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DOOR LOCK AND UNLOCK SWITCH

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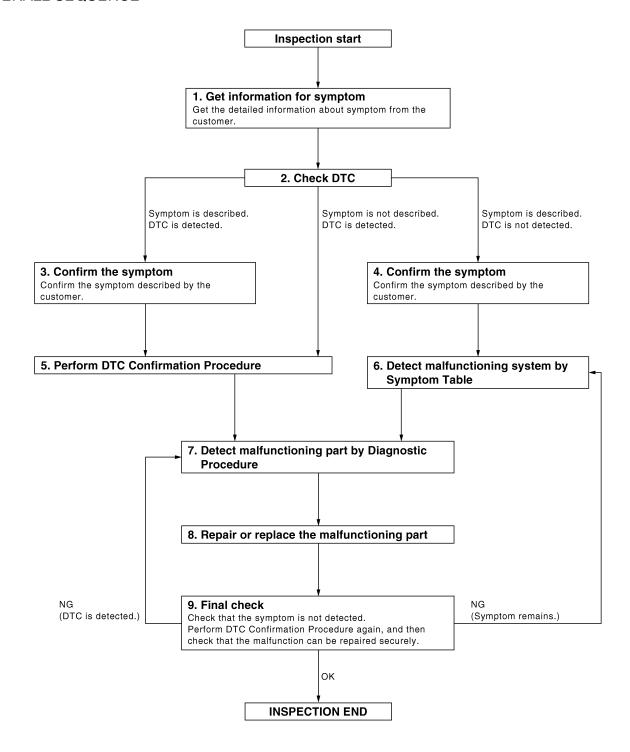
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## **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

#### **OVERALL SEQUENCE**



## DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITH I-KEY, WITHOUT SUPER LOCK]

## 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

## 2.CHECK DTC

- Check DTC for Intelligent Key unit and BCM.
- Perform the following procedure if DTC is displayed.
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- Check related service bulletins for information.

#### Is any symptom described and any DTC detected?

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

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

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

## 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

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

Verify 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 "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. If two or more DTCs are detected, refer to DLK-169, "DTC Inspection Priority Chart" (Intelligent Key unit) DLK-210, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

## Is DTC detected?

YES >> GO TO 7.

>> Refer to GI-39, "Intermittent Incident". NO

## O.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to Symptom Table based on the confirmed symptom in step 4.

7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

## Inspect according to Diagnostic Procedure of the system.

#### NOTE:

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

>> GO TO 8.

>> GO TO 7.

## f 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.
- Check DTC. If DTC is displayed, erase it.

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## **DIAGNOSIS AND REPAIR WORKFLOW**

[WITH I-KEY, WITHOUT SUPER LOCK]

>> GO TO 9.

## 9. FINAL CHECK

When DTC was detected in step 9, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunctions have been fully repaired.

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

## Are all malfunctions corrected?

NO (DTC is detected)>>GO TO 7. NO (Symptom remains)>>GO TO 6.

YES >> INSPECTION END

## **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

[WITH I-KEY, WITHOUT SUPER LOCK]

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III Operation Manual-NATS.

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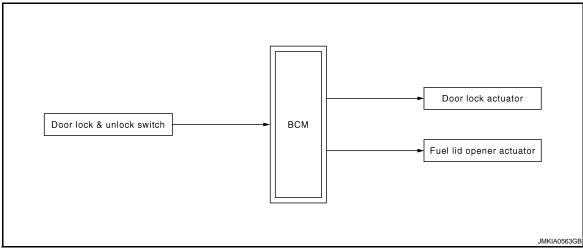
## **FUNCTION DIAGNOSIS**

## DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

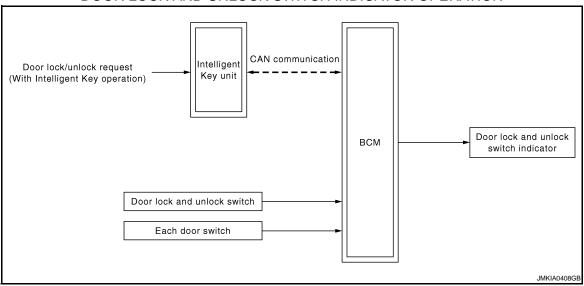
DOOR LOCK AND UNLOCK SWITCH: System Diagram

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### DOOR LOCK AND UNLOCK SWITCH OPERATION



## DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION



## DOOR LOCK AND UNLOCK SWITCH: System Description

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## DOOR LOCK AND UNLOCK SWITCH OPERATION

Functions are available by operating the door lock and unlock switch on driver door. Interlocked with the lock/unlock operation of door lock and unlock switch, door lock actuators of all doors are locked/unlocked.

#### **Operation Condition**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the door lock and unlock switch is operated.

## DOOR LOCK FUNCTION

## < FUNCTION DIAGNOSIS >

## [WITH I-KEY, WITHOUT SUPER LOCK]

Door lock and unlock switch	Operation condition
Lock operation	All of the following conditions are satisfied.     Except driver side doors are closed.     Doors are not locked with Intelligent Key or door request switch.
Unlock operation	All of the following conditions are satisfied.  • Doors are not locked with Intelligent Key or door request switch.

#### NOTE:

When the door lock is locked with Intelligent Key or door request switch, door lock and unlock switch operation will be invalid until either of the following conditions is satisfied.

- Turn ignition switch ON.
- Unlock with Intelligent Key or door request switch.

#### DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION

Door lock and unlock switch indicator indicates door lock status. The indicator turns ON while ignition switch is ON and each door lock is locked. If any door is opened, the indicator will turn OFF.

#### 1 Minute Timer

A timer to turn OFF the indicator will run for 1 minute after locking with Intelligent Key, door request switch or auto door lock.

#### 30 Minutes Timer

A timer to turn OFF the indicator will run for 30 minutes after locking with door lock and unlock switch.

#### NOTE:

1 minute timer condition is satisfied while the 30 minutes timer is active, however the 30 minutes timer does not change to 1 minute timer condition.

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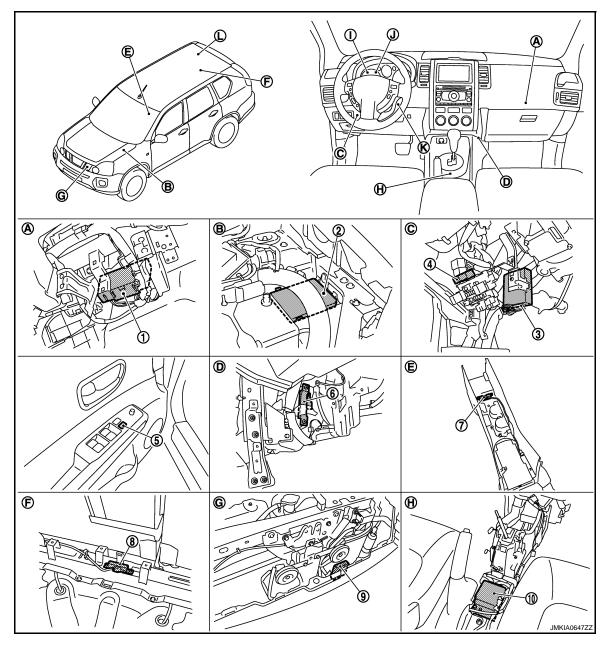
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## DOOR LOCK AND UNLOCK SWITCH: Component Parts Location

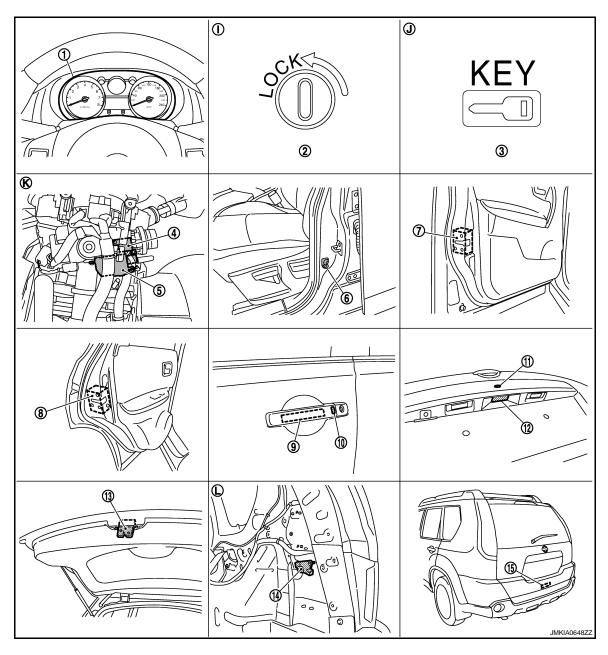




- **BCM** M65, M66, M67
- Passenger side anti-hijack relay M90
- Inside key antenna (console) 7.
- 10. Air bag diagnosis sensor unit
- Over the glove box
- View with lower instrument cover re-D. moved
- View with rear bumper fascia removed G.

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch) D5, D6
- 8. Inside key antenna (rear seat)
- Over the instrument lower panel (driver
- moved
- View with fuse box lid removed H.

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- Intelligent Key warning buzzer
- C. View with front bumper removed
- View with center console rear finisher re- F. View with luggage floor spacer (LH) removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side)
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator **B58**
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

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## DOOR LOCK AND UNLOCK SWITCH: Component Description

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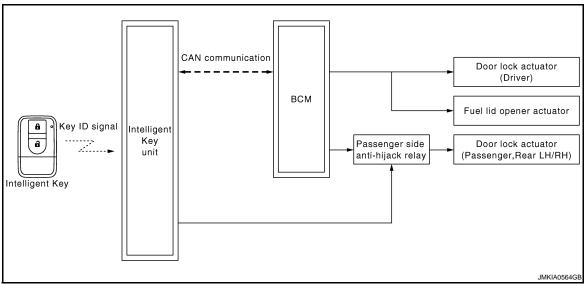
Item	Function
BCM	Controls the door lock function.
Door switch	Detects door state (open or close).
Door lock and unlock switch	Transmits door lock/unlock signal to BCM. Door lock/unlock switch indicator is built-in door lock and unlock switch.
Door lock actuator	Receives door lock/unlock signal from BCM and locks/unlocks each door.

## INTELLIGENT KEY

## INTELLIGENT KEY: System Diagram

INFOID:0000000001280394

#### INTELLIGENT KEY OPERATION



## INTELLIGENT KEY: System Description

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#### INTELLIGENT KEY OPERATION

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

This function can be set to OFF with CONSULT-III. For the setting information, refer to <u>DLK-67</u>, "CONSULT-III <u>Function (INTELLIGENT KEY)"</u>.

#### **OPERATION CONDITION**

Remote controller operation	Operation condition
Lock	<ul> <li>All doors are closed</li> <li>Key switch is OFF (key is removed from ignition key cylinder)</li> <li>Ignition knob switch is OFF (Ignition switch is not pressed)</li> </ul>
Unlock	<ul> <li>Key switch is OFF (key is removed from ignition key cylinder)</li> <li>Ignition knob switch is OFF (Ignition switch is not pressed)</li> </ul>

#### **OPERATION AREA**

To ensure that the Intelligent Key works effectively, use within a 100 cm range of each door, however the operable range may differ according to surroundings.

## DOOR LOCK AND UNLOCK CONTROL

When door lock and unlock button of the Intelligent Key are pressed, lock signal or unlock signal is transmitted from Intelligent Key to Intelligent Key unit.

When Intelligent Key unit receives the door lock and unlock signal, it operates door lock actuator.

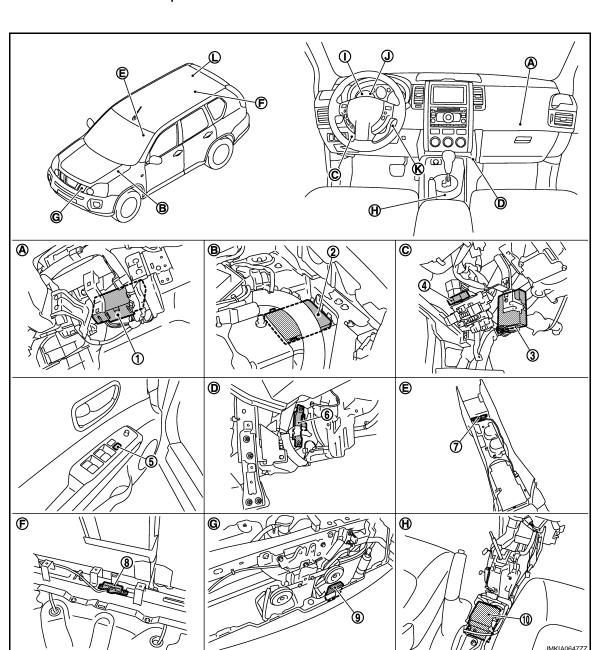
#### ANTI-HIJACK MODE

When door lock is unlocked, pressing LOCK button on Intelligent Key once will lock all doors. When door lock is locked, pressing UNLOCK button on Intelligent Key door will unlock driver side door. Pressing UNLOCK button on Intelligent Key a second time within 5 seconds from the first time will unlock all doors and back door can be opened with back door opener switch.

#### NOTE:

Anti-hijack mode can be set to ON or OFF with CONSULT-III. For the setting information, refer to <u>DLK-67</u>, <u>"CONSULT-III Function (INTELLIGENT KEY)"</u>.

## INTELLIGENT KEY: Component Parts Location



- BCM M65, M66, M67
- Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- 2. IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat) B45
- Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer E25

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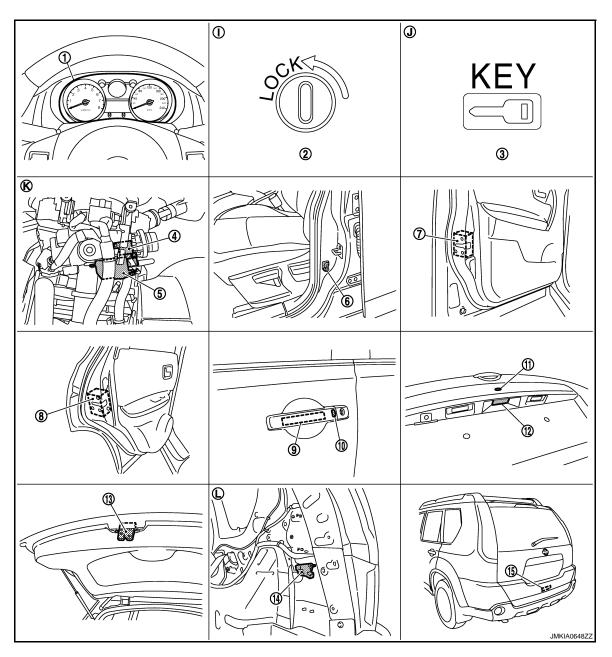
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#### < FUNCTION DIAGNOSIS >

- 10. Air bag diagnosis sensor unit
- A. Over the glove box
- View with lower instrument cover re-D.
- View with rear bumper fascia removed
- B. Over the instrument lower panel (driver side)
- View with center console rear finisher re- F. View with luggage floor spacer (LH) moved
- H. View with fuse box lid removed
- C. View with front bumper removed
- removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side) D9
- quest switch (driver side) D10
- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
- Key warning lamp
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187

## DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

## [WITH I-KEY, WITHOUT SUPER LOCK]

- 13. Back door lock assembly D190
- Fuel lid opener actuator
   B58
- 15. Out side key antenna (back door) D191

- I. Inside the combination meter
- Inside the combination meter
- K. View with steering column cover removed

 View with luggage side lower finisher (RH) removed.

## INTELLIGENT KEY: Component Description

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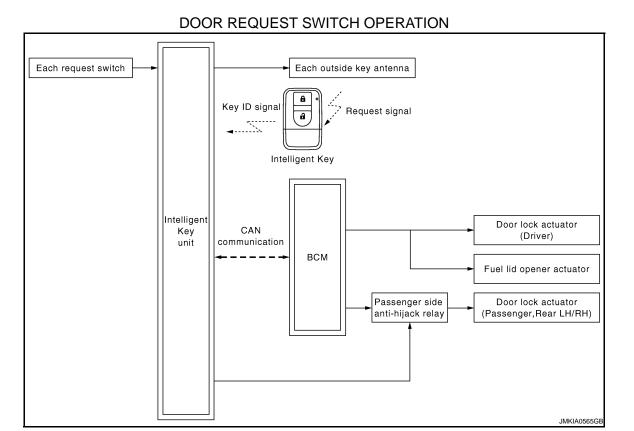
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Item	Function
Intelligent Key unit	Controls the door lock/unlock operation with BCM.
BCM	Controls the door lock/unlock operation with Intelligent Key unit.
Door switch	Detects door state (open or closed).
Key switch	Detects that mechanical key is inserted into ignition key cylinder.
Ignition knob switch	Detects ignition knob state (push or release).
Outside key antenna	Detects that Intelligent Key is in detection area of outside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when lock/unlock button is pressed.
Passenger side anti-hijack relay	Controls the circuit of door lock actuator (passenger side, rear LH/RH).
Door lock actuator	Receives lock/unlock signal from BCM and locks and unlocks each door.

## DOOR REQUEST SWITCH

## DOOR REQUEST SWITCH: System Diagram

INFOID:0000000001280398



## DOOR REQUEST SWITCH: System Description

INFOID:0000000001280399

## DOOR REQUEST SWITCH OPERATION

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

## DOOR LOCK FUNCTION

## < FUNCTION DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

Intelligent Key, which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (Intelligent Key unit).

This function can be set to OFF with CONSULT-III. For the setting information, refer to <u>DLK-67</u>, "CONSULT-III <u>Function</u> (INTELLIGENT KEY)".

#### **CAUTION:**

## The driver should always carry the Intelligent Key

#### **OPERATION CONDITION**

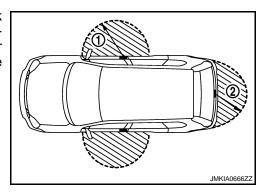
If the following conditions are not satisfied, door lock and unlock operation is not performed even if the request switch is operated.

Each request switch operation	Operation condition
Lock operation	<ul> <li>All doors are closed</li> <li>Key switch is OFF (Key is removed from ignition key cylinder.)</li> <li>Ignition knob is OFF or LOCK position</li> <li>Any Intelligent Key is not inside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area</li> </ul>
Unlock Operation	<ul> <li>Key switch is OFF (Key is removed from ignition key cylinder.)</li> <li>Ignition knob is OFF or LOCK position</li> <li>Intelligent Key is not inside the vehicle*</li> <li>Intelligent Key is within outside key antenna detection area</li> </ul>

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

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

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



#### DOOR LOCK AND UNLOCK CONTROL

When the Intelligent Key detects that door request switch is pressed, it starts corresponding with outside key antenna (door of request switch pressed side). Then, the Intelligent Key is checked to be 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 Intelligent Key unit. Intelligent Key unit receives the key ID signal and compares it with the registered key ID. Intelligent Key unit sends the door lock and unlock signal to BCM via CAN communication.

#### ANTI-HIJACK MODE

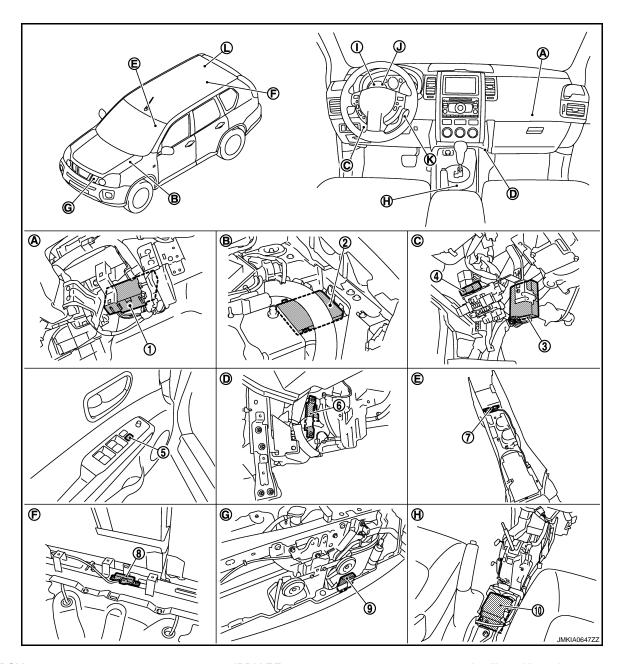
- When door is unlocked, pressing door request switch (driver or passenger) once will lock all doors. When
  door is locked, pressing door request switch (driver or passenger) once will unlock operated door. Pressing
  the door request switch door a second time within 5 seconds from the first time will unlock all doors and back
  door can be opened with back door opener switch.
- When door is unlocked, pressing door request switch (back door) will lock all doors. When door lock is locked, pressing door request switch (back door) will unlock back door only and back door can be opened with back door opener switch. Pressing back door opener switch a second time within 5 seconds will unlock all doors.

#### NOTE:

Anti-hijack mode can be set to OFF with CONSULT-III and Intelligent Key. For the setting information, refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

## DOOR REQUEST SWITCH: Component Parts Location

INFOID:0000000001394652



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat)
- B. Over the instrument lower panel (driver side)
- View with center console rear finisher removed
- H. View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer F25
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed

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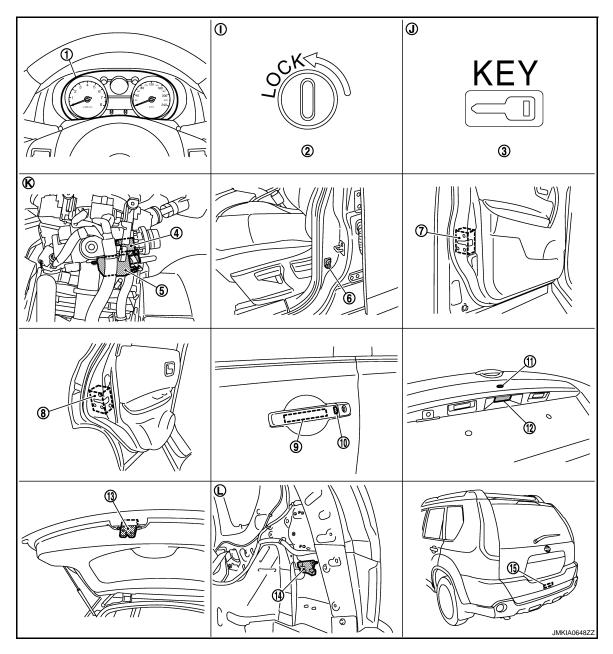
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator B58
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# DOOR REQUEST SWITCH: Component Description

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Item	Function
Intelligent Key unit	Controls the door lock function with BCM.
BCM	Controls the door lock/unlock function with Intelligent Key unit.
Door request switch	Transmits opertion signal (lock and unlock) to Intelligent Key unit.
Door switch	Detects door state (open or closed).
Key switch	Detects that mechanical key is inserted into ignition key cylinder.
Ignition knob switch	Detects ignition knob state (push or release).
Outside key antenna	Detects that Intelligent Key is in detection area of outside key antenna.
Inside key antenna	Detects that Intelligent Key is in detection area of inside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when request signal is received from outside key antenna.
Passenger side anti-hijack relay	Controls the circuit of door lock actuator (passenger side, rear LH/RH).
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.

# **KEY REMINDER**

# **KEY REMINDER: System Diagram**

INFOID:0000000001280402

# Door switch CAN communication Intelligent Key unit Rey unit Fuel lid opener actuator Door lock actuator Door lock actuator

# KEY REMINDER : System Description

INFOID:0000000001280403

### KEY REMINDER OPERATION

Key reminder have the following 2 functions.

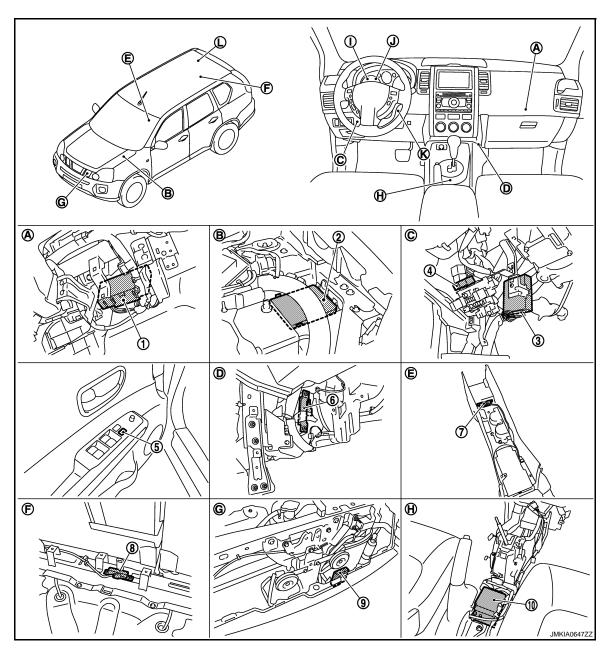
Operation	Operation condition	Operation	
Driver door close	Right after driver side door is closed under the following conditions.  Door lock operation.  Driver side door is opened.  Driver side door is in unlock state.	All doors unlock	
Any door open to all doors close	Right after all doors are closed under the following conditions.  Intelligent Key is inside the vehicle.  Any door is opened.  All doors are locked by door lock and unlock switch.	All doors unlock     Active Intelligent Key warning buzzer	

### **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 will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket of an open door.

**KEY REMINDER: Component Parts Location** 

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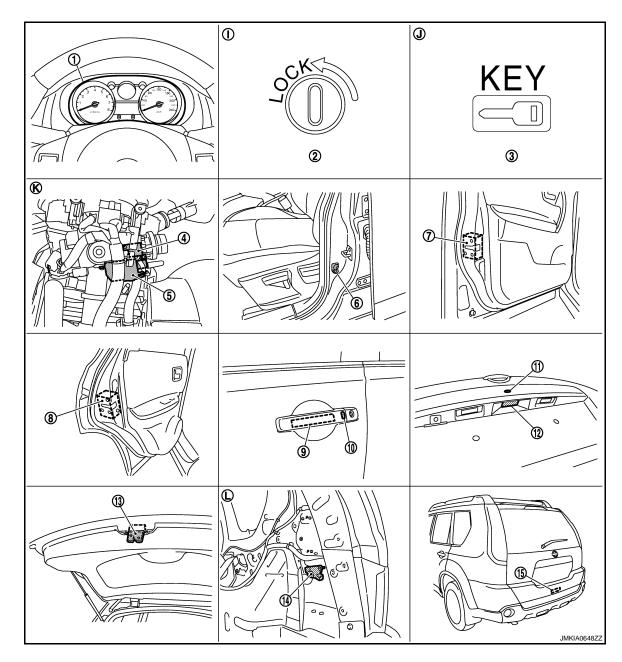
- 1. BCM M65, M66, M67
- Passenger side anti-hijack relay M90
- Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box

- 2. IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat) B45
- Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- 9. Intelligent Key warning buzzer E25
- B. Over the instrument lower panel (driver side)
- C. View with front bumper removed

- View with lower instrument cover removed
- G. View with rear bumper fascia removed
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- View with fuse box lid removed
- View with center console rear finisher re- F. View with luggage floor spacer (LH) removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side) 7.
- quest switch (driver side) D10
- 13. Back door lock assembly D190

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator **B58**

- Key warning lamp M34
- Front door switch (driver side) 6. **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191

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### DOOR LOCK FUNCTION

### < FUNCTION DIAGNOSIS >

### [WITH I-KEY, WITHOUT SUPER LOCK]

- I. Inside the combination meter
- Inside the combination meter
- K. View with steering column cover removed

View with luggage side lower finisher (RH) removed.

### KEY REMINDER: Component Description

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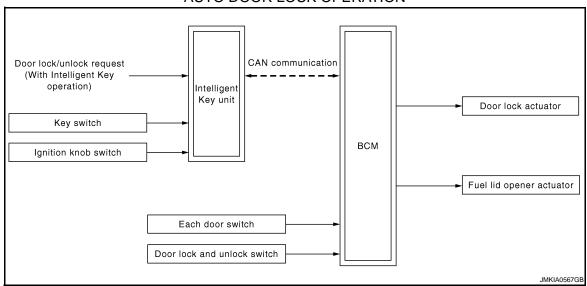
Item	Function
Intelligent Key unit	Controls the door lock function with BCM.
BCM	Controls the door lock and unlock operation with Intelligent Key unit.
Door switch	Detects door state (open or closed).
Inside key antenna	Detects that Intelligent Key is in detection area of inside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when Intelligent Key is searching.
Door lock actuator	Receives lock and unlock signal from BCM and locks/unlocks each door.

### **AUTO DOOR LOCK**

# AUTO DOOR LOCK: System Diagram

INFOID:0000000001280406

### AUTO DOOR LOCK OPERATION



# AUTO DOOR LOCK: System Description

INFOID:0000000001280407

### **AUTO DOOR LOCK OPERATION**

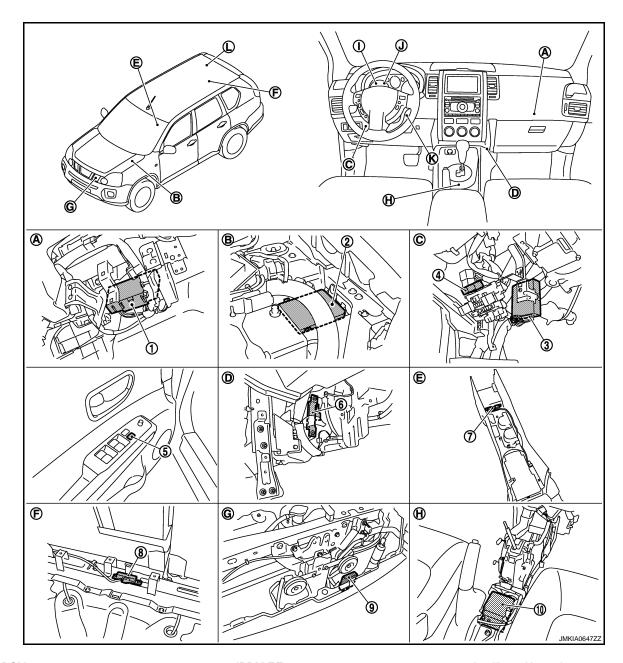
When all doors are locked and then doors are unlocked with Intelligent Key or door request switch, BCM does not receive the following signals within 2 minutes<sup>\*1</sup>, and all doors are automatically locked.

