK, AND ERASURE OF REMOTE CONTROLLER ID

- Remote controller ID can be registered by key operation and can be registered, checked, and erased using CONSULT.
- Remote controller ID can be registered by key operation or CONSULT. A maximum of 5 IDs can be registered. Operative number of IDs is always amaximum total of 5. When a 6th ID registration is performed, the oldest ID among the 5 registered IDs is automatically erased. (Initially saved data is automatically erased.)

# Remote controller ID registration with key

When recording a new remote controller ID after replacing BCM, or when maintaining a previously recorded ID and newly adding a remote controller, keep the remote controller within the effective range and register the new controller by performing the following procedure.

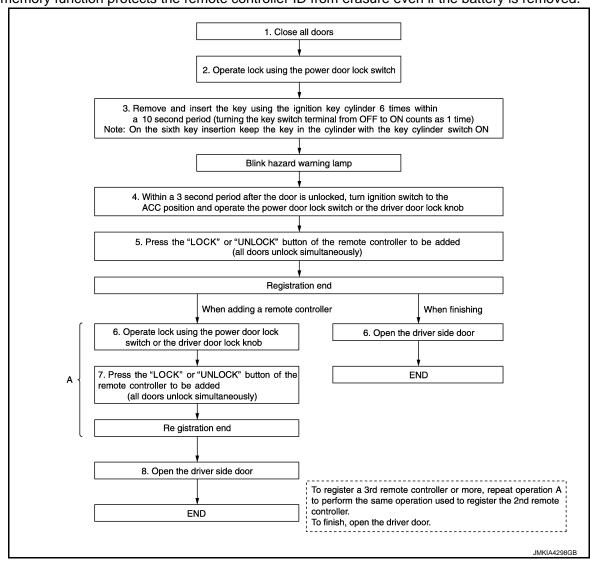
#### NOTE:

- Always remove and insert key slowly and carefully within a 10 second period. If this procedure is performed too quickly, remote controller ID registration mode may not be entered.
- After a new remote controller is registered, be sure to check the operation.

# < SYSTEM DESCRIPTION >

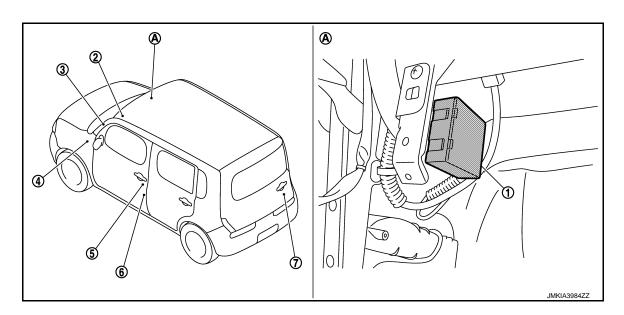
# [WITHOUT INTELLIGENT KEY SYSTEM]

• The memory function protects the remote controller ID from erasure even if the battery is removed.



# Component Parts Location

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# < SYSTEM DESCRIPTION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

- Remote keyless entry receiver
- 2. Key switch

3. Combination meter
Refer to MWI-8, "METER SYSTEM:
Component Parts Location"

4. BCM

- Front door lock assembly (driver side)
- 6. Front door switch (driver side)

- 7. Back door lock assembly
- A. View with globe box assembly removed

# Component Description

INFOID:0000000007772972

Item	Function		
BCM	Controls the door lock and unlock function.		
Door lock actuator	Output lock / unlock signal from BCM and locks and unlocks each door.		
Remote keyless entry receiver	Receives lock/unlock signal from the key fob, and then transmits to BCM.		
Key fob	Transmits button operation to remote keyless entry receiver.		
Door switch	Inputs door open/close condition to BCM		
Key switch	Inputs key insert/remove signal to BCM		

## **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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#### 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.	<del></del>
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><li>Read and save the vehicle specification.</li><li>Write the vehicle specification when replacing BCM.</li></ul>	

#### 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.

x: Applicable item

System	Sub system selection item	Diagnosis mode		
System	Sub system selection item	Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Manual air conditioner	AIR CONDITONER		×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU	×	×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door	TRUNK		×	
Vehicle security system THEFT ALM		×	×	×
RAP system	RETAINED PWR		×	×
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×
Panic alarm system	PANIC ALARM			×

### DOOR LOCK

DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000007772974

#### **BCM CONSULT FUNCTION**

CONSULT performs the following functions via CAN communication with BCM.

Revision: 2011 November DLK-217 2012 CUBE

# [WITHOUT INTELLIGENT KEY SYSTEM]

Diagnosis mode	Function Description		
WORK SUPPORT	Changes the setting for each system function		
DATA MONITOR	The BCM input/output signals are displayed		
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM		

### **WORK SUPPORT**

Monitor item	Description		
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate with this mode     On: Operate     Off: Non-operation		
AUTOMATIC DOOR LOCK SE- LECT	Automatic door lock function mode can be selected from the following in this mode  VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH)  PRANGE: All doors are locked when shifting the selector lever from P position to other than the P position		
AUTOMATIC DOOR UNLOCK SELECT	<ul> <li>Automatic door unlock function mode can be selected from the following in the mode</li> <li>MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position</li> <li>MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position</li> <li>MODE 5: Driver side door is unlocked when key out of key switch</li> <li>MODE 6: All doors are unlocked when key out of key switch</li> </ul>		
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode  Off: Non-operation  Unlock Only: door unlock operation only  Lock Only: door lock operation only  Lock/Unlock: lock/unlock operation		

### **DATA MONITOR**

Monitor Item	Contents
IGN ON SW	Indicated [On/Off] condition of ignition switch in ON position
KEY ON SW	Indicated [On/Off] condition of key switch
DOOR SW-DR	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR	Indicated [On/Off] condition of rear door switch RH
DOOR SW-RL	Indicated [On/Off] condition of rear door switch LH
BACK DOOR SW	Indicated [On/Off] condition of back door switch
LOCK STATUS	Indicated [On/Off] condition of driver side door
ACC ON SW	Indicated [On/Off] condition of ignition switch in ACC position
KEYLESS LOCK	Indicated [On/Off] condition of lock signal from key fob
KEYLESS UNLOCK	Indicated [On/Off] condition of unlock signal from key fob
SHOCK SENSOR	NOTE: This item is displayed, but cannot be supported
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock unlock switch
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock unlock switch
KEY CYL LK-SW	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW	Indicated [On/Off] condition of unlock signal from door key cylinder
VEHICLE SPEED	Display the vehicle speed signal received from combination meter by numerical value [Km/h]

**ACTIVE TEST** 

# **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

Test item	Description  This test is able to check door lock/unlock operation  • The all door lock actuators are locked when "ALL LCK" on CONSULT screen is touched  • The all door lock actuators are unlocked when "ALL UNLK" on CONSULT screen is touched  • The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT screen is touched  • The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT screen is touched		
OOR LOCK			
ULTI REMOTE EN	Γ		
	· CONCLUT Fire etian (DOM - MALILEI DEMOTE ENIT)		
ULII KEMUTE ENT	: CONSULT Function (BCM - MULTI REMOTE ENT)		
CM CONSULT FUNCTION			
ONSULT performs the folio	owing functions via CAN communication with BCM.		
Diagnosis mode	Function Description		
WORK SUPPORT	Changes the setting for each system function		
DATA MONITOR	The BCM input/output signals are displayed		
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM		
ATA MONITOR			
Monitor Item	Condition		
IGN ON SW	Indicates [On/Off] condition of ignition switch in ON position		
KEY ON SW	Indicates [On/Off] condition of key switch		
ACC ON SW	Indicates [On/Off] condition of ignition switch in ACC position		
KEYLESS LOCK	Indicates [On/Off] condition of lock signal from keyfob		
KEYLESS UNLOCK	Indicates [On/Off] condition of unlock signal from keyfob		
KYLS TRNK/HAT	NOTE: This item is displayed, but cannot be tested		
DOOR SW-DR	Indicates [On/Off] condition of front door switch (driver side)		
DOOR SW-AS	Indicates [On/Off] condition of front door switch (passenger side)		
DOOR SW-RR	Indicates [On/Off] condition of rear door switch RH		
DOOR SW-RL	Indicates [On/Off] condition of rear door switch LH		
BACK DOOR SW	Indicates [On/Off] condition of back door switch		
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be tested		
CDL LOCK SW	Indicates [On/Off] condition of door lock and unlock switch		
CDL UNLOCK SW	Indicates [On/Off] condition of door lock and unlock switch		
KEYLESS PANIC	Indicates [On/Off] condition of PANIC button of keyfob		
CTIVE TEST			
Test item	Description		
	This test is able to check interior room lamp operation		
INT LAMP	On: Operate     Off: Non-operation		
FLASHER	This test is able to check flasher operation [LH/RH/Off]		
	This test is able to check horn operation  On: Operate		

**WORK SUPPORT** 

Test item	Description		
REMO CONT IN REGIST	Keyfob ID code can be registered		
REMO CONT IN ERASUR	Keyfob ID code can be erased		
REMO CONT IN CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode		
MULTI ANSWER BACK SET	NOTE: This item is displayed, but cannot be tested		
HORN CHIRP SET	Hazard and horn reminder function (horn operation) mode can be changed in this mode  On: Operate  Off: Non-operation		
HAZARD LAMP SET	Hazard and horn reminder function (hazard operation) mode can be changed in this mode  • MODE1: Non-operation  • MODE2: Unlock operation only  • MODE3: Lock operation only  • MODE4: Lock and unlock operation		
AUTO LOCK SET	Auto door lock time can be changed in this mode  • MODE 1: Non-operation  • MODE 2: 30 sec  • MODE 3: 1 minute  • MODE 4: 2 minute  • MODE 5: 3 minute  • MODE 6: 4 minute  • MODE 7: 5 minute		
PANIC ALARM SET	Panic alarm button pressing time on keyfob remote control button can be selected from the following with this mode  • MODE1: 0.5 sec  • MODE2: Non-operation  • MODE3: 1.5 sec		
TRUNK OPEN SET	NOTE: This item is displayed, but cannot be tested		

# TRUNK

TRUNK: CONSULT Function (BCM - TRUNK)

INFOID:0000000007772976

### **BCM CONSULT FUNCTION**

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.

#### **DATA MONITOR**

Monitor Item	Contents
KEY ON SW	Indicates [On/Off] condition of key switch.
LOCK STATUS	NOTE: This item is displayed, but cannot be monitored.
VEHICLE SPEED	Indicates [Km/h] condition of vehicle speed signal from combination meter.
IGN ON SW	Indicates [On/Off] condition of ignition switch.
TRNK OPNR SW	NOTE: This item is displayed, but cannot be monitored.
KYLS TRNK/HAT	NOTE: This item is displayed, but cannot be monitored.

### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000007772977

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### 1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not fusing.

Signal name	Fuses and fusible link No.	
Battery power supply	8	
battery power supply	G	
ACC power supply	20	
Ignition power supply	2	

#### 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

Turn ignition switch OFF.

- Disconnect BCM connectors.
- 3. Check voltage between BCM harness connector and ground.

Terminals			Ignition switch position		
(+)		(-)	ignition switch position		
BCM			OFF	ACC	ON
Connector	Terminal		OFF	ACC	
M67	70	Ground	Battery	Battery	Battery
	57		voltage	voltage	voltage
M65	11		Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage

#### 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.

В	СМ		Continuity	
Connector Terminal		Ground	Continuity	
M67	67		Existed	

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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### **DOOR SWITCH**

[WITHOUT INTELLIGENT KEY SYSTEM]

## **DOOR SWITCH**

Description INFOID:0000000007772978

Detects door open/close condition.

### Component Function Check

INFOID:0000000007772979

# 1. CHECK FUNCTION

Check ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR", "BACK DOOR SW") in "Data Monitor" mode with CONSULT.

Monitor item	C	Condition	Status
DOOR SW-DR	Driver side door	Open	ON
DOOK SW-DK	Driver side door	Closed	OFF
DOOR SW-AS	December side deer	Open	ON
DOOR SW-AS	Passenger side door	Closed	OFF
DOOR SW-RL	Rear door LH	Open	ON
		Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
DOOK SW-KK		Closed	OFF
BACK DOOR SW	Back door	Open	ON
	Back dool	Closed	OFF

#### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-222</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007772980

# 1. CHECK DOOR SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check signal between malfunctioning door switch harness connector and ground with oscilloscope.

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	(+)		, .	Signal
Conne	Door switch	Terminal	(-)	(Reference value)
Driver side	B34	3		(V) 15 10 5 0 ++10ms PKIB4960J 7.0 - 8.0 V
Passenger side	B27	3		(V) 15 10 5 0 ++10ms PKIB4960J 7.0 - 8.0 V
Rear LH	B71	3	Ground	(V) 15 10 5 0 ++10ms PKIB4960J 7.0 - 8.0 V
Rear RH	B53	3		(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
Back door	B75	3		(V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between door switch harness connector and BCM harness connector.

#### [WITHOUT INTELLIGENT KEY SYSTEM]

Door switch		ВС	Continuity		
Cor	nector	Terminal	Connector	Terminal	Continuity
Driver side	B34		M66	47	
Passenger side	B27		M65	12	
Rear LH	B71	3	M66	48	Existed
Rear RH	B53		M65	13	
Back door	B75		M66	43	

3. Check continuity between door switch harness connector and ground.

Door switch			Continuity	
Con	nector	Terminal	-	Continuity
Driver side	B34		-	
Passenger side	B27		Ground	
Rear LH	B71	3		Not existed
Rear RH	B53			
Back door	B75			

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

### 3. CHECK DOOR SWITCH

Refer to DLK-224, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-331</u>, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007772981

# 1. CHECK DOOR SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check continuity between door switch terminals.

Door switch		Condition		Continuity	
Terminal				Continuity	
2 Cround part of dear quitch		Door switch	Pressed	Not existed	
	3 Ground part of door switch		Released	Existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunction door switch. Refer to <u>DLK-331</u>, "Removal and Installation".

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# DOOR LOCK AND UNLOCK SWITCH

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000007772982

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000007772983

# 1. CHECK FUNCTION

Check "CDL LOCK SW" and "CDL UNLOCK SW" in BCM "Data Monitor" mode using CONSULT.

Monitor item	Cor	Status	
CDL LOCK SW		LOCK	ON
	Door lock and unlock switch	UNLOCK	OFF
CDL UNLOCK SW	Door lock and unlock switch	LOCK	OFF
		UNLOCK	ON

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-225</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000007772984

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect power window main switch connector.
- 3. Check signal between power window main switch harness connector and ground using oscilloscope.

(+)	(+) Power window main switch		Signal	
Power window			Signal (Reference value)	
Connector	Terminal		(	
	6			
D5	18	Ground	(V) 15 10 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Disconnect BCM connector and front power window switch (passenger side) connector.
- 2. Check continuity between BCM harness connector and power window main switch harness connector.

В	CM	Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M66	45	D5	18	Existed
	46	D3	6	LXISIEU

3. Check continuity between BCM harness connector and ground.

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#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M66	45	Ground	Not existed	
IVIOO	46		Not existed	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

	(+) BCM Connector Terminal		Signal (Reference value)	
Connector				
	45			
M66	46	Ground	(V) 15 10 10 ms 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace BCM. Refer to BCS-142, "Removal and Installation".

### 4. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D6	17		Existed

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Refer to DLK-226, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace power window main switch. Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

### 6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

#### >> INSPECTION END

### DRIVER SIDE: Component Inspection

INFOID:0000000007772985

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch (door lock and unlock switch) connector.

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

3. Check continuity between power window main switch (door lock and unlock switch) terminals.

Power windo	Power window main switch Terminal		Condition	
Terr				
6	6	Door lock and unlock switch	LOCK	Existed
0			UNLOCK	Not existed
10	18		LOCK	Existed
10			UNLOCK	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch. Refer to <a href="PWC-93">PWC-93</a>. "Removal and Installation".

#### PASSENGER SIDE

PASSENGER SIDE: Description

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE: Component Function Check

#### INFOID:0000000007772987

INFOID:0000000007772986

## 1. CHECK FUNCTION

Check "CDL LOCK SW" and "CDL UNLOCK SW" in BCM "Data Monitor" mode using CONSULT.

Monitor item	Condition Status		
CDL LOCK SW		LOCK	ON
CDL LOCK SW	Door lock and unlock switch	UNLOCK	OFF
CDL UNLOCK SW	Door lock and unlock switch	LOCK	OFF
CDE UNLOCK SW		UNLOCK	ON

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-227</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

# PASSENGER SIDE : Diagnosis Procedure

# INFOID:0000000007772988

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check signal between front power window switch (passenger side) harness connector and ground using oscilloscope.

	(+) Front power window switch (passenger side)		Signal (Reference value)	
Connector	Terminal		(Neleterice value)	
	1			
D25	2	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 4.

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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Disconnect BCM connector and power window main switch connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

ВСМ		Front power window switch (passenger side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M66	45	D25	1	Existed	
WOO	46	D23	2	LXISIEU	

3. Check continuity between BCM connector and ground.

ВСМ			Continuity	
Connector	Connector Terminal		Continuity	
M66	45	Ground	Not existed	
IVIOO	46			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check bcm output signal

- 1. Connect BCM connector.
- 2. Check signal between BCM harness connector and ground using oscilloscope.

-	(+)           BCM           Connector         Terminal		Signal (Reference value)	
Connector				
	45			
M66	46	Ground	(V) 15 10 10 ms 10 ms 1.0 - 1.5 V	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace BCM. Refer to BCS-142, "Removal and Installation".

## 4. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window s	witch (passenger side)		Continuity
Connector	Terminal	Ground	Continuity
M25	3		Existed

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Check front power window switch (passenger side).

Refer to DLK-229, "PASSENGER SIDE: Component Inspection".

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front power window switch (passenger side). Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

## PASSENGER SIDE: Component Inspection

INFOID:0000000007772989

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# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

- Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) terminals.

Front power window switch (passenger side)		Condition		Continuity
Terminal				
1			LOCK	Existed
ı	2	Door lock and unlock switch	UNLOCK	Not existed
2	3		LOCK	Not existed
2			UNLOCK	Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window switch (passenger side). Refer to <a href="PWC-93">PWC-93</a>, "Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

### DOOR LOCK ACTUATOR

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000007772990

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000007772991

## 1. CHECK FUNCTION

- 1. Use CONSULT to perform BCM Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-230</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000007772992

## ${f 1}$ .CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(-	+)				
	Front door lock assembly (driver side)		Condition		Voltage (V) (Approx.)
Connector	Terminal				
D9	1	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
	2	Giouna	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-318</u>, "<u>DOOR LOCK</u>: Removal and Installation".

