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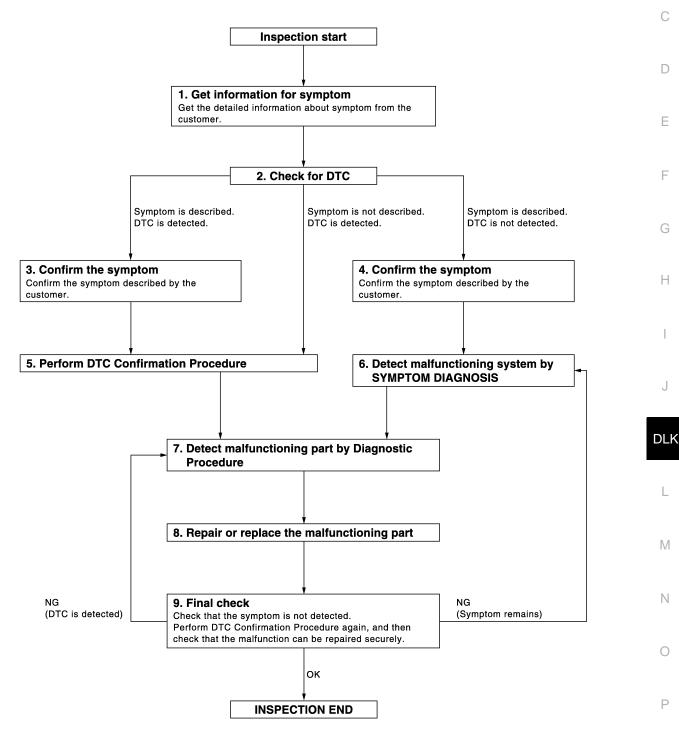
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# BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW Work Flow

**OVERALL SEQUENCE** 



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#### DIAGNOSIS AND REPAIR WORK FLOW

#### < BASIC INSPECTION >

# 1.GET INFORMATION FOR SYMPTOM

Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

# 2. CHECK FOR DTC

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

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

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

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

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

# 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in the "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

# 4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in the "DATA MONITOR" mode and check real time diagnosis results. 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 displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <a href="DLK-176">DLK-176</a>, "DTC Inspection Priority Chart" (BCM) determine trouble diagnosis order.

#### NOTE:

Perform Component Function Check if DTC Confirmation Procedure is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check. If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Refer to GI-38, "Intermittent Incident".

#### $oldsymbol{6}.$ 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 symptoms.

>> GO TO 7.

# 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

#### NOTE:

The Diagnostic Procedure described is based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

#### DIAGNOSIS AND REPAIR WORK FLOW

#### < BASIC INSPECTION >

#### Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check voltage of related BCM terminals using CONSULT-III.

# 8.repair or replace the malfunctioning part

- Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
- 3. Check for DTC. If DTC is displayed, erase it.

>> GO TO 9.

# 9. FINAL CHECK

When DTC is detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction is completely repaired.

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

#### Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.

YES (Symptom remains)>>GO TO 6.

NO >> INSPECTION END

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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.

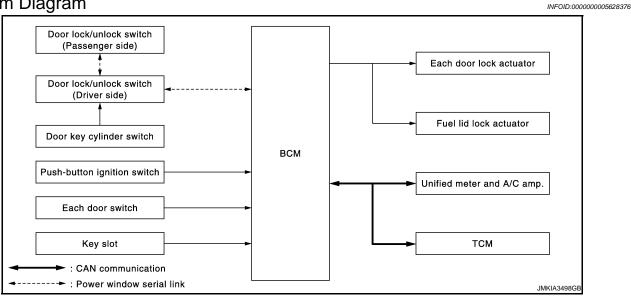
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

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

# SYSTEM DESCRIPTION

# POWER DOOR LOCK SYSTEM

System Diagram



# System Description

#### DOOR LOCK FUNCTION

Door Lock and Unlock Switch

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

#### Door Key Cylinder Switch

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

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-51</u>, "DOOR LOCK: <u>CONSULT-III 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-7">PWC-7</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.

#### (I) With CONSULT-III

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-III.

#### Without CONSULT- III

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
- 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- III

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-III.

#### ₩ Without CONSULT- III

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 >

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

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

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 $^{\star 2}$ : This function does not operate on M/T models.

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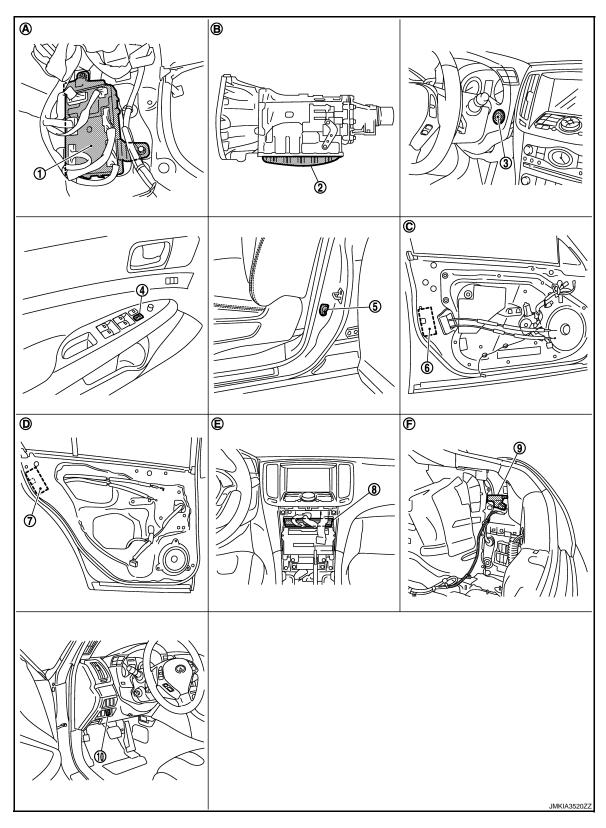
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# Component Parts Location

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- 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
- 5. Front door switch (driver side) B16
- Unified meter and A/C amp. M67
- 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)

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

E.

View with driver side door finisher removed

View with rear door finisher LH removed

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

\*:With A/T models

Push-button ignition switch

# Component Description

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.	

Inputs push-button ignition switch ON/OFF condition to BCM.

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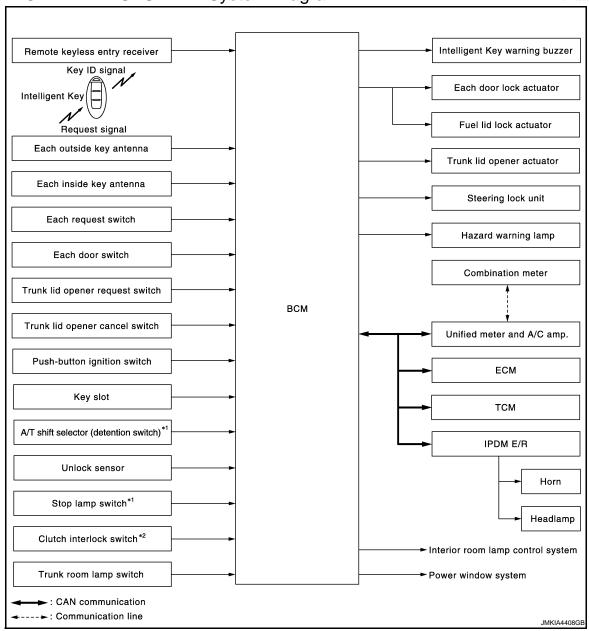
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# INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM

# INTELLIGENT KEY SYSTEM: System Diagram

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- \*1: With 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-III.
- 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-III.

# < 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.	
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.	
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.	<u>DLK-40</u>
Engine start function	The engine can be turned on while carrying the Intelligent Key.	SEC-9

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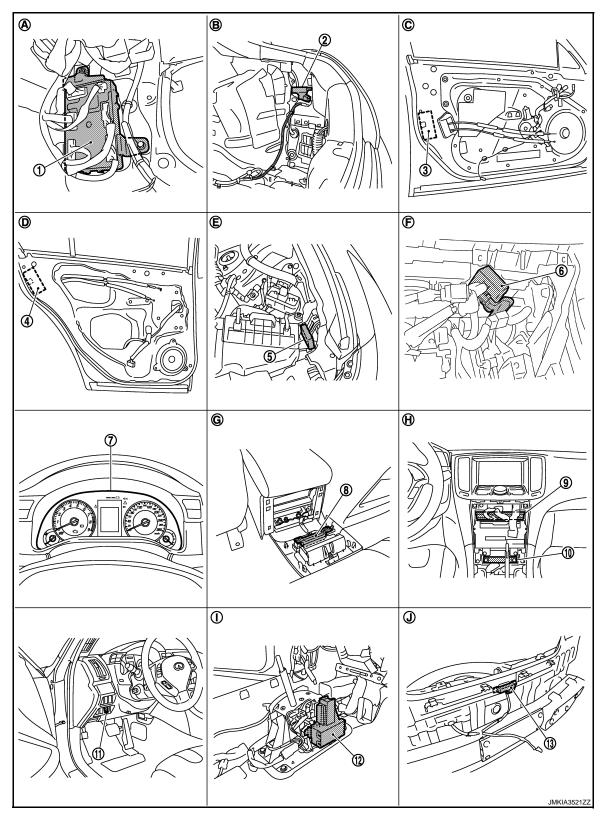
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# INTELLIGENT KEY SYSTEM: Component Parts Location

INFOID:0000000005628382



- 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

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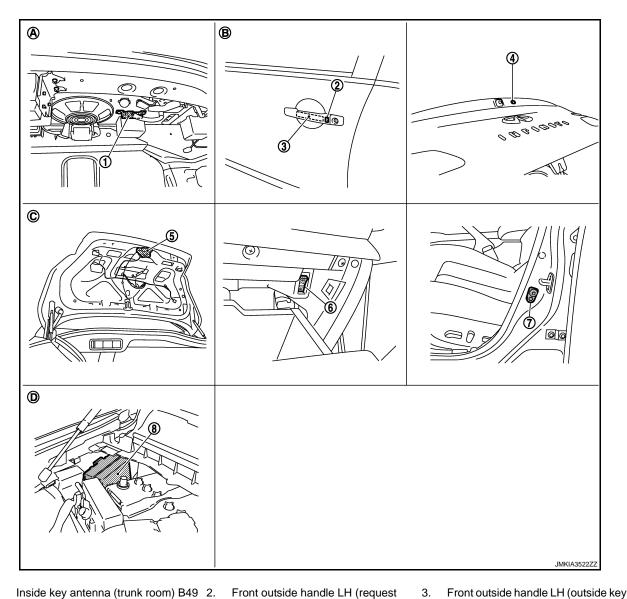
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- Р
- Trunk lid opener cancel switch M105 6.

antenna) D14

View with trunk lid finisher 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

# < SYSTEM DESCRIPTION >

# INTELLIGENT KEY SYSTEM : Component Description

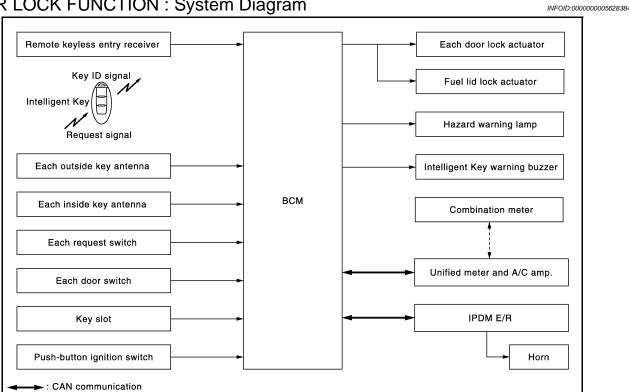
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Item	Function
BCM	Controls the Intelligent Key system.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Fuel lid lock actuator	Performs 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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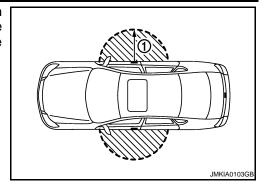
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#### < SYSTEM DESCRIPTION >

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-III Function</u> (BCM - DOOR LOCK)".

#### 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-52, "INTELLIGENT KEY: CONSULT-III 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-52</u>, "INTELLIGENT KEY: CONSULT-III 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-5">INL-5</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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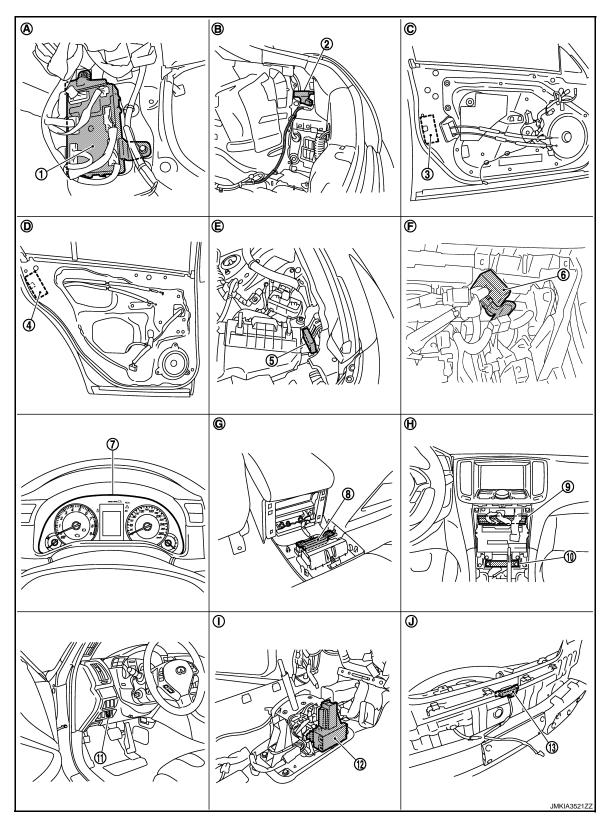
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# DOOR LOCK FUNCTION: Component Parts Location

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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 >

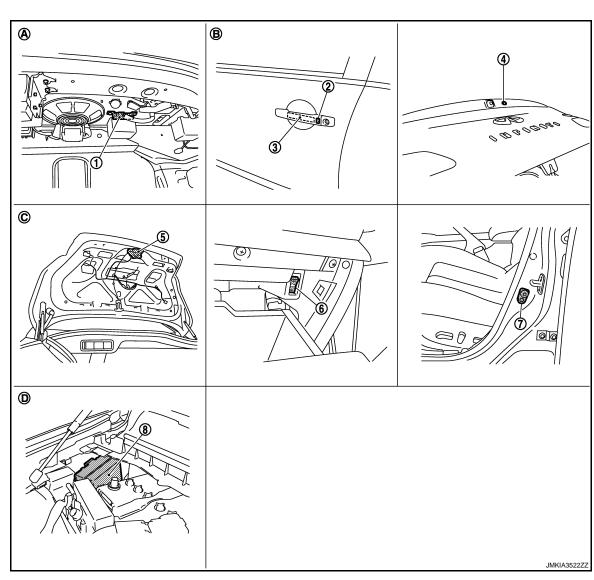
- Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- A. Dash side lower (passenger side)
- View with rear door finisher LH removed
- G. View with console rear finisher removed
- J. View with rear bumper removed

- B. View with trunk side finisher removed
- 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
- A. 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

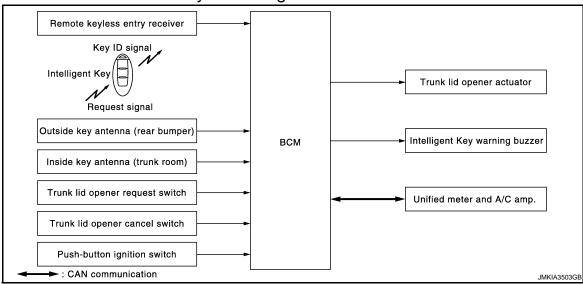
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Item	Function
BCM	Controls the door lock function.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition 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:0000000005628389

#### 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

#### (III) With CONSULT-III

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

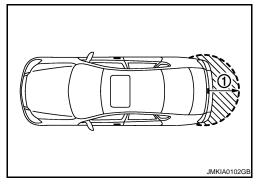
#### **OPERATION CONDITION**

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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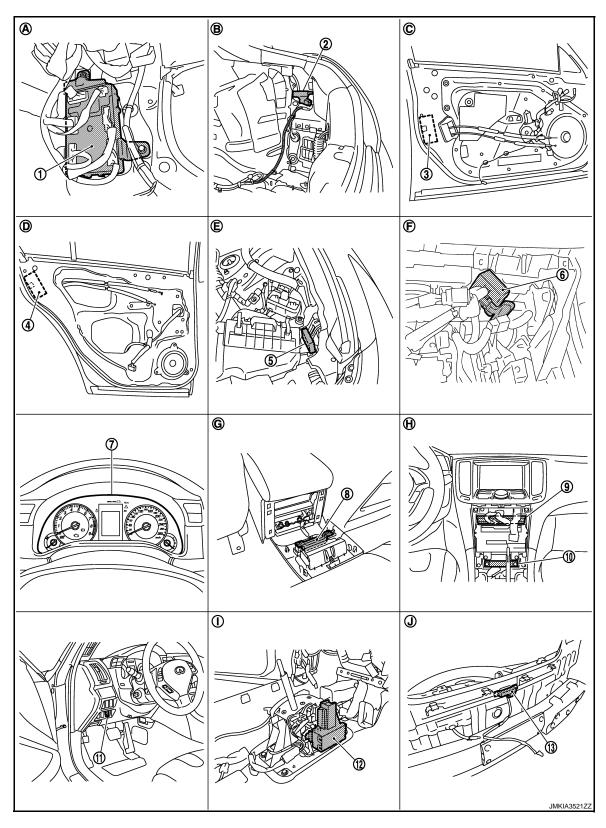
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# TRUNK OPEN FUNCTION: Component Parts Location

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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 >

- 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.

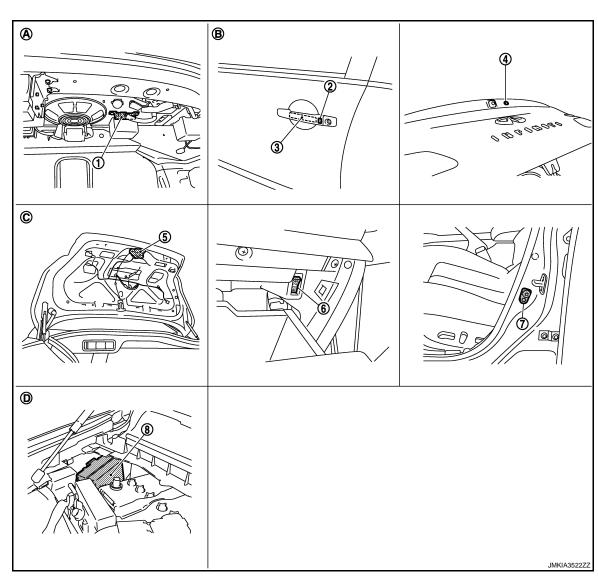
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- E. View with hood seal assembly removed
- View with cluster lid C removed

- 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

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\*: 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

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# TRUNK OPEN FUNCTION: Component Description

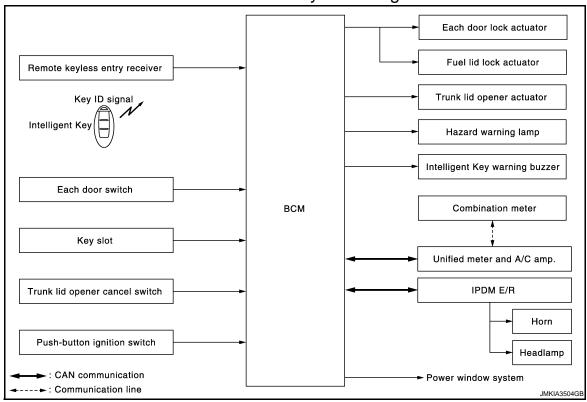
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Item	Function
BCM	Controls the trunk open function.
Trunk lid opener actuator	Transmits trunk open operation to BCM.
Unified meter and A/C amp.	Transmits vehicle seep signal to CAN communication line.
Remote keyless entry receiver	Receives lock/unlock 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:0000000005628392



# REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:0000000005628393

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.

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#### 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	ote 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 DLK-51, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### 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-III. Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### HAZARD AND HORN REMINDER FUNCTION

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				
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

Ν When doors are locked or unlocked by Intelligent Key, BCM blinks hazard warning lamps as a reminder and

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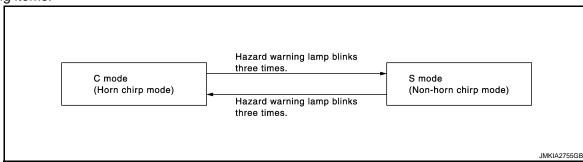
#### < SYSTEM DESCRIPTION >

#### (II) With CONSULT-III

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### **8** Without CONSULT-III

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-52</u>, "INTELLIGENT KEY: CONSULT-III 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/bull-in-mode">DLK-52</a>, "INTELLIGENT KEY: CONSULT-III 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-52</u>, "INTELLIGENT KEY: CONSULT-III 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 <a href="INL-5">INL-5</a>, "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	ВСМ	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				×	×		×	×	×	×	×	×	×		×
Trunk open function by remote control button  Hazard and horn reminder function	×	×					×	×	×	×	×	×	×		×
Trunk open function by remote control button  Hazard and horn reminder function  Selective unlock function	×						×	×	×	×	×	×	×		×

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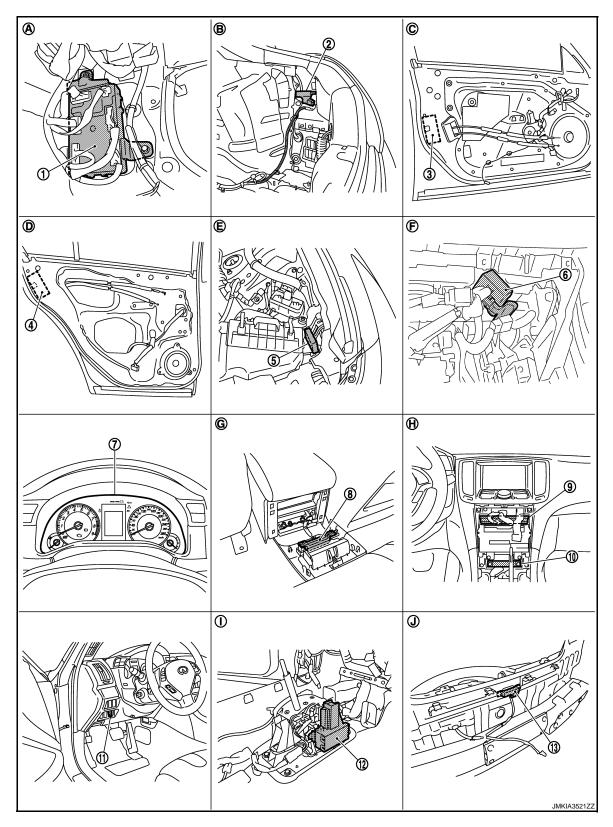
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# REMOTE KEYLESS ENTRY FUNCTION: Component Parts Location

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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 >

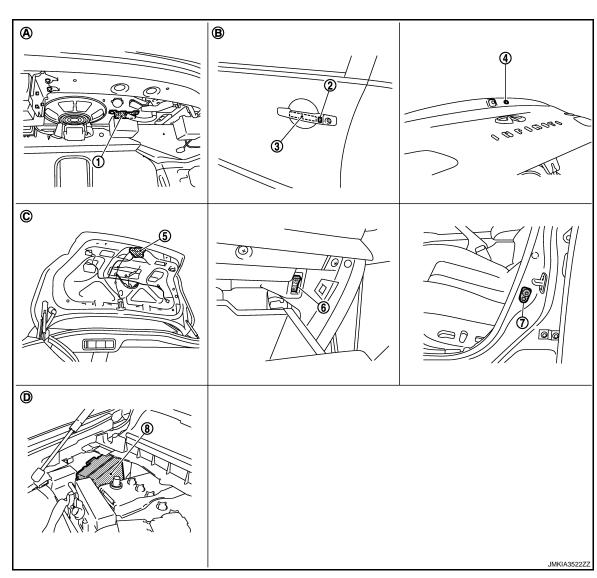
- 10. Inside key antenna (instrument cen- 11. Key slot M22 ter) M131
- 13. Outside key antenna (rear bumper) B63
- Dash side lower (passenger side)
- D. View with rear door finisher LH removed
- G. View with console rear finisher removed
- View with rear bumper removed
- View with trunk side finisher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

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# REMOTE KEYLESS ENTRY FUNCTION: Component Description

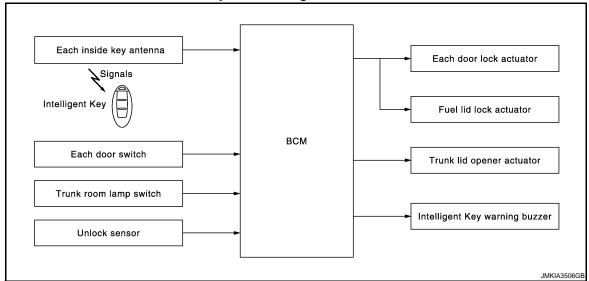
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Item	Function
BCM	Controls the door lock function and trunk open function.
IPDM E/R	Sounds horn and blinks head lamp via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	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:0000000005628396