- Any door is opened.
- Ignition knob is pressed.
- Ignition key is inserted into ignition key cylinder.
- Door is locked with Intelligent Key.
- Door is locked/unlocked with door lock and unlock switch.

<sup>\*1:</sup> Auto door lock operation mode can be changed with CONSULT-III. Refer to <u>DLK-67</u>, "CONSULT-III Function (INTELLIGENT KEY)".

# AUTO DOOR LOCK: Component Parts Location

INFOID:0000000001394654



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat)
- B. Over the instrument lower panel (driver side)
- E. View with center console rear finisher removed
- H. View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- Intelligent Key warning buzzerF25
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed

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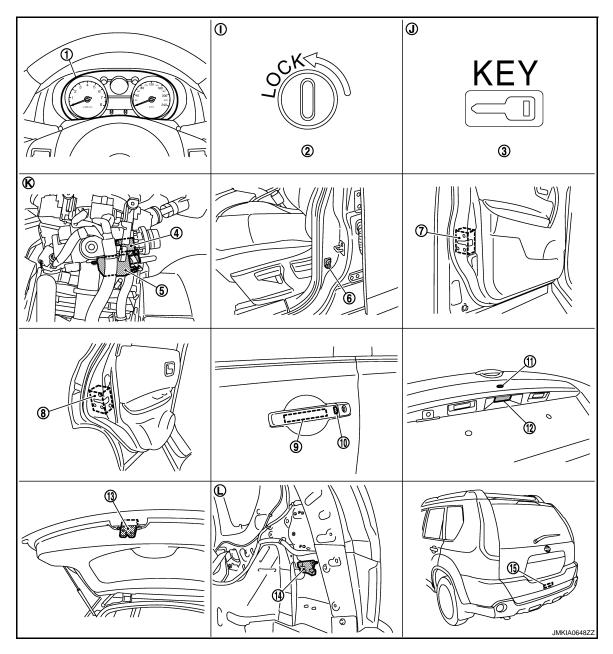
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator B58
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# AUTO DOOR LOCK: Component Description

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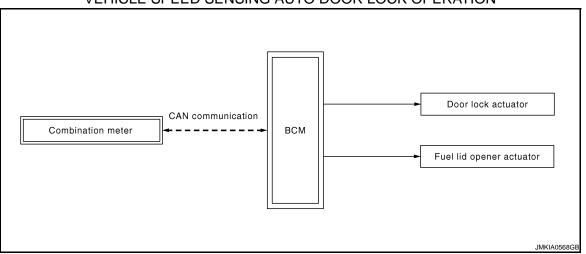
Item	Function
Intelligent Key unit	Controls the door lock function with BCM.
BCM	Controls the door lock function with Intelligent Key unit.
Door switch	Detects door state (open or closed).
Key switch	Detects that mechanical key is inserted into ignition key cylinder.
Ignition knob switch	Detects ignition knob state (push or release).
Door lock and unlock switch	Transmits door lock and unlock signal to BCM.
Door lock actuator	Receives lock and unlock signal from BCM and locks and unlocks each door.

# VEHICLE SPEED SENSING AUTO DOOR LOCK

# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Diagram

INFOID:0000000001280410

### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION



# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description

INFOID:0000000001280411

### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION

When the vehicle speed exceeds 25 km/h (16 MPH), all doors are automatically locked. BCM receives vehicle speed signal from combination meter via CAN communication.

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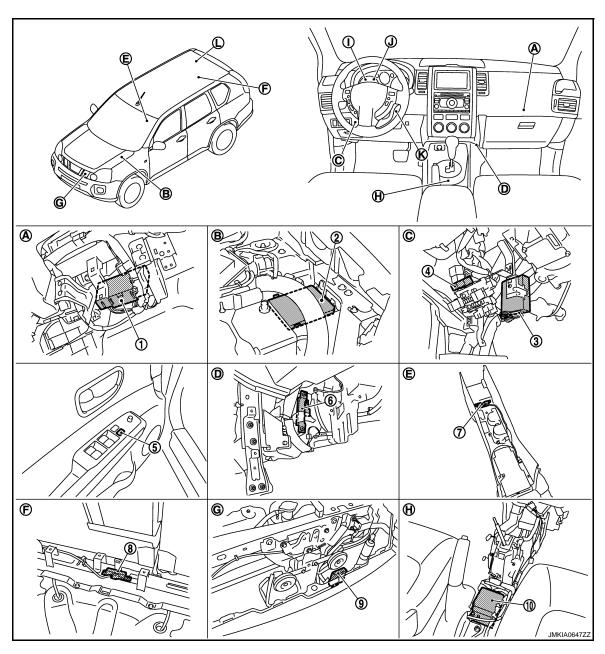
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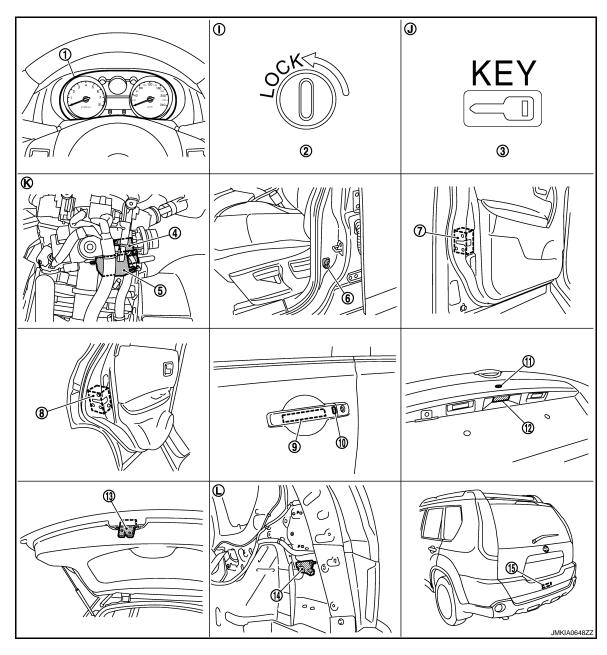
# VEHICLE SPEED SENSING AUTO DOOR LOCK : Component Parts Location



- **BCM** M65, M66, M67
- Passenger side anti-hijack relay M90
- Inside key antenna (console) M252
- 10. Air bag diagnosis sensor unit
- Over the glove box
- View with lower instrument cover re-D. moved
- View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch) D5, D6
- 8. Inside key antenna (rear seat) B45
- Over the instrument lower panel (driver side)
- E. View with center console rear finisher re- F. View with luggage floor spacer (LH) moved
- View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- 9. Intelligent Key warning buzzer E25
- C. View with front bumper removed
- removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side)
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator **B58**
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

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# VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Description

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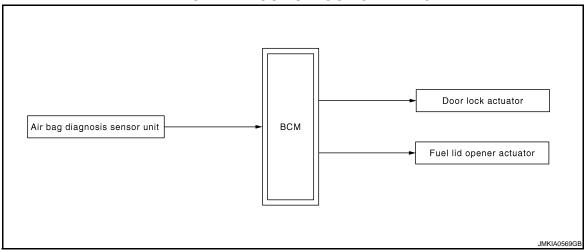
Item	Function
BCM	Controls the door lock/unlock function.
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.
Door lock actuator	Receives door lock and unlock signal from BCM and locks and unlocks each door.

# AIR BAG INTERLOCK UNLOCK

# AIR BAG INTERLOCK UNLOCK: System Diagram

INFOID:0000000001280414

### AIR BAG INTERLOCK UNLOCK OPERATION



# AIR BAG INTERLOCK UNLOCK : System Description

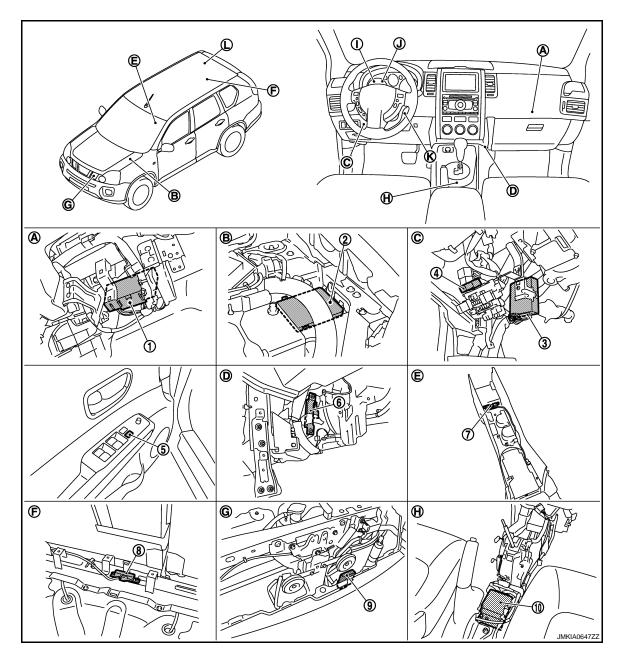
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### AIR BAG INTERLOCK UNLOCK OPERATION

When ignition switch is ON and BCM receives air bag deployment signal, it operates automatically to unlock all doors. Air bag diagnosis sensor unit sends the air bag deployment signal to BCM.

# AIR BAG INTERLOCK UNLOCK: Component Parts Location

INFOID:0000000001394656



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat)
- B. Over the instrument lower panel (driver side)
- View with center console rear finisher removed
- H. View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- Intelligent Key warning buzzer F25
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed

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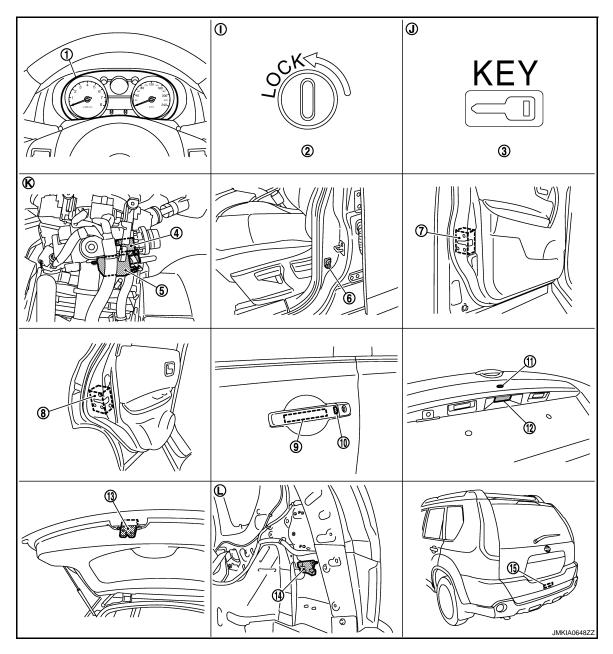
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator B58
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# DOOR LOCK FUNCTION

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

# AIR BAG INTERLOCK UNLOCK : Component Description

INFOID:0000000001280417

Item	Function
BCM	Controls the door lock function.
Air bag diagnosis sensor unit	Transmits air bag deployment signal to BCM for shock sensing auto unlock.
Door lock actuator	Receives unlock signal from BCM and unlocks each door.

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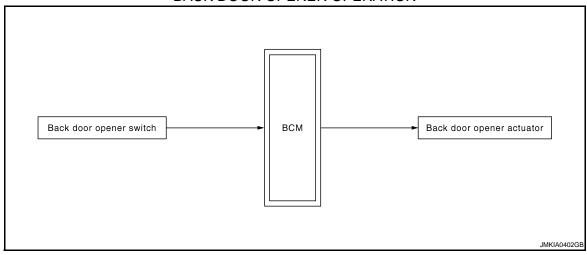
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# BACK DOOR OPENER FUNCTION BACK DOOR OPENER SWITCH

BACK DOOR OPENER SWITCH: System Diagram

INFOID:0000000001280418

### **BACK DOOR OPENER OPERATION**



# BACK DOOR OPENER SWITCH: System Description

INFOID:0000000001280419

### **BACK DOOR OPENER OPERATION**

When back door opener switch is pressed, BCM opens back door opener actuator.

### NOTE:

Back door opener actuator is not for locking the back door. The function is only to open the back door.

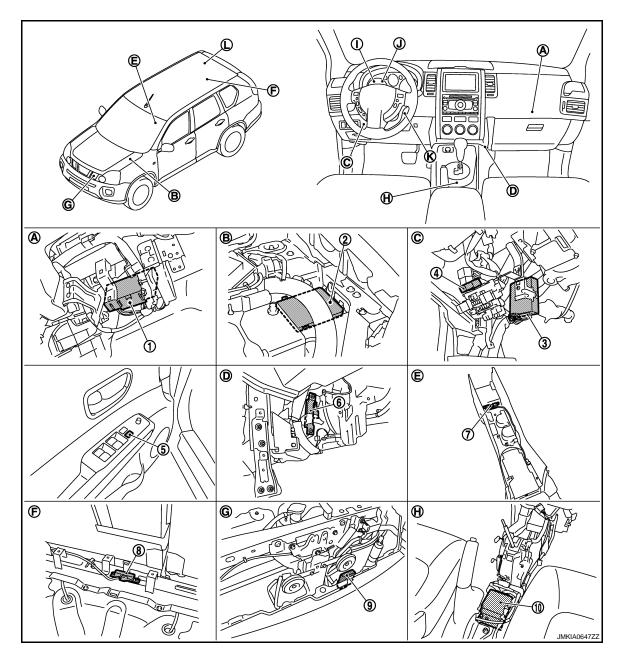
### **OPERATION CONDITION**

If the following conditions are not satisfied, back door opener operation is not performed.

Back door opener switch operation	Operation condition
Back door open	<ul><li>Vehicle speed is less than 5 km/h (3 MPH).</li><li>All doors are unlocked.</li></ul>

# BACK DOOR OPENER SWITCH : Component Parts Location

INFOID:0000000001394657



- 1. BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- View with lower instrument cover removed
- G. View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat)
- B. Over the instrument lower panel (driver side)
- View with center console rear finisher removed
- H. View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- 9. Intelligent Key warning buzzer F25
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed

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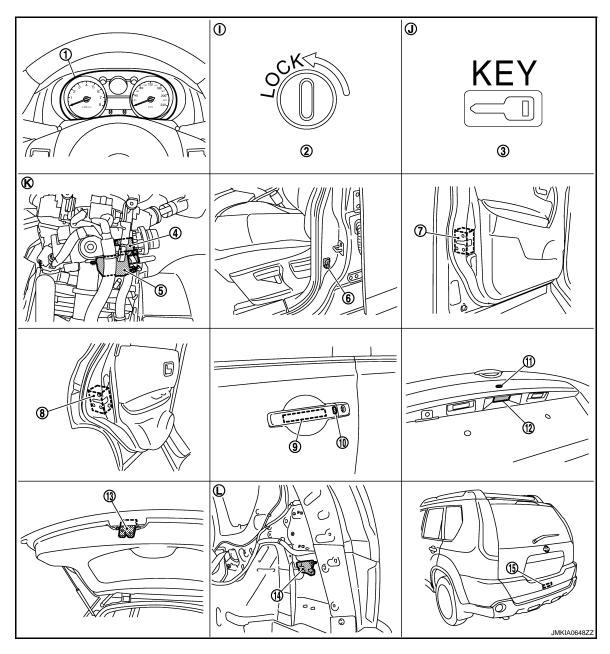
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator B58
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# **BACK DOOR OPENER FUNCTION**

< FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

# BACK DOOR OPENER SWITCH : Component Description

INFOID:0000000001280421

Item	Function
BCM	Controls the back door opener function.
Back door opener switch	Transmits back door opener switch operation signal to BCM.
Back door opener actuator	Opens the back door with the back door open signal from BCM.
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.

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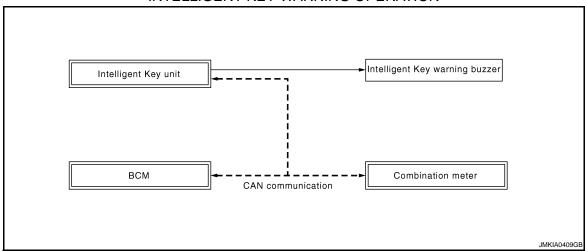
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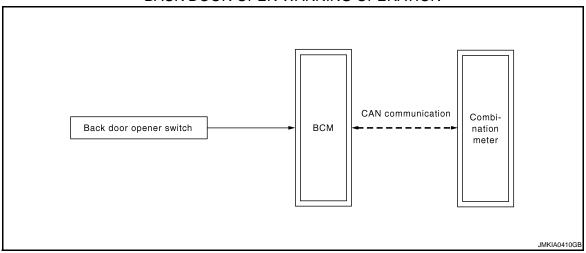
# WARNING FUNCTION

System Diagram

### INTELLIGENT KEY WARNING OPERATION



### **BACK DOOR OPEN WARNING OPERATION**



# **System Description**

INFOID:0000000001280423

### **DESCRIPTION**

The warning functions are as follows and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, key warning lamps and buzzer (built in combination meter).

### INTELLIGENT KEY WARNING OPERATION

Once one of the following conditions below is established, alert or warning will be executed.

# [WITH I-KEY, WITHOUT SUPER LOCK]

Warning/Information functions			Warning lamp	Warning chime	
		Operation conditions		Combination meter buzzer	Intelligent Key warning buzz- er
Ignition knob return forgotten warning		<ul> <li>When all the conditions below are met.</li> <li>Ignition knob: OFF or LOCK (knob is pressed).</li> <li>Door switch (driver side): ON (Door is open).</li> </ul>	_	Active for 5 seconds (pipipipi, pipipipi···)	_
Ignition key w (when mecha	varning anical key is used)	<ul> <li>When all the conditions below are met.</li> <li>Ignition switch: OFF position.</li> <li>Key switch: ON (inserted)</li> <li>Door switch (driver side): ON (Door is open).</li> </ul>	_	Active for 5 seconds (pipipipi, pipipipi····)	_
OFF position warning		<ul> <li>When all the conditions below are met.</li> <li>Ignition switch is between ACC and OFF position or ignition knob is pressed in while ignition switch is in LOCK position.</li> <li>3 seconds in the above state have pressed.</li> </ul>	"LOCK" (RED blinking)	Active for 1 second (pipi, pipi···)	_
Take away warning	Any door open to all doors closed	When all the conditions below are met. Ignition switch: Except LOCK position. Door switch: ON to OFF (Door is open to closed). Intelligent Key cannot be detected inside the vehicle.	"KEY" (RED blinking)	_	Active (pi, pi, pi)
	Door is open	<ul> <li>When all the conditions below are met.</li> <li>Door switch: ON (Door is open)</li> <li>Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> </ul>	"KEY" (RED blinking)	_	_
	Take away through win- dow	<ul> <li>When all the conditions below are met.</li> <li>Key ID verification: OK</li> <li>Every 30 seconds when registered Intelligent Key cannot be detected inside the vehicle or result of vehicle speed verification is NG. (The registered Intelligent Key cannot be detected inside the vehicle when ignition switch is ON.)</li> <li>Key switch: OFF (Key is removed from ignition key cylinder.)</li> </ul>	"KEY" (RED blinking)	Active for 3 seconds (pipipi	_

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				Warning chime	
Warning/Inforn	nation functions	Operation conditions	Warning lamp	Combination meter buzzer	Intelligent Key warning buzz- er
Door lock op- eration warn-	Request switch opera- tion	<ul> <li>When request switch is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserted into ignition key cylinder.</li> <li>Intelligent Key is inside vehicle.</li> </ul>	_	_	Active for 2 seconds (pipipi)
ing	Intelligent Key button opera- tion	<ul> <li>When Intelligent Key button is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserted into ignition key cylinder.</li> </ul>	_	_	Active for 2 seconds (pipipi)
Intelligent Key low battery warning		When Intelligent Key battery voltage is low, Intelligent Key unit is detected after ignition switch is turned ON.	"KEY" (GREEN blink- ing for 30 sec- onds)	_	_

### KEY WARNING LAMP & LOCK WARNING LAMP

The key indicator and lock indicator indicates Intelligent Key system status.

### **Operation Condition**

Е	Behavior of lamps		Operation condition	
	GREEN	Lighting	All the following conditions are satisfied.  Ignition knob is pushed in LOCK position. (Ignition knob switch is ON)  Ignition key is removed from ignition key cylinder. (Key switch is OFF)  Intelligent Key is detected inside of the vehicle.  KEY RED lighting/blinking conditions are not satisfied.	
		Blinking	while Intelligent Key low battery warning is operating.	
KEY	RED	Lighting	All the following conditions are satisfied.  Ignition knob is pushed. (Ignition knob switch is ON)  Ignition key is removed from ignition key cylinder. (Key switch is OFF)  Intelligent Key is not detected inside of the vehicle.	
		Blinking	All the following conditions are satisfied.     Take away warning is operating.     KEY RED lighting condition is not satisfied.	
LOCK Blinking		Blinking	While OFF position warning is operating.	
KEY(RED) and LOCK lighting		CK lighting	All the following conditions are satisfied.  Ignition switch is ON.  Steering lock ID is NG.	

### BACK DOOR OPEN WARNING OPERATION

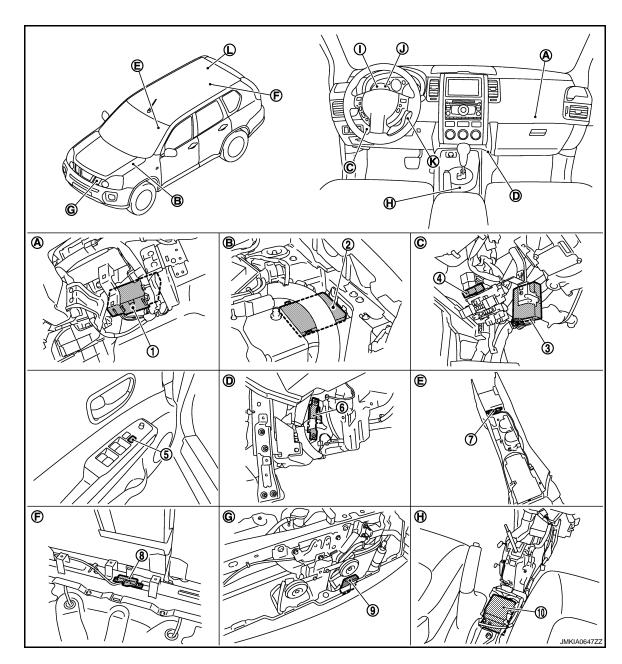
When back door opener switch is operated, when door lock is locked with door lock and unlock switch, speed sensing lock or only driver side is unlocked with anti-hijack function, the buzzer (built in combination meter) will sound.

### KEY REMINDER OPERATION

- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is
  pressed while the driver door is open and mechanical key is inserted ignition key cylinder.
- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is pressed while any door other than the driver door is open.

# Component Parts Location

INFOID:0000000001394658



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with rear bumper fascia removed

- IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat)
- B. Over the instrument lower panel (driver side)
- E. View with center console rear finisher removed
- H. View with fuse box lid removed

- Intelligent Key unit M40
- Inside key antenna (instrument center) M56
- Intelligent Key warning buzzerF25
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed

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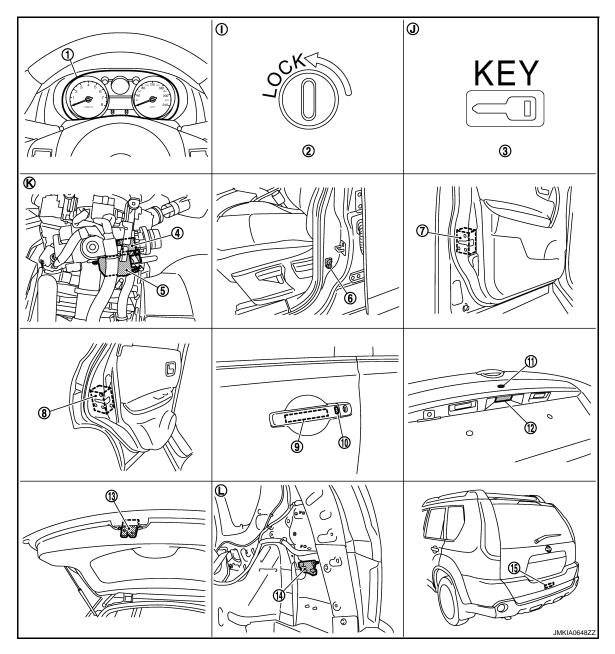
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- Front door lock actuator (driver side)
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- View with luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator B58
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (driver side) **B34**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# **WARNING FUNCTION**

< FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

# Component Description

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Item	Function
BCM	Controls the warning function with Intelligent Key unit.
Intelligent Key unit	Controls the warning function with BCM.
Key switch	Detects that mechanical key is inserted into ignition key cylinder.
Door switch	Detects door state (open or closed).
Door lock and unlock switch	Transmits door lock and unlock signal to BCM.
Intelligent Key unit	Requests to turn ON hazard warning lamp to BCM and turn signal indicator to combination meter.
Combination meter	Turns ON the LOCK indicator, KEY indicator, turn signal indicator and buzzer (built in combination meter) by the request from Intelligent Key unit via CAN communication.
Intelligent Key warning buzzer	Sounds by the request from Intelligent Key unit.
Back door opener switch	Transmits back door open signal to BCM

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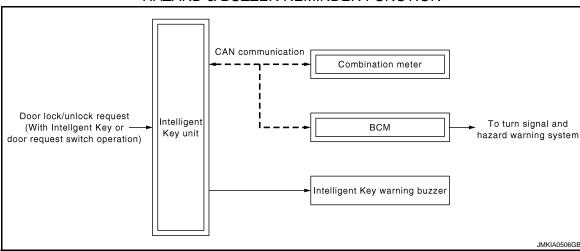
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System Diagram INFOID:0000000001280426

### HAZARD & BUZZER REMINDER FUNCTION



# System Description

< FUNCTION DIAGNOSIS >

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[WITH I-KEY, WITHOUT SUPER LOCK]

### HAZARD AND BUZZER REMINDER FUNCTION

When door is locked or unlocked by Intelligent Key or door request switch, Intelligent Key unit sounds buzzer and sends hazard request signal to BCM via CAN communication. Then BCM flashes hazard warning lamps as a reminder.

### NOTE:

Hazard and buzzer reminder function mode can be changed with CONSULT-III. Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

Hazard Operation

Hazard reminder setting (With CONSULT-III)		Door lock operation (with Intelligent Key or door request switch)	Hazard warning lamp flash
	OFF	Any	_
		Lock	Once
	LOCK ONLY	Unlock	_
		Unlock (Anti-hijack)	_
HAZARD ANSWER BACK		Lock	_
HAZARD ANSWER BACK	UNLK ONLY	Unlock	Twice
		Unlock (Anti-hijack)	Twice (quick)
	LOCK/UNLK	Lock	Once
		Unlock	Twice
		Unlock (Anti-hijack)	Twice (quick)
zzer Operation			
Buzzer reminder s (With CONSULT	•	Door lock operation (with Intelligent Key or door request switch)	Buzzer warning sounds
	BUZZER	Lock	Once
ANSWER BACK WITH I-KEY LOCK		Unlock	Depends on other setting
		Unlock (Anti-hijack)	Depends on other setting
	OFF	Any	_

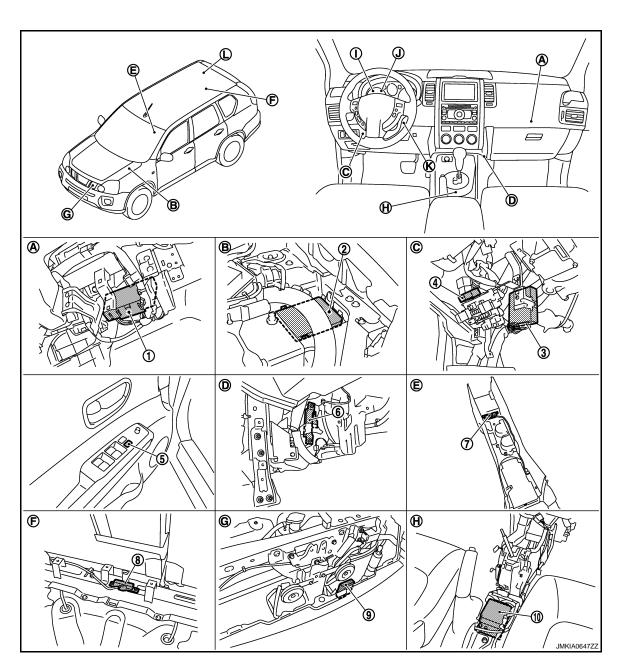
### < FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

Buzzer reminder setting (With CONSULT-III)		Door lock operation (with Intelligent Key or door request switch)	Buzzer warning sounds
	BUZZER	Lock	Depends on other setting
ANSWER BACK WITH		Unlock	Twice
I-KEY UNLOCK		Unlock (Anti-hijack)	Twice
	OFF	Any	_
ANSWER BACK FUNC- TION	ON	Lock	Once
		Unlock	Twice
		Unlock (Anti-hijack)	Twice
	OFF	Any	_

# Component Parts Location

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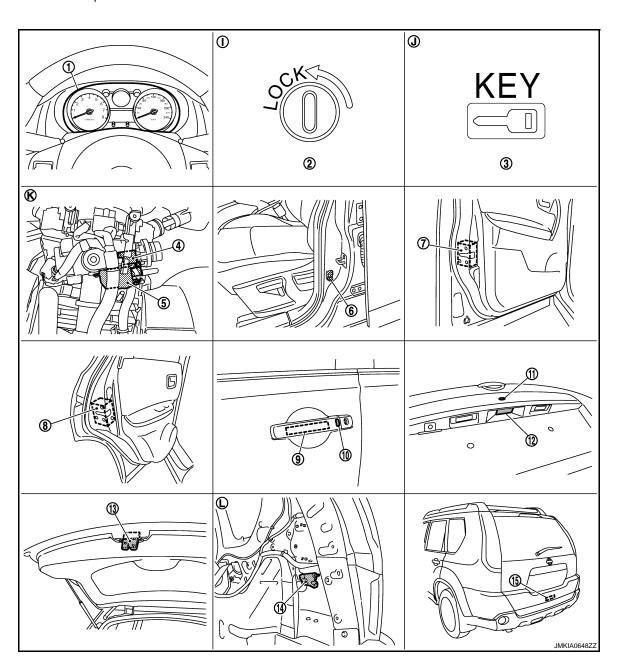
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### < FUNCTION DIAGNOSIS >

### [WITH I-KEY, WITHOUT SUPER LOCK]

- 1. BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with rear bumper fascia removed

- 2. IPDM E/R E11, E13
- Power window main switch (door lock and 6. unlock switch)
   D5, D6
- 8. Inside key antenna (rear seat) B45
- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer E25
- B. Over the instrument lower panel (driver side)
- View with center console rear finisher removed
- H. View with fuse box lid removed
- C. View with front bumper removed
- F. View with luggage floor spacer (LH) removed



### < FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

1.	Combination meter M34	2.	Lock warning lamp M34	3.	Key warning lamp M34
4.	Ignition knob switch, key switch and key lock solenoid (key switch) M25	5.	Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25	6.	Front door switch (driver side) B34
7.	Front door lock actuator (driver side) D9	8.	Rear door lock actuator LH D85	9.	Out side key antenna and front door request switch (driver side) D10
10.	Out side key antenna and front door request switch (driver side) D10	11.	Back door opener switch assembly (request switch) D187	12.	Back door opener switch assembly (opener switch) D187
13.	Back door lock assembly	14.	Fuel lid opener actuator	15.	Out side key antenna (back door)

B58

View with luggage side lower finisher (RH) removed.