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector and all door lock actuator connector.
- Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M67	59	D9	2	Existed
·	65	D9	1	LXISIEU

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M67	59	Ground	Not existed	
IVIO7	65		Not existed	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

### PASSENGER SIDE

< DTC/CIRCUIT DIAGNOSIS >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

PASSENGER SIDE: Description

INFOID:0000000007772993

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

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## 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-231</u>, "PASSENGER SIDE : <u>Diagnosis Procedure"</u>.

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INFOID:0000000007772995

## PASSENGER SIDE: Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (passenger side) connector.
- 3. Check voltage between front door lock assembly (passenger side) harness connector and ground.

	+)				
Front door lock assembly (passenger side)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D28	5	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
DZ8	6	Giodila	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

### Is the inspection result normal?

YES >> Replace front door lock assembly (passenger side). Refer to <u>DLK-318, "DOOR LOCK: Removal and Installation"</u>.

NO >> GO TO 2.

# 2.check door lock actuator circuit

- Disconnect BCM connector and all door lock actuator connector.
- Check continuity between BCM harness connector and front door lock assembly (passenger side) harness connector.

BCM		Front door lock assembly (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M67	65	D28	5	Existed
IVIO 7	66	D20	6	LXISIEG

Check continuity between BCM harness connector and ground.

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
M67	65	Ground	Not existed
IVIO /	66		NOT EXISTED

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

## REAR LH : Description

Revision: 2011 November

Locks/unlocks the door with the signal from BCM.

INFOID:0000000007772996

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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# REAR LH: Component Function Check

INFOID:0000000007772997

## 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-233</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

### REAR LH: Diagnosis Procedure

INFOID:0000000007772998

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly LH connector.
- 3. Check voltage between rear door lock assembly LH harness connector and ground.

	+) k assembly LH		Condition		Voltage (V) (Approx.)
Connector	Terminal				(Approx.)
D65	1	Ground	Door lock and unlock switch		$0 \rightarrow Battery \ voltage \rightarrow 0$
D03	2	Giodila	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to <u>DLK-322</u>, "<u>DOOR LOCK</u>: <u>Removal and Installation</u>".

NO  $\gg$  GO TO 2.

# 2.check door lock actuator circuit

- 1. Disconnect BCM connector and all door lock actuator.
- Check continuity between BCM harness connector and rear door lock assembly LH harness connector.

В	CM	Rear door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M67	65	D65	1	Existed
IVIO7	66	D03	2	LXISIEU

3. Check continuity between BCM harness connector and ground.

E	BCM		Continuity	
Connector	Terminal	Ground	Continuity	
M67	65	Ground	Not existed	
IVIO /	66		INOL EXISTED	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH: Description

INFOID:0000000007772999

INFOID:0000000007773000

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

# 1. CHECK FUNCTION

1. Use CONSULT to perform Active Test ("DOOR LOCK").

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#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

2.	Touch "ALL LOCK" or "ALL UNLK" to check that it works normally	/.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-233, "REAR RH: Diagnosis Procedure".

### REAR RH: Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly RH connector.
- Check voltage between rear door lock assembly RH harness connector and ground.

(-	+)		Condition		Malka a AA	
Rear door lock	k assembly RH	(–)				Voltage (V) (Approx.)
Connector	Terminal				(11 - 7	
D45	5	Ground	Door lock and unlock switch		0  o Battery voltage  o 0	
543	6	Sibulia	Door look and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace rear door lock assembly RH. Refer to DLK-322, "DOOR LOCK: Removal and Installation".

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- Disconnect BCM connector and all door lock actuator.
- Check continuity between BCM harness connector and rear door lock assembly RH harness connector.

В	CM	Rear door lock assembly RH		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M67	65	D45	5	Existed	
IVIO7	66	043	6	Existed	

Check continuity between BCM harness connector and ground.

В	ВСМ		Continuity
Connector	Terminal	Ground	Continuity
M67	65	Ground	Not existed
IVIO7	66		INOL EXISTED

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

BACK DOOR

**BACK DOOR: Description** 

Locks/unlocks the door with the signal from BCM.

BACK DOOR: Component Function Check

### 1. CHECK FUNCTION

- Use CONSULT to perform Active Test ("DOOR LOCK").
- Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Back door lock actuator is OK.

>> Refer to DLK-234, "BACK DOOR: Diagnosis Procedure". NO

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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# BACK DOOR: Diagnosis Procedure

INFOID:000000000777300

# 1. CHECK BACK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect back door lock assembly connector.
- 3. Check voltage between back door lock assembly harness connector and ground.

(-	+)		Condition		V 16 0.0	
Back door lo	ock assembly	(–)			Condition	Voltage (V) (Approx.)
Connector	Terminal				(11 - 7	
D106	2	Ground	Door lock and unlock switch Unlock Lock		$0 \to Battery\ voltage \to 0$	
	3	Giodila				

#### Is the inspection result normal?

YES >> Replace back door lock assembly. Refer to <a href="DLK-326">DLK-326</a>, "DOOR LOCK: Removal and Installation".

NO >> GO TO 2

# 2.CHECK BACK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector and all door lock actuator.
- 2. Check continuity between BCM harness connector and back door lock assembly harness connector.

В	ВСМ		Back door lock assembly	
Connector	Terminal	Connector	Terminal	Continuity
M67	65	D106	3	Existed
IVIO7	66		2	LXISIGU

3. Check continuity between BCM harness connector and ground.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M67	65	Ground	Not existed	
WOT	66		Not existed	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

### DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# DOOR KEY CYLINDER SWITCH

Description INFOID:0000000007773005

Transmits lock/unlock operation to BCM.

Component Function Check

#### INFOID:0000000007773006

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# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
KEY CYL LK-SW		Lock	ON
RETUTE LR-SW	- Driver side door key cylinder	Neutral / Unlock	OFF
KEY CYL UN-SW		Unlock	ON
		Neutral / Lock	OFF

#### Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to <u>DLK-235</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007773007

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect front door lock assembly (driver side) connector.

3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(+) Front door lock assembly (driver side)			V 6 00	
		(–)	Voltage (V) (Approx.)	
Connector	Terminal		( ipplox.)	
D9	5	Ground	(V) <sub>15</sub> 10 5 0 ++10ms JPMIA0587GB 8.0 - 8.5 V	
	6		Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

Disconnect BCM connector.

Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

В	СМ	Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M65	7	D9	5	Existed
MOS	8	D9	6	LVISIGO

### DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M65	7	Giodila	Not existed
IVIOS	8		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness.

## 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock as	sembly (driver side)		Continuity
Connector	Terminal	Ground	Continuity
D9	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK DOOR KEY CYLINDER SWITCH

Refer to DLK-236, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-318, "DOOR LOCK: Removal and Installation".</u>

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000007773008

## 1. CHECK DOOR KEY CYLINDER SWITCH

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) terminal.
- 3. Check continuity between front door lock assembly (driver side) terminals.

Front door lock assembly (driver side)  Terminal		Condition		Continuity
3		4 Driver side door key cylinder	Neutral / Lock	Not existed
6	4		Lock	Existed
0		Neutral / Unlock	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-318</u>, "<u>DOOR LOCK</u>: Removal and Installation".

### REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY RECEIVER

Description

Receives Intelligent Key operation and transmits to BCM.

# Component Function Check

# INFOID:0000000007773010

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# 1. CHECK FUNCTION

Check ("RKE OPE COUN1") in MULTI REMOTE ENT Data Monitor mode using CONSULT.

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating Intelligent Key

### Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to <u>DLK-237</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:00000000007773011

# 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check signal between remote keyless entry receiver harness connector and ground using oscilloscope.

(+) Remote keyless entry receiver		(–)	Condition	Signal (Reference value)
Connector	Terminal			(Reference value)
M61	2	Ground	Waiting	(V) 6 4 2 0 •••1.0ms
WOT	2	Glodila	Signal receiving	(V) 6 4 2 0 +1.0ms

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

# 2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

1. Disconnect BCM connector and remote keyless entry receiver connector

2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	CM	Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M65	20	M61	2	Existed

3. Check continuity between BCM harness connector and ground.

### REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M65	20		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness between BCM and remote keyless entry receiver.

# 3. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

- 1. Disconnect remote keyless entry receiver.
- 2. Check signal between remote keyless entry receiver harness connector and ground using oscilloscope.

(+) Remote keyless entry receiver		(–)	Signal (Reference value)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,
			Insert mechanical key into ignition key cylinder	0 V
			Remove mechanical key from ignition key cylinder (Any door opened)	5 V
M61	4	Ground	Remove mechanical key from ignition key cylinder (Any door closed)	(V) 6 4 2 0 ••0.2 s

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	CM	Remote keyless entry receiver		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M61	19	M61	4	Existed	

3. Check continuity between BCM connector and ground.

В	CM		Continuity
Connector Terminal		Ground	Continuity
M61	19		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-142, "Removal and Installation".

NO >> Repair or replace harness between BCM and remote keyless entry receiver.

# 5. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 3

- Disconnect BCM connector.
- Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	BCM		s entry receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M65	18	M61	1	Existed

### REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

3. Check continuity between BCM harness connector and ground.

В	ВСМ		Continuity
Connector	Terminal	Ground	Continuity
M65	18		Existed

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#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

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# 6. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

- 1. Connect BCM connector.
- 2. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M65	18		Existed

### Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-332</u>, "Removal and Installation".

NO >> Replace BCM. Refer to BCS-142, "Removal and Installation".

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INFOID:0000000007773013

INFOID:0000000007773014

## **KEY SWITCH**

Description INFOID:000000007773012

Key switch detects that ignition key is inserted into the key cylinder, and then transmits the signal to BCM.

### Component Function Check

## 1. CHECK FUNCTION

Check ("KEY ON SW") in BCM "DATA MONITOR" mode using CONSULT..

Monitor item	Condition		Status
KEY ON SW	Kevfob	Inserted in key cylinder	ON
RET ON SW	Reylob	Removed from key cylinder	OFF

#### Is the inspection result normal?

YES >> Key switch is OK.

NO >> Refer to <u>DLK-240, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

### 1.CHECK FUSE

Turn ignition switch OFF.

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

#### Is fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- 1. Disconnect key switch connector.
- Check voltage between key switch harness connector and ground.

Key switch			Voltage (V)
Connector	Terminal	Ground	(Approx.)
M24	2		Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3. CHECK KEY SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- Check continuity between key switch harness connector and BCM harness connector.

Key switch		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M24	1	M65	37	Existed

3. Check continuity between key switch connector and ground.

Key switch			Continuity
Connector	Terminal	Ground	Continuity
M24	1		Not existed

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

#### **KEY SWITCH**

#### [WITHOUT INTELLIGENT KEY SYSTEM]

# < DTC/CIRCUIT DIAGNOSIS > 4. CHECK KEY SWITCH Refer to DLK-241, "Component Inspection". Is the inspection result normal? >> GO TO 5. YES NO >> Replace key switch. 5. CHECK INTERMITTENT INCIDENT Refer to GI-41, "Intermittent Incident". >> INSPECTION END Component Inspection COMPONENT INSPECTION 1. CHECK KEY SWITCH Turn ignition switch OFF. 2. Disconnect key switch connector. Check continuity between key switch terminals.

Key s		Condition		Continuity
1	2	Kevfob	Inserted in key cylinder	Existed
	2	Reylob	Removed from key cylinder	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END NO >> Replace key switch.

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## **BUZZER (COMBINATION METER)**

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# **BUZZER (COMBINATION METER)**

Description INFOID:0000000007773016

Performs operation method guide and warning with buzzer.

## Component Function Check

INFOID:0000000007773017

# 1. CHECK FUNCTION

- 1. Check the operation with "INSIDE BUZZER" in the Active Test.
- 2. Touch "take out", "knob" or "key" on screen.

#### Is the inspection result normal?

Yes >> Buzzer (combination meter) is OK.

No >> Refer to <u>DLK-242</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000007773018

# 1. CHECK METER BUZZER CIRCUIT

Refer to WCS-25, "Component Function Check".

### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace meter buzzer circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

# HAZARD FUNCTION

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< DTC/CIRCUIT DIAGNOSIS >	[WITHOUT INTELLIGENT KEY SYSTEM]
HAZARD FUNCTION	Λ
Description	A INFOID:000000007773019
Perform answer-back for each operation with number of blinks.	В
Component Function Check	INFOID:0000000007773020
1.CHECK FUNCTION	С
Check hazard warning lamp ("FLASHER") in Active Test.  Is the inspection result normal?	D
YES >> Hazard warning lamp circuit is OK. NO >> Refer to <u>DLK-243, "Diagnosis Procedure"</u> .	
Diagnosis Procedure	INFOID:0000000007773021
1.CHECK HAZARD SWITCH CIRCUIT	
Refer to EXL-66, "Component Function Check".  Is the inspection result normal?	F
YES >> GO TO 2. NO >> Repair or replace hazard warning switch circuit. Re  2.CHECK INTERMITTENT INCIDENT	efer to EXL-177, "Removal and Installation".
Refer to GI-41, "Intermittent Incident".	Н
>> INSPECTION END	
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### **KEYFOB BATTERY**

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### **KEYFOB BATTERY**

**Description** 

Remote door lock and unlock control entry function available when operating on button.

## Component Function Check

INFOID:0000000007773023

## 1. CHECK FUNCTION

Check door lock and unlock operation with keyfob button.

#### Is the inspection result normal?

YES >> Keyfob is OK.

NO >> Refer to <u>DLK-244, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000007773024

# 1. CHECK KEYFOB BATTERY

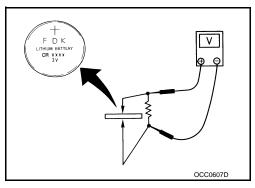
Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

#### Standard: Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace keyfob.

NO >> Replace keyfob battery. Refer to <u>DLK-333, "Removal and Installation"</u>.



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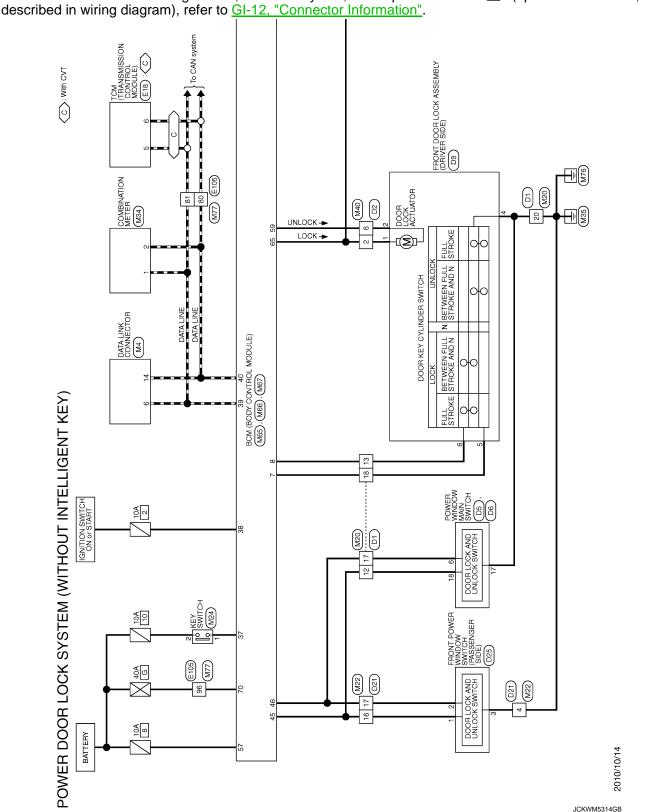
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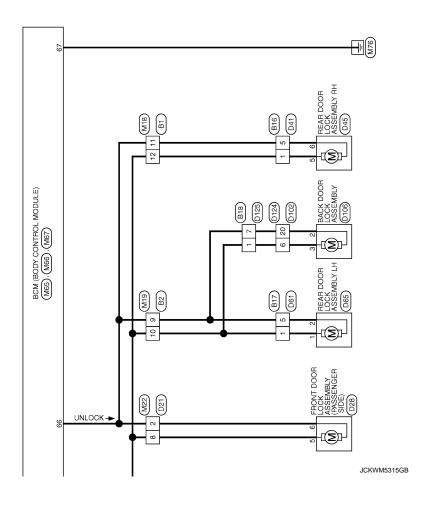
INFOID:0000000007773025

## POWER DOOR LOCK SYSTEM

## Wiring Diagram - POWER DOOR LOCK SYSTEM -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12 "Connector Information"





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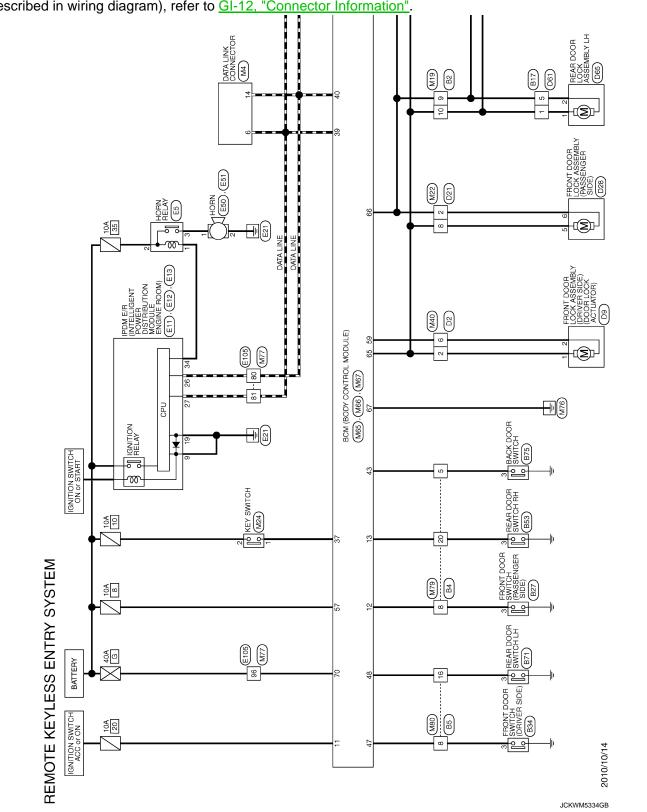
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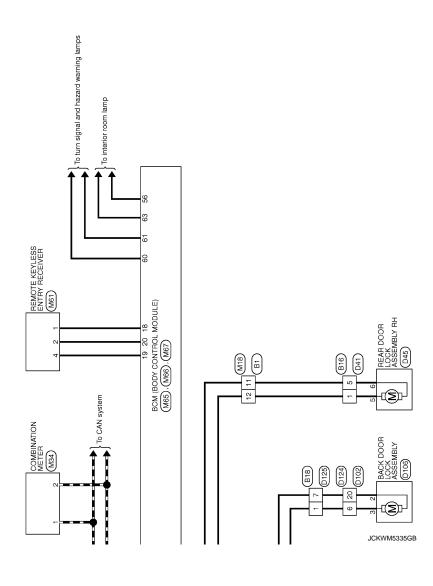
INFOID:0000000007773026

## REMOTE KEYLESS ENTRY SYSTEM

# Wiring Diagram - REMOTE KEYLESS ENTRY SYSTEM -

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".