# KEY REMINDER FUNCTION : System Description

INFOID:0000000005628397

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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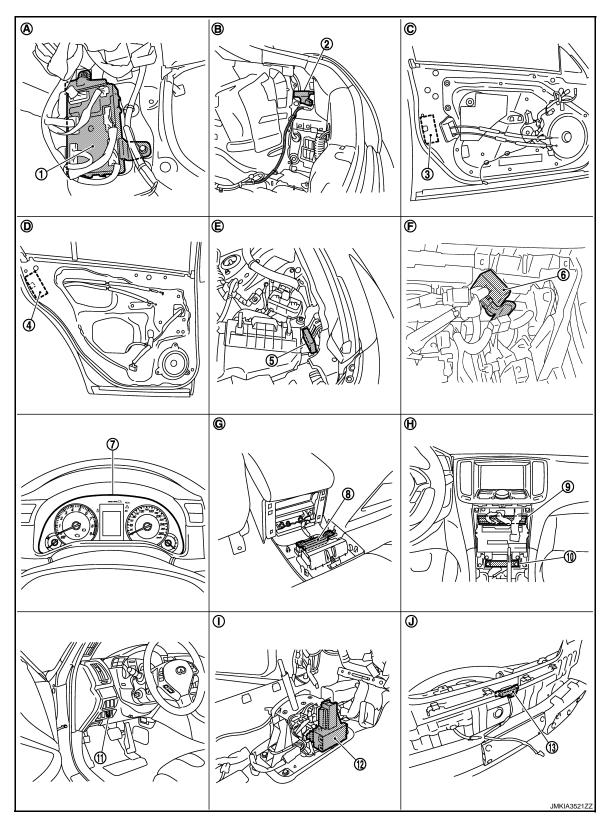
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# KEY REMINDER FUNCTION : Component Parts Location

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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 removed
- 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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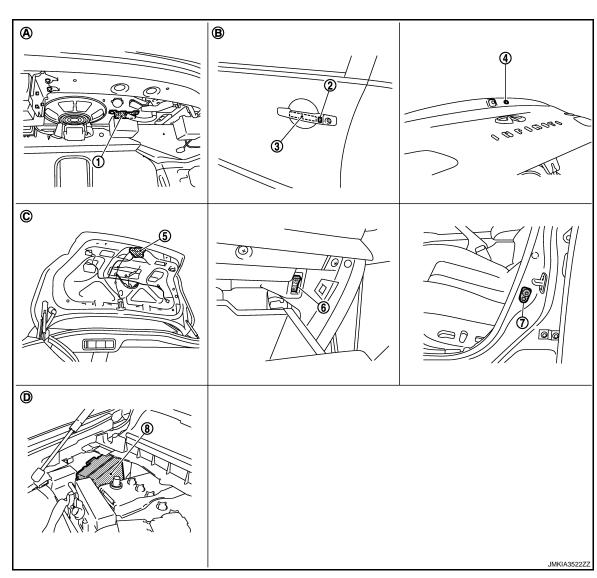
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\*: With A/T models



- 1. Inside key antenna (trunk room) B49 2.
- 4. Trunk lid opener request switch B304
- 7. Front door switch (driver side) B16
- A. 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

### WARNING FUNCTION

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#### < SYSTEM DESCRIPTION >

## WARNING FUNCTION: System Description

INFOID:0000000005628399

#### **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.
	For internal	<ul><li>Ignition switch: ACC position.</li><li>Door switch (driver side): ON (Door is open).</li></ul>
OFF position warning	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)
P position warning*	For internal	<ul> <li>Shift position: Except P position.</li> <li>Engine is running to stopped (Ignition switch is ON to OFF).</li> </ul>
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>
	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.
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 info	ormation	<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>

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### < SYSTEM DESCRIPTION >

Warning/Inforr	nation functions	Operation procedure
	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	ation functions	"KEY" warn- ing lamp	Information display (combination meter)	Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key syster	m malfunction	Illuminate	_	_	_	_
OFF position warn-	For internal	_	_	_	Activate	_
ing	For external*	_	_	_	_	Activate
	For internal			_	Activate	_
P position warning*	For external	_	SHIFT JMKIA0037GB	_		Active
ACC warning*		_	PUSH JMKIA0047GB	_	_	_
	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

# < SYSTEM DESCRIPTION >

					Warning	g chime
Warning/Inform	ation functions	"KEY" warn- ing lamp	Information display (combination meter)	Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer
Key ID warning		_	NO KEY  JMKIA0036GB	_	_	_
Key warning		_	JMKIA0035GB	Blink	Activate	_
Intelligent Key inser	t information	_	JMKIA0034GB	Indicate	_	_
Engine start infor-	Automatic trans mission models	_	BRAKE JMKIA0032GB	_	_	_
mation	Manual trans- mission models	_	CLUCH JMKIA0049GB	_	_	_

### < SYSTEM DESCRIPTION >

				Warning chime				
Warning/Information functions	"KEY" warn- Information display K ing lamp (combination meter)		Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer			
Steering lock information		JMKIA0033GB	_	_	_			
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.

Warning	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 F 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 inform	nation	×	×	×	×		×				×	×	×	×		

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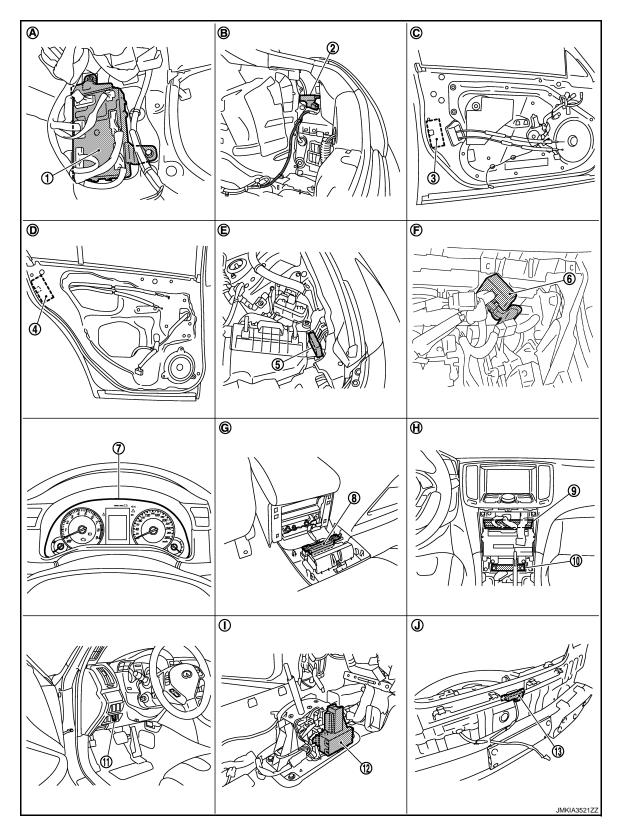
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- BCM M118, M119, M120, M121, M122, M123
- 4. Rear door lock assembly LH D55
- 7. Combination meter M53
- 2. Fuel lid lock actuator B242
- 5. Intelligent Key warning buzzer E57
- 8. Inside key antenna (console) M146
- Front door lock assembly (driver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

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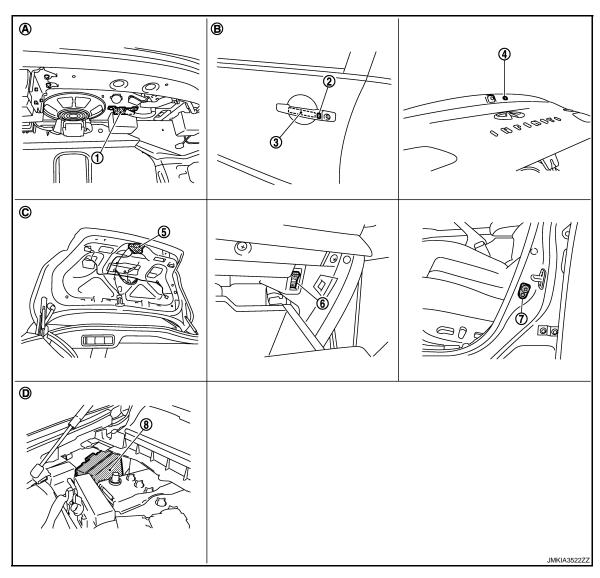
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#### < SYSTEM DESCRIPTION >

- 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



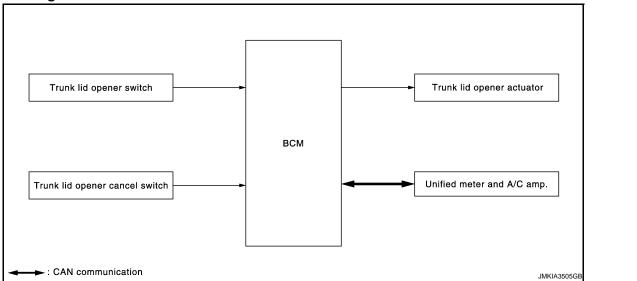
- Inside key antenna (trunk room) B49 2.
- Trunk lid opener request switch 4. B304
- Front door switch (driver side) B16
- View with trunk front finisher removed
- Engine room dash panel (RH)
- Front outside handle LH (request switch) D13
- Trunk lid lock assembly B303 5.
- 8. IPDM E/R E5, E6
- View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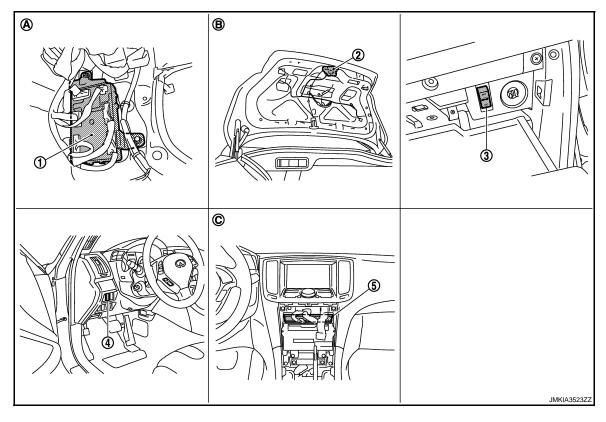
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# Component Parts Location

INFOID:0000000005628403



- 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:0000000005628404

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:0000000005628405

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-III Function (BCM - COMMON ITEM)

INFOID:0000000005881713

#### APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
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

System	Sub system selection item	Diagnosis mode						
System	Sub system selection item	Work Support	Data Monitor	Active Test				
Door lock	DOOR LOCK	×	×	×				
Rear window defogger	REAR DEFOGGER		×	×				
Warning chime	BUZZER		×	×				
Interior room lamp timer	INT LAMP	×	×	×				
Exterior lamp	HEAD LAMP	×	×	×				
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		×	×				
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	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-III.

<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 mo	ment 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		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	The number is 0 wher the number increases whenever ignition switches.	t ignition switch is turned ON after DTC is detected a malfunction is detected now. If the second is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition of OFF $\rightarrow$ ON.

DOOR LOCK

DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)

INFOID:0000000005628407

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### **BCM CONSULT-III FUNCTION**

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
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** 

### < SYSTEM DESCRIPTION >

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**

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

# **INTELLIGENT KEY**

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID-000000005628408

**WORK SUPPORT** 

# < SYSTEM DESCRIPTION >

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode.  • 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  • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below.  • 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 DLK-177, "DTC Index".

**DATA MONITOR** 

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## < SYSTEM DESCRIPTION >

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	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of steering lock relay.
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	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/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.

## < SYSTEM DESCRIPTION >

Monitor Item	Condition
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-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation.  The Intelligent Key warning buzzer is activated after "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation.  • Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched.  • Key warning chime sounds when "KEY" on CONSULT-III screen is touched.  • OFF position warning chime sounds when "KNOB" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation.  • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched.  • "KEY" Warning lamp blinks when "KEY IND" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.
LCD	This test is able to check meter display information  • Engine start information displays when "BP N" on CONSULT-III screen is touched.  • Engine start information displays when "BP I" on CONSULT-III screen is touched.  • Key ID warning displays when "ID NG" on CONSULT-III screen is touched.  • Steering lock information displays when "ROTAT" on CONSULT-III screen is touched.  • P position warning displays when "SFT P" on CONSULT-III screen is touched.  • Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched.  • Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched.  • Take away through window warning displays when "NO KY" on CONSULT-III screen is touched.  • Take away warning display when "OUTKEY" on CONSULT-III screen is touched.  • OFF position warning display when "LK WN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps are activated after "LH/RH/OFF" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT-III screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation.  Push-ignition switch illumination illuminates when "ON" on CONSULT-III screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation.  LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation.  ACC indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check on indicator in push-ignition switch operation.  ON indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.

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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
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.

## TRUNK

# TRUNK: CONSULT-III Function (BCM - TRUNK)

INFOID:0000000005628409

### **BCM CONSULT-III FUNCTION**

CONSULT-III 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-III screen is touched.

#### **U1000 CAN COMM CIRCUIT**

#### < DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS

## U1000 CAN COMM CIRCUIT

Description INFOID:000000005628410

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-28, "CAN System Specification Chart".

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III 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:0000000005628412

## 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-19, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-38, "Intermittent Incident".

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

### < DTC/CIRCUIT DIAGNOSIS >

# U1010 CONTROL UNIT (CAN)

DTC Logic

#### DTC DETECTION LOGIC

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

# Diagnosis Procedure

INFOID:0000000005628414

# 1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

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

# Special Repair Requirement

INFOID:0000000005628415

## 1. REQUIRED WORK WHEN REPLACING BCM

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

>> INSPECTION END

### **B2621 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2621 INSIDE ANTENNA**

Description INFOID:000000005628416

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

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III 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.

(+) BCM			(–) Condition		Signal (Reference value)
Connect	or	Terminal			
Instrument center	M122	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 1
				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	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M122	78	M131	2	Existed
IVI 122	79	WITST	1	Existed

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	tor	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-252, "INSTRUMENT CENTER:</u> <u>Removal and Installation"</u>.

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

### **B2622 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

# **B2622 INSIDE ANTENNA**

Description INFOID:0000000005628419

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

DTC Logic INFOID:0000000005628420

#### DTC DETECTION LOGIC

DTC	CONSULT-III 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

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

### Is inside key antenna DTC detected?

>> Refer to DLK-61, "Diagnosis Procedure". YES

NO >> Inside key antenna (console) 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.

Coni	(+) BCM Connector Terminal		ВСМ		(-)	Condition	Signal (Reference value)
Console	M122	72, 73	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB		
Console	WILE	12,10	Clound	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s		

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

- 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 >

Е	BCM	Inside key ant	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M122	72	M146	2	Existed
IVIIZZ	73	W1140	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 Connector Terminal		(-)	Condition	Signal (Reference value)	
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-252, "CONSOLE : Removal and Installation"</u>.

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

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

### **B2623 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### **B2623 INSIDE ANTENNA**

Description INFOID:0000000005628422

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

DTC Logic

#### DTC DETECTION LOGIC

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

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-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 Connector Terminal		(-) Condition		Signal (Reference value)	
		Terminal			(Noronomoc value)
Trunk room	M121	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 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.

В	СМ	Inside key ante	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M121	34	B49	2	Existed
IVIIZI	35	D49	1	LAISIEU

3. Check continuity between BCM harness connector and ground.

В	СМ		
Connector	Terminal	Ground	Continuity
M121	34	Ground	Not existed
IVITZT	35		INOL EXISTER

### 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 JMKIA0063GB

#### Is the inspection result normal?

YES >> Replace inside key antenna (trunk room). Refer to <u>DLK-253, "TRUNK ROOM: Removal and Installation"</u>.

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

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

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

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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	Battery 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.

В	(+) CM	(-)	Voltage (Approx.)	
Connector	Terminal	(Approx.)		
M118	1	Ground	Battery voltage	
M119	11	Giodila	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. DLK

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### **DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

## **DOOR SWITCH**

Description INFOID:0000000005628426

Detects door open/close condition.

## Component Function Check

INFOID:0000000005628427

## 1. CHECK FUNCTION

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

Monitor item		Condition	Status
DOOR SW-DR	Driver side door	Open	ON
DOOK 3W-DK	Driver side door	Closed	OFF
DOOD CW AC	December side door	Open	ON
DOOR SW-AS	Passenger side door	Closed	OFF
DOOD OW DI	Deserte and H	Open	ON
DOOR SW-RL	Rear door LH	Closed	OFF
DOOR SW-RR	Rear door RH	Open	ON
DOOK SW-KK	Real door RH	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:0000000005628428

# 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.

	(+) Door switch		(–)	Signal	
Connector Terminal				(Reference 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	Glodina	(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.

	Continuity				
Connector		Terminal Connector Terminal		Continuity	
Driver side	B16		M123	150	
Passenger side	B216	2	IVI 123	124	Existed
Rear LH	B23		M121	69	Existed
Rear RH	B223		IVI I Z I	68	

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

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### **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Door switch				Continuity
Connector		Terminal		Continuity
Driver side	B16		Ground	
Passenger side	B216	2	Giouna	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-251, "Removal and Installation"</u>.

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

#### >> INSPECTION END

# **Component Inspection**

INFOID:0000000005628429

# 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 Ground part of door switch		Door switch	Pressed	Not existed
2	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-251, "Removal and Installation"</u>.

#### DOOR LOCK AND UNLOCK SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

## DOOR LOCK AND UNLOCK SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000005628431

## 1. CHECK FUNCTION

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

Monitor item	Con	Status	
CDL LOCK SW	Door lock and unlock switch	Lock	ON
		Unlock	OFF
CDL UNLOCK SW		Lock	OFF
		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:0000000005628432

# 1. CHECK POWER WINDOW SWITCH

Turn ignition switch ON.

Check power window operation.

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

>> Replace power window main switch.

NO-1 >> Front & rear window anti-pinch models.

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

#### PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000005628433

Transmits door lock/unlock operation to BCM.

### PASSENGER SIDE: Component Function Check

INFOID:0000000005628434

## 1. CHECK FUNCTION

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

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

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-69</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

## PASSENGER SIDE : Diagnosis Procedure

#### INFOID:0000000005628435

# 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

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Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000005628437

INFOID:0000000005628438

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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>".

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## DRIVER SIDE: Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

Turn ignition switch OFF.

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

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

(+)						
Front door lock assembly (driver side)		(–)	Condition		Voltage (V) (Approx.)	
Connector	Terminal					
D15	1	Ground	Door look and unlook awitch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	
DIS	2	Giouria	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-239. "FRONT DOOR LOCK:</u> Removal and Installation".

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector.

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

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M119	8	D15	1	Existed
WITT	9	010	2	LAISIEU

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M119	8	Ground	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.

#### PASSENGER SIDE

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### DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE : Description

INFOID:0000000005628439

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000005628440

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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-72</u>, "PASSENGER SIDE : <u>Diagnosis Procedure"</u>.

### PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000005628441

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

- 1. 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		Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
D45	2	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> Replace front door lock assembly (passenger side). Refer to <u>DLK-239, "FRONT DOOR LOCK:</u>
<u>Removal and Installation"</u>.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Front door lock assembly (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M119	5	D45	1	Existed
	8	D43	2	LXISIEU

3. Check continuity between BCM harness connector and ground.

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
M119	5		Not existed
	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:0000000005628442

Locks/unlocks the door with the signal from BCM.

### DOOR LOCK ACTUATOR

### < DTC/CIRCUIT DIAGNOSIS >

# REAR LH: Component Function Check

#### INFOID:0000000005628443

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# 1. CHECK FUNCTION

- Use CONSULT-III 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:0000000005628444

# 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.

	+) k assembly LH	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D55	1	Ground	Door lock and unlock switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
D33	2	Ground	Door lock and unlock switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

### Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to DLK-242, "REAR DOOR LOCK: Removal and 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.

ВСМ		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	Continuity	
M119	8	Giodila	Not existed	
	10		Not existed	

#### 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:0000000005628445

INFOID:0000000005628446

Locks/unlocks the door with the signal from BCM.

### REAR RH: Component Function Check

# 1. CHECK FUNCTION

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

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### 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:0000000005628447

# 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-242</u>, "<u>REAR DOOR LOCK</u>: <u>Removal and Installation</u>".

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 RH harness connector.

ВСМ		Rear door lock assembly RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D75	2	Existed
WITT	10	D/3	1	EXISTEC

3. Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
WITI	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:0000000005628448

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

# Component Function Check

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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

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

(-	+)				Voltage (V)		Valtaria (V)
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	$0 \rightarrow Battery \ voltage \rightarrow 0$		

### Is the inspection result normal?

YES >> Replace fuel lid lock actuator. Refer to DLK-250, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK FUEL LID LOCK ACTUATOR CIRCUIT

- 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

Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
WITI9	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:000000005628451

Performs trunk lid open with signal from BCM.

# Component Function Check

INFOID:0000000005628452

# 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-III to perform Active Test ("TRUNK/GLASS HATCH").
- 2. 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:0000000005628453

# ${f 1}.$ CHECK TRUNK LID OPENER ACTUATOR INPUT SIGNAL

- 1. 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				(/ (pp.o.n.)
B303	3	Ground	Trunk lid opener switch	Pressed	$0 \rightarrow Battery \ voltage \rightarrow 0$

### 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	CM	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-248, "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** 

Detects trunk open/close condition.

# Component Function Check

INFOID:0000000005628455

# 1. CHECK FUNCTION

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

Monitor item	Condition		Status
TRNK/HAT MNTR T	Trunk lid	Open	ON
		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:0000000005628456

# 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		ck assembly	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	50	B303	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Connector Terminal		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 <u>DLK-248, "TRUNK LID LOCK: Removal and Installa-</u> NO tion".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "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-248, "TRUNK LID LOCK: Removal and Installation".

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### DOOR KEY CYLINDER SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

# DOOR KEY CYLINDER SWITCH

Description INFOID:0000000005628458

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:0000000005628459

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

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:0000000005628460

# 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.

(+)			V-16 0.0	
Front door lock assembly (driver side)		(–)	Voltage (V) (Approx.)	
Connector	Terminal			
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
D8	4	D15	6	Existed
Do	6	פוט	5	Existed

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

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
	4	Ground	Not existed
	6		Not existed

### DOOR KEY CYLINDER SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection result normal?

>> Replace power window main switch. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check door key cylinder switch ground circuit

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

Front door lock assembly (driver side)			Continuity
Connector	Terminal	Ground	Continuity
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.

>> Replace front door lock assembly (driver side). Refer to DLK-239, "FRONT DOOR LOCK: NO Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

# 1. CHECK DOOR KEY CYLINDER SWITCH

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

Front door lock assembly (driver side)  Terminal		Condition		Continuity
3	4	Driver side door key cylinder	Neutral / Lock	Not existed
6	7		Lock	Existed
O			Neutral / Unlock	Not existed

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-239. "FRONT DOOR LOCK:</u> Removal and Installation".

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### REMOTE KEYLESS ENTRY RECEIVER

### < DTC/CIRCUIT DIAGNOSIS >

# REMOTE KEYLESS ENTRY RECEIVER

Description INFOID:000000005628462

Receives Intelligent Key operation and transmits to BCM.

# Component Function Check

INFOID:0000000005628463

# 1. CHECK FUNCTION

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

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:0000000005628464

# 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			
M104	2	Ground	During waiting	(V) 15 10 5 0 1 ms JMKIA0064GB
WIIOT	2	Clound	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	СМ	Remote keyles	s 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	Connector Terminal		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)	
Connector	Terminal		(Approx.)	
M104	4	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 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.

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

3. 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 3

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

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.

# 6.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-260, "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:000000005628465

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-III.

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.

	+) pener 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-258, "Removal and Installation"</u>.

### **5.**CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005628468

# 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-258</u>, "Removal and Installation".

### TRUNK LID OPENER REQUEST SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK LID OPENER REQUEST SWITCH

Description INFOID:0000000005628469

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-III.

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

- 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.

·-	(+) Trunk lid opener request switch		Signal (Reference value)	
Connector	Terminal			
B304	1	Ground	(V) 15 10 5 0 10 ms 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 <u>DLK-257, "Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005628472

# 1. CHECK TRUNK LID OPENER REQUEST SWITCH

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

Trunk lid opener request switch		Condition		Continuity
Terminal		Condition		Continuity
1	2	Trunk lid opener request switch	Pressed	Existed
	2	Trunk ilu 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-257</u>, "Removal and Installation".

### TRUNK LID OPENER CANCEL SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

# TRUNK LID OPENER CANCEL SWITCH

Description INFOID:0000000005628473

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-III.

Monitor item	Condition		Status
TR CANCEL SW	Trunk lid apapar capcal switch	ON ON	
	Trunk lid opener cancel 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:0000000005628475

# 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	ВСМ		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-259</u>, "Removal and Installation".

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000005628476

# 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-259</u>, "Removal and Installation".

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### DOOR REQUEST SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

# DOOR REQUEST SWITCH

**Description** 

Transmits lock/unlock operation to BCM.

# Component Function Check

# 1.check function

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

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 3W -A3		Released	OFF

### Is the inspection result normal?

YES >> Door request switch is OK.

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

# 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)	
Con	nector	Terminal		( 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
LH	D13	1	Ground	(V) 15 10 5 0 JPMIA0016GB
RH	D43	1	Glound	(V) 15 10 5 0 10 ms 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 connector.

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### DOOR REQUEST SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

	Front outside handle		В	СМ	Continuity
Con	nector	Terminal	Connector	Terminal	Continuity
LH	D13	1	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	Giouna	Not existed
RH	D43	'		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	Giodila	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-239</u>, "<u>FRONT DOOR LOCK</u>: <u>Removal and Installation</u>".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005628480

# 1. CHECK DOOR REQUEST SWITCH

- 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-239</u>, "<u>FRONT DOOR LOCK</u>: <u>Removal and Installation</u>".