Inside the combination meter

D190

**BCM** 

# Component Description

Item

**Function** Controls the hazard and buzzer reminder function with Intelligent Key unit.

D191

View with steering column cover re-

INFOID:0000000001280429

Intelligent Key unit Controls the hazard and buzzer reminder function with BCM. Turns ON the LOCK indicator, KEY indicator, turn signal indicator and buzzer Combination meter (built in combination meter) by the request from Intelligent Key unit via CAN communication.

Inside the combination meter

Intelligent Key warning buzzer Sounds by the request signal from Intelligent Key unit.

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# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)

INFOID:0000000001569648

### APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to DLK-211, "DTC Index".
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul><li>Read and save the vehicle specification.</li><li>Write the vehicle specification when replacing BCM.</li></ul>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

### NOTE:

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

 $\times$ : Applicable item

Country was	CONSULT-III sub system selection item	Diagnosis mode			
System		WORK SUPPORT	DATA MONITOR	ACTIVE TEST	
_	BCM	×			
Door lock	DOOR LOCK	×	×	×	
Rear window defogger	REAR DEFOGGER	×	×	×	
Warning chime	BUZZER		×	×	
Interior room lamp control	INT LAMP	×	×	×	
Remote keyless entry system	MULTI REMOTE ENT	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	
Wiper and washer	WIPER	×	×	×	
Turn signal and hazard warning lamps	FLASHER		×	×	
Air conditioner	AIR CONDITONER		×		
Intelligent Key system	INTELLIGENT KEY		×		
Combination switch	COMB SW		×		
Immobilizer	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Back door open	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	
Signal buffer system	SIGNAL BUFFER		×	×	
_	PTC HEATER*				

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

DOOR LOCK

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

INFOID:0000000001280431

**BCM CONSULT-III FUNCTION** 

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

# [WITH I-KEY, WITHOUT SUPER LOCK]

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.

### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
PUSH SW*1	Indicates [ON/OFF] condition of ignition knob switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEYLESS LOCK*2	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK*2	Indicates [ON/OFF] condition of unlock signal from key fob.
I-KEY LOCK*1	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK*1	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.
UNLOCK WITH DR	This item is indicated, but not monitored.
UNLOCK SHOCK	Indicates [ON/OFF] condition of signal from air bag diagnosis unit.  ON: During the unlock operation interlock with air bag.  OFF: Other than above.
SHOCK SENSOR	<ul> <li>Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit.</li> <li>NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.)</li> <li>ON: During the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> <li>OFF: After the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> </ul>
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
SUPER LOCK*1	This test is able to check super lock operation [LOCK (SET)/UNLOCK (RELEASE)].
DOOR LOCK IND	This test is able to check door lock indicator (built in door lock and unlock switch on center console) operation [ON/OFF].
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK].

<sup>:\*1</sup> For the super lock equipped vehicle.

### **WORK SUPPORT**

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<sup>\*2:</sup> For the multi remote control system equipped vehicle.

# **DIAGNOSIS SYSTEM (BCM)**

### < FUNCTION DIAGNOSIS >

Test item	Description
SECURITY DOOR LOCK SET	<ul> <li>Anti hijack function mode can be changed in this mode.</li> <li>ON: Anti hijack mode is active.</li> <li>OFF: Anti hijack mode is inactive.</li> </ul>

# INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:00000001280432

### **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	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
PUSH SW	Indicates [ON/OFF] condition of ignition knob switch.
I-KEY LOCK	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.

# **TRUNK**

TRUNK: CONSULT-III Function (BCM - TRUNK)

INFOID:0000000001280433

### **APPLICATION ITEM**

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

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.

### **DATA MONITOR**

Monitor Item	Condition	
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.	
KEY ON SW	Indicates [ON/OFF] condition of key switch.	
PUSH SW <sup>*1</sup>	Indicates [ON/OFF] condition of ignition knob switch.	
TRNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch.	
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].	

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener operation [ON/OFF].

<sup>\*2:</sup> For the remote keyless entry system equipped vehicle.

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

< FUNCTION DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

# CONSULT-III Function (INTELLIGENT KEY)

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### **APPLICATION ITEM**

CONSULT-III performs the following functions via CAN communication with Intelligent Key unit.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by Intelligent Key unit.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from Intelligent Key unit.
DATA MONITOR	The Intelligent Key unit input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.
ECU IDENTIFICATION	The Intelligent Key unit part number is displayed.

### **WORK SUPPORT**

Support item	Description	Selection item	Condition
CONFIRM KEY FOB ID	It can check whether Intelligent Key ID code is registered or not.	_	_
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window)	ON	Active
TAKE OUT FROM WINDOW WARN	mode can be changed.	OFF	Inactive
LOW BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can	ON	Active
LOW BATT OF RET FOB WARN	be changed.	OFF	Inactive
KEYLESS FUNCTION	Door lock function with Intelligent Key can be	ON	Active
RETLESS FUNCTION	changed.	OFF	Inactive
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed.	ON	Active
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed.	OFF	Inactive
SELECTIVE UNLOCK FUNCTION	Anti-hijack mode can be changed.	ON	Active
SELECTIVE UNLOCK TONCTION	Anti-nijack mode can be changed.	OFF	Inactive
HAZARD ANSWER BACK	Hazard reminder operation mode can be changed.	Refer to DLK-60.	
	Buzzer reminder operation (lock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY LOCK	mode by each door request switch can be changed.	OFF	Inactive
	Buzzer reminder operation (unlock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY UNLOCK	mode by each door request switch can be changed.	OFF	Inactive
AUTO RELOCK TIMER	Auto door lock operation mode can be	OFF	Inactive
NOTO RELOCK TIMER	changed.	2 min.	Active
ENGINE START BY I-KEY	Engine start function (by Intelligent Key)	ON	Active
ENGINE STAIN DI FILE	mode can be changed.	OFF	Inactive
LOCK/UNLOCK BY I-KEY	Door lock function by door request switch can	ON	Active
EGGINGINEGON DI FINET	be changed.	OFF	Inactive

**SELF-DIAG RESULT** 

Refer to DLK-169, "DTC Index".

**DATA MONITOR** 

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# [WITH I-KEY, WITHOUT SUPER LOCK]

Monitor Item	Condition	
PUSH SW	Indicates [ON (pressed)/OFF (released)] condition of ignition knob switch.	
KEY SW	Indicates [ON (inserted)/OFF (removed)] condition of key switch.	
DR REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (driver side).	
AS REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (passenger side).	
BD/TR REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (back door).	
IGN SW	Indicates [ON (ON or START position)/OFF (other than ON and START position)] condition of ignition switch ON position.	
ACC SW	Indicates [ON/OFF] condition of ignition switch ACC position.	
STOP LAMP SW	Indicates [ON/OFF] condition of stop lamp switch.	
DOOR LOCK SIG	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
DOOR UNLOCK SIG	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
DOOR SW DR	Indicates [OPEN/CLOSE] condition of front door switch (driver side) from BCM via CAN communication.	
DOOR SW AS	Indicates [OPEN/CLOSE] condition of front door switch (passenger side) from BCM via CAN communication.	
DOOR SW RR	Indicates [OPEN/CLOSE] condition of rear door switch (RH) from BCM via CAN communication.	
DOOR SW RL	Indicates [OPEN/CLOSE] condition of rear door switch (LH) from BCM via CAN communication.	
DOOR BK SW	Indicates [OPEN/CLOSE] condition of back door switch from BCM via CAN communication.	
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].	

### **ACTIVE TEST**

Test item	Description
DOOR LOCK/UNLOCK	This test is able to check door lock/unlock operation.  • ALL UNLK: All door lock actuators are unlocked.  • DR UNLK: Door lock actuator (driver side) is unlocked.  • AS UNLK: Door lock actuator (passenger side) is unlocked.  • BK UNLK: This item is indicated, but inactive.  • LOCK: All door lock actuator is locked.
ANTENNA	This test is able to check Intelligent Key antenna operation.  When the following condition are met, LED (on Intelligent Key) blinks.  ROOM ANT1: Inside key antenna (console) transmissions can be detected by Intelligent Key, when "ROOM ANT1" is selected.  ROOM ANT2: Inside key antenna (instrument center/rear seat) transmissions can be detected by Intelligent Key, when "ROOM ANT2"is selected.  DRIVER ANT: Outside key antenna (driver side) transmissions can be detected by Intelligent Key, when "DRIVER ANT" is selected.  ASSIST ANT: Outside key antenna (passenger side) transmissions can be detected by Intelligent Key, when "ASSIST ANT" is selected.  BK DOOR ANT: Outside key antenna (rear bumper) transmissions can be detected by Intelligent Key, when "BK DOOR ANT" is selected.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation.  ON OFF
INSIDE BUZZER	This test is able to check warning chime in combination meter operation.  TAKE OUT: Take away warning chime sounds.  KNOB: Ignition knob switch warning chime sounds.  KEY: Key warning chime sounds.  OFF

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

Test item	Description	
INDICATOR	This test is able to check warning lamp operation.  BLUE ON: Key warning lamp (green) illuminates.  RED ON: Key warning lamp (red) illuminates.  KNOB ON: Lock warning lamp illuminates.  BLUE IND: Key warning lamp (green) flashes.  RED IND: Key warning lamp (red) flashes.  KNOB IND: Lock warning lamp flashes.  OFF	
KEY LOCK SOLENOID*1	<ul><li>This test is able to check key interlock operation.</li><li>LOCK: Key interlock is active.</li><li>UNLOCK: Key interlock is inactive.</li></ul>	

<sup>\*1:</sup> The item is only for MT model.

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# COMPONENT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

Description INFOID:000000001559403

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

DTC Logic (INFOID:000000001280437

### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When Intelligent Key unit cannot communicate CAN communication signal continuously for 2 seconds or more.	In CAN communication system, any item (or items) of the following listed below is malfunctioning.  Transmission Receiving (BCM) Receiving (IPDM E/R) Receiving (ECM) Receiving (METER/M&A) Receiving (MULTI AV)

# Diagnosis Procedure

INFOID:0000000001559404

### 1.PERFORM SELF DIAGNOSTIC

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

### Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-13, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-39, "Intermittent Incident".

# **U1010 CONTROL UNIT (CAN)**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# U1010 CONTROL UNIT (CAN)

Description INFOID:0000000001280439

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

CAN Communication Signal Chart, refer to LAN-25, "CAN Communication Signal Chart".

D DTC Logic INFOID:0000000001280440

### DTC DETECTION LOGIC

	DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause	
-	U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of Intelligent Key unit.	Intelligent Key unit	F

### Diagnosis Procedure

1. REPLACE INTELLIGENT KEY UNIT

When DTC [U1010] is detected, replace Intelligent Key unit.

>> Replace Intelligent Key unit.

### Special Repair Requirement

>> Work end.

 ${f 1}$  .required work when replacing intelligent key unit

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

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### POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# POWER SUPPLY AND GROUND CIRCUIT INTELLIGENT KEY UNIT

# INTELLIGENT KEY UNIT: Diagnosis Procedure

INFOID:0000000001280447

# 1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.	
11	Battery power supply	14 (10A)	
6	Ignition power supply	1 (10A)	

### Is the fuse blown?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect Intelligent Key unit connector.
- Turn ignition switch ON.
- 3. Check voltage between Intelligent Key unit harness connector and ground.

	Terminal		
	(+) (-)		
Intellige	nt Key unit		Voltage (V) (Approx.)
Connector	Terminal	One word	
MAO	11	Ground	Dattanuvaltana
M40	6		Battery voltage

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit			Continuity
Connector	Terminal	Ground	Continuity
M40	12		Exists

### Does continuity exist?

YES >> Intelligent Key unit power supply and ground circuit are OK.

NO >> Repair harness or connector.

BCM

# **BCM**: Diagnosis Procedure

INFOID:0000000001280448

# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
41	Battery power supply	10 (10A)
57		J (50A)
3	Ignition power supply	1 (10A)
4	ACC power supply	20 (10A)

# POWER SUPPLY AND GROUND CIRCUIT

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### Is the fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

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

	Terminals				
	(+) BCM		Condition	Voltage (Approx.)	
В			Condition		
Connector	Terminal				
M66	41		Turn ignition switch OFF		
M67	57	Ground	Turriginilori Switch OFF		
M65	3	Giouria	Turn ignition switch ON	Battery voltage	
COIVI	4		Turn ignition switch ACC		

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Connector Terminal		Continuity
M67	55		Exists

#### Does continuity exist?

YES >> BCM power supply and ground circuit are OK.

NO >> Repair harness or connector.

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### DOOR LOCK AND UNLOCK SWITCH

[WITH I-KEY, WITHOUT SUPER LOCK]

### < COMPONENT DIAGNOSIS >

# DOOR LOCK AND UNLOCK SWITCH

Description INFOID:000000001280449

Transmits door lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000001280450

# 1. CHECK FUNCTION

#### (P) With CONSULT-III

Check "CDL LOCK SW "and "CDL UNLOCK SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	C	Condition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK : OFF		
CDL UNLOCK SW	LOCK	: OFF	
ODE DINEOUR SW	UNLOCK	: ON	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-74, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000001280451

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch (door lock and unlock switch) connector.
- 3. Check voltage between power window main switch (door lock and unlock switch) and ground.

(+)			Signal	
Power window main switch (door lock and unlock switch) connector  Terminal		(–)	(Reference value)	
D5	6			
D6	18	Ground	(V) 15 10 0 → ←10ms JPMIA0154GB	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

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

BCM connector	Terminal	Power window main switch (door lock and unlock switch) connector	Terminal	Continuity
M65	32	D5	6	Exists
34	34	D6	18	LAISIS

# DOOR LOCK AND UNLOCK SWITCH

### < COMPONENT DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M65	32	Ground	Does not exist
	34	Does not exis	DOGS HOL GYIST

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between power window main switch (door lock and unlock switch) connector and ground.

Power window main switch (door lock and unlock switch) connector	Terminal	Ground	Continuity
D6	17		Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 4. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector.
- 2. Check voltage between BCM connector and ground.

	Terminal			
(+	(+)		Signal (Reference value)	
BCM connector	BCM connector Terminal		(1.13.3.3.30 Value)	
	32			
M65	34	Ground	(V) 15 10 5 0 10ms 10ms	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

# 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Check power window main switch (door lock and unlock switch).

Refer to DLK-75, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace power window main switch (door lock and unlock switch). Refer to <a href="PWC-83">PWC-83</a>, "Removal and Installation".

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

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INFOID:0000000001280452

# DOOR LOCK AND UNLOCK SWITCH

### < COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

Power window main switch	Terminal		Condition	Continuity
D5	6	17	LOCK	Exists
D6	18	17	UNLOCK	LAISIS

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Replace power windou main switch. Refer to PWC-83, "Removal and Installation".

# DOOR REQUEST SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001280457

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Transmits lock/unlock operation to Intelligent Key unit.

DRIVER SIDE: Component Function Check

INFOID:0000000001280458

INFOID:0000000001280459

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check door request switch "DR REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DR REQ SW	Door request switch is pressed	:ON	
DIX NEQ 3W	Door request switch is released	:OFF	

#### Is the inspection result normal?

YES >> Door request switch is OK.

>> Refer to DLK-77, "DRIVER SIDE : Diagnosis Procedure". NO

# DRIVER SIDE : Diagnosis Procedure

# ${f 1}$ .CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

Check voltage between Intelligent Key unit harness connector and ground. 2.

Terminal					
(+)			Door request	Voltage (V)	
Intelligent Key unit connector	Terminal	(–)	switch condition	(Approx.)	
M40	F	Ground	Pressed	0	
IVI40	M40 5	Ground	Released	5	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2.CHECK FRONT DOOR REQUEST SWITCH CIRCUIT

Disconnect Intelligent Key unit connector.

Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (driver side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (driver side)	Terminal	Continuity
M40	5	D30	3	Exists

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	5		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (driver side).

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### DOOR REQUEST SWITCH

[WITH I-KEY, WITHOUT SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

# 3.check door request switch ground circuit

Check continuity between outside key antenna and front door request switch (driver side) harness connector and ground.

Outside key antenna and front door request switch (driver side) connector	Terminal	Ground	Continuity
D30	4		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace outside key antenna and front door request switch (driver side) ground circuit.

# f 4.CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- 1. Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)
M40	5		5

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

# 5. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (driver side).

Refer to DLK-78, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front outside handle (driver side). Refer to <u>DLK-282, "OUTSIDE HANDLE : Removal and Installation".</u>

### **6.**CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# **DRIVER SIDE: Component Inspection**

INFOID:0000000001280460

INFOID:0000000001280461

# 1. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (driver side).

Terminal		Door request switch condition	Continuity
Outside key antenna and front door request switch (driver side)			
2	4	Pressed	Exists
3 4	4	Released	Does not exist

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Replace front outside handle (driver side). Refer to <u>DLK-282, "OUTSIDE HANDLE : Removal and Installation".</u>

### PASSENGER SIDE

### PASSENGER SIDE: Description

Transmits lock/unlock operation to Intelligent Key unit.

# PASSENGER SIDE: Component Function Check

INFOID:0000000001280462

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# 1. CHECK FUNCTION

**With CONSULT-III** 

Check door request switch "AS REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition	
AS REQ SW	Door request switch is pressed	:ON
	Door request switch is released	:OFF

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to DLK-81, "BACK DOOR : Diagnosis Procedure".

# PASSENGER SIDE: Diagnosis Procedure

# 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between Intelligent Key unit harness connector and ground.

Terminal				
(+)			Door request	Voltage (V)
Intelligent Key unit connector	Terminal	(–)	switch condition	(Approx.)
M40	25	Ground	Pressed	0
10140 25	Giodila	Released	5	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2. CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.

2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (passenger side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (passenger side) connector	Terminal	Continuity
M40	25	D69	3	Exists

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	25		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (passenger side).

# 3.check door request switch ground circuit

Check continuity between outside key antenna and front door request switch (passenger side) harness connector and ground.

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#### DOOR REQUEST SWITCH

#### [WITH I-KEY, WITHOUT SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

Outside key antenna and front door request switch (passenger side) connector	Terminal	Ground	Continuity
D69	4		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace outside key antenna and front door request switch (passenger side) ground circuit.

# 4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)
M40	25		5

#### Is the inspection result normal?

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

# 5. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (passenger side).

Refer to <u>DLK-82</u>, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front outside handle (passenger side). Refer to <u>DLK-282, "OUTSIDE HANDLE : Removal</u> and Installation".

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# PASSENGER SIDE: Component Inspection

INFOID:0000000001280464

INFOID:0000000001280465

### CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (passenger side).

Terminal		Door request switch condition	Continuity
Outside key antenna and front door request switch (passenger side)			
2	1	Pressed	Exists
<u> </u>	3 4	Released	Does not exist

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Replace front outside handle (passenger side). Refer to <u>DLK-282, "OUTSIDE HANDLE : Removal and Installation"</u>.

### **BACK DOOR**

### **BACK DOOR: Description**

Transmits lock/unlock operation to Intelligent Key unit.

# BACK DOOR: Component Function Check

INFOID:0000000001280466

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# 1. CHECK FUNCTION

**With CONSULT-III** 

Check door request switch "BD/TR REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BD/TR REQ SW	Door request switch is pressed	:ON	
BB/TK KEQ 3W	Door request switch is released	:OFF	

#### Is the inspection result normal?

YES >> Door request switch is OK.

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

# BACK DOOR: Diagnosis Procedure

# 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between Intelligent Key unit harness connector and ground.

Terminal				
(+)			Door request switch condition	Voltage (V) (Approx.)
Intelligent Key unit connector	Terminal	(-)		
M40	29	Ground	Pressed	0
17140	29	Giodila	Released	5

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2.CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.

2. Check continuity between Intelligent Key unit harness connector and back door opener switch assembly (request switch) harness connector.

Intelligent Key unit connector	Terminal	Back door opener switch (request switch) connector	Terminal	Continuity
M40	29	D186	3	Exists

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	29		Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and back door opener switch assembly (request switch).

# 3.check door request switch ground circuit

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

Back door opener switch assembly (request switch) connector	Terminal	Ground	Continuity
D186	4		Exists

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### DOOR REQUEST SWITCH

[WITH I-KEY, WITHOUT SUPER LOCK]

# < COMPONENT DIAGNOSIS > Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door opener switch assembly (request switch) ground circuit.

# 4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- 1. Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)
M40	29		5

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### CHECK DOOR REQUEST SWITCH

Check back door opener switch assembly (request switch).

Refer to <u>DLK-82</u>, "BACK DOOR: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly (request switch). Refer to <u>DLK-299, "Removal and Installation"</u>.

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# BACK DOOR: Component Inspection

INFOID:0000000001280468

# 1. CHECK DOOR REQUEST SWITCH

Check back door opener switch assembly (request switch).

Terminal  Back door opener switch assembly (request switch)		Door request switch condition	Continuity
		Door request switch condition	
2	4	Pressed	Exists
3	4	Released	Does not exist

#### Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Replace back door opener switch assembly (request switch). Refer to <u>DLK-299</u>, "Removal and Installation".

DOOR SWITCH

**DRIVER SIDE** 

DRIVER SIDE: Description

Detects door open/closed condition.

DRIVER SIDE: Component Function Check

INFOID:0000000001280470

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1. CHECK FUNCTION

(III) With CONSULT-III

Check door switches "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-DR	OPEN	:ON	
DOOK SW-BK	CLOSE	:OFF	

Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Refer to <u>DLK-83</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001280471

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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

	Terminals					
(+	·)		Door condition	Voltage (V) (Approx.)		
BCM connector	Terminal	(-)	(Approx.)		(Approx.)	(Approx.)
			OPEN	0		
M65	15	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB		

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and front door switch (driver side) connector.

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

BCM connector	Terminal	Front door switch (driver side) connector	Terminal	Continuity
M65	15	B34	2	Exists

3. Check continuity between BCM harness connector and ground.

#### [WITH I-KEY, WITHOUT SUPER LOCK]

### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Ground	Continuity
M65	15	Glound	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

### 3.check door switch

Check front door switch (driver side).

Refer to DLK-84, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to DLK-292, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

### **DRIVER SIDE**: Component Inspection

INFOID:0000000001280472

# 1. CHECK DOOR SWITCH

Check front door switch (driver side).

Terminal		Door switch condition	Continuity	
front door switch (driver side)		Door Switch Condition		
2	2 Crown drowt of door quitab		Exists	
	Ground part of door switch	Released	Does not exist	

#### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Replace front door switch (driver side). Refer to <u>DLK-292</u>, "Removal and Installation".

#### PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000001280473

Detects door open/closed condition.

PASSENGER SIDE: Component Function Check

INFOID:0000000001280474

INFOID:0000000001280475

# 1. CHECK FUNCTION

### (III) With CONSULT-III

Check door switches "DOOR SW-AS" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-AS	OPEN	: ON	
BOOK OW NO	CLOSE	: OFF	

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Refer to <u>DLK-84, "PASSENGER SIDE : Diagnosis Procedure"</u>.

# PASSENGER SIDE : Diagnosis Procedure

# 1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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

	Terminals			
(	(+)		Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		(Approx.)
			OPEN	0
M65	14	Ground	CLOSE	(V) 15 10 5 0 10 ms

Is the inspection result normal?

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

# 2.CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and front door switch (passenger side) connector.

Check continuity between BCM harness connector and front door switch (passenger side) harness connector.

BCM connector	Terminal	Front door switch (passenger side) connector	Terminal	Continuity
M65	14	B27	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	14	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

# 3.check door switch

Check front door switch (passenger side).

Refer to <u>DLK-85</u>, "PASSENGER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-292, "Removal and Installation"</u>.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# PASSENGER SIDE: Component Inspection

# 1. CHECK DOOR SWITCH

Check front door switch (passenger side).

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INFOID:0000000001280476

### < COMPONENT DIAGNOSIS >

Terminal Front door switch (passenger side)		Door switch condition	Continuity	
		Door Switch Condition		
2	Ground part of door switch	Pressed	Exists	
2	Ground part of door switch	Released	Does not exist	

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-292, "Removal and Installation"</u>.

REAR LH

**REAR LH: Description** 

INFOID:0000000001280477

Detects door open/closed condition.

REAR LH: Component Function Check

INFOID:0000000001280478

# 1. CHECK FUNCTION

### (III) With CONSULT-III

Check door switches "DOOR SW-RL" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RL	OPEN	:ON	
	CLOSE	:OFF	

### Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Refer to <u>DLK-86</u>, "<u>REAR LH</u>: <u>Diagnosis Procedure</u>".

# **REAR LH: Diagnosis Procedure**

INFOID:0000000001280479

# 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals		Door condition		
(-	(+)			Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(Approx.)	
			OPEN	0	
M65	16	Ground	CLOSE	(V) 15 10 5 0 JPMIA0011GB	

#### Is the inspection result normal?

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

# 2.CHECK DOOR SWITCH CIRCUIT

- 1. Disconnect BCM connector and rear door switch LH connector.
- 2. Check continuity between BCM harness connector and rear door switch LH harness connector.

### [WITH I-KEY, WITHOUT SUPER LOCK]

BCM connector	Terminal	Rear door switch LH connector	Terminal	Continuity
M65	16	B71	2	Exists
01 1 6 7 1	DOM			

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	16	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and rear door switch LH.

# 3.CHECK DOOR SWITCH

Check rear door switch LH.

Refer to DLK-87, "REAR LH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch LH. Refer to DLK-292, "Removal and Installation".

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# **REAR LH: Component Inspection**

1. CHECK DOOR SWITCH

Check rear door switch LH.

Terminal		Door switch condition	Continuity	
Rear	Rear door switch LH			
2	Ground part of door switch	Pressed	Exists	
2	Ground part of door switch	Released	Does not exist	

### Is the inspection result normal?

>> Rear door switch LH is OK. YES

NO >> Replace rear door switch LH. Refer to <u>DLK-292</u>, "Removal and Installation".

**REAR RH** 

REAR RH: Description

INFOID:0000000001280481

Detects door open/close condition.

REAR RH: Component Function Check INFOID:0000000001280482

# 1. CHECK FUNCTION

(II) With CONSULT-III

Check door switches "DOOR SW-RR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RR	OPEN	:ON	_
	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Refer to DLK-88, "REAR RH: Diagnosis Procedure".

**DLK-87** 

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INFOID:0000000001280480

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# REAR RH: Diagnosis Procedure

INFOID:0000000001280483

# 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals				
(	(+)		Door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(–)		(Approx.)	
			OPEN	0	
M65	12	Ground	CLOSE	(V) 15 10 5 0 JPMIA0011GB	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Rear door switch RH connector	Terminal	Continuity
M65	12	B53	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	12	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

# 3. CHECK DOOR SWITCH

Check rear door switch RH.

Refer to DLK-88, "REAR RH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch RH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### REAR RH: Component Inspection

INFOID:0000000001280484

# 1. CHECK DOOR SWITCH

Check rear door switch RH.

#### [WITH I-KEY, WITHOUT SUPER LOCK]

Terminal		Door switch condition	Continuity	
Rear door switch RH		Door Switch Condition	Continuity	
2	2 Ground part of door switch		Exists	
2	Ground part of door switch	Released	Does not exist	

Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Replace rear door switch RH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

**BACK DOOR** 

**BACK DOOR: Description** 

INFOID:0000000001280485

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Detects back door open condition.

BACK DOOR: Component Function Check

INFOID:0000000001280486

# 1. CHECK FUNCTION

(III) With CONSULT-III

Check "BACK DOOR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BACK DOOR SW	OPEN	: ON	
BACK DOOK SW	CLOSE	: OFF	

### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Refer to <u>DLK-89</u>, "<u>BACK DOOR</u>: <u>Diagnosis Procedure</u>".

# **BACK DOOR: Diagnosis Procedure**

INFOID:0000000001280487

# 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) INPUT SIGNAL

Turn ignition switch OFF.

2. Check voltage between BCM harness connector and ground.

Terminals				W I 00	
(+)		(_)	Back door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		, , ,	
M65	12	Ground	OPEN	0	
IVIOS	13	13 Ground	CLOSE	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

2.CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) CIRCUIT

Disconnect BCM connector back door lock assembly connector.

Check continuity between BCM harness connector and back door lock assembly (door switch) harness connector.

BCM connector	Terminal	Back door lock assembly (door switch) connector Terminal		Continuity
M65	13	D190	2	Exists

3. Check continuity between BCM connector and ground.

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#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Ground	Continuity
M65	13	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and back door lock assembly (door switch).

# 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly (door switch) connector	Terminal	Ground	Continuity
D190	3		Exists

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door lock assembly ground circuit.

### 4. CHECK BCM OUTPUT SIGNAL

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

Terminals			
(+)		(-)	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	(11 - 7
M65	13	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

# CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Refer to DLK-90, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO

>> Replace back door lock assembly (door switch). Refer to <u>DLK-290, "DOOR LOCK: Removal and</u> Installation".

