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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 

D Inspection start Е 1. Get information for symptom Get the detailed information about symptom from the customer 2. Check DTC Print out DTC and freeze frame data (or, write it down). Check related service bulletines. Symptom is described. Symptom is not described. Symptom is described. DTC is detected. DTC is detected. DTC is not detected. 3. Confirm the symptom 4. Confirm the symptom Try to confirm the symptom described Try to confirm the symptom described by the customer. by the customer. Also study the normal operation and failsafe related to the symptom. DLK 5. Perform DTC CONFIRMATION PROCEDURE 6. Detect malfunctioning system by SYMPTOM DIAGNOSIS 7. Detect malfunctioning part by Diagnosis Procedure Symptom is Symptom is not described. 8. Repair or replace the malfunctioning part Check input/output signal or voltage DTC is 9. Final check Ν Symptom remains. detected. Check that the symptom is not detected. Perform DTC Confirmation Procedure again, and then check that the malfunction is repaired. DTC is not detected. Symptom does not remain. Р INSPECTION END

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### DIAGNOSIS AND REPAIR WORK FLOW

#### < BASIC INSPECTION >

# 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

# 2. CHECK DTC

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

#### Are any symptoms described and any DTC detected?

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

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

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

### 3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

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

>> GO TO 5.

### 4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

# 5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to <a href="BCS-73">BCS-73</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-43, "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 >

Inspect according to Diagnosis Procedure of the system.

#### Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to GI-43, "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 replacement.
- 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. NO

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### **INSPECTION AND ADJUSTMENT**

### < BASIC INSPECTION >

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

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

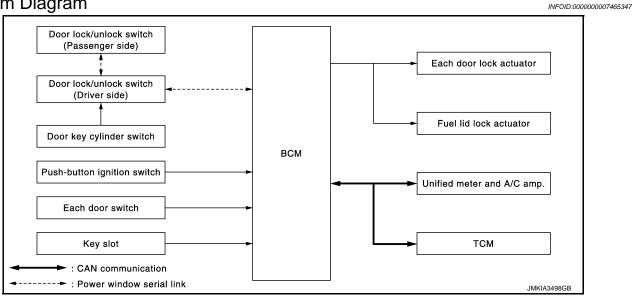
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

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

# SYSTEM DESCRIPTION

# POWER DOOR LOCK SYSTEM

System Diagram



# System Description

#### OOR 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 <u>DLK-51</u>, "DOOR LOCK: <u>CONSULT Function (BCM - DOOR LOCK)"</u>.

#### KEY REMINDER FUNCTION

When door lock and unlock switch are operated while Intelligent Key is inserted into key slot and any door is open, door locks once but immediately unlocks. This operation prevents Intelligent Key from being left in the vehicle.

#### DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION

Driver side key cylinder LOCK/UNLOCK operation can activate driver side and passenger side power window UP/DOWN operation. Refer to <a href="https://example.com/PWC-9">PWC-9</a>, "System Description".

### 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.

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### POWER DOOR LOCK SYSTEM

#### < SYSTEM DESCRIPTION >

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.

#### NOTE:

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

### (II) 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.

- 1. Close all doors (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 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.

#### (II) 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.

#### (R) 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
- 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.
- The switching is complete when the hazard lamp blinks.

# **POWER DOOR LOCK SYSTEM**

### < SYSTEM DESCRIPTION >

 $\mathsf{OFF} \to \mathsf{ON}$ : 2 blinks  $\mathsf{ON} \to \mathsf{OFF}$ : 1 blink

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\*1: This function is set to ON before delivery.  $^{\star 2}$ : This function does not operate on M/T models.

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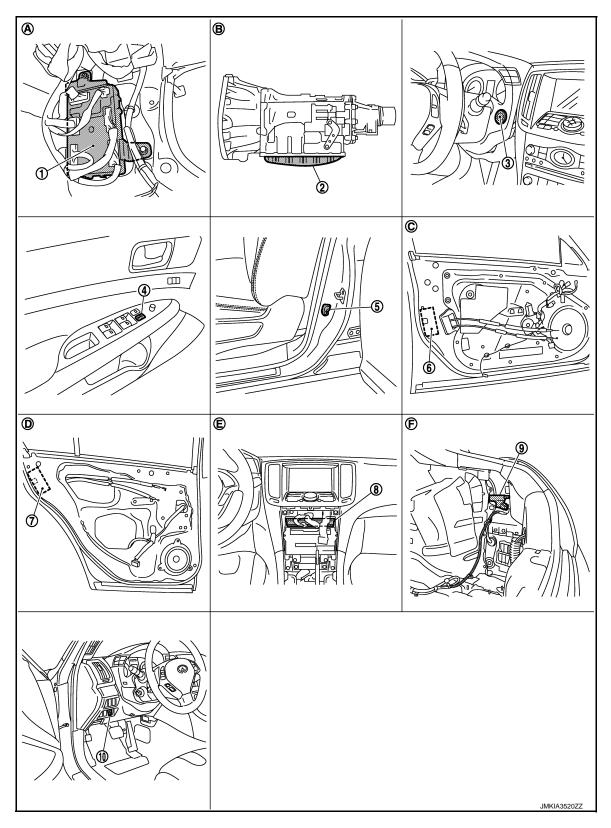
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**DLK-13** 2012 G Sedan Revision: 2013 February

# Component Parts Location

INFOID:0000000007465349



- BCM M118, M119, M121, M122, M123
- 4. Power window main switch (door lock and unlock switch) D8, D9
- 7. Rear door lock assembly LH D55
- 2. A/T assembly (TCM)\* F51
  - . Front door switch (driver side) B16
  - . Unified meter and A/C amp. M67
- 3. Push-button ignition switch (push switch) M50
- 6. Front door lock assembly (driver side) D15
- 9. Fuel lid lock actuator B242

### POWER DOOR LOCK SYSTEM

### < SYSTEM DESCRIPTION >

10. Key slot M22

Dash side lower (passenger side)

В. A/T assembly (TCM is built in A/T as- C.

View with driver side door finisher removed

View with rear door finisher LH removed

E. View with cluster lid C removed View with trunk side finisher removed

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\*:With A/T models

# Component Description

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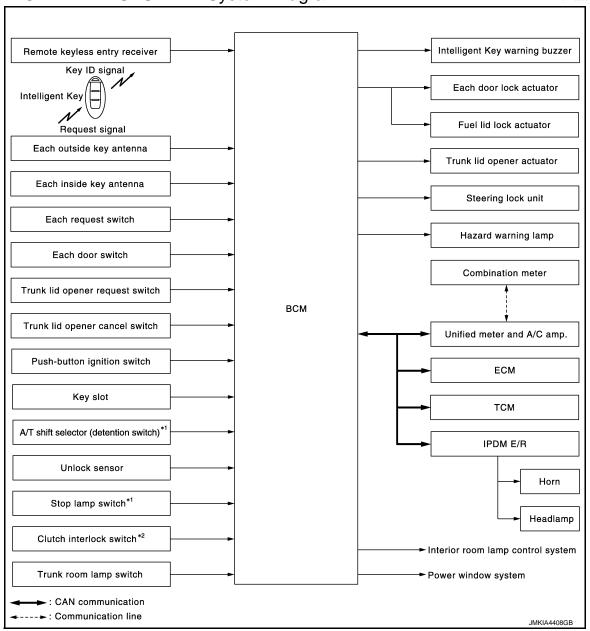
Item	Function	
BCM	Controls the door lock function.	
Door lock and unlock switch	Inputs lock or unlock signal to BCM.	
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.	
Door key cylinder switch	Built-in driver side door lock assembly  Inputs lock or unlock signal to power window main switch.  Power window main switch trasmits door lock/unlock signal to BCM.	
Door switch	Inputs door open/close condition to BCM.	
Key slot	Inputs key insert/remove signal to BCM.	
Unified meter and A/C amp.	Transmits vehicle speed signal to CAN communication line.	
TCM	Transmits shift position signal to BCM via CAN communication line.	
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.	
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.	

Revision: 2013 February

# INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM

### INTELLIGENT KEY SYSTEM: System Diagram

INFOID:0000000007465351



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

# INTELLIGENT KEY SYSTEM: System Description

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 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.

# < SYSTEM DESCRIPTION >

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	DLK-21
Remote keyless entry function	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	DLK-30
Trunk open function	The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener request switch.	DLK-26
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	<u>DLK-36</u>
Warning function	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-40
Engine start function	The engine can be turned on while carrying the Intelligent Key.	SEC-9

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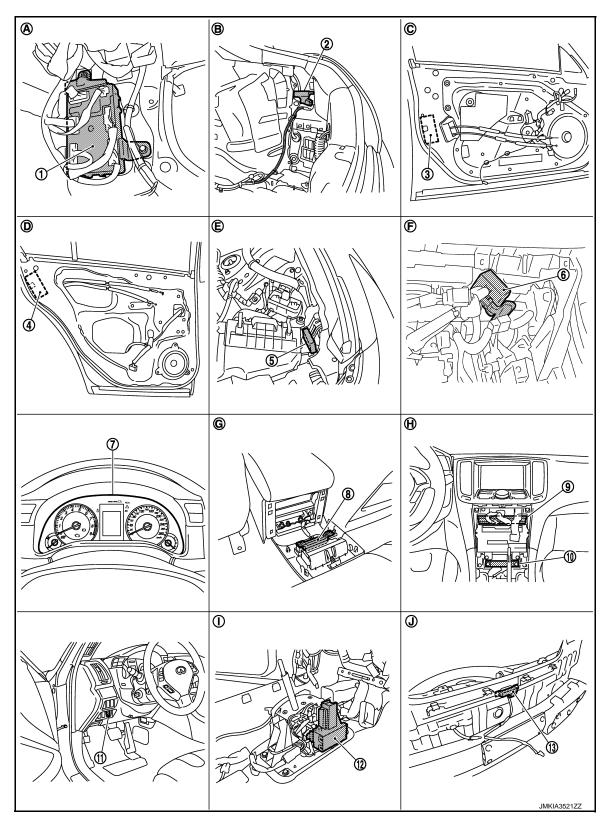
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# INTELLIGENT KEY SYSTEM: Component Parts Location

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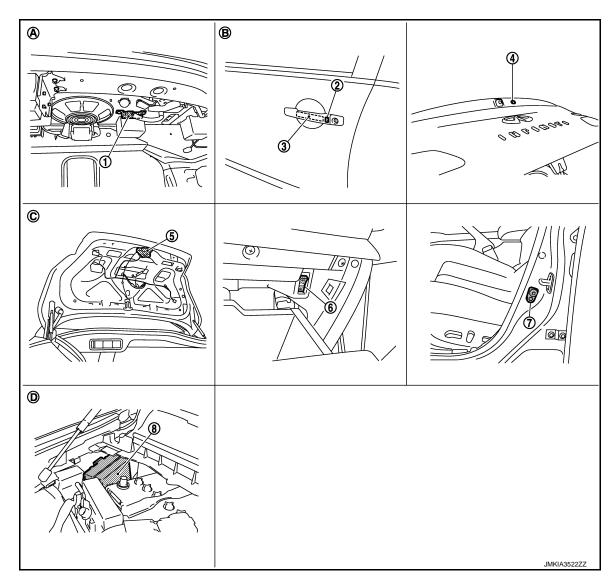
- 1. BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

#### < SYSTEM DESCRIPTION >

- 10. Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- Dash side lower (passenger side)
- D. View with rear door finisher LH removed
- G. View with console rear finisher removed
- View with rear bumper removed
- View with trunk side finisher re-B. moved
- E. View with hood seal assembly removed
- View with cluster lid C removed

- 12. A/T shift selector (detention switch)\* M137
- View with driver side door finisher re-
- Engine room dash panel
- View with center console assembly removed

\*: With A/T models



- Inside key antenna (trunk room) B49 2.
- Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- View with trunk front finisher removed
- D. Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- Trunk lid lock assembly B303 5.
- 8. IPDM E/R E5, E6
- B. View with driver side door
- 3. Front outside handle LH (outside key antenna) D14
- Trunk lid opener cancel switch M105 6.
- View with trunk lid finisher removed

**DLK-19** Revision: 2013 February 2012 G Sedan

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### < SYSTEM DESCRIPTION >

# INTELLIGENT KEY SYSTEM : Component Description

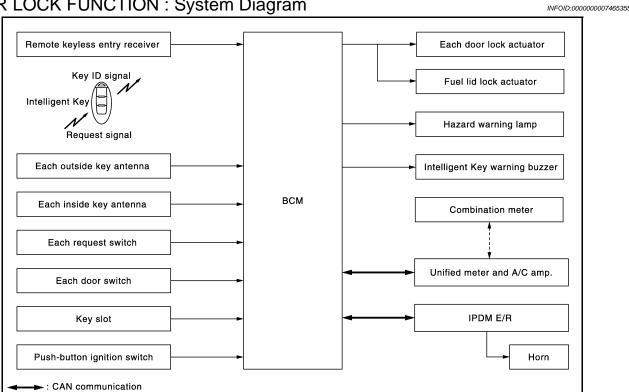
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Item	Function
BCM	Controls the Intelligent Key system.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.
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.
Request switch	Inputs lock/unlock operation to BCM.
Key slot	Inputs key insert/remove signal 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.
A/T shift selector (detention switch)*	Detects the P range position of A/T selector lever.
Unified meter and A/C amp.	Transmits vehicle seep signal to CAN communication line.
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
Trunk lid opener actuator	Transmits trunk open operation to BCM.
Trunk lid opener request switch	Inputs lock/unlock operation to BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Trunk room lamp switch	Inputs trunk lid open/close 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 and trunk lid open/close condition and inappropriate operations with the lamps blink.
TCM*	Transmits shift position signal to BCM via CAN communication line.
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.

<sup>\*:</sup> With A/T models

# DOOR LOCK FUNCTION

# **DOOR LOCK FUNCTION: System Diagram**



# DOOR LOCK FUNCTION: System Description

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

#### OPERATION DESCRIPTION

---: Communication line

- 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 fuel lid 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 request switch is operated.

Each request switch operation	Operation condition
Lock operation	<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 Operation	<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**

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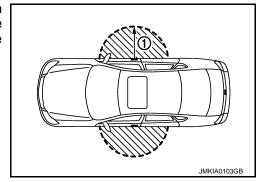
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#### < SYSTEM DESCRIPTION >

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). However, this operating range depends on the ambient conditions.



#### SELECTIVE UNLOCK FUNCTION

#### **Lock Operation**

When an LOCK signal is sent from door request switch (driver side or passenger side), all doors and fuel lid will be locked.

#### **Unlock Operation**

- When an UNLOCK signal from driver side door request switch is transmitted, driver side door and fuel lid unlocks. When another UNLOCK signal is transmitted within 60 seconds, passenger side door unlock.
- When an UNLOCK signal from passenger side door request switch is transmitted, passenger side door unlock. When another UNLOCK signal is transmitted within 60 seconds, driver side door and fuel lid unlocks.

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-51</u>, "DOOR LOCK: <u>CONSULT Function</u> (<u>BCM - DOOR LOCK</u>)".

#### HAZARD AND BUZZER REMINDER FUNCTION

During lock, unlock, operation by each 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 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 if ignition switch ON position.

### How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### AUTO DOOR LOCK FUNCTION

When all doors are locked, ignition switch is in OFF position and key switch is OFF (Intelligent Key is not inserted in key slot), doors are unlocked with door request switch

When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-53</u>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from door request switch. For detailed description. Refer to <a href="INL-6">INL-6</a>, "System Description".

#### LIST OF OPERATION RELATED PARTS

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

# < SYSTEM DESCRIPTION >

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator and fuel lid 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 by request switch	×	×	×	×	×	×	×	×			×			
Hazard and buzzer reminder function for door lock/ unlock operation									×	×	×	×		×
Selective unlock function by request switch	×				×	×	×	×			×			
Auto door lock function	×	×		×	×	×					×		×	

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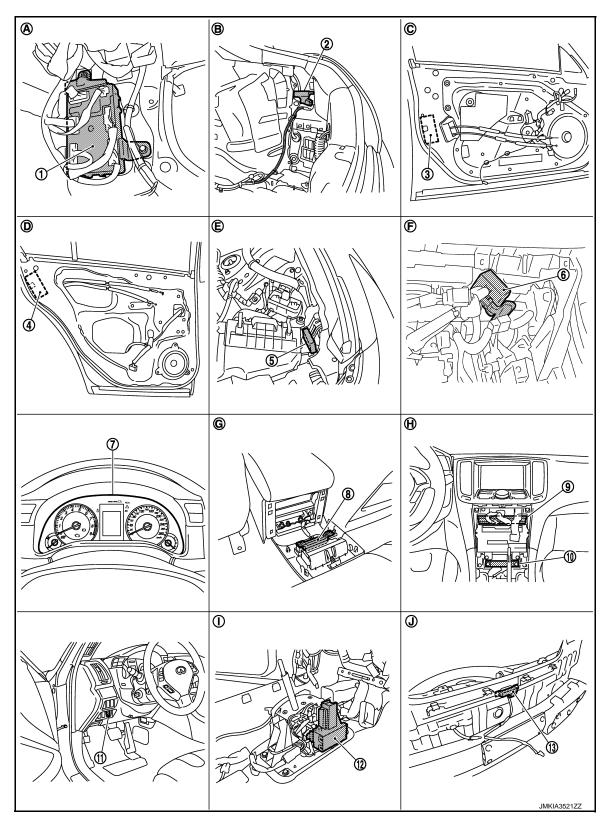
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# DOOR LOCK FUNCTION : Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

#### < SYSTEM DESCRIPTION >

- Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- A. Dash side lower (passenger side)
- View with rear door finisher LH removed
- G. View with console rear finisher removed
- J. View with rear bumper removed

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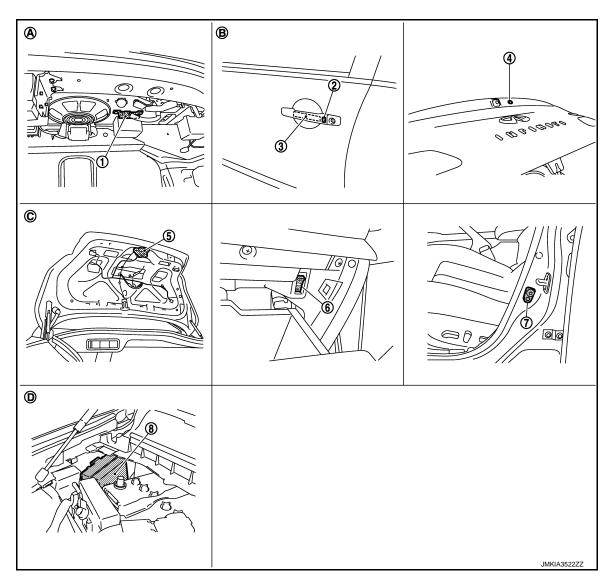
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moved E. View with hood seal assembly re-

View with trunk side finisher re-

- H. View with cluster lid C removed
- A/T shift selector (detention switch)\* M137
- View with driver side door finisher removed
- F. Engine room dash panel
- View with center console assembly removed

\*: With A/T models



- 1. Inside key antenna (trunk room) B49 2.
- 4. Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- View with trunk front finisher removed
- D. Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- 5. Trunk lid lock assembly B303
- 8. IPDM E/R E5, E6
- B. View with driver side door
- Front outside handle LH (outside key antenna) D14
- 6. Trunk lid opener cancel switch M105
- C. View with trunk lid finisher removed

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# DOOR LOCK FUNCTION: Component Description

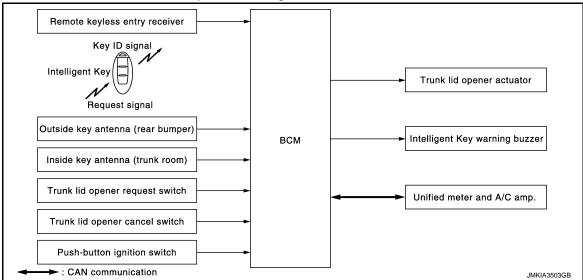
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Item	Function
BCM	Controls the door lock function.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
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.
Fuel lid lock actuator	Outputs lock/unlock signal from BCM and lock/unlocks fuel filler lid.
Combination meter	Hazard warning lamp is installed to combination meter.
Unified meter and A/C amp.	Transmits hazard warning lamp signal to BCM via CAN communication line.
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.
Key slot	Inputs key insert/remove signal 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 blink.

# TRUNK OPEN FUNCTION

# TRUNK OPEN FUNCTION: System Diagram

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# TRUNK OPEN FUNCTION: System Description

#### INFOID:0000000007465360

#### TRUNK LID OPENER

- When the BCM detects that trunk lid opener request switch is pressed, it activates the outside key antenna (rear bumper) and inside key antenna and transmits the request signal to the Intelligent Key. And then, checks that the Intelligent Key is near the trunk lid.
- 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 transmits the trunk open request signal and sounds Intelligent Key warning buzzer 4 times at the same time (buzzer reminder). However, buzzer reminder does not operate when ignition switch is in the ON position.

#### < SYSTEM DESCRIPTION >

• When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

### How to change buzzer reminder mode

### (II) With CONSULT

Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

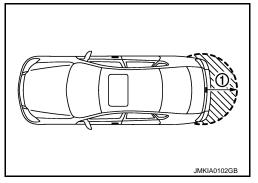
#### **OPERATION CONDITION**

If the following conditions are not satisfied, trunk open operation is not performed even if the trunk lid opener request switch is operated.

Trunk lid opener request switch operation	Operation condition
Trunk open operation	<ul> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> <li>Intelligent Key is within outside key antenna (rear bumper) detection area</li> <li>Trunk cancel switch is ON</li> <li>Key reminder functions operate (trunk)</li> <li>Vehicle security system is disarmed or in the per-armed phase.</li> </ul>

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

The outside key antenna detection area of trunk open function is in the range of approximately 80 cm (31.50 in) surrounding trunk opener request switch (1). However, this operating range depends on the ambient conditions.



#### LIST OF OPERATION RELATED PARTS

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

Trunk open function	Intelligent Key	Remote keyless entry receiver	Trunk room lamp switch	Trunk opener request switch	Trunk lid opener actuator	Inside key antenna	Outside key antenna (Trunk)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Trunk lid opener cancel switch
Trunk open function by the trunk opener request switch	×	×	×	×	×	×	×		×	×		×
Buzzer reminder for trunk open operation								×	×	×		

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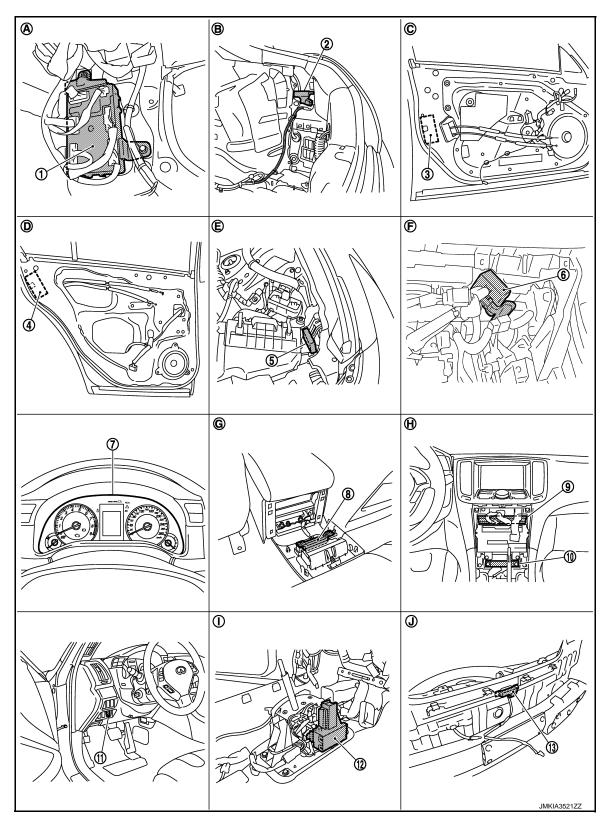
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# TRUNK OPEN FUNCTION: Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

#### < SYSTEM DESCRIPTION >

- Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- A. Dash side lower (passenger side)
- View with rear door finisher LH removed
- G. View with console rear finisher removed
- J. View with rear bumper removed
- B. View with trunk side finisher re-

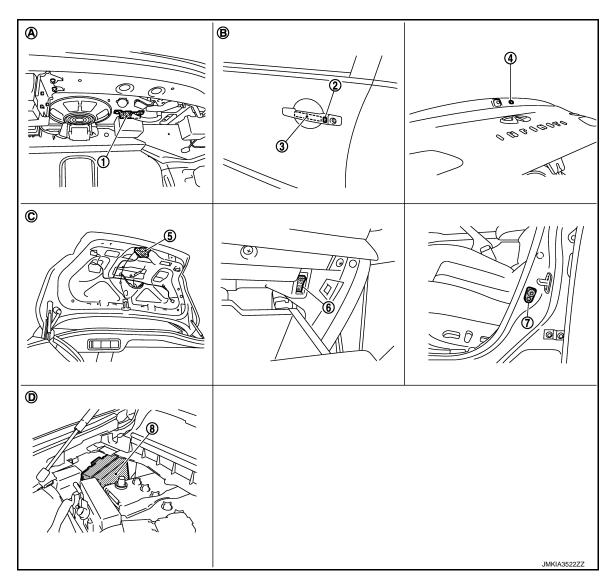
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- E. View with hood seal assembly removed
- H. View with cluster lid C removed

- A/T shift selector (detention switch)\* M137
- View with driver side door finisher removed
- F. Engine room dash panel
- View with center console assembly removed

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\*: With A/T models



- 1. Inside key antenna (trunk room) B49 2.
- 4. Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- View with trunk front finisher removed
- D. Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- 5. Trunk lid lock assembly B303
- 8. IPDM E/R E5, E6
- B. View with driver side door
- Front outside handle LH (outside key antenna) D14
- 6. Trunk lid opener cancel switch M105
- C. View with trunk lid finisher removed

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# TRUNK OPEN FUNCTION: Component Description

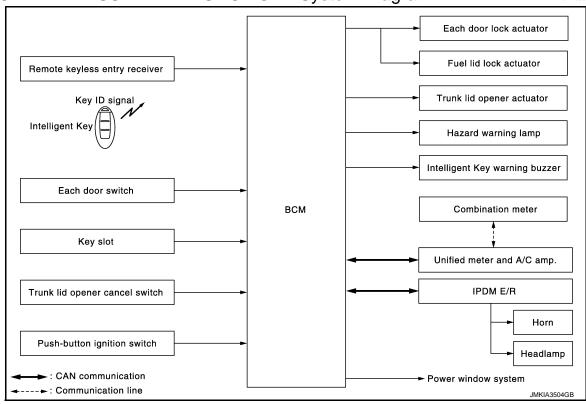
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Item	Function
BCM	Controls the trunk open function.
Trunk lid opener actuator	Transmits trunk open operation to BCM.
Unified meter and A/C amp.	Transmits vehicle seep signal to CAN communication line.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Trunk lid opener request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna (rear bumper)	Detects if Intelligent Key is outside the vehicle.
Inside key antenna (trunk room)	Detects if Intelligent Key is inside the vehicle.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Intelligent Key warning buzzer	Warns the user of the open condition and inappropriate operations with the buzzer sound.
Push-button ignition switch	Inputs push-button ignition switch ON/OFF condition to BCM.

# REMOTE KEYLESS ENTRY FUNCTION

# REMOTE KEYLESS ENTRY FUNCTION: System Diagram

INFOID:0000000007465363



# REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:0000000007465364

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
- Trunk lid open
- · Hazard and horn reminder
- Auto door lock

#### < SYSTEM DESCRIPTION >

- Panic alarm
- Power window down
- Interior lamp

#### **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 fuel lid lock actuator
  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	emote controller operation Operation condition				
Unlock	More than 3 seconds are passed since intelligent Key is removed from key slot.	All doors and fuel lid unlock			

#### SELECTIVE UNLOCK FUNCTION

- When an LOCK signal is transmitted from Intelligent Key, all doors and fuel lid are locked.
- When an UNLOCK signal is transmitted from Intelligent Key once, driver side door and fuel lid are unlocked.
- 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-51</u>, "DOOR LOCK: <u>CONSULT Function</u> (<u>BCM - DOOR LOCK</u>)".