# **UNLOCK SENSOR**

Description INFOID:000000005628481

Detects door lock condition of driver side door.

# Component Function Check

# 1.CHECK FUNCTION

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

Monitor item	Condition		Status
UNLK SEN -DR	Driver side door	Lock	OFF
UNLIN SLIN -DN	Dilver side door	Unlock	ON

### Is the inspection result normal?

YES >> Unlock sensor is OK.

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

# Diagnosis Procedure

1. CHECK UNLOCK SENSOR INPUT SIGNAL

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

	(+) Front door lock assembly (driver side)		Signal (Reference value)	
Connector	Terminal		(	
D15	3	Ground	(V) 15 10 5 10 ms  JPMIA0012GB	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK UNLOCK SENSOR CIRCUIT

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

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

3. 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-239</u>, "<u>FRONT DOOR LOCK</u>: Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

### >> INSPECTION END

# Component Inspection

INFOID:0000000005628484

# 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	
Ter	Terminal		Condition		
2	4	Driver side door	Unlock	Existed	
3		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-239</u>, "FRONT DOOR LOCK : <u>Removal and Installation"</u>.

### **OUTSIDE KEY ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

### **OUTSIDE KEY ANTENNA**

Description INFOID:000000005628485

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)
Con	nector	Terminal				, , , , , , , , , , , , , , , , , , ,
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	Sibuliu	pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 1

### 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			ВС	Continuity		
Connector		Terminal	Connector Terminal		Continuity	
LH	D14	1		77		
LIT			M422	76		
RH	D44	1	M122	75	Existed	
		2		74		
Door humper	B63	1	M4.24	39		
Rear bumper		2	- M121	38		

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

Outside handle/outside key antenna				Continuity	
Conr	nector	Terminal		Continuity	
LH	D14				
LΠ	D14	2			
RH	D44	1	Ground	Not existed	
КП	D44	2			
Poor humper	B63	1			
Rear bumper	D03	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				(Noterende 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	Giounu	switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 0 1 s JMKIA0063GB

### Is the inspection result normal?

YES-1 >> Replace outside key antenna LH (driver side). Refer to <u>DLK-254, "DRIVER SIDE : Removal and Installation"</u>.

### **OUTSIDE KEY ANTENNA**

### < DTC/CIRCUIT DIAGNOSIS >

- YES-2 >> Replace outside key antenna RH (passenger side). Refer to <u>DLK-254, "PASSENGER SIDE : Removal and Installation"</u>.
- YES-3 >> Replace outside key antenna (rear bumper). Refer to <u>DLK-254, "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:000000005628488

Answers back and warns for an inappropriate operation.

# Component Function Check

#### INFOID:0000000005628489

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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:0000000005628490

# 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 16 0.0	
Intelligent Key warning buzzer		(–)	Voltage (V) (Approx.)	
Connector	Terminal		( 47 )	
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	CM	Intelligent Key	warning buzzer	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	64	E57	3	Existed

3. Check continuity between BCM harness connector and ground.

ВС	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?

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

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-255</u>, "Removal and Installation".

# Component Inspection

# 1. CHECK INTELLIGENT KEY WARNING BUZZER

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

Ter		
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-255</u>, "Removal and Installation".

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### INTELLIGENT KEY

Description INFOID:000000005628492

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:0000000005628493

# 1. CHECK FUNCTION

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

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, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000005628494

# 1. CHECK INTELLIGENT KEY BATTERY

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

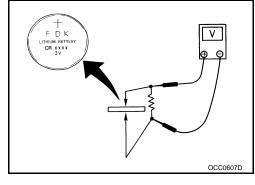
# Standard : Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace Intelligent Key.

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

"Component Inspection".



INFOID:0000000005628495

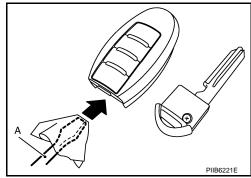
# Component Inspection

# 1. REPLACE INTELLIGENT KEY BATTERY

- 1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.
- Insert a flat-blade screwdriver (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>.

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# Special Repair Requirement

Refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.

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Revision: 2009 November DLK-101 2010 G37 Sedan

### < DTC/CIRCUIT DIAGNOSIS >

### **KEY SLOT**

Description INFOID:000000005628497

Detects whether Intelligent Key is inserted.

Immobilizer antenna amp checks Intelligent Key transponder.

# Component Function Check

INFOID:0000000005628498

# 1. CHECK FUNCTION

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

Monitor item	Con	Status	
KEY SW-SLOT	Intelligent Key	Inserted in key slot	ON
	intelligent recy	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:0000000005628499

# 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.

	+) v 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.

ВСМ		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 BCS-80, "Removal and Installation".

NO >> Replace key slot. Refer to <u>DLK-256</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-256</u>, "Removal and Installation".

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INFOID:0000000005628500

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### **KEY SLOT INDICATOR**

### < DTC/CIRCUIT DIAGNOSIS >

### **KEY SLOT INDICATOR**

Description INFOID:000000005628501

Blinks when Intelligent Key insertion is required.

# Component Function Check

#### INFOID:0000000005628502

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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:0000000005628503

# 1. CHECK FUSE

- 1. Turn ignition switch OFF.
- 2. 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

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

(+) Key slot		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(11 - 7	
M22	5	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK KEY SLOT CIRCUIT

- 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?

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

NO >> Replace key slot. Refer to <u>DLK-256, "Removal and Installation"</u>.

# Component Inspection

# 1. CHECK KEY SLOT INDICATOR

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. 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-256</u>, "Removal and Installation".

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Revision: 2009 November DLK-105 2010 G37 Sedan

### HORN FUNCTION

### < DTC/CIRCUIT DIAGNOSIS >

### HORN FUNCTION

Description INFOID:000000005628505

Performs answer-back for each operation with horn.

# Component Function Check

#### INFOID:0000000005628506

# 1. CHECK FUNCTION

- 1. Use CONSULT-III 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:0000000005628507

# 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

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

	(+)			Test item		Voltage (V) (Approx.)	
	Horn relay		(–)				
Conr	nector	Terminal				(11 - /	
Low	E11	1	Ground	HORN ON		Battery voltage → 0 → Battery voltage	
High	E18	3	Ground	TIOKN	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	Ground	Not existed
	45		

### Is the inspection result normal?

# HORN FUNCTION < DTC/CIRCUIT DIAGNOSIS > >> Repair or replace harness. NO 4. CHECK INTERMITTENT INCIDENT Α Refer to GI-38, "Intermittent Incident". Is the inspection result normal? В >> INSPECTION END С D Е F Н J DLK L M Ν 0

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### **COMBINATION METER DISPLAY FUNCTION**

### < DTC/CIRCUIT DIAGNOSIS >

### COMBINATION METER DISPLAY FUNCTION

Description

Displays each operation method guide and warning for system malfunction.

# Component Function Check

INFOID:0000000005628509

# 1. CHECK FUNCTION

Use CONSULT-III 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:0000000005628510

# 1. CHECK COMBINATION METER

Refer to MWI-85, "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-38, "Intermittent Incident".

>> INSPECTION END

# **BUZZER (COMBINATION METER)**

### < DTC/CIRCUIT DIAGNOSIS >

BUZZER (COMBINATION METER)	
Description	Α
Performs operation method guide and warning with buzzer.	В
Component Function Check	
1.CHECK FUNCTION	С
<ol> <li>Use CONSULT-III 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 DLK-109, "Diagnosis Procedure".  Diagnosis Procedure	Е
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	Н
Refer to GI-38, "Intermittent Incident".	
>> INSPECTION END	I
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#### **KEY WARNING LAMP**

#### < DTC/CIRCUIT DIAGNOSIS >

### **KEY WARNING LAMP**

Description INFOID:000000005628514

Performs operation method guide and warning together with buzzer.

### Component Function Check

INFOID:0000000005628515

## 1. CHECK FUNCTION

- 1. Use CONSULT-III 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:0000000005628516

### 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-38, "Intermittent Incident".

>> INSPECTION END

### **HAZARD FUNCTION**

### < DTC/CIRCUIT DIAGNOSIS >

V DTO/OIRCOTT DIAGNOCIO	
HAZARD FUNCTION	А
Description INFOID:0000000005628517	
Performs answer-back for each operation with number of blinks.	В
Component Function Check	
1.CHECK FUNCTION	С
<ol> <li>Use CONSULT-III to perform Active Test ("FLASHER").</li> <li>Touch "LH" or "RH" to check that it works normally.</li> </ol>	
Is the inspection result normal?	D
YES >> Hazard warning lamp circuit is OK. NO >> Refer to <u>DLK-111</u> , " <u>Diagnosis Procedure</u> ".	_
Diagnosis Procedure	Е
1.CHECK HAZARD SWITCH CIRCUIT	F
Refer to EXL-88, "Wiring Diagram - TURN AND HAZARD WARNING LAMPS -".	
Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace harness.	G
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-38, "Intermittent Incident".	Н
>> INSPECTION END	I
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#### INTEGRATED HOMELINK TRANSMITTER

#### < DTC/CIRCUIT DIAGNOSIS >

### INTEGRATED HOMELINK TRANSMITTER

Description INFOID:000000005628520

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:0000000005628521

### 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-17. "Removal and Installation".

## Diagnosis Procedure

NO

INFOID:0000000005628522

## 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.

(	+)				
	ing inside mirror ersal transceiver)	(–)	Condition	on	Voltage (V) (Approx.)
Connector	Terminal				
R3	10	Ground	Ignition switch position	OFF	Battery voltage
N3	6	Giodila	ignition switch position	ON	Dattery 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 >

Auto anti-dazzlii (Homelink unive			Continuity
Connector	Terminal	Ground	
R3	8		Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

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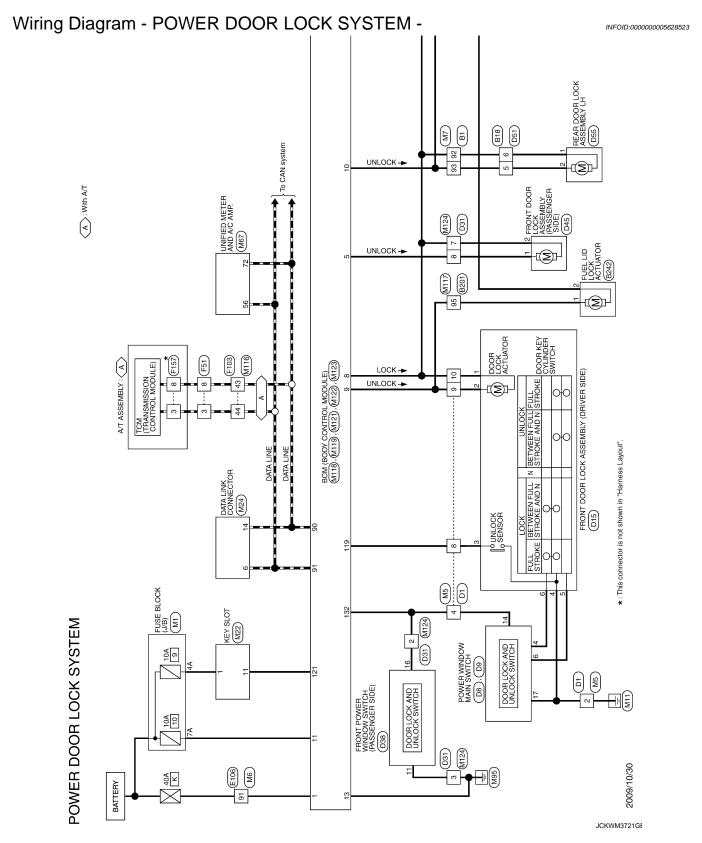
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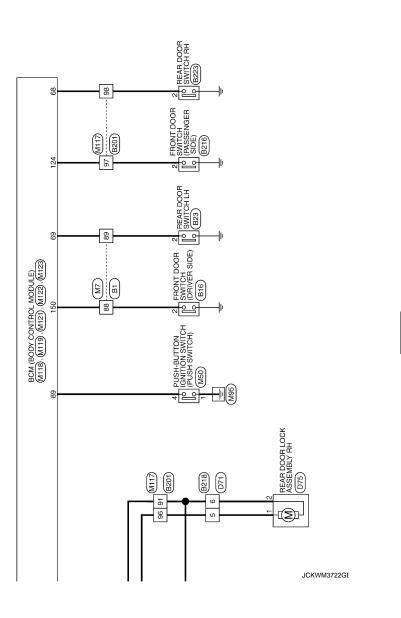
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Connector Name POWER WINDOW MAIN SWITCH Connector Type NS16FW-CS	Connector No. D15 Connector Name FROYT DOOR LOCK ASSEMBLY (DRIVER SIDE) Connector Type E06FGY-RS	45 G G G G G G G G G G G G G G G G G G G	Connector No. D51 Connector Name WIRE TO WIRE Connector Type NH10MW-CS10
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### < DTC/CIRCUIT DIAGNOSIS >

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	Connector Name INNEFED METER AND A /C AMP	$\neg$	7			141 42 42 44 45 46 47 40 40 50 51 52 52 54	57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72			la la	of Wire	41 L ACC POWER SUPPLY	¥ 8	57	>	<b>\</b>	47 G GAS SENSOR SIGNAL	×	SB	ш.	1	5) LG BRAKE FLUID LEVEL SWITCH	59 GR INTAKE SENSOR GROUND	*	: В	T	┢	BG	H	œ	GR	H																											B C
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	MZ4 DATA I INK CONNECTOR	DATACIN D	DI6FW-P			9 10 11 12 13 14 15 16	1 2 3 4 5 6			Signal Name [Specification]			1 1	1	1	-	1	1			3	ngw	PUSH-BUTTON IGNITION SWITCH	TK08FBR			[	] [	1 1	4 5 6 7 6			Signal Name [Specification]		1	1	1	1	1		1	1																	F
: :	90			4	Ŀ	=	<u> </u>			Terminal Color	7	3 8	+	╀	۷ /	9 9	11 SB	ТР	$\dashv$			Τ	Connector Name Pl	Connector Type Th		Œ	3	Ċ I					Terminal Color		- B	2 R	+	+	$\dashv$	6 BG	7 GR	8 P																	G H
			T	l			T	T	Γ	П	1	Τ	Τ	Γ				1	T	T	T	T	Τ	1		Γ				]							ſ		1					П		٦													П
	1 1	1	1 1	1	1	1		1 1	1	1	1		1 1		1	-	1			1												17	Ţ	4 5 6	10 11 12	]		Signal Name [Specification]	,	BAT	CLOCK	DATA	ILL BAT	ILL	GND	WITCH SIGNAL													
																										M22	TO 10 VIV	NET SLUI	TH12FW-NH				G	N S	7 8 9 1	Ш		Signal Na	0							KEY S											_		J
	< ۵	> >	- ≥		ŋ	В	SHIELD	> a	SB	>	>	a c	2 8	SB	g	GR	٦	۵	BG	_	1	, g	- a				Γ											Color		٣	GR	М	Υ.	ΓG	В	SB												D	Lŀ
1	28	59	9 19	69	63	64	59 7	72	73	74	81	85	85 85 85	98	87	88	88	06	91	95	56	66	96			Connector No.		Connector Name	Connector Type	1	修	N E						Terminal	S	-	2	3	2	9	7	Ξ													
			7								1	Τ	Ţ	Ţ.				T	T	T	T	T	T		I	Γ		Γ			Γ		1	1	T	7	T	1	1					П		T	7												L
POWER DOOR LOCK SYSTEM	38	THE 510	510-1M4		8 10 20 20 20 20 20 20 20 20 20 20 20 20 20	20 00 00 00 00 00 00 00 00 00 00 00 00 0		56 20 20 20 20 20 20 20 20 20 20 20 20 20		Signal Name [Specification]	,	1	- [With automatic drive nositioner]	- [Without automatic drive positioner		-	1	,				,		1	1	1	1		-	1	1	1	1	ı	1	1	1		1	-					-	-												ı	M
OR LC	WIRE TO WIRE	THISONAM COSTS TAKE	HROMW					0 10		i.			- ſWit	- With																																													Ν
ER DC		. T	7			_				Color		g a	. g	۵.	>-	٦	g	>	œ	H .	<u>.</u>	> -	۵ د	_	۵	>	57	BR	BG	57	>	57	SHIELD	GR	BB	>-	SHIELD	SB	P	0	W	SHIELD	ď	9	SHIELD	88	*												
POWER	Connector Name	Compositor Time	Connecte	Œ.	N I					Terminal	N		7 8	9	4	9	8	6	12	16	-	8 8	21	22	23	24	25	56	27	28	31	32	33	34	32	36	37	38	38	40	41					46												(	0
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POWER	POWER DOOR LOCK SYSTEM								
Connector No.	M116	Terminal	_	or Signal Name [Specification]	Connector No.	M118	Connector No.	M121	
Connector Name	e WIRE TO WIRE	No	of Wire		Connector Name	BCM (BODY CONTROL MODULE)	Connector Name	BCM (BODY CONTROL MODULE)	
Connector Type	TK36MW-NS10	· w	4	1	Connector Type	M03FB-LC	Connector Type	TH40FGY-NH	
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H.S.		B 5	<u> </u>	1 1	H.S.		H.S.		
1 2 8 7	1 2 3 4 5 1112 (314) 15 (15 17) 18 (19 (2) 30 (31) 32 (33) 34 (35) 37 (38) 16 (7 18) 17 (8) 18 (18) 18	3 5	SB L			13	51 50	49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32	
1		32	Н	-			71 70	89 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52	
		33	Н						
L		34	_	-	ŀ		ŀ		
Terminal Color No. of Wire	or Signal Name [Specification]	40	≻ ©	1 1	Terminal Color No. of Wire	Signal Name [Specification]	Terminal Color No. of Wire	r Signal Name [Specification]	
T		42	╀		t	BAT (F/L)	34 SB	TRUNK BOOM ANT-	
3 BG	-	43	┝		2	POWER WINDOW POWER SUPPLY (BAT)	H		
H	1	45	H	1	3 BG	┝	38 B	REAR BUMPER ANT-	
2 B	1	46	φ			┨		REAR BUMPER ANT+	
	1	47	Т	ı			┞	IGN RELAY (IPDM E/R) CONT	
L	1	48	-	1	Connector No.	M119	50 BG		
F		49	SHIELD	T		г	H		
H	1	20	t	1	Connector Name	BCM (BODY CONTROL MODULE)		TRUN	
28 B	1	17	œ	ı	Connector Type	NS16FW-CS	┝		
29 LG	1	72	L	1			Ľ	L	
H	1	80	*	1	Œ		┝		
H	1	8	SHIELD		ě		H	REAR LH DOOR SW	
H	-	82	Ħ	-	ć.	4 5 6 7 6 9 10			
34 B	-	83	1	_		11 10 10 11 15 15 15 10 10			
35 L	-	84	9	_		10 01 41 01			
36 P	1	82	SHIELD	QTI					
4	1	98	4	1					
1	-	87	$\dashv$	1	la l	Signal Name [Specification]			
_	-	88	$\dashv$	1	No. of Wire	4			
-	1	88		1		_			
43 P	1	90		1	5 P	PASSENGER DOOR UNLOCK OUTPUT			
4		91	+		1	STEP LAMP OUTPUT			
+	1	95	BR		1	ALL DOOR, FUEL LID LOCK OUTPUT			
46 SB		93	>	1	+	DRIVER DOOR, FUEL LID UNLOCK OUTPUT			
		94	+		+	REAR DOOR UNLOCK OUTPUT			
		95	+	1	+	BAT (FUSE)			
Connector No.	M117	96	4	ı	13 B	GND			
Connector Name	MIRE TO WIRE	97	$\dashv$	-	14 W	PUSH-BUTTON IGNITION SW ILL GND			
	╗	86	BG	-	15 BG	ACC IND			
Connector Type	TH80MW-CS16-TM4	66	۵	1	+				
þ		100	_	1	$\exists$				
修					V V	ROOM LAMP TIMER CONTROL			
E S	11 11 11 11 11 11 11 11 11 11 11 11 11								
T T	200								
	26 20 20 20 20 20 20 20 20 20 20 20 20 20								
	2 E E E								

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Connector No.  Connector Name Connector Type  H.S.  H.S.  T.S.  Terminal Color No.  To Wr.  72  73  74  78  78  78  78  78  78  78  78  78	No.	Connector No.   M122   Connector Name   BCM (BODY CONTROL MODULE)   Connector Type   TH40FB-NH   TH4	Connector No.	<u> </u>	M123 BOM (BODY CONTROL MODULE) TH40FG-NH TH40FG-NH Signal Name [Specification] Signal Name [Specification] RAIN SENSOR SERAL LINK OPTICAL SENSOR CLUTCH INTERIOLOS KW STOP LAMP SW 1	Connector Name Connector Type Connec	r No. r Name r Type Color of Wire W GR	M124   M124
++++++	> \( \sigma \) \( \text{R} \) \( \text{B} \) \( \text{R} \) \(	DRIVER DOOR ANT- DRIVER DOOR ANT- BROOM ANT 1- ROOM ANT 1+ ROOM ANT 1+ RATS ANT AMP. INATS ANT AMP. IGN RELAY (F/B) CONT KEYLESS BRITPER RECEIVER COMM	111 119 119 119 129 129 129 132 133 133 134 135 135 135 135 135 135 135 135 135 135	S S S S S S S S S S S S S S S S S S S	DR DOOR INLLOOK SENSOR  KEY SLOT SW  IGN F/B  PASSENGEN BOOR SW  TRINK LID OFFURER CANCEL SW  POWER WINDOW SW COMM  PUSH-BUTTON ISMITION SW ILL POWER  I COM IND ISMITION SW ILL POWER	8 10 11 11 12 13 36 37 39 39 39 39 39 39 39 39 39 39 39 39 39	- G R R B R -	
+++++++++++	- R B B C C C P B B C B C B C B C B C B C B	COMBIS SWINDUT 3 COMBIS SWINDUT 3 PUSH SW COAN-L SAL COAN-L COAN-	138 138 138 140 141 142 144 146 149 150	B × B × B × B × B × B × B × B	RECEIVER SERIOR GND RECEIVER SERIOR POWER SUPPLY TIRE PRESSURE RECEIVER COMM SHETT NIP SECURITY NIDIOLATOR LAMP COMBI SW OUTPUT 1 COMBI SW OUTPUT 1 COMBI SW OUTPUT 3 DANCES SUFF WARD CHECK SW TRE PRESSURE WARD CHECK SW DRIVER DOOR SW	44 44 45 47 48 48 49 49 50 50 51 53 53 53 54 54 55 57 57 57 57 57 57 57 57 57 57 57 57	BG BG BG BG BG SB	
++++++++	<del></del>	ASDG CLUTCH SWINING MAT WINDOWS PASSENGER DOOR REQUEST SW BLOWER FAN MOTOR RELAY CONT KEYLLUST DOWER SUPPLY COMBIS SWINPUT 1 COMBIS SWINPUT 1 COMBIS SWINPUT 3	2 2 2	5 0	REAR WINDOW DEFOGGER RELAY CONT	S		