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# BACK DOOR : Component Inspection

INFOID:0000000001280488

# 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Terminal  Back door lock assembly (door switch)		Back door condition	Continuity
		Back door condition	Continuity
2	1	OPEN	Exists
2	· ·	CLOSE	Does not exist

### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Replace back door lock assembly. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

# **KEY SWITCH**

Description INFOID:000000001280489

Key switch detects that mechanical key is inserted into the key cylinder, and then transmits the signal to BCM and Intelligent Key unit.

# Component Function Check

INFOID:0000000001280490

INFOID:0000000001280491

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# 1. CHECK KEY SWITCH INPUT SIGNAL

Check key switch ("KEY SW") in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition	
KEY SW	Insert mechanical key into key cylinder	: ON
	Remove mechanical key from key cylinder	: OFF

### Is the inspection result normal?

YES >> Key switch is OK.

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

# Diagnosis Procedure

# 1. CHECK KEY SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect Intelligent Key unit connector and BCM connector.

3. Check voltage between Intelligent Key unit harness connector and ground.

Terminals					
(+)			Condition	Voltage (V)	
Intelligent Key unit con- nector	Terminal	(–)		(Approx.)	
M40	7	Ground	Insert mechanical key into key cylinder	Battery voltage	
WHO	,	Ground	Remove mechanical key from key cylinder	0	

4. Check voltage between BCM harness connector and ground.

	Terminals			Voltage (V) (Approx.)
(+)		( )	Condition	
BCM connector	Terminal	(–)		( +
M65	5 Ground		Insert mechanical key into key cylinder	Battery voltage
IVIOS	5	Ground	Remove mechanical key from key cylinder	0

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- 1. Remove mechanical key from key cylinder.
- 2. Disconnect ignition knob switch, key switch and key lock solenoid connector.
- Check voltage between ignition knob switch, key switch and key lock solenoid harness connector and ground.

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INFOID:0000000001280492

T			
(+)			Voltage (V) (Approx.)
Ignition knob switch, key switch and key lock solenoid connector	Terminal	(–)	
M25	2	Ground	Battery voltage

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check key switch signal circuit

1. Check continuity between Intelligent Key unit harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

Intelligent Key unit connector	Terminal	Ignition knob switch, key switch and key lock solenoid connector	Terminal	Continuity
M40	7	M25	1	Exists

Check continuity between BCM harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

BCM connector	Terminal	Ignition knob switch, key switch and key lock solenoid connector	Terminal	Continuity
M65	5	M25	1	Exists

Check continuity between ignition knob switch, key switch and key lock solenoid harness connector and ground.

Ignition knob switch, key switch and key lock solenoid connector	Terminal	Ground	Continuity
M25	1	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK KEY SWITCH

Check key switch.

Refer to <u>DLK-92</u>, "Component Inspection".

### Is the inspection result normal?

ves >> GO TO 5.

NO >> Replace key cylinder assembly.

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### Component Inspection

### COMPONENT INSPECTION

1.CHECK KEY SWITCH

Check continuity between ignition knob switch, key switch and key lock solenoid terminals.

Terminal	Condition	Continuity
Ignition knob switch, key switch and key lock solenoid	Condition	Continuity

# **KEY SWITCH**

### < COMPONENT DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

1	2	Insert mechanical key into key cylinder	Exists
	2	Remove mechanical key from key cylinder	Does not exist

# Is the inspection result normal?

YES >> Key switch is OK.

NO >> Replace key cylinder assembly.

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### **IGNITION KNOB SWITCH**

Description INFOID:000000001280493

Ignition knob switch detects that ignition knob is pressed, and then transmits the signal to Intelligent Key unit.

# Component Function Check

INFOID:0000000001280494

# 1. CHECK IGNITION KNOB SWITCH INPUT SIGNAL

Check ignition knob switch ("PUSH SW") in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
PUSH SW	Ignition knob switch is pressed	: ON	
	Ignition knob switch is released	: OFF	

#### Is the inspection result normal?

YES >> Ignition knob switch is OK.

NO >> Refer to <u>DLK-94, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000001280495

# 1. CHECK IGNITION KNOB SWITCH INPUT SIGNAL

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

Terminals					
(+)			Condition	Voltage (V)	
Intelligent Key unit con- nector	Terminal	(–)		(Approx.)	
M40	27	Ground	Ignition knob switch is pressed	Battery voltage	
10140	WHO 21		Ignition knob switch is released	0	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2.CHECK IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- 1. Disconnect ignition knob switch, key switch and key lock solenoid connector.
- Check voltage between ignition knob switch, key switch and key lock solenoid harness connector and ground.

(+)			Voltage (V) (Approx.)
Ignition knob switch, key switch and key lock solenoid connector	Terminal	(–)	
M25	4	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check ignition knob switch signal circuit

1. Check continuity between Intelligent Key unit harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

# **IGNITION KNOB SWITCH**

< COMPONENT DIAGNOSIS >

# [WITH I-KEY, WITHOUT SUPER LOCK]

Intelligent Key unit connector		Ignition knob switch, key switch and key lock solenoid connector	Terminal	Continuity
M40	27	M25	3	Exists
2. Check continuity between	ignition knob s	switch, key switch and key lo	ock solenoid c	onnector and ground.
Ignition knob switch, key switch and key lock solenoid connector	Termina	al Ground		Continuity
M25	3			Does not exist
YES >> GO TO 4.  NO >> Repair or replace  1. CHECK IGNITION KNOB STATES  Check ignition knob switch.  Refer to DLK-95, "Component of the inspection result normal of the inspection replaced in the inspection of the inspection replaced in the inspection result normal replaced in the inspection replaced	SWITCH  t Inspection".  I?  knob switch, ke	y switch and key lock solenc	oid.	
>> INSPECTION EN Component Inspection  1. CHECK IGNITION KNOB				INFOID:0000000001280-
Check continuity between ign conditions.		h, key switch and key lock s	olenoid termir	nals under the followin
Ignition knob switch, key switch lenoid	and key lock so-	Condition		Continuity
Terrillia		Ignition knob switch is press	ed	Exists
3	4	Ignition knob switch is release		Does not exist
s the inspection result norma	l?	<u> </u>		
		and key lock solenoid is OK. y switch and key lock solenc		

#### [WITH I-KEY, WITHOUT SUPER LOCK]

### < COMPONENT DIAGNOSIS >

**DRIVER SIDE** 

**DRIVER SIDE**: Description

DOOR LOCK ACTUATOR

INFOID:0000000001280497

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001280498

# 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The door lock actuator (driver side) is unlocked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (driver side) is OK.

NO >> Refer to <u>DLK-96</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

# DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001280499

# 1. CHECK BCM OUTPUT SIGNAL

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

Terminals (+)		Condition of door lock and unlock switch	Voltage (V) (Approx.)	
				BCM connector
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
IVIO7	60	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT 1

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

BCM connector	Terminal	Front door lock actuator (driver side) connector	Terminal	Continuity
M67	56	D29	1	Exists
IVIO7	60	D29	2	LAISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
WO	60		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

NO >> GO TO 3.

# 3.CHECK DOOR LOCK ACTUATOR CIRCUIT 2

1. Disconnect passenger side anti-hijack relay connector.

2. Check continuity between BCM harness connector and passenger side anti-hijack relay harness connec-

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M67	56	Ground	Does not exist

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

f 4.CHECK DOOR LOCK ACTUATOR CIRCUIT  $\scriptstyle 3$ 

Check passenger side anti-hijack relay.

Passenger side relay connector	Terr	minal	Continuity
M90	3	4	Exists

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# ${f 5.}$ CHECK DOOR LOCK ACTUATOR CIRCUIT 4

Check continuity between passenger side anti-hijack relay harness connector and front door lock actuator (driver side) harness connector.

Passenger side anti-hijack relay connector	Terminal	Front door lock actuator (driver side) connector	Terminal	Continuity
M90	4	D29	1	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	4	Ground	Does not exist

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Description

Locks/unlocks the door with the signal from BCM.

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INFOID:0000000001280502

[WITH I-KEY, WITHOUT SUPER LOCK]

# PASSENGER SIDE: Component Function Check

INFOID:0000000001280503

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:AS UNLK	The door lock actuator (passenger side) is locked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (passenger side) is OK.

>> Refer to DLK-98, "PASSENGER SIDE : Diagnosis Procedure". NO

# PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001280504

# 1. CHECK BCM OUTPUT SIGNAL

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

Terminals			0 111 ( )	V 10 00	
(+)		(-)	Condition of door lock and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		, , ,	
M67	56	Ground	Lock	$0 \to \text{Battery voltage} \to 0$	
IVIO7	54	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> GO TO 3.

>> GO TO 2. NO

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	56	D68	2	Exists
IVIO/	54	D00	1	EXISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO7	54	Does i	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR LH

REAR LH: Description

INFOID:0000000001280506

Locks/unlocks the door with the signal from BCM.

REAR LH: Component Function Check

INFOID:0000000001280507

1. CHECK FUNCTION

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(P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:LOCK	The all door lock actuators are locked

Is the inspection result normal?

YES >> Rear door lock actuator LH is OK.

NO >> Refer to <u>DLK-99</u>, "<u>REAR LH</u>: <u>Diagnosis Procedure</u>".

**REAR LH: Diagnosis Procedure** 

INFOID:0000000001280508

1. CHECK BCM OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between BCM harness connector and ground.

Terminals (+)		On a dition of documents	V-14 (A)	
		(-)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		( II - )
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
	54	Ground	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1 $\,$

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

BCM connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M67	56	D115	1	Exists
IVIO7	54	DIIS	2	EXISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO7	54		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 3.

# 3.CHECK DOOR LOCK ACTUATOR CIRCUIT ${\scriptstyle 2}$

1. Disconnect passenger side anti-hijack relay connector.

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**DLK-99** 

### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY, WITHOUT SUPER LOCK]

Check continuity between BCM harness connector and passenger side anti-hijack relay harness connector.

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector			Continuity
M67	56	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side anti-hijack relay.

Passenger side anti-hijack relay connector	Terminal		Continuity
M90	3	4	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

 Check continuity between passenger side anti-hijack relay harness connector and rear door lock actuator LH harness connector.

Passenger side anti-hijack relay connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M90	4	D115	1	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	4		Does not exist

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

**REAR RH** 

**REAR RH: Description** 

INFOID:0000000001280510

INFOID:0000000001280511

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

1. CHECK FUNCTION

With CONSULT-III

### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY, WITHOUT SUPER LOCK]

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOK EOCIVOINEOCK	:LOCK	The all door lock actuators are locked

Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-101, "REAR RH: Diagnosis Procedure". NO

**REAR RH**: Diagnosis Procedure

1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM harness connector and ground.

Terminals				V 16 00
(+)	(+)		Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(1)
M67	56	Ground	Lock	0  o Battery voltage  o 0
IVIO 7	54	Ground	Unlock	0  o Battery voltage  o 0

Is the inspection result normal?

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

2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1

Turn ignition switch OFF.

Disconnect BCM connector and rear door lock actuator RH connector. 2.

Check continuity between BCM harness connector and rear door lock actuator RH harness connector.

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	56	D95	2	Exists
IVIO7	54	D95	1	EXISTS

Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO7	54		Does not exist

Is the inspection result normal?

YES >> GO TO 6.

>> GO TO 3. NO

3.CHECK DOOR LOCK ACTUATOR CIRCUIT  ${\scriptstyle 2}$ 

Disconnect passenger side anti-hijack relay.

Check continuity between BCM harness connector and passenger side anti-hijack relay harness connector.

BCM connector	Terminal	Anti-hijack relay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

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# [WITH I-KEY, WITHOUT SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Cround	Continuity
M67	56	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side anti-hijack relay.

Anti-hijack relay connector	Terr	Continuity	
M90	4	3	Exists

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

1. Check continuity between passenger side anti-hijack relay harness connector and rear door lock actuator RH harness connector.

Passenger side anti-hijack relay connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M90	3	D95	3	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	3		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **BACK DOOR OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# BACK DOOR OPENER ACTUATOR

Description INFOID:0000000001280514

Opens the back door with the signal from BCM.

# Component Function Check

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "TRUNK/GLASS HATCH" in "Active Test" mode with CONSULT-III.

Test item		Condition	
TRUNK/GLASS HATCH	:OPEN	Back door opener actuator operation	

#### Is the inspection result normal?

YES >> Back door opener actuator is OK.

>> Refer to <u>DLK-103</u>, "<u>Diagnosis Proce</u>dure". NO

# Diagnosis Procedure

# 1. CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			0 155 (1 1 1	
(+)		Condition of back door opener switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	.,	X 11 - 7
M66	45	Ground	Pressed	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and back door lock assembly connector.
- Check continuity between BCM harness connector and back door lock assembly harness connector.

BCM connector	Terminal	Back door lock assembly connector	Terminal	Continuity
M66	45	D190	4	Exists

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M66	45	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# f 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly connector	Terminal	Ground	Continuity
D190	3		Exists

Is the inspection result normal?

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# **BACK DOOR OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# **FUEL LID OPENER ACTUATOR**

Description INFOID:0000000001297520

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

# Component Function Check

# 1. CHECK FUNCTION (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The fuel lid opener actuator are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The fuel lid opener actuator is unlocked
	:LOCK	The fuel lid opener actuator are locked

#### Is the inspection result normal?

YES >> Fuel lid opener actuator is OK.

>> Refer to DLK-105, "Diagnosis Procedure". NO

# Diagnosis Procedure

# 1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM harness connector and ground.

Terminals			Condition of decaded	V-16 0.0
(+)		(-)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		, , , , , , , , , , , , , , , , , , ,
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
IVIO7	60	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

# 2.CHECK FUEL LID OPENER ACTUATOR CIRCUIT 1

Disconnect BCM connector and fuel lid opener actuator connector.

Check continuity between BCM harness connector and fuel lid opener actuator harness connector.

BCM connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M67	56	B58	2	Exists
IVIO7	60		1	LAISIS

Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO /	60		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 3.

3.CHECK FUEL LID OPENER ACTUATOR CIRCUIT 2

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INFOID:0000000001297521

INFOID:0000000001297522

**DLK-105** 

### **FUEL LID OPENER ACTUATOR**

### < COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

- 1. Disconnect passenger side anti-hijack relay connector.
- 2. Check continuity between BCM harness connector and passenger side anti-hijack relay connector.

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M67	56	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK FUEL LID OPENER ACTUATOR CIRCUIT 3

Check passenger side of anti-hijack relay.

Passenger side anti-hijack re- lay connector	Terr	Continuity	
M90	3	4	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

 Check continuity between passenger side anti-hijack relay harness connector and fuel lid opener actuator harness connector.

Passenger side anti-hijack relay connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M90	4	B58	2	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack re- lay connector	Terminal	Ground	Continuity
M90	4		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **BACK DOOR OPENER SWITCH**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# **BACK DOOR OPENER SWITCH**

Description INFOID:0000000001280518

Sends the back door opening signal to BCM.

# Component Function Check

# INFOID:0000000001280519 1. CHECK FUNCTION

# (P)With CONSULT-III

Check "TRNK OPNR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition	
TRNK OPNR SW	Back door opener switch is pressed :ON	
	Back door opener switch is released :OFF	

#### Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to DLK-107, "Diagnosis Procedure".

# Diagnosis Procedure

# 1. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			Condition of back door opener switch	Voltage (V) (Approx.)
(+)				
BCM connector	Terminal	(-)	'	,
M65	29	Ground	Pressed	0
WOS	29	Ground	Released	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

Turn ignition switch OFF.

2. Disconnect BCM connector and back door opener switch assembly (opener switch) connector.

Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM connector	Terminal	Back door opener switch assembly (opener switch) connector	Terminal	Continuity
M65	29	D186	1	Exists

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	29	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### ${f 3.}$ CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

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INFOID:0000000001280520

### **BACK DOOR OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY, WITHOUT SUPER LOCK]

	Terminals			
(+)	(+)		Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	, , ,	
M65	29	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

# 4. CHECK BACK DOOR OPENER SWITCH GROUND CIRCUIT

Check continuity between back door opener switch assembly (opener switch) connector and ground.

Back door opener switch assembly (opener switch) connector	Terminal	Ground	Continuity
D186	2		Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 5. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to <u>DLK-108</u>, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly. Refer to <a href="DLK-300">DLK-300</a>, "Removal and Installation".

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000001280521

# 1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Back door opener switch assembly (opener switch)	Terminal		Back door opener switch condition	Continuity
D186	1	2	Pressed	Exists
			Released	Does not exist

#### Is the inspection result normal?

YES >> Back door opener switch assembly (opener switch) is OK.

NO >> Replace back door opener switch assembly. Refer to DLK-300, "Removal and Installation".

### **OUTSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### **OUTSIDE KEY ANTENNA**

**DRIVER SIDE** 

**DRIVER SIDE: Description** 

INFOID:0000000001280522

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

INFOID:0000000001280524

### DRIVER SIDE: Component Function Check

### 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

### (P)With CONSULT-III

- Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- Touch "DRIVER ANT".
- When Intelligent Key is in outside key antenna (driver side) detection area, LED (on Intelligent Key) blinks.

Te	est Item	Outside Antenna	
ANTENNA	:DRIVER ANT	Outside key antenna (driver side)	

#### Is the inspection result normal?

YES >> Outside key antenna (driver side) is OK.

NO >> Refer to DLK-115, "BACK DOOR: Diagnosis Procedure".

### DRIVER SIDE: Diagnosis Procedure

# 1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminals					
	(+) gent Key unit	Terminal	(–)	C	Condition	Signal (Reference value)
CC	connector					
	Driver side	19			When Intelligent Key is in the antenna detection area.	(V) 15 10 10 1
M40	(+)	19	Ground	Request switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0514ZZ
	Driver side		Cround		When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   S   S   S   S   S   S   S   S   S
	(-)				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect Intelligent Key unit connector and outside key antenna and front door request switch (driver side) connector.
- 2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (driver side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (driver side) connector	Terminal	Continuity
M40	19	D30	1	Exists
10140	20	D30	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit connector and ground.

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Intelligent Key unit connector	Terminal		Continuity	
M40	19	Ground	Does not exist	
10140	20		Does not exist	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna (driver side).

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

- 1. Replace outside key antenna. (New antenna or other antenna)
- Connect Intelligent Key unit connector and outside key antenna connector. 2.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Tern	ninals					E
	(+) Intelligent Key unit Terminal		(-)	Condition		Signal (Reference value)	
	Driver side (+)	19		Door request switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 1 s	ŀ
M40			Ground	·	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  MMIA0514ZZ	D
	Driver side	20	Ground -	Door request switch	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0  JMKIA0395ZZ	
	(-)	(-)		is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0515ZZ	(

#### Is the inspection result normal?

YES >> Replace outside key antenna and front door request switch (driver side). Refer to <u>DLK-296.</u> "DRIVER SIDE: Removal and Installation".

NO >> GO TO 4.

### **OUTSIDE KEY ANTENNA**

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001280525

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

### PASSENGER SIDE : Component Function Check

INFOID:0000000001280526

### 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

### (E) With CONSULT-III

- Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "ASSIST ANT".
- When Intelligent Key is in outside key antenna (passenger side) detection area, LED (on Intelligent Key) blinks.

	Test Item	Outside Antenna	
ANTENNA	:ASSIST ANT	Outside key antenna (passenger side)	

#### Is the inspection result normal?

YES >> Outside key antenna (passenger side) is OK.

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

### PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000001280527

### 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminals						
	(+) lligent Key unit connector	Terminal	(–)	Condition		Signal (Reference value)	
	Passenger side	37			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1	
M40	(+)	o,	Ground	Request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0514ZZ	
	Passenger side	38		is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   S   S   S   S   S   S   S   S   S	
	(-)	50			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect Intelligent Key unit connector and outside key antenna and front door request switch (passenger side) connector.
- 2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (passenger side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (passenger side) connector	Terminal	Continuity
M40	37	D69	1	Exists
- IVI+O	38	503	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal		Continuity	
M40	37	Ground	Does not exist	
W4U	38			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (passenger side).

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

- 1. Replace outside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and outside key antenna connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Termir	nal					
	(+)			Cond	lition	Signal (Reference value)	
	Intelligent Key unit connector Terminal		(-)			(Neierence value)	
	Passenger side	37			When Intelligent Key is in the anten- na detection area.	(V) 15 10 5 0 1 s 1 s JMKIA0514ZZ	
M40	(+)		Ground	Door request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s  JMKIA0514ZZ	
M40	Passenger side	38	is pressed	When Intelligent Key is in the anten- na detection area.	(V) 15 10 5 0 1   S   S   S   S   S   S   S   S   S		
	Passenger side (-)				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0515ZZ	

#### Is the inspection result normal?

YES >> Replace outside key antenna and front door request switch (passenger side). Refer to <u>DLK-296, "PASSENGER SIDE: Removal and Installation"</u>.

NO >> GO TO 4.	IS >	[WITH I-KEY, WITHOUT SUPER LOCK]
4.CHECK INTERMITTENT	INCIDENT	
Refer to GI-39, "Intermittent I	ncident".	
>> INSPECTION EN	ND	
BACK DOOR : Descrip	otion	INFOID:000000001280528
Detects whether Intelligent Knstalled in rear bumper.	ey is outside the vehicle.	
BACK DOOR : Compo	nent Function Check	INFOID:000000001280529
CHECK OUTSIDE KEY A	NTENNA INPLIT SIGNAL	
With CONSULT-III  Check "ANTENNA" in "A	ctive Test" mode with CONSULT-	
2. Touch "BK DOOR ANT".		III. mper) detection area, LED (on Intelligent Key)
<ol> <li>Touch "BK DOOR ANT".</li> <li>When Intelligent Key is blinks.</li> </ol>		
<ol> <li>Touch "BK DOOR ANT".</li> <li>When Intelligent Key is blinks.</li> </ol>	in outside key antenna (rear bur	mper) detection area, LED (on Intelligent Key)
2. Touch "BK DOOR ANT".  3. When Intelligent Key is blinks.  To ANTENNA  s the inspection result norma  YES >> Outside key ante	in outside key antenna (rear bur	Outside Antenna Outside key antenna (rear bumper)
2. Touch "BK DOOR ANT".  3. When Intelligent Key is blinks.  To ANTENNA  s the inspection result norma  YES >> Outside key ante	in outside key antenna (rear burest Item  :BK DOOR ANT  al? enna (back door) is OK. 5, "BACK DOOR : Diagnosis Proc	Outside Antenna Outside key antenna (rear bumper)
2. Touch "BK DOOR ANT".  3. When Intelligent Key is blinks.  ANTENNA  s the inspection result norma  YES >> Outside key anter  NO >> Refer to DLK-115	in outside key antenna (rear burest Item  :BK DOOR ANT  al? enna (back door) is OK. 5, "BACK DOOR : Diagnosis Processis Procedure	Outside Antenna Outside key antenna (rear bumper)
2. Touch "BK DOOR ANT".  3. When Intelligent Key is blinks.  ANTENNA  s the inspection result normal YES >> Outside key antel NO >> Refer to DLK-11.  BACK DOOR: Diagno  1. CHECK OUTSIDE KEY A  1. Turn ignition switch OFF.	in outside key antenna (rear burest Item  :BK DOOR ANT  al? enna (back door) is OK. 5, "BACK DOOR : Diagnosis Processis Procedure  NTENNA INPUT SIGNAL 1	Outside Antenna Outside key antenna (rear bumper)
2. Touch "BK DOOR ANT".  3. When Intelligent Key is blinks.  ANTENNA  s the inspection result normal YES >> Outside key antel NO >> Refer to DLK-11.  BACK DOOR: Diagno  1. CHECK OUTSIDE KEY A  1. Turn ignition switch OFF.	in outside key antenna (rear burest Item  :BK DOOR ANT  al? enna (back door) is OK. 5, "BACK DOOR : Diagnosis Processis Procedure  NTENNA INPUT SIGNAL 1	Outside Antenna Outside key antenna (rear bumper)

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	Terminal					
	(+) gent Key unit	Terminal	(–)	C	Condition	Signal (Reference value)
	onnector				When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0
	Rear bumper (+)	17			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0
M40			Ground	Request switch is pressed	When Intelligent Key is in the antenna detection area.	JMKIA0514ZZ  (V) 15 10 5 0 JMKIA0395ZZ
	Rear bumper (-)	18			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0515ZZ

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect Intelligent Key unit connector and outside key antenna (back door) connector.
- 2. Check continuity between Intelligent Key unit harness connector and outside key antenna (back door) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna (back door) connector	Terminal	Continuity
M40	17	D191	1	Exists
IVI <del>4</del> 0	18	D191	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

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#### < COMPONENT DIAGNOSIS >

Intelligent Key unit connector	Terminal		Continuity
M40	17	Ground	Does not exist
	18	-	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna (back door).

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

- 1. Replace outside key antenna. (New antenna or other antenna)
- Connect Intelligent Key unit connector and outside key antenna (back door) connector. 2.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Terr	ninal					
Intell	(+) Intelligent Key unit		(-)	Condition		Signal (Reference value)	
	connector	Terminal					
	Rear bumper	17			When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0 	
	(+)	"		Door request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0514ZZ	
M40	Rear bumper	18	Ground	is pressed	When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0 1 s JMKIA0395ZZ	
	(-)	10			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0	

#### Is the inspection result normal?

YES >> Replace outside key antenna (back door). Refer to DLK-296, "BACK DOOR: Removal and Installation".

NO >> GO TO 4.

### **OUTSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# INSIDE KEY ANTENNA INSTRUMENT CENTER

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INSTRUMENT CENTER: Description

INFOID:0000000001280531

Detects whether Intelligent Key is inside the vehicle.

INSTRUMENT CENTER: Component Function Check

INFOID:0000000001280532

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

### (P)With CONSULT-III

1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.

- 2. Touch "ROOM ANT 2".
- 3. When Intelligent Key is in inside key antenna (instrument center) detection area, LED (on Intelligent Key) blinks.

	Test Item	Inside Antenna	
ANTENNA	:ROOM ANT 2	Inside key antenna (instrument center)	

#### Is the inspection result normal?

YES >> Inside key antenna (instrument center) is OK.

NO >> Refer to <a href="DLK-119">DLK-119</a>, "INSTRUMENT CENTER: Diagnosis Procedure".

### INSTRUMENT CENTER : Diagnosis Procedure

INFOID:0000000001280533

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminals					
	(+) gent Key unit onnector	Terminal	(-)	Condition		Signal (Reference value)
	Instrument	strument center 33 (+)	Ground	All doors are closed     Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1
M40					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1
Mac	Instrument	estrument center 34			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ
	(-)	37			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 M M M M M M M M M M M M M M M M M M M

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

Intelligent Key unit connector	Terminal	Inside key antenna (instrument center) connector	Terminal	Continuity	
M40	33	M56	1	Exists	
M40	34	IVIJO	2	EXISIS	

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

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Intelligent Key unit connector	Terminal	0	Continuity
M40	33	Ground	Does not exist
	34		DOGS HOLEKIST

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (instrument center).

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

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

	Termi	nals				
	(+)			Co	ndition	Signal
	gent Key unit onnector	Terminal	(-)			(Reference value)
	Instrument	22			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1
center (+)  M40  Instrument	33		All doors are closed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 4 1 s  JMKIA0391ZZ	
	Instrument	strument	Ground	Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I
	center (-)	34			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 11 1 s  JMKIA0390ZZ

#### Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-293, "INSTRUMENT CENTER:</u> Removal and Installation".

### **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

NO >> GO TO 4.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

CONSOLE

CONSOLE: Description

Detects whether Intelligent Key is inside the vehicle.

**CONSOLE**: Component Function Check

INFOID:0000000001280535

### 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

#### (P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "ROOM ANT 1".
- 3. When Intelligent Key is in inside key antenna (console) detection area, LED (on Intelligent Key) blinks.

	Test Item	Inside Antenna	
ANTENNA	:ROOM ANT 1	Inside key antenna (console)	

#### Is the inspection result normal?

YES >> Inside key antenna (console) is OK.

NO >> Refer to <u>DLK-122</u>, "<u>CONSOLE</u>: <u>Diagnosis Procedure</u>".

### **CONSOLE**: Diagnosis Procedure

INFOID:0000000001280536

### 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminal					
	(+) gent Key unit	Terminal	(–)	Cor	ndition	Signal (Reference value)
	Console	15			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0393ZZ
M40	(+)	15	Ground	All doors are closed     Ignition knob switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0391ZZ
M40	Console (-)				When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA0392ZZ
				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect Intelligent Key unit connector and inside key antenna (console) connector.

2. Check continuity between Intelligent Key unit harness connector and inside key antenna (console) harness connector.

Intelligent Key unit connector	Terminal	Inside key antenna (console) connector	Terminal	Continuity
M40	15	M252	1	Exists
M40	16	IVIZUZ	2	LXISIS

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal		Continuity
M40	15	Ground	Does not exist
	16		DOES HOLEKISE

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (console).

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

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and inside key antenna (console) connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Terminal					
	(+)		. , ,	Condition		Signal (Poforonae value)
	Intelligent Key unit connector		(-)			(Reference value)
	Console	15			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0393ZZ
M40	(+)			All doors are closed     Ignition knob switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0391ZZ
WITO	Console (-)		Glound		When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ
				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

#### Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-294, "CONSOLE : Removal and Installation"</u>. NO >> GO TO 4.

4. CHECK INTERMITTENT INCIDENT

### **INSIDE KEY ANTENNA**

[WITH I-KEY, WITHOUT SUPER LOCK]

< COMPONENT DIAGNOSIS > Refer to GI-39, "Intermittent Incident". Α >> INSPECTION END REAR SEAT В **REAR SEAT: Description** INFOID:0000000001280537 Detects whether Intelligent Key is inside the vehicle. REAR SEAT : Component Function Check INFOID:0000000001280538 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL D (P)With CONSULT-III Check "ANTENNA" in "Active Test" mode with CONSULT-III. Е Touch "ROOM ANT 2". When Intelligent Key is in inside key antenna (rear seat) detection area, LED (on Intelligent Key) blinks. Test Item Inside Antenna F **ANTENNA** :ROOM ANT 2 Inside key antenna (rear seat) Is the inspection result normal? YES >> Inside key antenna (rear seat) is OK. NO >> Refer to <u>DLK-125</u>, "REAR SEAT : <u>Diagnosis Procedure</u>". REAR SEAT : Diagnosis Procedure INFOID:0000000001280539 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1 Turn ignition switch OFF. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminal					
	(+) Intelligent Key unit connector Terminal		(-)	Condition		Signal (Reference value)
	Rear seat				When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 1 s JMKIA0393ZZ
M40	(+)	13		<ul> <li>All doors are closed</li> <li>Ignition knob switch is pressed</li> </ul>	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s 1 s JMKIA0391ZZ
	Rear seat (-)	Rear seat	Ground		When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ
				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect Intelligent Key unit connector and inside key antenna (rear seat) connector.
- 2. Check continuity between Intelligent Key unit harness connector and inside key antenna (rear seat) harness connector.