#### TRUNK OPEN FUNCTION

- When trunk button of the Intelligent Key is pressed, the trunk open signal is transmitted from the Intelligent Key to the BCM via remote keyless entry receiver.
- When BCM receives the trunk open request signal, it operates the trunk lid opener actuator and opens the trunk.

#### OPERATION CONDITION

Remote controller operation	Operation condition	Operation
Trunk open	<ul> <li>Press and hold the trunk open button for 0.5 second or more*</li> <li>Ignition switch is except the ON position</li> <li>Trunk lid opener cancel switch is ON</li> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> </ul>	Trunk open

<sup>\*:</sup> Pattern of trunk open button can be selected using CONSULT. Refer to <u>DLK-53, "INTELLIGENT KEY:</u> CONSULT Function (BCM - INTELLIGENT KEY)".

#### 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

### How to change hazard and horn reminder mode

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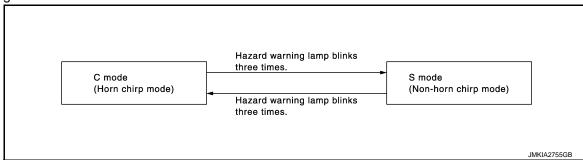
#### < SYSTEM DESCRIPTION >

### (II) With CONSULT

Refer to DLK-53, "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

When all doors and fuel lid are locked, ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), doors and fuel lid are unlocked with Intelligent Key button. When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opene)
- · Door is locked
- Ignition switch is ON
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-53</u>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### PANIC ALARM FUNCTION

When ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), BCM receives PANIC ALARM signal from Intelligent Key.

BCM turns on and off headlamp intermittently and transmits theft warning horn signal to IPDM E/R. Then, IPDM E/R turns on and off horn intermittently.

The headlamp blinks and the horn sounds intermittently.

The alarm automatically turns off:

- After 25 seconds
- When BCM receives any signal from Intelligent Key

Panic alarm function mode can be changed by "PANIC ALARM SET" mode in "WORK SUPPORT". Refer to <a href="https://doi.org/10.1016/journal.com/">DLK-53</a>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### KEYLESS POWER WINDOW DOWN (OPEN) FUNCTION

Driver side and passenger side power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed:

- When the unlock button is kept pressed more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>DLK-53</u>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

### INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to INL-6, "System Description".

#### LIST OF OPERATION RELATED PARTS

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

# < SYSTEM DESCRIPTION >

Remote keyless entry functions	Intelligent Key	Key slot	Door request switch (Driver, Passenger)	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Unified meter and A/C amp.	Hazard warning lamp	Horn	IPDM E/R	Head lamp	Trunk lid opener actuator
Door lock/unlock function by remote control button	×	×		×	×		×	×							
Trunk open function by remote control button	×					×	×	×		×					×
Trunk open function by remote control button  Hazard and horn reminder function	×					×	×	×	×	×	×	×	×		×
				×	×				×	×	×	×	×		×
Hazard and horn reminder function	×	×		×	×		×	×	×	×	×	×	×		×
Hazard and horn reminder function  Selective unlock function	×	× ×		×	×		×	×	×	X	×	×	×		×

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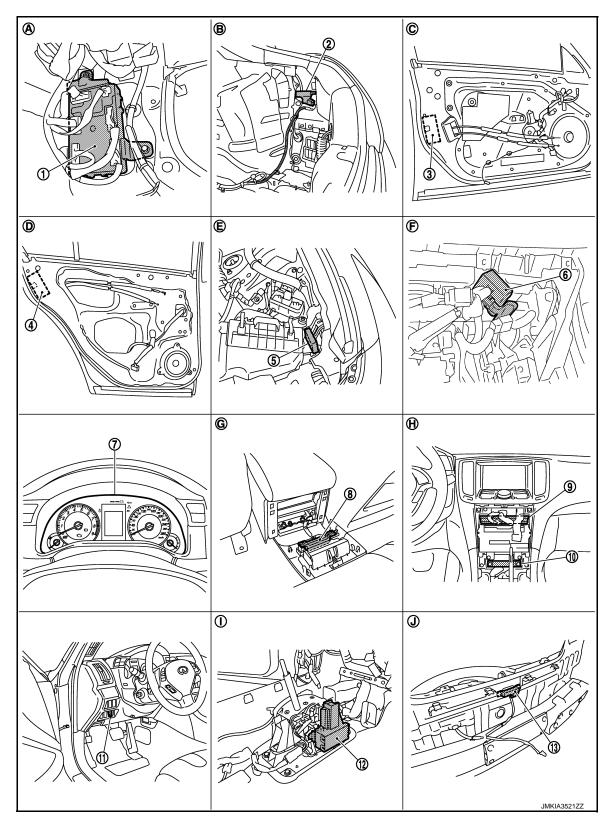
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# REMOTE KEYLESS ENTRY FUNCTION: Component Parts Location

INFOID:0000000007465365



- 1. BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

#### < SYSTEM DESCRIPTION >

- Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- A. Dash side lower (passenger side)
- View with rear door finisher LH removed
- G. View with console rear finisher removed
- J. View with rear bumper removed

B.

moved

E. View with hood seal assembly removed

View with trunk side finisher re-

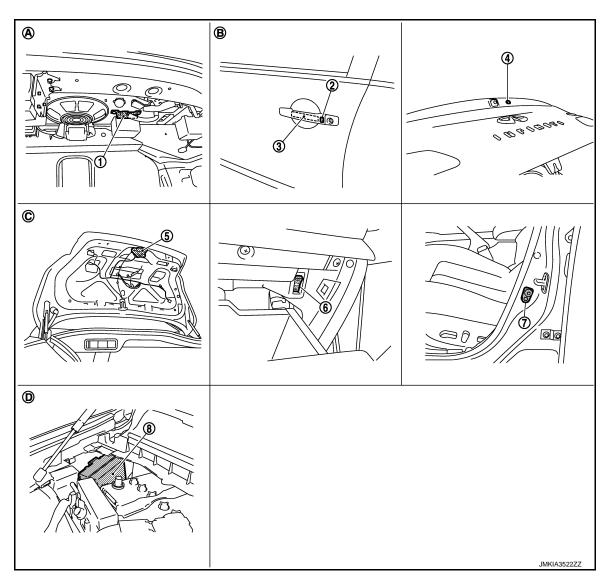
- H. View with cluster lid C removed
- A/T shift selector (detention switch)\* M137
- View with driver side door finisher removed
- F. Engine room dash panel
- View with center console assembly removed

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\*: With A/T models



- 1. Inside key antenna (trunk room) B49 2.
- 4. Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- View with trunk front finisher removed
- D. Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- 5. Trunk lid lock assembly B303
- 8. IPDM E/R E5, E6
- B. View with driver side door
- Front outside handle LH (outside key antenna) D14
- 6. Trunk lid opener cancel switch M105
- C. View with trunk lid finisher removed

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# REMOTE KEYLESS ENTRY FUNCTION: Component Description

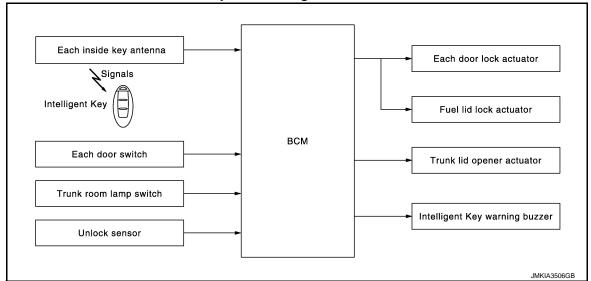
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Item	Function
BCM	Controls the door lock function and trunk open function.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Key slot	Inputs key insert/remove signal to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Combination meter	Hazard warning lamp is installed to combination meter.
Unified meter and A/C amp.	Transmits vehicle seep signal to CAN communication line.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Trunk lid opener actuator	Transmits trunk lid open operation to BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Fuel lid lock actuator	Performs lock/unlock of the fuel lid.
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 blink.

# **KEY REMINDER FUNCTION**

# KEY REMINDER FUNCTION: System Diagram

INFOID:0000000007465367



# KEY REMINDER FUNCTION : System Description

INFOID:0000000007465368

Key reminder is the function that prevents the key from being left in the vehicle. Key reminder has the following 3 functions.

### < SYSTEM DESCRIPTION >

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 opene  • 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 opene  All doors are locked by door lock and unlock switch or door lock knob	All doors unlock     Honk Intelligent Key warning buzzer
Trunk is closed	Right after trunk is closed under the following conditions  Intelligent Key is inside trunk room  All doors are closed  All doors are locked	Trunk open 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 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.

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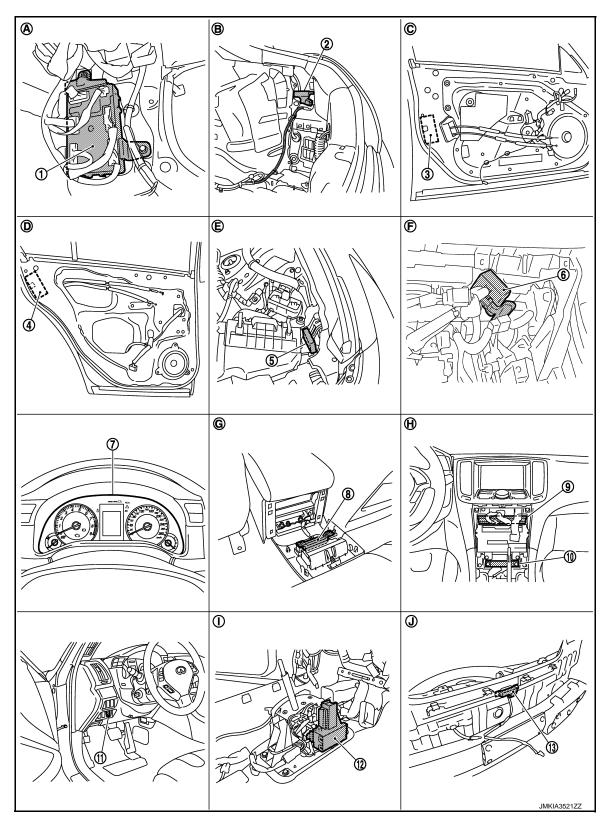
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# KEY REMINDER FUNCTION : Component Parts Location

INFOID:0000000007465369



- 1. BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

### < SYSTEM DESCRIPTION >

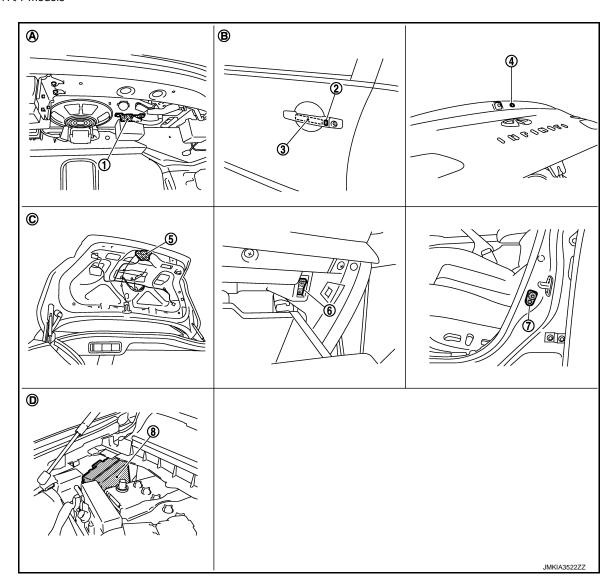
- 10. Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- Dash side lower (passenger side)
- D. View with rear door finisher LH removed
- G. View with console rear finisher removed
- View with rear bumper removed
- View with trunk side finisher re-B. moved
- E. View with hood seal assembly removed
- View with cluster lid C removed

- 12. A/T shift selector (detention switch)\* M137
- View with driver side door finisher re-
- View with center console assembly

Engine room dash panel

removed

\*: With A/T models



- Inside key antenna (trunk room) B49 2.
- Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- View with trunk front finisher removed
- Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- Trunk lid lock assembly B303 5.
- 8. IPDM E/R E5, E6
- View with driver side door
- 3. Front outside handle LH (outside key antenna) D14
- Trunk lid opener cancel switch M105 6.
- View with trunk lid finisher removed

### WARNING FUNCTION

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### < SYSTEM DESCRIPTION >

## WARNING FUNCTION: System Description

INFOID:0000000007465370

### **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, KEY warning lamp, key slot indicator and information display in combination meter.

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

### **OPERATION CONDITION**

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

Warning/Info	rmation functions	Operation procedure
Intelligent Key system m	alfunction	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 is inserted in key slot  Door switch (driver side): ON (Door is open)
	For external*	OFF position warning (For internal) is in active mode, driver side door is closed.  NOTE:  OFF position (For external) active only when each of the sequence occurs as below: P position warning → ACC warning → OFF position warning (For internal) → OFF position warning (For internal)
D 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>
P position warning*	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>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>
. 3	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>
	Intelligent Key is removed from key slot	When Intelligent Key is removed from key slot, Intelligent Key cannot be detected inside the vehicle.
Door lock operation warr	ning	When door lock operation is requested while door lock operating condition of door request switch not satisfied.

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## < SYSTEM DESCRIPTION >

Warning/Inform	mation functions	Operation procedure		
Key warning		<ul> <li>Ignition switch is OFF position.</li> <li>Driver side door switch: ON (Driver side door is open).</li> <li>Intelligent Key is inserted in key slot.</li> </ul>		
Intelligent Key insert infor	<ul> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Intelligent Key is out of key slot.</li> <li>Intelligent Key cannot be detected inside the vehicle.</li> </ul>			
	Ignition switch is ON position	<ul> <li>Ignition switch: ON position.</li> <li>Shift position: P position.*</li> <li>Engine is stopped.</li> </ul>		
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 inserted in key slot or Intelligent Key can be detected inside the vehicle.</li> </ul>		
Steering lock information		When steering lock cannot be released after ignition switch is turned ON.		
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.

Information display (combination meter), "KEY" indicator or key slot indicator when the warning conditions are met.

					Warning	g chime	
Warning/Informa	Warning/Information functions		"KEY" warning lamp (combination meter) Key slot in dicator		Combination meter buzzer	Intelligent Key warning buzzer	
Intelligent Key syste	m malfunction	Illuminate	_	_	_	_	J
OFF position warn-	For internal	_	_	_	Activate	_	_
ing	For external*	_	_	_	_	Activate	DL
	For internal			_	Activate	_	
P position warning*	For external	_	SHIFT JMKIA0037GB	_	_	Active	L
ACC warning*		_	PUSH	_	_	_	N 0
			JMKIA0047GB				P

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## < SYSTEM DESCRIPTION >

					Warning	g chime
Warning/Informa	ation functions	"KEY" warn- ing lamp	Information display (combination meter)	Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer
	Door is open to close	_		Blink	Activate	Activate
	Door is open	_		Blink	_	_
Take away warning	Push-ignition switch operation	_	NO KEY	Blink	Activate	_
	Intelligent Key is removed from key slot	_	JMKIA0036GB	Blink	_	_
Door lock operation warning	Request switch operation	_	_	_		Activate
Key ID warning		_	NO KEY	_	_	_
Key warning		_	JMKIA0035GB	Blink	Activate	_
Intelligent Key insert	: information	_	JMKIA0034GB	Indicate	_	_
Engine start infor-	Automatic trans mission models	_	BRAKE JMKIA0032GB	_	_	_
mation	Manual trans- mission models	_	CLUCH JMKIA0049GB	_	_	_

### < SYSTEM DESCRIPTION >

				Warning	g chime
Warning/Information functions			Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer
Steering lock information	_	JMKIA0033GB	_	<del>-</del>	_
Intelligent Key low battery warning	_	JMKIA0048GB	_	_	_

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

### LIST OF OPERATION RELATED PARTS

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

Warnin	g function	Intelligent Key	Key slot	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	Combination meter display	Key slot indicator	Detention switch	"KEY" warning lamp
Intelligent Key system ma	lfunction										×	×				×
OFF position warning	For internal				×					×	×	×				
Of a position warning	For external				×				×			×				
P position warning				×						×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
Take away warning	Push-button ignition switch operation	×		×			×			×	×	×	×	×		
Intelligent Key is removed from key slot		×	×				×				×	×	×	×		
Door lock operation warning		×	×		×	×	×	×	×			×				
Key ID warning			×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert information		×	×	×	×		×				×	×	×	×		

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## < SYSTEM DESCRIPTION >

Warnin	g function	Intelligent Key	Key slot	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	Combination meter display	Key slot indicator	Detention switch	"KEY" warning lamp
Engine start information	Ignition switch is ON position	×	×	×			×				×	×	×		×	
Engine start information	Ignition switch is except ON position	×	×	×			×				×	×	×			
Steering lock information				×							×	×	×			
Intelligent Key low battery	Intelligent Key low battery warning						×				×	×	×			

## WARNING FUNCTION: Component Parts Location

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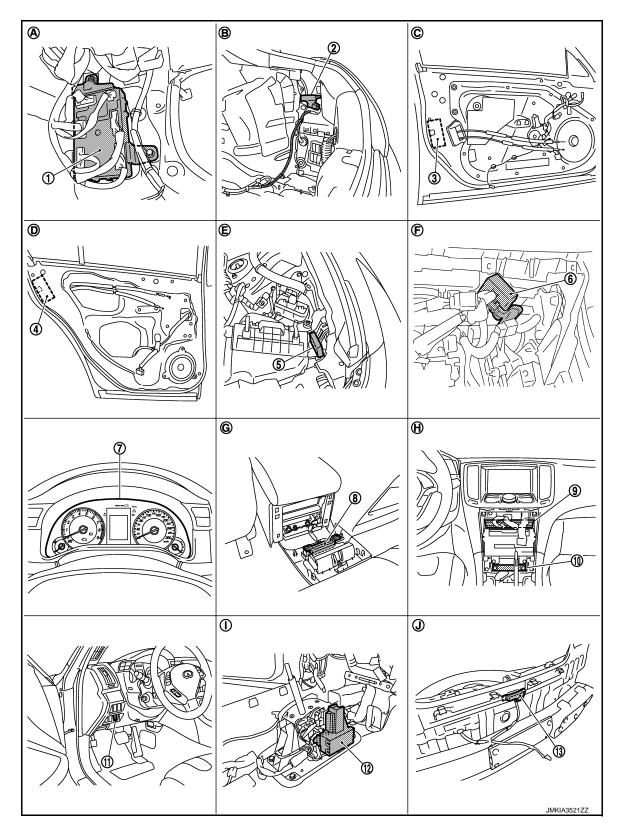
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- BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver side) D15
- 6. Remote keyless entry receiver M104
- Unified meter and A/C amp. M66, M67

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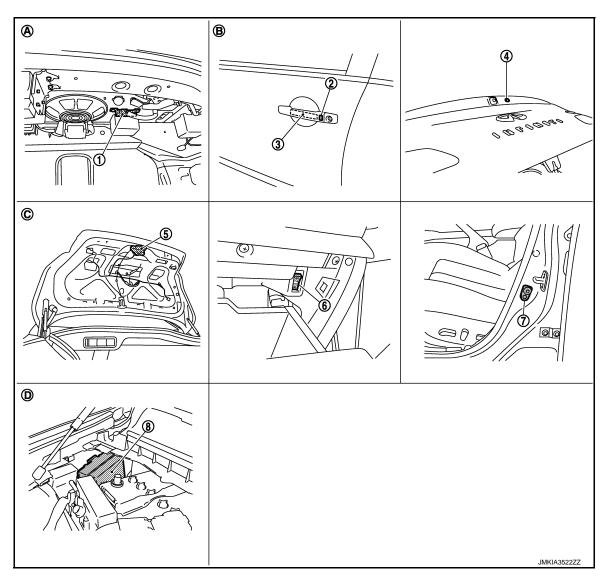
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### < SYSTEM DESCRIPTION >

- 10. Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- Dash side lower (passenger side) A.
- D. View with rear door finisher LH removed
- G. View with console rear finisher removed
- View with rear bumper removed

- 12. A/T shift selector (detention switch)\* M137
- View with trunk side finisher removed
- View with hood seal assembly removed
- View with cluster lid C removed
- View with driver side door finisher re-
- Engine room dash panel
- View with center console assembly removed

#### \*: With A/T models



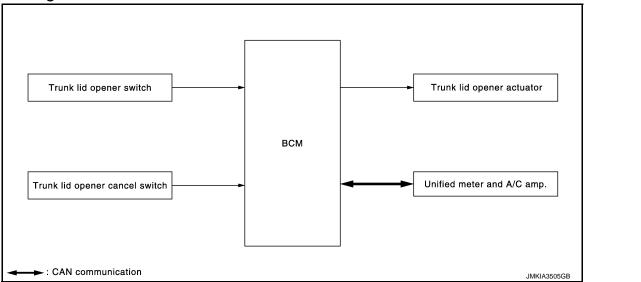
- Inside key antenna (trunk room) B49 2.
- Trunk lid opener request switch 4. B304
- Front door switch (driver side) B16
- View with trunk front finisher removed
- Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- Trunk lid lock assembly B303 5.
- 8. IPDM E/R E5, E6
- View with driver side door
- 3. Front outside handle LH (outside key antenna) D14
- Trunk lid opener cancel switch M105
- View with trunk lid finisher removed

### TRUNK OPEN FUNCTION

### < SYSTEM DESCRIPTION >

## TRUNK OPEN FUNCTION

## System Diagram



## System Description

TRUNK LID OPENER OPERATION

When trunk lid opener switch is ON, BCM opens trunk opener actuator.

BCM can open trunk lid opener actuator when

Trunk lid opener cancel switch is ON

- Vehicle speed is less than 5 km/h (3 MPH)
- Vehicle security system is in the disarmed or pre-armed phase

BCM does not open trunk lid opener actuator when

- Vehicle speed is more than 5 km/h (3 MPH)
- Vehicle security system is in the armed or alarm phase
- Trunk lid opener cancel switch is OFF

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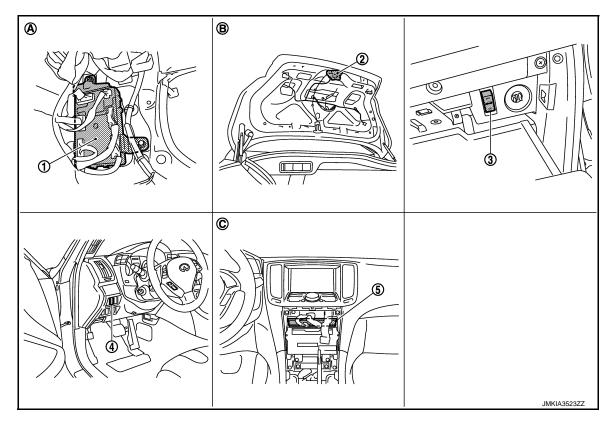
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## Component Parts Location

INFOID:0000000007465374



- BCM M118, M119, M120, M121, M122, M123
- 4. Trunk lid opener switch M20
- Dash side lower (passenger side)
- View with cluster lid C removed
- 2. Trunk lid lock assembly B303

5.

- Unified meter and A/C amp. M67
- View with trunk lid finisher removed C. View with glove box open
- Trunk lid opener cancel switch M105

## Component Description

INFOID:0000000007465375

Item	Function
BCM	Controls trunk lid open operation.
Trunk lid opener switch	Transmits trunk open operation to BCM.
Trunk lid opener actuator	Opens the trunk after receiving the open signal from BCM.
Trunk lid opener cancel switch	Cancels the trunk open operation.
Unified meter and A/C amp.	Transmits vehicle speed signal to CAN communication line.

### INTEGRATED HOMELINK TRANSMITTER

### < SYSTEM DESCRIPTION >

## INTEGRATED HOMELINK TRANSMITTER

## **Component Description**

INFOID:0000000007465376

Item	Function
Integrated homelink transmitter	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

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### < SYSTEM DESCRIPTION >

## **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000007697752

#### 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	This function is not used even though it is displayed.

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

### NOTE:

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

x: Applicable item

C) rata m	Cub quatom colontino itom		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	×	×	X
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
_	AIR CONDITONER*			
Intelligent Key system     Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	X
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

#### NOTE:

### FREEZE FRAME DATA (FFD)

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

<sup>\*:</sup> This item is displayed, but is not used.

### < 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 (Odomete	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"*)
	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	Power position status of the moment a particular DTC is detected	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		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 supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (A/T 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 supply 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)

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### **BCM CONSULT FUNCTION**

CONSULT performs the following functions via CAN communication with BCM.

## < SYSTEM DESCRIPTION >

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 (ON) or not operate (OFF) with this mode.
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> </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 trunk lid opener 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	NOTE: This item is displayed, but cannot be monitored.
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**

### < SYSTEM DESCRIPTION >

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

# **INTELLIGENT KEY**

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

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## **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: 1 minute  • MODE 2: 5 minutes  • MODE 3: 30 seconds  • MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side and passenger side) mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk opener request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode.  • MODE 1: 0.5 sec.  • MODE 2: Non-operation  • MODE 3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode.  • MODE 1: 3 sec.  • MODE 2: Non-operation  • MODE 3: 5 sec.
TRUNK OPEN DELAY	Trunk button pressing on Intelligent Key button can be selected as per the following in this mode.  • MODE 1: Press and hold  • MODE 2: Press twice  • MODE 3: Press and hold, or press twice
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode.  • LOCK ONLY: Door lock operation only  • UNLOCK ONLY: Door unlock operation only  • LOCK/UNLOCK: Lock/unlock operation  • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode.  • Horn chirp: Sound horn  • Buzzer: Sound Intelligent Key warning buzzer

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• OFF: Non-operation

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## < SYSTEM DESCRIPTION >

Monitor item	Description
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below.  • 70 msec  • 100 msec  • 200 msec
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

## SELF-DIAG RESULT

Refer to BCS-74, "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 trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY-FB	NOTE: This item is displayed, but cannot be monitored.
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 can not be monitored.
S/L -UNLOCK	NOTE: This item is displayed, but can not be monitored.
S/L RELAY -F/B	NOTE: This item is displayed, but can not 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 can not be monitored.
S/L UNLK-IPDM	NOTE: This item is displayed, but can not be monitored.
S/L RELAY-REQ	NOTE: This item is displayed, but can not 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]

## < SYSTEM DESCRIPTION >

Monitor Item	Condition
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
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.  The interior room lamp is activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation.  The Intelligent Key warning buzzer is activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation.  • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched.  • Key warning chime sounds when "KEY" on CONSULT screen is touched.  • OFF position warning chime sounds when "KNOB" on CONSULT screen is touched.
INDICATOR	This test is able to check warning lamp operation.  • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched.  • "KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation.  The interior room lamp is activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information  • Engine start information displays when "BP N" on CONSULT screen is touched.  • Engine start information displays when "BP I" on CONSULT screen is touched.  • Key ID warning displays when "ID NG" on CONSULT screen is touched.  • ROTAT: This item is displayed, but can not be monitored.  • P position warning displays when "SFT P" on CONSULT screen is touched.  • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched.  • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched.  • Take away through window warning displays when "NO KY" on CONSULT screen is touched.  • Take away warning display when "OUTKEY" on CONSULT screen is touched.  • OFF position warning display when "LK WN" on CONSULT screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation.  This actuator opens when "OPEN" on CONSULT screen is touched.

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 $<sup>^{\</sup>star 2}$ : OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

### < SYSTEM DESCRIPTION >

Test item	Description
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.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation.  Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation.  LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation.  ACC indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched
IGNITION ON IND	This test is able to check on indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation.  Key slot illumination blinks when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT screen is touched.