# **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

# **ECU DIAGNOSIS INFORMATION**

# **BCM (BODY CONTROL MODULE)**

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ICNI ONI CIMI	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Ignition switch ON  Mechanical key is removed from key cylinder  Mechanical key is inserted to key cylinder  Door lock/unlock switch does not operate  Press door lock/unlock switch to the lock side  Door lock/unlock switch does not operate  Press door lock/unlock switch to the unlock side  Doriver's door closed  Driver's door opened  SW-AS  Passenger door closed  Passenger door opened  Rear RH door closed  Rear RH door opened  SW-RL  Rear LH door opened  Back door closed  Back door opened  STATUS  NOTE: The item is indicated, but not monitored.  Ignition switch ACC or ON  SS LOCK  "LOCK" button of key fob is not pressed  "UNLOCK" button of key fob is not pressed  "UNLOCK" button of key fob is pressed  NOTE: The item is indicated, but not monitored.  Other than driver door key cylinder LOCK position  Driver door key cylinder LOCK position  Other than driver door key cylinder UNLOCK position	On
CDL LOCK CW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the lock side	On
CDL TIMI OCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the unlock side	On
DOOR SW DR	Driver's door closed	Off
DOOR SW-DR	Driver's door opened	On
DOOD SW AS	Passenger door closed	Off
DOOR SW-AS  DOOR SW-AS  DOOR SW-RR  DOOR SW-RR  DOOR SW-RL  BACK DOOR SW  LOCK STATUS  Press  Passe Rear I	Passenger door opened	On
DOOD SW DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOD SW DI	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DACK DOOD CW	Back door closed	Off
BACK DOOR SW	Back door opened	On
LOCK STATUS		Off
ACC CM CM	Ignition switch OFF	Off
ACC ON SW	Ignition switch ACC or ON	On
KENTEGO I OOK	"LOCK" button of key fob is not pressed	Off
KEYLESS LOCK	"LOCK" button of key fob is pressed	On
KEVI EGG LINII OOK	"UNLOCK" button of key fob is not pressed	Off
KEYLESS UNLOCK	"UNLOCK" button of key fob is pressed	On
SHOCK SENSOR		NORMAL
KEN ONLIN OM	Other than driver door key cylinder LOCK position	Off
KEY CYLLK-SVV	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
VEHICLE SPEED	While driving	Equivalent to speed- ometer reading
DEAD DEE CM	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
	NOTE:	Off
REVERSE SW CAN	The item is indicated, but not used.	On

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# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
AIL LAMP SW	Lighting switch OFF	Off
AIL LAWI OW	Lighting switch 1ST	On
R FOG SW	NOTE: The item is indicated, but not monitored.	Off
BUCKLE SW	The seat belt (driver side) is fastened. [Seat belt switch (driver side) OFF]	Off
SOURLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) ON]	On
RNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
ACC SW	Ignition switch OFF	Off
CC 377	Ignition switch ACC or ON	On
YLS TRNK/HAT	NOTE: The item is indicated, but not monitored.	Off
EYLESS PANIC	PANIC button of key fob is not pressed	Off
L I LEGO FAINIU	PANIC button of key fob is pressed	On
II BEAM SW	Lighting switch OFF	Off
II DEMINI ON	Lighting switch HI	On
IEAD LAMP SW 1	Lighting switch OFF	Off
ILAD FAINIL 200 I	Lighting switch 2ND	On
IEAD LAMP SW 2	Lighting switch OFF	Off
IEAD LAWP SW 2	Lighting switch 2ND	On
UTO LIGHT SW	NOTE: The item is indicated, but not monitored.	Off
DA COINO OW	Other than lighting switch PASS	Off
ASSING SW	Lighting switch PASS	On
R FOG SW	NOTE: The item is indicated, but not monitored.	Off
URN SIGNAL R	Turn signal switch OFF	Off
OKN SIGNAL K	Turn signal switch RH	On
TIDN CICNAL I	Turn signal switch OFF	Off
URN SIGNAL L	Turn signal switch LH	On
PKB SW	Parking brake switch is OFF	Off
VR 244	Parking brake switch is ON	On
ENGINE RUN	Engine stopped	Off
INGINE KUN	Engine running	On
PTI SEN (DTCT)	NOTE: The item is indicated, but not monitored.	Close to 5 V
OPTI SEN (FILT)	NOTE: The item is indicated, but not monitored.	Close to 5 V
IG SEN COND	NOTE: The item is indicated, but not monitored.	OFF
GN SW CAN	Ignition switch OFF or ACC	Off
ON OW CAIN	Ignition switch ON	On
D WIDED III	Front wiper switch OFF	Off
R WIPER HI	Front wiper switch HI	On
D MIDED LOW	Front wiper switch OFF	Off
R WIPER LOW	Front wiper switch LO	On

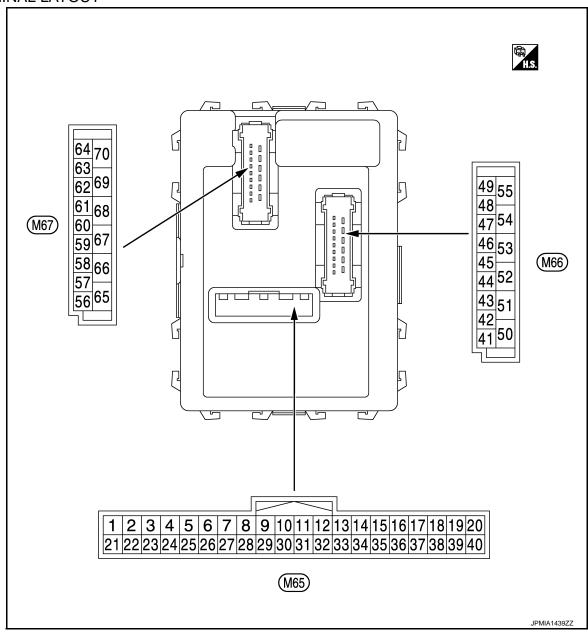
# **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
FR WIPER INT	Front wiper switch OFF	Off
-K WIFEK IIVI	Front wiper switch INT	On
R WASHER SW	Front washer switch OFF	Off
K WASHER SW	Front washer switch ON	On
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
R WIPER STOP	Any position other than front wiper stop position	Off
K WIFER STOP	Front wiper stop position	On
RR WIPER ON	Rear wiper switch OFF	Off
KR WIPER ON	Rear wiper switch ON	On
DD WIDED INT	Rear wiper switch OFF	Off
RR WIPER INT	Rear wiper switch INT	On
ND MAR OLIED OM	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
ND W#DED OTOD	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
RAIN SENSOR	NOTE: The item is indicated, but not monitored.	Off
1474BB 0144	Hazard switch OFF	Off
IAZARD SW	Hazard switch ON	On
	Blower control dial OFF	Off
AN ON SIG	Other than blower control dial OFF	On
	A/C switch OFF	Off
AIR COND SW	A/C switch ON	On
	Ignition switch ON	Off
HERMO AMP	Evaporator is extremely low temperature	On
	Other than A/C mode defroster ON position	Off
R DEF SW	A/C mode defroster ON position	On
KEYLESS TRUNK	NOTE: The item is indicated, but not monitored.	Off
TRNK OPNR SW	NOTE: The item is indicated, but not monitored.	Off
FRNK OPN MNTR	NOTE: The item is indicated, but not monitored.	Off
1000 0111	Close the hood	Off
HOOD SW	Open the hood	On
	Other than the ignition switch is ON by key registered to BCM.	Off
RANSPONDER	The ignition switch is ON by key registered to BCM.	On
NTELLI KEY	NOTE: The item is indicated, but not used.	Off
AUTO RELOCK	NOTE: The item is indicated, but not monitored.	Off
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off
	Ignition switch ON	On
	Brake pedal is not depressed	Off
BRAKE SW	Brake pedal is depressed	On

### TERMINAL LAYOUT



#### NOTE:

M65, M66: WhiteM67: Black

PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

	nal No. color)	Description				Value	А
+	-	Signal name	Input/ Output	Condition		(Approx.)	
					All switch OFF	0 V	В
					Turn signal switch RH		
					Lighting switch HI	(V) 15	
2 (BR/W)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit-	Lighting switch 1ST	10 5 0 ++10ms PKIB4958J 1.0 V	D
(21011)		61 6		tent dial 4)			Е
					Lighting switch 2ND	(V) 15 10 5 0	F
						→ 10 ms   JPMIA0342JP  2.0 V	G
					All switch OFF	0 V	
					Turn signal switch LH	W	-
				Combination	Lighting switch PASS	(V) 15	
3 (GR)	Ground	Combination switch INPUT 4	Input	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	10 5 0	I
						PKIB4958J 1.0 V	
					All switch OFF	0 V	
					Front wiper switch LO		DL
				Combination	Front wiper switch MIST	(V) 15	
4 (L/Y)	Ground	Combination switch INPUT 3	Input	switch (Wiper intermit- tent dial 4)	Front wiper switch INT	10 5 0	L
						PKIB4958J 1.0 V	

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## < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch (Wiper intermittent dial 4)	(V) 15	
					Rear washer switch ON (Wiper intermittent dial 4)	10	
					Any of the condition below with all switch OFF	→ 10ms	
5	Ground	Combination switch	Input	Combination	<ul><li>Wiper intermittent dial 1</li><li>Wiper intermittent dial 5</li></ul>	PKIB4958J	
(G)	Cround	INPUT 2	pat	switch	Wiper intermittent dial 6	1.0 V	
					Rear wiper switch ON	(V) 15 10 5 0	
					(V	(Wiper intermittent dial 4)	→ +10ms
						РКІВ4956J 0.8 V	
					All switch OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)	(V)	
					Rear wiper switch INT (Wiper intermittent dial 4)	15 10 5 0	
					Wiper intermittent dial 3 (All switch OFF)	++10ms PKIB4958J	
6 (L/R)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2	(V) 15 10 5 0 ++10ms PKIB4952J 1.9 V	
					Any of the condition below with all switch OFF • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 ++10ms PKIB4956J 0.8 V	

# < ECU DIAGNOSIS INFORMATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

	nal No. color)	Description			0 100	Value
+	- COIOF)	Signal name	Input/ Output		Condition	(Approx.)
7 (W/R)	Ground	Door key cylinder switch UNLOCK	Input	Door key cylin- der switch	NEUTRAL position	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V
					UNLOCK position	0 V
8		Door key cylinder		Door key cylin-	NEUTRAL position	12 V
(W/B)	Ground	switch LOCK	Input	der switch	LOCK position	0 V
9	Crowns	Cton lamp switch	lowt	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(R)	Ground	Stop lamp switch	Input	switch	ON (Brake pedal is depressed)	Battery voltage
10	Ground	Rear window defog-	Input	Rear window	OFF (Not pressed)	12 V
(W/L)	Ground	ger switch	прис	defogger switch ON (Pressed)		0 V
11	Ground	Ignition switch ACC	Input	Ignition switch O		0 V
(L/Y)	2.34.14	-g		Ignition switch A	CC or ON	Battery voltage
12 (SB)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 *** 10ms PKIB4960J 7.0 - 8.0 V
					ON (When passenger door opened)	0 V
13 (GR/L)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	(V) 15 10 5 0 *** 10ms PKIB4960J 7.0 - 8.0 V
					ON (When rear RH door opened)	0 V
18 (V)	Ground	Receiver ground	Input	Ignition switch Ol	N	0 V

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# < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				V. I.
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
					Insert mechanical key into ignition key cylinder	0 V
					Remove mechanical key from ignition key cylinder (Any door opened)	5 V
19 (BR)	Ground	Remote keyless en- try receiver power supply	Input	Ignition switch OFF	Remove mechanical key from ignition key cylinder (Any door closed)	(V) 6 4 2 0 ***0.2 S JPMIA0338JP
					Insert mechanical key into ignition key cylinder	0 V
20 (G/Y)	Ground	Remote keyless entry receiver communication	Input	Ignition switch	Waiting	(V) 6 4 2 0 1.0ms
					Signal receiving	(V) 6 4 2 0 ++1.0ms
21	Ground	NATS antenna amp.	Input/	Just after insertin	g ignition key in key cylinder	Pointer of tester should move
(P/L)	Cround	TWATO anterina amp.	Output	Other than above	Э	0 V
23 (R/Y)	Ground	Security indicator	Input	Security indicator	ON  Blinking (Ignition switch OFF)  OFF	0 V  (V) 15 10 5 0  JPMIA0014GB 11.3 V 12 V
24*			Input/			
(GR/B)	Ground	Dongle link	Output	Ignition switch OFF		5 V
25 (LG)	Ground	NATS antenna amp.	Input/ Output	Just after insertin	g ignition key in key cylinder	Pointer of tester should move 0 V
26		TI	1	Ignition switch O	N	0 V
(GR)	Ground	Thermo control amp.	Input	Evaporator is ext	remely low temperature	12 V

## < ECU DIAGNOSIS INFORMATION >

	nal No.	Description		0 150		Value		Value	А
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)	A		
27 (Y/G)	Ground	A/C switch	Input	A/C switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V	B C		
					ON	0 V			
28 (G/W)	Ground	Blower fan switch	Input	Fan switch	Blower fan switch OFF	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V	E F G		
					Blower fan switch ON	0 V			
29	Ground	Hazard switch	Input	Hazard switch	OFF	Battery voltage	Н		
(L/W)			1		ON A/C mode defroster ON	0 V			
31 (G/Y)	Ground	Front defroster switch	Input	Ignition switch ON	Other than A/C mode de- froster ON position	0 V  (V) 15 10 5 0	J DLK		
32		Combination switch		Combination	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 → 10ms PKIB4960J 7.0 - 8.0 V	M N		
(LG)	Ground	OUTPUT 5	Output	switch	Rear wiper switch ON (Wiper intermittent dial 4)  Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 6  Wiper intermittent dial 7	(V) 15 10 5 0 ++10ms PKIB4956J	O		

	nal No.	Description				Value	
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
33	Crowned	Combination switch	Outroit	Combination	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 → 10ms PKIB4960J 7.0 - 8.0 V	
(Y/L)	Ground	OUTPUT 4	Output	switch	Lighting switch 1ST (Wiper intermittent dial 4)  Rear wiper switch INT	(V) 15 10	
					(Wiper intermittent dial 4)  Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 5  Wiper intermittent dial 6	+10ms PKIB4958J	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms PKIB4960J 7.0 - 8.0 V	
34 (W)	Ground	Combination switch OUTPUT 3	Output Combination switch	Output switch (Wi	Output	Lighting switch 2ND (Wiper intermittent dial 4)	
						Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10
						Rear washer switch ON (Wiper intermittent dial 4)	5
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	PKIB4958J 1.2 V	
35	Constant	Combination switch	0.4.4	Combination switch	All switch OFF	(V) 15 10 5 0 +-10ms PKIB4960J 7.0 - 8.0 V	
(R/L)	Ground	OUTPUT 2	Output	(Wiper intermit- tent dial 4)	Lighting switch 2ND	40	
				torit didi ¬i)	Lighting switch PASS	(V) 15 10	
					Front wiper switch INT  Front wiper switch HI	5 0 +10ms	
						PKIB4958J 1.2 V	

## < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	0
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
<u> </u>			Output	All switch OFF  Combination		(V) 15 10 5 0 + 10ms PKIB4960J	В
36 (L/O)	Ground	Combination switch OUTPUT 1	Output	switch (Wiper intermit- tent dial 4)	Turn signal switch RH Turn signal switch LH Front wiper switch LO (Front wiper switch MIST)	7.0 - 8.0 V	D E
37 (R/W)	Ground	Key switch	Input	der	Front washer switch ON  al key into ignition key cylin-	PKIB4958J  1.2 V  Battery voltage	F G
(K/VV)				cylinder	ical key from ignition key	0 V	Н
38 (O)	Ground	Ignition switch ON	Input	Ignition switch O		0 V	
39 (L)	Ground	CAN-H	Input/ Output	Ignition switch O	_	Battery voltage —	
40 (P)	Ground	CAN-L	Input/ Output		_	_	J
43 (W)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 **•10ms PKIB4960J 7.0 - 8.0 V	DLK L
					ON (When back door opened)	0 V	IVI
44		Rear wiper stop po-		Ignition switch	Rear wiper stop position	12 V	Ν
(LG)	Ground	sition	Input	ON	Any position other than rear wiper stop position	0 V	. *
45 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V	O P
					LOCK position	0 V	
	1						

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
46 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position  UNLOCK position	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V
					ortzoort position	
47 (BR/Y)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 ++10ms PKIB4960J 7.0 - 8.0 V
					ON (When driver door	0 V
					opened)	
48 (W/G)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	(V) 15 10 5 0 → 10ms PKIB4960J 7.0 - 8.0 V
					ON (When rear LH door	0 V
					opened)	
50	Ground	A/C indicator	Output	A/C indicator	OFF	12 V
(SB)					ON	0 V
54 (LG)	Ground	Rear wiper	Output	Ignition switch ON	Rear wiper switch OFF	0 V
(LO)					Rear wiper switch ON	12 V
					np battery saver is activated. room lamp power supply)	0 V
56 (L)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
59	Ground	Driver door UN-	Output	Driver door	UNLOCK (Actuator is activated)	12 V
(L/B)	Ground	LOCK	Output	Driver door	Other then UNLOCK (Actuator is not activated)	0 V

## < ECU DIAGNOSIS INFORMATION >

Revision: 2011 November

# [WITHOUT INTELLIGENT KEY SYSTEM]

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	nal No.	Description				Value	А
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)	$\wedge$
					Turn signal switch OFF	0 V	В
60 (W/B)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 PKIC6370E 6.0 V	C
					Turn signal switch OFF	0 V	Е
61 (W/L)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1s 1s	F
					OFF	6.0 V 12 V	
63 (BR)	Ground	Interior room lamp control signal	Output	Interior room lamp	ON	0 V	Н
65	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	12 V	I
(V)	Ground	All doors Lock	Output	All doors	Other then LOCK (Actuator is not activated)	0 V	
66	Ground	Passenger door and	Output	Passenger door	UNLOCK (Actuator is activated)	12 V	J
(G)	Giodila	rear door UNLOCK	Output	and rear door	Other then UNLOCK (Actuator is not activated)	0 V	DLK
67 (B)	Ground	Ground	Output	Ignition switch O	N	0 V	
68 (L)	Ground	P/W power supply (IGN)	Output	Ignition switch O	N	12 V	L
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch O	FF	12 V	M
70 (Y)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	Battery voltage	. v :