Intelligent Key unit connector	Terminal	Inside key antenna (rear seat) connector	Terminal	Continuity
M40	13	B45	1	Exists
IVI <del>4</del> 0	14	543	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

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#### < COMPONENT DIAGNOSIS >

Intelligent Key unit connector	Terminal	Ground	Continuity	
M40	13		Does not exist	
10140	14		DOES HOLEKISL	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (rear seat).

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

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and inside key antenna (rear seat) connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Term	inal				
	(+) Intelligent Key unit connector		(–)	Condition		Signal (Reference value)
	Rear seat	12			When Intelligent Key is in the antenna detection area.	(V) 15 10 1   1   1   1   1   1   1   1   1   1
M40 -	(+)	13	Ground	All doors are closed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 4 1   1   1   1   1   1   1   1   1   1
	Rear seat (-)	Rear seat	Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ	
			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0390ZZ		

#### Is the inspection result normal?

YES >> Replace inside key antenna (rear seat). Refer to <u>DLK-295, "REAR : Removal and Installation"</u>. NO >> GO TO 4.

### **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# ANTI-HIJACK RELAY

PASSENGER SIDE

INFOID:0000000001280540

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PASSENGER SIDE : Description

Receives anti-hijack signal from Intelligent Key unit.

PASSENGER SIDE: Component Function Check

INFOID:0000000001280541

### 1. CHECK FUNCTION

- 1. All doors are locked using Intelligent Key or door request switch.
- 2. Press door request switch (passenger side), only passenger side door is UNLOCK.

#### Is the inspection result normal?

YES >> Anti-hijack relay is OK.

NO >> Refer to <u>DLK-129</u>, "PASSENGER SIDE : <u>Diagnosis Procedure"</u>.

INFOID:0000000001280542

## PASSENGER SIDE : Diagnosis Procedure

1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 1

Check voltage between Intelligent Key unit harness connector and ground.

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Terminal				
(+)		Condition	Voltage (V)	
Intelligent Key unit connector	Terminal	(–)		(Approx.)
M40	11	Ground	Ignition switch OFF	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 6.

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### 2. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 2

Check voltage between Intelligent Key unit harness connector and ground.

Ter	minal					
(+)			Condition		Voltage (V)	
Intelligent Key unit connector	Terminal	(–)	Condition		(Approx.)	
M40	40 Ground		Press front door request switch	Anti-hijack operation	Battery voltage → 0 → Battery voltage	
		i	(passenger side)	Other than above	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

### 3.check intelligent key unit ground circuit

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	12		Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

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#### < COMPONENT DIAGNOSIS >

### 4. CHECK PASSENGER SIDE ANTI-HIJACK RELAY GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect passenger side anti-hijack relay connector and Intelligent Key unit connector.
- 3. Check voltage between passenger side anti-hijack relay harness connector and ground.

Terminal					
(+)		Condition	Voltage (V)		
Passenger side anti-hijack relay connector Terminal		(–)		(Approx.)	
M90	2	Ground	Ignition switch OFF	Battery voltage	

 Check continuity between passenger side anti-hijack relay harness connector and Intelligent Key unit connector.

Passenger side anti-hijack relay connector	Terminal	Intelligent Key unit connector	Terminal	Continuity
M90	1	M40	40	Exists

5. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	1	Glound	Does not exist

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### 5. CHECK PASSENGER SIDE ANTI-HIJACK RELAY

Check passenger side anti-hijack relay.

Refer to DLK-130, "PASSENGER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace passenger side anti-hijack relay. Refer to <u>DLK-28, "DOOR LOCK AND UNLOCK SWITCH: Component Parts Location"</u>.

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

### PASSENGER SIDE: Component Inspection

INFOID:0000000001280543

### 1.CHECK ANTI-HIJACK RELAY

Check continuity passenger side anti-hijack relay terminals.

Passenger side anti-hijack relay connector	Terminal		Condition	Continuity
M90	4 3	3	Battery voltage direct current supply between terminals 1 and 2	Does not exist
		Other than above	Exists	

#### Is the inspection result normal?

YES >> Passenger side anti-hijack relay is OK.

NO >> Replace passenger side anti-hijack relay. Refer to <u>DLK-28, "DOOR LOCK AND UNLOCK SWITCH: Component Parts Location"</u>.

### INTELLIGENT KEY WARNING BUZZER

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### INTELLIGENT KEY WARNING BUZZER

Description INFOID:0000000001280544

Answers back and warns about an inappropriate operation.

### Component Function Check

1. CHECK FUNCTION

#### (P)With CONSULT-III

Check Intelligent Key warning buzzer "OUTSIDE BUZZER" in "Active Test" mode with CONSULT-III.

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

>> Refer to <u>DLK-131</u>, "<u>Diagnosis Procedure</u>". NO

### Diagnosis Procedure

 ${f 1}$  .CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 1

Check voltage between Intelligent Key unit harness connector and ground.

	Terminal				
(+)			Warning buzzer	Voltage (V)	
Intelligent Key unit connector	Terminal	(–)	operation condition	(Approx.)	
M40	4	4 Ground		0	
IVI <del>-1</del> O	7	Giodila	Not sounding	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

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

Turn ignition switch OFF.

2. Disconnect Intelligent Key warning buzzer connector.

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

Т			
(+)		Voltage (V)	
Intelligent Key warning buzzer connector	Terminal	(–)	(Approx.)
E25	1	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace Intelligent Key warning buzzer power supply circuit.

### 3.CHECK HARNESS CONTINUITY

Disconnect Intelligent Key unit connector.

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

Intelligent Key warning buzzer connector	Terminal	Intelligent Key unit connector	Terminal	Continuity
E25	3	M40	4	Exists

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

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### INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

### [WITH I-KEY, WITHOUT SUPER LOCK]

Intelligent Key warning buzzer connector	Terminal	Ground	Continuity
E25	3		Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness between Intelligent Key warning buzzer and Intelligent Key unit.

### 4. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to <u>DLK-132</u>, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-298</u>, "Removal and Installation".

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### Component Inspection

INFOID:0000000001280547

### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Connect battery power supply to Intelligent Key warning buzzer terminals 1 and 3, and check the operation.

Intelligent Key warning buzzer	Terminal		Operation	
connector	(+)	(-)	Buzzer sounds	
E25	1	3	- Buzzer sounds	

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-298</u>, "Removal and Installation".

# **BUZZER (COMBINATION METER)**

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< COMPONENT DIAGNOS	SIS >	[WITH I-KEY, WITH	OUT SUPER LOCK]
BUZZER (COMBINA	ATION ME	TER)	
Description			INFOID:000000001280548
•	muido ond worm	io a with human	
Performs operation method (	=	ing with buzzer.	
Component Function	Cneck		INFOID:0000000001280549
1.CHECK FUNCTION			
With CONSULT-III Check the operation with "IN	SIDE BUZZER	" in "Active Test" with CONSULT-III.	
Test item		Condition	
	:TAKE OUT	Take away warning chime sounds	
INSIDE BUZZER	:KNOB	Ignition knob switch warning chime sounds	
	:KEY	Key warning chime sounds	
1.CHECK BUZZER (COMB Refer to <u>DLK-133, "Compone</u>		·	
Is the inspection result norma			
Yes >> GO TO 2.			
	•	pination meter) circuit.	
2.CHECK INTERMITTENT			
Refer to GI-39, "Intermittent	<u>incident"</u> .		
>> INSPECTION EI	ND		

**DLK-133** 

### **KEY WARNING LAMP**

Description INFOID:000000001280551

Performs operation method guide and warning together with buzzer.

### Component Function Check

INFOID:0000000001280552

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

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

Test item	Condition		
	:BLUE ON	Key warning lamp (green) illuminates	
INDICATOR	:RED ON	Key warning lamp (red) illuminates	
INDICATOR	:BLUE IND	Key warning lamp (green) flashes	
	:RED IND	Key warning lamp (red) flashes	

#### Is the inspection result normal?

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

No >> Refer to <u>DLK-134</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001280553

### 1. CHECK KEY WARNING LAMP CIRCUIT

Refer to DLK-134, "Component Function Check".

#### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace key warning lamp circuit.

### 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **LOCK WARNING LAMP**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

	[**************************************				
			А		
Description					
Performs operation method guide and warning together with buzzer.					
(		INFOID:000000001280555			
			С		
R" in "Active			D		
14100 011					
	- '		Е		
			F		
Diagnosis Procedure  1. CHECK LOCK WARNING LAMP CIRCUIT					
ction Check".			Н		
• .	ircuit.		I		
-•			J		
	PR" in "Active"  :KNOB ON :KNOB IND  mbination me nosis Proced	and warning together with buzzer.  OR" in "Active Test" mode with CONSULT-III.  Condition  :KNOB ON Lock warning lamp illuminates :KNOB IND Lock warning lamp flashes  mbination meter is OK. nosis Procedure".  CIRCUIT  ction Check".  arning lamp circuit.  NT	INFOID:00000001280554  Infoid:000000012805554  Infoid:0000000128055554  Infoid:0000000012805555  Infoid:0000000012805555  Infoid:0000000012805555  Infoid:0000000012805555  Infoid:0000000012805556  Infoid:0000000012805556  Infoid:0000000012805556  Infoid:000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:0000000001280556  Infoid:00000000001280556  Infoid:00000000001280556  Infoid:00000000001280556  Infoid:00000000001280556  Infoid:000000000000000000000000000000000000		

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### **HAZARD WARNING LAMPS**

< COMPONENT DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### HAZARD WARNING LAMPS

Description INFOID:000000001280557

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

### Component Function Check

INFOID:0000000001280558

### 1. CHECK FUNCTION

#### (A) With CONSULT-III

Check hazard warning lamp "FLASHER" in "Active Test" mode with CONSULT-III.

#### Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-136</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001280559

# 1. CHECK HAZARD SWITCH CIRCUIT

Check hazard switch circuit.

Refer to DLK-136, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace hazard warning switch circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **VEHICLE SPEED SIGNAL CIRCUIT**

< COMPONENT DIAGNOSIS >	[WITH I-KEY, WITHOUT SUPER LOCK]
VEHICLE SPEED SIGNAL CIRCUIT	
Description	INFOID:000000001280560
Displays the vehicle speed signal received from combination me	eter as a numerical value (km/h).
Component Function Check	INFOID:000000001280561
1.CHECK FUNCTION	
Check that all doors are automatically locked at the vehicle spec	ed of more than 25 km/h (16 MPH).
Is the inspection result normal?	
YES >> Vehicle speed signal circuit is OK. NO >> Refer to <u>DLK-137, "Diagnosis Procedure"</u> .	
Diagnosis Procedure	INFOID:000000001280562
1. CHECK VEHICLE SPEED SIGNAL CIRCUIT	
Check vehicle speed signal "VEHICLE SPEED" in "Data Monito	r" mode with CONSULT-III.
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace vehicle speed signal circuit.	
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-39, "Intermittent Incident".	
>> INSPECTION END	

### INTELLIGENT KEY BATTERY

Description INFOID:0000000001280563

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

- Door lock and unlock
- Engine start

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

### Component Function Check

INFOID:0000000001280564

### 1. CHECK INTELLIGENT KEY FUNCTION

Does door lock and unlock operate when operating Intelligent Key switch?

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

>> Refer to <u>DLK-138</u>, "<u>Diagnosis Procedure</u>". NO

### Diagnosis Procedure

INFOID:0000000001280565

# 1. CHECK INTELLIGENT KEY BATTERY

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

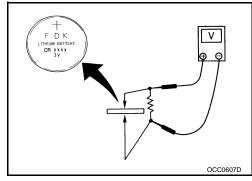
#### Standard : Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace Intelligent Key.

>> Replace Intelligent Key battery. Refer to DLK-138, NO

"Component Function Check".



# **ECU DIAGNOSIS**

### INTELLIGENT KEY UNIT

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

CONSULT	L-III WOI	NITOR	ITFM

Monitor Item		Condition	
PUSH SW	Ignition knob	Release	OFF
PUSH SW	Igrillion knob	Press	ON
KEY ON SW	Machanical kay	Removed	OFF
KEY ON SW	Mechanical key	Inserted	ON
DR REQ SW	Door request switch	Release	OFF
DR REQ 3W	(driver)	Press	ON
AS REQ SW	Door request switch	Release	OFF
AS REQ SW	(passenger)	Press	ON
BD/TR REQ SW	Door request switch	Release	OFF
DD/TK REQ 3W	(back door)	Press	ON
ICN SW	lanition switch	Other than ON position	OFF
IGN SW	Ignition switch	ON position	ON
ACC SW	lanition quitab	Other than ACC or ON position	OFF
ACC SW	Ignition switch	ACC or ON position	ON
CTOD LAMB CW/	Brake pedal	Press	OFF
STOP LAMP SW	Бтаке редаг	Release	ON
DOOR LOCK SIG	Lock button of	Release	OFF
DOOK LOCK SIG	Intelligent Key	Press	ON
DOOR UNLOCK SIG	Unlock button of	Release	OFF
DOOK UNLOCK SIG	Intelligent Key	Press	ON
DOOR SW DR	Door (driver side)	Close	OFF
DOOK SW DK	Door (driver side)	Open	ON
DOOR SW AS	Door (passenger side)	Close	OFF
DOOK SW AS	Door (passeriger side)	Open	ON
DOOR SW RR	Door (rear RH)	Close	OFF
DOOK SW KK	Door (lear KH)	Open	ON
DOOR SW RL	Door (rear LH)	Close	OFF
DOON OW ILL	Door (lear Lil)	Open	ON
DOOR BK SW	Back door	Close	OFF
DOOK DIK GW	Dack GOO!	Open	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading	

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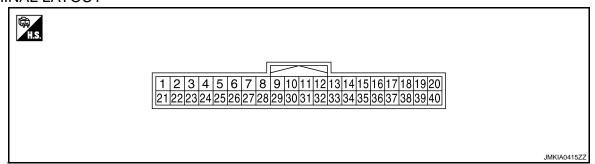
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### TERMINAL LAYOUT



### PHYSICAL VALUES

Term	ninal No.	\A/:	Description				V-I D./I	
+	_	Wire color	Signal name	Input/ Output	Condition		Value [V] (Approx.)	
1	Ground	LG	Steering lock unit power supply	Output	_		5	
2	Ground	L	CAN - H	Input/ Output		_	_	
3	Ground	Р	CAN - L	Input/ Output		_	_	
4	Ground	LG	Intelligent Key warn- ing buzzer	Output	Intelligent Key warning	Sounding	0	
			mg 502201		buzzer	Not sounding	Battery voltage	
			Front door request		Front door	ON (Pressed)	0	
5	Ground	Р	switch (driver side)	Input	request switch (driver side)	OFF (Released)	5	
	Cround	W	Ignition switch pow-	lmmt	Ignition	OFF or ACC	0	
6	Ground	VV	er supply	Input	switch	ON or START	Battery voltage	
7	7 Ground V Key switch	V	Kov quitch	nition key	1	When ignition nition key cylir	key is inserted into ig- nder	Battery voltage
,		Rey Switch	Input	When ignition key is not inserted into ignition key cylinder		0		
11	Ground	V	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage	
12	Ground	В	Ground	_	Ignition switch	ON	0	
13	Ground	Y	Inside key antenna	Output	Ignition knob	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1	
13	Giound	ı	(+) (rear seat)	Output	is pressed.	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 11 1 s  JMKIA0391ZZ	

### **INTELLIGENT KEY UNIT**

Terminal No.		Wire	Description				Value [V]	
+	_	color	Signal name	Input/ Output	(	Condition	(Approx.)	А
	Ground	W	Inside key antenna (-) (rear seat)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0392ZZ	B C
14						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA0390ZZ	E
15	Ground	SB	Inside key antenna (+) (console)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1	G H
15						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 4 1   M 10 11   M 10 1	J DLK
16	Ground	BR	Inside key antenna (-) (console)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 III III III III III III III III II	M
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA0390ZZ	O P

Terminal No.		Wire	Description				Value [V]	
+	_	color	Signal name	Input/ Output	(	Condition	(Approx.)	
17	Ground	SB	Outside key antenna (+) (rear bumper)	Output	When the back door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0514ZZ	
18	Ground	V	Outside key antenna (-) (rear bumper)	Output	When the back door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0515ZZ	
19	Ground	L	Outside key antenna (+) (driver side)	Output	When the front door request switch (driver side) is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s 1 s JMKIA0397ZZ	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1   Million   Million	

# **INTELLIGENT KEY UNIT**

### < ECU DIAGNOSIS >

Terminal No.		Wire				Value [V]		
+	_	color	Signal name	Input/ Output	Condition		value [v] (Approx.)	Α
20	Ground	BR	Outside key antenna (-) (driver side)	Output	When the front door request switch (driver side) is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA0515ZZ	E
*4		ound W		Output	Key lock so- lenoid	LOCK*2	Battery voltage	G
22 <sup>*1</sup>	Ground		Key lock solenoid			UNLOCK*2	0	
	Ground	BR	Front door request switch (passenger side)		Front door request switch (passenger side)	ON (Pressed)	0	-
25				Input		OFF (Released)	5	I
26	Ground	R	Stop lamp switch	Input	Depress the brake pedal		Battery voltage	
	Ground	IX	Stop lamp switch	Input	Release the b	rake pedal	0	
27	Ground	L	Ignition knob switch	Input	Ignition	When ignition knob switch is pressed	Battery voltage	
					switch OFF	When ignition knob switch is released	0	Dl
28	Ground	0	Unlock sensor	Input	Lock (ON)		5	
				'	Unlock (OFF)		0	
29	Ground	GR	Back door request switch	Input	Back door request switch	ON (Pressed)	0	
31	Ground	GR	Steering lock unit ground	_	—	OFF (Released)	0	ľ
			3.53			LOCK status	5	
32	Ground	Р	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 6 4 2 0 100 ms JMKIA0433ZZ	r F

Terminal No.		Wire				Value [V]		
+	_	color	Signal name	Input/ Output	Condition		(Approx.)	
33	Ground	0	Inside key antenna (+) (instrument center)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s 1 s JMKIA0393ZZ	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0391ZZ	
34	Ground	G	Inside key antenna (-) (instrument center)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0   I   I   I   I   I   I   I   I   I   I	
						When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s 1 s JMKIA0390ZZ	
37	Ground	ind L	Outside key antenna	Output	When the front door request switch (passenger side) is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0397ZZ	
31			L (+) (passenger side)			When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0514ZZ	

### **INTELLIGENT KEY UNIT**

### < ECU DIAGNOSIS >

### [WITH I-KEY, WITHOUT SUPER LOCK]

Term	Terminal No.		Description				Value [V]		
+	_	Wire color	Signal name	Input/ Output	(	Condition	(Approx.)		
38	Ground	0	Outside key antenna	Output	When the front door request switch (passenger	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I		
30	Ground	O	(-) (passenger side)	Output	side) is oper- ated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 1 s JMKIA0515ZZ		
40	Ground	Y	Passenger side anti-	Input	Press front door request	Anti-hijack operation	Battery voltage → 0 → Battery voltage		
			hijack relay		switch (pas- senger side)	Other than above	Battery voltage		

<sup>\*1:</sup> Only for MT model.

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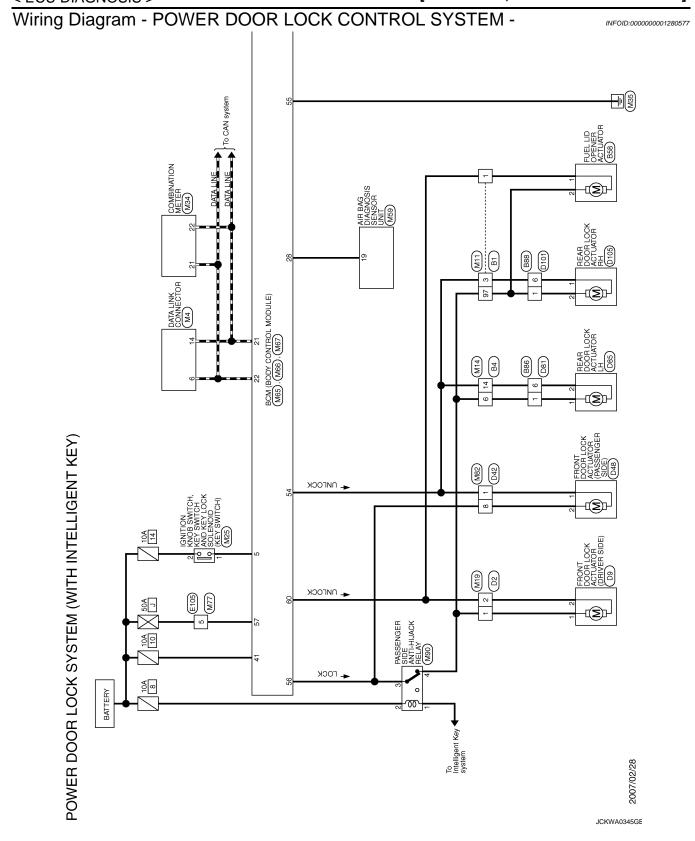
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<sup>\*2:</sup> Key interlock operation is only for M/T model for operation condition, refer to <u>SEC-16</u>, "System Description".



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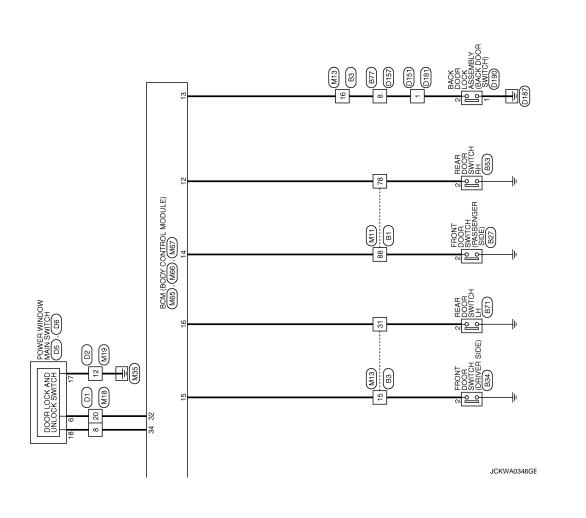
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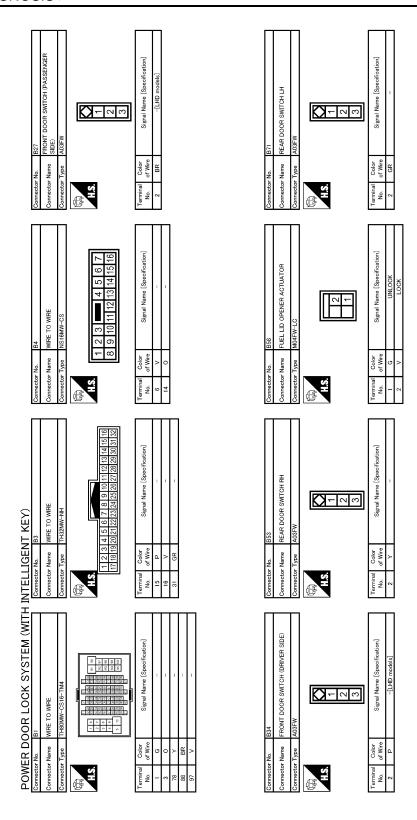
 $\mathbb{N}$ 

Ν

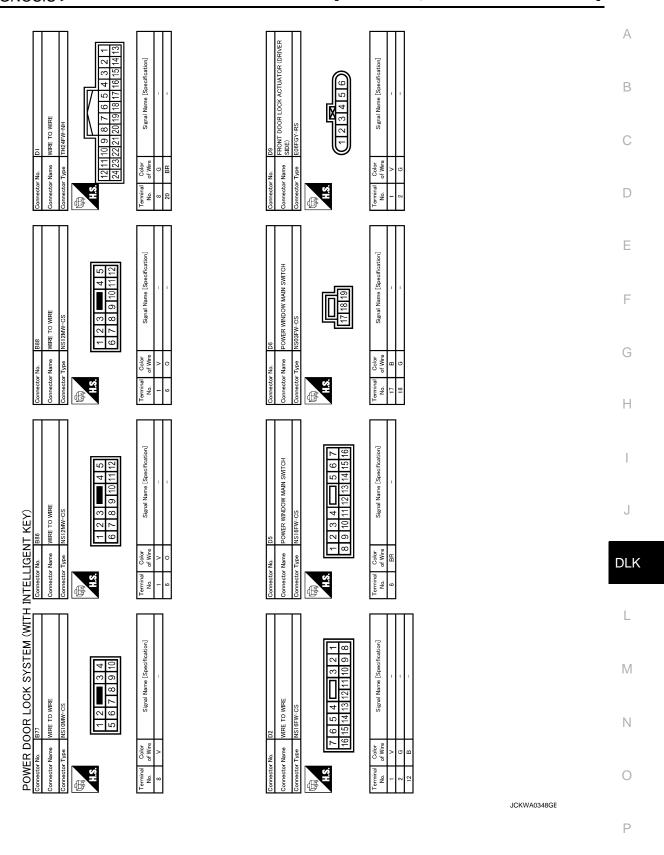
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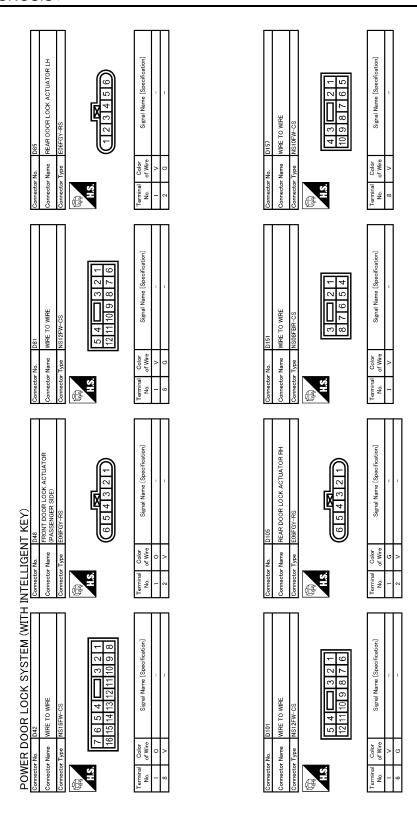
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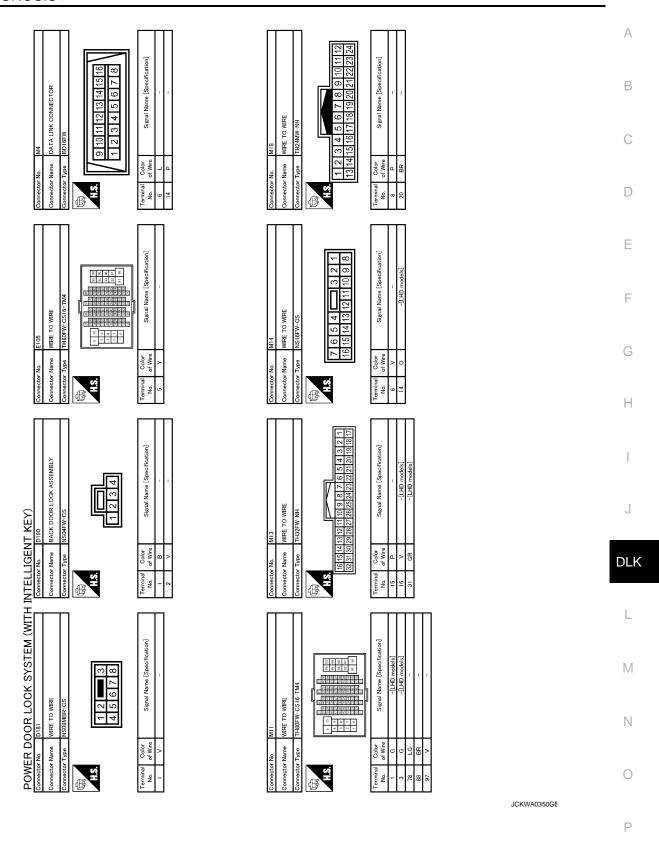


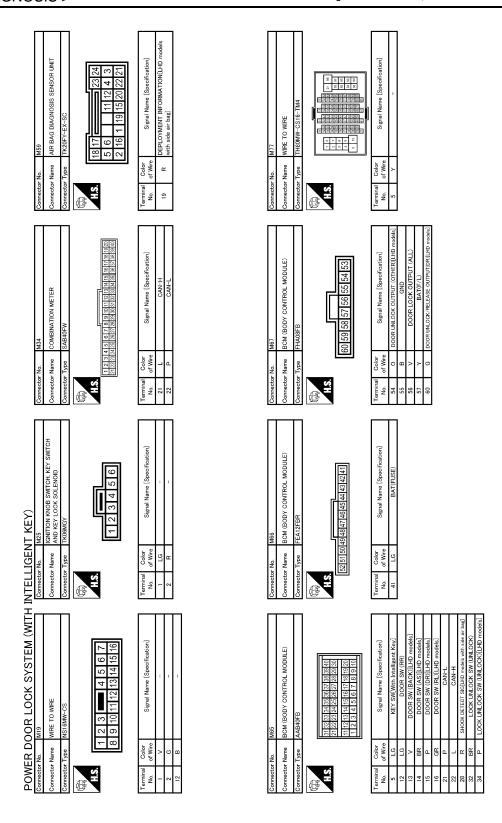
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JCKWA0349GE