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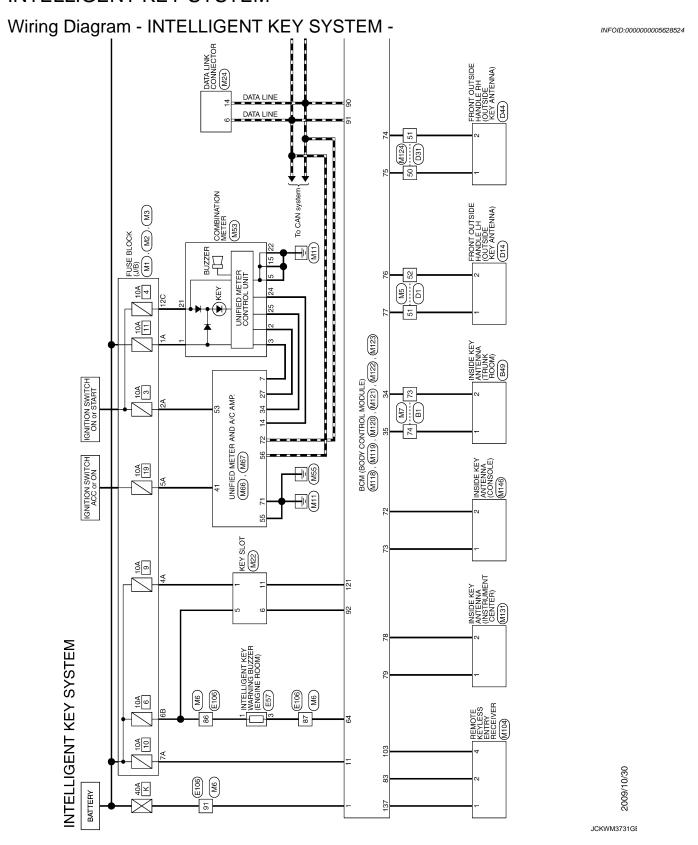
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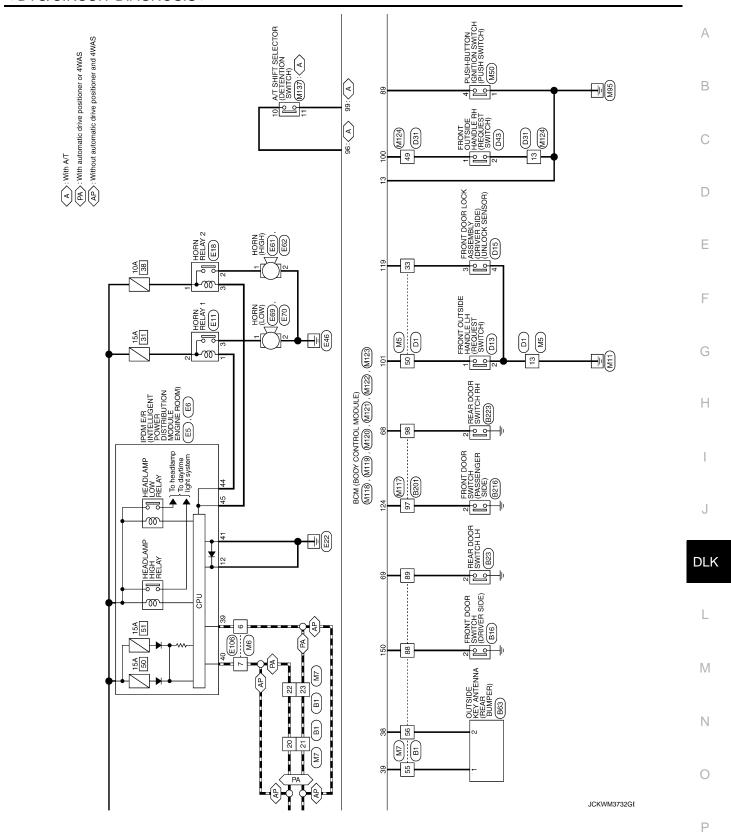
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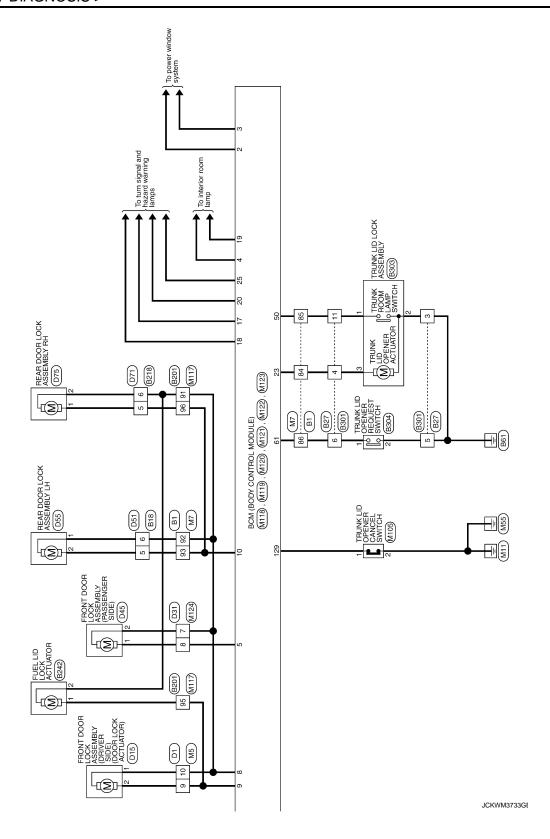
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Connector No.   B27   Connector Name   WIRE TO WIRE		A B C
Connector No.   B18		E F G
58   V		J
INTELLIGENT KEY SYSTEM   Connector Name   WIRE TO WIRE   Connector Type   TH80FW-CS16-TM4   Connector Type   Th80FW-CS1	JCKWM3734Gŧ	M N
		Р

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	lal	Connector Name WIRE TO WIRE	Connector Type NH10FW-CS10	4		Т	A 2 4 2 4 4 4 2 CONDECTOR Name WIRE 10 WIRE		1817/16115/14	⁻	Signal Name [Specification]	7 6 5 4	3 BG 16 15 14 13 12 11 10 9 8	3 a	╀	B Terminal Color	19 L - Of Wire Oghan Name Lopecinication.	20 P - 2 BG	В	+	9 6 6 6779	Connector Name REAR DOOR SWITCH RH 6 W -	2 >	AUSEW	13 Y		15	2	3   Connector No B303		lal	No. of Wire Signal Name Liberincation Connector Type TB03FW	2 BR -	MHA	Gonnactor No 18249		Connector Name FUEL LID LOCK ACTUATOR	Connector Type M04FW-LC	1		Terminal Color	Terminal Color Signal Name [Specification]	Terminal Color No. of Wire	S	S	S	S	Color   Colo	Color   Colo	S
ŀ	+	72 V = -	SHIELD	9	- B	SHIELD	g	87 R –	4	+	<b>&gt;</b>	+	92 W = 03 BG = -	22 00	╀	9	97 GR –	Н	- d 66	100		Connector No Boile	т	Connector Name FRONT DOOR SWITCH (PASSENGER SIDE)	Connector Type A03FW	1		<u>  K</u>		2	8	2	Terminal Color Signal Name [Specification]	of Wire	2 22									ПП		ПП			TTTTT	
삜	Connector No. B63	Connector Name OUTSIDE KEY ANTENNA (REAR BUMPER)	Connector Type RK02FGY	4	THE	HS.				- 1	la		- C	1 1 2		Connector No. B201	Manage To Manage		Connector Type TH80FW-CS16-TM4	<b>4</b> E		1.S. 100 01 010 010 010 010 010 010 010 010	28 28	9 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8		lal		- DEX	╁	- · · · ·	6	10 L –	31 L	33 6	+	ŀ	5	┝	ŀ	_	43 K – – 45 G – –	j	++++	<del>1111</del>	<del>1111</del>	<del>+++++</del>	++++	<del>11111</del>	

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D43  Stanal Name [Specification]  FROOM OUTSIDE HANDLE Re! (REQUEST SWITCH)  FROOM OUTSIDE HANDLE Re! (REQUEST SWITCH)  FROOM OUTSIDE HANDLE Re! (REQUEST SWITCH)  Stanal Name [Specification]  Stanal Name [Specification]		В
		С
1		D
[Specification]  [Specification]  [Specification]  [Specification]  [Specification]		Е
Signal Name Signal Name Signal Name Signal Name Signal Name		F
Connector Name   Front   Color		G
Terminal   Connector Name   Connector		Н
D13 FROOT OUTSIDE HANDLE LH (PEOLEST SWITCH) FROOT OUTSIDE HANDLE LH (OUTSIDE IEY MITCHO)  Signal Name [Specification]		I
Company   Comp		J
N   N   N   N   N   N   N   N   N   N		DLK
28 29 29 29 29 29 29 29 29 29 29 29 29 29		
ATOM C C C C C C C C C C C C C C C C C C C		L
NT KEY SYSTEM BB04 TRUNK LID DENER REQUEST SWITCH TK02MGR-P TK02MGR-P TH0PW-CSI5 TH40PW-CSI5 Signal Name [Specification] Signal Name [Specification]		M
Signal Name Signal Name		
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Part		0
Common   C	JCKWM3736GE	
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Connector No. D45	Connector No. U35	Connector No. D/5	Connector No. E6
Connector Name FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)	Connector Name REAR DOOR LOCK ASSEMBLY LH	Connector Name REAR DOOR LOCK ASSEMBLY RH	Connector Name EVR (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type E06FGY-RS	Connector Type E06FGY-RS	Connector Type E06FGY-RS	Connector Type TH08FW-NH
医	修	曆	匮
HS.	HS.	HS.	
61514131211	(1213141516)	(61514 <u>131211</u> )	42 41 40 39 46 45 44 43
	⊢	- - -	_ <u> </u> _
l erminal   Color   Signal Name [Specification]   No.   of Wire   Signal Name [Specification]	Frminal Color   Signal Name [Specification]   Of Wire   Of Wire   Signal Name [Specification]	Ferminal Golor   Signal Name [Specification]   No.   of Wire   Signal Name [Specification]	l eminal Color Signal Name [Specification] No. of Wire
1 P -	- V 1	1 P -	39 P –
2 LG	2 G –	2 LG –	7
			47 GR -
Connector No. D51	Connector No. D71	Connector No. E5	╁
Connector Name WIRE TO WIRE	Connector Name WIRE TO WIRE	Connector Name Provide ROUTELIGENT POWER DISTRIBUTION MODULE	Н
		- 1	+
Connector Type NH10MW-CS10	Connector Type NH10MW-CS10	Connector Type TH20FW-CS12-M4-1V	
		£	
(	,		Connector No. E11
1 2 3 4 5 6	1 2 3 4 5 6		Connector Name HORN RFI AV 1
9 10 11 12 13	9 10 11 12 13	3 4 5 6 7 8 1516171819 2021222324 35 36	Т
7 8 14 15 16 17 18 19 20	7 8 14 15 16 17 18 19 20		Connector Type –
			4
Terminal Color Signal Name [Specification]	Terminal Color Signal Name [Specification]	Terminal Color Signal Name [Specification]	HS.
	t	t	2
3 W	3 W	2	3 1
Н	g	8S 9	
6 BR –	- ^ 9	7 P –	ŀ
4	7 B -	+	la l
+	+	12 B/W –	9
20 P =	20 P =	> :	LG
		E.G.	SB
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		EBLOCK (J/B)  Signal Name [Specification]  Signal Name [Specification]	В
	8 × × × × × × × × × × × × × × × × × × ×	WINDER BIT OF THE BIT	С
	57 80 81 82 83 84 84 86 87 88 87 88 87 88		D
		pedification]	Е
	WINE TO WINE THEOPY-CS.16-TM4 THEOPY-CS.16-TM4	Signal Name (Specification)	F
	ector No.	Color   Colo	G
	Com		Н
		Signal Name (Specification)  Not Signal Name (Specification)  Signal Name (Specification)	I
	E62 HORN (HIGH) POIFB-A	Signal Mar HORN (LOW) POITE-A Signal Mar	J
	Connector No.	Connector No.   Color No.   Color No.   Connector No.   Conn	DLK
			L
INTELLIGENT KEY SYSTEM	2 3 1 2 3	Signal Name (Specification)  E57  TELIGENT RET. WARREN BUZZEI (BAURE ROOM)  Signal Name (Specification)  Signal Name (Specification)  Signal Name (Specification)	M
SENT KE	HORN RELA	EST MYTELLORBYT MY	Ν
INTELLIC	Connector No. Connector Type	Terminal   Color     1	0
,		JCKWM3738Gt	Р
			Р

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M6 WIRE TO WIRE THROMW-CS: IG-TM4	Signal Name	
51 LG 52 V Connector No.		<del>                                     </del>
No.   M5	Signal Name [Specification]	
Connector No. MS Connector Type   TH40 Connector Type   TH30 Connector Type   TH30 Connector Type   TH30 Connector Type   TH40 Connector Type   TH40 Connector No. MS	25	W W W W W W W W W W W W W W W W W W W
Connector No.	No. 1	33 33 36 37 38 38 39 44 44 44 44 44 44 44 44 44 44 44 44 44
INTELLIGENT KEY SYSTEM  Connector No. M2  Connector Name FUSE BLOCK (J./B)  Connector Type NSTOFW-CS  ALS  (M8 38 78 68 58 18 18 18 18 18 18 18 18 18 18 18 18 18	Miles   Signal Name (Specification)   Wire   Signal Name (Specification)	
INTELLIG Connector No. Connector Name Connector Type	totor N N N N N N N N N N N N N N N N N N N	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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### < DTC/CIRCUIT DIAGNOSIS >

Revision: 2009 November

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ON METER	1 2 3 4 5 6 7 6 9 10 11 12 13 14 15 16 17 16 18 18 18 18 18 18 18 18 18 18 18 18 18	Signal Name (Specification)  BETER POWER SUPPLY COMMUNICATION SIGNAL (MMPMETER) GROUND ALTERATOR SIGNAL ARIEMATOR SIGNAL ARIEMATOR SIGNAL SECURITY SIGNAL GROUND ILL GND ULL GND ULL GND URLEE SPEED SIGNAL ILLUMINATION SIGNAL (B-PULSE) PARAMIN SIGNAL (B-PULSE) PARAMINICATION SIGNAL (B-PULSE) NVERICE SPEED SIGNAL SELECT SWITCH SIGNAL SELECT SWITCH SIGNAL SELECT SWITCH SIGNAL ILLUMINATION CONTROL SWITCH SIGNAL	В
o. M53 ame COMBINATION METER SAB40FW	12345678	Color   Sign	С
Connector No. Connector Name	SH.	And the state of t	D
	1516 7 8	SWITCH SMITCH sofficeation]	Е
M24 DATA LINK CONNECTOR BD16FW-P	12 13 14 4 5 6	Signal Name (Specification)	F
Connector No. M24 Connector Name DATA LINK Connector Type BD16FW-P		C C C C C C C C C C C C C C C C C C C	G
Connec	₽ E	Terminal No. 2 4 4 4 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1 1 1	Н
1 1 1 1	1111111111	T T	I
		M22 KEY SLOT THIEPW-NH Signal Nam Signal Nam KEY SW	J
ω > > >		S   S   S   S   S   S   S   S   S   S	DLk
59 59 60	61 63 64 65 71 72 72	7.7. 7.8. 8.8. 8.8. 8.8. 8.8. 8.8. 8.8.	
		itioner]	L
STEM	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Signal Name (Specification) Signal Name (Specification) Hout automatic drive position Hout automatic	M
NT KEY SY: M7 WIRE TO WIRE THROMW-CS16-TM4		Signal Name National Without automa Without automa	
GENT KEY  M7  WIRE TO WIRE TH80MW-CS16			N
INTELLIGENT KEY SYSTEM Connector No. M7 Connector Name WIRE TO WIRE THROMW-CS16-TM4	H.S.	Comparison   Com	0
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> >	92 BR – – – – – – – – – – – – – – – – – –	94 Y –	4	- C - C - C - C - C - C - C - C - C - C	F	H	100 L –		Connector No. M118	Connector Name BCM (BODY CONTROL MODILIE)	Т	Connector Type M03FB-LC			1 3		7		Terminal Color	No. of Wire Spanish Name Lopecinication	1 W BAT (F/L)	- BG	ł																
Terminal   Color   Signal Name [Specification]   No. of Wire	1 BG -			Т	Connector Name WIRE TO WIRE	Connector Type TH80MW-CS16-TM4	1			8 0 0 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	3 8 C F F		Terminal Golor		1 LG -	+	5 9		┝	Н	32 LG -	as a	┝	ŋ	97 a	45 G	46 SHIELD -	ط	7	48 SHIELD = -	. &	72 L –	7	81 SHIELD	П	SHIELD	3 €	n	. D
AA V	47 G GAS SENSOR SIGNAL 53 W IGNITION POWER SUPPLY	SB	В	56 L CAN-H	2 >	GR	W	61 B AMBIENT SENSOR GROUND 69 SR STINI OAD SENSOR GROUND	NOI C	BG	Д	70 R EACH DOOR MOTOR POWER SUPPLY	r a			Connector No. M104	Connector Name REMOTE KEYLESS ENTRY RECEIVER	Connector Type JAB04FB	1	<b></b>	HS	600	3		Toursing	_	1 BG GND	Y SIG	4 P BATTERY		Connector No. M105	Connector Name TRIINK ID OBENER CANCEL SWITCH	┰	Connector Type S02FW			<u> </u>	2	
INTELLIGENT KEY SYSTEM Connector Name UNIFED METER AND A/C AMP.	$\neg$	1	医	H.S.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	35 36		Tarminal		4 G STOP LAMP SWITCH SIGNAL	L M	6 BG PADDLE SHIFTER UP SIGNAL 7 CP COMMINICATION SIGNAL (AMD - METED)	+	9 SB SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	10 W MANUAL MODE SIGNAL	0	20 BP COMMUNICATION SIGNAL (LCD-)AMP.)	Y A	V MAN	9	27 LG COMMUNICATION SIGNAL (METER->AMP.)	٤ >	>	38 P BLOWER MOTOR CONTROL SIGNAL		Connector No. M67	Connector Name   INIETED METER AND A / C AMP	┪	Connector Type TH32FW-NH			/	41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 57 58 50 51 57 58 59 50 51 52 53 54 55 56	3	<u>_</u>	of Wire	_ E	42 BR INTAKE SENSOR SIGNAL	LG IN

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### < DTC/CIRCUIT DIAGNOSIS >

MMOO	ILL POWER	AMP  5  1  2  2  2	ECK SW				А
O MS MODIVE GAMOD	PUSH-BUTTON IGNITION SWILL POWEF LOCK IND RECEIVER / SENSOR GND	THE PEESURE RECEIVER COMM SHET N/P SECURITY INDICATOR LAMP COMBIS SW OUTPUT 2 COMBIS WO OUTPUT 2 COMBIS WO OUTPUT 2	COMEI SW OUTPUT 4 COMEI SW OUTPUT 4 THE PRESSURE WARN OHECK SW DRIVER DOOR SW REAR WINDOW DEFOCICER RELAY CONT				В
700	L PUSH-BUT LG REG	++++++	SB C C W TIRE PF GR EAR WINI				С
199	+++	++++++	151				D
TMOO (G)	CEIVER COMM NPUT 5 NPUT 3	SW SW TILL OONT SOONE SUPPLY	th A/Tj  th A/Tj  th A/Tj  th A/Tj  th A/Tj  th A/T and ICC]  th A/T and ICC  th A/T	NPUT 2 SW	ELECTRICALE)	edication] ERAL LINK ENSOR LUCK SW SW 1 SW 2	Е
a) AV ISGI VA	KEYLESS ENTRY RECEIVER COMM COMBI SW INPUT 5 COMBI SW INPUT 3	PUSH SW CAN-L CAN-L CAN-H KEY SLOT ILL ON IND ACC RELAY CONT A/T SHIFT SELECTOR POWER	SHET PURITON 2 SHET PURITON 2 SHET PURITON 2 ICC QLITCH SW [With M.T and ICC] PASSENGER DOOR REQUEST SW DRIVER DOOR REQUEST SW BLOWER FAN MOTOR RELAY CONT KEYLESS BEITPR REQUER POWER SUPPLY	COMBI SW INPUT 1 COMBI SW INPUT 2 COMBI SW INPUT 3 COMBI	MI23 FOM (BODY CONTROL MODULE) TH40FG-NH  FOR THE STATE OF THE STATE O	Signal Name (Specification) RAIN SENSOR SERIAL LINK OPTICAL SENSOR CLUTCH NITTELLOCK SW STOP LAMP SW 1 STOP LAMP SW 2 DR DOOR UNLOCK SENSOR KEY SLOT SW IGN F/S FRY SLOT SW TRUNK LID OPENER CANCEL SW TRUNK LID OPENER CANCEL SW	F
8	₩	- G R B G R -	7 4 8 8 8 7 4 8 8 7 4 8 8 7 4 8 8 7 8 8 8 7 8 8 8 8	Z Z X Z Z >	Connector No. MIZ3 Connector Type TH401 Connector T	Ordor or Wire or or Wire or	G
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	(OL MODULE)	44 39 38 37 38 35 34 39 30 35 34 34 35 34 35 34 35 34 35 34 35 34 35 34 35 34 35 34 35 34 35 34 34 35	Signal Name [Specification] TRUNK ROOM ANTT- TRUNK ROOM ANTT- TREAR BUMPER ANTT- REAR BUMPER ANTT- REAR BUMPER ANTT- IGN RELAY (IPDM E.F.R CONT TRUNK ROOM LAMP SW EXAMED BELAY (CONT	INK LID OPENER REQUEST SW TWARN BUZZER (ENG ROOM) TRUNK LID OPENER SW REAR RH DOOR SW REAR LH DOOR SW	ROL MODULE)	Signal Name [Specification] ROOM ANT 2- ROOM ANT 2- PASSEMER DOOR ANT- DENCER DOOR ANT- DENCER DOOR ANT- PROOM ANT 1- ROOM ANT	I
ioiw.	BCM (BODY CONTROL MODULE) TH40FGY-NH	62 61	Signal Nam TRUNK TRUNK REAR B REAR B IGN RELAY ITRUNK R	TRUNK LID OP  I-KEY WARN B  TRUNK LI  REAR F	Name	Signal Nam ROO ROO PASSENG PASSENG PASSENG DRIVER DRIVER DRIOF ROO ROO ROO NATS	J
Connector No	Connector Name		Terminal Color  No. of Wire  34 SB  35 V  38 B  47 Y  47 Y  50 BG		Connector No. Connector Name Connector Type HS FIELD SEE	Terminal Color No. of Wire 72 R 73 G 74 SB 75 D 77 LG 77 C 77 C 77 C 78 D 78 D 78 D 78 D 78 D	DL
ſ		]	JPPLY TPUT SUTPUT JT	GND			L
SYSTEM	BCM (BODY CONTROL MODULE) NS16FW-CS	7  8 9 10	Signal Name (Specification) INTERIOR ROOM LAMP POWER SUPPLY PASSENGER BOOR UNLOCK OUTPUT ALL DOOR FUEL LID LOCK OUTPUT BRYER DOOR FUEL LID UNLOCK OUTPUT REAR DOOR PUEL LID UNLOCK OUTPUT REAR DOOR PUEL LID UNLOCK OUTPUT	PUSH-BUTTON IGNITION SWILL GND ACD IND TURN SIGNAL IN (FRONT) TURN SIGNAL IN (FRONT) ROOM LAMP TIMER CONTROL	M120 BGM (BGDY CONTROL MODULE) NS12FW-GS 20 21	Signal Name [Specification] TURN SIGNAL RH (REAR) TRUNK LID OPEN OUTPUT TURN SIGNAL LH (REAR) TRUNK ROOM LAMP	M
INT KEY	BCM (BODY C	5 6 12 13	Signa INTERIOR R PASSENGE ALL DOOF DRIVER DOOF	PUSH-BUT TURN TURN ROOM I	M120 BCM (BODY C NS12FW-CS 20 21	Signa TURI TRINI TURI TIT	N
INTELLIGENT KEY SYSTEM	Connector Name	H.S.	Terminal Color No. of Wire 4 LG 5 P 7 SB 8 V 9 G 110 P		Connector No. Connector Type	No.   Color   No.   Of Wire   20   V   20   V   23   LG   25   Y   30   P   P	0
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Con	Connector No.	M124	Connector No.		M131	Connector No. M146
Conr	Connector Name	ne WIRE TO WIRE	Connector Name		INSIDE KEY ANTENNA (INSTRUMENT CENTER)	Connector Name INSIDE KEY ANTENNA (CONSOLE)
Conr	Connector Type	re TH40MW-CS15	Connector Type		RK02FGY	Connector Type RK02FGY
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Tern	<u></u>	Color Signal Name [Specification]	Terminal		Signal Name [Snevification]	=
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<u> </u>	=	1	Connector Name		A/ I SHIFT SELECTOR	
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JCKWM3743GE

# TRUNK LID OPENER

Wiring Diagram - TRUNK LID OPENER -

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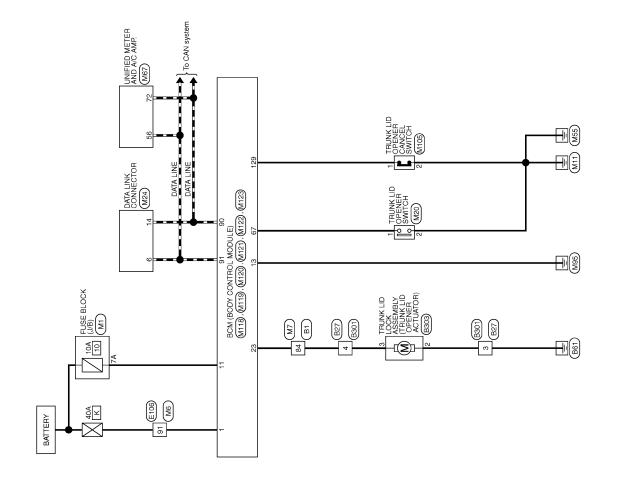
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TRUNK LID OPENER

JCKWM3744GE

### **TRUNK LID OPENER**

### < DTC/CIRCUIT DIAGNOSIS >

Fired   Consider Name   Fired   Consider Name   Fired   Consider Name   Cons	We	WIRE TO WIRE	TH80MW-CS16-TM4			4 LESS 3242 PROPERTY AND ADDRESS AND ADDRE					O	Signal Name [Specification]	1	1	-	1	1		1	-	1	1		1	1	1	1	1 1	1	1		1	1	1	1	1	- [With A/T]	– [With M	1			1	1	1	1									F	
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Connected   Conn																						M1	FUSE BLOCK (J/B	NS06FW-M2				) Kg	8A 7A 6A	]																								J	
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JCKWM3745GE	TRUNK LID OP	Je J	П			8 8	98 88	3 8	56 001					Н	Н	+	+	+	+	Н	+	+	+	+		$\dashv$	+	+	+	H	H		+	+	+	H	Н	+	+	+	+	╀	Н	Н	+		JCK	(WM	1374	15GI				С	)