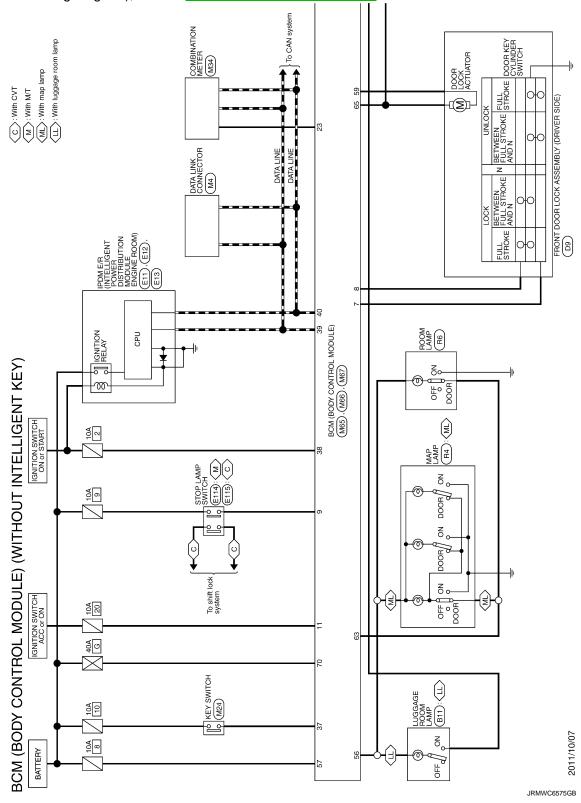
<sup>\*:</sup> For Canada

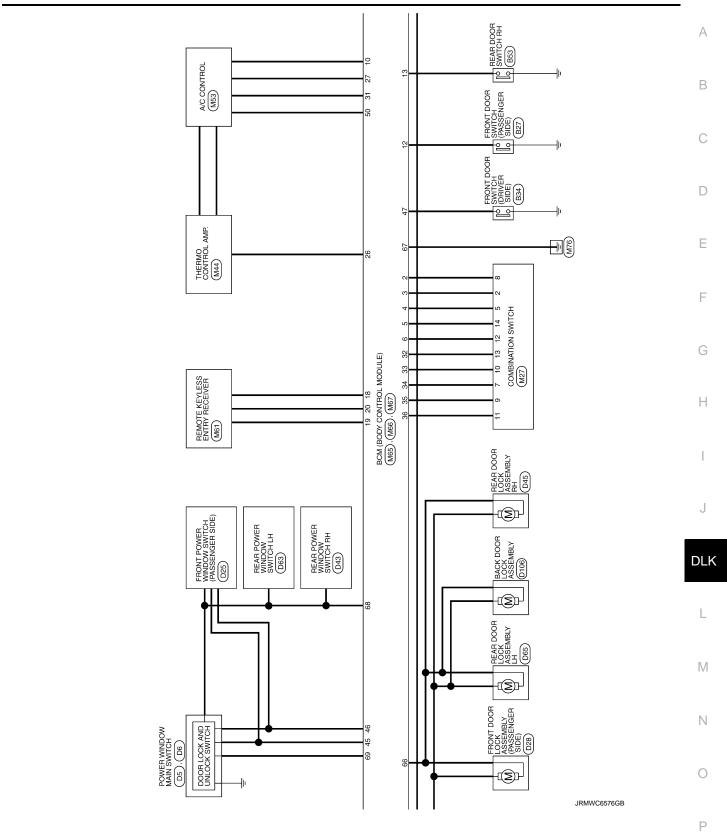
**DLK-261** 2012 CUBE

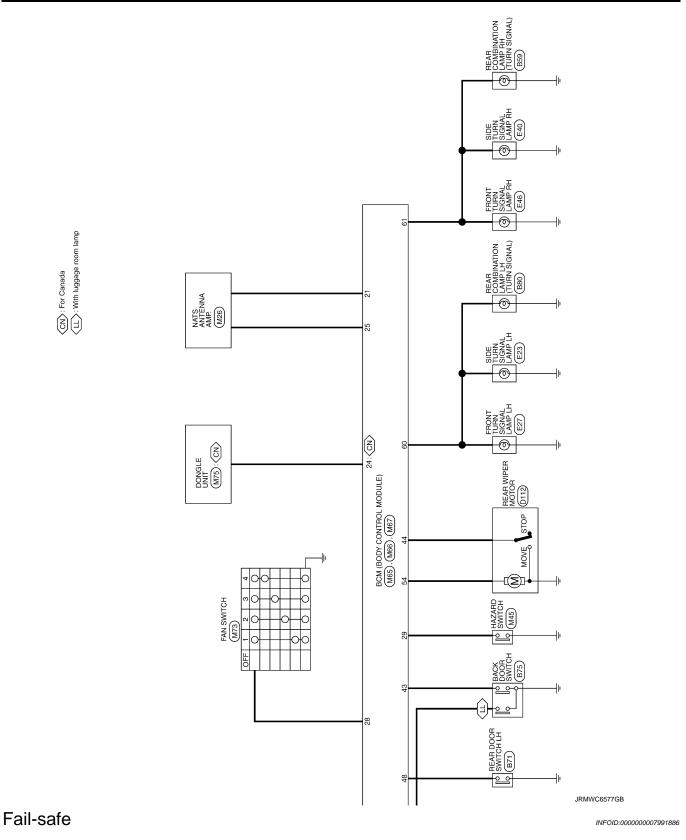
# Wiring Diagram - BCM -

INFOID:0000000007991885

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".







# FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

#### < ECU DIAGNOSIS INFORMATION >

#### [WITHOUT 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
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

#### Condition of cancellation

- Pass more than 1 minute after the rear wiper stop.
- Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

### DTC Inspection Priority Chart

INFOID:0000000007991887

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

Priority	DTC	H
1	U1000: CAN COMM     U1010: CONTROL UNIT (CAN)	
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING B2196: DONGLE NG	J
3	C1735: IGN CIRCUIT OPEN	511
4	<ul> <li>C1704: LOW PRESSURE FL</li> <li>C1705: LOW PRESSURE FR</li> <li>C1706: LOW PRESSURE RR</li> <li>C1707: LOW PRESSURE RL</li> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RL</li> <li>C1729: VHCL SPEED SIG ERR</li> </ul>	L M

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

## < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Tire pressure monitor warn- ing lamp ON	Reference
U1000: CAN COMM	_	_	BCS-113
U1010: CONTROL UNIT (CAN)	_	_	BCS-114
B2190: NATS ANTENNA AMP	×	_	SEC-173
B2191: DIFFERENCE OF KEY	×	_	SEC-176
B2192: ID DISCORD BCM-ECM	×	_	<u>SEC-177</u>
B2193: CHAIN OF BCM-ECM	×	_	<u>SEC-178</u>
B2195: ANTI SCANNING	×	_	SEC-179
B2196: DONGLE NG	×	_	SEC-180
C1704: LOW PRESSURE FL	_	×	
C1705: LOW PRESSURE FR	_	×	WT-22
C1706: LOW PRESSURE RR	_	×	<u>vv 1-22</u>
C1707: LOW PRESSURE RL	_	×	
C1708: [NO DATA] FL	_	×	
C1709: [NO DATA] FR	_	×	WT-24
C1710: [NO DATA] RR	_	×	<u>vv 1-24</u>
C1711: [NO DATA] RL	_	×	
C1716: [PRESS DATA ERR] FL	_	×	
C1717: [PRESS DATA ERR] FR	_	×	WT-27
C1718: [PRESS DATA ERR] RR	_	×	<u>VV 1-27</u>
C1719: [PRESS DATA ERR] RL	_	×	
C1729: VHCL SPEED SIG ERR	_	×	<u>WT-29</u>
C1735: IGN CIRCUIT OPEN	_	_	BCS-115

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH < SYMPTOM DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

#### SYMPTOM DIAGNOSIS Α DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH В **ALL DOOR** ALL DOOR: Description INFOID:0000000007773032 All doors do not lock/unlock using door lock and unlock switch. ALL DOOR: Diagnosis Procedure INFOID:0000000007773033 CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Е Refer to DLK-221, "BCM (BODY CONTROL MODULE): Diagnosis Procedure" (BCM). Is the inspection result normal? YES >> GO TO 2. F NO >> Repair or replace the malfunctioning parts. 2.CHECK DOOR LOCK AND UNLOCK SWITCH Check door lock and unlock switch. Driver side: Refer to <u>DLK-225</u>, "<u>DRIVER SIDE</u>: <u>Component Function Check</u>". Passenger side: Refer to <u>DLK-227</u>, "<u>PASSENGER SIDE</u>: <u>Component Function Check</u>". Н Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK DOOR LOCK ACTUATOR Check door lock actuator (driver side). Refer to DLK-230, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. DLK 4. CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". >> GO TO 1. NO M DRIVER SIDE DRIVER SIDE : Description INFOID:0000000007773034 Ν Driver side door does not lock/unlock using door lock and unlock switch. DRIVER SIDE: Diagnosis Procedure INFOID:0000000007773035 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator (driver side). Р Refer to DLK-230, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YFS >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again.

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH < SYMPTOM DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

Is the result normal?

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

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000007773036

Passenger side door does not lock/unlock using door lock and unlock switch.

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000007773037

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (passenger side).

Refer to DLK-231, "PASSENGER SIDE: 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-41, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

**REAR LH: Description** 

INFOID:0000000007773038

Rear LH side door does not lock/unlock using door lock and unlock switch.

**REAR LH: Diagnosis Procedure** 

INFOID:0000000007773039

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (rear LH).

Refer to DLK-232, "REAR LH: 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-41, "Intermittent Incident".

NO >> GO TO 1.

REAR RH

**REAR RH**: Description

INFOID:0000000007773040

Rear RH side door does not lock/unlock using door lock and unlock switch.

**REAR RH**: Diagnosis Procedure

INFOID:0000000007773041

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (rear RH).

Refer to DLK-232, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH

2.confirm the operation	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".  NO >> GO TO 1.  BACK DOOR	
BACK DOOR : Description	ND:00000000007773042
Back door does not lock/unlock using door lock and unlock switch.  BACK DOOR: Diagnosis Procedure	ND:0000000007773043
1. CHECK DOOR LOCK ACTUATOR	
Check back door lock assembly.  Refer to DLK-233, "BACK DOOR: 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 inspection result normal?  YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".  NO >> GO TO 1.	

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**DLK-269** Revision: 2011 November 2012 CUBE

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION

### Diagnosis Procedure

INFOID:0000000007773044

# 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Go to DLK-267, "ALL DOOR : Diagnosis Procedure".

# 2. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to DLK-235, "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-41, "Intermittent Incident".

NO >> GO TO 1.

# DOOR DOES NOT LOCK/UNLOCK WITH KEYFOB

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

iagnosis Procedure	INFOID:0000000007773045
.CHECK POWER DOOR LOCK OPERATION	
heck power door lock operation.	
oes door lock/unlock with door lock and unlock switch?	
YES >> GO TO 2. NO >> Go to DLK-267, "ALL DOOR : Diagnosis Procedure".	
CHECK REMOTE KEYLESS ENTRY RECEIVER	
heck remote keyless entry receiver.	
efer to DLK-237, "Component Function Check".	
s the inspection result normal? YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
CHECK DOOR SWITCH	
heck door switch.	
efer to DLK-222, "Component Function Check".	
s the inspection result normal? YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
CHECK KEYFOB BATTERY	
heck keyfob battery. efer to DLK-244, "Component Function Check".	
the inspection result normal?	
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.  • CONFIRM THE OPERATION	
onfirm the operation again. the result normal?	
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".	
NO >> GO TO 1.	

Revision: 2011 November DLK-271 2012 CUBE

#### **AUTO DOOR LOCK OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## AUTO DOOR LOCK OPERATION DOES NOT OPERATE

# Diagnosis Procedure

INFOID:0000000007773046

# 1. CHECK "AUTO LOCK SET" SETTING WITH CONSULT

Check "AUTO LOCK SET" setting in "WORK SUPPORT".

Refer to DLK-219, "MULTI REMOTE ENT: CONSULT Function (BCM - MULTI REMOTE ENT)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "AUTO LOCK SET" in "WORK SUPPORT".

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

### SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Р

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000007773047 1. CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT" В Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)". C Is the inspection result normal? YES >> GO TO 2. NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT". D 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1. F Н J DLK M Ν

Revision: 2011 November DLK-273 2012 CUBE

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:0000000007773048

### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Refer to <u>DLK-267</u>, "ALL <u>DOOR</u>: <u>Diagnosis Procedure"</u>.

2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"

Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

3.check "automatic door lock select" setting in "work support"

Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

## 4. CHECK VEHICLE SPEED SIGNAL

Check combination meter for DTC.

Refer to MWI-57, "DTC Index".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### 5.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

# IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT	OPERATE	А
Diagnosis Procedure	INFOID:0000000007773049	Α
1. CHECK POWER DOOR LOCK OPERATION		В
Check power door lock operation.		
Does door lock/unlock with door lock and unlock switch? YES >> GO TO 2.		С
NO >> Refer to <u>DLK-267</u> , " <u>ALL DOOR</u> : <u>Diagnosis Procedure</u> ".  2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"		
Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".		D
Refer to <u>DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)"</u> .		
Is the inspection result normal?  YES >> GO TO 3.		Е
NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".		_
3.CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"  Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".		F
Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".		G
Is the inspection result normal?  YES >> GO TO 4.		O
NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".		Н
4.CHECK BCM Check BCM for DTC.		
Refer to BCS-137, "DTC_Index".		1
Is the inspection result normal?  YES >> GO TO 5.		
NO >> Repair or replace the malfunctioning parts.		J
5.CONFIRM THE OPERATION  Confirm the operation again	<del></del>	
Confirm the operation again. <u>Is the result normal?</u>		DLK
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	-	
140 >> 00 10 1.		L
		B. 4
		M
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		IN
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# P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

# P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OP-FRATE

### Diagnosis Procedure

INFOID:0000000007773050

### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Refer to DLK-267, "ALL DOOR : Diagnosis Procedure".

2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"

Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".

3.check "automatic door lock select" setting in "work support"

Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".

4.CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"

Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".

Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".

#### CHECK TCM

Check TCM for DTC.

Refer to TM-179, "DTC Index".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

### 6.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

# KEY OUT INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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### KEY OUT INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000007773051 1. CHECK POWER DOOR LOCK OPERATION В Check power door lock operation. Does door lock/unlock with door lock and unlock switch? YES >> GO TO 2. NO >> Refer to DLK-267, "ALL DOOR: Diagnosis Procedure". 2.check "automatic lock/unlock select" setting in "work support" D Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT". Refer to DLK-217, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)". Is the inspection result normal? Е YES >> GO TO 3. >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT". NO 3.CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT" F Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT". Refer to <a href="DLK-217">DLK-217</a>, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)". Is the inspection result normal? YES >> GO TO 4. NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT". Н 4. CHECK KEY SWITCH Check key switch. Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? DLK YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1. M Ν

Revision: 2011 November DLK-277 2012 CUBE

### HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### HAZARD AND HORN REMINDER DOES NOT OPERATE

### Diagnosis Procedure

INFOID:0000000007773052

# 1. CHECK "HAZARD LAMP SET" SETTING IN "WORK SUPPORT"

Check "HAZARD LAMP SET" setting in "WORK SUPPORT".

Refer to DLK-219, "MULTI REMOTE ENT: CONSULT Function (BCM - MULTI REMOTE ENT)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD LAMP SET" setting in "WORK SUPPORT".

2.CHECK "HORN CHIRP SET" SETTING IN "WORK SUPPORT".

#### Check "HORN CHIRP SET" setting in "WORK SUPPORT".

Refer to DLK-219, "MULTI REMOTE ENT: CONSULT Function (BCM - MULTI REMOTE ENT)".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "HORN CHIRP SET" setting in "WORK SUPPORT".

## 3.CHECK HAZARD WARNING LAMP

#### Check hazard warning lamp.

Refer to DLK-243, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CHECK HORN

#### Check horn.

Refer to SEC-186, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5.CONFIRM THE OPERATION

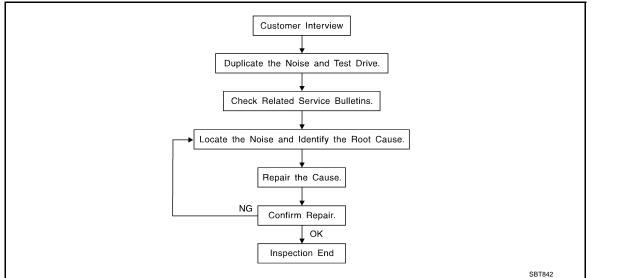
Confirm the operation again.

#### Is the result normal?

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

NO >> GO TO 1.

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <a href="DLK-283">DLK-283</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics
  are provided so the customer, service adviser and technician are all speaking the same language when
  defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces

= higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping

- Creak (Like walking on an old wooden floor)
  - Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
  - Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
- Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
  - Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
  - Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
- Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician
  may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed.

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#### < SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

#### LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- Removing the components in the area that is are suspected to be the cause of the noise.
   Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.
- Placing a piece of paper between components that are suspected to be the cause of the noise.
- Looking for loose components and contact marks.
   Refer to <u>DLK-281</u>, "Inspection Procedure".

# REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- Separate components by repositioning or loosening and retightening the component, if possible.
- Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts Department.