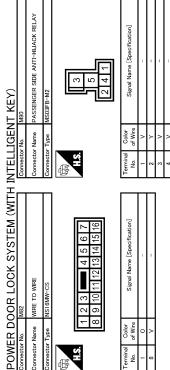
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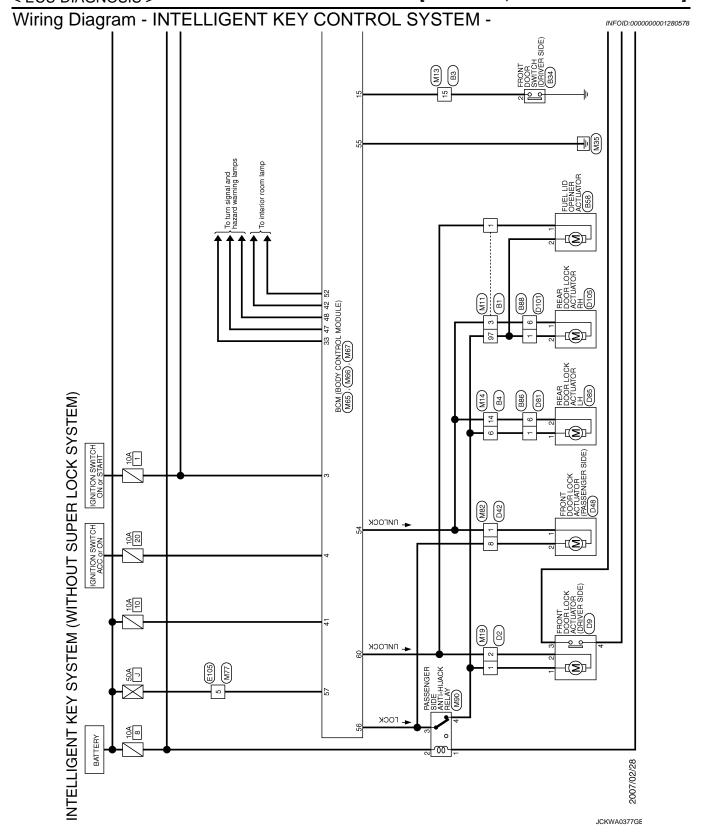
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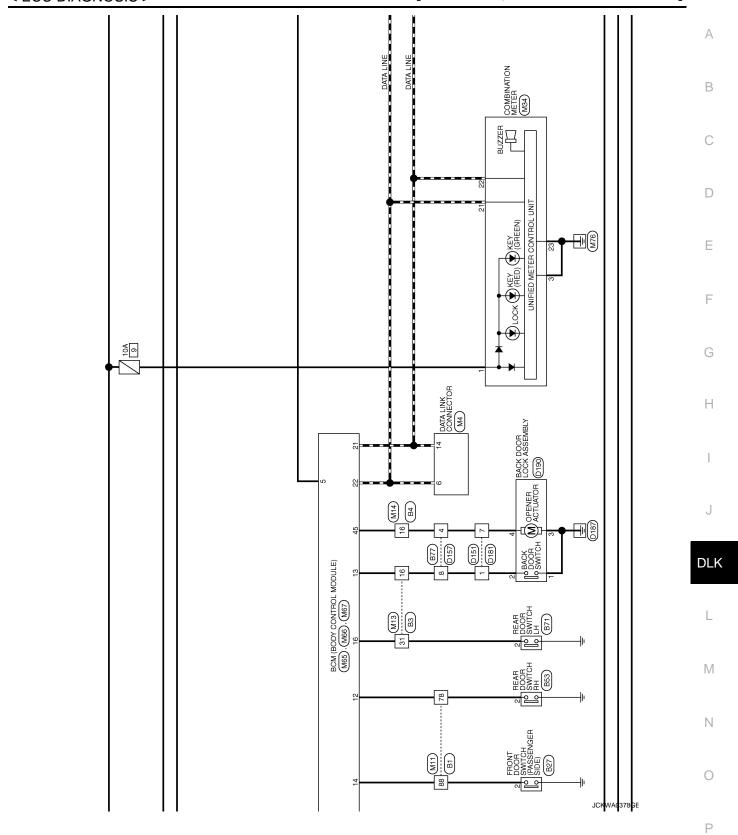
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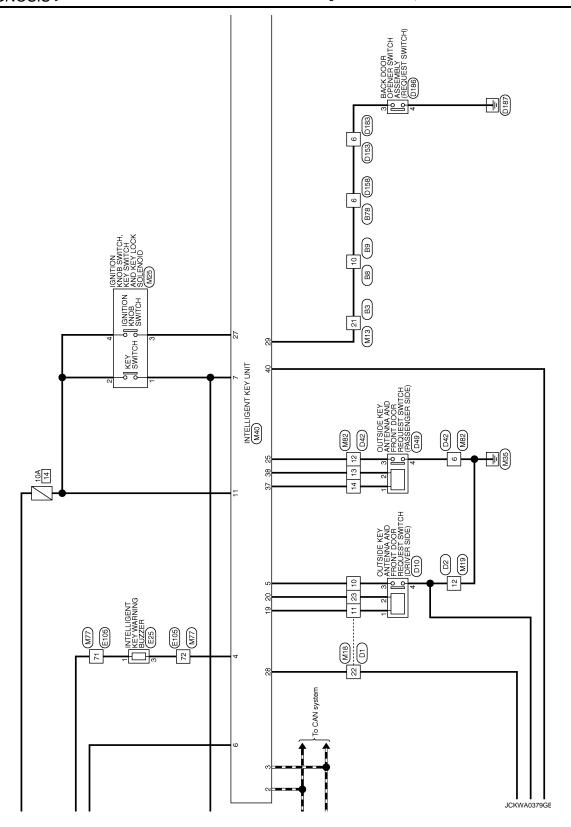
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INTELLIGENT KEY UNIT INSIDE KEY ANTENNA (INSTRUMENT CENTER) (M56) JCKWA0380GE В

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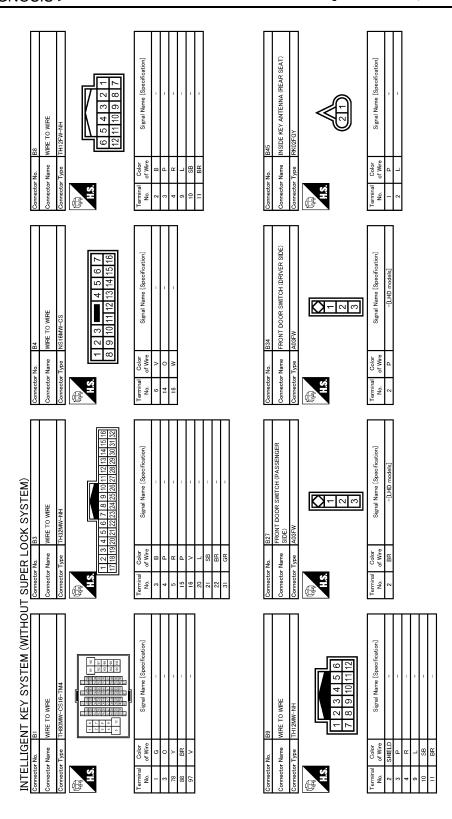
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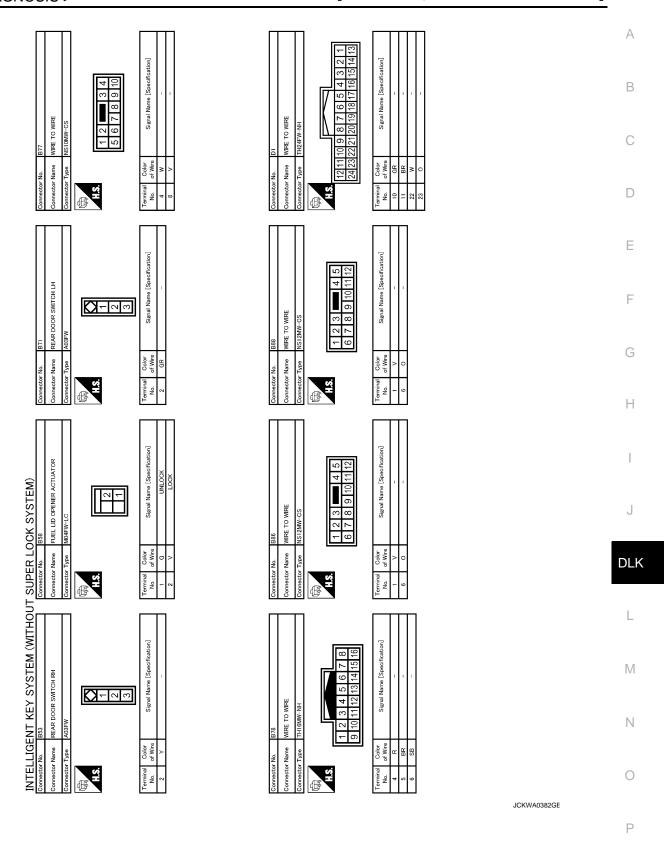
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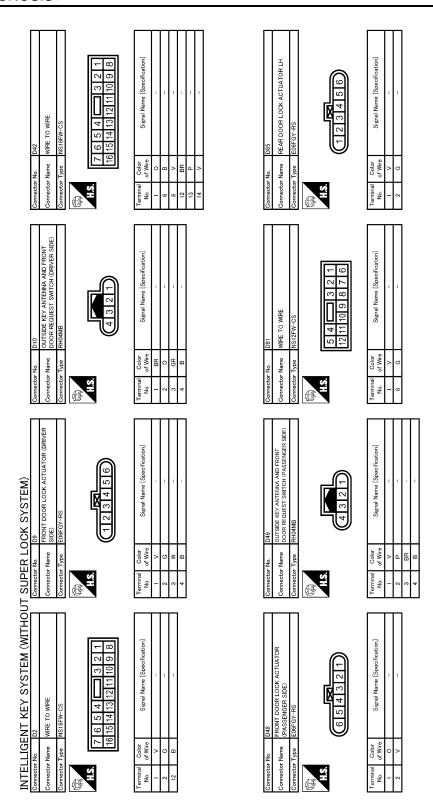
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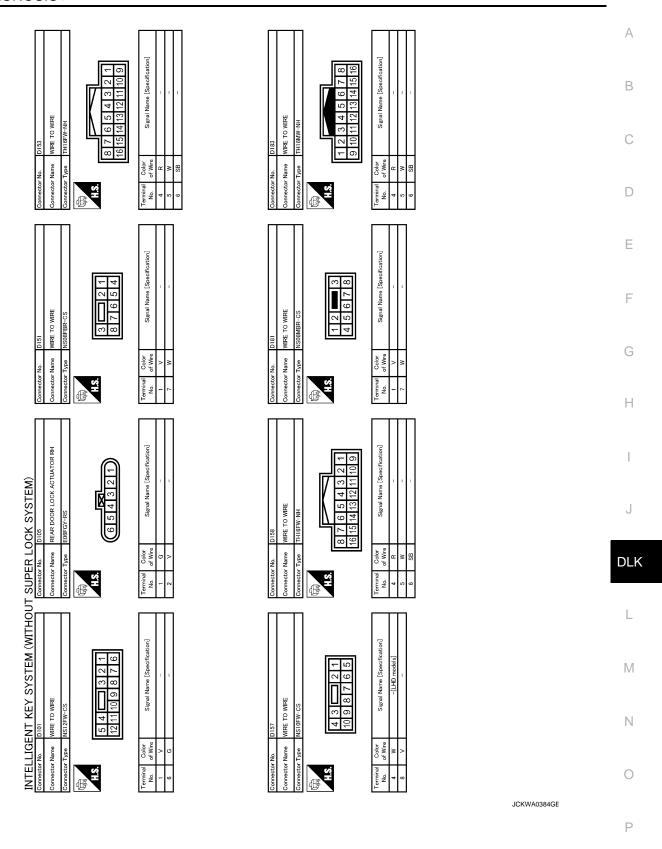


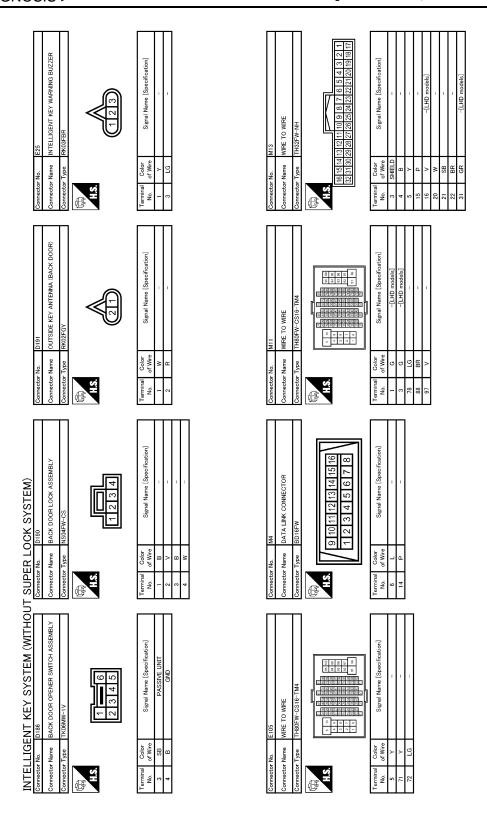
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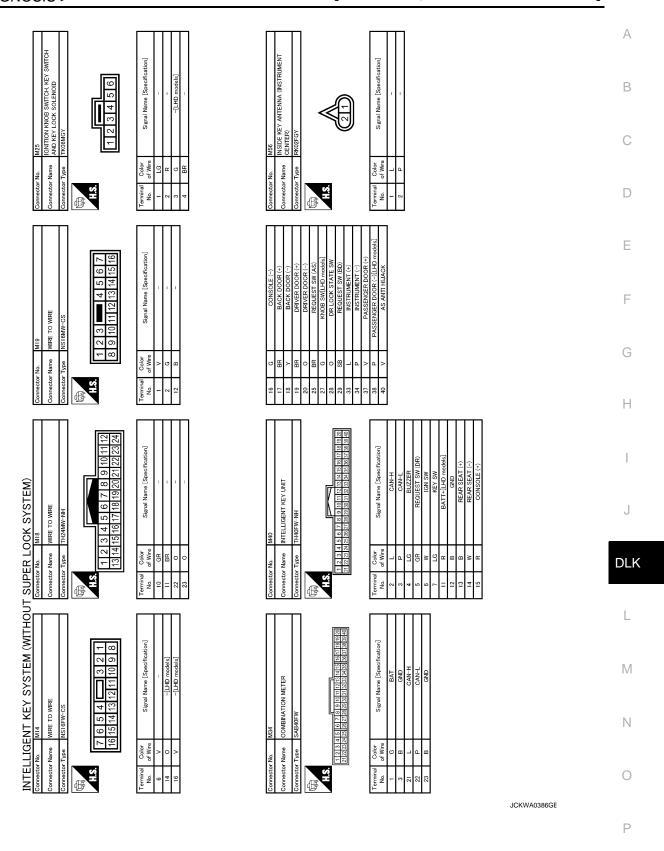


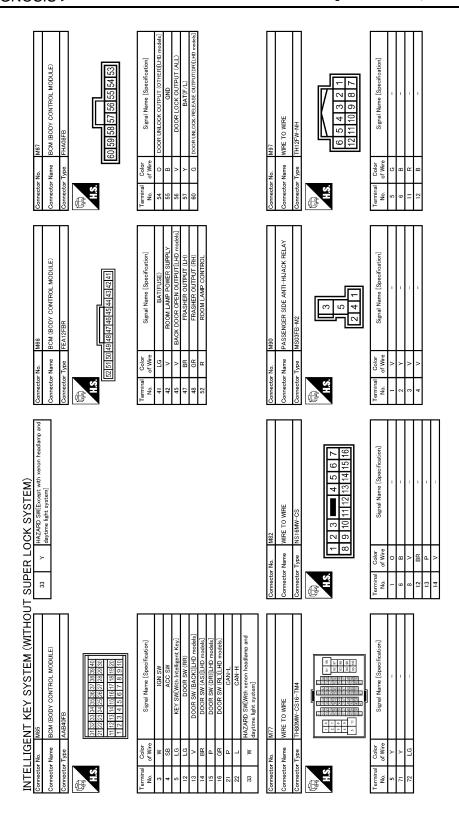
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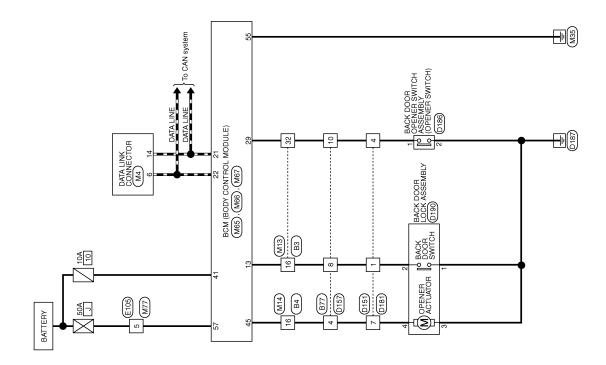
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K SYSTEM)	M252	INSIDE KEY ANTENNA (CONSOLE)	RK02FGY		Signal Name [Specification]				
IT SUPER LOC	Connector No. M.	Connector Name IN	Connector Type Rk	H.S.	Terminal Color No. of Wire	т С	2 G		
INTELLIGENT KEY SYSTEM (WITHOUT SUPER LOCK SYSTEM)	Connector No. M251	Connector Name WIRE TO WIRE	Connector Type TH12MW-NH	1 2 3 4 5 6 7 8 9 10 11 11 2	nal Color Signal Name [Specification]	- 9	SHIELD -	۰ -	SHIELD –
Ĭ.	Connec	Connec	Connec	₩ H.S	Terminal No.	2	9	11	12

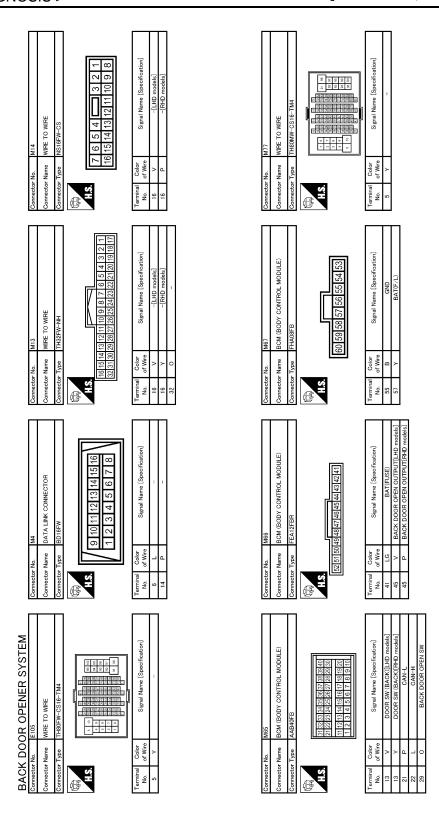
								Е
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,::	IA (CONSOLE)		Signal Name (Speoification)					I
M252	INSIDE KEY ANTENNA (CONSOLE)	RKOZFGY C	Signal Nam					J
Connector No.		Connector Type	Terminal Color No. of Wire 1 R 2 G					DLK
								L
; ; ; ;	Æ	3 4 5 6 10 11 12	Signal Name [Speoification]					M
, M251		TH12MW-NH	Color Sig of Wire G SHIELD R SHIELD					N
Connector No.	Connector No	Connector Type	Terminal Of No. of 5 5 6 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			JCK	WA0388GE	0
						3010		Р



BACK DOOR OPENER SYSTEM

JCKWA0409GE

Connector No. D151  Connector Name WIRE TO WIRE  Connector Type NSOFFBR-CS  ALS  8 7 6 5 4	Terminal   Color   Signal Name   Specification   Color	Connector No. D190 Connector Type NSG4FV-CS  A.S. 12 3 4	Terminal Color No. of Wire 1 B C C C C C C C C C C C C C C C C C C		A B C
Connector No. 877  Connector Name WIRE TO WIRE  Connector Type NSI 0MW-CS	Terminal   Color   Signal Name [Specification]   No.   of Wire   Signal Name [Specification]     4   W     -	Connector No. D186 Connector Name BACK DOOR OPENER SWITCH ASSEMBLY Connector Type IROBMW-1V	Terminal Color   Signal Name [Specification]   Octor   No. of Wiee   Signal Name [Specification]   1   G   BCM   2   B   GND		E F G
Connector No. B4  Connector Type WIRE TO WIRE  Connector Type NISTBMW-CS  H.S.  R. 9 10 11 12 13	Terminal Golor No. of Wire Signal Name (Specification) 16 W	Connector No. DISI Connector Type NSOBMBR-CS  H.S.  The connector Type NSOBMBR-CS  The connector Type NSOBMBR-CS	Terminal   Color   Signal Name (Specification)		J DLK
BACK DOOR OPENER SYSTEM  Connector Name WRE TO WRE  Connector Type TH32MW-NH  H.S.  1 2 3 4 6 6 7 8 9 10 1112 1314 15 16  T1 10 19 20 21 22 23 24 25 26 21 28 29 30 31 32	Terminal   Color   No. of Wire   Signal Name [Specification]   16   V     32   G   -	Connector No. D157  Connector Name WIRE TO WIRE  Connector Type NS10FW-CS  H.S. 4 3 2 1  10 9 8 7 6 5	Terminal   Color   Signal Name [Specification]   A   W   -[HD models]   A   V   -[RHD models]   B   V   V   CHD models   C   C   C   C   C   C   C   C   C	JCKWA0410GE	M N O
					Р



JCKWA0411GE

Fail Safe

Display contents of CONSULT-III	Fail-safe	Cancellation
B2013: STRG COMM 1	Inhibits steering look unlocking	Erase DTC
B2552: INTELLIGENT KEY	Inhibits steering look unlocking     Inhibits engine cranking     (BCM)     Fuel cut     (ECM)	Erase DTC
B2590: NATS MALFUNCTION	Inhibits steering look unlocking     Inhibits engine cranking     (BCM)     Fuel cut     (ECM)	Erase DTC

## DTC Inspection Priority Chart

INFOID:0000000001280581

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN) B2552: INTELIGENT KEY
2	B2013: STRG COMM 1     B2590: NATS MALFUNCTION

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Detection condition	Fail-safe	Diagnosis
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	Intelligent Key unit cannot receive CAN communication signal continuously for 2 seconds or more.	_	Check CAN communication system. Refer to DLK-70
U1010: CONTROL UNIT (CAN)	Intelligent Key unit detects internal CAN communication circuit malfunction.	_	Replace Intelligent Key unit.
B2013: STRG COMM 1	The ID verification result between Intelligent key unit and steering lock unit are NG. Or Intelligent Key unit cannot communicate with steering lock unit.	×	Perform steering lock unit ID registration with CONSULT-III
B2552: INTELLIGENT KEY	Intelligent Key unit internal malfunction.	×	Replace Intelligent Key unit.
B2590: ID DISCORD BCM-I-KEY	The ID verification result between Intelligent key unit and BCM are NG. Or Intelligent Key unit cannot communicate with BCM.	×	Check NATS Refer to <u>SEC-57</u>

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Reference Value INFOID:0000000001557105

#### VALUES ON THE DIAGNOSIS TOOL

Inition switch OFF or ACC Inition switch ON Init	Equivalent to speedometer reading Off On Off
echanical key is removed from key cylinder echanical key is inserted to key cylinder oor lock/unlock switch does not operate ress door lock/unlock switch to the lock side oor lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed ear RH door opened ear RH door opened ear LH door opened ear LH door opened ear LH door opened	On Off On
echanical key is removed from key cylinder echanical key is inserted to key cylinder oor lock/unlock switch does not operate ress door lock/unlock switch to the lock side oor lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door opened ear LH door opened	Off On
echanical key is inserted to key cylinder oor lock/unlock switch does not operate ress door lock/unlock switch to the lock side oor lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed ear RH door opened ear RH door opened ear LH door closed ear LH door opened ear LH door opened	On Off On
oor lock/unlock switch does not operate ress door lock/unlock switch does not operate ress door lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door opened ear LH door opened	Off On
ress door lock/unlock switch to the lock side oor lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door opened	On Off On Off On Off On Off On Off On Off On
oor lock/unlock switch does not operate ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door opened	Off On Off On Off On Off On Off On On
ress door lock/unlock switch to the unlock side river's door closed river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door opened	On Off On Off On Off On Off On
river's door closed river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door opened ear LH door closed	Off On Off On Off On Off On
river's door opened assenger door closed assenger door opened ear RH door closed ear RH door opened ear LH door closed ear LH door closed ear LH door opened	On Off On Off On Off
ear LH door opened ear LH door opened ear LH door opened ear LH door opened	Off On Off On
ear RH door opened ear RH door opened ear LH door closed ear LH door closed ear LH door opened	On Off On
ear RH door closed ear RH door opened ear LH door closed ear LH door opened	Off On
ear RH door opened ear LH door closed ear LH door opened	On
ear LH door closed ear LH door opened	
ear LH door opened	Off
	On
ack door closed	Off
ack door opened	On
OCK" button of Intelligent Key or door request switch are not ressed	Off
OCK" button of Intelligent Key or door request switch are pressed	On
JNLOCK" button of Intelligent Key or door request switch are not ressed	Off
JNLOCK" button of Intelligent Key or door request switch are ressed	On
eturn to ignition switch to "LOCK" position	Off
ress ignition switch	On
OCK" button of key fob is not pressed	Off
OCK" button of key fob is pressed	On
JNLOCK" button of key fob is not pressed	Off
JNLOCK" button of key fob is pressed	On
nition switch ON	NOMAL
fter the reception of air bag deployment signal from air bag diagosis sensor unit	Off
uring the reception of air bag deployment signal from air bag diagosis sensor unit	On
ther than the following	Off
uring the unlock operation interlocked with air bag	On
OTE:	On Off
1	INLOCK" button of Intelligent Key or door request switch are essed  eturn to ignition switch to "LOCK" position ress ignition switch OCK" button of key fob is not pressed OCK" button of key fob is pressed INLOCK" button of key fob is not pressed INLOCK" button of key fob is not pressed INLOCK" button of key fob is pressed Intion switch ON ter the reception of air bag deployment signal from air bag diagnosis sensor unit uring the reception of air bag deployment signal from air bag diagnosis sensor unit ther than the following uring the unlock operation interlocked with air bag

### < ECU DIAGNOSIS >

## [WITH I-KÉY, WITHOUT SUPER LOCK]

Monitor Item	Condition	Value/Status	
OOK WITH ODEED	Vehicle speed sensing auto door lock function does not operate	Off	•
LOCK WITH SPEED	Vehicle speed sensing auto door lock function is operating	On	•
ACC ON SW	Ignition switch OFF	pes not operate Off Operating On Off On On Off On Off On Off On On Off O	•
ACC ON SW	Ignition switch ACC or ON	On	•
DEAD DEE OW	Rear window defogger switch OFF	e Off On Off	
REAR DEF SW	Rear window defogger switch ON	On	•
TAIL LAND CVV	CK WITH SPEED         Vehicle speed sensing auto door lock function does not operate Off         Off           C ON SW         Ignition switch OFF Ignition switch ACC or ON	Off	•
TAIL LAWP 5W	Lighting switch 1ST	On	
TUDNI SICNAL D	Turn signal switch OFF	Off	•
TORN SIGNAL K	Turn signal switch RH	On	•
TUDNI CIONIAL I	Turn signal switch OFF	Off	
TURN SIGNAL L	Turn signal switch LH	On	
	Lighting switch OFF	Off	
I II DEMIVI OVV	Lighting switch HI	On	÷
HEAD LAMP SW/4	Lighting switch OFF	Off	÷
HEAD LAWIN SW 1	Lighting switch 2ND	On	•
HEAD I AMB SW 2	Lighting switch OFF	Off	•
HEAD LAWP 5W 2	Lighting switch 2ND	On	•
HEAD LAMP SW 1  HEAD LAMP SW 2  PASSING SW  AUTO LIGHT SW  FR FOG SW  RR FOG SW  ENGINE RUN	Other than lighting switch PASS	Off	•
	Lighting switch PASS	On	
	Lighting switch OFF	Off	•
	Lighting switch AUTO	On	
FR FOG SW	Front fog lamp switch OFF	Off	
FR FOG SW	Front fog lamp switch ON	On	
DD FOC SW	Rear fog lamp switch OFF	Off	
RR FUG SW	Rear fog lamp switch ON	On	
ENGINE DUN	Engine stopped	Off	
CC ON SW  REAR DEF SW  CAIL LAMP SW  CURN SIGNAL R  CURN SIGNAL L  HI BEAM SW  HEAD LAMP SW 1  HEAD LAMP SW 2  PASSING SW  AUTO LIGHT SW  CR FOG SW  ENGINE RUN  LIT-SEN FAIL  AUT LIGHT SYS  HD LIGHT TIME  GN SW CAN  FR WIPER HI  FR WIPER LOW  FR WIPER LOW  FR WIPER INT	Engine running	On	
LIT OFN FAIL	Light & rain sensor is in normal condition	ОК	
LII-OEN FAIL	Light & rain sensor is with error	NOTOK	÷
ALIT LICLIT OVO	Outside of the room is dark	On	
AUT LIGHT SYS	Outside of the room is bright	Off	•
HD LIGHT TIME	_	•	-
AUTO LIGHT SW  Lighting switch PASS  AUTO LIGHT SW  Lighting switch OFF  Lighting switch OFF  Lighting switch OFF  Off  Front fog lamp switch OFF  Front fog lamp switch OFF  Front fog lamp switch OFF  Rear fog lamp switch OFF  Rear fog lamp switch ON  On  Rear fog lamp switch ON  On  ENGINE RUN  Engine stopped  Engine running  On  Light & rain sensor is in normal condition  AUT LIGHT SYS  Outside of the room is dark  Outside of the room is bright  Off  Displays a setting time of the me home function set by the support  IGN SW CAN  Ignition switch OFF or ACC  Off	Off		
IGN SW CAN	Ignition switch ON	On	•
	Front wiper switch OFF	Off	•
-K WIPEK HI	Front wiper switch HI	On	
ED WIDER LOW	Front wiper switch OFF	Off	
TK WIPEK LOW	Front wiper switch LO	On	
	Front wiper switch OFF	Off	
FK WIPEK INT	Front wiper switch INT	On	
ACC ON SW REAR DEF SW TAIL LAMP SW TURN SIGNAL R TURN SIGNAL L HI BEAM SW HEAD LAMP SW 2 PASSING SW AUTO LIGHT SW ER FOG SW ENGINE RUN LIT-SEN FAIL AUT LIGHT SYS	Front washer switch OFF	Off	
FR WASHER SW	Front washer switch ON	On	-

**DLK-171** 

### < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
ED WIDED OTOD	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
DD WIDED ON	Rear wiper switch OFF	Off
RR WIPER ON	Rear wiper switch ON	On
DD WIDED INT	Rear wiper switch OFF	Off
KK WIPEK INI	Rear wiper switch INT	On
DD WIDED STOD	Rear wiper stop position	Off
RR WIPER STOP  RR WIPER ON  RR WIPER INT  RR WIPER STOP  RR WASHER SW  REVERSE SW CAN  H/L WASH SW  FAN ON SIG  AIR COND SW  HAZARD SW  BRAKE SW  TRNK OPNR SW  AUTO RELOCK  GLS BREAK SEN	Other than rear wiper stop position	On
DD WASHED SW	Rear washer switch OFF	Off
KIK WASHEK SW	Rear washer switch ON	On
REVERSE SW CAN	NOTE:	Off
REVERSE SW CAN	The item is indicated, but not monitored	On
H/I \W\\ SH S\\\	When headlamp washer switch is not pressed	Off
INT VOLUME FR WIPER STOP  RR WIPER ON  RR WIPER INT  RR WIPER STOP  RR WASHER SW  REVERSE SW CAN  H/L WASH SW  FAN ON SIG  AIR COND SW  HAZARD SW  BRAKE SW  TRNK OPNR SW  AUTO RELOCK  GLS BREAK SEN	When headlamp washer switch is pressed	On
FAN ON SIG	Blower fan motor switch OFF	Off
	Blower fan motor switch ON (other than OFF)	On
H/L WASH SW  FAN ON SIG  AIR COND SW  HAZARD SW  BRAKE SW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
HAZADD CW/	Hazard switch OFF	Off
HAZARD SW	Hazard switch ON	On
DDAKE CM	Brake pedal is not depressed	Off
BRAKE SW	Brake pedal is depressed	On
TDNK ODND SW	When back door opener switch is not pressed	Off
TRINK OF INIC SW	When back door opener switch is pressed	On
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
ALITO DEL COV	Auto lock function does not operate	Off
AUTO RELOCK	Auto lock function is operating	On
CLO BREAK OFN	The vehicle without glass break sensor	Off
GLS BREAK SEN	The vehicle with glass break sensor	On
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off
	Ignition switch ON	On

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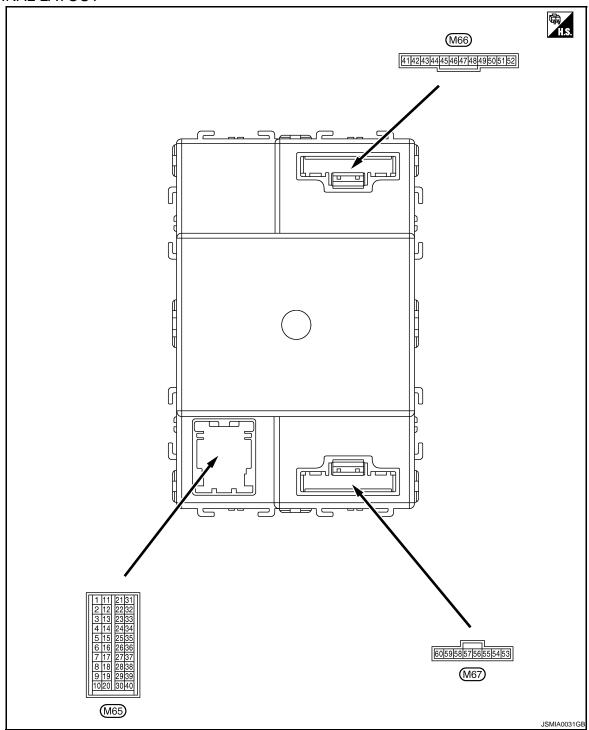
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**TERMINAL LAYOUT** 



#### PHYSICAL VALUES

#### **CAUTION:**

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-28, "COMB SW: CONSULT-III Function (BCM COMB SW)".
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to <u>BCS-9</u>, "System <u>Description"</u>.