### **TRUNK LID OPENER**

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200	Т	1111	28 29	>		Т		≨ ≥
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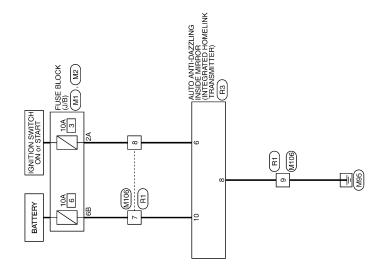
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POWER WINDOW SW COMM PUSH-BUTTON IGNITION SW LL POWER LOCK IND RECEIVER / SENSOR GAN SHET N.P SECURITY INDICATOR SUPPLY COMBIS SW OUTPUT 1 COMBIS SW OUTPUT 3 THE PRESSURE WARN CHECK SW BRIVER BOOR SW REAR WINDOW DEFOCGER RELAY CONT		В
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IGN RELAY (F/B) CONT  KEYLESS ENTEY RECEIVER COMM  COMBI SWI INPUT 3  COMBI SWI INPUT 3  COMBI SWI INPUT 3  CAN-I  SAL CONDITION 1  SAL CONDITION 1  SAL CONDITION 2  SAL CONDITION 3  BLOWER PAN MOTOR REQUEST SWI  BLOWER PAN MOTOR REQUEST SWI  COMBI SWI INPUT 4  COMBI SWI INPUT 2  COMBI SWI INPUT 4  COMBI SWI INPUT 4  COMBI SWI INPUT 2	M MBODY CONN ADPG-NH Signal Na Signal Na CLUTCH STO STO STO STO STO STO STO STO STO STO	TRUNK LID OPENER CANCEL SW TRUNK LID OPENER CANCEL SW
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M121 THUPFGY-NH THUPFGY-NH THUPFGY-NH Signal Name [Specification] TRUNK ROOM ANT- TRUNK ROOM LAMP SW STARTER RELAY CONT TRUNK LID OPENER SW FEAR RHI DOOR SW REAR RHI DOOR SW REAR LIH DOOR SW	MI22 BOM (BODY CONTROL MODULE) TH40FB-NH TH40FB-NH Signal Name (Specification) Signal Name (Specification) ROOM ANT 2+ PASSENGER DOOR ANT- ROOM ANT 1- PASSENGER DOOR ANT- PASSENGER DOOR ANT- ROOM ANT 1-	ODM AND IT + TIS ANT AMP. TIS ANT AMP.
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D OPENE   MI19   BCM (BODY OZ   NS16FW-CS   NTERIOR E   PASSENDER   ALL DOOR   PUSH-BUT   TURN	M120 BCM (BODY CC NS12FW-CS  25 26 27 [2]  Signal TURN TURN TURN TRIAN	N
CO   CO   CO   CO   CO   CO   CO   CO	Connector No.  Connector Name Connector Type  Terminal Color No.  20 V 23 LG 23 LG 25 Y 30 P	0
	O Communication of the state of	JCKWM3747GE
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## **INTEGRATED HOMELINK TRANSMITTER SYSTEM**

Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM - INFOID:0000000005628526



INTEGRATED HOMELINK TRANSMITTER

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### INTEGRATED HOMELINK TRANSMITTER SYSTEM

or No lating		NH10MW-CS10 9	01		1 2 3 4 5 6	0 10 11 12 12 R	7 8 14 15 16 17 18 19 20 16 G = -	18 B	Color Signal Name [Specification]		SHIELD -	G Connector No. R3		- Connector Name	Y - Connector Type   TH10FB-NH	1	(本) - 97			0 0	9 6 01		Signal Name [Specification]	No. of Wire	BK o	- 8 B GND 10 GR BAT	or No. R1	Connector Name WIRE TO WIRE	Connector Type NH10FW-CS10			6 5 4 3 2 1		20 19 13 12 11 10 9 8 7 8	18 17 16 15 14		Color Signal Name [Specification]	or wire	SHELD							
INTEGRATED HOMELINK TRANSMITTER	FUSE BLOCK (J/B)	De NS06FW-M2 Connector Type		<b>E</b>	3A	7A 6A			olor Signal Name [Specification] Terminal		1		-	9	۲ – ۲	1	6	100		MZ	FUSE BLOCK (J/B)	se NS10FW-CS 16		18		48 38 2 28 18	Connector No.	:	Signal Name [Specification]	I					-	-	Terminal	No.	8	0 4	. 10					
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## **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# BCM (BODY CONTROL MODULE)

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FK WIPEK III	Front wiper switch HI	On
ED WIDER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
FR WIFER IN	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
TR WIFER STOF	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial pos tion
TURN SIGNAL R	Other than turn signal switch RH	Off
TORN SIGNAL IX	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TORN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAWIF 3W	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
TII BEAIN OW	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
TILAD LAWI OW I	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
TILAD LAMI OW Z	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
1 7001110 011	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AOTO LIGITI OV	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
11(100 SW	Front fog lamp switch ON	On
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
DOOK GVV-DK	Driver door opened	On
DOOD SWAS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW PP	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

#### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
OOR SW-RL	Rear LH door closed	Off
OOK 3W-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
DL LOCK SVV	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
DE ONLOCK SW	Power door lock switch UNLOCK	On
(EY CYL LK-SW	Other than driver door key cylinder LOCK	Off
ET CTL LK-SW	Driver door key cylinder LOCK	On
(EY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off
ET CTL ON-3W	Driver door key cylinder LOCK	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
R CANCEL SW	Trunk lid opener cancel switch OFF	Off
N CANCLE OV	Trunk lid opener cancel switch ON	On
R/BD OPEN SW	Trunk lid opener switch OFF	Off
R/BD OPEN SW	While the trunk lid opener switch is turned ON	On
RNK/HAT MNTR	Trunk lid closed	Off
KINIVITAT WINTK	Trunk lid opened	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
INE-LOCK	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
INL-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
KE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
INC TIVOD	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	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
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF HOME SENSOR	Dark outside of the vehicle	Close to 0 V
DEO SW. DD	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
DEO SW. AS	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
DEO SW. DD/TD	Trunk lid opener request switch is not pressed	Off
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On
DUCH OW	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
IGN KL12 -F/B	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCII CW	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
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	<ul> <li>Selector lever in P position (Except M/T models)</li> <li>The clutch pedal is depressed (M/T models)</li> </ul>	Off
DETE/CANCL SW	<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
OFT DN/N OW	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
C/L LOCK	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
3/L -UNLOCK	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
S/L RELAT-F/D	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
FOSITOW-IFDIVI	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
IGN KLI I -F/B	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
DETE SW -IF DIVI	Selector lever in P position	On
CET DN IDDM	<ul> <li>Selector lever in any position other than P and N (Except M/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	Off
SFT PN -IPDM	<ul> <li>Selector lever in P or N position (Except M/T models)</li> <li>The clutch pedal is depressed (M/T models)</li> </ul>	On
OFT D 1457	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
<b></b>	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

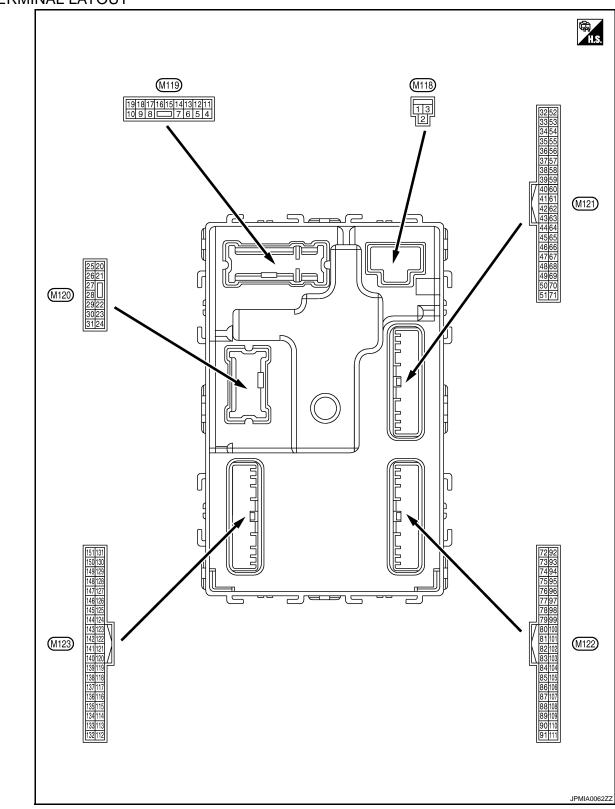
### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
C/L L COL IDDM	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
C/L LINUX IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
5/L RELAY-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
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 EL AC	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
FINITI ENG SIKI	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
NET 3VV -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
CONTINUED ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFINIVI ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDM 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

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Monitor Item	Condition	Value/Status
CONFIRM ID2	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
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
TD 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	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
173	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
172	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IFI	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID 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 DECCT ED4	ID of front RH tire transmitter is registered	Done
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOT KKT	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 LAND	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

#### TERMINAL LAYOUT



PHYSICAL VALUES

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	nal No.	Description				Value	
(Wire	color)	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	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V	
(P)	Giouna	LOCK	Output	door	Other than UNLOCK) Actuator is not activated	0 V	
7	Cround	Cton lamp	Output	Cton lamp	ON	0 V	
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V	
8	8 Ground All doors, fuel lid	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V	
(V)	Oround	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V	
9	Ground	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V	
(G)	Oround	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V	
10	Ground	Rear RH door and rear LH door UN-	0.44	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(P)	Oround	LOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V	
11 (R)	Ground	Battery power supply	Input	Ignition switch (	OFF	Battery voltage	
13 (B)	Ground	Ground	_	Ignition switch (	ON	0 V	
					OFF	0 V	
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position  (V)  10  0  JSNIA0010GB	
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
(BG)		·			ACC	0 V	

	nal No.	Description				Value	
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
					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	
					Turn signal switch OFF	6.5 V 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	Room lamp timer	Output	Interior room	OFF	12 V	
(V)	Ground	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					OPEN (Trunk lid opener actuator is activated)	12 V	
(LG)	Ground	Trunk lid open	Output	Output	Output Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V
					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	
		İ				0.5 v	
30			Output	Trunk room	ON	0 V	

	nal No.	Description				Value
+ (vvire	color)	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   S   S   S   S   S   S   S   S
(SB)	Ground	(–)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(V)	Glodina	(+)	Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
38	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Giodila	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

	nal No. color)	Description			O a malitia m	Value
+	- -	Signal name	Input/ Output		Condition	(Approx.)
39	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(W)	Glound	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
47		Ignition relay (IPDM			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
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V
52	Ground	Starter relay control	Output	els)	When selector lever is not in P or N position	0 V
(R)	Ground	Clarici Telay Control	Output	Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage
				els)	When the clutch pedal is not depressed	0 V
					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			latalian at IZa.	Carra dia a	0.1/
64	Ground	Intelligent Key warn- ing buzzer (Engine	Output	Intelligent Key warning buzzer	Sounding	0 V

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed  Not pressed	0 V  (V) 15 10 5 0 JPMIA0011GB 11.8 V
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)  ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)  ON (When rear LH door opens)	(V) 15 10 5 0 10 ms 10 ms 11.8 V
72 (B)	Ground	Room antenna 2 (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)		(Center console)	·	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB

	inal No.	Description	T		0 199	Value	А			
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α			
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	B C			
(G)	Glound	(Center console)	Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	E F			
74	Ground	Passenger door an-	Output	When the passenger door request switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H			
(SB)	Clound	tenna (-)			·		operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J DLK
75	Cround	Passenger door an-	Outout	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M			
(BR)	Ground	tenna (+)	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	O P			

	nal No. color)	Description			0 177	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
76		Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(V)	Ground	(-)	Guipur	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
77	Ground	Driver door antenna	Output	When the driver door request switch is operated with ignition switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Glound	(+)	Сири		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(Y)	Giouria	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

### < ECU DIAGNOSIS INFORMATION >

color)	Signal name	Input/			Value (Approx.)	
		Output		Condition		
Cround	Room antenna 1 (+)	Qutout	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062G	
Glound	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GI	
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.	
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.	
Ground	Ignition relay [Fuse	Output	lanition switch	OFF or ACC	0 V	
Cround	block (J/B)] control	Output	ignition ownor	ON	12 V	
Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms	
Ground	tion	Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 ms	
		Ground NATS antenna amp.  Ground NATS antenna amp.  Ground Ignition relay [Fuse block (J/B)] control  Remote keyless entry receiver communica-	Ground NATS antenna amp. Input/Output  Ground NATS antenna amp. Input/Output  Ground Ignition relay [Fuse block (J/B)] control Output  Ground Remote keyless entry receiver communica-Output	Ground NATS antenna amp. Input/Output During waiting  Ground NATS antenna amp. Input/Output During waiting  Ground Ignition relay [Fuse block (J/B)] control Output Ignition switch  Ground Remote keyless entry receiver communication Input/Output Uning waiting During waiting	Ground NATS antenna amp. Input/Output During waiting Ground Ingition relay [Fuse block (J/B)] control Ground Remote keyless entry receiver communication Input/Output Input/Ou	

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< ECU [	DIAGNO	BC SIS INFORMATIC	•	DDY CONT	ROL MODULE)	
Termir	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 1.4 V
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
					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 1.3 V

	nal No.	Description	1			Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
88		Combination switch		Combination	Lighting switch HI (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0036GB 1.3 V
(BG)	Ground	INPUT 3	Input	switch	Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0037GB 1.3 V
					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
		<b></b>		Push-button ig-	Pressed	1.3 V 0 V
89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	nition switch (push switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	,	<u> </u>	_
91 (L)	Ground	CAN-H	Input/ Output		_	
					OFF	0 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 5 0 1 s
						6.5 V
					ON	12 V

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(OIV)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Ground	ACC relay control	Output	ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Ground	tion No. 1	прис	Oleching lock	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	Ground	tion No. 2	прис	Steering lock	UNLOCK status	0 V
		Selector lever P posi-			P position	0 V
		tion switch (A/T mod- els)		Selector lever	Any position other than P	12 V
99		ASCD clutch switch		ASCD clutch	OFF (Clutch pedal is depressed)	0 V
(R)* <sup>1</sup> (BR)* <sup>2</sup>	Ground	ICC)	Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is depressed)	0 V
		T models with ICC)		switch	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 JPMIA0016
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(BG)	Cround	lay control	Carput	- ignition switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch (	DFF	12 V
106	Ground	Steering lock unit	Output	Ignition quitab	OFF or ACC	12 V
(SB)	Giouria	power supply	Output	Ignition switch	ON	0 V

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+	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
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

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	nal No.	Description			<u></u>	Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(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 1.3 V
(R)		INPUT 4		switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					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

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					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 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
111	Ground	Steering lock unit	Input/	Steering lock	LOCK status  LOCK or UNLOCK	12 V
(Y)		communication	Output	g	For 15 seconds after UN-LOCK  15 seconds or later after	12 V
112 (R)	Ground	Light and rain sensor serial link	Input/ Output	Ignition switch C	UNLOCK	(V) 15 10 5 0 JPMIA0156GB 8.7 V
113 (BG)	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle  When dark outside of the	Close to 5 V
114	Ground	Clutch interlock	Input	Clutchinterlock	vehicle  OFF (Clutch pedal is not depressed)	Close to 0 V
(R)		switch	'	switch	ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Crownd	(Without ICC)	lanut	switch	ON (Brake pedal is depressed)	Battery voltage
(BR)	Ground	Stop lamp switch 2	Input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)			h ON (Brake pedal is de- 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

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	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
121 (SB)	Ground	Key slot switch	Input	slot	gent Key is inserted into key	12 V
				key slot		0 V
123 (V)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V  Battery voltage
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 10 ms  JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel 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 C	NO	(V) 15 10 5 0 10 ms JPMIA0013GB
						10.2 V
-				Ignition switch C		12 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps OFF) ON (Tail lamps ON)	9.5 V  NOTE:  The pulse width of this wave is varied by the illumination brightening/dimming level.  (V) 15 10 5 0  JPMIA0159GB
					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 C		0 V

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(V)	Orouna	power supply	Output	igilia ori o viitori	ACC or ON	5.0 V
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s
(L)		er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(B)	Oround	position	IIIput	Coloctor level	Except P and N positions	0 V
					ON	0 V
141 (W)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB
					OFF	12 V
					All switches OFF	0 V
					Lighting switch 1ST	
				Combination	Lighting switch HI	(V)
142 (BR)	Ground	Combination switch	Output	switch	Lighting switch 2ND	10 5
(=: 1)	0.000	OUTPUT 5	Саграг	(Wiper volume dial 4)	Turn signal switch RH	0
					All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	(V)
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	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	15 10 5 0 2 ms JPMIA0032GB

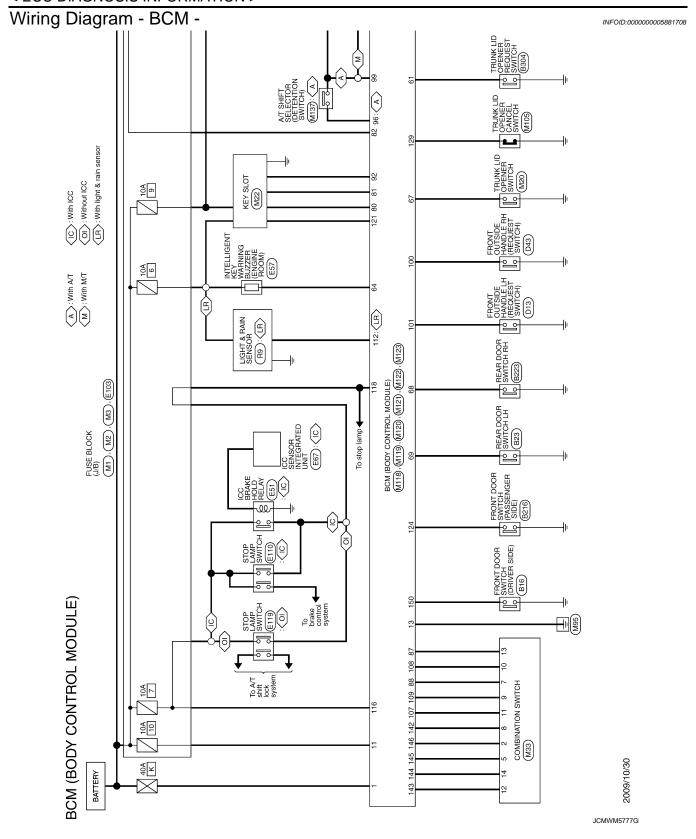
#### < ECU DIAGNOSIS INFORMATION >

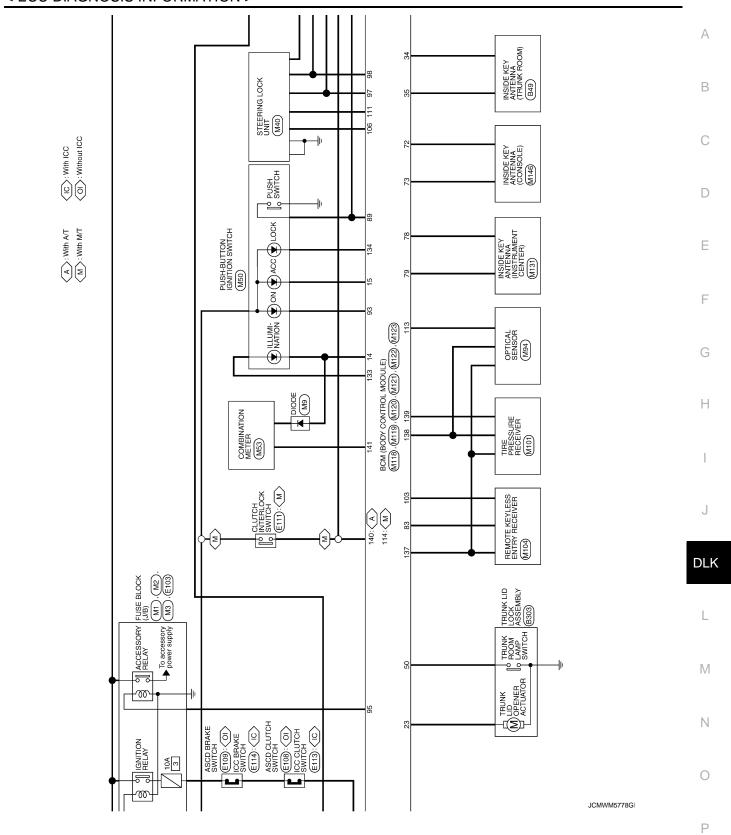
	inal No. e color)	Description			C	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	(V)
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 5  Wiper volume dial 6	15 10 5 0 2 ms JPMIA0033GB
					All switches OFF	0 V
					Front wiper switch INT/ AUTO	(V)
145		Combination switch	_	Combination switch	Front wiper switch LO	15
(L)	Ground	OUTPUT 3	Output	(Wiper volume dial 4)	Lighting switch AUTO	5 0 2 ms 2 ms JPMIA0034GB 10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V)
146 (SB)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper volume dial 4)	Lighting switch PASS  Turn signal switch LH	10 5 0 2 ms
						10.7 V
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window	Active	0 V
(G)		ger relay control		defogger	Not activated	Battery voltage

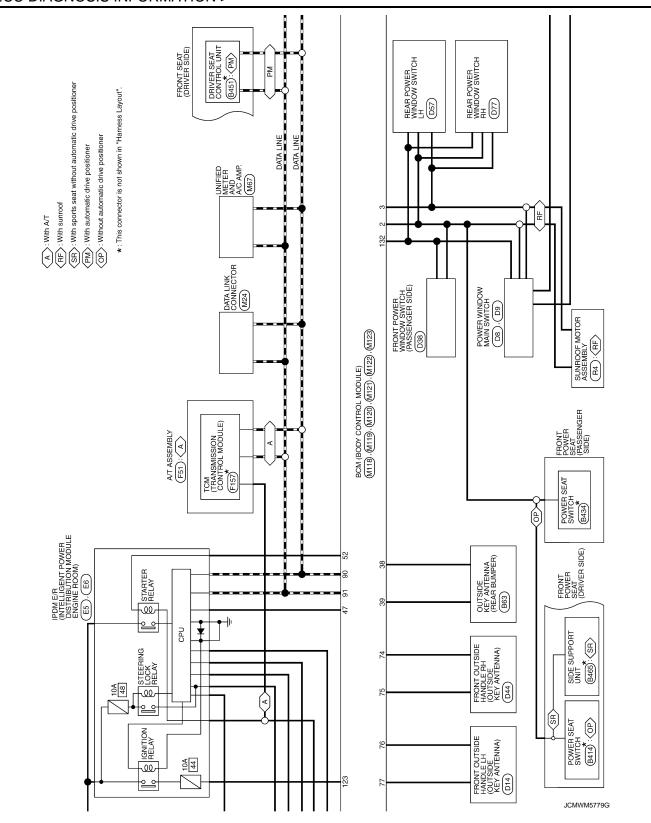
<sup>• \*1:</sup> A/T models

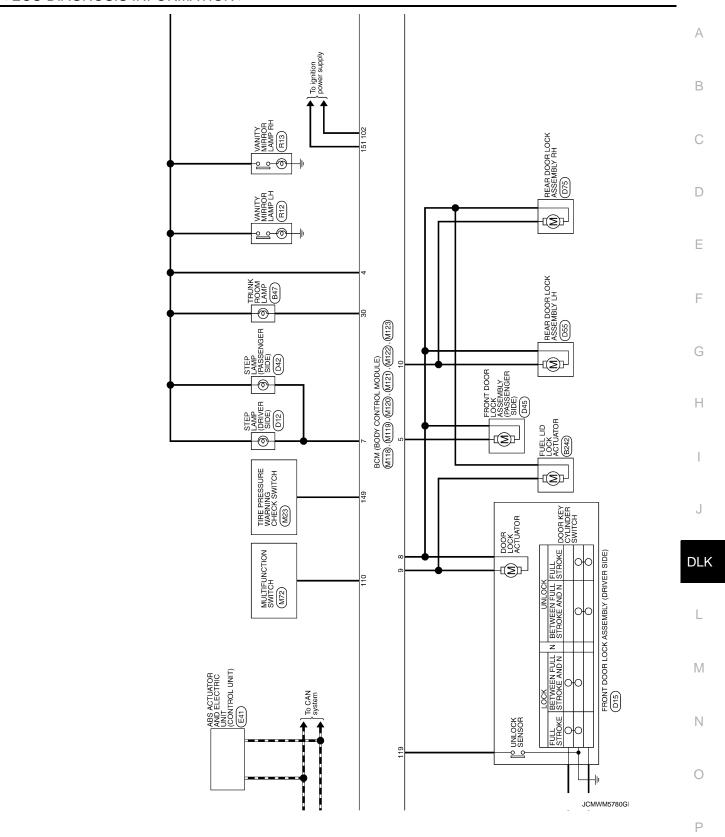
**DLK-167** 2010 G37 Sedan Revision: 2009 November