## TRUNK

TRUNK: CONSULT Function (BCM - TRUNK)

INFOID:0000000007465380

### **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 combination meter.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.
TR CANCEL SW	Indicates [ON/OFF] condition of trunk lid opener cancel switch.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.
RKE-TR/BD	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote controller button.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation.

### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation.  This actuator opens when "OPEN" on CONSULT screen is touched.

### **U1000 CAN COMM CIRCUIT**

### < DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

## U1000 CAN COMM CIRCUIT

Description INFOID:000000007465381

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-26, "CAN System Specification Chart".

DTC Logic

### DTC DETECTION LOGIC

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

## Diagnosis Procedure

INFOID:0000000007465383

## 1.PERFORM SELF DIAGNOSTIC

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

### Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-17, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-43, "Intermittent Incident".

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## **U1010 CONTROL UNIT (CAN)**

### < DTC/CIRCUIT DIAGNOSIS >

# U1010 CONTROL UNIT (CAN)

DTC Logic

### DTC DETECTION LOGIC

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

## Diagnosis Procedure

INFOID:0000000007465385

# 1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM. Refer to BCS-80, "Removal and Installation"

## Special Repair Requirement

INFOID:0000000007465386

# 1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to CONSULT operation manual NATS-IVIS/NVIS.

>> INSPECTION END

### **B2621 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2621 INSIDE ANTENNA**

Description INFOID:0000000007465387

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

DTC Logic

### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA	An excessive high or low voltage from inside antenna is sent to BCM.	Inside key antenna (instrument center)     Between BCM ~ Inside key antenna (instrument center)

### 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-59</u>, "<u>Diagnosis Procedure</u>".

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

## Diagnosis Procedure

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch OFF.

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

(+)				Signal	
	BCM		(–)	Condition	(Reference value)
Connect	or	Terminal			
Instrument center	M122	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 JMKIA0062GB
instrument center	191122	70,79	Sistinu	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 JMKIA0063GB

#### 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 (instrument center) connector.

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### **B2621 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

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

В	СМ	Inside key antenna (instrument center)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M122	78	M131	2	Existed
IVITZZ	79	WITST	1	LXISIEU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	78	Ground	Not existed
IVITZZ	79		NOT 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	M122	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB	
				Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB	

### Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-227, "INSTRUMENT CENTER: Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

### **B2622 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

## **B2622 INSIDE ANTENNA**

Description INFOID:0000000007465390

Detects whether Intelligent Key is inside the vehicle. Installed in the console.

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 is sent to BCM.	Inside key antenna (console)     Between BCM ~ Inside key antenna (console)

### 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-61</u>, "<u>Diagnosis Procedure</u>".

NO >> Inside key antenna (console) is OK.

### Diagnosis Procedure

## 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch OFF.

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

Cons	(+) BCM Connector Terminal		BCM (–) Condition		Signal (Reference value)	
Console	M122	72, 73	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB	
Consolo		12,70	Sisting	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 JMKIA0063GB	

#### 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 (console) connector.
- Check continuity between BCM harness connector and inside key antenna (console) harness connector.

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### **B2622 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

В	СМ	Inside key antenna (console)		Continuity	
Connector	Terminal	Connector Terminal			
M122	72	M146	2	Existed	
IVI IZZ	73	101140	1	LXISIEU	

3. Check continuity between BCM harness connector and ground.

BO	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	72	Giodila	Not existed
IVITZZ	73		Not 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 (console). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (console) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

	(+) BCM		(–)	Condition	Signal (Reference value)
Con	nector	Terminal			
Console	M122	72, 73	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
		,		Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

### Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-227, "CONSOLE : Removal and Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-80. "Removal and Installation"</u>.

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

### **B2623 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

### **B2623 INSIDE ANTENNA**

Description INFOID:0000000007465393

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

DTC Logic

### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA	An excessive high or low voltage from inside antenna is sent to BCM.	Inside key antenna (trunk room)     Between BCM – Inside key antenna (trunk room)

### 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-63</u>, "<u>Diagnosis Procedure</u>".

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

## Diagnosis Procedure

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

Turn ignition switch OFF.

Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM		(–) Condition		Signal (Reference value)	
Conr	nector	Terminal			
Trunk room	M121	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1   S   JMKIA0062GB
				Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s  JMKIA0063GB

### 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 (trunk room) connector.

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### **B2623 INSIDE ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

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

E	BCM	Inside key ante	nna (trunk room)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	34	B49	2	Existed
IVITZT	35	D49	1	LXISIGU

3. Check continuity between BCM harness connector and ground.

В	CM		
Connector	Terminal	Ground	Continuity
M121	34	Ground	Not existed
IVITZT	35		Not 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 (trunk room). (New antenna or other antenna)
- 2. Connect BCM and inside key antenna (trunk room) connector.
- 3. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector Terminal		(-)	Condition	Signal (Reference value)	
Trunk room	M121	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
				Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

### Is the inspection result normal?

YES >> Replace inside key antenna (trunk room). Refer to <u>DLK-228, "TRUNK ROOM: Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

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

INFOID:0000000007465396

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BCM (BODY CONTROL MODULE): Diagnosis Procedure

### 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	K (40 A)
11	Dattery power supply	10 (10 A)

### Is the inspection result normal?

YES >> GO TO 2.

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

# 2. CHECK POWER SUPPLY CIRCUIT

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

	(+) CM	(-)	Voltage (Approx.)	
Connector	Terminal		( 44.5)	
M118	1	Ground	Battery voltage	
M119	11	Ground	Dattery Voltage	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

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### **DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

## **DOOR SWITCH**

Description INFOID:000000007465397

Detects door open/close condition.

## Component Function Check

INFOID:0000000007465398

## 1. CHECK FUNCTION

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

Monitor item	Co	ndition	Status
DOOR SW-DR	Driver side door	Open	ON
DOOK SW-DK	Driver side door	Closed	OFF
DOOR SW-AS	Passenger side door	Open	ON
		Closed	OFF
DOOR SW-RL	Rear door LH	Open	ON
DOOR SW-RL		Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
		Closed	OFF

### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-66</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000007465399

## 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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	(+)			
	Door switch		(-)	Signal (Reference value)
Connector Terminal			(ixeleffice value)	
Driver side	B16	2		(V) 15 10 5 0 10 ms JPMIA0011GB
Passenger side	B216	2	- Ground	(V) 15 10 5 0 10 ms JPMIA0011GB
Rear LH	B23	2		(V) 15 10 5 0 10 ms JPMIA0011GB
Rear RH	B223	2		(V) 15 10 5 0 10 ms JPMIA0011GB

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.

Door switch			ВСМ		Continuity
Con	nector	Terminal	Connector	Terminal	Continuity
Driver side	B16		M123	150	
Passenger side	B216	2	W1123	124	Existed
Rear LH	B23		M121	69	Existed
Rear RH	B223		IVI 12 I	68	

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

### **DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

Door switch				Continuity
Connector Terminal				Continuity
Driver side	B16		Ground	
Passenger side	B216	2	Giodila	Not existed
Rear LH	B23	2		ivoi existed
Rear RH	B223			

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

## 3.check door switch

Refer to DLK-68, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-226, "Removal and Installation"</u>.

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

### >> INSPECTION END

## **Component Inspection**

INFOID:0000000007465400

## 1. CHECK DOOR SWITCH

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

Terminal		Condition		Continuity
Door switch				Continuity
2	2 Ground part of door switch		Pressed	Not existed
	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-226</u>, "Removal and Installation".

### DOOR LOCK AND UNLOCK SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### DOOR LOCK AND UNLOCK SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000007465401

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000007465402

## 1. CHECK FUNCTION

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "Data Monitor" mode with CONSULT.

Monitor item	Condition		Status
CDL LOCK SW		Lock	ON
	- Door lock and unlock switch	Unlock	OFF
CDL UNLOCK SW		Lock	OFF
CDL UNLOCK SW		Unlock	ON

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

>> Refer to DLK-69, "DRIVER SIDE : Diagnosis Procedure". NO

### DRIVER SIDE: Diagnosis Procedure

#### INFOID:0000000007465403

## 1. CHECK POWER WINDOW SWITCH

Turn ignition switch ON.

Check power window operation.

### Does power window (driver side) operate?

>> Replace power window main switch.

>> Front & rear window anti-pinch models.

NO-2 >> Front window anti-pinch models.

### PASSENGER SIDE

## PASSENGER SIDE : Description

INFOID:0000000007465404

Transmits door lock/unlock operation to BCM.

### PASSENGER SIDE: Component Function Check

INFOID:0000000007465405

### 1. CHECK FUNCTION

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "Data Monitor" mode with CONSULT.

Monitor item	Condition		Status
CDL LOCK SW		Lock	ON
	- Door lock and unlock switch	Unlock	OFF
CDL UNLOCK SW		Lock	OFF
		Unlock	ON

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

>> Refer to <u>DLK-69</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

## PASSENGER SIDE : Diagnosis Procedure

### INFOID:0000000007465406

## 1. CHECK POWER WINDOW SWITCH

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Turn ignition switch ON.

### DOOR LOCK AND UNLOCK SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

2. Check passenger side power window operation.

### Does power window (passenger side) operate?

- YES >> Replace power window sub-switch.
  NO-1 >> Front & rear window anti-pinch models.
  NO-2 >> Front window anti-pinch models.

### DOOR LOCK ACTUATOR

### < DTC/CIRCUIT DIAGNOSIS >

## DOOR LOCK ACTUATOR

**DRIVER SIDE** 

DRIVER SIDE: Description

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

## 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LCK" 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-71</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 lo	+) ock assembly er side)	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D15	1	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
	2	Giouna	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

### Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-214, "FRONT DOOR LOCK:</u> Removal and Installation".

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

В	CM	Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D15	1	Existed
WITIS	9	D13	2	LAISteu

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
WITI	9		Not existed

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

### PASSENGER SIDE

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### DOOR LOCK ACTUATOR

### < DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE: Description

INFOID:0000000007465410

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000007465411

## 1. CHECK FUNCTION

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

### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-72, "PASSENGER SIDE : Diagnosis Procedure".

### PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000007465412

## 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				
D45	1	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$
D45	2	Ground	Door lock and unlock switch	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace front door lock assembly (passenger side). Refer to <u>DLK-214, "FRONT DOOR LOCK:</u> <u>Removal and Installation"</u>.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

В	СМ	Front door lock assembly (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	5	D45	1	Existed
WITTS	8	D43	2	LXISIGU

Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M119	5	Ground	Not existed
WITI	8		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

## **REAR LH: Description**

INFOID:0000000007465413

Locks/unlocks the door with the signal from BCM.

#### DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

# REAR LH: Component Function Check

#### INFOID:0000000007465414

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# 1. CHECK FUNCTION

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

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-74, "REAR RH: Diagnosis Procedure". NO

# REAR LH: Diagnosis Procedure

#### INFOID:0000000007465415

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(	+)				V-16 () ()
Rear door lock assembly LH		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				(11 - 7
D55	1	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
D55	2	Giodila	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

>> Replace rear door lock assembly LH. Refer to DLK-217, "REAR DOOR LOCK: Removal and YES Installation".

NO >> GO TO 2.

# 2.check door lock actuator circuit

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

BCM		Rear door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D55	1	Existed
WITTS	10	D33	2	LXISIEU

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground		
M119	8	Giodila	Not existed	
	10		140t CAISteu	

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

#### REAR RH

REAR RH: Description

INFOID:0000000007465416

Locks/unlocks the door with the signal from BCM.

## REAR RH: Component Function Check

# 1. CHECK FUNCTION

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

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INFOID:0000000007465417

#### DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

2. Touch "ALL LCK" 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-74</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

## REAR RH: Diagnosis Procedure

INFOID:0000000007465418

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(-	+)		Condition		Voltage (V)
Rear door lock	k assembly RH	(–)			Voltage (V) (Approx.)
Connector	Terminal				(11 - )
D75	1	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$
D/3	2	Giodila	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace rear door lock assembly RH. Refer to <u>DLK-217, "REAR DOOR LOCK: Removal and Installation".</u>

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

ВСМ		Rear door lock assembly RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D75	2	Existed
	10	D13	1	LXISIEU

3. Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
	10		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

#### **FUEL LID LOCK ACTUATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **FUEL LID LOCK ACTUATOR**

Description INFOID:000000007465419

Locks/unlocks the fuel filler lid with the signal from BCM.

# Component Function Check

# 1. CHECK FUNCTION

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

#### Is the inspection result normal?

YES >> Fuel lid lock actuator is OK.

NO >> Refer to <u>DLK-75</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

# 1. CHECK FUEL LID LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect fuel lid lock actuator connector.
- 3. Check voltage between fuel lid lock actuator harness connector and ground.

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Fuel lid lo	ck actuator	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
B242	1	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
B242	2	Glound	Door lock and unlock Switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace fuel lid lock actuator. Refer to DLK-225, "Removal and Installation".

NO >> GO TO 2.

# 2. CHECK FUEL LID LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and fuel lid lock actuator harness connector.

BCM		Fuel lid lock actuator		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	B242	2	Existed
IVITIE	9	0242	1	LAISIEU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Giouna	Not existed
	9		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

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#### TRUNK LID OPENER ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK LID OPENER ACTUATOR

Description INFOID:000000007465422

Performs trunk lid open with signal from BCM.

# Component Function Check

INFOID:0000000007465423

# 1. CHECK TRUNK LID OPENER CANCEL SWITCH

Check trunk lid opener cancel switch position.

#### Does trunk lid opener cancel switch turn OFF (CANCEL)?

YES >> Turn on trunk lid opener cancel switch.

NO >> GO TO 2.

# 2.check function

- Use CONSULT to perform Active Test ("TRUNK/GLASS HATCH").
- Touch "OPEN" to check that it works normally.

#### Is the inspection result normal?

YES >> Trunk lid opener actuator is OK.

NO >> Refer to <u>DLK-76</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465424

# 1. CHECK TRUNK LID OPENER ACTUATOR INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect trunk lid lock assembly connector.
- 3. Check voltage between trunk lid lock assembly harness connector and ground.

	+) ck assembly	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				( 44.5)
B303	3	Ground	Trunk lid opener switch	Pressed	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and trunk lid lock assembly harness connector.

В	СМ	Trunk lid lo	ck assembly	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M120	23	B303	3	Existed

3. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M120	23		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

## 3.CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

Check continuity between trunk lid lock assembly harness connector and ground.

## TRUNK LID OPENER ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

Trunk lid lock assembly			Continuity
Connector	Terminal	Ground	Continuity
B303	2		Existed

#### Is the inspection result normal?

YES >> Replace trunk lid lock assembly. Refer to <u>DLK-223, "TRUNK LID LOCK : Removal and Installation"</u>.

NO >> Repair or replace harness.

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#### TRUNK ROOM LAMP SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK ROOM LAMP SWITCH

Description INFOID:000000007465425

Detects trunk open/close condition.

# Component Function Check

INFOID:0000000007465426

# 1. CHECK FUNCTION

Check ("TRNK/HAT MNTR") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
TRNK/HAT MNTR Tru	Trunk lid	Open	ON
	TTUTIK IIU	Closed	OFF

#### Is the inspection result normal?

YES >> Trunk room lamp switch is OK.

NO >> Refer to <u>DLK-78</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465427

# 1. CHECK TRUNK ROOM LAMP SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect trunk lid lock assembly connector.
- 3. Check signal between trunk lid lock assembly harness connector and ground using oscilloscope.

	(+) Trunk lid lock assembly		Signal (Reference value)	
Connector	Terminal		(**************************************	
B303	1	Ground	(V) 15 10 5 0 10 ms  JPMIA0011GB	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK TRUNK ROOM LAMP SWITCH CIRCUIT

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and trunk lid lock assembly harness connector.

В	BCM Trunk lid lock assembly		Trunk lid lock assembly	
Connector	Terminal	Connector	Terminal	Continuity
M121	50	B303	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M121	50		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <a href="BCS-80">BCS-80</a>, "Removal and Installation".

#### TRUNK ROOM LAMP SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harness or connector.

# ${f 3.}$ CHECK TRUNK ROOM LAMP SWITCH GROUND CIRCUIT

Check continuity between trunk lid lock assembly harness connector and ground.

Trunk lid lock assembly			Continuity
Connector	Terminal	Ground	Continuity
B303	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK TRUNK ROOM LAMP SWITCH

Refer to DLK-79, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

>> Replace trunk lid lock assembly. Refer to DLK-223, "TRUNK LID LOCK: Removal and Installa-NO tion".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

1. CHECK TRUNK ROOM LAMP SWITCH

- Turn ignition switch OFF.
- 2. Disconnect trunk lid lock assembly connector.
- Check continuity between trunk lid lock assembly terminals.

Terminal		Condition		Continuity
Trunk lid lo	ck assembly	Condition		Continuity
	2	Trunk lid	Open	Existed
I	2	TTUTIK IIU	Closed	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace trunk lid lock assembly. Refer to DLK-223, "TRUNK LID LOCK: Removal and Installation".

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INFOID:0000000007465428

#### DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# DOOR KEY CYLINDER SWITCH

Description INFOID:000000007465429

Power window main switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signals.

# Component Function Check

INFOID:0000000007465430

# 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
	- 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-80</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465431

# 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.

(+)			Voltage (V) (Approx.)	
Front door lock assembly (driver side)		(–)		
Connector	Terminal		(11 - 7	
D15	5	Ground	5	
	6	Ground	3	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

- 1. Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front door lock assembly (driver side) harness connector.

Power windo	w main switch	Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D0	4	D15	6	Existed
D8	6	D13	5	Existed

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

Power window main switch			Continuity	
Connector	Terminal	Ground	Continuity	
	4	Ground	Not existed	
D0	6	-	INOL EXISTED	

#### DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-97, "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
D15	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-81, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-214, "FRONT DOOR LOCK:</u> Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

# 1. CHECK DOOR KEY CYLINDER SWITCH

- 1. 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)		Condition		Continuity
Terminal				
5			Unlock	Existed
5	4	Driver side door key cylinder	Neutral / Lock	Not existed
6			Lock	Existed
			Neutral / Unlock	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO

>> Replace front door lock assembly (driver side). Refer to <u>DLK-214, "FRONT DOOR LOCK : Removal and Installation"</u>.

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#### REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

# REMOTE KEYLESS ENTRY RECEIVER

Description INFOID:000000007465433

Receives Intelligent Key operation and transmits to BCM.

# Component Function Check

INFOID:0000000007465434

# 1. CHECK FUNCTION

Check ("RKE OPE COUN1") in "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-82</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465435

# 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			(inclorence value)
M104	2	Ground	During waiting	(V) 15 10 5 0 1 ms JMKIA0064GB
MIOT	2	Ciodila	When operating either button on the Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB

### 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
M122	83	M104	2	Existed

3. Check continuity between BCM harness connector and ground.

#### REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M122	83		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check remote keyless entry receiver power supply

- Disconnect remote keyless entry receiver.
- Check voltage between remote keyless entry receiver harness connector and ground.

(+) Remote keyless entry receiver		(-)	Voltage (V) (Approx.)	
Connector	Terminal		( 44)	
M104	4	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# f 4.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

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

ВСМ		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	103	M104	4	Existed

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M122	103		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

# 5.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT $^{ m 3}$

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

В	BCM Remote keyless entry receiver		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M123	137	M104	1	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector Terminal		Ground	Continuity
M123	137		Existed

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

# $oldsymbol{\circ}$ .CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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## REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

- Connect BCM connector.
- 2. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	137		Existed

#### Is the inspection result normal?

>> Replace remote keyless entry receiver. Refer to <u>DLK-235, "Removal and Installation"</u>. >> Replace BCM. Refer to <u>BCS-80, "Removal and Installation"</u>.

NO

#### TRUNK LID OPENER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

## TRUNK LID OPENER SWITCH

Description INFOID:000000007465436

Transmits trunk lid open signal to BCM.

# Component Function Check

# 1. CHECK TRUNK LID OPENER CANCEL SWITCH

Check trunk lid opener cancel switch position.

#### Does trunk lid opener cancel switch turn ON (CANCEL)?

YES >> Turn off trunk lid opener cancel switch.

NO >> GO TO 2.

# 2. CHECK FUNCTION

Check ("TR/BD OPEN SW") in "Data Monitor" mode using CONSULT.

Monitor item	Condition		Status
TR/BD OPEN SW	Trunk lid opener switch	Pressed	ON
TIVED OF LIN SW	Trunk lid opener switch	Released	OFF

#### Is the inspection result normal?

YES >> Trunk lid opener switch is OK.

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

# Diagnosis Procedure

# 1. CHECK TRUNK LID OPENER SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect trunk lid opener switch connector.
- 3. Check signal between trunk lid opener switch harness connector and ground using oscilloscope.

	(+) Trunk lid opener switch		Signal (Reference value)
Connector	Terminal		(,
M20	1	Ground	(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check trunk lid opener switch circuit

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and trunk lid opener switch harness connector.

В	СМ	Trunk lid opener switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	67	M20	1	Existed

Check continuity between BCM harness connector and ground.

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#### TRUNK LID OPENER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M121	67		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair harness or connector.

# 3.check trunk lid opener switch ground circuit

Check continuity between trunk lid opener switch harness connector and ground.

Trunk lid opener switch			Continuity
Connector	Terminal	Ground	Continuity
M20	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4. CHECK TRUNK LID OPENER SWITCH

Refer to DLK-86, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace trunk lid opener switch. Refer to <u>DLK-233, "Removal and Installation"</u>.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007465439

# 1. CHECK TRUNK LID OPENER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect trunk lid opener switch connector.
- 3. Check continuity between trunk lid opener switch terminals.

Terminal		Condition		Continuity
Trunk lid op	ener switch	Condition		Continuity
1	2	Trunk lid opener switch	Pressed	Existed
	2	Trunk na opener switch	Released	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace trunk lid opener switch. Refer to <u>DLK-233</u>, "Removal and Installation".

#### TRUNK LID OPENER REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK LID OPENER REQUEST SWITCH

Description INFOID:000000007465440

Performs trunk lid open request when it is pressed.

# Component Function Check

# 1. CHECK TRUNK LID OPENER CANCEL SWITCH

Check trunk lid opener cancel switch position.

#### Does trunk lid opener cancel switch turn ON (CANCEL)?

YES >> Turn off trunk lid opener cancel switch.

NO >> GO TO 2.

# 2. CHECK FUNCTION

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

Monitor item	Condition		Status
REQSW-BD/TR	Trunk lid opener request switch	Pressed	ON
NEQUIVED/III		Released	OFF

#### Is the inspection result normal?

YES >> Trunk lid opener request switch is OK.

NO >> Refer to <u>DLK-87</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

1. CHECK TRUNK LID OPENER REQUEST SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect trunk lid opener request switch connector.
- 3. Check signal between trunk lid opener request switch harness connector and ground with oscilloscope.

	+) er request switch	(–)	Signal (Reference value)
Connector	Terminal		,
B304	1	Ground	(V) 15 10 5 0 10 ms

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK TRUNK LID OPENER REQUEST SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and trunk lid opener request switch harness connector.

В	CM	Trunk lid opener request switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	61	B304	1	Existed

3. Check continuity between BCM harness connector and ground.

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#### TRUNK LID OPENER REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M121	61		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair harness or connector.

# ${f 3.}$ CHECK TRUNK LID OPENER REQUEST SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener request switch harness connector and ground.

Trunk lid opener request switch			Continuity
Connector	Terminal	Ground	Continuity
B304	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK TRUNK LID OPENER REQUEST SWITCH

Refer to DLK-88, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace trunk lid opener request switch. Refer to <a href="DLK-232">DLK-232</a>, "Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000007465443

# 1. CHECK TRUNK LID OPENER REQUEST SWITCH

- 1. Turn ignition switch OFF.
- Disconnect trunk lid opener request switch connector.
- 3. Check continuity between trunk lid opener request switch terminals.

Trunk lid opene	Trunk lid opener request switch		Condition	
Terr	minal	Condition		Continuity
1	2	Trunk lid opener request switch	Pressed	Existed
· ·	2	Trunk na opener request switch	Released	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace trunk lid opener request switch. Refer to <u>DLK-232</u>, "Removal and Installation".

#### TRUNK LID OPENER CANCEL SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK LID OPENER CANCEL SWITCH

Description INFOID:0000000007465444

Cancels trunk lid open operation.

# Component Function Check

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# 1. CHECK FUNCTION

Check ("TR CANCEL SW") in "Data Monitor" mode using CONSULT.

Monitor item	Con	Status	
TR CANCEL SW	Trunk lid opener cancel switch	ON	ON
TR GANGLE SW	Trunk nu opener cancer switch	OFF (Cancel)	OFF

#### Is the inspection result normal?

YES >> Trunk lid opener cancel switch is OK.

>> Refer to DLK-89, "Diagnosis Procedure". NO

# Diagnosis Procedure

#### INFOID:0000000007465446

# 1. CHECK TRUNK LID OPENER CANCEL SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect trunk lid opener cancel switch connector.
- Check signal between trunk lid opener cancel switch harness connector and ground with oscilloscope.

	+) er cancel switch	(–)	Signal (Reference value)
Connector	Terminal		
M105	1	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK TRUNK LID OPENER CANCEL SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and trunk lid opener cancel switch harness connector.

В	BCM		Trunk lid opener cancel switch	
Connector	Terminal	Connector	Terminal	Continuity
M123	129	M105	1	Existed

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Connector Terminal		Continuity
M123	129		Not existed

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-80, "Removal and Installation".

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#### TRUNK LID OPENER CANCEL SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harness or connector.

# ${f 3.}$ CHECK TRUNK LID OPENER CANCEL SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener cancel switch harness connector and ground.

Trunk lid open	er cancel switch		Continuity
Connector	Terminal	Ground	Continuity
M105	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK TRUNK LID OPENER CANCEL SWITCH

Refer to DLK-90, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace trunk lid opener cancel switch. Refer to <u>DLK-234, "Removal and Installation"</u>.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000007465447

# 1. CHECK TRUNK LID OPENER CANCEL SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect trunk lid opener cancel switch connector.
- 3. Check continuity between trunk lid opener cancel switch terminals.

Trunk lid opener cancel switch		Condition		Continuity
Terr	ninal	Condition		Continuity
1	2	Trunk lid opener cancel switch	ON	Existed
	2	Trunk ilu opener cancer switch	OFF (Cancel)	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace trunk lid opener cancel switch. Refer to <u>DLK-234, "Removal and Installation"</u>.

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#### DOOR REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# DOOR REQUEST SWITCH

Description INFOID:0000000007465448

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
NEQ OW -AO	5W -A5		OFF

#### Is the inspection result normal?

YES >> Door request switch is OK.

>> Refer to <u>DLK-91</u>, "<u>Diagnosis Procedure</u>". NO

# Diagnosis Procedure

1. CHECK DOOR REQUEST SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect malfunctioning front outside handle connector.
- Check signal between malfunctioning front outside handle harness connector and ground with oscilloscope.

(+) Front outside handle		(–)	Signal (Reference value)	
Cor	nnector	Terminal		(**************************************
LH	D13	1	Ground	(V) 15 10 5 0 10 ms  JPMIA0016GB
RH	D43	,	Glound	(V) 15 10 5 0 JPMIA0016GB

#### 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 outside handle harness connector and BCM harness con-2. nector.

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#### DOOR REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

	Front outside handle		ВСМ		Continuity
Con	nector	Terminal	Connector	Terminal	Continuity
LH	D13	4	M122	101	Existed
RH	D43	1	IVI I ZZ	100	Existed

Check continuity between malfunctioning front outside handle harness connector and ground.

Front outside handle				Continuity
Coni	nector	Terminal	Ground	Continuity
LH	D13	1	Ground	Not existed
RH	D43	- I		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check door request switch ground circuit

Check continuity between malfunctioning front outside handle harness connector and ground.