### < ECU DIAGNOSIS >

	nal No.	Description			Value	
+ (Wire	color)	Signal name	Input/ Output	Condition	(Approx.)	
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
3	Ground	Ignition power sup-	Input	Ignition switch OFF or ACC	0 V	
(W)	(Fround 5		Input	Ignition switch ON or START	Battery voltage	
4	Cround	ACC nower aunnly	Innut	Ignition switch OFF	0 V	
(SB)	Ground	ACC power supply	Input	Ignition switch ON or ACC	Battery voltage	
5 (LG) <sup>*1</sup>	Ground	Kov switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage	
(R)*2	Giouna	Ground Key switch		Remove mechanical key from ignition key cylinder	0 V	

### < ECU DIAGNOSIS >

## [WITH I-KÉY, WITHOUT SUPER LOCK]

Ρ

	inal No. e color)	Description			O a malitica m	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB	B C
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 1ms JPMIA0166GB	E
6 (L)	6 (L) Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0167GB	G H
					Rear washer switch ON	(V) 15 10 5 0 JPMIA0169GB 1.3 V	DLI
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 JPMIA0196GB 1.3 V	M

Terminal No. (Wire color)		Description				Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)		
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 1ms JPMIA0165GB 1.4 V		
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0166GB 1.3 V		
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB 1.3 V		
					Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 6	(V) 15 10 5 0 JPMIA0169GB 1.3 V		
					Rear wiper INT (Wiper intermittent dial 4)	(V) 15 10 5 0 → ←1 ms 1 JPMIA0196GB 1.3 V		

### < ECU DIAGNOSIS >

## [WITH I-KÉY, WITHOUT SUPER LOCK]

Ρ

Terminal No. (Wire color)		Description				Value
+	- -	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 JPMIA0165GB 1.4 V
					Turn signal switch RH	(V) 15 10 5 0 JPMIA0166GB 1.3 V
8 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch LH	(V) 15 10 5 0 JPMIA0167GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 JPMIA0168GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 JPMIA0196GB 1.3 V

Terminal No. (Wire color)		Description				Value	
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
					All switch OFF	(V) 15 10 5 0  JPMIA0165GB 1.4 V	
					Lighting switch 2ND	(V) 15 10 5 0 JPMIA0166GB 1.3 V	
9 (G)*3 (B)*4	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch PASS	(V) 15 10 5 0 1ms JPMIA0167GB	
					Front wiper switch INT	(V) 15 10 5 0 JPMIA0168GB 1.3 V	
					Front wiper switch HI	(V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10	

### < ECU DIAGNOSIS >

Terminal No. Description (Wire color)					Value	/	
+	-	Signal name	Input/ Output	Condition		(Approx.)	,
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB	E (
					Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0167GB	F
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB 1.3 V	ŀ
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0169GB 1.3 V	DI
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 JPMIA0196GB 1.3 V	1
11 (B)	Ground	Audio link	Input/ Output	_	_	_	(

Terminal No. (Wire color)		Description				Value	
+ (vvire	COIOF)	Signal name	Input/ Output		Condition	(Approx.)	
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V	
					ON (When rear door RH opened)	0 V	
13 (V)	Ground	Ground Back door switch Input	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V		
					ON (When back door opened)	0 V	
14 (P)*3 (BR)*4	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V	
					ON (When passenger door opened)	0 V	
15 (BR) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms 10 ms PKID0924E	
					ON (When driver door opened)	0 V	

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITH I-KÉY, WITHOUT SUPER LOCK]

	nal No. color)	Description			O a Reco	Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	(V) 15 10 5 0 10 ms PKID0924E
					ON (When rear door LH opened)	11.2 V
17	Ground	Door lock status indi-	Output	Door lock status	ON	12 V
(L)		cator		indicator	OFF	0 V
20 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 5 0 10ms JPMIA0154GB 1.1 V
					While pressing	0 V
21 (P)	_	CAN-L	Input/ Output		_	_
22 (L)	_	CAN-H	Input/ Output		_	_
					ON	0 V
23 (V)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0
						JРМIA0014GB 10.3 V
					OFF	12 V
				Ignition switch O	FF or ACC	12 V
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch O	N	(V) 15 10 5 0
						JPMIA0156GB 8.7 V
25	Ground	Alarm link	Output			2

## [WITH I-KÉY, WITHOUT SUPER LOCK]

Condition   Cond	Terminal No.		Description				Value
Blower fan motor switch   Second   Blower fan motor switch   Input   Blower fan motor switch   Input		,	Signal name		Condition		
Ground A/C switch Input	(GR)*5	Ground		Input		OFF	15 10 5 0 10 ms
Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)  Compressor ON is requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)  Compressor ON is requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)  Input  Ignition switch OFF or ACC  Ignition switch OFF or ACC  OV  Ignition switch ON  OV  Pressed  OV  Pressed  OV  Pressed  OV  OV  OV  Input  Input						ON (other than OFF)	0 V
Quested from auto amp. (A/C indicator ON and blower fan motor switch ON).   Quested from auto amp. (A/C indicator ON and blower fan motor switch ON).   Quested from auto amp. (A/C indicator ON and blower fan motor switch ON).   Quested from auto amp. (A/C indicator ON amp.	(P)*5	Ground	A/C switch	Input		quested from auto amp. (A/C indicator OFF, blower fan motor switch OFF	15 10 5 0 10 ms PKID0924E
28 (LG) '7 (R)'8 Ground Shock detect sensor Input Ignition switch ON  29 (LG) '3 (O) '4 Ground Ground Shock detect sensor Input Ignition switch ON  Back door opener switch Input Back door opener switch  Pressed  O  O  O  O  O  O  O  O  O  O  O  O  O						quested from auto amp. (A/C indicator ON and blower fan motor switch	0 V
28 (LG) '7 (R) '8 Ground Shock detect sensor Input Ignition switch ON  29 (LG) '3 (O) '4 Ground Back door opener switch  Back door opener switch  Pressed  O V  Pressed  O V  O V  15 10 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15					Ignition switch O	FF or ACC	0 V
Company   Ground   Back door opener switch   Input   Back door opener switch   Not pressed   Section   S	(LG)*7	Ground	Shock detect sensor	Input	Ignition switch O	N	15 10 5 0 1.0s JPMIA0155GB
32 Ground Door lock/unlock Door lock/un-Not pressed  Outlieb (Uplock) Door lock/un-Not pressed	(LG)*3	Ground		Input			15 10 5 0 1.2 V 1.2 V
32 Ground Door lock/unlock Door lock/un- Not pressed  Output look switch (Uplock)						Pressed	0 V
JPMIA0154GB 1.2 V		Ground		Input		Not pressed	15 10 5 0 0 → ←10ms JPMIA0154GB
Pressed to the unlock side 0 V						Pressed to the unlock side	

# BCM (BODY CONTROL MODULE) [WITH I-KEY, WITHOUT SUPER LOCK]

< ECU DIAGNOSIS >

Terminal No. Description (Wire color)			Condition		Value		
+	-	Signal name	Input/ Output		Condition	(Approx.)	/
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10ms JPMIA0154GB	(
					ON	0 V	
34 (SB)*3 (P)*4	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0 → ←10ms JPMIA0154GB	[ [
					Pressed to the lock side	0 V	
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	(V) 15 10 5 0 → +10ms JPMIA0154GB	ŀ
					Pressed to the lock side	0 V	
					All switch OFF	0 V	DI
36 (G)	Ground	Combination switch	Output	Combination switch (Wiper intermit-	Turn signal switch RH Lighting switch 2ND Lighting switch HI	(V) 15 10 5 0	
(G) GIOURU OUTPUT 5	3011 01 3	UI 5	tent dial 4)	Lighting switch 1ST	→ +2ms JPMIA0164GB 9.1 V	N	
					All switch OFF (Wiper intermittent dial 4)	0 V	1
					Front washer switch ON (Wiper intermittent dial 4)  Rear washer switch ON	(V) 15	(
37 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	(Wiper intermittent dial 4)  Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	10 5 0 	F
					Rear wiper switch ON (Wiper intermittent dial 4)	9.1 V	

## [WITH I-KÉY, WITHOUT SUPER LOCK]

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output	Condition		(Approx.)
					All switch OFF	0 V
					Front wiper switch LO	
				Combination	Front wiper switch MIST	(V) 15
38	Ground	Combination switch	Output	switch	Front wiper switch INT	10
(W)	Ground	OUTPUT 3	Output	(Wiper intermit- tent dial 4)	Lighting switch AUTO	0
				terri diai 4)	Rear fog lamp switch ON	→ 2ms JPMIA0162GB 9.3 V
					All switch OFF	0 V
					Turn signal switch LH	
				Combination	Lighting switch PASS	(V) 15
39	Ground	Combination switch	Output	switch	Lighting switch 2ND	10
(Y)		OUTPUT 4	•	(Wiper intermit- tent dial 4)	Front fog lamp switch ON	0 → -2ms
					9 1	JPMIA0163GB 9.3 V
					All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 
					Rear wiper switch INT (Wiper intermittent dial 4)	9.1 V
41 (LG)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	Battery voltage
42	Ground	Interior room lamp	Output		p battery saver activation	0 V
(V)		power supply			p battery saver no activation	12 V
43 (SB)	Ground	Rear wiper motor	Output	Rear wiper switc		0 V
(36)				Rear wiper switc	n ON	12 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	(V) 15 10 5 0 → 410ms JPMIA0197GB
					Any position other than rear wiper stop position	0 V

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITH I-KÉY, WITHOUT SUPER LOCK]

(Wire color + 45 (V) Gro	round	Signal name	Input/ Output		Condition	Value (Approx.)
	round	Book hard to				( <u>v</u> )
		Back door lock actuator	Output	Back door opener switch	Pressed	15 10 5 0 ++0.1s SKIA9232E
					Not pressed	0 V
					Turn signal switch OFF	0 V
47 (BR) Gro	round	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
					Turn signal switch OFF	0.5 V
					Turri signal switch Of I	0 0
48 (GR) Gro	round	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
49					OFF	0 V
(Y) Gro	round	Rear fog lamp	Output	Rear fog lamp	ON	12 V
50		Unicaliana	la a t	Daire de de co	Unlock	5 V
(G)	rouna	Unlock sensor	Input	Driver's door	lock	0 V
51 Gr	round	Stop lamp switch	Input	Depress the brak	ke pedal	Battery voltage
(R)	iouiiu	Stop lamp switch	iliput	Release the brak	ke pedal	0 V
52 Gro	round	Room lamp timer	Output	Interior room	OFF	12 V
(R)	34.14	control		lamp	ON	0 V
53 Gro	round	Power window pow-	Output	Ignition switch	OFF or ACC	0 V
(L)		er supply (IGN)	·		ON	12 V
		Door unlock (All other than driv-	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0
54 (O) Gro	round	er's door)				*** 0.1\$ SKIA9232E
	round				Not pressed	

## **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

## [WITH I-KEY, WITHOUT SUPER LOCK]

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output	Condition		(Approx.)
					Not pressed	0 V
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un- lock switch	Pressed to the lock side	(V) 15 10 5 0 → • 0.1s SKIA9232E
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch OFF		12 V
59	0	Companies de	Outroot	When lock buttor is not pressed	of key fob or Intelligent Key	0 V
(R)	Ground	Super lock	Output	When lock buttor is pressed	of key fob or Intelligent Key	12 V
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0 ++0.1s SKIA9232E
					Not pressed	0 V

<sup>\*1:</sup> With Intelligent Key

<sup>\*2:</sup> Without Intelligent Key

<sup>\*3:</sup> RHD models

<sup>\*4:</sup> LHD models

<sup>\*5:</sup> With gasoline engine

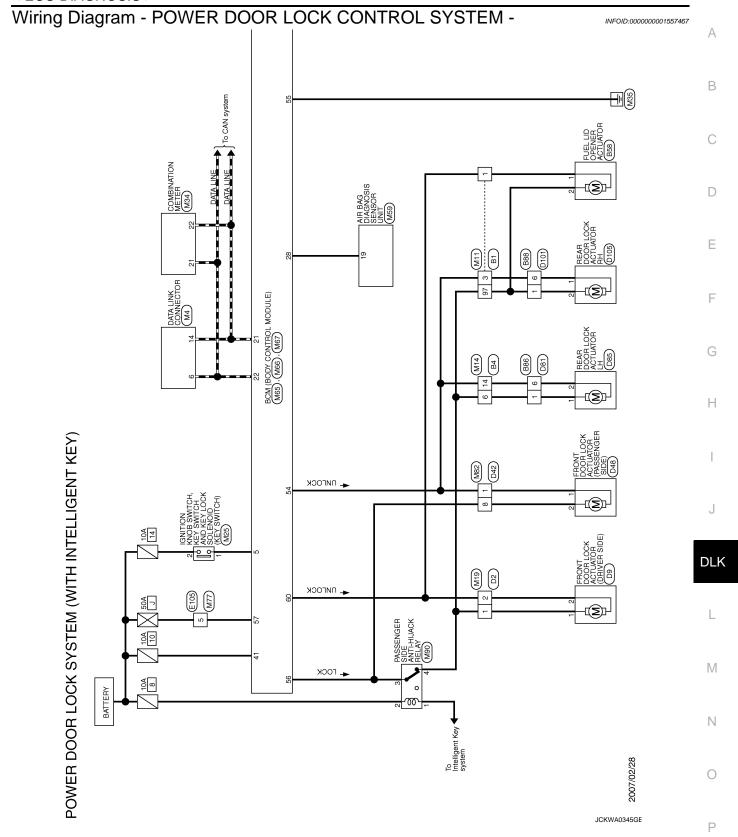
<sup>\*6:</sup> With diesel engine

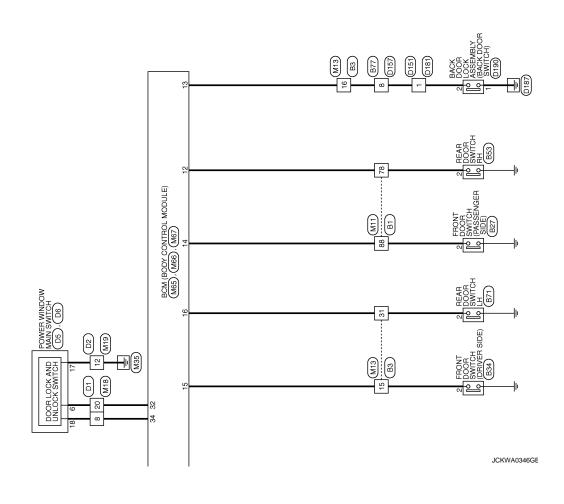
<sup>\*7:</sup> RHD models with side air bag

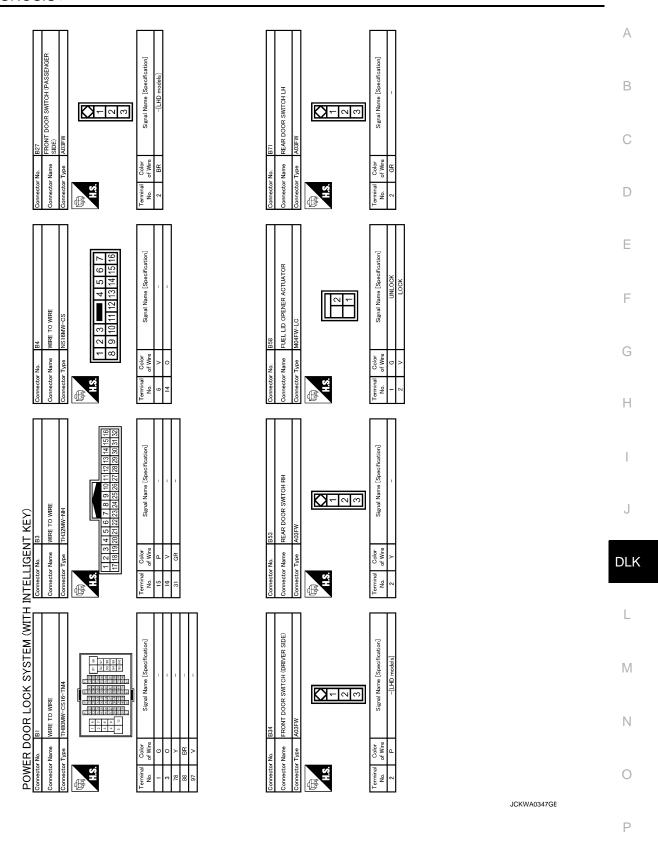
<sup>\*8:</sup> LHD models with side air bag

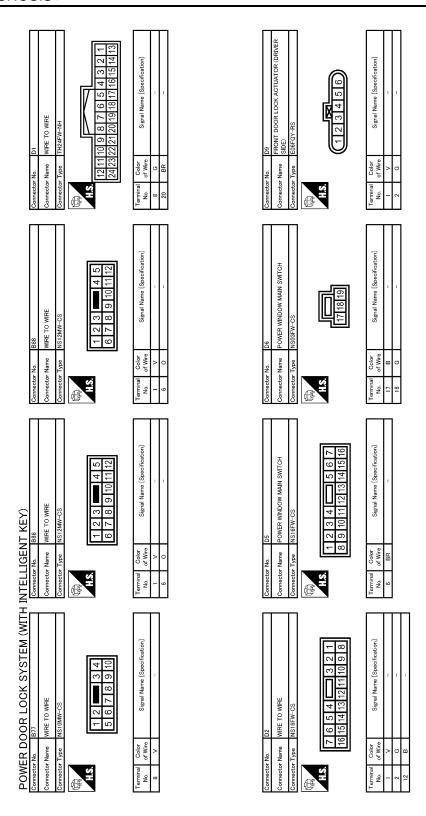
<sup>\*9:</sup> With xenon headlamp and daytime light system

<sup>\*10:</sup> Except with xenon headlamp and daytime light system



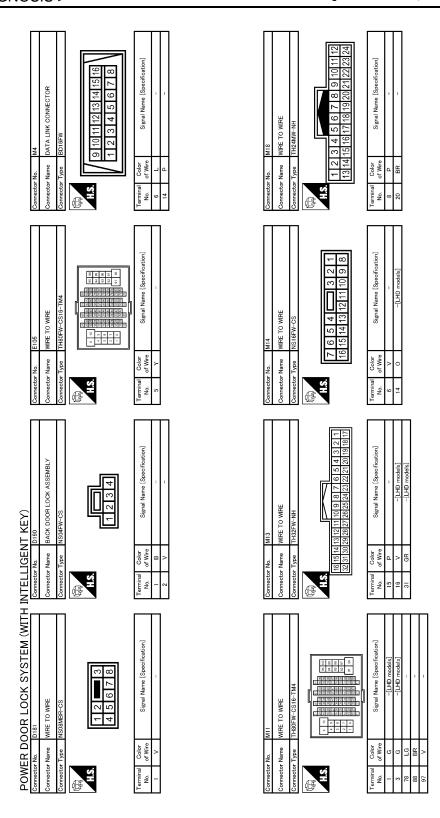




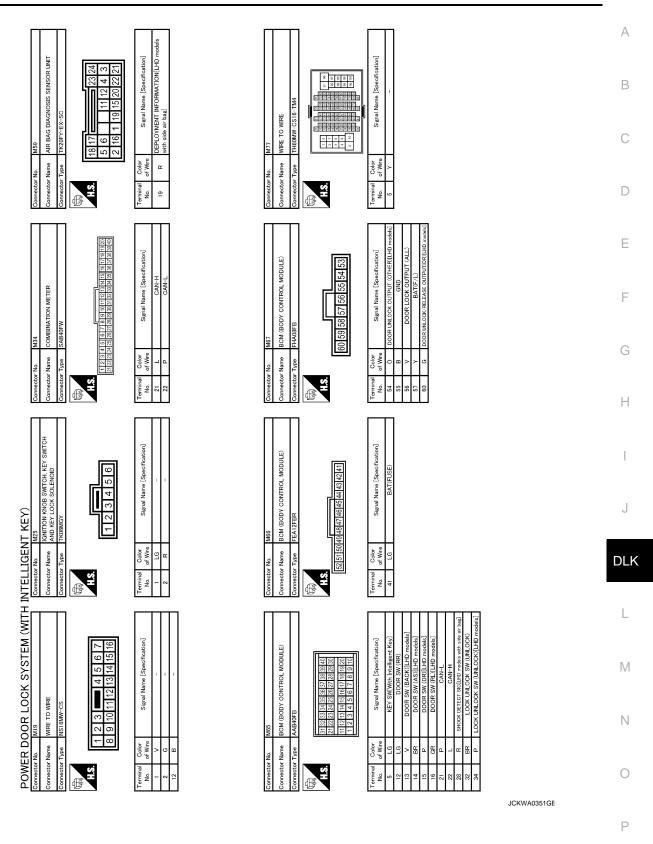


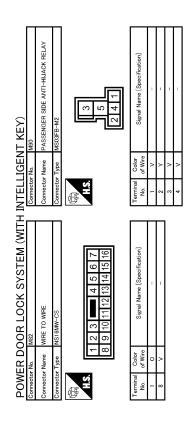
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PEAR DOOR LOCK ACTUATOR LH EDGFGY-RS  (123456)	DS	Signal Name (Specification)	АВ
REAR DG E008FGY	Connector No.   D157   Connector Name   WIRE TO WIRE   Connector Type   NSIGNY-CS	Terminal Color No. of Wire 8 V	C
CS  CS  10 9 8 7 6  Signal Name [Specification]		Signal Name (Specification)	E
tor No. D81  tor Type NS12FW  12 11  Color  of Wire	Gomettor No.   D151	Terminal Color No. of Wire	G H
T KEY) Du8 FRONT DOOR LOCK ACTUATOR (PASSENGER SIDE) EG9FGV-R8  Signal Name [Specification]	DIOS REAR DOOR LOCK ACTUATOR RH E08FGV-RS  SOFT STATE  SOFT STATE	Signal Name [Specification]	I
IT KE D48 FRONT D (PASSEN E06FGY-	2   V	Color   Sign   Color   Sign   Color   Sign   Color   Color	DLK
	3 2 1 8 7 6	Signal Name [Specification]	L
WER DOOR I D42 ctor No. 1042 NST 167 ST 16 5 14 16 15 14 16 15 14 16 16 16 16 16 16 16 16 16 16 16 16 16	ector ector	Color   Signal   No. of Wre   Signal   No. of Wre   O   O   O   O   O   O   O   O   O	N
Oommo Oommo Nemark	600 000 W		A0349GE

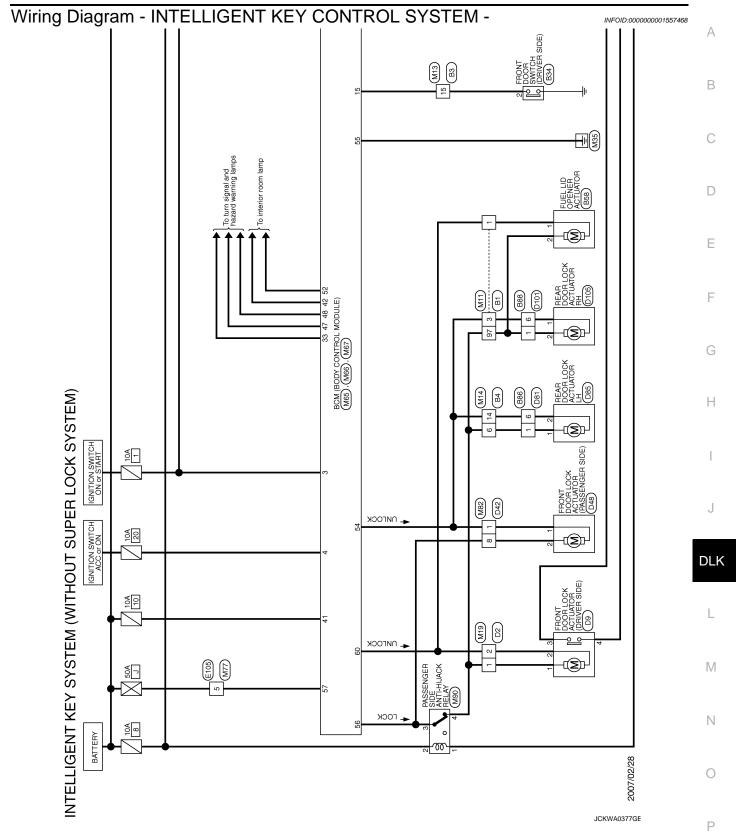


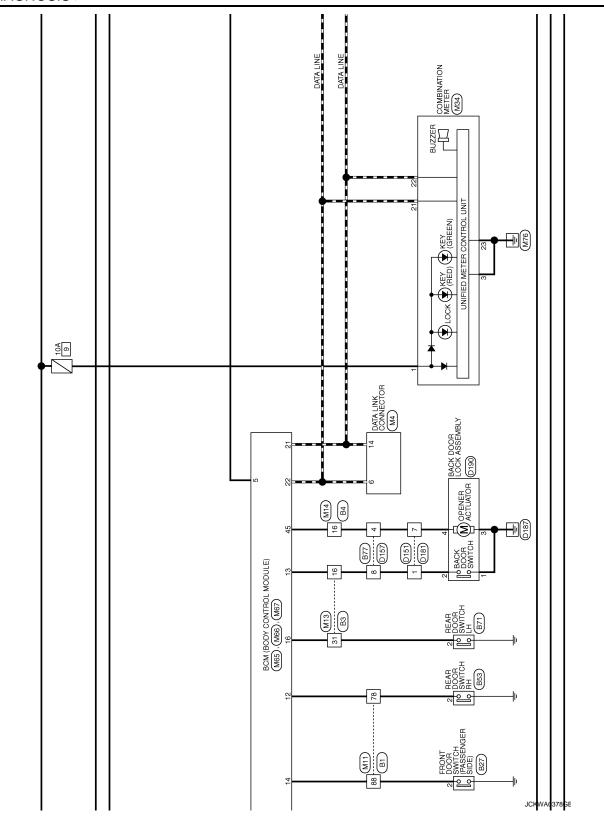
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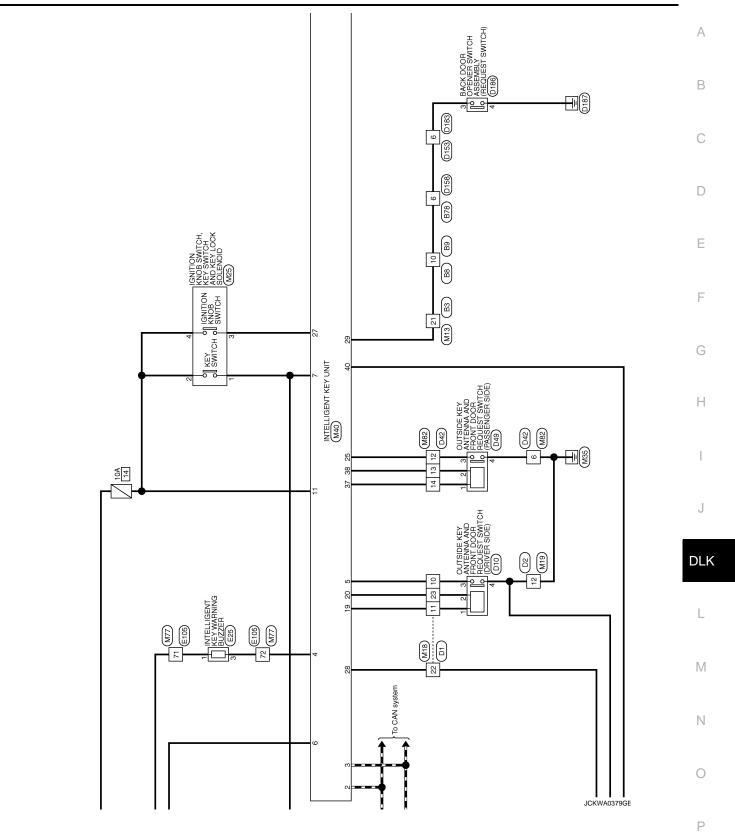