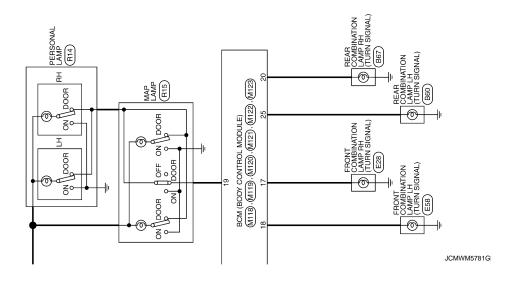
<sup>• \*2:</sup> M/T models Ρ







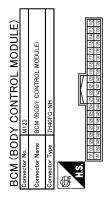




#### < ECU DIAGNOSIS INFORMATION >

NIT R COMM R SUPPLY I SW ICC] I SW I SW ICC] WITHOUT ICC] WITH SUPPLY I SW I SW ICCOUT WER SUPPLY I SW ICCOUT	А
IGN RELAY (F.B) CONT  COMBI SW INPUT 3  COMBI SW INPUT 4  COMBI SW INPUT 1  COMBI SW INPUT 2  COMBI SW INPUT 3  COMBI SW	В
10   10   10   10   10   10   10   10	С
888 888 889 99 99 99 99 100 101 100 110 110 110 11	D
2 등 5 등 5 등 5 등 5 등 5 등 5 등 5 등 5 등 5 등	Е
ROL MM   F	
Missing   Miss	G
Connecto	Н
1516FW-CS	I
119   12   13   14   15   17   18   19   11   12   13   14   15   17   18   19   11   12   13   14   15   15	J
Connector No.   Connector Name   B   Connector Name   B   Connector Type   No.   of Wire   Of Wi	DLK
((RAP)	L
Y CONTROL MODULE)  ASSOCIATION SWITCH HIGHWAH  Signal Name (Specification)  FR WASHER (-)  OUTPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 1  NAPUT 3  OUTPUT 1  NAPUT 3  OUTPUT 2  INPUT 1  OUTPUT 2  INPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  INPUT 1  INPUT 1  INPUT 1  INPUT 1  OUTPUT 2  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 3  INPUT 1  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 2  INPUT 3  INPUT 1  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 3  INPUT 4  INPUT 3  OUTPUT 2  INPUT 3  OUTPUT 3  INPUT 1  INPUT 1  INPUT 3  OUTPUT 3  INPUT 1  INPUT 3  OUTPUT 3  INPUT 1  INPUT 3  OUTPUT 3  INPUT 3  OUTPUT 3  INPUT 3  OUTPUT 3  INPUT 3  OUTPUT 3  INPUT 4  INPUT 3  OUTPUT 3  INPUT 3  INPUT 4  INPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  OUTPUT 3  INPUT 4  INPUT 3  OUTPUT 3  OUTPUT 3  INPUT 4  INPUT 4  INPUT 5  INPUT 6  OUTPUT 7  INPUT 6  OUTPUT 7  INPUT 7  INPUT 7  INPUT 7  INPUT 8  INPUT 9  OUTPUT 7  INPUT 9  OUTPUT 9  O	М
	N
Connector Name   Connector Name   Connector Name   Connector Type   Connector Type   Connector Type   Connector No.   Connector Type   Connector T	0
	JCMWM5782GI
	Р

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Terminal	Color	Cimal Nama [Coacification]
No.	of Wire	Ogial Parile [Openiication]
112	۳	RAIN SENSOR SERIAL LINK
113	BG	OPTICAL SENSOR
114	ч	CLUTCH INTERLOCK SW
116	SB	STOP LAMP SW 1
118	BR	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	SB	KEY SLOT SW
123	>	IGN F/B
124	œ	PASSENGER DOOR SW
129	BG	TRUNK LID OPENER CANCEL SW
132	۸	POWER WINDOW SW COMM
133	П	PUSH-BUTTON IGNITION SW ILL POWER
134	ΓG	LOCK IND
137	BG	RECEIVER / SENSOR GND
138	۸	RECEIVER / SENSOR POWER SUPPLY
139	٦	TIRE PRESSURE RECEIVER COMM
140	В	SHIFT N/P
141	W	SECURITY INDICATOR LAMP
142	BR	COMBI SW OUTPUT 5
143	Ь	COMBI SW OUTPUT 1
144	g	COMBI SW OUTPUT 2
145	٦	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
149	W	TIRE PRESSURE WARN CHECK SW
150	ЯĐ	DRIVER DOOR SW
151	5	REAR WINDOW DEFOGGER RELAY CONT

JCMWM5783G

INFOID:0000000005881709

### FAIL-SAFE CONTROL BY DTC

Fail-safe

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

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation	А	
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC		
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC		
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC	В	
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC		
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	C	
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC		
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF		
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms	D	
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		
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent  • Selector lever P position switch signal  • P range signal (CAN)		
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are ful- filled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (12 V) • Vehicle speed: 4 km/h (2.5 MPH) or more	G	
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (12 V)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>	I	
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Selector lever P/N position signal: P and N position (12 V)  - P range signal or N range signal (CAN): ON  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: Except P and N positions (0 V)  - P range signal and N range signal (CAN): OFF	J DL	
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Selector lever P/N position signal: Except P and N positions (0 V)  - Interlock/PNP switch signal (CAN): OFF  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: P or N position (12 V)  - PNP switch signal (CAN): ON	M N	
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Steering lock relay signal (Request signal)  • Steering lock relay signal (Condition signal)	F	
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)		

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### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  Starter motor relay control signal  Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
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)
B2612: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When any of the following conditions are fulfilled  Steering lock unit status signal (CAN) is received normally  The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
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
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output 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)
B26E9: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled  • Steering condition No. 1 signal: LOCK (0 V)  • Steering condition No. 2 signal: LOCK (12 V)

## DTC Inspection Priority Chart

INFOID:0000000005881710

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	
	<ul> <li>B2013: ID DISCORD BCM-S/L</li> <li>B2014: CHAIN OF S/L-BCM</li> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> </ul>	
	<ul> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSI STATUS</li> </ul>	
	<ul> <li>B2604: PNP/CLUTCH SW</li> <li>B2605: PNP/CLUTCH SW</li> <li>B2606: S/L RELAY</li> <li>B2607: S/L RELAY</li> <li>B2608: STARTER RELAY</li> </ul>	
4	<ul> <li>B2609: S/L STATUS</li> <li>B260A: IGNITION RELAY</li> <li>B260B: STEERING LOCK UNIT</li> <li>B260C: STEERING LOCK UNIT</li> <li>B260D: STEERING LOCK UNIT</li> </ul>	
	<ul> <li>B260F: ENG STATE SIG LOST</li> <li>B2612: S/L STATUS</li> <li>B2614: BCM</li> <li>B2615: BCM</li> <li>B2616: BCM</li> </ul>	
	<ul> <li>B2617: BCM</li> <li>B2618: BCM</li> <li>B2619: BCM</li> <li>B261A: PUSH-BTN IGN SW</li> <li>B261E: VEHICLE TYPE</li> </ul>	
	<ul> <li>B26E8: CLUTCH SW</li> <li>B26E9: S/L STATUS</li> <li>B26EA: KEY REGISTRATION</li> <li>C1729: VHCL SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED</li> </ul>	
	<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> </ul>	
5	<ul> <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] RL</li> <li>C1734: CONTROL UNIT</li> </ul>	
6	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA	

#### 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-14">BCS-14</a>, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-33
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-34
U0415: VEHICLE SPEED	_	_	_	_	BCS-35
B2013: ID DISCORD BCM-S/L	×	×	_	_	<u>SEC-55</u>
B2014: CHAIN OF S/L-BCM	×	×	_	_	SEC-56
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-47
B2191: DIFFERENCE OF KEY	×	_	_	_	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	_	_	_	SEC-51
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-53
B2195: ANTI-SCANNING	×	_	_	_	SEC-54
B2553: IGNITION RELAY	_	×	_	_	PCS-49
B2555: STOP LAMP	_	×	_	_	SEC-59
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-61
B2557: VEHICLE SPEED	×	×	×	_	SEC-63
B2560: STARTER CONT RELAY	×	×	×	_	SEC-64
B2562: LOW VOLTAGE	_	×	_	_	BCS-36
B2601: SHIFT POSITION	×	×	×	_	SEC-65
B2602: SHIFT POSITION	×	×	×	_	SEC-68
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-70
B2604: PNP/CLUTCH SW	×	×	×	_	SEC-73
B2605: PNP/CLUTCH SW	×	×	×	_	SEC-75
B2606: S/L RELAY	×	×	×	_	SEC-77
B2607: S/L RELAY	×	×	×	_	SEC-78
B2608: STARTER RELAY	×	×	×	_	SEC-80
B2609: S/L STATUS	×	×	×	_	SEC-82
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-86
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-87
B260D: STEERING LOCK UNIT	_	×	×	_	SEC-88
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-89
B2612: S/L STATUS	×	×	×	_	SEC-94
B2614: BCM	_	×	×	_	PCS-53
B2615: BCM	_	×	×	_	PCS-55
B2616: BCM	_	×	×	_	PCS-57
B2617: BCM	×	×	×	_	SEC-98
B2618: BCM	×	×	×	_	PCS-59
B2619: BCM	×	×	×	_	SEC-100
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-101

#### < 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	
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59	
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61	
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63	
B26E8: CLUTCH SW	×	×	×	_	SEC-90	
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-93</u>	
C1704: LOW PRESSURE FL	_	_	_	×		
C1705: LOW PRESSURE FR	_	_	_	×	WT oc	
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-26</u>	
C1707: LOW PRESSURE RL	_	_	_	×		
C1708: [NO DATA] FL	NO DATA] FL — — ×					
C1709: [NO DATA] FR	_	_	_	×	<u>WT-28</u>	
C1710: [NO DATA] RR	_	_	_	×	<u> </u>	
C1711: [NO DATA] RL	_	_	_	×		
C1716: [PRESSDATA ERR] FL	_	_	_	×		
C1717: [PRESSDATA ERR] FR	_	_	— × — ×		WT 24	
C1718: [PRESSDATA ERR] RR	_	_			<u>WT-31</u>	
C1719: [PRESSDATA ERR] RL	_	_	_	×		
C1729: VHCL SPEED SIG ERR	_	_	_	×	WT-33	
C1734: CONTROL UNIT	_	_	_	×	WT-35	

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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:0000000005628532

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

ALL DOOR: Diagnosis Procedure

INFOID:0000000005628533

#### 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-38, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

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

INFOID:0000000005628534

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

#### **DRIVER SIDE**: Diagnosis Procedure

INFOID:0000000005628535

### 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? Α >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". YES NO >> GO TO 1. PASSENGER SIDE В PASSENGER SIDE: Description INFOID:0000000005628536 Passenger side door does not lock/unlock using door lock and unlock switch. PASSENGER SIDE : Diagnosis Procedure INFOID:0000000005628537 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. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. REAR LH Н REAR LH: Description INFOID:0000000005628538 Rear LH side door does not lock/unlock using door lock and unlock switch. REAR LH: Diagnosis Procedure INFOID:0000000005628539 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator (rear LH). Refer to DLK-73, "REAR LH: Component Function Check". DLK 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-38, "Intermittent Incident". NO >> GO TO 1. N REAR RH **REAR RH**: Description INFOID:0000000005628540 Rear RH side door does not lock/unlock using door lock and unlock switch. **REAR RH**: Diagnosis Procedure INFOID:0000000005628541 CHECK DOOR LOCK ACTUATOR

Refer to DLK-73, "REAR RH: Component Function Check".

Is the inspection result normal?

Check door lock actuator (rear RH).

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

< SYMPTOM DIAGNOSIS >

## 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-38, "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-0000000005628542	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.	D
Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.	
NO >> Refer to <u>DLK-180, "ALL DOOR : Diagnosis Procedure"</u> .	Е
2. CHECK DOOR KEY CYLINDER SWITCH	
Check door key cylinder switch. Refer to DLK-80, "Component Function Check".	F
Is the inspection result normal?	
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-38, "Intermittent Incident".  NO >> GO TO 1.	ı
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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:0000000005628544

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:0000000005628545

## 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-52, "INTELLIGENT KEY: CONSULT-III 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-38, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

## **DRIVER SIDE: Description**

INFOID:0000000005628546

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:0000000005628547

## 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.

 ${f 3.}$ CONFIRM THE OPERATION

Confirm the operation again.

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

#### < SYMPTOM DIAGNOSIS >

< SYMPTOM DIAGNOSIS >	i
Is the result normal?  YES >> Check Intermittent Incident. Refer to GI-38, "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.  NOTE:	С
Check door request switch operation in the door lock condition. Refer to <u>DLK-21, "DOOR LOCK FUNCTION: System Description"</u> .	
PASSENGER SIDE : Diagnosis Procedure	D
1. CHECK PASSENGER SIDE DOOR REQUEST SWITCH	Е
Check passenger side door request switch. Refer to DLK-91, "Component Function Check".	
Is the inspection result normal? YES >> GO TO 2.	F
NO >> Repair or replace the malfunctioning parts.	
2. CHECK OUTSIDE KEY ANTENNA RH	G
Check outside key antenna RH. Refer to <a href="https://doi.org/10.1007/journal.com/DLK-95">DLK-95</a> , "Component Function Check".	
Is the inspection result normal?  YES >> GO TO 3.	Н
NO >> Repair or replace the malfunctioning parts.	ı
3.CONFIRM THE OPERATION  Confirm the operation again.	
Is the result normal?	J
YES >> Check Intermittent Incident. Refer to <u>GI-38, "Intermittent Incident"</u> . NO >> GO TO 1.	
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#### DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

**Description** 

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> ENTRY FUNCTION: System Description".

#### **Diagnosis Procedure**

INFOID:0000000005628551

## 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-180</u>, "ALL <u>DOOR</u>: <u>Diagnosis Procedure"</u>.

## 2.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.

Refer to DLK-82, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3. CHECK INTELLIGENT KEY

Check Intelligent Key.

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

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4. CHECK KEY SLOT

Check key slot.

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

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### CHECK DOOR SWITCH

Check door switch.

Refer to DLK-66, "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-38, "Intermittent Incident".

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

< SYMPTOM DIAGNOSIS >

Description	INFOID:00000000056285
NOTE: Check trunk lid opener switch operation in the trunk lid open condition. Refer to DLK	-47. "System Description
Diagnosis Procedure	INFOID:0000000005628
1.CHECK TRUNK LID OPENER SWITCH	
Check trunk lid opener switch. Refer to DLK-85, "Component Function Check". s 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 <u>DLK-76, "Component_Function_Check"</u> .  s 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 <u>DLK-89, "Component Function Check"</u> .	
s 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-107, "DTC Index".	
s the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
O.CONFIRM THE OPERATION	
Confirm the operation again.	
s the result normal?  YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	
110 >> 00 10 1.	

#### TRUNK LID DOES NOT OPEN WITH INTELLIGENT KEY

#### < SYMPTOM DIAGNOSIS >

## TRUNK LID DOES NOT OPEN WITH INTELLIGENT KEY

Description INFOID:000000005628554

#### NOTE:

Check Intelligent Key remote operation with trunk lid open condition. Refer to <u>DLK-30</u>, "<u>REMOTE KEYLESS ENTRY FUNCTION</u>: System Description".

#### **Diagnosis Procedure**

INFOID:0000000005628555

## 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 <u>DLK-187</u>, "<u>Diagnosis Procedure</u>".

2.CHECK "TRUNK OPEN DELAY" SETTING IN "WORK SUPPORT"

Check "TRUNK OPEN DELAY" setting in "WORK SUPPORT".

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "TRUNK OPEN DELAY" setting in "WORK SUPPORT".

## 3.CHECK POWER POSITION

Check if ignition switch position is changing or not.

#### Does ignition switch position change?

YES >> GO TO 4.

NO >> Check DTC for BCM. Refer to MWI-107, "DTC Index".

#### 4. CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to DLK-100, "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-38, "Intermittent Incident".

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

< SYMPTOM DIAGNOSIS > TRUNK LID DOES NOT OPEN WITH TRUNK LID OPENER REQUEST	А
SWITCH	
Description	В
<b>NOTE:</b> Check trunk lid opener request switch operation in the trunk lid open condition. Refer to <a href="DLK-26">DLK-26</a> , "TRUNK OPEN FUNCTION: System Description".	С
Diagnosis Procedure	
1. CHECK TRUNK LID OPEN FUNCTION	D
Check trunk lid open function with Intelligent Key.  Does trunk lid open with Intelligent Key?  YES >> GO TO 2.  NO >> Refer to DLK-188, "Diagnosis Procedure".	Е
2.CHECK TRUNK LID OPENER REQUEST SWITCH	F
Check trunk lid opener request switch. Refer to DLK-87, "Component Function Check".  Is the inspection result normal?	G
YES >> GO TO 3.	G
NO >> Repair or replace the malfunctioning parts.  3. CHECK OUTSIDE KEY ANTENNA (REAR BUMPER)	Н
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	J
Confirm the operation again.	
Is the result normal?	DLK
YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	
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#### SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE DOOR REQUEST SWITCH

DOOR REQUEST SWITCH: Description

INFOID:0000000005628558

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-21</u>, <u>"DOOR LOCK FUNCTION: System Description"</u>.

#### DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000005628559

#### CHECK DOOR LOCK FUNCTION

Check door lock function by door request switch.

Does door lock/unlock with door request switch?

YES >> GO TO 2.

NO-1 >> Driver side: Refer to DLK-184, "DRIVER SIDE: Diagnosis Procedure".

NO-2 >> Passenger side: Refer to <u>DLK-185, "PASSENGER SIDE : 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-III Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 3.

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 1.

INTELLIGENT KEY

**INTELLIGENT KEY: Description** 

INFOID:0000000005628560

#### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <a href="https://dx.doi.org/li>
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## **INTELLIGENT KEY: Diagnosis Procedure**

INFOID:0000000005628561

## 1. CHECK DOOR LOCK FUNCTION

Check door lock function by intelligent key.

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 "DOOR LOCK–UNLOCK SET" SETTING IN "WORK SUPPORT"

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

Refer to DLK-51, "DOOR LOCK: CONSULT-III 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-38, "Intermittent Incident".

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#### SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS > NO >> GO TO 1. DOOR KEY CYLINDER Α DOOR KEY CYLINDER: Description INFOID:0000000005628562 В NOTE: Before performing the diagnosis in the following procedure, check the operation condition. Refer to DLK-11, "System Description". DOOR KEY CYLINDER: Diagnosis Procedure INFOID:0000000005628563 1. CHECK DOOR LOCK FUNCTION D Check door lock function by door key cylinder. Does door lock/unlock with door key cylinder? Е YES >> GO TO 2. NO >> Refer to DLK-183, "Diagnosis Procedure". 2.check "door lock-unlock set" setting in "work support" Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-51</u>, "DOOR LOCK: CONSULT-III 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 Н Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1.

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#### VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

Description INFOID:000000005628564

#### NOTE

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

#### **Diagnosis Procedure**

INFOID:0000000005628565

## 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-180</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-III Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 3.

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

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

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

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

Is the inspection result normal?

YES >> GO TO 4.

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

#### 4. CHECK VEHICLE SPEED SIGNAL

Check unified meter A/C amp.

Refer to MWI-107, "DTC Index".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

## IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE	
Description INFOID:000000000562855	A 66
<b>NOTE:</b> Before performing the diagnosis in the following procedure, check the operation condition. Refer to <a href="DLK-11">DLK-11</a> "System Description".	В <u>L.</u>
Diagnosis Procedure	67 C
1. CHECK POWER DOOR LOCK OPERATION	
Check power door lock operation.  Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.  NO >> Refer to DLK-180, "ALL DOOR: Diagnosis Procedure".	D E
2.CHECK "AUTOMATIC LOCK/UNLOCK SELECT" SETTING IN "WORK SUPPORT"	<u> </u>
Check "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".  Refer to <u>DLK-51</u> , "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".	F
Is the inspection result normal?  YES >> GO TO 3.  NO >> Set "AUTOMATIC LOCK/UNLOCK SELECT" in "WORK SUPPORT".	G
3.CHECK "AUTOMATIC DOOR UNLOCK SELECT" SETTING IN "WORK SUPPORT"  Check "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".	- н
Refer to DLK-51, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".	
Is the inspection result normal?  YES >> GO TO 4.  NO >> Set "AUTOMATIC DOOR UNLOCK SELECT" in "WORK SUPPORT".	I
4.CHECK BCM	J
Check BCM for DTC.  Refer to BCS-75, "DTC Index".	
Is the inspection result normal? YES >> GO TO 5.	DLK
NO >> Repair or replace the malfunctioning parts.	
5.CONFIRM THE OPERATION  Confirm the energing	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	M
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#### P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPER-ATE

#### < SYMPTOM DIAGNOSIS >

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

**Description** 

#### NOTE:

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

#### Diagnosis Procedure

INFOID:0000000005628569

## 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-180</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-III Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 3.

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

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

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

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

Is the inspection result normal?

YES >> GO TO 4.

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

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

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

Refer to <u>DLK-51</u>, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 5.

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

5.CHECK TCM

Check TCM for DTC.

Refer to TM-249, "DTC Index".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

**6.**CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

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

#### < SYMPTOM DIAGNOSIS >

## AUTO DOOR LOCK OPERATION DOES NOT OPERATE Α Description INFOID:0000000005628570 NOTE: В Before performing the diagnosis in the following procedure, check the operation condition. Refer to DLK-11. "System Description". Diagnosis Procedure INFOID:0000000005628571 1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT" Check "AUTO LOCK SET" setting in "WORK SUPPORT". D Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? Е 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-38, "Intermittent Incident". NO >> GO TO 1. Н J DLK M Ν

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

#### < SYMPTOM DIAGNOSIS >

## FUEL LID LOCK ACTUATOR DOES NOT OPERATE

Description INFOID:000000005628572

#### NOTE:

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

## Diagnosis Procedure

INFOID:0000000005628573

## 1. CHECK FUEL LID OPENER ACTUATOR

Check fuel lid opener actuator.

Refer to DLK-75, "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-38, "Intermittent Incident".

## PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
PANIC ALARM FUNCTION DOES NOT OPERATE	٨
Description INFOID:0000000005628574	А
<b>NOTE:</b> Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-30</u> . "REMOTE KEYLESS ENTRY FUNCTION: System Description".	В
Diagnosis Procedure	С
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function. <u>Does door lock/unlock with Intelligent Key button?</u>	D
YES >> GO TO 2.  NO >> Refer to DLK-186. "Diagnosis Procedure".  2.CHECK VEHICLE SECURITY ALARM OPERATION	Е
Check vehicle security alarm operation.	F
Does alarm (headlamp and horn) active? YES >> GO TO 3.	
NO >> Refer to <u>SEC-216, "Diagnosis Procedure"</u> .  3.CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"	G
Check "PANIC ALARM SET" setting in "WORK SUPPORT".  Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".  Is the inspection result normal?	Н
YES >> GO TO 4.  NO >> Set "PANIC ALARM SET" setting in "WORK SUPPORT".  4. CONFIRM THE OPERATION	I
Confirm the operation again.	J
Is the result normal?  YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	DLK
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#### HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## HAZARD AND HORN REMINDER DOES NOT OPERATE

Description INFOID.000000005628576

#### NOTE:

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

#### **Diagnosis Procedure**

INFOID:0000000005628577

## ${f 1}$ .CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"

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

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT".

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

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 3.

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

### 3. CHECK POWER POSITION

Check if ignition switch position is changing or not.

#### Does ignition switch position change?

YES >> GO TO 4.

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

#### CHECK HAZARD FUNCTION

Check hazard function.

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

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5. CHECK HORN FUNCTION

Check horn function.

Refer to DLK-106, "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-38, "Intermittent Incident".

## HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

HAZARD AND BUZZER REMINDER DOES NOT OPERATE	1
Description INFOID.000000005528578	A
<b>NOTE:</b> Before performing the diagnosis, check the operation condition. Refer to <u>DLK-30, "REMOTE KEYLESS ENTRY FUNCTION: System Description"</u> .	В
Diagnosis Procedure	С
1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"	
Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".  Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".	D
Is the inspection result normal?	E
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-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".	Г
Is the inspection result normal?	0
YES >> GO TO 3.	G
NO >> Set "ANS BACK I-KEY LOCK" in "WORK SUPPORT".  3. CHECK "ANS BACK I-KEY UNLOCK" SETTING IN "WORK SUPPORT"	ы
Check "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".	Н
Refer to <u>DLK-52</u> , "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".	
Is the inspection result normal?  YES >> GO TO 4.	ı
NO >> Set "ANS BACK I-KEY UNLOCK" in "WORK SUPPORT".	
4.CHECK POWER POSITION	J
Check if ignition switch position is changing or not.	
<u>Does ignition switch position change?</u> YES >> GO TO 5.	DLK
NO >> Check BCM for DTC. Refer to <u>BCS-75, "DTC_Index"</u> .	
5.CHECK HAZARD FUNCTION	L
Check hazard function.  Refer to <a check".<="" component="" function="" href="https://doi.org/l/burnet/burne&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Is the inspection result normal?&lt;/td&gt;&lt;td&gt;M&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;YES &gt;&gt; GO TO 6.  NO &gt;&gt; Repair or replace the malfunctioning parts.&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;6. CHECK INTELLIGENT KEY WARNING BUZZER&lt;/td&gt;&lt;td&gt;Ν&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Check Intelligent Key warning buzzer. Refer to DLK-98, " td=""><td></td></a>	
Is the inspection result normal?	0
YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts.	_
7. CONFIRM THE OPERATION	Р
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	

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

#### < SYMPTOM DIAGNOSIS >

# KEY REMINDER FUNCTION DOES NOT OPERATE INTELLIGENT KEY SYSTEM

## INTELLIGENT KEY SYSTEM : Description

INFOID:0000000005628580

#### NOTE

Before performing the diagnosis, check operation condition. Refer to <u>DLK-36, "KEY REMINDER FUNCTION:</u> <u>System Description"</u>.

#### INTELLIGENT KEY SYSTEM: Diagnosis Procedure

INFOID:0000000005628581

## 1. CHECK "ANTI KEY LOCK IN FUNCTI" SETTING IN "WORK SUPPORT"

Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".

Refer to DLK-52, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".

## 2. CHECK DOOR SWITCH

Check door switch.

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

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 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 key antenna.

- Instrument center: Refer to DLK-59, "DTC Logic".
- Console: Refer to <u>DLK-61, "DTC Logic"</u>.
- 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 UNLOCK SENSOR

Check unlock sensor.

Refer to DLK-93, "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-38, "Intermittent Incident".

NO >> GO TO 1.