#### **CAUTION:**

# Never use excessive force as many components are constructed of plastic and may be damaged.

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005:  $100 \times 135$  mm  $(3.94 \times 5.31$  in)/76884-71L01:  $60 \times 85$  mm  $(2.36 \times 3.35$  in)/76884-

71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30  $\times$  50 mm (1.18  $\times$  1.97 in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

 $68370-4B000: 15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in}) \text{ pad}/68239-13E00: 5 \text{ mm} (0.20 \text{ in}) \text{ wide tape roll}$ 

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

**UHMW (TEFLON) TAPE** 

#### < SYMPTOM DIAGNOSIS >

2. Trunk lid striker out of adjustment

4. A loose license plate or bracket

The trunk lid torsion bars knocking together

#### [WITHOUT INTELLIGENT KEY SYSTEM]

Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Α Used in place of UHMW tape that is be visible or does not fit. Will only last a few months. SILICONE SPRAY Used when grease cannot be applied. В **DUCT TAPE** Used to eliminate movement. CONFIRM THE REPAIR Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet. Inspection Procedure D INFOID:0000000007773054 Refer to Table of Contents for specific component removal and installation information. INSTRUMENT PANEL Е Most incidents are caused by contact and movement between: 1. The cluster lid A and instrument panel F Acrylic lens and combination meter housing Instrument panel to front pillar garnish Instrument panel to windshield Instrument panel mounting pins Wiring harnesses behind the combination meter 7. A/C defroster duct and duct joint These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness. CAUTION: Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible. CENTER CONSOLE Components to pay attention to include: 1. Shifter assembly cover to finisher A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. DOORS Pay attention to the following: Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher N Wiring harnesses tapping 4. Door striker out of alignment causing a popping noise on starts and stops Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise. TRUNK Р Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer. In addition look for the following: 1. Trunk lid dumpers out of adjustment

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#### < SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### **SEATS**

When isolating seat noise it's important to note the position the seats in and the load placed on the seat when the noise occurs. These conditions should be duplicated when verifying and isolating the cause of the noise. Cause of seat noise include:

- Headrest rods and holder
- A squeak between the seat pad cushion and frame
- The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## **Diagnostic Worksheet**

INFOID:0000000007773055

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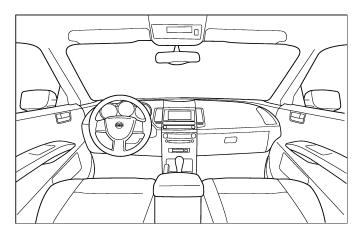


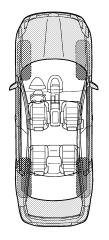
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

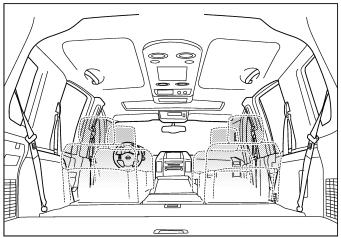
#### Dear Nissan Customer:

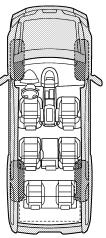
We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)
The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.









Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

	noise occurs:
II. WHEN DOES IT OCCUR? (please cl anytime 1 st time in the morning only when it is cold outside	☐ after sitting out in the rain ☐ when it is raining or wet ☐ dry or dusty conditions
only when it is hot outside  III. WHEN DRIVING:	☐ other: IV. WHAT TYPE OF NOISE
through driveways over rough roads over speed bumps only about mph on acceleration coming to a stop on turns: left, right or either (circle) with passengers or cargo other:	squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor) rattle (like shaking a baby rattle) knock (like a knock at the door) tick (like a clock second hand) thump (heavy, muffled knock noise) buzz (like a bumble bee)
☐ after driving miles or m  TO BE COMPLETED BY DEALERSHII  Test Drive Notes:	
TO BE COMPLETED BY DEALERSHIP	IP PERSONNEL  YES NO Initials of person
TO BE COMPLETED BY DEALERSHIP	YES NO Initials of persor performing

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# **PRECAUTION**

### **PRECAUTIONS**

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

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

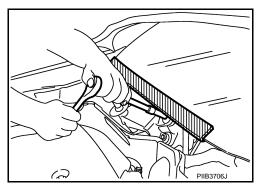
#### **WARNING:**

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

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

**CAUTION:** 

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

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#### **PRECAUTIONS**

#### < PRECAUTION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

#### OPERATION PROCEDURE

Connect both battery cables.

#### NOTE:

Supply power using jumper cables if battery is discharged.

- Turn the ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.
- 5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
- 6. Perform self-diagnosis check of all control units using CONSULT.

Work

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operational.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

### **PREPARATION**

# [WITHOUT INTELLIGENT KEY SYSTEM]

# **PREPARATION**

# **PREPARATION**

# **Special Service Tools**

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

Tool number (Kent-Moore No.) Tool name		Description
(J-39570) Chassis ear	SIIAO993E	Locating the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise

# **Commercial Service Tools**

Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Remover tool	PIIB7923J	Remove the clips, pawls, and metal clips
Power tool		
	PIIB1407E	

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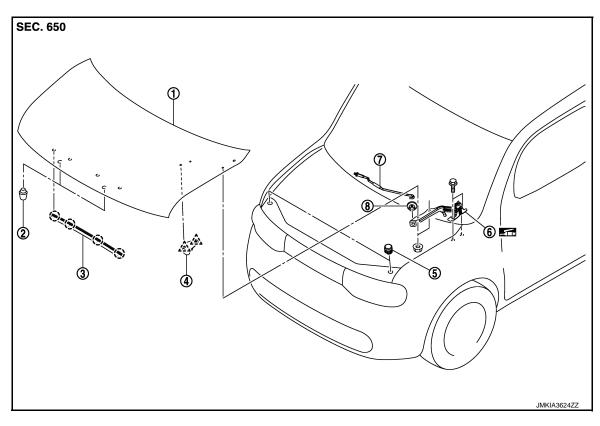
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# REMOVAL AND INSTALLATION

HOOD

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 



- 1. Hood assembly
- 4. Clamp
- 7. Hood support rod
- (\_): Clip \_\_\_: Pawl

- 2. Hood bumper rubber (hood side)
- 5. Hood bumper rubber (body side)
- 8. Grommet

- 3. Radiator core seal
- 6. Hood hinge

#### **HOOD ASSEMBLY: Removal and Installation**

Refer to GI-4, "Components" for symbols in the figure.

#### **REMOVAL**

1. Support hood lock assembly with the proper material to prevent it from falling.

#### **WARNING:**

Bodily injury may occur if no supporting rod is holding hood open when removing hood stay.

2. Remove hood hinge mounting nuts on the hood to remove the hood assembly. **CAUTION:** 

Perform work with 2 workers, because of its heavy weight.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the heads of hood hinge mounting bolts and nuts.

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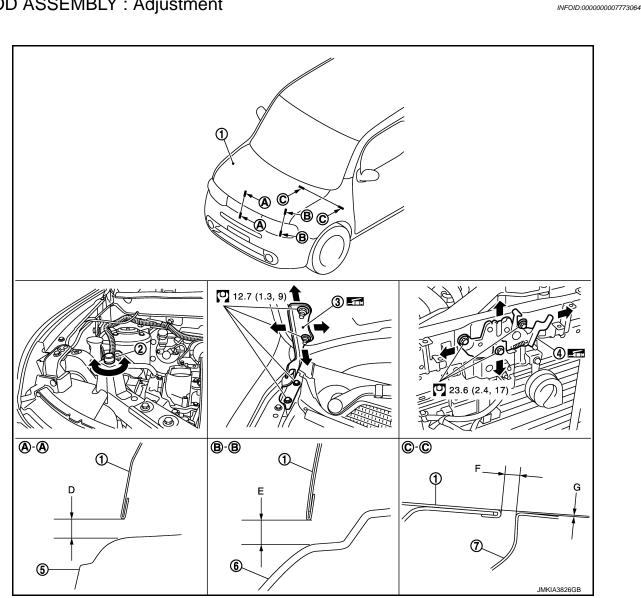
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• After installing, perform hood fitting adjustment. Refer to DLK-289, "HOOD ASSEMBLY: Adjustment".

**HOOD ASSEMBLY: Adjustment** 



- Hood assembly 1.
- Hood lock assembly 4. Front fender
- 2. Hood bumper rubber
- Front grille

- 3. Hood hinge
- Front combination lamp 6.

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between hood and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

					Unit: mm (in)
Portion				Standard	Difference (RH/LH)
Hood – Front grille	<b>A</b> – <b>A</b>	D	Clearance	6.0 - 10.0 (0.236 - 0.394)	< 2.0 (0.079)
Hood – Front combination lamp	B – B	Ε	Clearance	6.0 - 10.0 (0.236 - 0.394)	< 2.0 (0.079)
Hood – Front fender	C – C	F	Clearance	2.5 – 4.5 (0.098 – 0.177)	< 1.0 (0.039)
		G	Surface height	-1.0 - 1.0 (-0.039 - 0.039)	_

### [WITHOUT INTELLIGENT KEY SYSTEM]

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- 1. Remove hood lock and adjust the surface height of hood, front grill and front fender according to the fitting standard dimension, by rotating hood bumper rubber (body side).
- 2. Loosen hood hinge mounting nuts on the hood.
- Check that hood lock primary latch is securely engaged with striker by dropping hood from approximately 200 mm (7.874 in) height or by pressing lightly on the hood.
   CAUTION:

### Never drop hood from a height of 300 mm (11.811 in) or more

- 4. Install as static closing face of hood is 94–490 N (9.6 50.0 kg, 21.1 110 lb).
- 5. After adjustment tighten lock bolts to the specified torque.

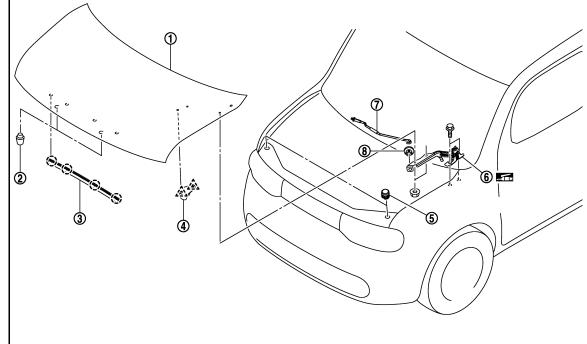
#### **CAUTION:**

- Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the heads of hood hinge mounting bolts and nuts.

### **HOOD HINGE**

**HOOD HINGE: Exploded View** 





- 1. Hood assembly
- 4. Clamp
- 7. Hood support rod
- 2. Hood bumper rubber (hood side)
- 5. Hood bumper rubber (body side)
- 8. Grommet

3. Radiator core seal

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Hood hinge

(\_): Clip \_^: Pawl

Refer to GI-4, "Components" for symbols in the figure.

### **HOOD HINGE: Removal and Installation**

## REMOVAL

- Remove hood assembly. Refer to <u>DLK-288</u>, "HOOD ASSEMBLY: Removal and Installation".
- Remove front fender. Refer to <u>DLK-295, "Removal and Installation"</u>.

- Remove cowl top. Refer to EXT-19, "Removal and Installation"
- Remove hood hinge mounting bolts, and then remove hood hinge.

### **INSTALLATION**

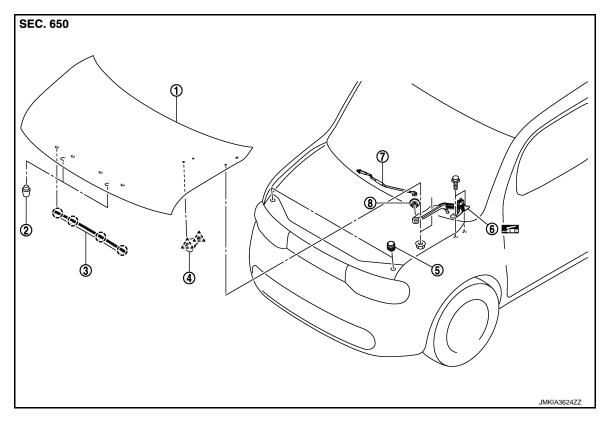
Install in the reverse order of removal.

#### **CAUTION:**

- Check hood hinge rotating part for poor lubrication. If necessary, apply grease.
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts
- After installation, perform hood fitting adjustment. Refer to <u>DLK-289, "HOOD ASSEMBLY: Adjust-</u> ment".

**HOOD SUPPORT ROD** 

**HOOD SUPPORT ROD:** Exploded View



- Hood assembly
- Clamp

( ): Clip <u>∠</u>`\_: Pawl

- Hood support rod
- Hood bumper rubber (hood side)
- Hood bumper rubber (body side)
- Grommet

- Radiator core seal
- Hood hinge

### HOOD SUPPORT ROD: Removal and Installation

#### REMOVAL

Support hood assembly with a suitable material to prevent it from falling.

Bodily injury may occur if no supporting rod is holding the hood open when removing the hood support rod.

Pull hood support rod from grommet and remove.

Refer to GI-4, "Components" for symbols in the figure.

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### **HOOD**

< REMOVAL AND INSTALLATION >

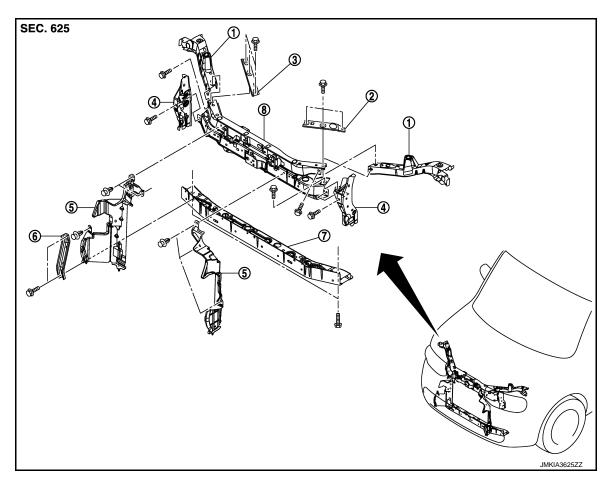
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**INSTALLATION** 

Install in the reverse order of removal.

### RADIATOR CORE SUPPORT

Exploded View



- Radiator core support side
- 4. Radiator core reinforcement side
- 7. Radiator core support lower
- Radiator core support upper bracket 3. (LH)
- 5. Air guide
- Radiator core support upper
- Radiator core support upper bracket (RH)
- Radiator core lower stay

### Removal and Installation

RADIATOR CORE SUPPORT UPPER

REMOVAL

- Remove front bumper fascia and bumper reinforcement. Refer to EXT-12, "Removal and Installation".
- 2. Remove hood lock. Refer to <u>DLK-316</u>, "Removal and Installation".
- Remove front combination lamps (LH/RH). Refer to EXL-168. "Removal and Installation".
- Remove air guide.
- 5. Remove horn. Refer to HRN-4, "Removal and Installation".
- 6. Remove crash zone sensor. Refer to SR-21, "Removal and Installation".
- Remove ambient sensor. Refer to <u>HAC-113</u>, "Removal and Installation".
- 8. Disconnect all harness from radiator core support upper.
- Remove air duct assembly. Refer to <u>EM-24, "Removal and Installation"</u>.
- 10. Remove radiator core support upper bracket (LH/RH).
- 11. Remove mounting bolts, and then remove radiator core support upper.

### **INSTALLATION**

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### RADIATOR CORE SUPPORT

### < REMOVAL AND INSTALLATION >

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Install in the reverse order of removal.

#### **CAUTION:**

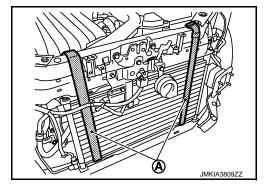
- · After installation, adjust the following parts.
- Front combination lamp: Refer to EXL-164, "Aiming Adjustment Procedure".

### RADIATOR CORE SUPPORT LOWER

#### **REMOVAL**

- Remove front bumper fascia and bumper reinforcement. Refer to EXT-12, "Removal and Installation".
- 2. Remove air guide.
- 3. Remove radiator core lower stay.
- 4. Remove clips of fender protector.
- 5. Remove floor under cover. Refer to EXT-22, "Removal and Installation".
- Use a belts (A) to suspend it to prevent it from falling. CAUTION:

Never damage radiator and condenser.



7. Remove mounting bolts, and then remove radiator core support lower.

#### **INSTALLATION**

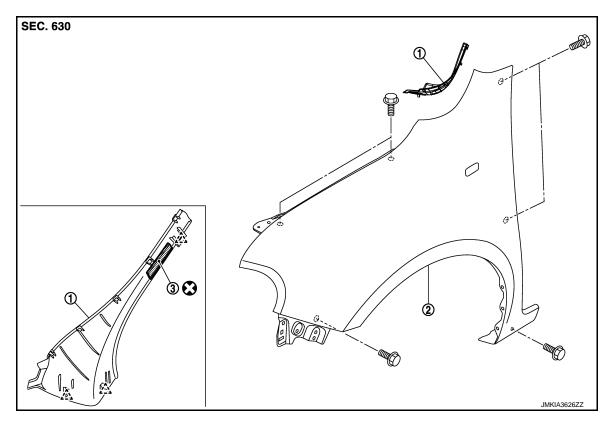
Install in the reverse order of removal.

#### **CAUTION:**

- After installation, adjust the following parts.
- Front combination lamp: Refer to EXL-164, "Aiming Adjustment Procedure".

### FRONT FENDER

**Exploded View** INFOID:0000000007773071



Front fender cover

Front fender assembly

Doube-faced adhesive tape [t: 2.0 mm (0.079 in)]

六:Pawl

Refer to GI-4, "Components" for symbols in the figure.

### Removal and Installation

**CAUTION:** 

Use a shop cloth to protect the body from being damaged during removal and installation.

#### REMOVAL

- 1. Remove side turn signal lamp. Refer to EXL-175, "Removal and Installation".
- Remove front grille. Refer to <u>EXT-17</u>, "Removal and Installation".
- Remove front bumper fascia. Refer to <u>EXT-12</u>, "Removal and Installation".
- Remove front combination lamp. Refer to EXL-168, "Removal and Installation". 4.
- 5. Remove clips and screws of fender protector. Refer to EXT-21, "FENDER PROTECTOR: Removal and Installation".
- Remove front fender cover.
- 7. Remove mounting bolts and remove front fender.

#### **CAUTION:**

An viscous urethane foam is installed on the back surface of front fender. When removing the front fender, be careful to not deform the front fender while performing the procedure and removing the viscous urethane foam a little at a time.

#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:** 

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### **FRONT FENDER**

### < REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.
- · After installation, adjust the following part.
- Hood assembly: Refer to <u>DLK-289, "HOOD ASSEMBLY: Adjustment"</u>.
   Front door: Refer to <u>DLK-298, "DOOR ASSEMBLY: Adjustment"</u>.
- Front combination lamp: Refer to EXL-163, "Description".

## FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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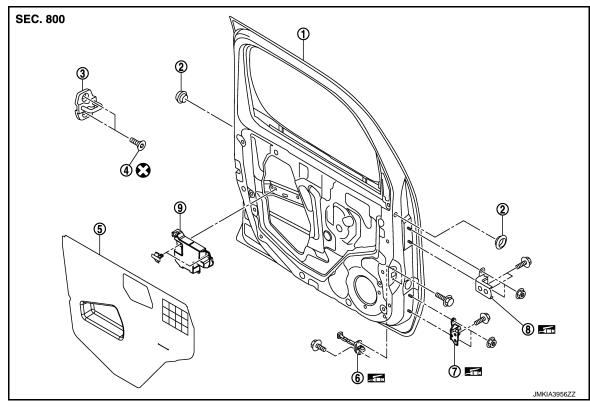
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- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- 2. Grommet
- 5. Sealing screen
- Door hinge (upper)
- 3. Door striker
- Door check link

Refer to GI-4, "Components" for symbols in the figure.