Front outside handle				Continuity
Con	nector	Terminal	Ground	Continuity
LH	D13	2	Giouria	Existed
RH	D43	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR REQUEST SWITCH

Refer to DLK-92, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning front outside handle. Refer to <u>DLK-214, "FRONT DOOR LOCK : Removal and Installation".</u>

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007465451

# 1. CHECK DOOR REQUEST SWITCH

- 1. Turn ignition switch OFF.
- Disconnect malfunctioning front outside handle connector.
- Check continuity between malfunctioning front outside handle terminals.

Terminal		Condition		Continuity
Front outs	side handle	0011	dition	Continuity
	2	Door request switch	Pressed	Existed
ı	2	Door request switch	Released	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunctioning front outside handle. Refer to <u>DLK-214</u>, "<u>FRONT DOOR LOCK</u>: <u>Removal and Installation</u>".

# **UNLOCK SENSOR**

1. CHECK FUNCTION

Description INFOID:0000000007465452

Detects door lock condition of driver side door.

# Component Function Check

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

Monitor item	Condition		Status
UNLK SEN -DR	Driver side door	Lock	OFF
OIALIA OLIA -DIA	Dilver side door	Unlock	ON

#### Is the inspection result normal?

YES >> Unlock sensor is OK.

>> Refer to DLK-93, "Diagnosis Procedure". NO

# Diagnosis Procedure

1. CHECK UNLOCK SENSOR INPUT SIGNAL

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

Front door lock ass	embly (driver side)	(-)	Signal (Reference value)
Connector	Terminal		(,
D15	3	Ground	(V) 15 10 5 0 10 ms  JPMIA0012GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK UNLOCK SENSOR CIRCUIT

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

В	BCM		Front door lock assembly (driver side)	
Connector	Terminal	Connector	Terminal	Continuity
M123	119	D15	3	Existed

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	119		Not existed

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#### **UNLOCK SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "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
D15	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK UNLOCK SENSOR

Refer to DLK-94, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-214, "FRONT DOOR LOCK : Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000007465455

# 1. CHECK UNLOCK SENSOR

- 1. 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
Teri	Terminal		Condition	
2	4	Driver side door	Unlock	Existed
3	4	Driver 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-214, "FRONT DOOR LOCK : Removal and Installation"</u>.

#### **OUTSIDE KEY ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **OUTSIDE KEY ANTENNA**

Description INFOID:000000007465456

Detects whether Intelligent Key is outside the vehicle.

Integrated in outside handle (driver side, passenger side) and installed in rear bumper.

# Component Function Check

# 1. CHECK OUT SIDE KEY ANTENNA FUNCTION

Check that intelligent key is in each outside key antenna detection range.

Does door lock/unlock when each request switch is pressed?

YES >> Outside key antenna is OK.

NO >> Refer to <u>DLK-95</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

# 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 (Reference value)
Coni	nector	Terminal				(INGIGIENCE VAIUE)
LH		76, 77				
RH	M122	74, 75	Ground	Door request	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0062GB
Rear bumper	M121	38, 39	Sibulia	pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0063GB

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation"

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM connector and malfunctioning outside key antenna connector.

Check continuity between malfunctioning outside handle or outside key antenna harness connector and BCM harness connector.

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Outside handle/outside key antenna			BC	Continuity		
Connector		Terminal	Connector	Terminal	Continuity	
LH	D14	1		77	Existed	
LIT	D14	2	M122	76		
RH	D44	1	IVITZZ	75		
	D44	2		74		
Door humner	De2	1	M4.24	39		
Rear bumper	B63	2	M121	38		

3. Check continuity between malfunctioning outside handle or outside key antenna harness connector and ground.

Outside handle/outside key antenna				Continuity	
Con	Connector			Continuity	
LH	D14				
LIT	D14	2	Ground	Not existed	
RH	D44	1	Giodila		
ΝП	D44	2			
Rear bumper	B63	1			
Real bullipel	B63	2			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

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

	(+) BCM		(–)	Condition				Signal (Reference value)
Conr	nector	Terminal				(Reference value)		
LH		76, 77						
RH	M122	74, 75	Ground	Door request	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0062GB		
Rear bumper	M121	38, 39	Glound	pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0063GB		

#### Is the inspection result normal?

YES-1 >> Replace outside key antenna LH (driver side). Refer to <u>DLK-229</u>, "<u>DRIVER SIDE</u>: Removal and <u>Installation</u>".

## **OUTSIDE KEY ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

- YES-2 >> Replace outside key antenna RH (passenger side). Refer to <u>DLK-229, "PASSENGER SIDE : Removal and Installation"</u>.
- YES-3 >> Replace outside key antenna (rear bumper). Refer to <u>DLK-229, "REAR BUMPER : Removal and Installation"</u>.
- NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

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# INTELLIGENT KEY WARNING BUZZER

#### < DTC/CIRCUIT DIAGNOSIS >

# INTELLIGENT KEY WARNING BUZZER

Description INFOID:000000007465459

Answers back and warns for an inappropriate operation.

# Component Function Check

#### INFOID:0000000007465460

# 1. CHECK FUNCTION

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

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Refer to <u>DLK-98</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

#### INFOID:0000000007465461

# 1. CHECK FUSE

- 1. Turn ignition switch OFF.
- Check 10 A fuse, [No.6, 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

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

(4	-)		V 14 0 0	
Intelligent Key warning buzzer		(–)	Voltage (V) (Approx.)	
Connector	Terminal		( 11 )	
E57	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.
- 2. Check continuity between BCM harness connector and Intelligent Key warning buzzer harness connector.

В	ВСМ		Intelligent Key warning buzzer	
Connector	Terminal	Connector	Terminal	Continuity
M121	64	E57	3	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M121	64		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK INTELLIGENT KEY WARNING BUZZER

Refer to DLK-99, "Component Inspection".

#### INTELLIGENT KEY WARNING BUZZER

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-80, "Removal and Installation".

>> Replace Intelligent Key warning buzzer. Refer to <u>DLK-230</u>, "Removal and Installation". NO

# Component Inspection

# 1. CHECK INTELLIGENT KEY WARNING BUZZER

- 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 opera-

Terr			
Intelligent Key	Operation		
(+)	(-)		
1	3	Buzzer sounds	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-230, "Removal and Installation"</u>.

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## INTELLIGENT KEY

Description INFOID:000000007465463

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

INFOID:0000000007465464

## 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-100</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465465

# 1. CHECK INTELLIGENT KEY BATTERY

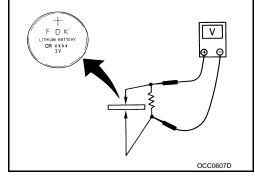
Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

# Standard : Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> INSPECTION END

NO >> Replace Intelligent Key battery. Refer to <u>DLK-100</u>, "Component Inspection".

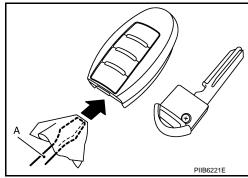


#### INFOID:0000000007465466

# Component Inspection

# 1. REPLACE INTELLIGENT KEY BATTERY

- 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.



Replace the battery with new one.

#### **INTELLIGENT KEY**

#### < DTC/CIRCUIT DIAGNOSIS >

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.

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Check remote keyless entry receiver. Refer to <u>DLK-82</u>, "<u>Component Function Check"</u>.

# PIIB6222E

INFOID:0000000007465467

# Special Repair Requirement

Refer to CONSULT Operation Manual NATS-IVIS/NVIS.

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## **KEY SLOT**

Description INFOID:000000007465468

Detects whether Intelligent Key is inserted.

Immobilizer antenna amp checks Intelligent Key transponder.

# Component Function Check

INFOID:0000000007465469

# 1. CHECK FUNCTION

Check ("KEY SW -SLOT") in "Data Monitor" mode using CONSULT.

Monitor item	Con	Status	
KEY SW-SLOT Intelligent Key	Intelligent Key	Inserted in key slot	ON
	intelligent itey	Removed from key slot	OFF

#### Is the inspection result normal?

YES >> Key slot is OK.

NO >> Refer to <u>DLK-102</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465470

# 1. CHECK FUSE

- 1. Turn ignition switch OFF.
- 2. Check 10 A fuse, [No.9, 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 KEY SLOT POWER SUPPLY CIRCUIT

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

(+) Key slot		(-)	Voltage (V) (Approx.)	
Connector	Terminal		,	
M22	1	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK KEY SLOT CIRCUIT

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

В	CM	Key	/ slot	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	121	M22	11	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	121		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

#### **KEY SLOT**

#### < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

# 4. CHECK KEY SLOT

Refer to DLK-103, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-80. "Removal and Installation"</u>.

NO >> Replace key slot. Refer to <u>DLK-231</u>, "Removal and Installation".

# Component Inspection

# 1. CHECK KEY SLOT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check continuity between key slot terminals.

Key slot		Condition		Continuity	
Terminal					
1	11	Intelligent Key	Inserted in key slot	Existed	
	11	intelligent Key	Removed in key slot	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-231</u>, "Removal and Installation".

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#### **KEY SLOT INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## **KEY SLOT INDICATOR**

Description INFOID:000000007465472

Blinks when Intelligent Key insertion is required.

# Component Function Check

INFOID:0000000007465473

# 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("KEY SLOT ILLUMI").
- 2. Touch "ON" to check that it works normally.

#### Is the inspection result normal?

YES >> Key slot is OK.

NO >> Refer to <u>DLK-104</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465474

# 1. CHECK FUSE

- 1. Turn ignition switch OFF.
- Check 10 A fuse, [No. 6, 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 KEY SLOT POWER SUPPLY CIRCUIT

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

(+ Key	,	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(, 4, 4, 2, 1, 1)	
M22	5	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK KEY SLOT CIRCUIT

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

В	СМ	Key	/ slot	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	92	M22	6	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	92		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK KEY SLOT

Refer to DLK-105, "Component Inspection".

#### **KEY SLOT INDICATOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-80, "Removal and Installation".

>> Replace key slot. Refer to <u>DLK-231</u>, "Removal and Installation". NO

# Component Inspection

# 1. CHECK KEY SLOT INDICATOR

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- Connect battery power supply directly to key slot terminals and check the operation.

Terr		
Key	Operation	
(+)	(–)	
5	6	Key slot illuminates

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-231</u>, "Removal and Installation".

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#### HORN FUNCTION

#### < DTC/CIRCUIT DIAGNOSIS >

## HORN FUNCTION

Description INFOID.000000007465476

Performs answer-back for each operation with horn.

# Component Function Check

INFOID:0000000007465477

# 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("HORN").
- 2. Touch "ON" to check that it works normally.

#### Is the operation normal?

YES >> Horn function is OK.

NO >> Refer to <u>DLK-106</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465478

# 1. CHECK HORN SWITCH

Check horn function with horn switch

#### Do the horns sound?

YES >> GO TO 2.

NO >> Refer to HRN-2, "Wiring Diagram - HORN -".

# 2.CHECK HORN RELAY POWER SUPPLY

- Turn ignition switch ON.
- Perform "ACTIVE TEST" ("HORN") using CONSULT-III.
- 3. Check voltage between malfunctioning horn relay harness connector and ground.

	(+)			Test item		Valta (10)	
	Horn relay		(–)			Voltage (V) (Approx.)	
Conr	nector	Terminal					
Low	E11	1	Ground	HORN	ON	Battery voltage → 0 → Battery voltage	
High	E18	3	Giodila	HORN	Other than above	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

# 3.CHECK HORN RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector and horn relay.
- 3. Check continuity between IPDM E/R harness connector and malfunctioning horn relay terminal connector.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E6	44	E11	1	Existed
	45	E18	3	

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

IPD	M E/R	Ground	Continuity
Connector	Terminal		
E6	44	Giodila	Not existed
	45		

#### Is the inspection result normal?

Revision: 2013 February DLK-106 2012 G Sedan

# HORN FUNCTION < DTC/CIRCUIT DIAGNOSIS > >> Repair or replace harness. NO 4. CHECK INTERMITTENT INCIDENT Α Refer to GI-43, "Intermittent Incident". Is the inspection result normal? В >> INSPECTION END С D Е F G Н J DLK L M Ν 0

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#### **COMBINATION METER DISPLAY FUNCTION**

#### < DTC/CIRCUIT DIAGNOSIS >

## COMBINATION METER DISPLAY FUNCTION

Description INFOID:0000000007465479

Displays each operation method guide and warning for system malfunction.

# Component Function Check

INFOID:0000000007465480

# 1. CHECK FUNCTION

Use CONSULT to perform Active Test ("LCD").

#### Is each warning displayed on meter display?

#### Is the inspection result normal?

YES >> Combination meter display function is OK. NO >> Refer to <u>DLK-108</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000007465481

# 1. CHECK COMBINATION METER

Refer to MWI-74, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check combination meter. Refer to MWI-4, "Work flow".

## 2. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

# **BUZZER (COMBINATION METER)**

### < DTC/CIRCUIT DIAGNOSIS >

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BUZZER (COMBINATION METER)	А
Description INFOID:0000000007465482	A
Performs operation method guide and warning with buzzer.	В
Component Function Check	
1.CHECK FUNCTION	С
<ol> <li>Use CONSULT to perform Active Test ("INSIDE BUZZER").</li> <li>Touch "TAKE OUT", "KNOB" or "KEY" to check that it works normally.</li> <li>Is the inspection result normal?</li> <li>Yes &gt;&gt; Warning buzzer into combination meter is OK.</li> </ol>	D
No >> Refer to <u>DLK-109, "Diagnosis Procedure"</u> .	Е
Diagnosis Procedure	
1. CHECK METER BUZZER CIRCUIT	F
Refer to WCS-23, "Component Function Check".	
Is the inspection result normal?  Yes >> GO TO 2.  No >> Repair or replace harness.	G
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-43, "Intermittent Incident".	Н
>> INSPECTION END	I
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Revision: 2013 February DLK-109 2012 G Sedan

#### **KEY WARNING LAMP**

#### < DTC/CIRCUIT DIAGNOSIS >

### **KEY WARNING LAMP**

Description INFOID:000000007465485

Performs operation method guide and warning together with buzzer.

### Component Function Check

INFOID:0000000007465486

## 1. CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("INDICATOR").
- 2. Touch "KEY IND" or "KEY ON" to check that it works normally.

#### Is the inspection result normal?

YES >> Key warning lamp is OK.

NO >> Refer to <u>DLK-110</u>, "<u>Diagnosis Procedure</u>".

#### Diagnosis Procedure

INFOID:0000000007465487

### 1. CHECK KEY WARNING LAMP

Refer to MWI-4, "Work flow".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

### 2. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

### **HAZARD FUNCTION**

### < DTC/CIRCUIT DIAGNOSIS >

HAZARD FUNCTION	٥
Description INFOID:0000000007465488	А
Performs answer-back for each operation with number of blinks.	В
Component Function Check	
1. CHECK FUNCTION	С
<ol> <li>Use CONSULT to perform Active Test ("FLASHER").</li> <li>Touch "LH" or "RH" to check that it works normally.</li> <li>Is the inspection result normal?</li> <li>YES &gt;&gt; Hazard warning lamp circuit is OK.</li> <li>NO &gt;&gt; Refer to DLK-111, "Diagnosis Procedure".</li> </ol>	D
Diagnosis Procedure	Е
1. CHECK HAZARD SWITCH CIRCUIT	F
Refer to EXL-71, "Wiring Diagram - TURN AND HAZARD WARNING LAMPS -".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace harness.  2.CHECK INTERMITTENT INCIDENT	G
Refer to GI-43, "Intermittent Incident".	Н
>> INSPECTION END	I
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Revision: 2013 February DLK-111 2012 G Sedan

#### INTEGRATED HOMELINK TRANSMITTER

#### < DTC/CIRCUIT DIAGNOSIS >

#### INTEGRATED HOMELINK TRANSMITTER

Description INFOID:000000007465491

Integrated homelink transmitter can store and transmit a maximum of 3 radio signals.

Allows operation of garage doors, gates, home and office lighting, entry door locks and security system, etc. Integrated homelink transmitter power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

#### Component Function Check

INFOID:0000000007465492

#### 1. CHECK FUNCTION

Check that system receiver (garage door opener, etc.) operates with original hand-held transmitter.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Receiver or hand-held transmitter is malfunctioning.

### 2. CHECK ILLUMINATE

- 1. Turn ignition switch OFF.
- 2. Does red light of transmitter illuminate when any transmitter button is pressed?

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to <u>DLK-112</u>, "<u>Diagnosis Procedure</u>".

### 3. CHECK TRANSMITTER

Check transmitter using Tool\*.

\*: For details, refer to Technical Service Bulletin.

#### Is the inspection result normal?

YES >> Receiver or hand-held transmitter malfunction, not vehicle related.

>> Replace auto anti-dazzling inside mirror (integrated homelink transmitter). Refer to MIR-14, "Removal and Installation".

## Diagnosis Procedure

NO

INFOID:0000000007465493

### 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect auto anti-dazzling inside mirror (homelink universal transceiver) connector.
- 3. Check voltage between auto anti-dazzling inside mirror (home link universal transceiver) harness connector and ground.

(	(+)			Voltage (V) (Approx.)		
Auto anti-dazzling inside mirror (Homelink universal transceiver)		(–)	Condition			
Connector	Terminal					
R3	10	Ground	Ignition switch position	OFF	Battery voltage	
N3	6	Giodila	ignition switch position	ON	battery voltage	

#### Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 6 located in the fuse block (J/B)].

NO-2 >> Check 10 A fuse [No. 3 located in the fuse block (J/B)].

NO-3 >> Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

### 2. CHECK GROUND CIRCUIT

Check continuity between auto anti-dazzling inside mirror (homelink universal transceiver) harness connector and ground.

#### INTEGRATED HOMELINK TRANSMITTER

### < DTC/CIRCUIT DIAGNOSIS >

	ing inside mirror ersal transceiver)		Continuity
Connector	Terminal	Ground	
R3	8		Existed

Is the inspection result normal?

YES >> GO TO 3.

>> Repair harness. NO

3. CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> INSPECTION END

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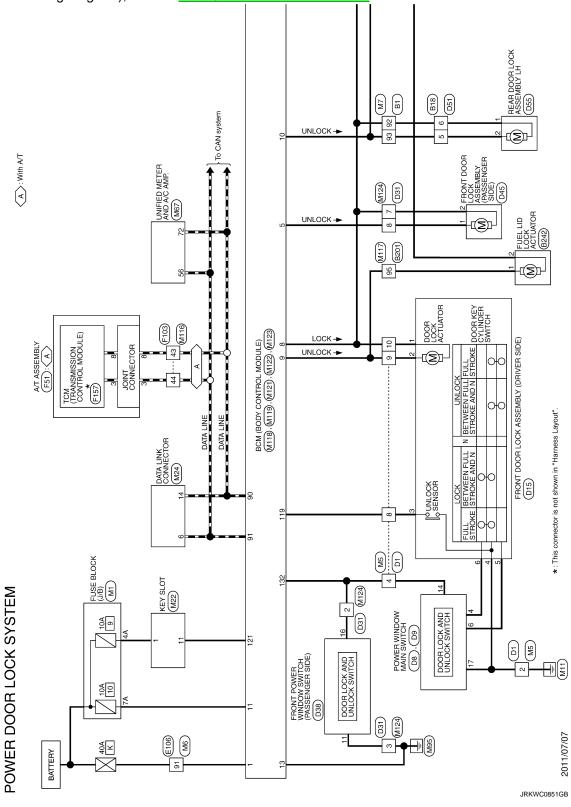
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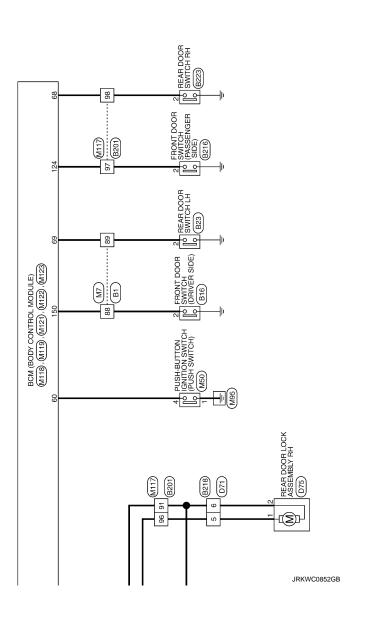
### POWER DOOR LOCK SYSTEM

### Wiring Diagram - POWER DOOR LOCK SYSTEM -

INFOID:0000000007465494

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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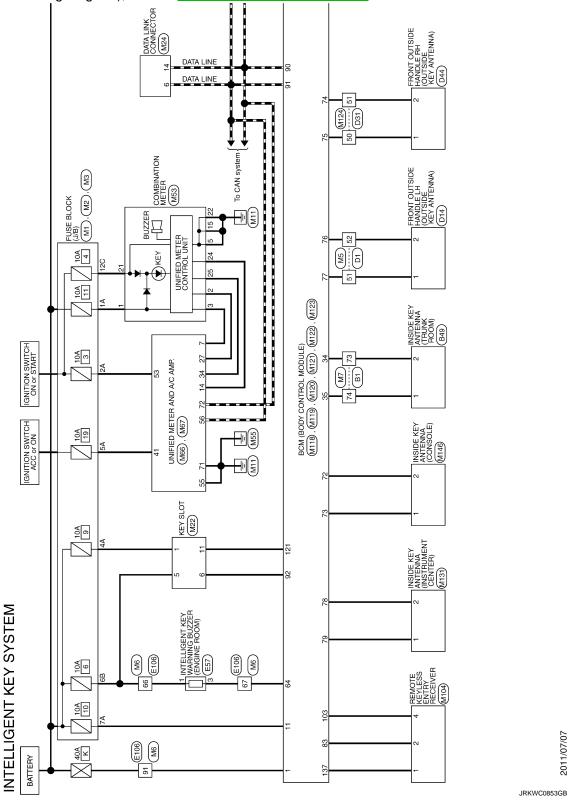
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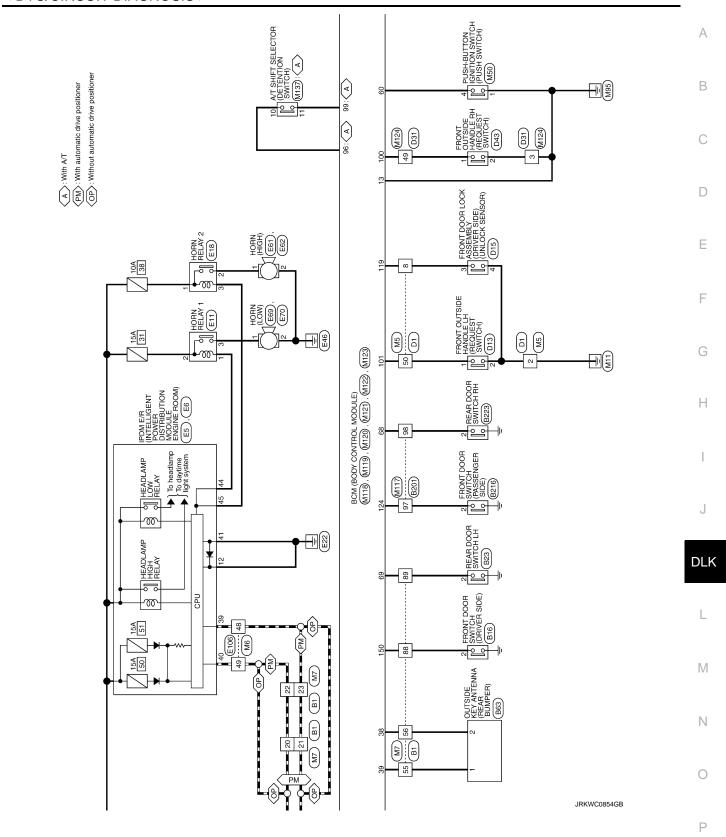
### INTELLIGENT KEY SYSTEM

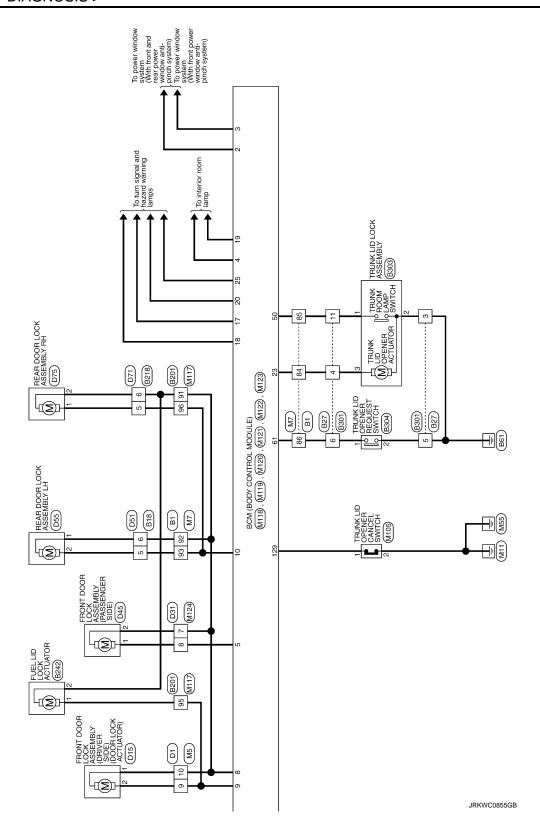
### Wiring Diagram - INTELLIGENT KEY SYSTEM -

INFOID:0000000007465495

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".