#### POWER DOOR LOCK SYSTEM

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

< SYMPTOM DIAGNOSIS >	
POWER DOOR LOCK SYSTEM : Description	INFOID:000000005628582
NOTE: Before performing the diagnosis, check operation condition. Refer to <a href="DLK-11">DLK-11</a> , "Syste	m Description".
POWER DOOR LOCK SYSTEM : Diagnosis Procedure	INFOID:000000005628583
1.CHECK KEY SLOT	
Check key slot. Refer to DLK-102, "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-38, "Intermittent Incident".  NO >> GO TO 1.	

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

#### < SYMPTOM DIAGNOSIS >

## KEY WARNING DOES NOT OPERATE

**Description** 

#### 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:0000000005628585

## 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to <u>DLK-109</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 (driver side).

Refer to DLK-66, "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.

## 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-38, "Intermittent Incident".

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

## < SYMPTOM DIAGNOSIS >

OFF POSITION WARNING DOES NOT OPERATE	٨
Description	А
<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-75, "DTC Index".	Е
2.CHECK BUZZER (COMBINATION METER)	F
Check buzzer (combination meter). Refer to <u>DLK-109</u> , "Component Function Check".  Is the inspection result normal?	G
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.  3. CHECK INTELLIGENT KEY WARNING BUZZER	Н
Check Intelligent Key warning buzzer.  Refer to DLK-98, "Component Function Check".	I
Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.  4. CHECK DOOR SWITCH	J
Check door switch (driver side).  Refer to DLK-66, "Component Function Check".	DLł
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-38, "Intermittent Incident".  NO >> GO TO 1.	Ν
	0
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#### P POSITION WARNING DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

## P POSITION WARNING DOES NOT OPERATE

**Description** 

#### 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:0000000005628589

## 1. CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

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

## 2.check detention switch

Check BCM for DTC.

Refer to BCS-75, "DTC Index".

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 BUZZER (COMBINATION METER)

Check buzzer (combination meter).

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?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6. CHECK INSIDE KEY ANTENNA

Check inside key antenna.

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

#### 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.

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

P POSITION WARNING DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
Is the inspection result normal? YES >> GO TO 8.	A
NO >> Repair or replace the malfunctioning parts.	7.
8.CONFIRM THE OPERATION	
Confirm the operation again.	В
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1.	С
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#### **ACC WARNING DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

## ACC WARNING DOES NOT OPERATE

Description INFOID:000000005628590

#### 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:0000000005628591

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## 1. CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

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

2.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-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

Check combination meter display function.

Refer to <u>DLK-108</u>, "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-38, "Intermittent Incident".

## TAKE AWAY WARNING DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

TAKE AWAY WARNING DOES NOT OPERATE	0
Description	А
When door opens, take away warning does not operate.  NOTE:	В
<ul> <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 <="" a="" href="Description">.</a></li> <li>Door lock function is normal.</li> </ul>	С
Diagnosis Procedure	D
1.CHECK POWER POSITION	D
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-75, "DTC Index". 2.CHECK DOOR SWITCH	F
Check door switch. Refer to DLK-66, "Component Function Check".	G
Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.  3. CHECK KEY SLOT	Н
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.	J
4. CHECK INSIDE KEY ANTENNA  Chask inside key entenna	DLK
Check inside key antenna.  Instrument center: Refer to <u>DLK-59</u> , " <u>DTC Logic"</u> .  Console: Refer to <u>DLK-61</u> , " <u>DTC Logic"</u> .  Trunk room: Refer to <u>DLK-63</u> , " <u>DTC Logic"</u> .	L
Is the inspection result normal?  YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.	M
5.CHECK BUZZER (COMBINATION METER)  Check buzzer (combination meter).	
Refer to DLK-109. "Component Function Check".  Is the inspection result normal?	N
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	0
6.CHECK COMBINATION METER DISPLAY FUNCTION  Check combination meter display function.	Р
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.	

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#### 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

#### Check key slot indicator.

Refer to DLK-104, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace the malfunctioning parts.

## 9. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE	_
Description	A 34
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> .  Diagnosia Dragadure	В <u>П</u> С
Diagnosis Procedure	15
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-52, "INTELLIGENT KEY: CONSULT-III 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".	_ D E
2.CHECK INTELLIGENT KEY	F
Check Intelligent key. Refer to <a href="DLK-100">DLK-100</a> , "Component Function Check".  Is the inspection result normal?	G
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.  3. CHECK COMBINATION METER DISPLAY FUNCTION	Н
Check combination meter display function. Refer to DLK-108, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 4.	l
NO >> Repair or replace the malfunctioning parts.  4.CHECK INSIDE KEY ANTENNA	J
Check inside key antenna.  Instrument center: Refer to <a href="DLK-59">DLK-59</a> , "DTC Logic".  Console: Refer to <a href="DLK-61">DLK-61</a> , "DTC Logic".  Trunk room: Refer to <a href="DLK-63">DLK-63</a> , "DTC Logic".	DLK
Is the inspection result normal?  YES >> GO TO 5.	L
NO >> Repair or replace the malfunctioning parts.  5.CONFIRM THE OPERATION	M
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".	N
NO >> GO TO 1.	0
	Р

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#### DOOR LOCK OPERATION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## DOOR LOCK OPERATION WARNING DOES NOT OPERATE

Description INFOID:000000005628596

Door lock operation warning does not activate using door request switch.

#### 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:0000000005628597

## 1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Does door lock/unlock using door request switch?

YES >> GO TO 2.

NO-1 >> Driver side: Refer to <u>DLK-184, "DRIVER SIDE : Diagnosis Procedure"</u>.

NO-2 >> Passenger side: Refer to <u>DLK-185</u>, "PASSENGER SIDE: Diagnosis Procedure".

## 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.

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-38, "Intermittent Incident".

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

#### < SYMPTOM DIAGNOSIS >

Is the result normal?

>> GO TO 1.

YES

NO

#### KEY ID WARNING DOES NOT OPERATE Α Description INFOID:0000000005628598 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". Diagnosis Procedure INFOID:0000000005628599 1. CHECK INTELLIGENT KEY D Check Intelligent Key. Refer to DLK-100, "Component Function Check". Is the inspection result normal? Е YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK COMBINATION METER DISPLAY FUNCTION F 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. Н 3.CONFIRM THE OPERATION Confirm the operation again.

>> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

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

#### < SYMPTOM DIAGNOSIS >

## KEY WARNING LAMP DOES NOT ILLUMINATE

Description INFOID:0000000005628600

#### 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:0000000005628601

## 1. CHECK KEY WARNING LAMP

Check key warning lamp.

Refer to DLK-110, "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-38, "Intermittent Incident".

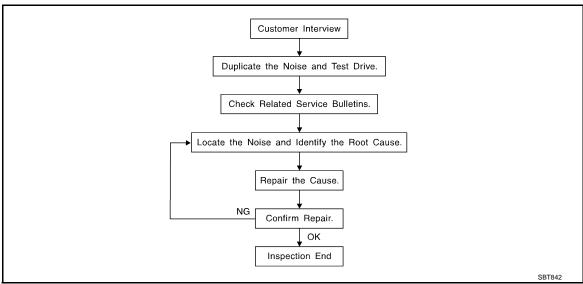
## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

INTEGRATED HOMELINK TRANSMITTER DOES NOT OP Diagnosis Procedure	INFOID:000000005628602
1.check integrated homelink transmitter	o.b.:soccosoccocc
Check integrated homelink transmitter.	
Refer to DLK-112, "Component Function Check".	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.  2.CONFIRM THE OPERATION	
Confirm the operation again.	
s the result normal?	
YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1.	

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## SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow (INFOID:000000005628603



#### **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-218">DLK-218</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics
  are provided so the customer, service adviser and technician are all speaking the same language when
  defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
   higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
   Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
  - Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
   Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician
  may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES		
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.	Α	
<ul> <li>2) Tap or push/pull around the area where the noise appears to be coming from.</li> <li>3) Rev the engine.</li> <li>4) Use a floor jack to recreate vehicle "twist".</li> </ul>	В	
<ul> <li>5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).</li> <li>6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.</li> <li>• Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.</li> </ul>	С	
• 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.	D	
If a TSB relates to the symptom, follow the procedure to repair the noise.	Е	
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).	F	
2. Narrow down the noise to a more specific area and identify the cause of the noise by:		
<ul> <li>Removing the components in the area that is are suspected to be the cause of the noise.</li> <li>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.</li> </ul>	G	
<ul> <li>Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.</li> <li>Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.</li> </ul>	Н	
• Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the		
<ul> <li>Placing a piece of paper between components that are suspected to be the cause of the noise.</li> <li>Looking for loose components and contact marks.</li> </ul>	I	
Refer to DLK-216, "Inspection Procedure".	J	
<ul><li>REPAIR THE CAUSE</li><li>If the cause is a loose component, tighten the component securely.</li></ul>		
<ul> <li>If the cause is insufficient clearance between components:</li> <li>Separate components by repositioning or loosening and retightening the component, if possible.</li> <li>Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or ure-</li> </ul>	DLł	
thane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts Department.  CAUTION:	L	
Never use excessive force as many components are constructed of plastic and may be damaged.		
NOTE: 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	M	
ordered separately as needed.  URETHANE PADS [1.5 mm (0.059 in) thick]	Ν	
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)		

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

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 mm (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

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

**UHMW (TEFLON) TAPE** 

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#### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < 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

INFOID:0000000005628604

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
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar garnish
- 4. Instrument panel to windshield
- 5. Instrument panel mounting pins
- 6. 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
- 3. 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:

- 1. Finisher and inner panel making a slapping noise
- Inside handle escutcheon to door finisher
- 3. 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

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

### < 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:

- 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.

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:

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

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

### UNDERHOOD

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

Causes of transmitted underhood noise include:

- Any component mounted to the engine wall 1.
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 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.

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## Diagnostic Worksheet

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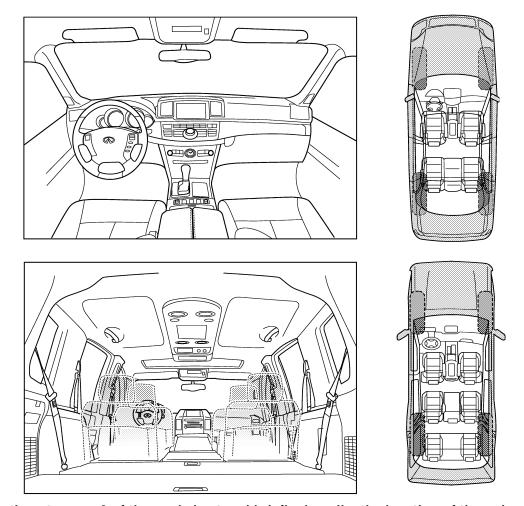
## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### 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.

## **SQUEAK AND RATTLE TROUBLE DIAGNOSES**

< SYMPTOM DIAGNOSIS >

Briefly describe the location where the n	oise occurs:			
II. WHEN DOES IT OCCUR? (please cl	eck the boxes that a	pply)	_	
anytime	after sitting o			
☐ 1st time in the morning	when it is rai	_	t	
<ul><li>☐ only when it is cold outside</li><li>☐ only when it is hot outside</li></ul>	☐ dry or dusty of du	conditions		
III. WHEN DRIVING:	IV. WHAT TYPE	E OF NOIS	E	
☐ through driveways	_		es on a clean floor)	
over rough roads			un old wooden floor)	
over speed bumps	rattle (like sh			
only about mph	knock (like a			
<ul><li>☐ on acceleration</li><li>☐ coming to a stop</li></ul>	☐ tick (like a cl☐ thump (heav			
on turns: left, right or either (circle)	buzz (like a	=	·	
with passengers or cargo	(		,	
other:				
other: miles or m				
other:		NO	Initials of person performing	
other: miles or m  TO BE COMPLETED BY DEALERSHI	PERSONNEL	NO	Initials of person performing	
other: after driving miles or m  TO BE COMPLETED BY DEALERSHII  Test Drive Notes:  Vehicle test driven with customer - Noise verified on test drive	PERSONNEL	NO	Initials of person performing	
other: differ driving miles or m  TO BE COMPLETED BY DEALERSHIP  Test Drive Notes:  Vehicle test driven with customer Noise verified on test drive Noise source located and repaired	YES	NO	performing	
other: differ driving miles or m  TO BE COMPLETED BY DEALERSHII  Test Drive Notes:  Vehicle test driven with customer Noise verified on test drive	YES	NO	performing	
other: differ driving miles or m  TO BE COMPLETED BY DEALERSHIP  Test Drive Notes:  Vehicle test driven with customer Noise verified on test drive Noise source located and repaired	PERSONNEL  YES  m repair  Customer Na		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:**

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

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

### **WARNING:**

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

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

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### NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

### **OPERATION PROCEDURE**

Connect both battery cables.

### NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.

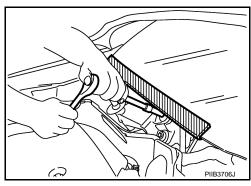
## **PRECAUTIONS**

### < PRECAUTION >

- 5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
- 6. Perform self-diagnosis check of all control units using CONSULT-III.

## 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.



Work

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

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## **PREPARATION**

## **PREPARATION**

## Special Service Tools

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

(Ker	ool number t-Moore No.) ool name	Description
(J-39570) Chassis ear	SIIAO993E	Locates the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairs the cause of noise

## **Commercial Service Tools**

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

## REMOVAL AND INSTALLATION

HOOD

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 

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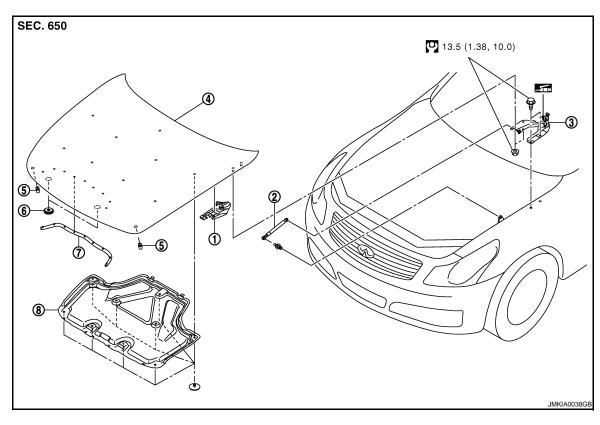
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- Hood hinge cover
- Hood assembly
- Radiator core seal
- Hood stay
- Hood bumper rubber 5.
- Hood insulator

Hood hinge

6. Seal

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

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

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### **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.

- Remove the hood hinge cover (LH/RH).
- 3. Remove the seal rubber, washer nozzle, washer tube. Refer to WW-98, "Removal and Installation".
- 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
  - Hood bumper rubber

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### **INSTALLATION**

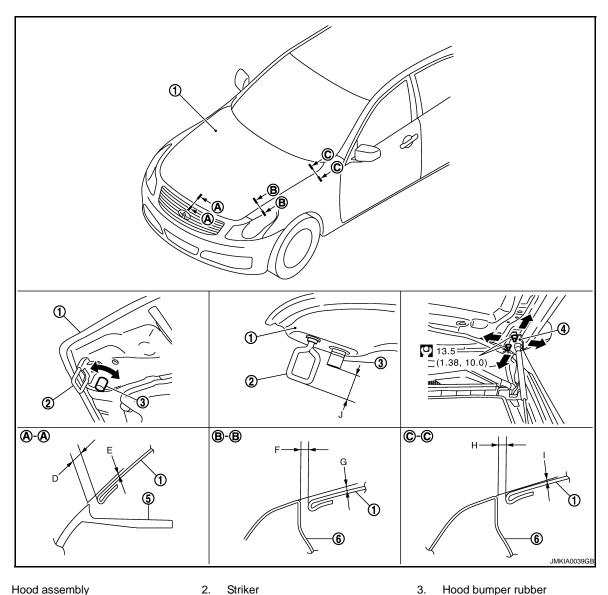
Install in the reverse order of removal.

### **CAUTION:**

- Before installing hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle
- After installing, perform hood fitting adjustment. Refer to DLK-224, "HOOD ASSEMBLY: Adjustment".

**HOOD ASSEMBLY: Adjustment** 

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Hood assembly

2. Striker

Hood hinge

Front bumper

- 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)	_
11000 – 11011t bumper	A-A	E	Surface height	-2.0 - 1.0 mm (-0.079 - 0.039 in)	_

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

- 1. 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.
- 6. 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.

- 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.

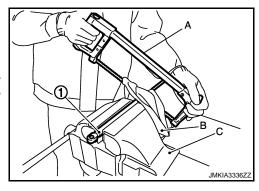
## **HOOD ASSEMBLY : Disposal**

### 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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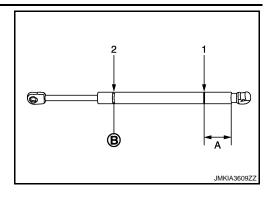
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A: 20 mm (0.787 in)

B: Cut at the groove.



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HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 

SEC. 656

- 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
- 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-95, "Removal and Installation"</u>.

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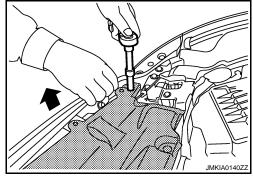
- 2. Remove the radiator core support ornament.
  - Remove the radiator core support ornament mounting bolts and clips.

### 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.



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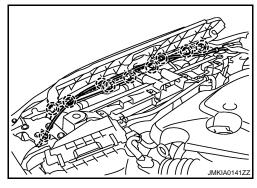
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• Hold both sides of radiator core support ornament, pull it upwards and slide it rearwards of the vehicle.

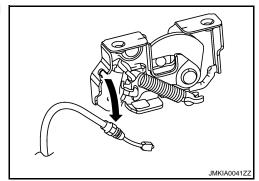
 Disconnect the harness clip and hood lock control cable clip on radiator core support.

( ) : Clip



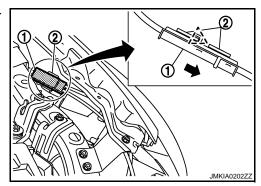
Remove the fender protector (LH). Refer to <u>EXT-27</u>, "FENDER PROTECTOR: Removal and Installation".

- 4. Disconnect hood lock switch harness connector (RH side).
- 5. Remove the hood lock bracket mounting bolts, and remove the hood lock bracket assembly.
- 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 headlamp assembly (2).

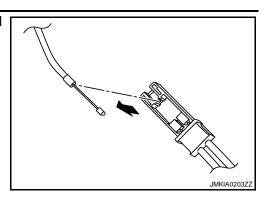
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Remove the hood lock control cable cover from hood lock control cable protector.

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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.
- 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-224, "HOOD ASSEMBLY: Adjust-ment"</u>.
- After installing, perform the hood lock control inspection. Refer to <u>DLK-228</u>, "HOOD LOCK CONTROL: Inspection".

## HOOD LOCK CONTROL: Inspection

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### NOTE:

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

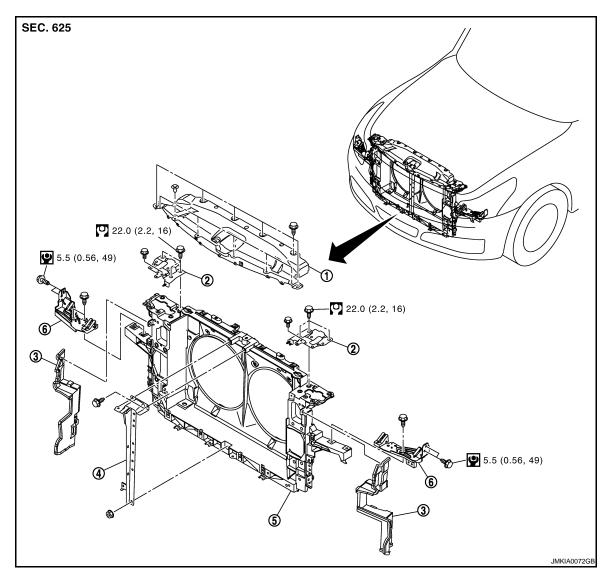
- 1. Check that the secondary latch is properly engaged with the hood lock stay by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is 49 N (5.0 kg) or below.
- 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.

## RADIATOR CORE SUPPORT

**Exploded View** INFOID:0000000005628619



- Radiator core support ornament
- 2. Hood lock bracket
  - Hood lock stay Radiator core support assembly
- Air guide
- Head-lamp bracket

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

### Removal and Installation

**REMOVAL** 

- Remove the front bumper fascia and front bumper reinforcement. Refer to EXT-15. "Removal and Installation".
- Remove the radiator reserve tank. Refer to <u>CO-13</u>, "<u>Exploded View</u>".
- 3. Remove horn (High/Low). Refer to HRN-6, "Removal and Installation".
- Remove the radiator core support ornament.
  - Remove the radiator core support ornament mounting bolts and clips. NOTE:

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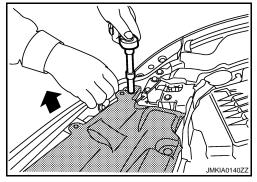
### RADIATOR CORE SUPPORT

### < 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.

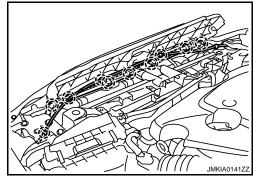
 To remove the mounting bolts on both sides of radiator core support ornament, first remove the mounting bolts of front bumper (shown by arrows in the figure) and pull up the bumper edge slightly to get working clearance.
 CAUTION:

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.





- Remove the front combination lamp. Refer to <u>EXL-170</u>, "Removal and Installation".
- Remove the hood lock bracket assembly.
- 7. Remove the washer inlet and washer tank. Refer to WW-95, "Removal and Installation".
- 8. Remove the ambient sensor. Refer to HAC-155, "Removal and Installation".
- Remove the power steering oil cooler. Refer to <u>ST-59, "2WD : Exploded View"</u> (2WD), <u>ST-61, "AWD : Exploded View"</u> (AWD).
- 10. Remove the air guide mounting clips and then remove air guide.
- 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".
- 14. Drain engine coolant from radiator & condenser. Refer to CO-7, "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 <u>TM-279</u>, "2WD : <u>Removal and Installation"</u> (2WD), <u>TM-282</u>, "AWD : <u>Removal and Installation"</u> (AWD).
- 17. Disconnect condenser pipe assembly at one touch joint. Refer to <a href="HA-46">HA-46</a>, "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 CO-17, "Removal and Installation".
  - Radiator & condenser assembly. Refer to <u>CO-14, "Removal and Installation"</u>.
  - Crush zone sensor. Refer to <u>SR-21, "Removal and Installation"</u>.
  - 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, "Inspection"</u>.
  A/T fluid. Refer to <u>TM-258, "Changing"</u>.
- Engine coolant. Refer to CO-8, "Refilling".

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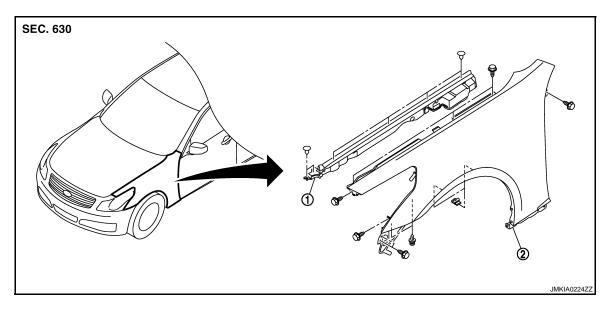
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## FRONT FENDER

Exploded View



- 1. Hood seal assembly (side)
- 2. Front fender

### Removal and Installation

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### **REMOVAL**

- 1. Remove the front bumper fascia. Refer to EXT-15, "Removal and Installation".
- 2. Remove the hood seal assembly (side).
- 3. Remove the front combination lamp. Refer to EXL-170, "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-224, "HOOD ASSEMBLY: Adjustment"</u> and <u>DLK-233, "FRONT DOOR: Adjustment"</u>.

DOOR

FRONT DOOR

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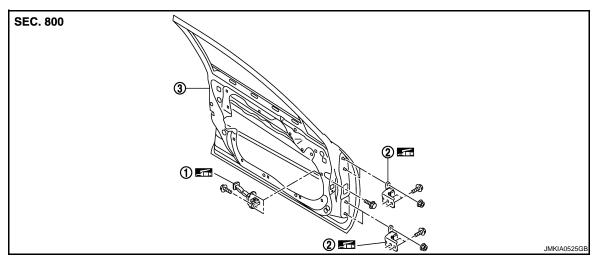
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FRONT DOOR: Exploded View



1. Check link

Door hinge (upper, lower)

Front door panel

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

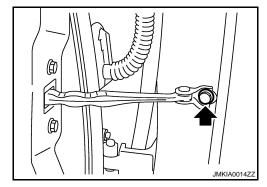
FRONT DOOR: Removal and Installation

**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 <a href="DLK-233">DLK-233</a>, "FRONT DOOR : Adjustment".

- 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.



Pull the lever and disconnect the door harness connector while removing tabs of door harness connector.

**DLK-233** 

Remove the door side hinge mounting nuts, then remove the door assembly.

INSTALLATION

Revision: 2009 November

Install in the reverse order of removal.