### DOOR ASSEMBLY: Removal and Installation

### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- · When removing and installing front door assembly, support door with a jack and shop cloth to protect door and body.

#### REMOVAL

- 1. Remove mounting bolts of door check link on the vehicle.
- Remove front door harness grommet, and then pull out the harness from the vehicle. 2.
- 3. Disconnect front door harness connector.
- Remove door hinge mounting nuts (door side), and then remove door assembly.

#### INSTALLATION

Revision: 2011 November

Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
   After installation, perform the fitting adjustment. Refer to <a href="DLK-298">DLK-298</a>, "DOOR ASSEMBLY: Adjust-
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

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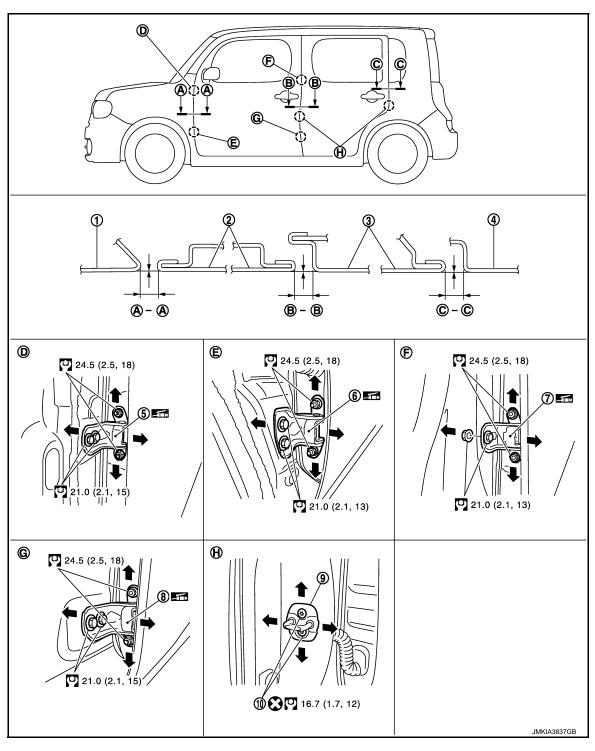
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DOOR ASSEMBLY: Adjustment

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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (upper)
- 10. TORX bolt

- 2. Front door
- Front door hinge (upper)
- 8. Rear door hinge (lower)
- 3. Rear door
- 6. Front door hinge (lower)
- 9. Door striker

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and surface height between front door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

### [WITHOUT INTELLIGENT KEY SYSTEM]

			Unit : mm (in)	
Portion		Clearance	Surface height	
Front fender – Front door	<b>A</b> – <b>A</b>	3.5 - 5.5 (0.138 - 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)	
Front door – Rear door	B – B	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)	

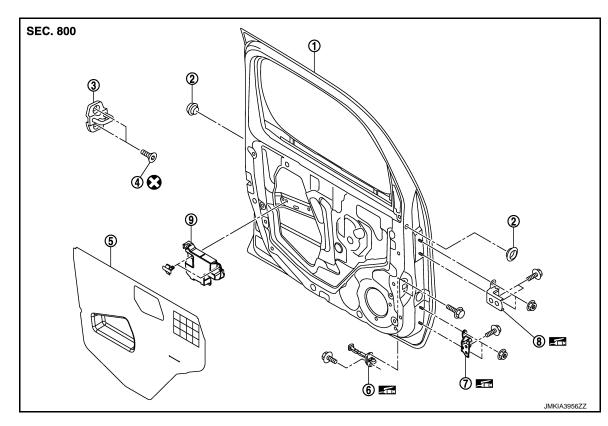
- Remove front fender. Refer to <u>DLK-295</u>, "Removal and Installation". 1.
- Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of front door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting bolts on body side.
- 6. Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
- 7. After adjustment tighten bolts and nuts to the specified torque.
- Install front fender. Refer to refer to DLK-295, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction.

### DOOR STRIKER

DOOR STRIKER: Exploded View



- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)

Revision: 2011 November

- 2. Grommet
- 5. Sealing screen
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

### DOOR STRIKER: Removal and Installation

REMOVAL

**DLK-299** 2012 CUBE

3 Door striker

Door check link

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Remove TORX bolts, and then remove door striker.

#### **INSTALLATION**

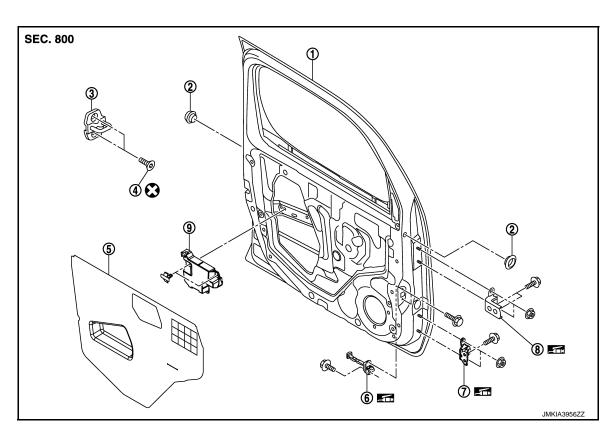
Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to <u>DLK-298, "DOOR ASSEMBLY:</u>
   <u>Adjustment".</u>

### DOOR HINGE

DOOR HINGE: Exploded View



- 1. Front door panel
- 2. Grommet

3. Door striker

4. TORX bolt

5. Sealing screen

Door hinge (upper)

6. Door check link

7. Door hinge (lower)

Refer to GI-4, "Components" for symbols in the figure.

### DOOR HINGE: Removal and Installation

#### **REMOVAL**

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- When removing and installing front door assembly, support door with a jack and shop cloth to protect door and body.
- Remove front fender. Refer to <u>DLK-295</u>, "Removal and Installation".
- 2. Remove front door assembly. Refer to DLK-297, "DOOR ASSEMBLY: Removal and Installation".
- 3. Remove front door hinge mounting bolts (body side), and then remove front door hinge.

#### INSTALLATION

Install in the reverse order of removal.

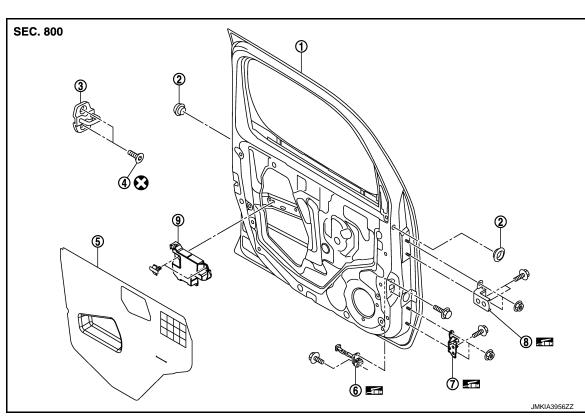
### **CAUTION:**

• Check front door open/close, lock/unlock operation after installation.

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- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-298, "DOOR ASSEMBLY: Adjust-</u>
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts. DOOR CHECK LINK

DOOR CHECK LINK: Exploded View



- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- 2. Grommet
- 5. Sealing screen
- 8. Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

## DOOR CHECK LINK: Removal and Installation

#### REMOVAL

- Remove front door finisher. Refer to <u>INT-12</u>, "Removal and Installation".
- Fully close the front door window.
- Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

3.

Door striker

Door check link

- 4. Remove front door speaker. Refer to AV-56, "Removal and Installation".
- 5. Remove mounting bolts of door check link on the vehicle.
- 6. Remove mounting bolts of door check link on door panel.
- 7. Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

Check front door open/close operation after installation.

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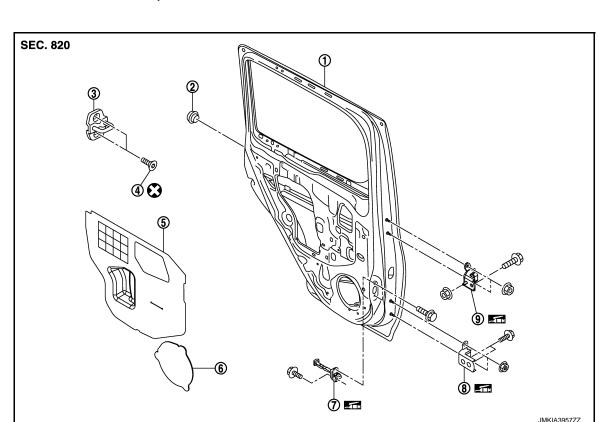
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## REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View



- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- 2. Grommet
- 5. Sealing screen (upper)
- 3. Door hinge (lower)
- 3. Door striker
- 6. Sealing screen (lower)
- 9. Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

### DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

- Perform work with 2 workers, because of it's heavy weight.
- When removing and installing rear door assembly, support door with a jack and shop cloth to protect door and body.

#### **REMOVAL**

- Remove rear door harness grommet, and then pull out door harness from the vehicle.
- Disconnect rear door harness connector.
- 3. Remove mounting bolts of door check link on the vehicle.
- 4. Remove door hinge mounting nuts (door side), and then remove rear door assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check rear door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-303</u>, "<u>DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

DOOR ASSEMBLY: Adjustment

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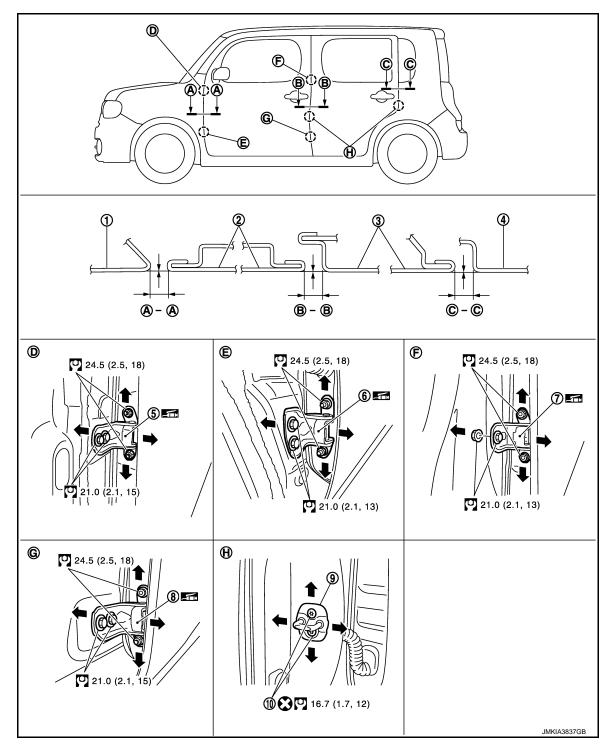
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- Front fender
- 4. Body side outer
- 7. Rear door hinge (upper)
- 10. TORX bolt

- 2. Front door
- 5. Front door hinge (upper)
- 8. Rear door hinge (lower)
- Rear door
- 6. Front door hinge (lower)
- Door striker

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and surface height between rear door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

### [WITHOUT INTELLIGENT KEY SYSTEM]

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			Unit: mm (in)	
Portion		Clearance	Surface height	
Front door – Rear door	B – B	3.4 - 5.4 (0.134 - 0.213)	-1.0 – 1.0 (-0.039 – 0.039)	
Rear door – Body side outer	C – C	3.5 - 5.5 (0.138 - 0.217)	-1.0 – 1.0 (-0.039 – 0.039)	

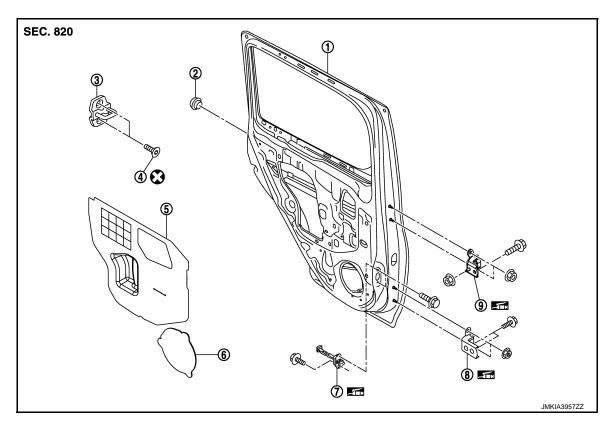
- Remove center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation". 1.
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of rear door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting nuts and bolts on body side.
- 6. Raise rear door at rear end to adjust clearance of rear door according to the fitting standard dimension.
- 7. After adjustment tighten bolts and nuts to the specified torque.
- Install center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation".

### DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction.

### DOOR STRIKER

### DOOR STRIKER: Exploded View



- 1. Rear door panel
- 4. TORX bolt
- 7. Door check link

- Grommet 2.
- 5. Sealing screen (upper)
- Door hinge (lower)
- Door striker 3.
- 6. Sealing screen (lower)
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

### DOOR STRIKER: Removal and Installation

#### **REMOVAL**

Remove TORX bolts, and then remove door striker.

**DLK-304** Revision: 2011 November 2012 CUBE

#### **INSTALLATION**

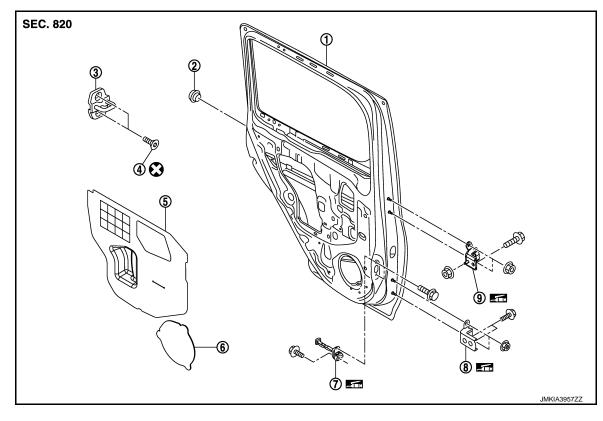
Install in the reverse order of removal.

#### CAUTION:

- Check rear door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to DLK-303, "DOOR ASSEMBLY: Adjustment".

### DOOR HINGE

**DOOR HINGE: Exploded View** 



- Rear door panel 1.
- TORX bolt 4.
- Door check link

- 2. Grommet
- 5. Sealing screen (upper)
- Door hinge (lower)
- Door striker 3.
- 6. Sealing screen (lower)
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

### DOOR HINGE: Removal and Installation

#### **CAUTION:**

- Perform work with 2 workers, because of it's heavy weight.
- When removing and installing rear door assembly, support door with a jack and shop cloth to protect door and body.

### REMOVAL

- Remove rear door assembly. Refer to DLK-302, "DOOR ASSEMBLY: Removal and Installation".
- Remove center pillar garnish (upper/lower). Refer to INT-16, "Removal and Installation". 2.
- Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check rear door open/close operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.

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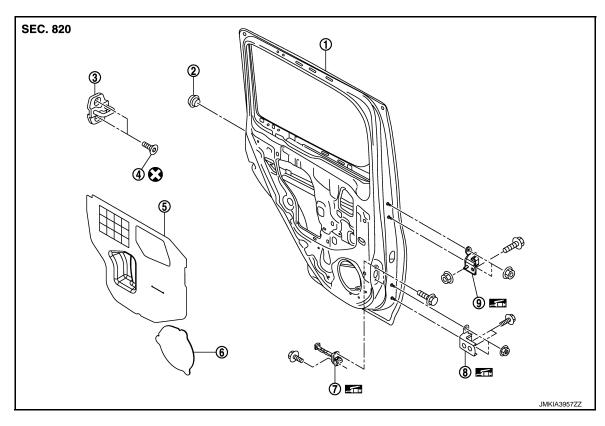
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- When removing and installing rear door assembly, perform the fitting adjustment. Refer to <u>DLK-303</u>, <u>"DOOR ASSEMBLY: Adjustment"</u>.
- After installing, apply the touch-up paint (the body color) onto the head of door hinge mounting nuts.
   DOOR CHECK LINK

DOOR CHECK LINK: Exploded View



- 1. Rear door panel
- TORX bolt
- 7. Door check link

- 2. Grommet
- 5. Sealing screen (upper)
- 8. Door hinge (lower)

3.

- 6. Sealing screen (lower)
- 9. Door hinge (upper)

Door striker

Refer to  $\underline{\text{GI-4, "Components"}}$  for symbols in the figure.

### DOOR CHECK LINK: Removal and Installation

### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- Fully close the rear door window.
- 3. Remove rear door speaker. Refer to AV-58, "Removal and Installation".
- 4. Remove mounting bolts of the check link on the vehicle.
- 5. Remove mounting bolts of the check link on door panel.
- Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Check rear door open/close operation after installation.

# **BACK DOOR**

**BACK DOOR ASSEMBLY** 

BACK DOOR ASSEMBLY: Exploded View

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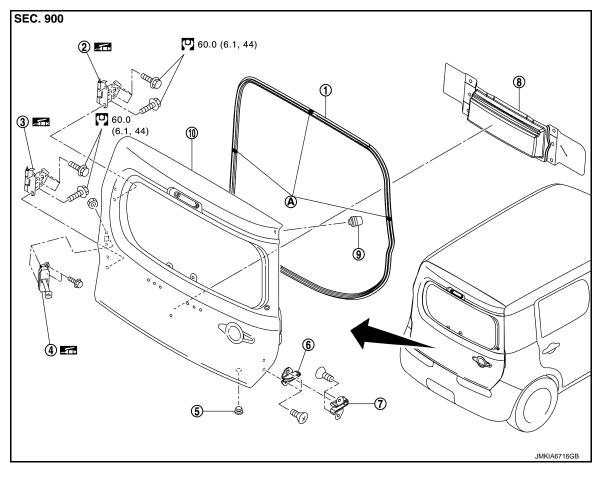
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- Back door weather-strip
- Door check link
- 7. Dovetail female
- 10. Back door panel

- Back door hinge (upper) 2.
- Grommet
- Sealing screen
- : Center mark

- Back door hinge (lower) 3.
- 6. Dovetail male
- 9. Bumper rubber

## BACK DOOR ASSEMBLY: Removal and Installation

Refer to GI-4, "Components" for symbols in the figure.

Perform work with 2 workers, because of its heavy weight.

### **REMOVAL**

- Remove back door finisher lower. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".
- Remove luggage side finisher (LH) (upper/lower). Refer to INT-24, "Removal and Installation".