## TRUNK LID OPENER

### Wiring Diagram - TRUNK LID OPENER -

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For connector terminal arrangements, harness layouts, and alphabets in a  $\bigcirc$  (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

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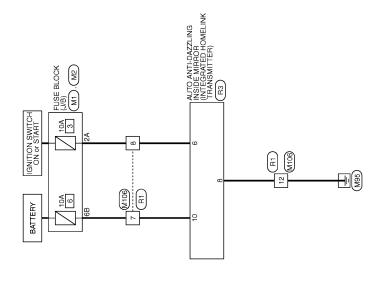
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TRUNK LID OPENER

### INTEGRATED HOMELINK TRANSMITTER SYSTEM

Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM - INFOID:00000000746549

For connector terminal arrangements, harness layouts, and alphabets in a  $\bigcirc$  (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



INTEGRATED HOMELINK TRANSMITTER

JCKWW4900GB

< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# **BCM (BODY CONTROL MODULE)**

Reference Value INFOID:0000000007697753

### VALUES ON THE DIAGNOSIS TOOL

CONSULT	MONITOR	ITEM
CONSULI	MODILIOR	

Monitor Item	Condition	Value/Status
R WIPER HI	Other than front wiper switch HI	Off
IX WIF LIX I II	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
K WIF LIX LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
K WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
IX WIII EIX IIVI	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
K WII EK OTOI	Front wiper is in STOP position	On
NT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
AIL LAMP SW	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
II BEAW SW	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
TEAD LAIMP SW 1	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
HEAD LAWF SW 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
-ASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
TOTO LIGITI 3W	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
N FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
DOOR SW AS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD CW DD	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

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Monitor Item	Condition	Value/Status			
DOOR SW-RL	Rear LH door closed	Off			
DOOK SW-KL	Rear LH door opened	On			
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off			
CDL LOCK SW	Other than power door lock switch LOCK	Off			
CDL LOCK SW	Power door lock switch LOCK	On			
CDL LINII OCK SW	Other than power door lock switch UNLOCK	Off			
CDL UNLOCK SW	Power door lock switch UNLOCK	On			
CEV CVI LIC CW	Other than driver door key cylinder LOCK	Off			
KEY CYL LK-SW	Driver door key cylinder LOCK	On			
CEV CVI LINI CW	Other than driver door key cylinder UNLOCK	Off			
KEY CYL UN-SW	Driver door key cylinder LOCK	On			
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off			
IAZADD CW	Hazard switch is OFF	Off			
HAZARD SW	Hazard switch is ON	On			
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off			
ED CANCEL OW	Trunk lid opener cancel switch OFF	Off			
ΓR CANCEL SW	Trunk lid opener cancel switch ON	On			
ED/DD ODEN CW	Trunk lid opener switch OFF				
ΓR/BD OPEN SW	While the trunk lid opener switch is turned ON	On			
	Trunk lid closed	Off			
FRNK/HAT MNTR	Trunk lid opened	On			
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off			
2/2 / 22/	LOCK button of the Intelligent Key is not pressed	Off			
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On			
	UNLOCK button of the Intelligent Key is not pressed	Off			
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On			
	TRUNK OPEN button of the Intelligent Key is not pressed	Off			
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On			
	PANIC button of the Intelligent Key is not pressed	Off			
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On			
	UNLOCK button of the Intelligent Key is not pressed	Off			
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On			
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off			
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On			
	Bright outside of the vehicle	Close to 5 V			
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V			
	Driver door request switch is not pressed	Off			
REQ SW -DR	Driver door request switch is pressed	On			
	Passenger door request switch is not pressed	Off			
REQ SW -AS	Passenger door request switch is pressed	On			

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Monitor Item	Condition	Value/Status	
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	Trunk lid opener request switch is not pressed	Off	_
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On	_
NICH OW	Push-button ignition switch (push switch) is not pressed	Off	_
PUSH SW	Push-button ignition switch (push switch) is pressed	On	_
GN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off	_
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	_
CLUCH SW	The clutch pedal is not depressed	Off	_
CLUCH SW	The clutch pedal is depressed	On	_
	The brake pedal is depressed when No. 7 fuse is blown	Off	_
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	_
BRAKE SW 2	The brake pedal is not depressed	Off	_
DRAKE SW 2	The brake pedal is depressed	On	_
DETE/CANCL SW	Selector lever in P position (Except M/T models)     The clutch pedal is depressed (M/T models)		_
	<ul> <li>Selector lever in any position other than P (Except M/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	On	_
DET DIVIN OW	Selector lever in any position other than P and N	Off	_
SFT PN/N SW	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	=
INII IZ OENI. DD	Driver door is unlocked	Off	_
JNLK SEN -DR	Driver door is locked	On	_
NICH OW IDDA	Push-button ignition switch (push-switch) is not pressed	Off	_
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On	_
CN DIV4 E/D	Ignition switch in OFF or ACC position	Off	_
GN RLY1 -F/B	Ignition switch in ON position	On	_
NETE CIAL IDDAA	Selector lever in any position other than P	Off	_
DETE SW -IPDM	Selector lever in P position	On	_
SET DN IDDM	Selector lever in any position other than P and N (Except M/T models)     The clutch pedal is not depressed (M/T models)	Off	_
SFT PN -IPDM	Selector lever in P or N position (Except M/T models)     The clutch pedal is depressed (M/T models)	On	_
OCT D. MCT	Selector lever in any position other than P	Off	_
SFT P -MET	Selector lever in P position	On	_
DET NI NAST	Selector lever in any position other than N	Off	_
SFT N -MET	Selector lever in N position	On	_

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Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to 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 (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
DDMT FNC CTDT	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
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
KET SW -SLUT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent 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
CONFRIMID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIDM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONEIDM ID2	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIDMIDO	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	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			
CONFIDM ID4	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet			
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done			
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet			
174	The ID of fourth Intelligent Key is registered to BCM	Done			
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet			
1173	The ID of third Intelligent Key is registered to BCM	Done			
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet			
IP 2	The ID of second Intelligent Key is registered to BCM	Done			
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet			
TP 1	The ID of first Intelligent Key is registered to BCM	Done			
AIR PRESS FL	R PRESS FL Ignition switch ON (Only when the signal from the transmitter is received)				
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 DECCT ELA	ID of front LH tire transmitter is registered	Done			
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet			
ID DECCE ED4	ID of front RH tire transmitter is registered	Done			
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet			
ID DECOT DD4	ID of rear RH tire transmitter is registered	Done			
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet			
ID DECCE DI 4	ID of rear LH tire transmitter is registered	Done			
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet			
MADNING LAMP	Tire pressure indicator OFF	Off			
WARNING LAMP	Tire pressure indicator ON	On			
DI 177ED	Tire pressure warning alarm is not sounding	Off			
BUZZER	Tire pressure warning alarm is sounding	On			

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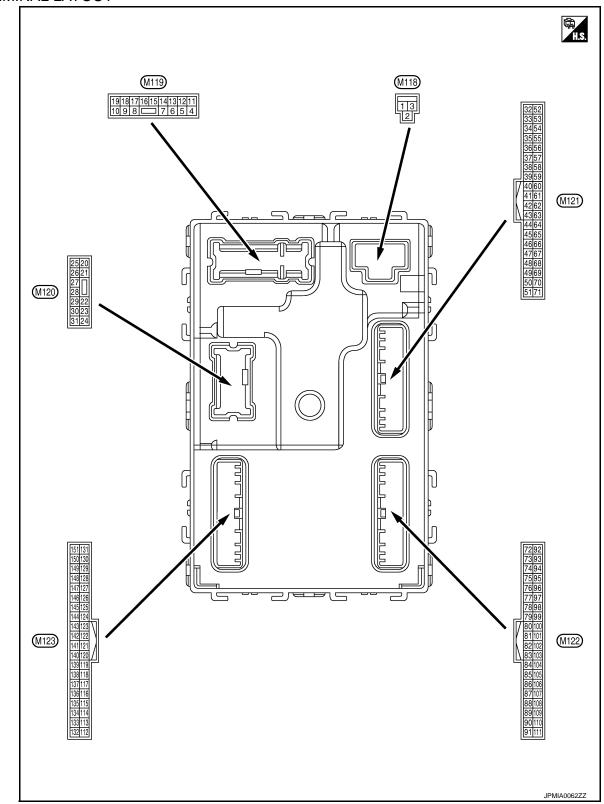
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### TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (	OFF	12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch (	ON	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Crownd	Passenger door UN-	Outerut	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK) Actuator is not activated	0 V
7	0	Oten less:	October 1	Chan In	ON	0 V
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V
8	0	All doors, fuel lid	Out to	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid		Driver door,	UNLOCK (Actuator is activated)	12 V
(G)		UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Crownd	Rear RH door and	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(P)	Ground	rear LH door UN- LOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (	DFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (	ON	0 V
14* <sup>1</sup> (W)	Ground	_	_		_	_
15 (PC)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(BG)		·	-		ACC	0 V
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s

	nal No.	Description				Value							
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)							
					Turn signal switch OFF	0 V							
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1   S   PKID0926E 6.5 V							
19	Ground	Interior room lamp	Output	Interior room	OFF	12 V							
(V)	Giodila	control	Output	lamp	ON	0 V							
					Turn signal switch OFF	0 V							
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1   S   PKID0926E 6.5 V							
23	Cround	Trunk lid open	Output	Turnelskid	OPEN (Trunk lid opener actuator is activated)	12 V							
(LG)	Ground	Trunk lid open		Output	Output	Output	Output	Output	Output	Output	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)
					Turn signal switch OFF	0 V							
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1   S   PKID0926E 6.5 V							
30	0	Tarada as a ser le con	0	Trunk room	ON	0 V							
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V							

	nal No. color)	Description			O a different	Value	
+	–	Signal name	Input/ Output		Condition	(Approx.)	
34		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(SB)	Ground	(-)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
35		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s  JMKIA0062GB	
(V)	Ground Trunk room antenna (+) Output OFF		When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB			
38	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(B)	Giound	na (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
39		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(W)	Ground	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
47	Cround	Ignition relay (IPDM	Outnut	lanition quitab	OFF or ACC	12 V
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (Trunk lid is opened)	0 V
		Starter relay control	Output	Ignition switch ON (A/T mod- els)	When selector lever is in P or N position	12 V
52	Ground				When selector lever is not in P or N position	0 V
(R)	Ground	Clarter relay control		Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage
				els)	When the clutch pedal is not depressed	0 V
60	Ground	Push-button ignition	Input	Push-button ig- nition switch	Pressed	0 V
(BR)	Orodina	switch (Push switch)	mpar	(push switch)	Not pressed	Battery voltage
					ON (Pressed)	0 V
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
-		Intelligent Key warn-		Intelligent Key	Sounding	0 V
64 (G)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V

	nal No. color)	Description	1		0 10	Value	А
+		Signal name	Input/ Output		Condition	(Approx.)	$\cap$
					Pressed	0 V	В
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0011GB	C
						(V)	Е
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	15 10 5 0 10 ms	F
				·	211	11.8 V	G
					ON (When rear RH door opens)	0 V	Н
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	(V) 15 10 5 0 10 ms	I
					0.11.01.01	11.8 V	
					ON (When rear LH door opens)	0 V	DLK
					When Intelligent Key is in the passenger compartment	(V) 15 10 5 0	L
72		Room antenna 2 (–)		Ignition switch		JMKIA0062GB	
(R)		(Center console)	Output	OFF		(V)	Ν
					When Intelligent Key is not in the passenger compartment	15 10 5 0	0
						JMKIA0063GB	Р

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
70		Room antenna 2 (+) (Center console)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s  JMKIA0062GB
73 (G)	Ground			Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
74	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
75	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(BR)	Giouria				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

	nal No.	Description				Value	А
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)	$\overline{}$
76	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	С
(V)	Glound	(-)	Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E F
77	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 1 1 s  JMKIA0062GB	G H
(LG)	Ground	(+)	Сири	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J DLK L
78	Cround	Room antenna 1 (–)	Outout	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB	M
(Y)	Ground	(Instrument panel)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1	O P

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
79	Ground	Room antenna 1 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(BR)		(Instrument panel)			When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V 12 V
83	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(Y)	Giouria			When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 ms  JMKIA0065GB

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	F
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	1
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	(
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	I
					Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 2  Wiper volume dial 6  Wiper volume dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB	(

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	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
88	Ground	Combination switch	Input	Combination switch	Lighting switch HI (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
(BG)		INPUT 3			Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 2  Wiper volume dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB
90 (P)	Ground	CAN-L	Input/ Output		—	_
91 (L)	Ground	CAN-H	Input/ Output		_	_
(-/			- Carpar		OFF	12 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON OFF (LOCK indicator is	0 V
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	not illuminated)	Battery voltage
					ON	0 V

### < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			0 10	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)		-			ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
		Selector lever P position switch (A/T mod-		Selector lever	P position	0 V
		els)		Selector level	Any position other than P	12 V
99		ASCD clutch switch		ASCD clutch	OFF (Clutch pedal is depressed)	0 V
(R)* <sup>2</sup> Ground (BR)* <sup>3</sup>	(M/T models without ICC)	Input	switch	ON (Clutch pedal is not depressed)	12 V	
		ICC clutch switch (M/ T models with ICC)		ICC clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
				•	ON (Pressed)	0 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 10 ms JPMIA0016GB
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(BG)	Sibulia	lay control	Julpul	iginilon switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch C	DFF	12 V

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	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 10 5 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				V-I
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB
(R) Grou	Glound	INPUT 4	input	switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 5  Wiper volume dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

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	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
_					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB

# < ECU DIAGNOSIS INFORMATION >

		Description				Value	
+ (VVire	color)	Signal name	Input/ Output	Condition		(Approx.)	
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 	
113 (BG)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V	
	Ground				When dark outside of the vehicle	Close to 0 V	
114 (R)	Oro	Clutch interlock switch	Input	Clutchinterlock switch	OFF (Clutch pedal is not depressed)	0 V	
	Ground				ON (Clutch pedal is depressed)	Battery voltage	
116 (SB)	Ground	Stop lamp switch 1	Input			Battery voltage	
	Ground	Stop lamp switch 2 (Without ICC)  Stop lamp switch 2 (With ICC)	– Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V	
118 (BR)					ON (Brake pedal is depressed)	Battery voltage	
				Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V	
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage	
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB	
					UNLOCK status (Unlock switch sensor ON)	0 V	
121	Ground	Key slot switch	Innut	When the Intelligent Key is inserted into key slot		12 V	
(SB)	Oround		Input	When the Intelligent Key is not inserted into key slot		0 V	
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V	
(V)				ON ON		Battery voltage	

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Terminal No.		Description				Value	
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB	
					ON (Door open)	0 V	
129 (BG)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	
					ON	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB	
				Ignition switch OFF or ACC		12 V	
133	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps OFF)	9.5 V	
(L)					OFF	0 V	
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V	
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	
138	Ground	Possiver and sensor	Output	Ignition switch	OFF	0 V	
(V)				ignition switch	ACC or ON	5.0 V	

Terminal No. (Wire color)		Description		-		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
(L)	Glound	er communication	Output	ŎN	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V	
(B)		position			Except P and N positions ON	0 V 0 V	
141 (W)	Ground	Security indicator lamp	Output	Security indicator lamp	Blinking	(V) 15 10 5 0 11 s JPMIA0014GB	
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	OFF All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	12 V 0 V	
					All switches OFF (Wiper volume dial 4) Front wiper switch HI	10.7 V 0 V	
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	(Wiper volume dial 4)  Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 2  Wiper volume dial 3  Wiper volume dial 6  Wiper volume dial 7	(V) 15 10 5 0 2 ms  JPMIA0032GB 10.7 V	

Terminal No. (Wire color)		Description				Value	
+ (vvire	color)	Signal name	Input/ Output	Condition		(Approx.)	
					All switches OFF (Wiper volume dial 4)	0 V	
					Front washer switch ON (Wiper volume dial 4)	( <u>V</u> )	
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 5  Wiper volume dial 6	15 10 0 2 ms JPMIA0033GB	
					All switches OFF	0 V	
	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	Front wiper switch INT/ AUTO	(V)	
145					Front wiper switch LO	15	
(L)					Lighting switch AUTO	5 0 2 ms JPMIA0034GB	
	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V	
					Front fog lamp switch ON		
					Lighting switch 2ND	(V)	
146 (SB)					Lighting switch PASS	10 5 0	
(SB)					Turn signal switch LH	2 ms JPMIA0035GB	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB	
					ON (Door open)	0 V	
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window defogger	Active	0 V	
					Not activated	Battery voltage	

<sup>• \*1:</sup> This harness is not used.

<sup>• \*2:</sup> A/T models

<sup>• \*3:</sup> M/T models

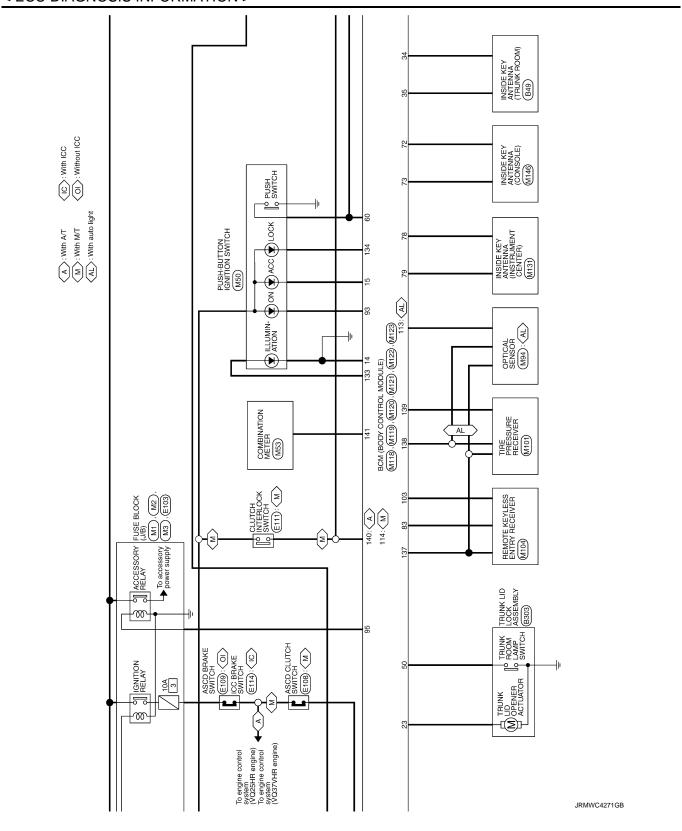
# Wiring Diagram - BCM -

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

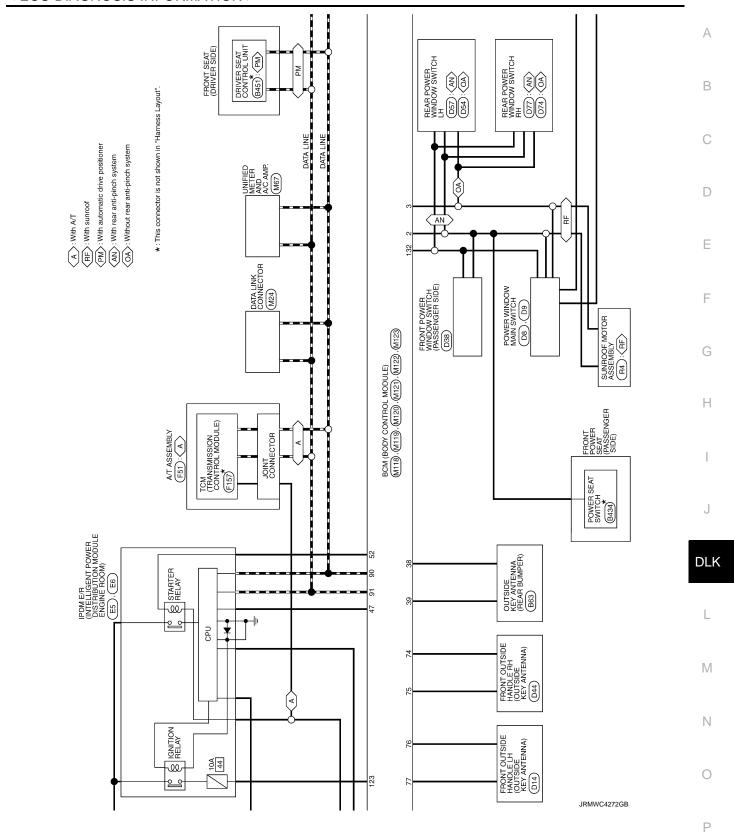
INFOID:0000000007697754 Α described in wiring diagram), refer to GI-12, "Connector Information". В C (IC): With ICC (OI): Without ICC (LR): With light & rain sensor D KEY SLOT 9 10 9 Е F A: With A/T M: With M/T (3) 112: (LR) SENSOR

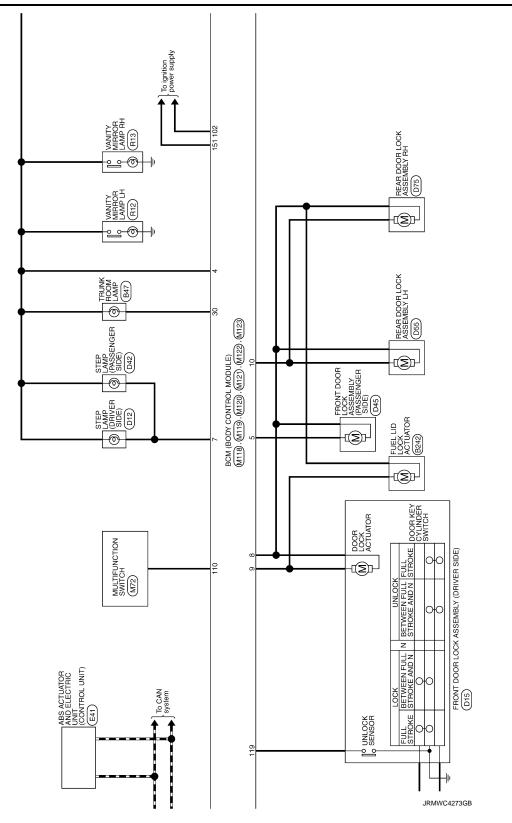
R9 : < LR M123 Н BCM (BODY CONTROL MODULE) (M118) - (M119) - (M120) - (M122) M2), M3), E103 To stop lamp ← FUSE BLOCK (J/B) (M1), (M2),( J FRONT DOOR SWITCH (PASSENGER SIDE) BRAKE HOLD HOLD FELAY (C) DLK FRONT DOOR SWITCH (DRIVER SIDE) (B16) BCM (BODY CONTROL MODULE) To brake control system M Ν COMBINATION SWITCH 10A ₹01 0 2011/07/07 \$ ∀ BATTERY Р

JRMWC4270GB



#### < ECU DIAGNOSIS INFORMATION >





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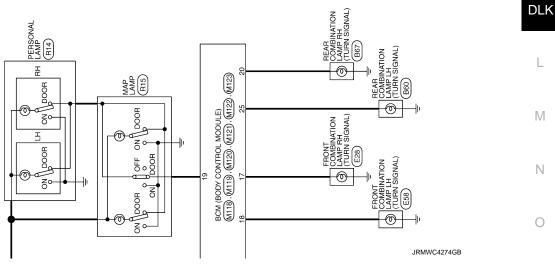
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Fail-safe

### FAIL-SAFE CONTROL BY DTC

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

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Starter control relay signal  • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (12 V)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled  • Power position changes to ACC  • Receives engine status signal (CAN)
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled  • Status 1  - Clutch switch signal (CAN from ECM): ON  - Clutch interlock switch signal: OFF (0 V)  • Status 2  - Clutch switch signal (CAN from ECM): OFF  - Clutch interlock switch signal: ON (Battery voltage)

# DTC Inspection Priority Chart

INFOID:0000000007697756

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 U1010: CONTROL UNIT(CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI-SCANNING

#### < ECU DIAGNOSIS INFORMATION >

Priority	DTC	
4	<ul> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</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>B2608: STARTER RELAY</li> <li>B2607: ENG STATE SIG LOST</li> <li>B2614: BCM</li> <li>B2615: BCM</li> <li>B2615: BCM</li> <li>B2616: BCM</li> <li>B2618: BCM</li> <li>B2618: DCM</li> <li>B2618: CLUTCH SW</li> <li>B2628: CLUTCH SW</li> <li>B2628: CLUTCH SW</li> <li>B2629: 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> <li>C1734: CONTROL UNIT</li> </ul>	
6	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE 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-16">BCS-16</a>, "COM-MON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-35
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-36
U0415: VEHICLE SPEED	_	_	_	_	BCS-37
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-44

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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	Refer- ence page
B2191: DIFFERENCE OF KEY	×	_	_	_	<u>SEC-47</u>
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-48
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-50
B2195: ANTI-SCANNING	×	_	_	_	<u>SEC-51</u>
B2553: IGNITION RELAY	_	×	_	_	PCS-48
B2555: STOP LAMP	_	×	_	_	<u>SEC-52</u>
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-54</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-56</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-57</u>
B2562: LOW VOLTAGE	_	×	_	_	BCS-38
B2601: SHIFT POSITION	×	×	×	_	SEC-58
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-61</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-64</u>
B2604: PNP/CLUTCH SW	×	×	×	_	<u>SEC-67</u>
B2605: PNP/CLUTCH SW	×	×	×	_	SEC-69
B2608: STARTER RELAY	×	×	×	_	<u>SEC-71</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260F: ENG STATE SIG LOST	×	×	×	_	<u>SEC-73</u>
B2614: BCM	_	×	×	_	PCS-52
B2615: BCM	_	×	×	_	PCS-54
B2616: BCM	_	×	×	_	PCS-56
B2617: BCM	×	×	×	_	SEC-78
B2618: BCM	×	×	×	_	PCS-58
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-80
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59
B2622: INSIDE ANTENNA	_	×	_	_	<u>DLK-61</u>
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-75</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-77</u>
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_		×	<u>WT-20</u>
C1706: LOW PRESSURE RR	_	_	_	×	<u> </u>
C1707: LOW PRESSURE RL	_	_	_	×	
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	<u>WT-22</u>
C1710: [NO DATA] RR			_	×	<u> </u>
C1711: [NO DATA] RL	_	_	_	×	

# < 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	Refer- ence page
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-25
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u> </u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-26</u>
C1734: CONTROL UNIT	_	_		×	<u>WT-27</u>

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#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH

**ALL DOOR** 

ALL DOOR: Description

INFOID:0000000007465503

All doors do not lock/unlock using door lock and unlock switch.

ALL DOOR: Diagnosis Procedure

INFOID:0000000007465504

#### 1.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit.

Refer to DLK-65, "BCM (BODY CONTROL MODULE): Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

- Driver side: Refer to DLK-69, "DRIVER SIDE: Component Function Check".
- Passenger side: Refer to <u>DLK-69</u>, "<u>PASSENGER SIDE</u>: Component Function Check".

#### 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-71, "DRIVER SIDE: 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-43, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

#### **DRIVER SIDE**: Description

INFOID:0000000007465505

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

#### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000007465506

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-71, "DRIVER 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.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH < SYMPTOM DIAGNOSIS >	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.  PASSENGER SIDE	A
PASSENGER SIDE: Description	В
Passenger side door does not lock/unlock using door lock and unlock switch.	С
PASSENGER SIDE : Diagnosis Procedure	
1. CHECK DOOR LOCK ACTUATOR	D
Check door lock actuator (passenger side).  Refer to DLK-72, "PASSENGER SIDE: Component Function Check".	Е
Is the inspection result normal?  YES >> GO TO 2.	_
NO >> Repair or replace the malfunctioning parts.  2.CONFIRM THE OPERATION	F
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43</u> , " <u>Intermittent Incident</u> ".	G
NO >> GO TO 1.  REAR LH	Н
REAR LH: Description	
Rear LH side door does not lock/unlock using door lock and unlock switch.	- 1
REAR LH : Diagnosis Procedure	
1. CHECK DOOR LOCK ACTUATOR	J
Check door lock actuator (rear LH).  Refer to DLK-73, "REAR LH: Component Function Check".	DLK
Is the inspection result normal?	DLI
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	L
2.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".	M
NO >> GO TO 1.  REAR RH	Ν
REAR RH: Description	0
Rear RH side door does not lock/unlock using door lock and unlock switch.	0
REAR RH : Diagnosis Procedure	Р
1. CHECK DOOR LOCK ACTUATOR	
Check door lock actuator (rear RH). Refer to DLK-73, "REAR RH: Component Function Check".	

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>> Repair or replace the malfunctioning parts.

Is the inspection result normal?

YES >> GO TO 2.

NO

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH

< SYMPTOM DIAGNOSIS >

# 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION

< SYMPTOM DIAGNOSIS >

DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION	А
Description INFOID:000000007465513	В
All doors do not lock/unlock using driver side door key cylinder.	
Diagnosis Procedure	С
1. CHECK POWER DOOR LOCK OPERATION	
Check power door lock operation.  Does door lock/unlock with door lock and unlock switch?	D
YES >> GO TO 2.  NO >> Refer to DLK-154, "ALL DOOR: Diagnosis Procedure".  2.CHECK DOOR KEY CYLINDER SWITCH	Е
Check door key cylinder switch. Refer to DLK-80, "Component Function Check".  Is the inspection result normal?	F
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	G
3.CONFIRM THE OPERATION	
Confirm the operation again.	Н
Is the result normal?  YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.	I
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#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH ALL DOOR

**ALL DOOR: Description** 

INFOID:0000000007465515

All doors do not lock/unlock using all door request switches.

#### NOTE:

Check door request switch operation in the door lock condition. Refer to <u>DLK-21, "DOOR LOCK FUNCTION: System Description"</u>.

**ALL DOOR: Diagnosis Procedure** 

INFOID:0000000007465516

# 1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Refer to <u>DLK-30</u>, "<u>REMOTE KEYLESS ENTRY FUNCTION</u>: <u>System Description</u>".

2.CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT"

Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

Refer to DLK-53, "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. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

**DRIVER SIDE: Description** 

INFOID:0000000007465517

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

#### NOTE:

Check door request switch operation in the door lock condition. Refer to <u>DLK-21, "DOOR LOCK FUNCTION: System Description"</u>.

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000007465518

# 1. CHECK DRIVER SIDE DOOR REQUEST SWITCH

Check driver side door request switch.

Refer to DLK-91, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK OUTSIDE KEY ANTENNA LH

Check outside key antenna LH.