FRONT DOOR : Adjustment

CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

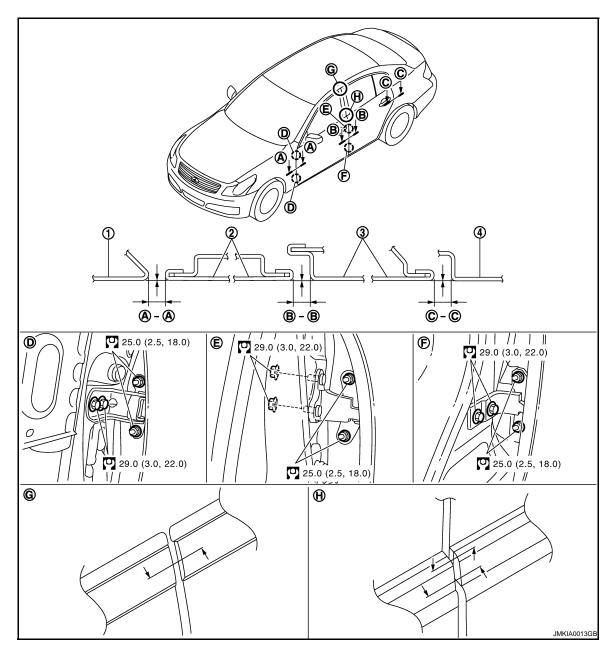
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1. Front fender

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

4. Rear fender

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

1. 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.)

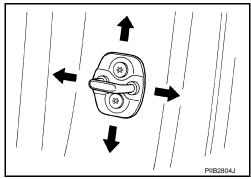
Portion		Clearance	Surface height	Surface mismatch
Front fender – Front door	<b>A</b> – <b>A</b>	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_
Front door – Rear door	B – B	2.5 – 4.5 mm (0.098 – 0.177 in)	-1.0 - 1.0 mm (-0.039 - 0.039 in)	_

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 <b>-</b> 1.5 mm (-0.059 <b>-</b> 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-232</u>, "Removal and Installation". 3.
- 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.
- 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-232, "Removal and Installation".

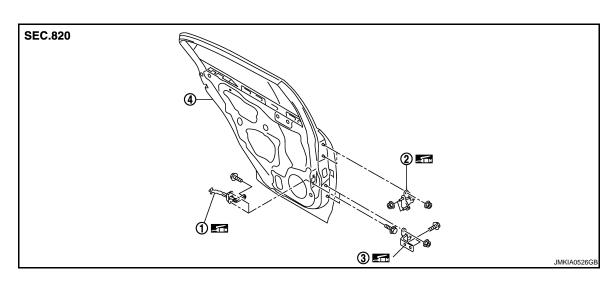
### STRIKER ADJUSTMENT

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



REAR DOOR

**REAR DOOR: Exploded View** 



1. Check link

- Door hinge (upper)
- Door hinge (lower)

Rear door panel

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

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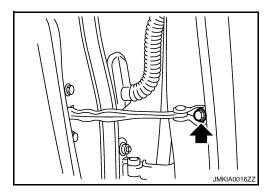
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## **REAR DOOR: Removal and Installation**

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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-236</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.

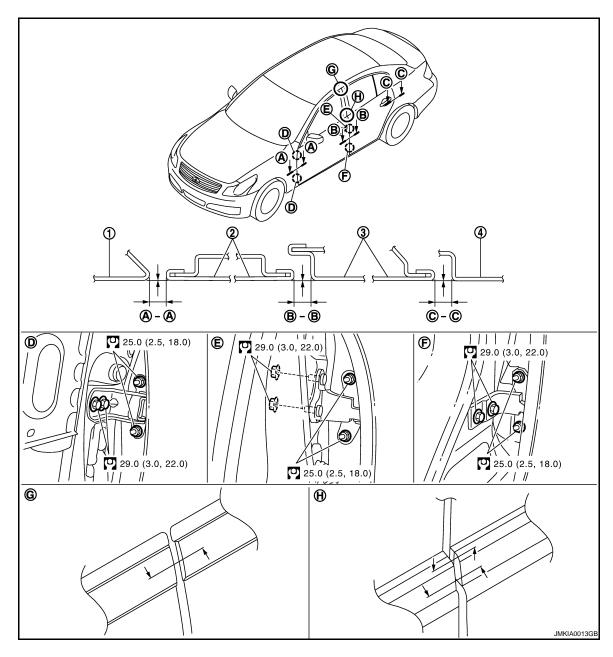
### INSTALLATION

Install in the reverse order of removal.

REAR DOOR : Adjustment

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CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT



1. Front fender

2. Front door outer

3. Rear door outer

4. Rear fender

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

. 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 <b>-</b> 1.0 mm (-0.039 <b>-</b> 0.039 in)	_

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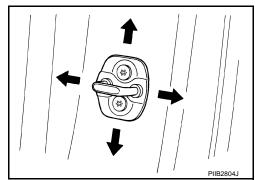
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Portion		Clearance	Surface height	Surface mismatch
Front door sash molding – Rear door weather-strip	G	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	_
Front door outside molding – Rear door outside molding	Н	_	-1.5 - 1.5 mm (-0.059 - 0.059 in)	-1.5 – 1.5 mm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

- 2. In case out of specification, adjust them according to the procedures shown below.
- Remove the center pillar upper garnish and center pillar lower garnish. Refer to <u>INT-15</u>, "Removal and <u>Installation"</u>.
- 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-15">INT-15</a>, "Removal and Installation".

### STRIKER ADJUSTMENT

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



FRONT DOOR LOCK

FRONT DOOR LOCK: Exploded View

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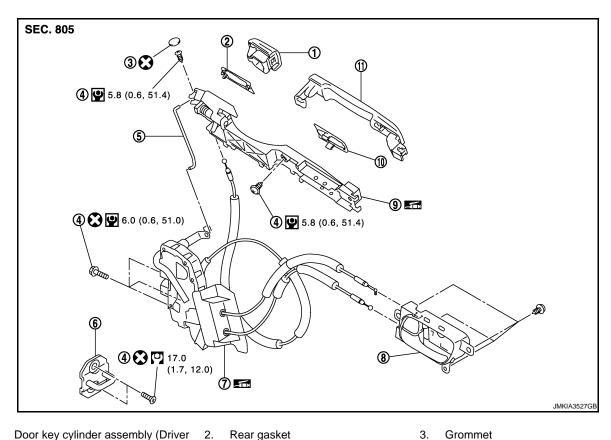
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- Door key cylinder assembly (Driver
  - Outside handle escutcheon (Passenger side)
- 4. TORX bolt
- Door lock assembly 7.
- 10. Front gasket

- Rear gasket
- Key rod (Driver side only)
- Inside handle
- 11. Outside handle

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

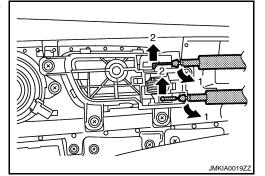
Striker

Outside handle bracket

### FRONT DOOR LOCK: Removal and Installation

**REMOVAL** 

- Remove the front door finisher. Refer to INT-12, "Removal and Installation".
- Disconnect the inside handle knob cable and lock knob cable from the back side of the front door finisher.



Remove the front door glass and front door module assembly.

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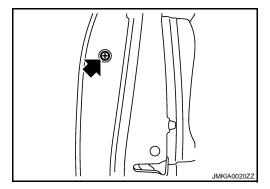
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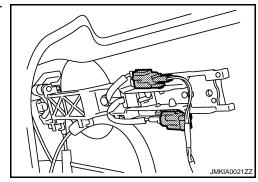
### < REMOVAL AND INSTALLATION >

- 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:

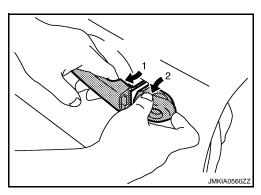
Never forcibly remove the TORX bolt.



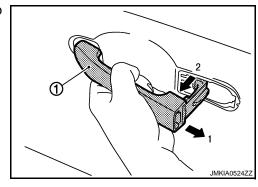
5. Disconnect door antenna and door request switch connector and remove harness clamp.



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

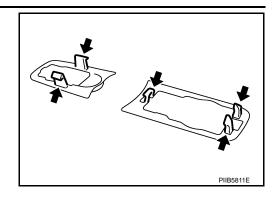


8. Slide outside handle (1) toward rear of vehicle and pull to remove outside handle.

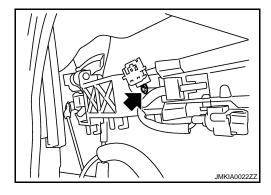


### < REMOVAL AND INSTALLATION >

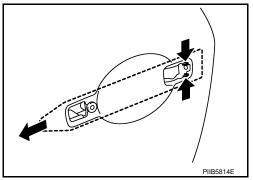
9. Remove the front gasket and rear gasket.



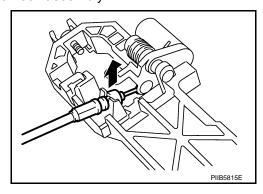
- 10. Remove the TORX bolt, and remove the door lock assembly.
- 11. Remove the TORX bolt of the outside handle bracket.



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

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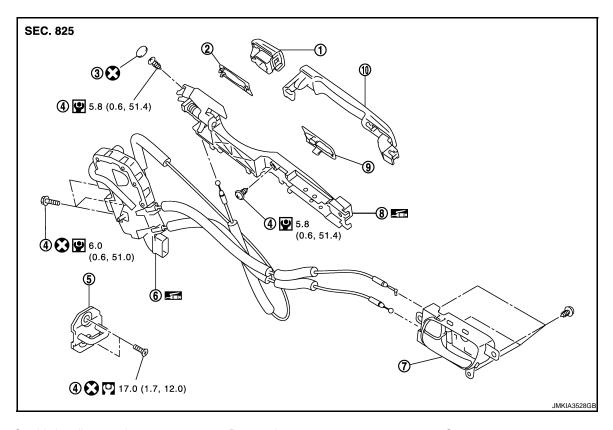
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## REAR DOOR LOCK: Exploded View

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- Outside handle escutcheon
- 4. TORX bolt
- 7. Inside handle
- 10. Outside handle
- 8.
- Rear gasket Striker
- Outside handle bracket
- 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

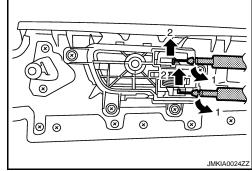
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## **REMOVAL**

1. Remove the rear door finisher. Refer to INT-12, "Removal and Installation".

5.

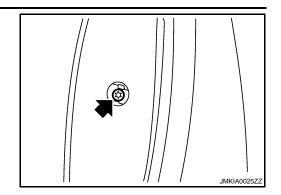
Disconnect the inside handle knob cable and lock knob cable from the back side of the rear door finisher.



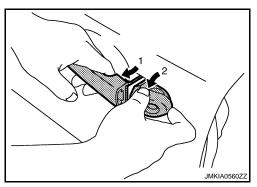
- 3. Remove the rear door glass. Refer to GW-18, "Removal and Installation".
- 4. Remove door side grommet, and remove outside handle escutcheon TORX bolt from grommet hole. **CAUTION:**

## < REMOVAL AND INSTALLATION >

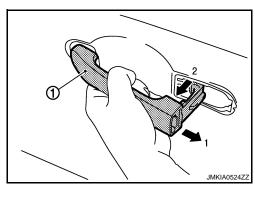
Never forcibly remove the TORX bolt.



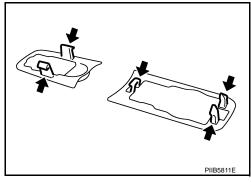
5. While pulling the outside handle, remove outside handle escutcheon.



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.

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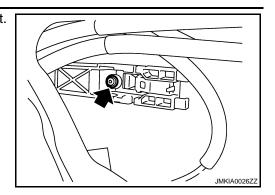
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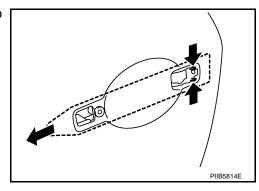
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### < REMOVAL AND INSTALLATION >

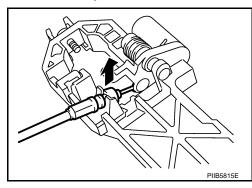
9. Remove the TORX bolt, and remove the outside handle bracket.



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.



### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

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

### TRUNK LID

## TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY: Exploded View

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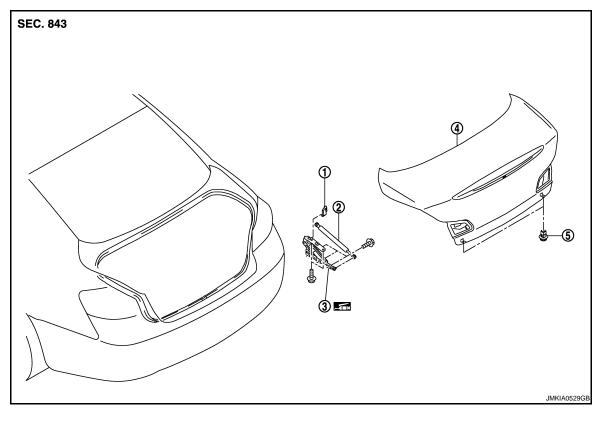
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- Trunk lid hinge stopper Trunk lid assembly
- 2. Trunk lid stay
- Bumper rubber

Trunk lid hinge

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

## TRUNK LID ASSEMBLY: Removal and Installation

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### REMOVAL

- Remove trunk lid finisher inner. Refer to INT-32, "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.
- 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-246, "TRUNK LID ASSEMBLY: Adjustment".

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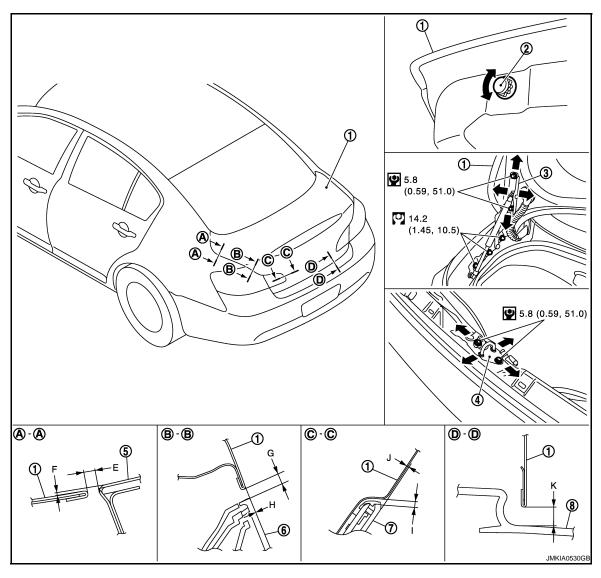
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**DLK-245** Revision: 2009 November 2010 G37 Sedan

# TRUNK LID ASSEMBLY : Adjustment

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1. Trunk lid assembly

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

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

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

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

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

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

Portion			Standard	Right/left Clearance (MAX)	
Trunk lid –	C-C	ı	Clearance	1.7 – 3.7 mm (0.067 – 0.146 in)	1.2 mm (0.047 in)
Back-up lamp	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.
- 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.
- Check the clearance and evenness.
- Finally tighten the trunk lid striker.

## TRUNK LID ASSEMBLY : Disposal

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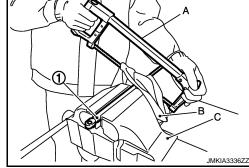
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### DISPOSAL OF TRUNK LID STAY

- 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.

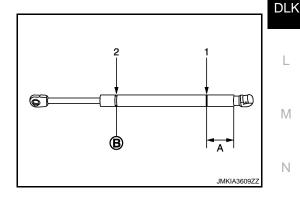
#### **CAUTION:**

- · 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.



20 mm (0.787 in)

Cut at the groove.



TRUNK LID LOCK

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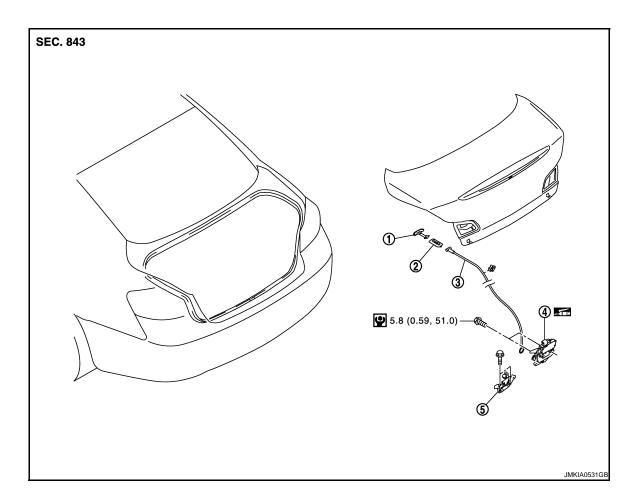
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**DLK-247** Revision: 2009 November 2010 G37 Sedan

INFOID:0000000005628637

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## TRUNK LID LOCK: Exploded View



- 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

### **REMOVAL**

4.

- Remove the trunk lid finisher inner. Refer to <u>INT-32</u>, "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

Install in the reverse order of removal.

### NOTE:

- After installing, perform trunk lid fitting adjustment. Refer to DLK-246, "TRUNK LID ASSEMBLY: Adjustment".
- After installing, check the operation.

### TRUNK LID WEATHERSTRIP

**DLK-248** Revision: 2009 November 2010 G37 Sedan

## TRUNK LID WEATHERSTRIP: Exploded View

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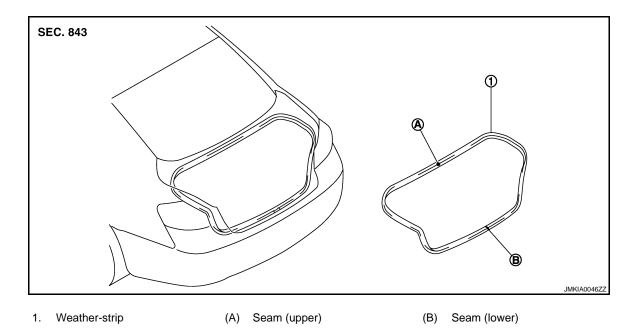
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TRUNK LID WEATHERSTRIP: Removal and Installation

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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.

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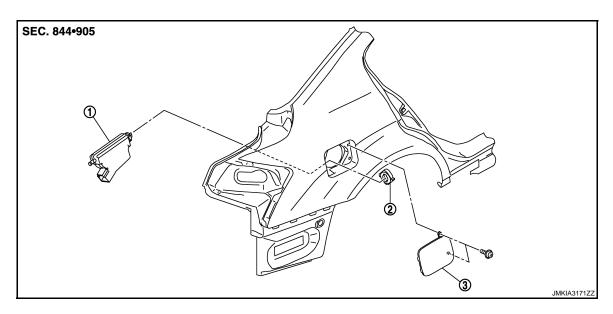
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## **FUEL FILLER LID OPENER**

Exploded View



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

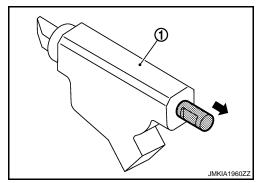
3. Fuel filler lid assembly

### Removal and Installation

INFOID:0000000005628642

### NOTE:

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



### **REMOVAL**

- 1. 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.
- 4. Remove trunk side finisher (RH). Refer to INT-30, "Removal and Installation".
- 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.

## **DOOR SWITCH**

## < REMOVAL AND INSTALLATION >

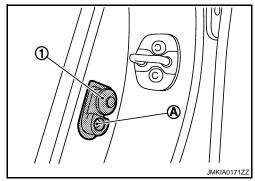
## **DOOR SWITCH**

## Removal and Installation

### INFOID:0000000005628643

## **REMOVAL**

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



### **INSTALLATION**

Install in the reverse order of removal.

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## **INSIDE KEY ANTENNA**

### < REMOVAL AND INSTALLATION >

# INSIDE KEY ANTENNA INSTRUMENT CENTER

**INSTRUMENT CENTER:** Exploded View

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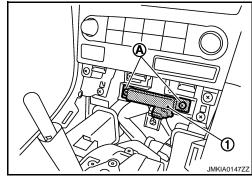
Refer to IP-12, "A/T MODELS: Exploded View".

**INSTRUMENT CENTER:** Removal and Installation

INFOID:0000000005628645

### **REMOVAL**

- 1. Remove the console finisher. Refer to IP-13, "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

INFOID:0000000005628646

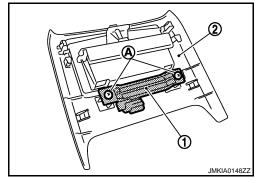
Refer to IP-33, "A/T MODELS: Exploded View".

**CONSOLE**: Removal and Installation

INFOID:0000000005628647

### REMOVAL

- 1. Remove the console ashtray.
- 2. Remove the console rear finisher (2). Refer to IP-36, "A/T MODELS: Disassembly and Assembly".
- 3. 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

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Refer to INT-30, "Exploded View".

## **INSIDE KEY ANTENNA**

### < REMOVAL AND INSTALLATION >

## TRUNK ROOM: Removal and Installation

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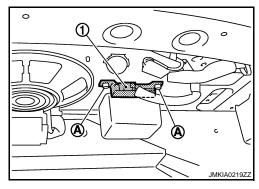
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### **REMOVAL**

- 1. Remove the trunk trim. Refer to <a href="INT-30">INT-30</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**

Install in the reverse order of removal.

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### **OUTSIDE KEY ANTENNA**

< REMOVAL AND INSTALLATION >

**OUTSIDE KEY ANTENNA** 

**DRIVER SIDE** 

DRIVER SIDE: Exploded View

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Refer to DLK-239, "FRONT DOOR LOCK: Exploded View".

DRIVER SIDE: Removal and Installation

INFOID:0000000005628651

REMOVAL

Remove the front outside handle LH. Refer to DLK-239, "FRONT DOOR LOCK: Removal and Installation".

INSTALLATION

Install in the reverse order of removal.

PASSENGER SIDE

PASSENGER SIDE: Exploded View

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Refer to DLK-239, "FRONT DOOR LOCK: Exploded View".

PASSENGER SIDE: Removal and Installation

INFOID:0000000005628653

REMOVAL

Remove the front outside handle RH. Refer to <u>DLK-239</u>, "FRONT DOOR LOCK: Removal and Installation".

INSTALLATION

Install in the reverse order of removal.

REAR BUMPER

REAR BUMPER: Exploded View

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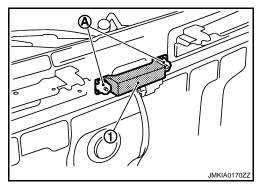
Refer to EXT-18, "Exploded View".

REAR BUMPER: Removal and Installation

INFOID:0000000005628655

### **REMOVAL**

- 1. Remove the rear bumper. Refer to EXT-19, "Removal and Installation".
- 2. 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.

## INTELLIGENT KEY WARNING BUZZER

< REMOVAL AND INSTALLATION >

## INTELLIGENT KEY WARNING BUZZER

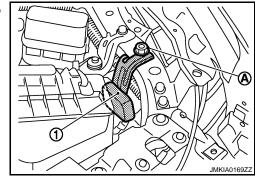
Exploded View

Refer to DLK-232, "Exploded View".

Removal and Installation

### **REMOVAL**

- 1. Remove the hood seal assembly (side). Refer to <a href="DLK-223">DLK-223</a>, "HOOD ASSEMBLY: Exploded View".
- 2. Remove the Intelligent Key warning buzzer mounting bolt (A), and then remove the Intelligent Key warning buzzer (1).



### **INSTALLATION**

Install in the reverse order of removal.

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Revision: 2009 November DLK-255 2010 G37 Sedan

## **KEY SLOT**

### < REMOVAL AND INSTALLATION >

## **KEY SLOT**

Exploded View

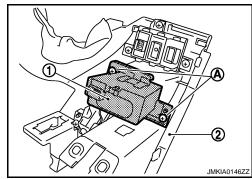
Refer to IP-12, "A/T MODELS: Exploded View".

## Removal and Installation

#### INFOID:0000000005628659

### **REMOVAL**

- 1. Remove the instrument driver lower panel (2). Refer to IP-13, "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.

## TRUNK OPENER REQUEST SWITCH

< REMOVAL AND INSTALLATION >

## TRUNK OPENER REQUEST SWITCH

Exploded View

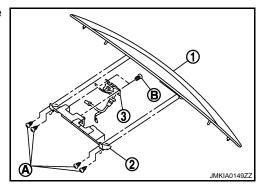
Refer to EXT-41, "Exploded View".

Removal and Installation

INFOID:0000000005628661

### **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

Install in the reverse order of removal.

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## TRUNK LID OPENER SWITCH

< REMOVAL AND INSTALLATION >

## TRUNK LID OPENER SWITCH

Exploded View

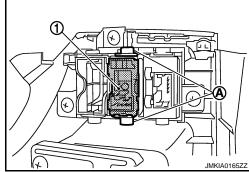
Refer to IP-12, "A/T MODELS: Exploded View".

## Removal and Installation

#### INFOID:0000000005628663

### **REMOVAL**

- 1. Remove the instrument driver lower panel. Refer to IP-13, "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.

## TRUNK LID OPENER CANCEL SWITCH

< REMOVAL AND INSTALLATION >

## TRUNK LID OPENER CANCEL SWITCH

Exploded View

Refer to IP-12, "A/T MODELS: Exploded View".

Removal and Installation

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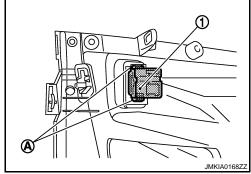
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### **REMOVAL**

- 1. Remove the instrument assist lower panel. Refer to IP-13, "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**

Install in the reverse order of removal.

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## REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

## REMOTE KEYLESS ENTRY RECEIVER

Exploded View

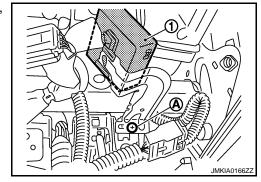
Refer to IP-12, "A/T MODELS: Exploded View".

Removal and Installation

#### INFOID:0000000005628667

### **REMOVAL**

- 1. Remove the instrument assist lower panel. Refer to IP-13, "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.