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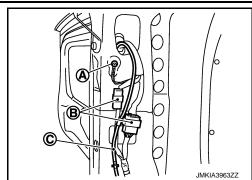
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### **BACK DOOR**

### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

3. Remove ground bolt (A) and disengage connections of harness connectors (B) and rear washer hose (C).



- 4. Remove back door harness grommet, and then pull out the harness from the vehcle.
- 5. Support back door with the proper material to prevent it from falling.
- 6. Remove mounting bolt of door check link on the vehcle.
- 7. Remove back door hinge mounting bolts (back door side), and then remove back door assembly.
- 8. Remove the following parts after removing back door assembly.
  - Back door finisher upper
  - · Sealing screen
  - Dovetail (male)
  - Dovetail (female)
  - Door check link
  - Grommet
  - · Bumper rubber

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close, lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-309</u>, "<u>BACK DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".

## **BACK DOOR ASSEMBLY: Adjustment**

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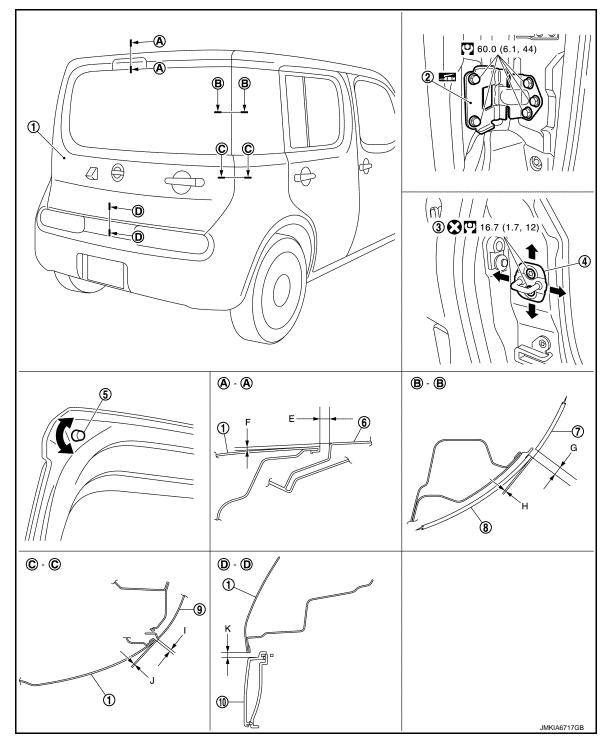
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- 1. Back door panel
- 4. Back door striker
- 7. Side window glass
- 10. Back door finisher
- 2. Back door hinge
- 5. Back door bumper rubber
- 8. Back door glass

- 3. TORX bolt
- 6. Roof panel
- 9. Body side outer panel

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between back door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

### [WITHOUT INTELLIGENT KEY SYSTEM]

					Unit: mm (in)
Portion				Standard	Difference (RH/LH)
Back door – Roof	<b>A</b> – <b>A</b>	E	Clearance	6.1 - 9.9 (0.240 - 0.390)	_
		F	Surface height	-0.6 - 1.4 (-0.024 - 0.055)	_
Side window glass – Back door glass	B – B	G	Clearance	4.4 - 8.4 (0.173 - 0.331)	< 2.0 (0.079)
		Н	Surface height	0 - 2.0 (0 - 0.079)	_
Body side outer panel – Back door	C – C	I	Clearance	4.0 - 6.0 (0.157 - 0.236)	< 1.0 (0.039)
		J	Surface height	-1.0 – 1.0 (-0.039 – 0.039)	_
Back door – Back door finisher	<b>D</b> – <b>D</b>	K	Clearance	5.0 - 9.0 (0.197 - 0.354)	_

- 1. Loosen back door striker mounting bolts.
- 2. Loosen bumper rubber.
- Adjust right and left clearances and clearances between rear bumper to the standard value specified in the table, by taping back door striker using a rubber hammer and adjusting back door striker and bumper rubber.
- 4. Finally tighten back door hinge, bumper rubber, and back door striker.

#### CAUTION

- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

#### BACK DOOR STRIKER ADJUSTMENT

Adjust back door striker so that becomes parallel with back door lock insertion direction.

### BACK DOOR STRIKER

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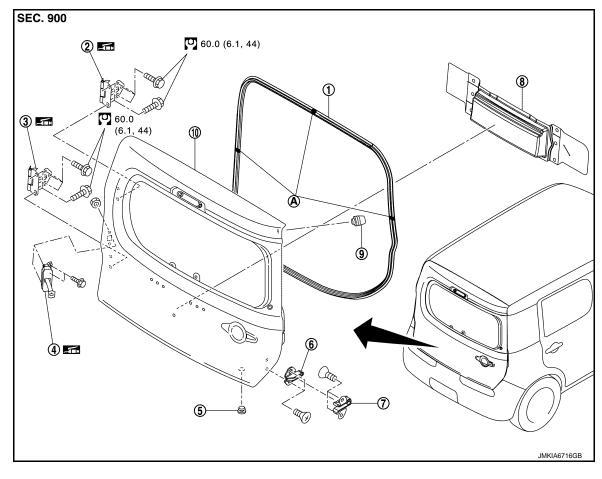
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## BACK DOOR STRIKER: Exploded View



- Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- Back door hinge (upper)
- 5. Grommet
- 8. Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to  $\underline{\mbox{GI-4. "Components"}}$  for symbols in the figure.

### BACK DOOR STRIKER: Removal and Installation

REMOVAL

Remove mounting bolts, and then remove back door striker.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- When removing and installing back door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-309</u>, "BACK DOOR ASSEMBLY: Adjustment".

### **BACK DOOR HINGE**

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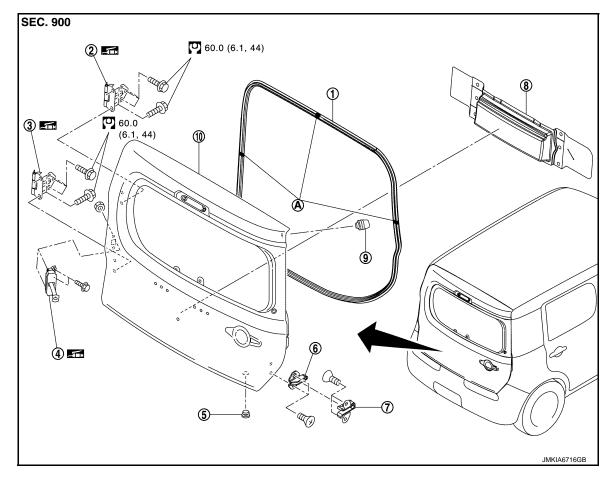
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## **BACK DOOR HINGE: Exploded View**



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- Back door weather-strip
- 4. Door check link
- Dovetail female
- 10. Back door panel

- Back door hinge (upper)
- Grommet
- Sealing screen
- : Center mark

- Back door hinge (lower) 3.
- Dovetail male
- Bumper rubber

Refer to GI-4, "Components" for symbols in the figure.

### BACK DOOR HINGE: Removal and Installation

Perform work with 2 workers, because of its heavy weight.

### **REMOVAL**

- Remove back door assembly. Refer to <u>DLK-307</u>, "BACK DOOR ASSEMBLY: Removal and Installation".
- Remove back door hinge mounting bolts (body side), and then remove back door hinge.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing back door assembly, perform the fitting adjustment. Refer to DLK-309, "BACK DOOR ASSEMBLY: Adjustment".
- · After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

### DOOR CHECK LINK

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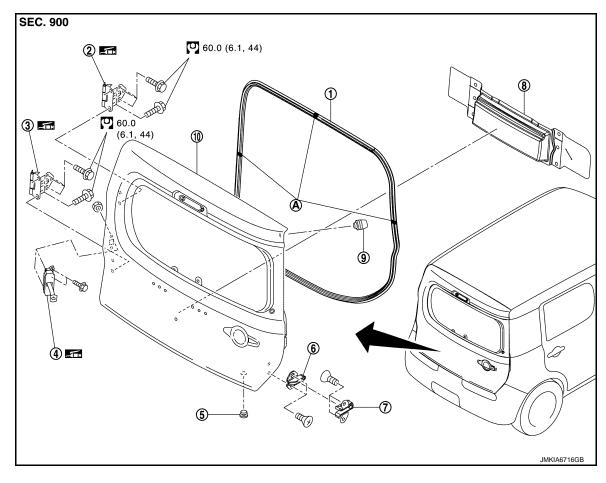
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## DOOR CHECK LINK: Exploded View



- Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- Grommet
- 8. Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to GI-4, "Components" for symbols in the figure.

### DOOR CHECK LINK: Removal and Installation

REMOVAL

- Remove back door finisher lower. Refer to <u>INT-27</u>, "Removal and Installation".
- 2. Remove sealing screen.

NOTE:

Cut the butyl-tape so that some part of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove mounting bolts of door check link on the vehicle.
- 4. Remove mounting nuts of door check link on the back door panel.
- 5. Take door check link out from the hole of back door panel.

### **INSTALLATION**

Install in the reverse order of removal.

#### CAUTION:

Check back door open/close operation after installation. DOVETAIL

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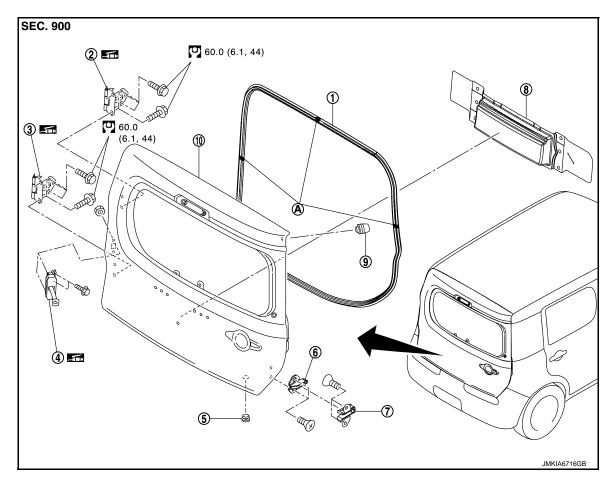
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**DOVETAIL**: Exploded View

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- 1. Back door weather-strip
- 4. Door check link
- 7. Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark
- Refer to GI-4, "Components" for symbols in the figure.

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

### **DOVETAIL**: Removal and Installation

### **REMOVAL**

- Remove mounting bolts, and then remove dovetai (male).
- 2. Remove mounting bolts, and then remove dovetai (female).

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

Check back door open/close operation after installation.

BACK DOOR WEATHER-STRIP

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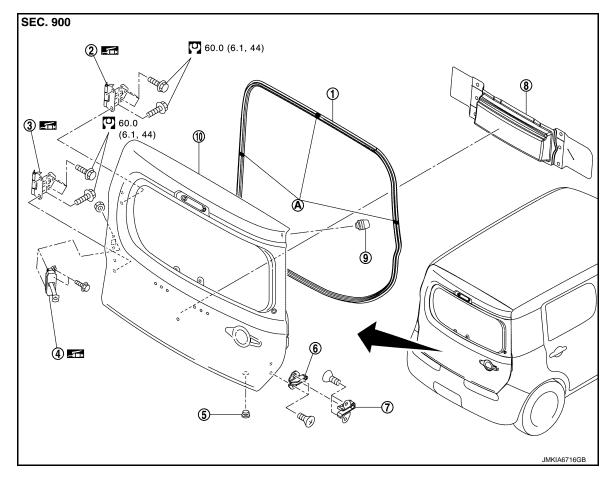
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## BACK DOOR WEATHER-STRIP: Exploded View



- 1. Back door weather-strip
- 4. Door check link
- Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- 8. Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- 6. Dovetail male
- 9. Bumper rubber

Refer to GI-4, "Components" for symbols in the figure.

### BACK DOOR WEATHER-STRIP: Removal and Installation

REMOVAL

1. Pull and remove engagement with body from weather-strip joint.

**CAUTION:** 

Never pull strongly on weather-strip.

#### INSTALLATION

- 1. Working from the upper section, align weather-strip center mark (A) with vehicle center mark (cutting position) and install weather-strip onto the vehicle.
- 2. Pull weather-strip gently to ensure that there is no loose section.

#### NOTE:

Make sure that weather-strip is fit tightly at each corner and luggage rear plate.

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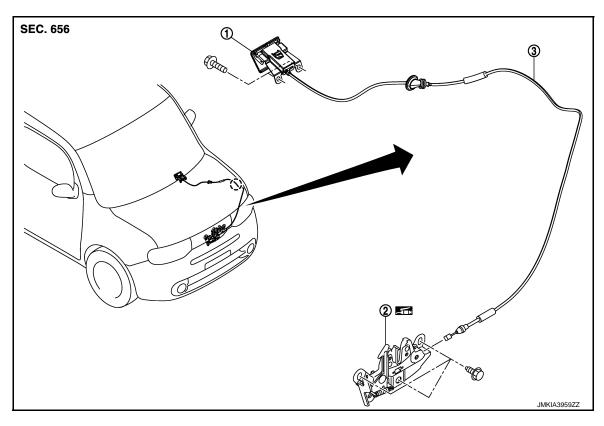
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Revision: 2011 November DLK-315 2012 CUBE

### **HOOD LOCK**

Exploded View



- 1. Hood lock opener lever
- 2. Hood lock assembly
- Hood lock control cable

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Refer to GI-4, "Components" for symbols in the figure.

### Removal and Installation

**REMOVAL** 

- 1. Remove front grille. Refer to EXT-17, "Removal and Installation".
- Remove mounting bolts, and then remove hood lock assembly.
- 3. Disconnect hood lock cable from hood lock assembly.
- 4. Remove hood lock cable clip.
- Remove fender protector (LH). Refer to <u>EXT-21</u>, "<u>FENDER PROTECTOR</u>: Removal and Installation".
- 6. Remove hood lock opener lever.
- 7. Disconnect hood lock cable from hood lock opener lever.
- Remove grommet on the lower dash, and pull the hood lock control cable toward the passenger compartment.

### **CAUTION:**

While pulling, never to damage (peeling) the outside of hood lock control cable.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

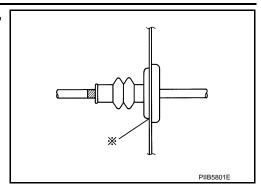
Never to bend cable too much, keeping the radius 100 mm (3.937 in) or more.

### **HOOD LOCK**

### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

 Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \* mark) properly.



- Check that hood lock control cable is properly engaged with hood lock.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-289</u>, "HOOD ASSEMBLY: Adjustment".
- After installation, perform hood lock control inspection. Refer to <u>DLK-317</u>, "Inspection".

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#### NOTE:

If the hood lock cable is bent or deformed, replace it.

- 1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
- 2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20.0 mm (0.787 in). Also check that hood opener returns to the original position.
- 3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or below.
- 4. Install so that static closing face of hood is 94 − 490 N·m (9.6 − 50.0 kg-m, 69 − 361 ft − lb). **NOTE:** 
  - Exert vertical force on right side and left side of hood lock.
  - Never press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to hood lock.

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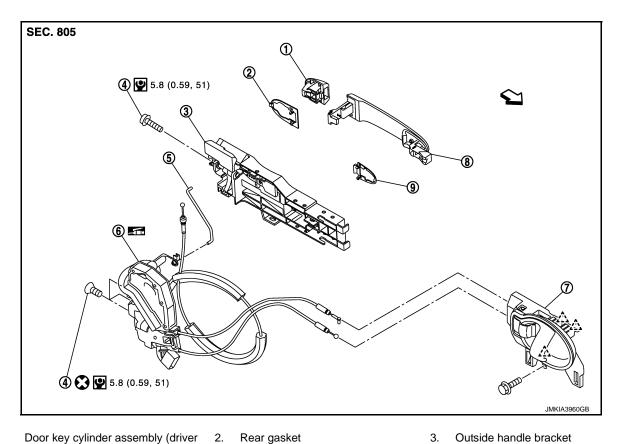
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## FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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- 1. Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)
- TORX bolt 4.
  - Key rod (driver side)
- 7. Inside handle
- : Pawl <□ : Vehicle front

- Outside handle

- Door lock assembly
- Front gasket

Refer to GI-4, "Components" for symbols in the figure.

### DOOR LOCK: Removal and Installation

### **REMOVAL**

- Remove front door finisher. Refer to <u>INT-12</u>, "Removal and Installation".
- 2. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove front door glass. Refer to GW-18, "Removal and Installation".
- 4. Remove front door lower sash (rear). Refer to GW-18, "Removal and Installation".
- 5. Remove outside handle. Refer to DLK-320, "OUTSIDE HANDLE: Removal and Installation".
- 6. Remove inside handle. Refer to <u>DLK-319</u>, "INSIDE HANDLE: Removal and Installation".
- 7. Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly.

#### **INSTALLATION**

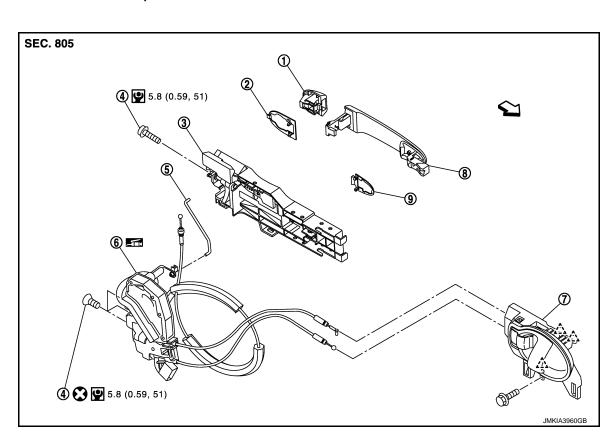
Install in the reverse order of removal.

### **CAUTION:**

- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

### INSIDE HANDLE

**INSIDE HANDLE: Exploded View** 



1. Door key cylinder assembly (driver side)

Rear gasket Outside handle escutcheon (passenOutside handle bracket

4. TORX bolt Key rod (driver side)

6. Door lock assembly

7. Inside handle

ger side)

Outside handle

Front gasket

: Pawl  $\langle \neg$ : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

### INSIDE HANDLE: Removal and Installation

### **REMOVAL**

- Remove front door finisher. Refer to INT-12, "Removal and Installation".
- 2. Remove inside handle mounting bolts, slide handle toward rear of vehicle, disengage handle from door panel, and remove inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation. OUTSIDE HANDLE

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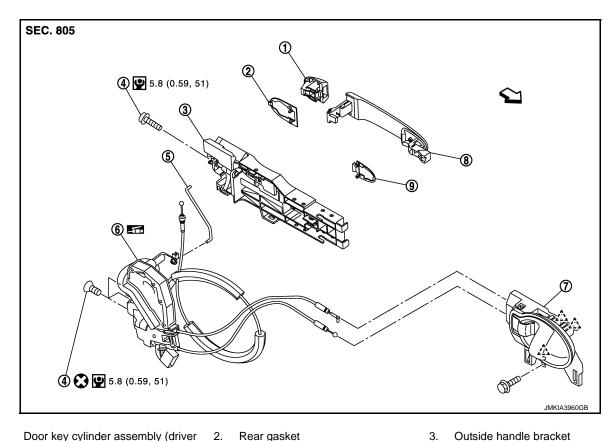
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### **OUTSIDE HANDLE: Exploded View**





- Door key cylinder assembly (driver side)
  - Outside handle escutcheon (passenger side)
- 4. TORX bolt

- 5. Key rod (driver side)
- 8. Outside handle

- 6. Door lock assembly
- 9. Front gasket

^ : Pawl

7.