Refer to DLK-95, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

#### < SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS >	
Is the result normal?  YES >> Check Intermittent Incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.  PASSENGER SIDE	А
PASSENGER SIDE : Description	В
All doors do not lock/unlock using passenger side door request switch. <b>NOTE:</b> Check door request switch operation in the door lock condition. Refer to <a href="DLK-21">DLK-21</a> . "DOOR LOCK FUNCTION: System Description".	С
PASSENGER SIDE : Diagnosis Procedure	D
1. CHECK PASSENGER SIDE DOOR REQUEST SWITCH	E
Check passenger side door request switch. Refer to DLK-91, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.  2.CHECK OUTSIDE KEY ANTENNA RH	F
Check outside key antenna RH. Refer to DLK-95, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	Н
3. CONFIRM THE OPERATION	I
Confirm the operation again.  Is the result normal?  YES >> Check Intermittent Incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.	J
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#### DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Description INFOID:000000007465521

All doors do not lock/unlock using Intelligent Key.

#### NOTE:

Check Intelligent Key remote operation in the door lock condition. Refer to <u>DLK-30</u>, "<u>REMOTE KEYLESS</u> <u>ENTRY FUNCTION</u>: <u>System Description</u>".

#### **Diagnosis Procedure**

INFOID:0000000007465522

# 1. CHECK INTELLIGENT KEY

For Intelligent Key that cannot be used for door lock and unlock, check that the Intelligent Key belongs to the vehicle to be checked.

Does the Intelligent Key belong to the vehicle to checked?

YES >> GO TO 2.

NO >> Check Intelligent Key button operation with registered Intelligent Key belonging to the vehicle.

### 2.CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning is operated.

Is the Intelligent Key low battery warning operated?

YES >> GO TO 6.

NO-1 >> With another registered Intelligent Key: GO TO 3.

NO-2 >> Without another registered Intelligent Key: GO TO 4.

### 3.CHECK INTELLIGENT KEY BUTTON OPERATION

Check that door lock and unlock can be performed by operating the buttons of another registered Intelligent Key.

Can door lock and unlock be performed with another registered Intelligent Key?

YES >> GO TO 4.

NO >> GO TO 7.

# 4. CHECK ENGINE START

Insert Intelligent Key into the key slot. Operate the push-button ignition switch, and check that the vehicle is in START status.

Is the vehicle in START status?

YES >> GO TO 6.

NO >> GO TO 5.

# 5. CHECK INTELLIGENT KEY

Check the inside of the Intelligent Key for rust or corrosion by water. Simultaneously check the internal circuits for damage.

Is the vehicle in START status?

YES >> GO TO 6.

NO >> Replace Intelligent Key.

# 6. CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.

Refer to <u>DLK-100</u>, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace Intelligent Key battery.

#### 7 .CHECK POWER DOOR LOCK OPERATION

Check door lock/unlock using door lock and unlock switch.

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

YES >> GO TO 8.

# DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >	_
NO >> Refer to <u>DLK-154, "ALL DOOR : Diagnosis Procedure"</u> .	۸
8.CHECK REMOTE KEYLESS ENTRY RECEIVER	_ A
Check remote keyless entry receiver.  Refer to <u>DLK-82</u> , "Component Function Check".	
Is the inspection result normal?	В
YES >> GO TO 9.  NO >> Repair or replace the malfunctioning parts.	
9. CHECK DOOR SWITCH	С
Check door switch.	_
Refer to <u>DLK-66, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	D
YES >> GO TO 10.	
NO >> Repair or replace the malfunctioning parts.	Е
10.REPLACE INTELLIGENT KEY	_
<ol> <li>Replace Intelligent Key.</li> <li>Confirm the operation after replacement.</li> </ol>	F
Is the result normal?	
YES >> INSPECTION END NO >> Replace BCM. Refer to <u>BCS-80, "Removal and Installation"</u> .	G
No >> Replace Bolvi. Relet to <u>Boo so, Removal and installation.</u>	
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#### TRUNK LID DOES NOT OPEN WITH TRUNK LID OPENER SWITCH

< SYMPTOM DIAGNOSIS >

# TRUNK LID DOES NOT OPEN WITH TRUNK LID OPENER SWITCH

Description INFOID.000000007465523

#### NOTE:

Check trunk lid opener switch operation in the trunk lid open condition. Refer to <a href="DLK-47">DLK-47</a>, "System Description".

# Diagnosis Procedure

INFOID:0000000007465524

# 1. CHECK TRUNK LID OPENER SWITCH

Check trunk lid opener switch.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK TRUNK LID OPENER ACTUATOR

Check trunk lid opener actuator.

Refer to DLK-76, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.CHECK TRUNK LID OPENER CANCEL SWITCH

Check trunk lid opener cancel switch.

Refer to DLK-89, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CHECK VEHICLE SPEED SIGNAL

Check unified meter A/C amp.

Refer to MWI-86, "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-43, "Intermittent Incident".

# TRUNK LID DOES NOT OPEN WITH INTELLIGENT KEY

#### < SYMPTOM DIAGNOSIS >

TRUNK LID DOES NOT OPEN WITH INTELLIGENT KEY	Δ
Description INFOID:0000000007465525	А
NOTE: Check Intelligent Key remote operation with trunk lid open condition. Refer to <a href="DLK-30">DLK-30</a> , "REMOTE KEYLESS ENTRY FUNCTION: System Description".	В
Diagnosis Procedure	С
1. CHECK TRUNK LID OPEN FUNCTION	
Check trunk lid open function with trunk lid opener switch.  Does trunk lid open with trunk lid opener switch?  YES >> GO TO 2.  NO >> Refer to DLK-162, "Diagnosis Procedure".  2.CHECK "TRUNK OPEN DELAY" SETTING IN "WORK SUPPORT"	D E
Check "TRUNK OPEN DELAY" setting in "WORK SUPPORT".  Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	F
Is the inspection result normal?  YES >> GO TO 3.  NO >> Set "TRUNK OPEN DELAY" setting in "WORK SUPPORT".  3.CHECK POWER POSITION	G
Check if ignition switch position is changing or not.  Does ignition switch position change?  YES >> GO TO 4.  NO >> Check DTC for BCM. Refer to MWI-86, "DTC Index".  4. CHECK INTELLIGENT KEY	Н
Check Intelligent Key. Refer to DLK-100, "Component Function Check".  Is the inspection result normal?	J
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.  5.CONFIRM THE OPERATION	DLK
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.	L M
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#### TRUNK LID DOES NOT OPEN WITH TRUNK LID OPENER REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

# TRUNK LID DOES NOT OPEN WITH TRUNK LID OPENER REQUEST SWITCH

Description INFOID:0000000007465522

#### NOTE:

Check trunk lid opener request switch operation in the trunk lid open condition. Refer to <u>DLK-26</u>, "TRUNK OPEN FUNCTION: System Description".

#### Diagnosis Procedure

INFOID:0000000007465528

# 1. CHECK TRUNK LID OPEN FUNCTION

Check trunk lid open function with Intelligent Key.

Does trunk lid open with Intelligent Key?

YES >> GO TO 2.

NO >> Refer to <u>DLK-163</u>, "<u>Diagnosis Procedure</u>".

# 2. CHECK TRUNK LID OPENER REQUEST SWITCH

Check trunk lid opener request switch.

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

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.CHECK OUTSIDE KEY ANTENNA (REAR BUMPER)

Check outside key antenna (rear bumper).

Refer to DLK-95, "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-43, "Intermittent Incident".

SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE	А
DOOR REQUEST SWITCH	,
DOOR REQUEST SWITCH : Description	INFOID:0000000007465529
<b>NOTE:</b> Before performing the diagnosis in the following procedure, check the operation condition. Ref "DOOR LOCK FUNCTION: System Description".	er to <u>DLK-21,</u>
DOOR REQUEST SWITCH : Diagnosis Procedure	INFOID:0000000007465530
1. CHECK DOOR LOCK FUNCTION	D
Check door lock function by door request switch.	
Does door lock/unlock with door request switch?	Е
YES >> GO TO 2.  NO-1 >> Driver side: Refer to <u>DLK-158</u> , " <u>DRIVER SIDE</u> : <u>Diagnosis Procedure</u> ".  NO-2 >> Passenger side: Refer to <u>DLK-159</u> , " <u>PASSENGER SIDE</u> : <u>Diagnosis Procedure</u> ".	
2.CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT"	F
Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".  Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".	 G
Is the inspection result normal?	O
YES >> GO TO 3.	
NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT". $\bf 3.$ CONFIRM THE OPERATION	Н
Confirm the operation again.  Is the result normal?	I
YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".	
NO >> GO TO 1.	J
INTELLIGENT KEY	
INTELLIGENT KEY: Description	INFOID:0000000007465531
NOTE: Before performing the diagnosis in the following procedure, check the operation condition. Ref "REMOTE KEYLESS ENTRY FUNCTION: System Description".	er to <u>DLK-30.</u>
INTELLIGENT KEY : Diagnosis Procedure	INFOID:00000000007465532
1.CHECK DOOR LOCK FUNCTION	M
Check door lock function by intelligent key.	
Does door lock/unlock with Intelligent Key button?	N
YES >> GO TO 2. NO >> Refer to <u>DLK-30</u> , " <u>REMOTE KEYLESS ENTRY FUNCTION</u> : <u>System Description</u> ".	
2.CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT"	0
Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".  Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".	
Is the inspection result normal?	Р
YES >> GO TO 3. NO >> Set "DOOR LOCK-UNLOCK SET" of "WORK SUPPORT".	
3.CONFIRM THE OPERATION	

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>> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

Confirm the operation again.

Is the result normal?

YES

#### SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

NO >> GO TO 1.

DOOR KEY CYLINDER

DOOR KEY CYLINDER: Description

INFOID:0000000007465533

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-11</u>. "System Description".

#### DOOR KEY CYLINDER: Diagnosis Procedure

INFOID:0000000007465534

# 1. CHECK DOOR LOCK FUNCTION

Check door lock function by door key cylinder.

Does door lock/unlock with door key cylinder?

YES >> GO TO 2.

NO >> Refer to <u>DLK-157</u>, "<u>Diagnosis Procedure</u>".

2.check "door lock-unlock set" setting in "work support"

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".

Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "DOOR LOCK-UNLOCK SET" of "WORK SUPPORT".

# 3. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS > VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-	А
ATE	
Description INFOID:000000007465535	В
<b>NOTE:</b> Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-11</u> . "System Description".	С
Diagnosis Procedure	
1. CHECK POWER DOOR LOCK OPERATION	D
Check power door lock operation.  Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.  NO >> Refer to DLK-154, "ALL DOOR : Diagnosis Procedure".	Е
2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"	F
Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".  Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".	
Is the inspection result normal? YES >> GO TO 3.	G
NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT". 3. CHECK "AUTOMATIC DOOR LOCK SELECT" SETTING IN "WORK SUPPORT"	Н
Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT". Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".	
Is the inspection result normal?	l
YES >> GO TO 4.  NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".	J
4.CHECK VEHICLE SPEED SIGNAL	Ü
Check unified meter A/C amp. Refer to MWI-86, "DTC Index".	DLK
Is the inspection result normal?	
YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.	L
5. CONFIRM THE OPERATION	
Confirm the operation again.	M
Is the result normal?  YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".	
NO >> GO TO 1.	Ν
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#### IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

#### IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

Description INFOID:000000007465537

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-11</u>, <u>"System Description"</u>.

#### **Diagnosis Procedure**

INFOID:0000000007465538

# 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-154</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-51, "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 UNLOCK SELECT" SETTING IN "WORK SUPPORT"

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

Refer to DLK-51, "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".

# 4.CHECK BCM

Check BCM for DTC.

Refer to BCS-74, "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-43, "Intermittent Incident".

# P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OP-	
ERATE	Α
Description INFOID:000000007465539	В
<b>NOTE:</b> Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-11.</u> "System Description".	С
Diagnosis Procedure	
1. CHECK POWER DOOR LOCK OPERATION	D
Check power door lock operation.  Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.  NO >> Refer to DLK-154, "ALL DOOR: Diagnosis Procedure".	Е
2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"	F
Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".  Refer to <a href="DLK-51">DLK-51</a> , "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".  Is the inspection result normal?	G
YES >> GO TO 3. NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".  3. CHECK "AUTOMATIC DOOR LOCK SELECT" SETTING IN "WORK SUPPORT"	Н
Check "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".  Refer to DLK-51, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".  Is the inspection result normal?	I
YES >> GO TO 4.  NO >> Set "AUTOMATIC DOOR LOCK SELECT" in "WORK SUPPORT".  4. CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"	J
Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".  Refer to <u>DLK-51</u> , " <u>DOOR LOCK</u> : <u>CONSULT Function</u> ( <u>BCM - DOOR LOCK</u> )".  Is the inspection result normal?	DLK
YES >> GO TO 5. NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".  5. CHECK TCM	L
Check TCM for DTC. Refer to TM-242, "DTC Index".	M
Is the inspection result normal?  YES >> GO TO 6.  NO >> Repair or replace the malfunctioning parts.	Ν
6.CONFIRM THE OPERATION	_
Confirm the operation again.  Is the result normal?	0
YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".  NO >> GO TO 1.	Р

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

#### < SYMPTOM DIAGNOSIS >

# AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description INFOID:000000007465541

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-11.</u> "System Description".

# Diagnosis Procedure

INFOID:0000000007465542

# $1.\mathsf{check}$ "auto lock set" setting in "work support"

Check "AUTO LOCK SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "AUTO LOCK SET" setting in "WORK SUPPORT".

# 2. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

#### **FUEL LID LOCK ACTUATOR DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

# FUEL LID LOCK ACTUATOR DOES NOT OPERATE Α Description INFOID:0000000007465543 NOTE: В Before performing the diagnosis in the following procedure, check the operation condition. Refer to DLK-11. "System Description". Diagnosis Procedure INFOID:0000000007465544 1. CHECK FUEL LID OPENER ACTUATOR D Check fuel lid opener actuator. Refer to DLK-75, "Component Function Check". Is the inspection result normal? Е 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-43, "Intermittent Incident". NO >> GO TO 1. Н J DLK M Ν

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#### PANIC ALARM FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

# PANIC ALARM FUNCTION DOES NOT OPERATE

Description INFOID.000000007465545

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-30</u>, <u>"REMOTE KEYLESS ENTRY FUNCTION</u>: System Description".

#### **Diagnosis Procedure**

INFOID:0000000007465546

# 1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Refer to <u>DLK-160</u>, "<u>Diagnosis Procedure</u>".

# 2.CHECK VEHICLE SECURITY ALARM OPERATION

Check vehicle security alarm operation.

Does alarm (headlamp and horn) active?

YES >> GO TO 3.

NO >> Refer to <u>SEC-158</u>, "<u>Diagnosis Procedure</u>".

# 3.CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"

Check "PANIC ALARM SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PANIC ALARM SET" setting in "WORK SUPPORT".

## 4. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

# HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

HAZARD AND HORN REMINDER DOES NOT OPERATE	
Description INFOID:000000000746554	A 7
<b>NOTE:</b> Before performing the diagnosis, check the operation condition. Refer to <a href="DLK-30">DLK-30</a> , "REMOTE KEYLESS ENTRY FUNCTION: System Description".	В
Diagnosis Procedure	9 C
1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"	
Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".  Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	D
Is the inspection result normal?	_
YES >> GO TO 2.  NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	Е
2.CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT".	
Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".  Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".	- F
Is the inspection result normal?	G
YES >> GO TO 3.  NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".	
3. CHECK POWER POSITION	Н
Check if ignition switch position is changing or not.	-
Does ignition switch position change?	1
YES >> GO TO 4. NO >> Check BCM for DTC. Refer to BCS-74, "DTC Index".	,
4.CHECK HAZARD FUNCTION	ı
Check hazard function. Refer to DLK-111, "Component Function Check".	
Is the inspection result normal?	DLK
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.  5.CHECK HORN FUNCTION	ı
Check horn function.	-
Refer to DLK-106, "Component Function Check".	B. //
Is the inspection result normal?	M
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	
6.CONFIRM THE OPERATION	Ν
Confirm the operation again.	-
Is the result normal?	0
YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> GO TO 1.	
	Р

#### HAZARD AND BUZZER REMINDER DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

# HAZARD AND BUZZER REMINDER DOES NOT OPERATE

Description INFOID:000000007465549

#### NOTE:

Before performing the diagnosis, check the operation condition. Refer to <u>DLK-30, "REMOTE KEYLESS ENTRY FUNCTION: System Description"</u>.

#### **Diagnosis Procedure**

INFOID:0000000007465550

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

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

Refer to DLK-53, "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-53, "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-53, "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-74, "DTC Index".

#### 5 . CHECK HAZARD FUNCTION

Check hazard function.

Refer to DLK-111, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6. CHECK INTELLIGENT KEY WARNING BUZZER

#### Check Intelligent Key warning buzzer.

Refer to DLK-98, "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-43, "Intermittent Incident".

**KEY REMINDER FUNCTION DOES NOT OPERATE** < SYMPTOM DIAGNOSIS > KEY REMINDER FUNCTION DOES NOT OPERATE Α INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM: Description INFOID:000000000746555 В Before performing the diagnosis, check operation condition. Refer to <u>DLK-36, "KEY REMINDER FUNCTION</u>: System Description". INTELLIGENT KEY SYSTEM: Diagnosis Procedure INFOID:0000000007465552  ${f 1}$  .CHECK "ANTI KEY LOCK IN FUNCTI" SETTING IN "WORK SUPPORT" D Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT". Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)". Е Is the inspection result normal? YES >> GO TO 2. NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT". F 2. CHECK DOOR SWITCH Check door switch. Refer to DLK-66, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. Н 3.CHECK TRUNK ROOM LAMP SWITCH Check trunk room lamp switch. Refer to DLK-78, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK INSIDE KEY ANTENNA Check inside kev antenna. DLK • Instrument center: Refer to DLK-59, "DTC Logic". Console: Refer to <u>DLK-61</u>, "<u>DTC Logic</u>". Trunk room: Refer to DLK-63, "DTC Logic". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. M 5.CHECK UNLOCK SENSOR Check unlock sensor. Refer to DLK-93, "Component Function Check". N Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts. 6.CONFIRM THE OPERATION

# POWER DOOR LOCK SYSTEM

Confirm the operation again.

>> GO TO 1.

Is the result normal?

YES

NO

>> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

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

#### < SYMPTOM DIAGNOSIS >

# POWER DOOR LOCK SYSTEM: Description

INFOID:0000000007465553

#### NOTE

Before performing the diagnosis, check operation condition. Refer to <u>DLK-11</u>, "System Description".

# POWER DOOR LOCK SYSTEM: Diagnosis Procedure

INFOID:0000000007465554

# 1. CHECK KEY SLOT

Check key slot.

Refer to <u>DLK-102</u>, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-66, "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-43, "Intermittent Incident".

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

#### < SYMPTOM DIAGNOSIS >

KEY WARNING DOES NOT OPERATE
Description INFOID:000000007465555
<ul> <li>NOTE:</li> <li>Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <a href="DLK-40">DLK-40</a>, "WARNING FUNCTION: System <a href="Description">Description</a>".</li> <li>Door lock function is normal.</li> </ul>
Diagnosis Procedure
1. CHECK BUZZER (COMBINATION METER)
Check buzzer (combination meter).  Refer to DLK-109, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.
2.check door switch
Check door switch (driver side). Refer to <u>DLK-66</u> , "Component Function Check". <u>Is the inspection result normal?</u>
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.
3. CHECK KEY SLOT
Check key slot. Refer to DLK-102, "Component Function Check".
Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.
4. CHECK COMBINATION METER DISPLAY FUNCTION
Check combination meter display function.  Refer to DLK-108, "Component Function Check".
Is the inspection result normal?  YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.
5. CHECK KEY SLOT INDICATOR
Check key slot indicator. Refer to DLK-104, "Component Function Check".  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-43, "Intermittent Incident".  NO >> GO TO 1.

#### **OFF POSITION WARNING DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

### OFF POSITION WARNING DOES NOT OPERATE

Description INFOID:000000007465557

#### NOTE:

- Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the
  list above twice in order to check for normal operation. Refer to <a href="DLK-40">DLK-40</a>, "WARNING FUNCTION: System
  <a href="Description">Description</a>".
- Door lock function is normal.

#### Diagnosis Procedure

INFOID:0000000007465558

# 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-74, "DTC Index".

2. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-109, "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-98, "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-66, "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-43, "Intermittent Incident".

#### P POSITION WARNING DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

#### P POSITION WARNING DOES NOT OPERATE Α Description INFOID:0000000007465559 NOTE: В Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to DLK-40, "WARNING FUNCTION: System Description". · Door lock function is normal. Diagnosis Procedure INFOID:0000000007465560 D 1. CHECK POWER POSITION Check if ignition switch position is changing or not. Does ignition switch position change? Е YES >> GO TO 2. NO >> Check BCM for DTC. Refer to BCS-74, "DTC Index". 2. CHECK DETENTION SWITCH F Check BCM for DTC. Refer to BCS-74, "DTC Index". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. Н 3.check intelligent key warning buzzer Check Intelligent Key warning buzzer. Refer to DLK-98, "Component Function Check". 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). DLK Refer to DLK-109, "Component Function Check". Is 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-66, "Component Function Check". Is the inspection result normal? N YES >> GO TO 6. >> Repair or replace the malfunctioning parts. NO **6.**CHECK INSIDE KEY ANTENNA Check inside key antenna. Instrument center: Refer to <u>DLK-59</u>, "<u>DTC Logic</u>". Console: Refer to <u>DLK-61, "DTC Logic"</u>. Р Trunk room: Refer to <u>DLK-63, "DTC Logic"</u>. Is the inspection result normal? YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts. .CHECK COMBINATION METER DISPLAY FUNCTION Check combination meter display function.

Revision: 2013 February DLK-179

Refer to DLK-108, "Component Function Check".

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#### P POSITION WARNING DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace the malfunctioning parts.

# 8. CONFIRM THE OPERATION

Confirm the operation again.

# Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident".

## **ACC WARNING DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS > ACC WARNING DOES NOT OPERATE	,
Description INFOID:000000007465561	Α
<ul> <li>NOTE:</li> <li>Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <a href="DLK-40">DLK-40</a>, "WARNING FUNCTION: System <a href="Description">Description</a>.</li> <li>Door lock function is normal.</li> </ul>	В
Diagnosis Procedure	
1.CHECK POWER POSITION	D
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-74, "DTC Index".  2.CHECK BUZZER (COMBINATION METER)	E
Check buzzer (combination meter). Refer to DLK-109, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.  3. CHECK COMBINATION METER DISPLAY FUNCTION	G
Check combination meter display function. Refer to DLK-108. "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.	J
4.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-43</u> , " <u>Intermittent Incident</u> ".	DLK
NO >> GO TO 1.	L
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Revision: 2013 February DLK-181 2012 G Sedan

#### TAKE AWAY WARNING DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

## TAKE AWAY WARNING DOES NOT OPERATE

Description INFOID:000000007465563

When door opens, take away warning does not operate.

#### NOTE:

- Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <u>DLK-40, "WARNING FUNCTION: System Description"</u>.
- Door lock function is normal.

## **Diagnosis Procedure**

INFOID:0000000007465564

## 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-74, "DTC Index".

## 2. CHECK DOOR SWITCH

Check door switch.

Refer to <u>DLK-66</u>, "Component Function Check".

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.CHECK KEY SLOT

Check key slot.

Refer to DLK-102, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Instrument center: Refer to <a href="DLK-59">DLK-59</a>, "DTC Logic".
- Console: Refer to DLK-61, "DTC Logic".
- Trunk room: Refer to <u>DLK-63</u>, "<u>DTC Logic</u>".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-109, "Component Function Check".

## Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

## 6.CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-108, "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.

Revision: 2013 February DLK-182 2012 G Sedan

## TAKE AWAY WARNING DOES NOT OPERATE < SYMPTOM DIAGNOSIS > Refer to DLK-98, "Component Function Check". Is the inspection result normal? YES >> GO TO 8. NO >> Repair or replace the malfunctioning parts. 8.CHECK KEY SLOT INDICATOR В Check key slot indicator. Refer to DLK-104, "Component Function Check". C Is the inspection result normal? YES >> GO TO 9. NO >> Repair or replace the malfunctioning parts. D 9. CONFIRM THE OPERATION Confirm the operation again. Е Is the result normal? YES >> Check intermittent incident. Refer to GI-43, "Intermittent Incident". NO >> GO TO 1. Н

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## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description INFOID:000000007465565

#### NOTE:

Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <a href="DLK-40">DLK-40</a>, "WARNING FUNCTION: System Description".

## **Diagnosis Procedure**

INFOID:0000000007465566

## ${f 1}$ .CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"

Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".

## 2.check intelligent key

## Check Intelligent key.

Refer to DLK-100, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3. CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-108, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4. CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Instrument center: Refer to <u>DLK-59</u>, "<u>DTC Logic</u>".
- Console: Refer to <u>DLK-61</u>, "DTC Logic".
- Trunk room: Refer to DLK-63, "DTC Logic".

#### 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-43, "Intermittent Incident".

NO >> GO TO 1.

## DOOR LOCK OPERATION WARNING DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

#### DOOR LOCK OPERATION WARNING DOES NOT OPERATE Α Description INFOID:0000000007465567 Door lock operation warning does not activate using door request switch. В NOTE: Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <u>DLK-40</u>, "WARNING FUNCTION: System Description". Diagnosis Procedure INFOID:0000000007465568 D 1. CHECK DOOR LOCK FUNCTION Check door lock function. Does door lock/unlock using door request switch? Е >> GO TO 2. NO-1 >> Driver side: Refer to <u>DLK-158</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>". NO-2 >> Passenger side: Refer to <u>DLK-159</u>, "PASSENGER SIDE: Diagnosis Procedure". F 2.CHECK INTELLIGENT KEY WARNING BUZZER Check Intelligent Key warning buzzer. Refer to DLK-98, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. Н 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-43, "Intermittent Incident". NO >> GO TO 1.

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Revision: 2013 February DLK-185 2012 G Sedan

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

## < SYMPTOM DIAGNOSIS >

## KEY ID WARNING DOES NOT OPERATE

Description INFOID:000000007465569

#### NOTE:

Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to <a href="DLK-40">DLK-40</a>, "WARNING FUNCTION: System <a href="Description">Description</a>".

## **Diagnosis Procedure**

INFOID:0000000007465570

## 1. CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to DLK-100, "Component Function Check".

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-108, "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-43, "Intermittent Incident".

NO >> GO TO 1.

## **KEY WARNING LAMP DOES NOT ILLUMINATE**

## < SYMPTOM DIAGNOSIS >

## KEY WARNING LAMP DOES NOT ILLUMINATE Description INFOID:0000000007465571

#### NOTE:

Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to check for normal operation. Refer to DLK-40, "WARNING FUNCTION: System Description".

## Diagnosis Procedure

## 1. CHECK KEY WARNING LAMP D

Check key warning lamp.

Refer to <u>DLK-110</u>, "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-43, "Intermittent Incident".

>> GO TO 1. NO

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INFOID:0000000007465572

## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

## Diagnosis Procedure

INFOID:0000000007465573

## 1. CHECK INTEGRATED HOMELINK TRANSMITTER

Check integrated homelink transmitter.

Refer to DLK-112, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2. CONFIRM THE OPERATION

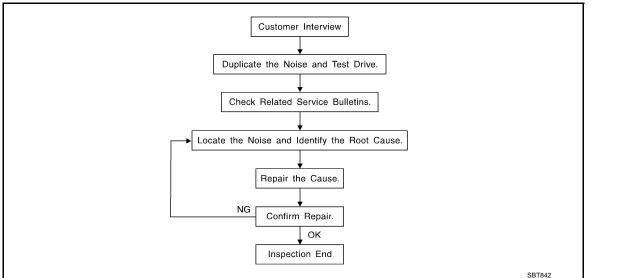
Confirm the operation again.