: Vehicle front

Inside handle

Refer to GI-4, "Components" for symbols in the figure.

### OUTSIDE HANDLE: Removal and Installation

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#### **REMOVAL**

- 1. Remove front door finisher. Refer to <a href="INT-12">INT-12</a>, "Removal and Installation".
- 2. Fully close the front door glass.
- 3. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

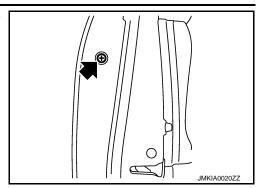
- 4. Remove front door lower sash (rear). Refer to GW-18, "Removal and Installation".
- 5. Disconnect key rod (driver side).
- 6. Disconnect door antenna and door request switch connector and remove harness clamp (with Intelligent Key system) on outside handle bracket.

### FRONT DOOR LOCK

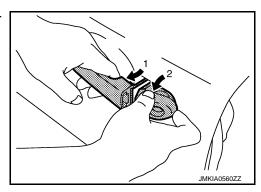
### < REMOVAL AND INSTALLATION >

### [WITHOUT INTELLIGENT KEY SYSTEM]

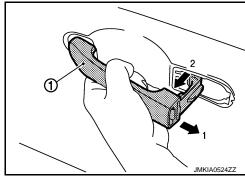
Remove door side grommet, and loosen TORX bolt from grommet hole.



8. While pulling outside handle, remove door key cylinder assembly (diver side) or outside handle escutcheon (passenger side).



9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 10. Remove front gasket and rear gasket.
- 11. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 12. Reach in to separate outside handle cable connection on outside handle bracket.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

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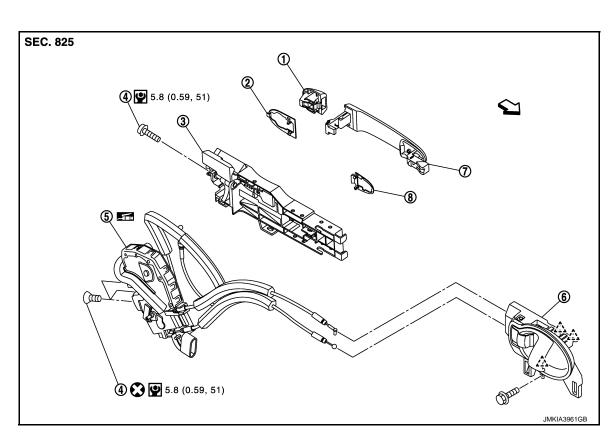
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# REAR DOOR LOCK

DOOR LOCK

DOOR LOCK: Exploded View



- 1. Outside handle escutcheon
- 4. TORX bolt
- 7. Outside handle
- ,^ : Pawl
- ∠
  ¬ : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

- 2. Rear gasket
- 5. Door lock assembly
- 8. Front gasket

- 3. Outside handle bracket
- 6. Inside handle

### DOOR LOCK: Removal and Installation

## REMOVAL

- Remove rear door finisher. Refer to <u>INT-14, "Removal and Installation"</u>.
- 2. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- Remove rear door glass. Refer to <u>GW-23</u>, "Removal and Installation".
- 4. Remove outside handle. Refer to <a href="DLK-324">DLK-324</a>, "OUTSIDE HANDLE: Removal and Installation".
- 5. Remove inside handle. Refer to DLK-323, "INSIDE HANDLE: Removal and Installation".
- 6. Remove door lock assembly TORX bolts.
- 7. Disconnect door lock actuator connector, and then remove door lock assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

• Check door open/close, lock/unlock operation after installation.

. Check door lock cable is properly engaged with outside handle bracket.

INSIDE HANDLE

**INSIDE HANDLE: Exploded View** 



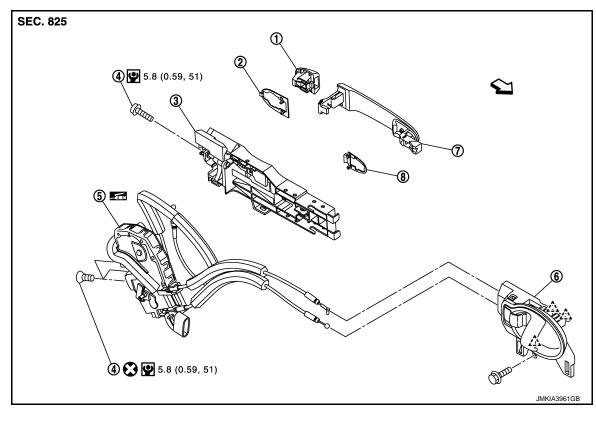
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- 1. Outside handle escutcheon
- TORX bolt 4.
- Outside handle 7.
- : Pawl
- : Vehicle front

- 2. Rear gasket
- 5. Door lock assembly
- Front gasket

- Outside handle bracket
- Inside handle 6.

Refer to GI-4, "Components" for symbols in the figure.

### INSIDE HANDLE: Removal and Installation

#### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".</a>
- Remove inside handle mounting bolts, slide handle toward rear of vehicle, disengage handle from door panel, and remove inside handle.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation.

### **OUTSIDE HANDLE**

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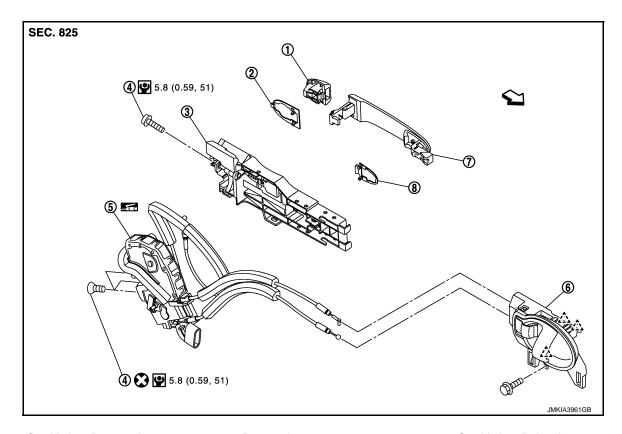
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## **OUTSIDE HANDLE: Exploded View**

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- 1. Outside handle escutcheon
- 4. TORX bolt
- 7. Outside handle
- 八 : Pawl
- : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

- 2. Rear gasket
- 5. Door lock assembly
- 8. Front gasket

- 3. Outside handle bracket
- 6. Inside handle

### OUTSIDE HANDLE: Removal and Installation

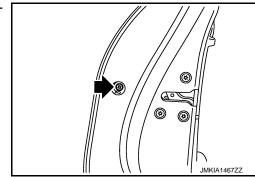
### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".</a>
- 2. Fully close rear door glass.
- 3. Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

Remove door side grommet, and loosen TORX bolt from grommet hole.

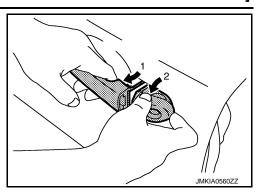


### **REAR DOOR LOCK**

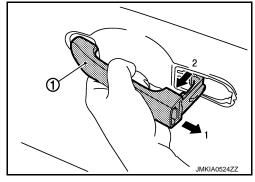
### < REMOVAL AND INSTALLATION >

### [WITHOUT INTELLIGENT KEY SYSTEM]

 While pulling outside handle, remove outside handle escutcheon



6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 9. Reach in to separate outside handle cable connection on outside handle bracket.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

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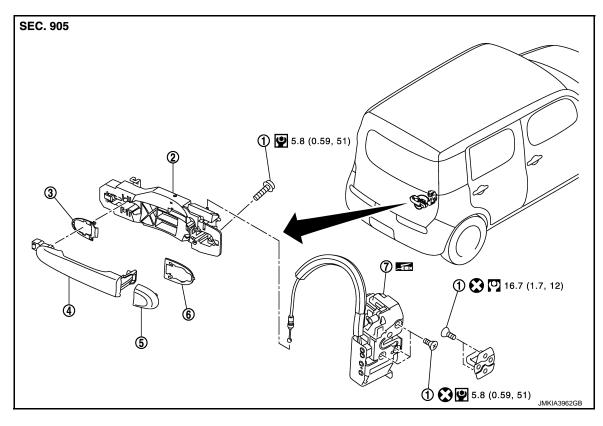
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# BACK DOOR LOCK

**DOOR LOCK** 

DOOR LOCK: Exploded View



- 1. TORX bolt
- 4. Outside handle
- 7. Back door lock assembly
- 2. Outside handle bracket
- 5. Outside handle escutcheon
- 3. Rear gasket
- 6. Front gasket

DOOR LOCK: Removal and Installation

Refer to GI-4, "Components" for symbols in the figure.

### **REMOVAL**

- 1. Remove back door finisher lower. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".
- 2. Remove sealing screen.

### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Remove back door outside handle. Refer to <a href="DLK-327">DLK-327</a>, "OUTSIDE HANDLE: Removal and Installation".
- 4. Remove back door lock assembly mounting bolts.
- 5. Disconnect harness connector from back door lock assembly.
- 6. Remove back door lock assembly.

#### INSTALLATION

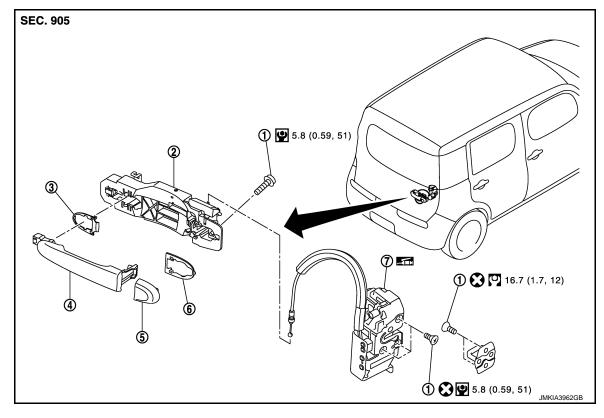
Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close, lock/unlock operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

### **OUTSIDE HANDLE**

## **OUTSIDE HANDLE: Exploded View**



- 1. TORX bolt
- 4. Outside handle
- 4. Catolae Hariale
- 7. Back door lock assembly
- 2. Outside handle bracket
  - 5. Outside handle escutcheon
- 3. Rear gasket
- Front gasket

Refer to GI-4, "Components" for symbols in the figure.

### **OUTSIDE HANDLE: Removal and Installation**

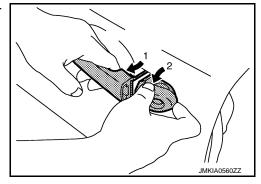
**REMOVAL** 

- Remove back door finisher lower. Refer to <u>INT-27, "Removal and Installation"</u>.
- 2. Remove sealing screeen.

NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

- 3. Disconnect back door antenna and back door request switch connector and remove harness clamp (with intelligent key system) on outside handle bracket.
- 4. Remove mounting bolt of outside handle bracket.
- While pulling outside handle, remove outside habdle escutcheon



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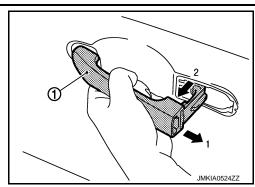
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### **BACK DOOR LOCK**

### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.
- 9. Reach in to separate outside handle cable connection on outside handle bracket.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close operation after installation.
- Check door lock cable is properly engaged with outside handle bracket.

**EMERGENCY LEVER** 

**EMERGENCY LEVER: Unlock procedures** 

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#### UNLOCK PROCEDURES

#### NOTE:

If back door lock cannot be unlocked due to a malfunction or battery discharge, follow the procedures to unlock back door.

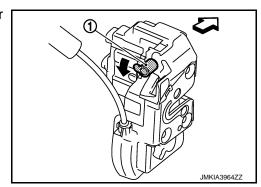
- 1. Remove back door finisher lower. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".
- Remove sealing screen.

#### NOTE:

Cut the butyl-tape so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

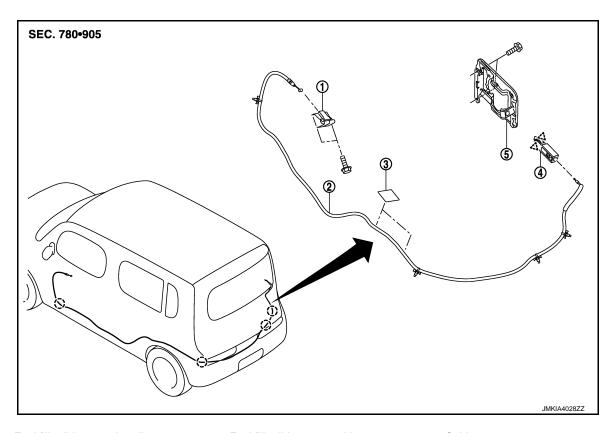
3. From inside the vehicle, rotate emergency lever (1) toward lower direction and unlock.

< ; Vehicle front



### **FUEL FILLER LID OPENER**

**Exploded View** INFOID:0000000007773124



- Fuel filler lid opener handle
- Fuel filler lid lock assembly
- : Clip /へ:Pawl

- Fuel filler lid opener cable 2.
- Fuel filler lid assembly

Cable protector

## Removal and Installation

### **REMOVAL**

#### **FUEL FILLER LID**

- Fully open fuel filler lid.
- Remove mounting screws, and then remove fuel filler lid.

#### FUEL FILLER LID OPENER CABLE

- Fully open fuel filler lid.
- Remove dash side finisher (LH). Refer to <u>INT-16, "Removal and Installation"</u>.
- 3. Remove front kicking plate inner (LH). Refer to INT-16, "Removal and Installation".
- Remove center pillar lower garnish (LH). Refer to <u>INT-16, "Removal and Installation"</u>.
- Remove rear kicking plate inner (LH). Refer to INT-16, "Removal and Installation".
- 6. Remove luggage side finisher (LH) (upper/lower). Refer to INT-24, "Removal and Installation".
- 7. Remove center seat belt retractor. Refer to SB-11, "SEAT BELT RETRACTOR: Removal and Installation".
- 8. Remove mounting bolts, and then remove fuel filler lid opener handle.
- 9. Remove fuel filler lid opener cable from fuel filler lid opener handle.
- 10. Push fuel filler lid lock assembly front the vehicle, while pushing the pawls.

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### **FUEL FILLER LID OPENER**

### < REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 11. Remove fuel filler lid opener cable from fuel filler lid lock assembly.
- 12. Pull up floor trim. Refer to INT-19, "Removal and Installation".
- 13. Remove fuel filler lid opener cable mounting clips.
- 14. Remove fuel filler lid opener cable.

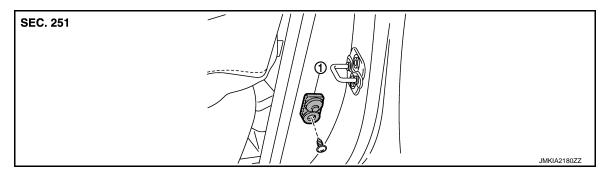
### **INSTALLATION**

Install in the reverse order of removal.

### [WITHOUT INTELLIGENT KEY SYSTEM]

## **DOOR SWITCH**

**Exploded View** 

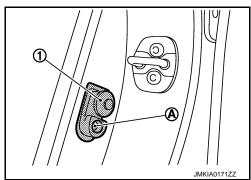


1. Door switch

### Removal and Installation

### REMOVAL

1. Remove the door switch mounting bolt (A), and then remove door switch (1).



**INSTALLATION** 

Install in the reverse order of removal.

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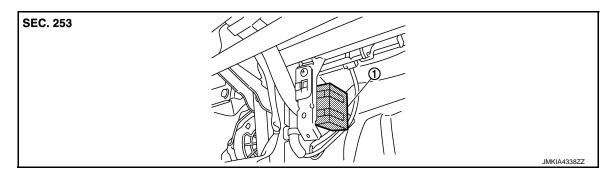
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## REMOTE KEYLESS ENTRY RECEIVER

Exploded View



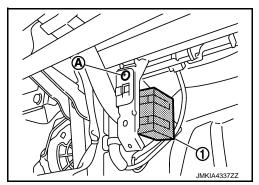
1. Remote keyless entry receiver

### Removal and Installation

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### **REMOVAL**

- 1. Remove the glove box assembly. Refer to IP-13, "Removal and Installation".
- 2. Remove the remote keyless entry receiver mounting bolt (A), and then remove remote keyless entry receiver (1).

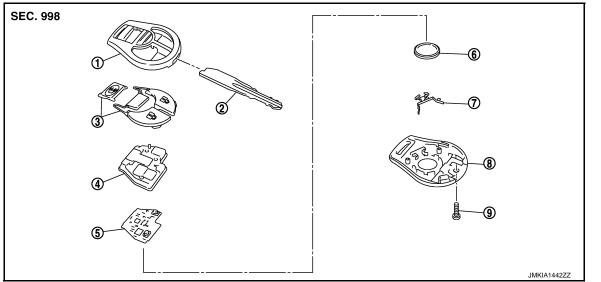


### **INSTALLATION**

Install in the reverse order of removal.

### **KEYFOB BATTERY**

### Exploded View



- 1. Upper case
- Switch rubber
- 7. plate

- Key
- Board surface
- Lower case

- 3. Switch cover
- Battery
- Screw

### Removal and Installation

#### REMOVAL

1. Remove screw (9) on the rear of keyfob.

2. Place the key with the lower case (8) facing up. Set a screw-driver wrapped with tape between upper case (1) and lower case (8) and then separate the lower case (8) from the upper case (1). **CAUTION:** 

- Do not touch the circuit board or battery terminal.
- The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. When replacing the circuit board assembly, remove circuit board assembly from the upper case (1). [Circuit board assembly: Switch rubber (4) + Board surface (5)]

### Do not touch the printed circuits directly.

4. Remove the battery (6) from the lower case (8) and replace it.

#### : Coin-type lithium battery **Battery replacement** (CR1620)

#### **CAUTION:**

When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact

5. After replacement, fit the lower and upper cases together, part (4), (7) and tighten with the screw. **CAUTION:** 

After replacing the battery, Be sure to check that door locking operates normally using the keyfob. Refer to <u>DLK-244</u>, "Component Function Check".

#### INSTALLATION

Install in the reverse order of removal.

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