## Is the result normal?

YES >> Check intermittent incident. Refer to GI-43, "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-193">DLK-193</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
- 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

clip or fastener/incorrect clearance.

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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plicate the same conditions when the repair is reconfirmed.

#### < SYMPTOM DIAGNOSIS >

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-191</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  $\times$  1.97in)

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 >

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

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.

**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

Refer to Table of Contents for specific component removal and installation information.

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 1. The cluster lid A and instrument panel
- 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
- 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

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 >

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
- 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
- 3. 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 >

## Diagnostic Worksheet

INFOID:0000000007465576



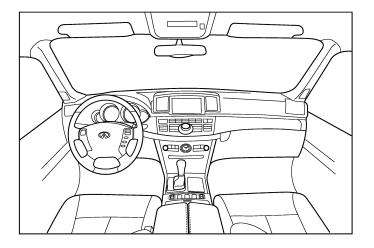
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

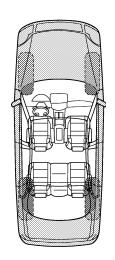
#### Dear Infiniti Customer:

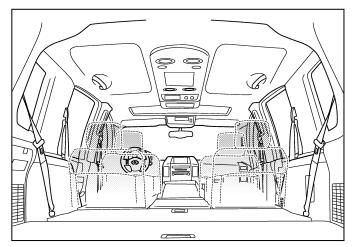
We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may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

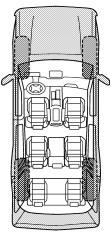
I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

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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Briefly describe the location where the no	oise occurs:			
II. WHEN DOES IT OCCUR? (please che  □ anytime □ 1st time in the morning □ only when it is cold outside □ only when it is hot outside	after s	sitting ou it is rain dusty co	t in the ra	
III. WHEN DRIVING:	IV. WHA	Г ТҮРЕ	OF NOIS	E
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: miles or miles	☐ creak ☐ rattle ☐ knock ☐ tick (li ☐ thump ☐ buzz	(like wa (like sha (like a k ke a cloo (heavy	Iking on a king a ba nock at th ck second	ne door) hand) knock noise)
TO BE COMPLETED BY DEALERSHIP Test Drive Notes:	PERSONNI	ĒL		
		YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confin	m repair	YES	NO	Initials of person 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

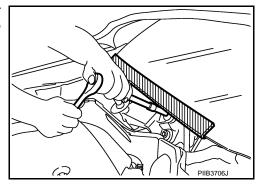
#### **WARNING:**

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 For Xenon Headlamp Service

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector.

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eadlamp ON in other conditions. Connect the power supply to the vehicle-side connector.

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## **PRECAUTIONS**

#### < PRECAUTION >

(Turning it ON outside the lamp case may cause fire or visual impairments.)

• Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

#### CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

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**

## < PREPARATION >

## **PREPARATION**

## **PREPARATION**

**Special Service Tools** 

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

(Ker	ool number nt-Moore No.) Tool name	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**

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

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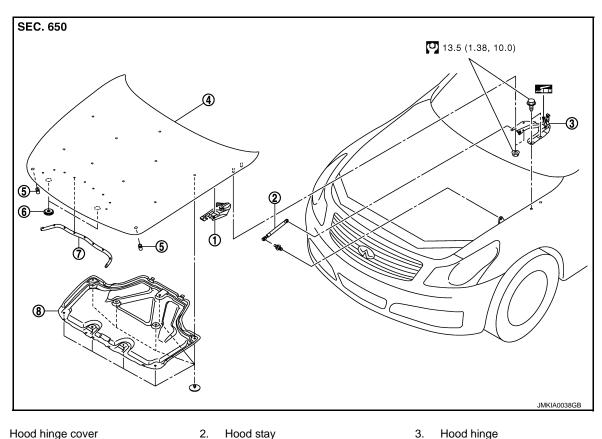
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## REMOVAL AND INSTALLATION

HOOD

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 



- 1. Hood hinge cover
- 4. Hood assembly
- 7. Radiator core seal
- Hood stay
- Hood bumper rubber 5.
- Hood insulator

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

Seal

6.

## **HOOD ASSEMBLY: Removal and Installation**

#### **CAUTION:**

Operate with two workers, because of its heavy weight.

#### REMOVAL

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

#### **WARNING:**

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

- 2. Remove the hood hinge cover (LH/RH).
- 3. Remove the seal rubber, washer nozzle, washer tube. Refer to WW-91, "Removal and Installation".
- 4. Remove the stud balls on the hood stays at the hood side.
- 5. Remove the hinge mounting nuts on the hood to remove the hood assembly.
- Remove following parts after removing the hood assembly.
  - Radiator core seal
  - Hood insulator

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• Hood bumper rubber

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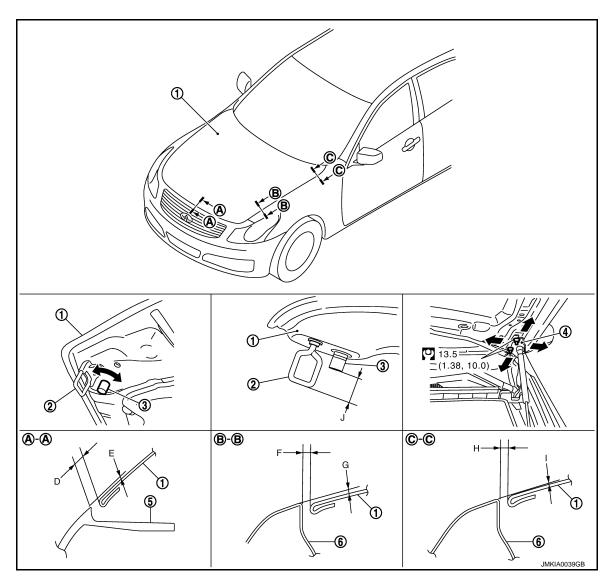
## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Before installing hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle
- After installing, perform hood fitting adjustment. Refer to DLK-199, "HOOD ASSEMBLY: Adjustment".

**HOOD ASSEMBLY: Adjustment** 



- Hood assembly
- Hood hinge

- 2. Striker
- Front bumper

- Hood bumper rubber
- Front fender

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

	Portion			Standard	Right/left Clearance (MAX)
Hood – Front bumper A – A	D	Clearance	2.6 – 5.6 mm (0.102 – 0.220 in)	_	
Tiona Tront bumper	A-A	E	Surface height	-2.0 – 1.0 mm (-0.079 – 0.039 in)	_

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	Portion			Standard	Right/left Clearance (MAX)
	B – B	F	Clearance	2.5 – 4.5 mm (0.098 – 0.177 in)	2.0 mm (0.079 in)
Hood – Front fender	B-B	G	Surface height	-2.0 – 1.0 mm (-0.079 – 0.039 in)	_
Hood – Front lender	C – C	н	Clearance	2.5 – 4.5 mm (0.098 – 0.177 in)	2.0 mm (0.079 in)
	0-0	ı	Surface height	-1.0 <b>-</b> 1.0 mm (-0.039 <b>-</b> 0.039 in)	_
Striker – hood bumper rubber	_	J	Clearance	32.5 – 33.5 mm (1.280 – 1.319 in)	_

- Check the clearance and the surface height between the hood and each part visually and by touching. (Fitting standard dimension in the table below should be satisfied.Åj
- 2. In case out of specification, adjust them according to the procedures shown below.
- 3. Remove the striker and adjust the surface height of hood, front bumper and front fender according to the fitting standard dimension, by rotating hood bumper rubbers.
- 4. Adjust the clearance of striker, hood bumper rubber according to the fitting standard dimension.
- 5. Loosen the hood hinge mounting nuts on the hood.
- Adjust the clearance of hood, front bumper and front fender according to the fitting standard dimension, for the hood.
- 7. Check that the hood lock primary latch is securely engaged with the striker by dropping hood from approximately 200 mm (7.874 in) height or pressing lightly on the hood.
  CAUTION:

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

- 8. Install as static closing face of hood is 94 − 490 N·m (9.6 − 50.0 kg-m). **NOTE:** 
  - Exercise vertical force on right side and left side of hood lock.
  - Do not press simultaneously both sides.
- 9. After adjustment tighten hood hinge mounting nuts to the specified torque.

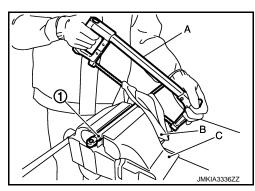
## **HOOD ASSEMBLY : Disposal**

DISPOSAL OF HOOD STAY

- 1. Fix hood stay (1) using a vise (C).
- 2. Using hacksaw (A) slowly make 2 holes in the hood stay, in numerical order as shown in the figure.

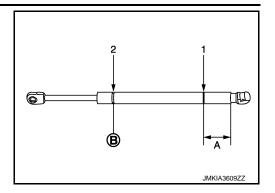
#### **CAUTION:**

- When cutting a hole on hood stay, always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil.
- Wear eye protection (safety glasses).
- · Wear gloves.



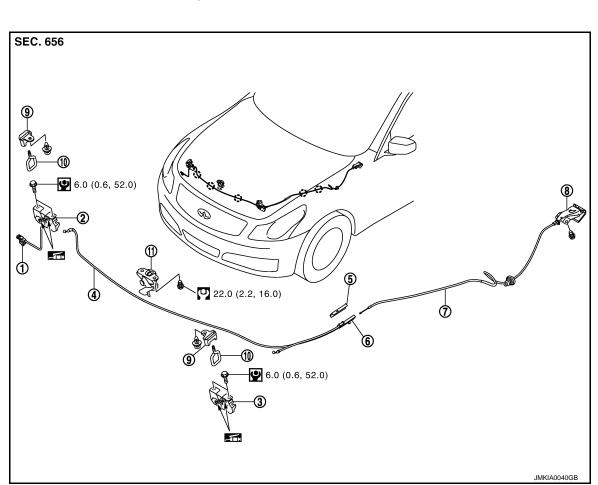
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A: 20 mm (0.787 in)B: Cut at the groove.



HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 



- 1. Hood lock switch harness connector 2.
- 4. Hood lock control cable (Front)
- 4. Hood lock control cable (Front)
- 7. Hood lock control cable (Rear)
- 10. Striker
- ( ) : Clip

- 2. Hood lock (RH)
- Hood lock control cable protector cover
- 8. Hood lock opener
- 11. Secondary latch

- 3. Hood lock (LH)
- 6. Hood lock control cable protector
- Hood lock cover

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

## **HOOD LOCK CONTROL**: Removal and Installation

#### **REMOVAL**

Remove the washer tank. Refer to <u>WW-88, "Removal and Installation"</u>.

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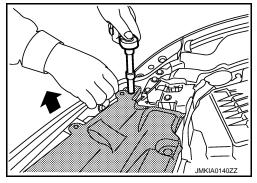
- Remove the radiator core support ornament.
  - Remove the radiator core support ornament mounting bolts and clips.

#### NOTE:

To remove the mounting bolts on both sides of radiator core support ornament, first remove the mounting bolts of front bumper (shown by arrows in the figure) and pull up the bumper edge slightly to get working clearance.

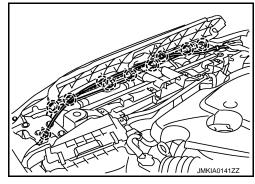
## **CAUTION:**

Never apply excessive force while pulling front bumper to prevent front bumper and front fender from being damaged.

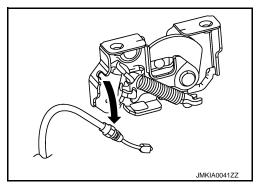


- Hold both sides of radiator core support ornament, pull it upwards and slide it rearwards of the vehicle.
- Disconnect the harness clip and hood lock control cable clip on radiator core support.



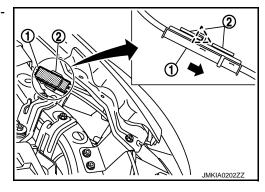


- Remove the fender protector (LH). Refer to <u>EXT-27</u>, "FENDER PROTECTOR: Removal and Installation".
- 4. Disconnect hood lock switch harness connector (RH side).
- 5. Remove the hood lock bracket mounting bolts, and remove the hood lock bracket assembly.
- 6. Remove the hood lock mounting bolts, and disassemble the hood lock from the hood lock bracket.
- Disconnect the hood lock control cable from the hood lock and clip it to the hood-ledge.



8. Remove the hood lock control cable protector (1) from the head-lamp assembly (2).

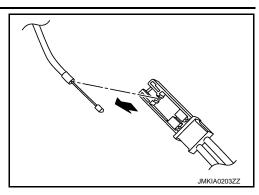




Remove the hood lock control cable cover from hood lock control cable protector.

#### < REMOVAL AND INSTALLATION >

10. Disconnect the hood lock control cable from hood lock control cable protector.



- 11. Remove the mounting screws and then remove the hood lock opener.
- 12. Remove the grommet on the dashboard, and pull the hood lock control cable toward the passenger compartment.

**CAUTION:** 

While pulling, never to damage (peeling) the outside of the hood lock control cable.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Never to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.
- Check that the hood lock control cable is properly engaged with the hood lock.
- After installing, perform hood fitting adjustment. Refer to <u>DLK-199</u>, "HOOD ASSEMBLY: Adjustment".
- After installing, perform the hood lock control inspection. Refer to <u>DLK-203, "HOOD LOCK CONTROL: Inspection"</u>.

## HOOD LOCK CONTROL: Inspection

#### NOTE:

If the hood lock cable is bent or deformed, replace it.

- 1. Check that the secondary latch is properly engaged with the hood lock stay by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is 49 N (5.0 kg) or below.
- 4. Install so that static closing face of hood is 94 − 490 N·m (9.6 − 50.0 kg-m).

### NOTE:

- Exercise vertical force on right side and left side of hood lock.
- Do not press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to the hood lock.

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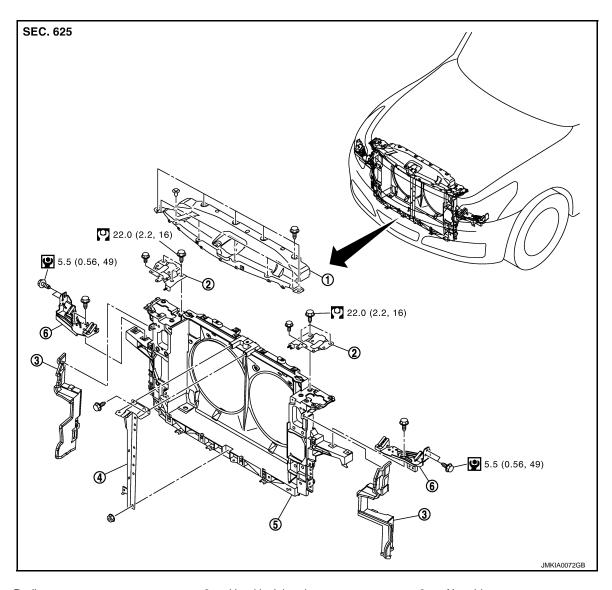
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## RADIATOR CORE SUPPORT

Exploded View



- 1. Radiator core support ornament
- Hood lock bracket
- 5. Radiator core support assembly
- Air guide
- 6. Head-lamp bracket

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

## Removal and Installation

Hood lock stay

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### REMOVAL

- Remove the front bumper fascia and front bumper reinforcement. Refer to <u>EXT-15</u>, "<u>Removal and Installation</u>".
- 2. Remove the radiator reserve tank. Refer to <a href="CO-15">CO-15</a>, "Exploded View".
- 3. Remove horn (High/Low). Refer to HRN-4, "Removal and Installation".
- 4. Remove the radiator core support ornament.
  - Remove the radiator core support ornament mounting bolts and clips.
     NOTE:

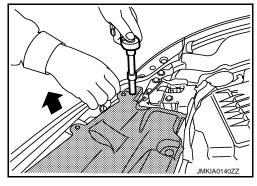
## RADIATOR CORE SUPPORT

#### < REMOVAL AND INSTALLATION >

In the case that only radiator core support ornament is removed (front bumper is not removed), remove them according to the procedures shown below.

To remove the mounting bolts on both sides of radiator core support ornament, first remove the mounting bolts of front bumper (shown by arrows in the figure) and pull up the bumper edge slightly to get working clearance. **CAUTION:** 

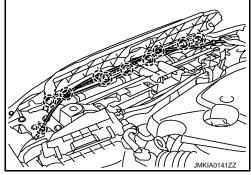
Never apply excessive force while pulling front bumper to prevent front bumper and front fender from being damaged.



Hold both sides of radiator core support ornament, pull it upwards and slide it to the rear of the vehicle.

 Disconnect the harness clip and hood lock control cable clip on radiator core support.

: Clip



Remove the front combination lamp. Refer to EXL-137, "Removal and Installation".

Remove the hood lock bracket assembly.

7. Remove the washer inlet and washer tank. Refer to WW-88, "Removal and Installation".

Remove the ambient sensor. Refer to HAC-182, "Removal and Installation". 8.

Remove the power steering oil cooler. Refer to ST-56, "2WD: Exploded View" (2WD), ST-58, "AWD: Exploded View" (AWD).

10. Remove the air guide mounting clips and then remove air guide.

- 11. Disconnect the harness connector from liquid tank, and disconnect harness clamp from radiator core support.
- 12. Remove the hood lock stay.
- 13. Remove the engine lower cover. Refer to EXT-32, "Removal and Installation".
- Drain engine coolant from radiator & condenser. Refer to CO-9, "Draining".
- 15. Remove the radiator upper hose and lower hose on radiator & condenser assembly side.
- 16. Remove the A/T fluid cooler hose on radiator & condenser assembly side. Refer to TM-295, "2WD: Removal and Installation" (2WD), TM-298, "AWD: Removal and Installation" (AWD).
- 17. Disconnect condenser pipe assembly at one touch joint. Refer to HA-48, "CONDENSER PIPE ASSEM-BLY: Removal and Installation".
- 18. Remove the radiator core support assembly mounting bolts, and draw out radiator core support assembly forward of the vehicle.
- 19. Disconnect the cooling fan and crush zone sensor harness connector and clamp.
- 20. Remove the radiator core support assembly.
- 21. Remove the following parts after removing the radiator core support assembly.
  - Head lamp bracket.
  - Cooling fan. Refer to <u>CO-19</u>, "Removal and Installation".
  - Radiator & condenser assembly. Refer to CO-16, "Removal and Installation".
  - Crush zone sensor. Refer to SR-20, "Removal and Installation".
  - Crush zone sensor bracket.

#### INSTALLATION

Install in the reverse order of removal.

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## **RADIATOR CORE SUPPORT**

## < REMOVAL AND INSTALLATION >

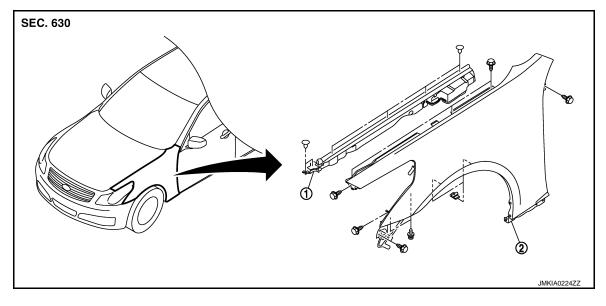
## **CAUTION:**

After installation, refill the following parts.

- Power stealing fluid. Refer to <u>ST-12</u>, "<u>Inspection</u>".
  A/T fluid. Refer to <u>TM-257</u>, "<u>Changing</u>".
  Engine coolant. Refer to <u>CO-10</u>, "<u>Refilling</u>".

## **FRONT FENDER**

Exploded View



1. Hood seal assembly (side)

Front fender

## Removal and Installation

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#### **REMOVAL**

- Remove the front bumper fascia. Refer to <u>EXT-15</u>, "Removal and Installation".
- Remove the hood seal assembly (side).
- 3. Remove the front combination lamp. Refer to EXL-137, "Removal and Installation".
- 4. Remove the fender protector. Refer to EXT-27, "FENDER PROTECTOR: Removal and Installation".
- 5. Remove the center mudguard. Refer to EXT-30, "Removal and Installation".
- 6. Remove the mounting bolts and remove the front fender.

#### **CAUTION:**

While removing use a shop cloth to protect body from damaging.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- After installing, apply touch-up paint (the body color) onto the head of the front fender mounting bolts.
- After installing, check front fender adjustment. Refer to <u>DLK-199, "HOOD ASSEMBLY : Adjustment"</u> and <u>DLK-208, "FRONT DOOR : Adjustment"</u>.

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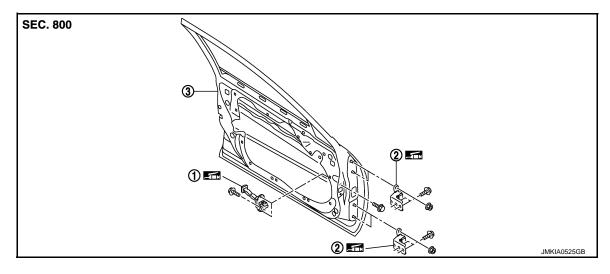
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## **DOOR**

FRONT DOOR

FRONT DOOR: Exploded View

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1. Check link

2. Door hinge (upper, lower)

3. Front door panel

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

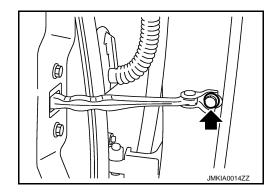
FRONT DOOR: Removal and Installation

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## **REMOVAL**

#### **CAUTION:**

- When removing and installing the front door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing front door assembly, perform the fitting adjustment. Refer to <u>DLK-208</u>, <u>"FRONT DOOR: Adjustment"</u>.
- After installing, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- Operate with two workers, because of its heavy weight.
- Check front door open/close operation after installation.
- Remove the mounting bolt of the check link on the vehicle.



- 2. Pull the lever and disconnect the door harness connector while removing tabs of door harness connector.
- 3. Remove the door side hinge mounting nuts, then remove the door assembly.

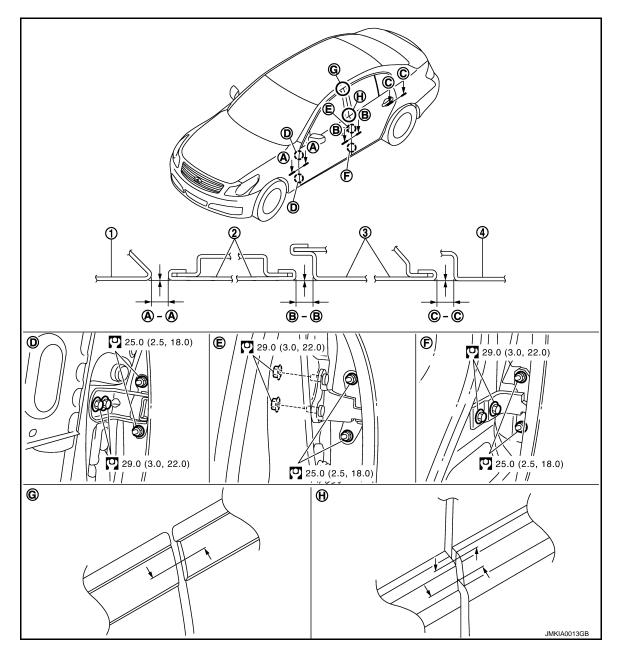
#### **INSTALLATION**

Install in the reverse order of removal.

FRONT DOOR: Adjustment

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CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT



1. Front fender

2. Front door outer

3. Rear door outer

4. Rear fender

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

. Check the clearance and surface height and surface mismatch between the front door and each part visually and by touching. (Fitting standard dimension in the table below should be satisfied.)

Portion		Clearance	Surface height	Surface mismatch
Front fender – Front door	<b>A</b> – <b>A</b>	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_
Front door – Rear door	B – B	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_

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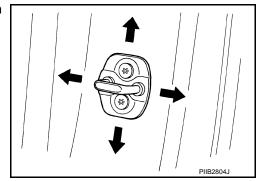
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Portion		Clearance	Surface height	Surface mismatch
Front door sash molding – Rear door sash molding	G	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	_
Front door outside molding – Rear door outside molding	Н	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	-1.5 - 1.5 mm (-0.059 - 0.059 in)

- 2. In case out of specification, adjust them according to the procedures shown below.
- Remove the front fender. Refer to <u>DLK-207</u>, "<u>Removal and Installation</u>".
- 4. Loosen the hinge mounting nuts on door side.
- Adjust the surface height and surface mismatch of the front door according to the fitting standard dimension.
- 6. Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the hinge mounting bolts on body side.
- Raise the front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
- 9. After adjustment tighten bolts and nuts to the specified torque.
- 10. Install the front fender. Refer to DLK-207, "Removal and Installation".

#### STRIKER ADJUSTMENT

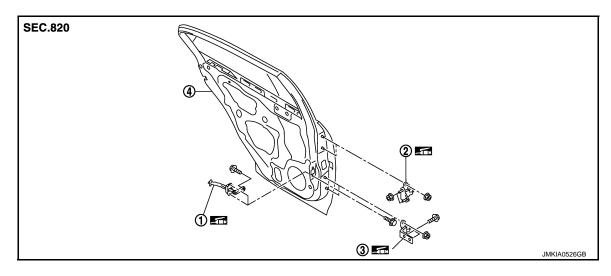
Adjust the striker so that it becomes parallel with the lock insertion direction.



REAR DOOR

**REAR DOOR: Exploded View** 





1. Check link

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

Rear door panel

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

## **REAR DOOR: Removal and Installation**

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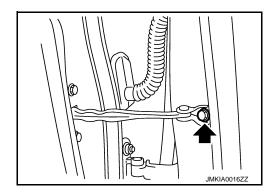
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## **REMOVAL**

1. Remove the mounting bolt of the check link on the vehicle.



- 2. Pull out grommet and disconnect rear door harness connector.
- 3. Remove the door side hinge mounting nuts and remove the door assembly.

#### **CAUTION:**

- When removing and installing the rear door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing rear door assembly, perform the fitting adjustment. Refer to <u>DLK-211</u>, <u>"REAR DOOR: Adjustment"</u>.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installing, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.
- Operate with two workers, because of its heavy weight.
- Check rear door open/close operation after installation.

#### INSTALLATION

Install in the reverse order of removal.

REAR DOOR : Adjustment

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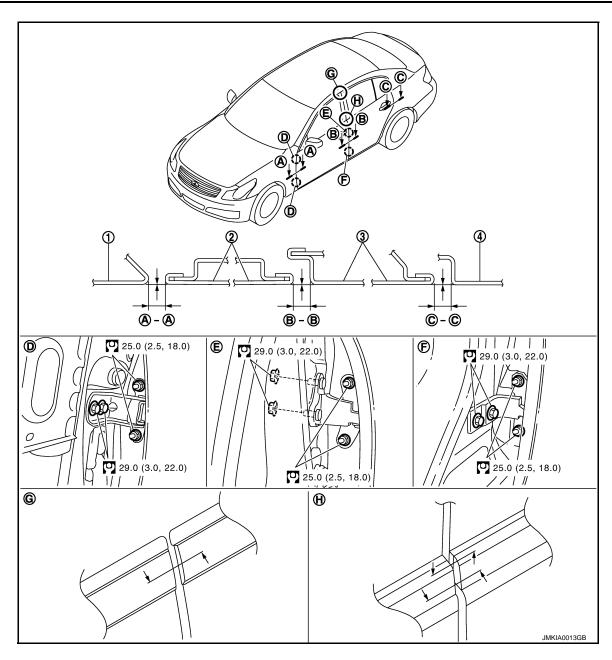
CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

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1. Front fender

- 2. Front door outer
- 3. Rear door outer

Rear fender

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

1. Check the clearance and surface height and surface mismatch between the rear door and each part visually and by touching. (Fitting standard dimension in the table below should be satisfied.)

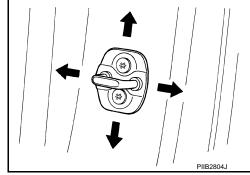
Portion		Clearance	Surface height	Surface mismatch
Front door – Rear door	B – B	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_
Rear door – Rear fender	C – C	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_

Portion		Clearance	Surface height	Surface mismatch
Front door sash molding – Rear door weather-strip	G	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	_
Front door outside molding – Rear door outside molding	н	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	-1.5 – 1.5 mm (-0.059 – 0.059 in)

- 2. In case out of specification, adjust them according to the procedures shown below.
- 3. Remove the center pillar upper garnish and center pillar lower garnish. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 4. Loosen the hinge mounting nuts on door side.
- Adjust the surface height and surface mismatch of the rear door according to the fitting standard dimension.
- 6. Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the hinge mounting nuts and bolts on body side.
- 8. Raise the rear door at rear end to adjust clearance of the rear door according to the fitting standard dimension.
- 9. After adjustment tighten bolts and nuts to the specified torque.
- 10. Install the center pillar upper garnish and center pillar lower garnish. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".

#### STRIKER ADJUSTMENT

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



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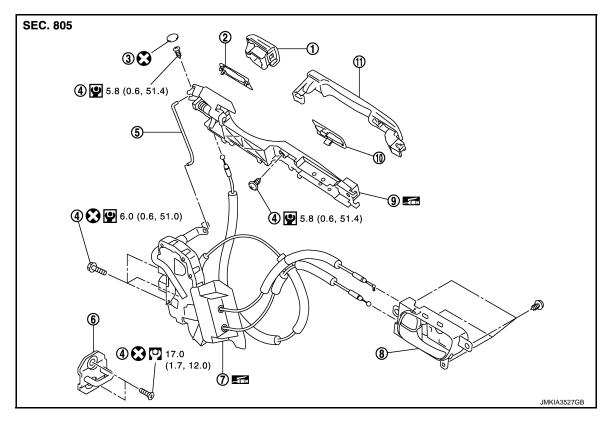
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## DOOR LOCK

## FRONT DOOR LOCK

FRONT DOOR LOCK: Exploded View

INFOID:0000000007465600



- 1. Door key cylinder assembly (Driver 2.
  - 2. Rear gasket

3. Grommet

- Outside handle escutcheon (Passenger side)
- 4. TORX bolt 5. Key rod (Driver side only)
- 7. Door lock assembly
- Inside handle
- Front gasket
   Outside handle

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

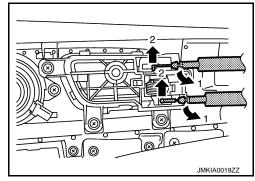
- Striker
- 9. Outside handle bracket

## FRONT DOOR LOCK: Removal and Installation

INFOID:0000000007465601

## **REMOVAL**

- 1. Remove the front door finisher. Refer to INT-11, "Removal and Installation".
- 2. Disconnect the inside handle knob cable and lock knob cable from the back side of the front door finisher.



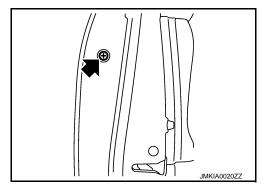
3. Remove the front door glass and front door module assembly.

## **DOOR LOCK**

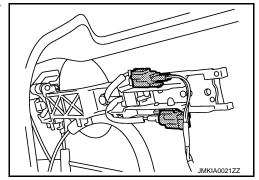
#### < REMOVAL AND INSTALLATION >

- Door glass: Refer to GW-14, "Removal and Installation".
- Door module: Refer to GW-16, "Removal and Installation".
- Remove door side grommet, and remove door key cylinder assembly (driver side) and outside handle escutcheon (passenger side) TORX bolt from grommet hole.
   CAUTION:

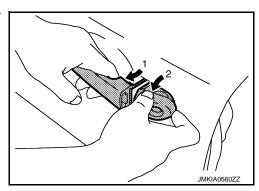
Never forcibly remove the TORX bolt.



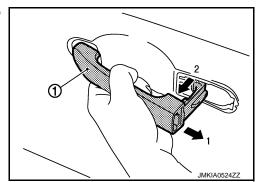
5. Disconnect door antenna and door request switch connector and remove harness clamp.



- 6. Reach in to separate the key rod connection (on the handle).
- 7. While pulling the outside handle, remove door key cylinder assembly.



8. Slide outside handle (1) toward rear of vehicle and pull to remove outside handle.



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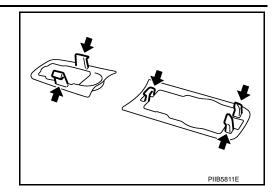
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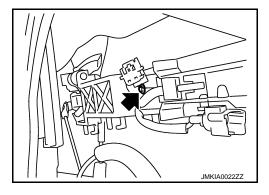
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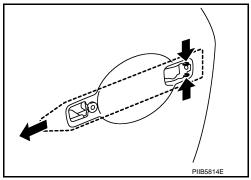
9. Remove the front gasket and rear gasket.



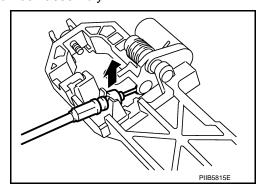
- 10. Remove the TORX bolt, and remove the door lock assembly.
- 11. Remove the TORX bolt of the outside handle bracket.



12. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.



- 13. Disconnect the door lock actuator connector and remove the door lock assembly.
- 14. Reach in to separate the outside handle cable connection.



## **INSTALLATION**

Install in the reverse order of removal.

**CAUTION:** 

To install each rod, rotate the rod holder until a click is felt. REAR DOOR LOCK

# REAR DOOR LOCK: Exploded View

SEC. 825 **3** 4 9 5.8 (0.6, 51.4) 4 **9** 5.8 (0.6, 51.4) **4 2 9** 6.0 (0.6, 51.0)⑥ ፷፰ 4 X 17.0 (1.7, 12.0)

- Outside handle escutcheon
- TORX bolt 4.
- Inside handle 7.
- 10. Outside handle
- Outside handle bracket

5.

Rear gasket

Striker

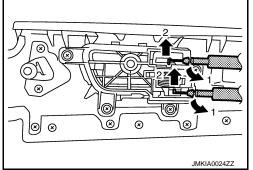
- 3. Grommet
- 6. Door lock assembly
- 9. Front gasket

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

# REAR DOOR LOCK: Removal and Installation

**REMOVAL** 1. Remove the rear door finisher. Refer to INT-11, "Removal and Installation".

Disconnect the inside handle knob cable and lock knob cable from the back side of the rear door finisher.



- Remove the rear door glass. Refer to <u>GW-18</u>, "<u>Removal and Installation</u>".
- Remove door side grommet, and remove outside handle escutcheon TORX bolt from grommet hole. **CAUTION:**

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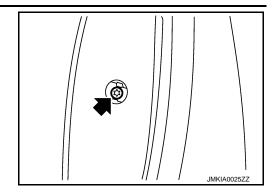
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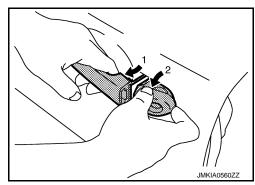
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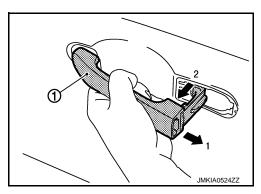
**DLK-217** Revision: 2013 February 2012 G Sedan Never forcibly remove the TORX bolt.



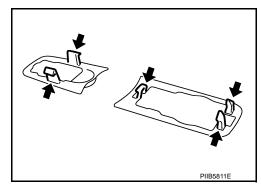
5. While pulling the outside handle, remove outside handle escutcheon.



6. Slide outside handle (1) toward rear of vehicle and pull to remove outside handle.



7. Remove the front gasket and rear gasket.

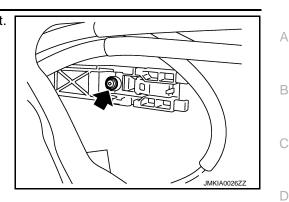


8. Remove the TORX bolt, remove the door lock assembly.

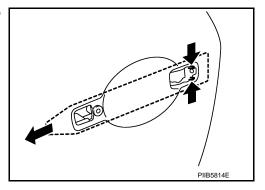
### **DOOR LOCK**

#### < REMOVAL AND INSTALLATION >

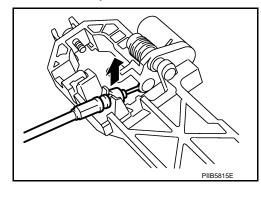
9. Remove the TORX bolt, and remove the outside handle bracket.



10. While pulling outside handle, slide toward rear of vehicle to remove outside handle.



- 11. Disconnect the door lock actuator connector and remove the door lock assembly.
- 12. Reach in to separate outside handle cable connection.



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#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

To install each rod, rotate the rod holder until a click is felt.

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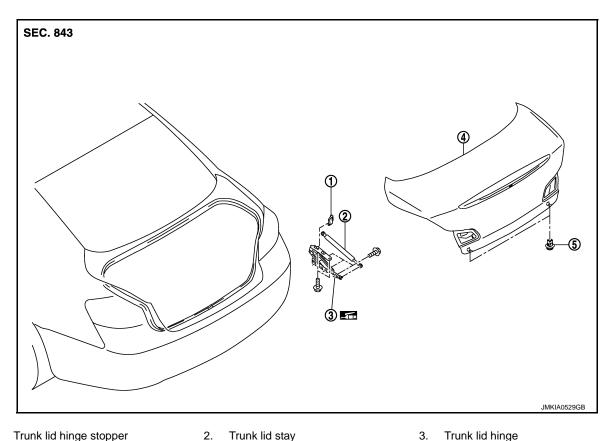
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# TRUNK LID

TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY: Exploded View

INFOID:0000000007465604



- Trunk lid hinge stopper Trunk lid assembly
- 2. Trunk lid stay
- Bumper rubber

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

#### TRUNK LID ASSEMBLY: Removal and Installation

INFOID:0000000007465605

#### **REMOVAL**

- 1. Remove trunk lid finisher inner. Refer to <a href="INT-31">INT-31</a>, "Removal and Installation".
- 2. Disconnect the connectors in the trunk lid, and remove the harness clamps to pull the harness out of the
- 3. Insert flat-bladed screwdriver into the gap and remove holder.
- 4. Remove trunk lid stay.

#### **WARNING:**

Body injury may occur if no supporting rod is holding the trunk lid open when removing the damper stay.

5. Remove the trunk lid hinge mounting bolts on trunk lid side and remove the trunk lid assembly.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- After installing, apply touch-up paint (the body color) onto the head of the hinge mounting bolts.
- After installing, check operation.
- After installing, perform fitting adjustment. Refer to DLK-221, "TRUNK LID ASSEMBLY: Adjustment".

# TRUNK LID ASSEMBLY : Adjustment

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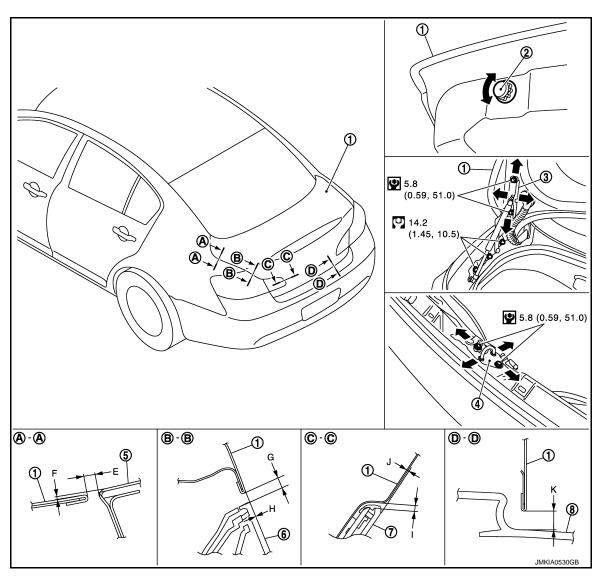
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- 1. Trunk lid assembly
- 4. Trunk lid striker
- 7. Back up lamp

- Bumper rubber
- 5. Rear fender
- 8. Rear bumper

- 3. Trunk lid hinge
- 6. Rear combination lamp

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

1. Check the clearance and the evenness between the trunk lid and each part visually and by touching. (Fitting standard dimension in the table below should be satisfied.Åj

Pe	ortion		Standard	Right/left Clearance (MAX)	
Trunk lid – Rear fender	A – A	Е	Clearance	2.5 – 4.5 mm (0.098 – 0.177 in)	1.5 mm (0.059 in)
		F	Surface height	-1.5 - 0.5 mm (0.059 - 0.020 in)	1.5 mm (0.059 in)
Trunk lid – Rear combination lamp	B – B	G	Clearance	3.9 – 7.1 mm (0.154 – 0.280 in)	2.1 mm (0.083 in)
		н	Surface height	-2.1 - 0.9 mm (-0.083 - 0.035 in)	2.0 mm (0.079 in)

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	Portion		Standard	Right/left Clearance (MAX)	
Trunk lid – Back–up lamp	C – C	1	Clearance	1.7 – 3.7 mm (0.067 – 0.146 in)	1.2 mm (0.047 in)
	0-0	J	Surface height	-1.8 – 0.6 mm (-0.071 – 0.024 in)	1.5 mm (0.059 in)
Trunk lid – Rear bumper	D – D	K	Clearance	4.0 – 8.0 mm (0.157 – 0.315 in)	_

- In case out of specification, adjust them according to the procedures shown below.
- 3. Loosen the bumper rubber.
- 4. Loosen the striker mounting bolts.
- 5. Lift up the trunk lid approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with the trunk lid closed.
- 6. Check the clearance and evenness.
- 7. Finally tighten the trunk lid striker.

# TRUNK LID ASSEMBLY : Disposal

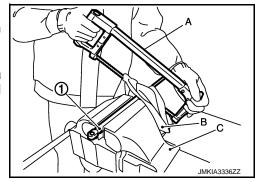
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#### DISPOSAL OF TRUNK LID STAY

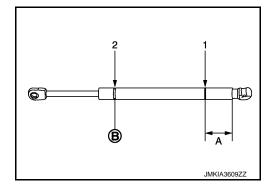
- 1. Fix trunk lid stay (1) using a vise (C).
- 2. Using hacksaw (A) slowly make 2 holes in the trunk lid stay, in numerical order as shown in the figure.

#### **CAUTION:**

- When cutting a hole on trunk lid stay, always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil.
- Wear eye protection (safety glasses).
- · Wear gloves.



A: 20 mm (0.787 in)B: Cut at the groove.



TRUNK LID LOCK

# TRUNK LID LOCK: Exploded View

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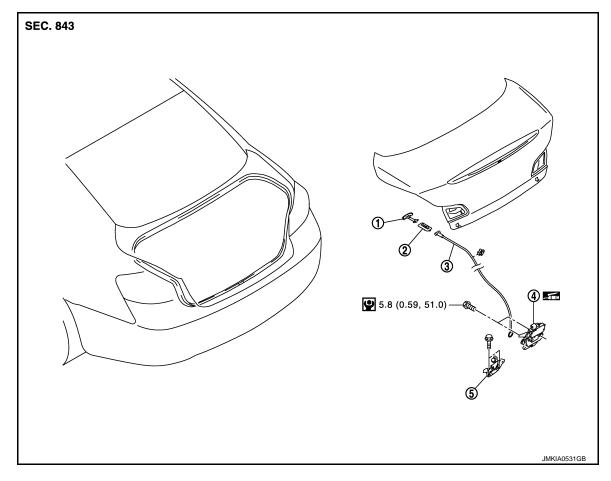
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- Trunk lid emergency opener lever
- Trunk lid emergency opener lever holder
- 3. Trunk lid opener cable

Trunk lid lock

5. Trunk lid striker

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

# TRUNK LID LOCK: Removal and Installation

1. Remove the trunk lid finisher inner. Refer to <a href="INT-31">INT-31</a>, "Removal and Installation".

- 2. Remove the trunk lid emergency opener lever.
- 3. Disconnect the trunk lid opener cable.
- 4. Disconnect the connector from trunk lid lock.
- 5. Remove the mounting bolts, and remove the trunk lid lock.

#### **INSTALLATION**

**REMOVAL** 

Install in the reverse order of removal.

#### NOTE:

- After installing, perform trunk lid fitting adjustment. Refer to <u>DLK-221, "TRUNK LID ASSEMBLY: Adjustment"</u>.
- After installing, check the operation.

#### TRUNK LID WEATHERSTRIP

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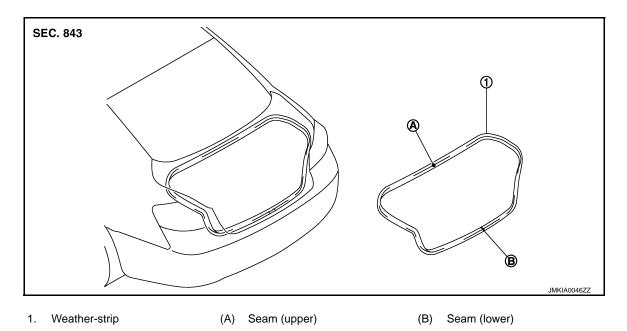
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Revision: 2013 February

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# TRUNK LID WEATHERSTRIP: Exploded View

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#### TRUNK LID WEATHERSTRIP: Removal and Installation

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#### **REMOVAL**

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

#### **CAUTION:**

After removal, never pull strongly on the weather-strip.

#### **INSTALLATION**

- 1. Align the weather-strip seam (upper) with mark of the body panel and weather-strip onto the vehicle.
- 2. Align the weather-strip seem (lower) with center of the striker and weather-strip onto the vehicle.
- After installation, pull the weather-strip gently to ensure that there is no loose section.
   NOTE:

Check that the weather-strip fits tightly at each corner and trunk rear plate.

# **FUEL FILLER LID OPENER**

**Exploded View** 

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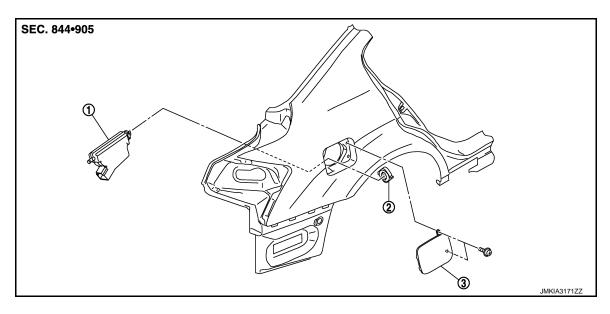
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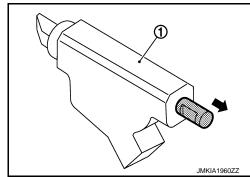
- 1. Fuel filler lid opener actuator
- 2. Lock nut

3. Fuel filler lid assembly

#### Removal and Installation

#### NOTE:

When fuel filler lid opener actuator (1) is a defective operation, pull the rod to open fuel filler lid.



**REMOVAL** 

- Remove mounting screws, and then remove fuel filler lid.
- 2. Rotate lock nut counterclockwise, and then remove lock nut.
- 3. Push fuel filler lid opener actuator behind the vehicle.
- Remove trunk side finisher (RH). Refer to <u>INT-29, "Removal and Installation"</u>.
- 5. Disconnect harness connector and remove fuel filler lid opener actuator.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

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Revision: 2013 February DLK-225 2012 G Sedan

# **DOOR SWITCH**

# < REMOVAL AND INSTALLATION >

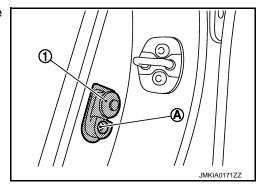
# **DOOR SWITCH**

# Removal and Installation

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### **REMOVAL**

1. Remove the door switch mounting bolt (A), and then remove door switch (1).



### **INSTALLATION**

### **INSIDE KEY ANTENNA**

#### < REMOVAL AND INSTALLATION >

# INSIDE KEY ANTENNA

**INSTRUMENT CENTER** 

INSTRUMENT CENTER: Exploded View

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Refer to IP-11, "A/T MODELS: Exploded View".

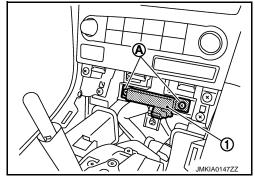
**INSTRUMENT CENTER:** Removal and Installation

INFOID:0000000007465616

#### **REMOVAL**

1. Remove the console finisher. Refer to IP-12, "A/T MODELS: Removal and Installation".

2. Remove the key slot mounting screw (A), and then remove inside key antenna (instrument center) (1).



**INSTALLATION** 

Install in the reverse order of removal.

CONSOLE

**CONSOLE**: Exploded View

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Refer to IP-33, "A/T MODELS: Exploded View".

CONSOLE: Removal and Installation

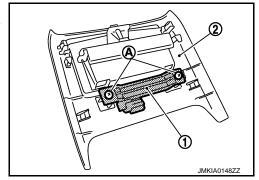
INFOID:0000000007465618

#### **REMOVAL**

1. Remove the console ashtray.

2. Remove the console rear finisher (2). Refer to <a href="IP-36">IP-36</a>, "A/T MODELS: Disassembly and Assembly".

 Remove the inside key antenna mounting screw (A), and then remove inside key antenna (console) (1) from console rear finisher (2).



**INSTALLATION** 

Install in the reverse order of removal.

TRUNK ROOM

TRUNK ROOM: Exploded View

Refer to INT-29, "Exploded View".

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#### **INSIDE KEY ANTENNA**

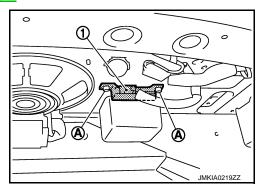
### < REMOVAL AND INSTALLATION >

# TRUNK ROOM: Removal and Installation

INFOID:0000000007465620

#### **REMOVAL**

- 1. Remove the trunk trim. Refer to <a href="INT-29">INT-29</a>, "Removal and Installation".
- 2. Remove the inside key antenna (trunk room) mounting nuts (A), and then remove inside key antenna (trunk room) (1).



#### **INSTALLATION**

### **OUTSIDE KEY ANTENNA**

### < REMOVAL AND INSTALLATION >

# **OUTSIDE KEY ANTENNA**

**DRIVER SIDE** 

DRIVER SIDE: Exploded View

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Refer to DLK-214, "FRONT DOOR LOCK: Exploded View".

DRIVER SIDE: Removal and Installation

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**REMOVAL** 

Remove the front outside handle LH. Refer to DLK-214, "FRONT DOOR LOCK: Removal and Installation".

INSTALLATION

Install in the reverse order of removal.

PASSENGER SIDE

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PASSENGER SIDE: Exploded View

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Refer to DLK-214, "FRONT DOOR LOCK: Exploded View".

PASSENGER SIDE: Removal and Installation

INFOID:0000000007465624

REMOVAL

Remove the front outside handle RH. Refer to <u>DLK-214, "FRONT DOOR LOCK: Removal and Installation"</u>.

INSTALLATION

Install in the reverse order of removal.

REAR BUMPER

REAR BUMPER: Exploded View

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Refer to EXT-18, "Exploded View".

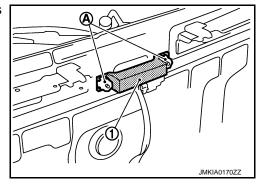
REAR BUMPER: Removal and Installation

INFOID:0000000007465626

#### **REMOVAL**

1. Remove the rear bumper. Refer to EXT-19, "Removal and Installation".

Remove the outside key antenna (rear bumper) mounting nuts (A), and then remove outside key antenna (rear bumper) (1).



# **INSTALLATION**

Install in the reverse order of removal.

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**DLK-229** Revision: 2013 February 2012 G Sedan

### INTELLIGENT KEY WARNING BUZZER

### < REMOVAL AND INSTALLATION >

# INTELLIGENT KEY WARNING BUZZER

Exploded View

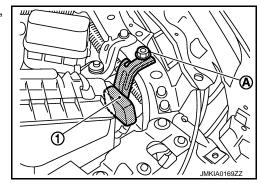
Refer to DLK-207, "Exploded View".

Removal and Installation

#### INFOID:0000000007465628

#### **REMOVAL**

- 1. Remove the hood seal assembly (side). Refer to <u>DLK-198, "HOOD ASSEMBLY: Exploded View"</u>.
- 2. Remove the Intelligent Key warning buzzer mounting bolt (A), and then remove the Intelligent Key warning buzzer (1).



#### INSTALLATION

### **KEY SLOT**

#### < REMOVAL AND INSTALLATION >

# **KEY SLOT**

Exploded View

Refer to IP-11, "A/T MODELS: Exploded View".

### Removal and Installation

INFOID:0000000007465630

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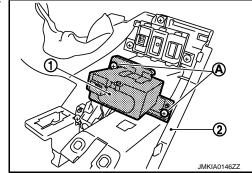
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#### **REMOVAL**

- 1. Remove the instrument driver lower panel (2). Refer to IP-12, "A/T MODELS: Removal and Installation".
- 2. Disconnect key slot connector.
- 3. Remove the key slot mounting screw (A), and then remove key slot (1) from instrument driver lower panel (2).



#### **INSTALLATION**

Install in the reverse order of removal.

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Revision: 2013 February DLK-231 2012 G Sedan

### TRUNK OPENER REQUEST SWITCH

< REMOVAL AND INSTALLATION >

# TRUNK OPENER REQUEST SWITCH

Exploded View

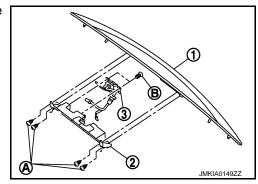
Refer to EXT-41, "Exploded View".

Removal and Installation

#### INFOID:0000000007465632

#### **REMOVAL**

- 1. Remove the trunk lid finisher outer (1). Refer to EXT-41, "Removal and Installation".
- 2. Remove the inner bracket mounting screw (A), and then remove inner bracket (2) from trunk lid finisher outer (1).



3. Remove the trunk lid request switch mounting screw (B), and then remove trunk lid request switch (3) from inner bracket (2).

#### INSTALLATION

### TRUNK LID OPENER SWITCH

#### < REMOVAL AND INSTALLATION >

# TRUNK LID OPENER SWITCH

Exploded View

Refer to IP-11, "A/T MODELS: Exploded View".

Removal and Installation

INFOID:0000000007465634

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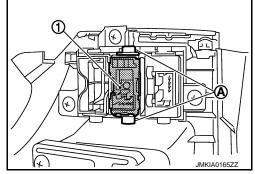
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#### **REMOVAL**

- 1. Remove the instrument driver lower panel. Refer to IP-12, "A/T MODELS: Removal and Installation".
- Remove the trunk lid opener switch (1) from instrument driver lower panel, and then remove pawl (A). Press trunk lid opener switch (1) front side to disengage from instrument driver lower panel.



#### **INSTALLATION**

Install in the reverse order of removal.

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### TRUNK LID OPENER CANCEL SWITCH

< REMOVAL AND INSTALLATION >

# TRUNK LID OPENER CANCEL SWITCH

Exploded View

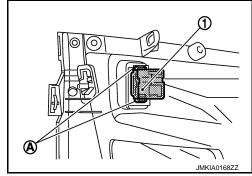
Refer to IP-11, "A/T MODELS: Exploded View".

### Removal and Installation

#### INFOID:0000000007465636

### **REMOVAL**

- 1. Remove the instrument assist lower panel. Refer to IP-12, "A/T MODELS: Removal and Installation".
- Remove the trunk lid opener cancel switch (1) instrument assist lower panel, and then remove pawl (A). Press trunk lid opener cancel switch (1) backside to disengage from instrument assist lower panel.



#### **INSTALLATION**

### REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

# REMOTE KEYLESS ENTRY RECEIVER

Exploded View

Refer to IP-11, "A/T MODELS: Exploded View".

Removal and Installation

INFOID:0000000007465638

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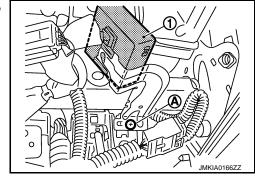
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#### **REMOVAL**

- 1. Remove the instrument assist lower panel. Refer to IP-12, "A/T MODELS: 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.

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