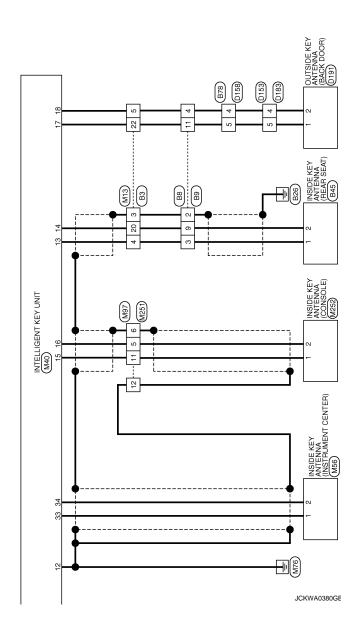


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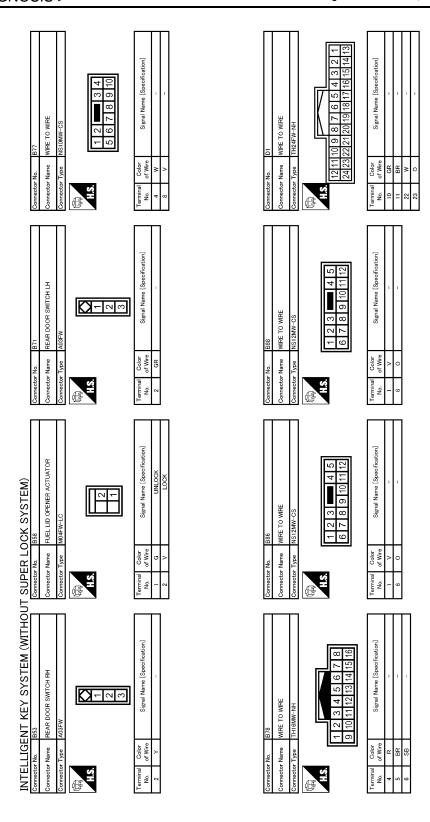






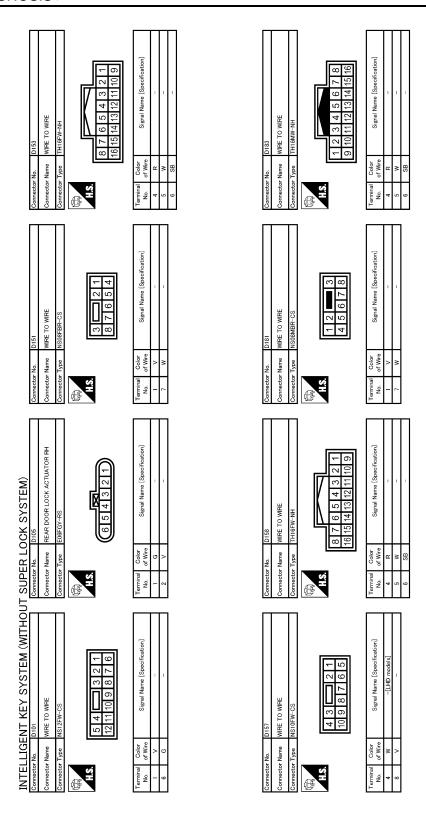


Cornector No.   E8   Cornector Name   WIRE TO WIRE	Cornector No. B45 Cornector Name INSIDE KEY ANTENNA (REAR SEAT) Cornector Type RKOZFGY  Cornector Type RKOZFGY  Cornector Type RKOZFGY  Cornector Type Signal Name [Specification]  1	A B C
Connector No. 84  Connector Name WIRE TO WIRE  Connector Type INSTRMW-CS  ILL 2 3	Connector No.   B34	E F G
SUPER LOCK SYSTEM)   Connector Name   WIRE TO WIRE	Connector No.   B27	J
INTELLIGENT KEY SYSTEM (WITHOUT SUPER LOCK SYSTEM)   Cornector Name   WIRE TO WIRE	Connector No.   B9	M N O
	JCKWA0381GE	Р



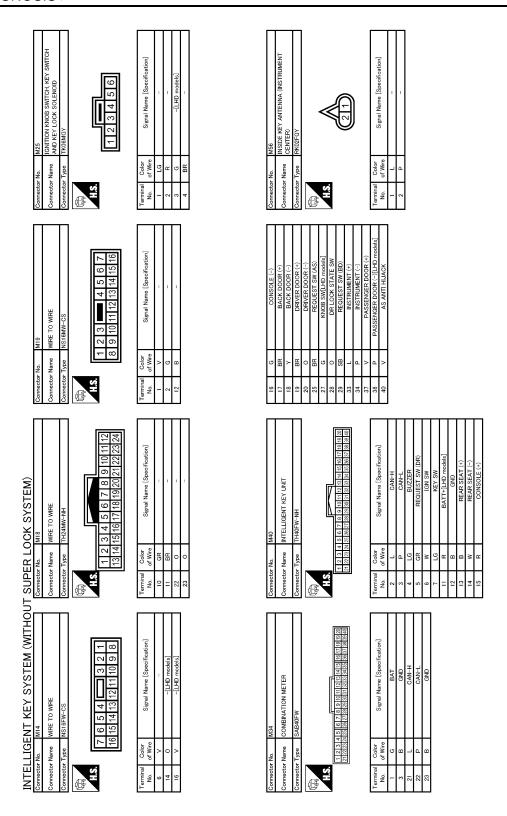
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3 2 1 11 10 9 8	Signal Name (Specification)	DBS REAR DOOR LOOK ACTUATOR LH EDBFGV-RS  123456	Signal Name [Specification]		АВ
Connector No. D42 Connector Name WIRE TO WIRE Connector Type NSI 16TW-CS  H.S. 7 6 5 4   116 115 114 13 12	No. of Wire   Signal No. of Wire   1   O   E   E   E   E   E   E   E   E   E	Connector No. DBS Connector Name REAR DOOR LOC Connector Types EDBFGY RS H.S.	Celor   Signal N		C
DIO OUTSIDE KEY ANTENNA AND FRONT DOOR PECULEST SWITCH (DRIVER SIDE) RHGAMB  4 3 2 1	Signal Name [Specification]	RE 8 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name [Specification]		E
Connector No. D10 Connector Name D00R REQ. Connector Type RHOMMB  H.S.	Terminal Golor   Signature   Color	Connector No. D81 Connector Name WIRE TO WIRE Connector Type NSIZFW-CS H.S. 5 4	Terminal Color Sign of Wire Of Wire Of Wire Of Wire Of Wire Of Wire Of Office O		G
OCK SYSTEM) DB FRONT DOOR LOCK ACTUATOR (DRIVER SIDE) EDFGV-RS  (123456)	Signal Name (Specification)	D49 OUTSIDE KEY ANTENNA AND FRONT DOOR REQUEST SWITCH (PASSENGER SIDE) RHOAMB	Signal Name [Specification]		I
SUPER LC Sonnector No. Connector Name Connector Type	Terminal   Color   No.   Color   No.   Color   Color	Connector No. D19 Connector Name OUTSIDE IN Connector Type R-PIOAMB	Color   Color   No.   Of Wire   Of		DLK
INTELLIGENT KEY SYSTEM (WITHOUT Connector No. DZ Connector No. DZ Connector Nume WITE TO WIRE CONTENT	Signal Name [Specification]	FRONT DOOR LOCK ACTUATOR (PASSENGER SIDE.) EDEGGV-RS	Signal Nane [Specification]		L M
INTELLIGENT KEY  Connector No. D2  Connector Name WIRE TO WIRE  Connector Type INSIGFW-CS  H.S.  T 6 5 4 11  16 15 14 13 1	Terminal   Color   Si     Color   Si     Color   Si     Color   Colo	Connector No. D48 Connector Name (PASSENGE Connector Type EDE/CV-RS  H.S.	Terrinal   Color   No.   Of Wire   Si		N O
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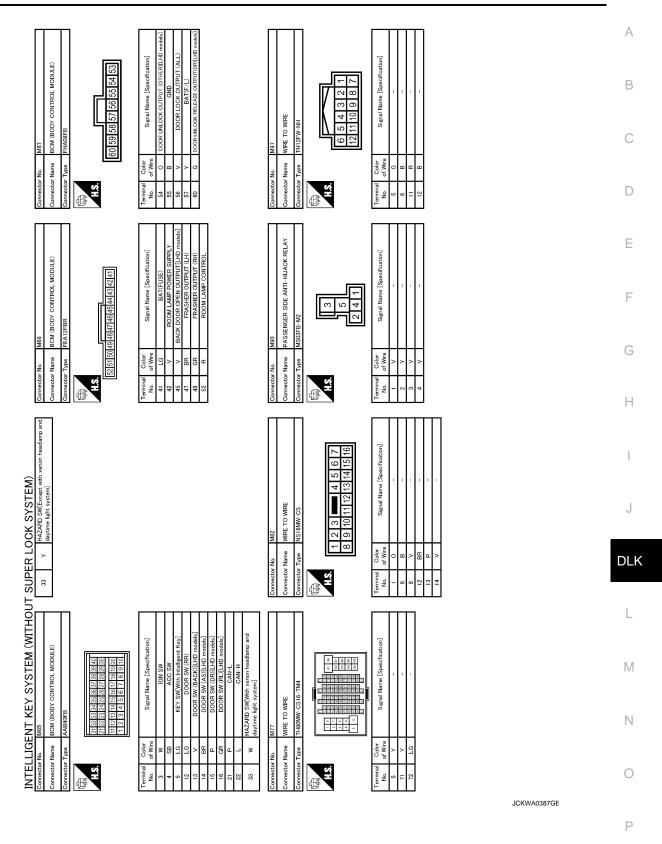


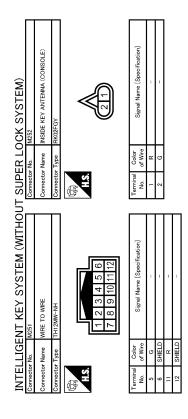
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No. E25  Name INTELLIGENT KEY WARNING BUZZER  Type RKG3FBR	Color of Wire  Y LG  -	No.   M13   Nume   WIRE   Nume   WIRE   Nume   WIRE   Nume   Nu		A B C
Connector No. Connector Name Connector Type	Terminal O of O of O	Connector No.		D
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OUTSIDE KEY ANTENNA (BACK DOOR) RKOZFGY	Signal Name			F
Connector No. D191 Connector Name OUT. Connector Type RK02	Terminal Color No. of Wire 2 R. R. 2	Connector No   MII		G
				Н
EM)  OK ASSEMBLY  3 4	Signal Name [Specification]	M4 BD16TW CONNECTOR BD16TW  9 10 111 12 13 14 15 16  1 2 3 4 5 6 7 8  Signal Name [Specification]		I
DISO BACK SYSTEM) DISO BACK DOOR LOCK ASSEMBLY NSOMPW-CS	Signal 1	M4  DATA LINK CONNECTOR  BD16FW  1 2 3 4 5 6  Signal Name [Sp	_	J
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INTELLIGENT KEY SYSTEM (WITHOUT Connector No. D186 Connector Name BACK DOOR OPENER SWITCH ASSEMBLY COnnector Type TKOSMW-1V [2 3 4 5]	Signal Name (Specification) PASSIVE UNIT GND	WIRE CSIG-TM4 CSIG-TM4 Signal Name [Specification]		M
ENT KEY  DI86  BACK DOOR O  TK06MM-1V		WRR TO		Ν
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Wiring Diagram - BACK DOOR OPENER CONTROL SYSTEM -

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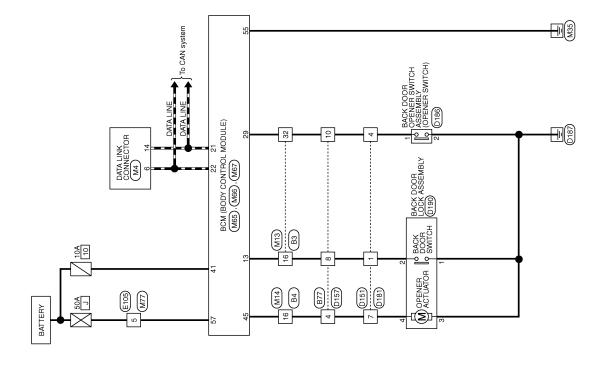
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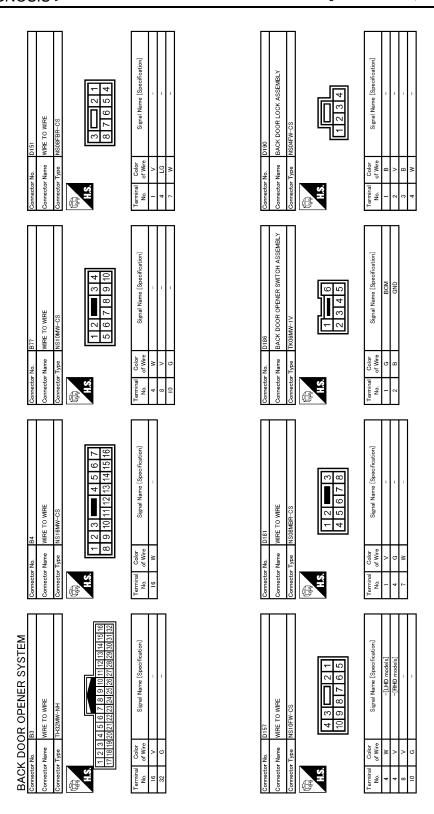
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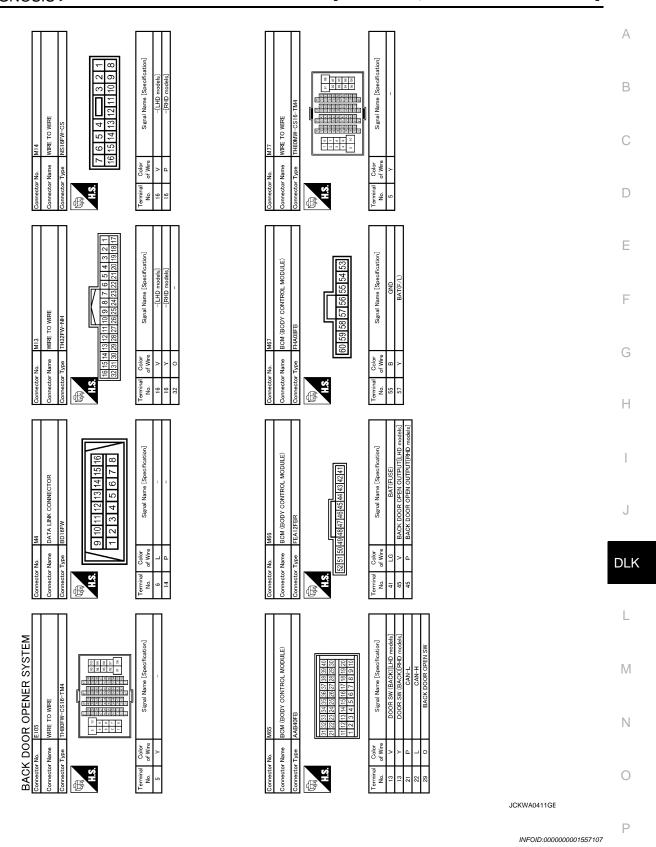
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BACK DOOR OPENER SYSTEM

JCKWA0409GE



JCKWA0410GE



Fail Safe

### FAIL-SAFE CONTROL BY DTC

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

### < ECU DIAGNOSIS >

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2195: ANTI SCANNING	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2196: DONGLE NG	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

#### Condition of cancellation

- 1. Turn ignition switch OFF.
- 2. Pass more than 1 minute after the rear wiper stop.
- 3. Turn ignition switch ON.
- 4. Operate the rear wiper switch.

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while activating the hazard warning lamp.

#### FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

#### Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

## DTC Inspection Priority Chart

INFOID:0000000001557108

Priority	DTC
1	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)
2	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERNCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2194: DISCORD BCM-I-KEY</li> <li>B2195: ANTI SCANNING</li> <li>B2196: DONGLE NG</li> </ul>

## **BCM (BODY CONTROL MODULE)**

[WITH I-KEY, WITHOUT SUPER LOCK]

### < ECU DIAGNOSIS >

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

DTC	TI	IME	Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	_	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	_	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	With Intelligent Key system: <u>SEC-41</u> Without Intelligent Key system: <u>SEC-254</u>
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	With Intelligent Key system: <u>SEC-43</u> Without Intelligent Key system: <u>SEC-256</u>
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-38</u> Without Intelligent Key system: <u>SEC-251</u>
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-40</u> Without Intelligent Key system: <u>SEC-253</u>
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	<u>SEC-53</u>
B2195: ANTI SCANNING	CRNT	PAST	×	With Intelligent Key system: <u>SEC-54</u> Without Intelligent Key system: <u>SEC-264</u>
B2196: DONGLE NG	CRNT	PAST	×	With Intelligent Key system: <u>SEC-55</u> Without Intelligent Key system: <u>SEC-265</u>

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## **SYMPTOM DIAGNOSIS**

## DOOR LOCK

Symptom Table

INFOID:0000000001515567

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

NO.	Function	Operation condition	Symptom	Diagnostic Item	Reference page
1 unlock		Press door lock and unlock switch.		All doors	DLK-214
	Door lock and			Driver side	DLK-215
	unlock switch		Door does not lock/unlock	Passenger side	DLK-215
	function			Rear LH	DLK-216
				Rear RH	DLK-216
2	Intelligent Key function		Door does not lock/unlock	_	DLK-217
		Press Intelligent Key button.	Anti-hijack function does not operate	_	DLK-218
3	Door request switch function	Press driver side door request switch.		_	DLK-219
		Press passenger side door request switch.	Door does not lock/unlock	_	DLK-219
		Press back door request switch.		_	DLK-220
		Press driver side door request switch, when all doors are locked.	Anti-hijack function does not	Driver side door	DLK-222
		Press passenger side door request switch, when all doors are locked.	operate	Passenger side door	DLK-222
4	Key reminder function	Lock all doors with door lock and unlock switch, when Intelligent Key is inside of the vehicle.	Key reminder function does not operate	_	DLK-224
5	Auto door lock function	Unlock all doors and wait more than 2 minutes.	Auto door lock operation does not operate	_	DLK-225
6	Vehicle speed sensing auto door lock func- tion	Vehicle speed is more than 25km/h.	Vehicle speed sensing auto door lock operation does not operate	_	DLK-226
7	Back door open- er function	Press back door opener switch.	Back door does not open	_	DLK-227

## [WITH I-KEY, WITHOUT SUPER LOCK]

NO.	Function Operation condition		Symptom	Diagnostic Item	Reference page
		Door is opened under the following condition.  • Ignition knob is OFF or LOCK position.	Ignition knob return forgotten warning does not operate	_	DLK-228
		Driver side door is opened under the following conditions.  Ignition switch is OFF position.  Mechanical key is inserts into ignition key cylinder.	Ignition key warning does not operate	_	DLK-229
		Door is opened under the following condition.		Warning lamp	DLK-230
		Ignition knob is between ACC and OFF position warn sition or ignition knob is pressed in while ignition switch is in LOCK position.  OFF position warn not operate		Buzzoi	DLK-230
		Door is opened under the following conditions and wait more than 5 seconds.  • Engine is running.  • Take Intelligent Key out of the vehicle.		Warning lamp	DLK-231
	Any door open to all door close under the following conditions.	Take away warning does not operate	Intelligent Key warning buzzer	DLK-232	
	<ul> <li>Engine is running.</li> <li>Take Intelligent Key out of the vehicle.</li> </ul> Take away through window Intelligent Key under the following condition and wait more than 30 seconds.		Warning lamp	DLK-232	
			Buzzer (Combination meter)	<u>DLK-233</u>	
3	Warning function	Engine is running.		Warning lamp	DLK-233
		Turn ignition switch ON position, when Intelligent Key battery is low voltage.	Intelligent Key low battery warning does not operate	Warning lamp	DLK-234
	Press door request switch under the following conditions.  Door is opened.  Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserts into ignition key cylinder.  Intelligent Key is inside vehicle.	Door lock operation warning	_	DLK-235	
	Press Intelligent Key button under the following conditions.  • Door is opened.  • Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserts into ignition key cylinder.	chime does not operate	_	DLK-236	
		Press back door opener switch under the following conditions.  Door is locked with door lock and unlock switch.  Speed sensing lock or only driver side is unlocked with anti-hijack function.	Back door open warning does not operate	_	DLK-237
9	Hazard and buzzer reminder	Press door request switch or Intelligent Key button.	Buzzer reminder operation does not operate	_	DLK-238
function	Press door request switch or Intelligent Key button.	Hazard reminder operation does not operate	_	DLK-239	

### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

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

**ALL DOOR** 

ALL DOOR: Description

#### INFOID:0000000001515568

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

### ALL DOOR: Diagnosis Procedure

#### INFOID:0000000001515569

## ${f 1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit.

Refer to <u>DLK-72</u>, "BCM: <u>Diagnosis Procedure</u>" (BCM).

### Is the inspection result normal?

YFS >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK INTELLIGENT KEY BATTERY

#### Check Intelligent Key battery.

Refer to DLK-138, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.check door switch

#### Check door switch.

Refer to <u>DLK-84</u>, "<u>PASSENGER SIDE</u>: <u>Component Function Check</u>" (passenger side).

Refer to DLK-86, "REAR LH: Component Function Check" (rear LH).

Refer to <u>DLK-87</u>, "<u>REAR RH</u>: <u>Component Function Check</u>" (rear RH).

Refer to <u>DLK-89</u>, "BACK DOOR: Component Function Check" (back door).

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4. CHECK INTELLIGENT KEY BATTERY

### Check Intelligent Key battery.

Refer to DLK-138, "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-39, "Intermittent Incident".

>> GO TO 1. NO

#### DRIVER SIDE

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH SYMPTOM DIAGNOSIS > [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS > **DRIVER SIDE: Description** INFOID:0000000001515570 Α NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and В check each symptom. Conditions of Vehicle (Operating Conditions) Except driver side, doors are closed. · Super lock is not in set state. · Passenger side door is not in anti-hijack state. Doors are not locked by Intelligent Key or door request switch. **DRIVER SIDE**: Diagnosis Procedure INFOID:000000000151557: CHECK DOOR LOCK ACTUATOR Check door lock actuator (driver side). Refer to DLK-96, "DRIVER SIDE: Component Function Check". Is the inspection result normal? F YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? Н YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. PASSENGER SIDE PASSENGER SIDE : Description INFOID:0000000001515572 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u> Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. DLK Conditions of Vehicle (Operating Conditions) · Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Doors are not locked by Intelligent Key or door request switch. PASSENGER SIDE: Diagnosis Procedure INFOID:0000000001515573 M 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator (passenger side). Refer to DLK-98, "PASSENGER SIDE: Component Function Check". N Is the inspection result normal? >> GO TO 2. YES NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Р Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. REAR LH

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

**REAR LH: Description** 

INFOID:000000001515574

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- · Super lock is not in set state.
- · Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

## **REAR LH: Diagnosis Procedure**

INFOID:0000000001515575

## CHECK DOOR LOCK ACTUATOR

Check door lock actuator LH.

Refer to DLK-99, "REAR LH: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR RH

## REAR RH: Description

INFOID:0000000001515576

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- · Except driver side, doors are closed.
- Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

## **REAR RH**: Diagnosis Procedure

INFOID:0000000001515577

## 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator RH.

Refer to DLK-100, "REAR RH: 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-39, "Intermittent Incident".

NO >> GO TO 1.

#### DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

NO

>> GO TO 1.

[WITH I-KEY, WITHOUT SUPER LOCK]

#### DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY Α Description INFOID:0000000001515578 NOTE: В Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u> Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Door lock and unlock switch operations are normal. Emergency key is removed from ignition key cylinder. All doors are closed. D Ignition knob is not pressed. No Intelligent keys are inside the vehicle. Diagnosis Procedure Е INFOID:0000000001515579 $oldsymbol{1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Refer to <u>DLK-72</u>, "INTELLIGENT KEY UNIT: <u>Diagnosis Procedure</u>" (Intelligent Key unit). Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK DRIVER SIDE DOOR SWITCH Check drive side door switch. Refer to DLK-83, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK KEY SWITCH Check key switch. Refer to DLK-91, "Component Function Check". DLK Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK IGNITION KNOB SWITCH Check ignition knob switch. Refer to DLK-94, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. N ${f 5.}$ CHECK INTELLIGENT KEY BATTERY Check Intelligent Key battery. Refer to DLK-138, "Component Function Check". Is the inspection result normal? YES >> GO TO 6. Р NO >> Repair or replace the malfunctioning parts. $\mathsf{6}.\mathsf{confirm}$ the operation Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

### ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

### ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

Description INFOID:0000000001515580

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Door lock and unlock switch operations are normal.
- Emergency key is removed from ignition key cylinder.
- All doors are closed.
- Ignition knob is not pressed.
- No Intelligent Keys are inside the vehicle.

### Diagnosis Procedure

INFOID:0000000001515581

### ${f 1}.$ check "selective unlock function" setting in "work support"

Check "SELECTIVE UNLOCK FUNCTION" setting in "Work Support".

Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

>> Set "SELECTIVE UNLOCK FUNCTION" of "Work Support". Refer to DLK-67, "CONSULT-III NO Function (INTELLIGENT KEY)".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH < SYMPTOM DIAGNOSIS > [WITH I-KEY, WITHOUT SUPER LOCK]

#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH Α DRIVER SIDE **DRIVER SIDE**: Description INFOID:0000000001515584 В NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow". · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Intelligent Key operation is normal. D "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III. Emergency key is removed from ignition key cylinder. Ignition switch is in OFF position. No Intelligent Keys are inside the vehicle. DRIVER SIDE: Diagnosis Procedure INFOID:0000000001515585 ${f 1}$ .CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT" F Check "LOCK/UNLOCK BY I-KEY" setting in "Work Support". Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. NO >> Set "LOCK/UNLOCK BY I-KEY" of "Work Support". Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)". 2.CHECK DOOR REQUEST SWITCH Check door request switch. Refer to DLK-77, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK OUTSIDE KEY ANTENNA DLK Check outside key antenna. Refer to DLK-109, "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 M Confirm the operation again. Is the result normal? N YES >> Check Intermittent Incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. PASSENGER SIDE C PASSENGER SIDE : Description INFOID:0000000001515586 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Intelligent Key operation is normal. "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.

• Emergency key is removed from ignition key cylinder.

Ignition switch is in OFF position.

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

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

• No Intelligent Keys are inside the vehicle.

### PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001515587

### 1. CHECK DOOR REQUEST SWITCH

Check door request switch.

Refer to DLK-79, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK OUTSIDE KEY ANTENNA

Check outside key antenna.

Refer to DLK-112, "PASSENGER SIDE: 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-39, "Intermittent Incident".

NO >> GO TO 1.

**BACK DOOR** 

### **BACK DOOR: Description**

INFOID:0000000001515588

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22. "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

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

INFOID:0000000001515589

### 1. CHECK DOOR REQUEST SWITCH

Check back door request switch.

Refer to DLK-81, "BACK DOOR: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK OUTSIDE KEY ANTENNA

Check outside key antenna.

Refer to DLK-115, "BACK DOOR: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

### DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

YES >> Check Intermittent Incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1.

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## ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

## ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001548077

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001548076

### 1. CHECK "SELECTIVE UNLOCK FUNCTION" SETTING IN "WORK SUPPORT"

Check "SELECTIVE UNLOCK FUNCTION" setting in "Work Support".

Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "SELECTIVE UNLOCK FUNCTION" of "Work Support". Refer to <a href="DLK-67">DLK-67</a>, "CONSULT-III Function (INTELLIGENT KEY)".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

#### PASSENGER SIDE

#### PASSENGER SIDE : Description

INFOID:0000000001515590

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

### PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000001515591

### 1. CHECK PASSENGER SIDE ANTI-HIJACK RELAY

Check passenger side anti-hijack relay.

Refer to DLK-129, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

## ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

le	tha	racult	normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### KEY REMINDER FUNCTION DOES NOT OPERATE

Description INFOID:0000000001515592

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Understand the operation when does it work, refer to <u>DLK-37</u>, "<u>KEY REMINDER</u>: <u>System Description</u>".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

### Diagnosis Procedure

INFOID:0000000001515593

### 1. CHECK DOOR SWITCH

#### Check door switch.

Refer to DLK-83, "DRIVER SIDE: Component Function Check". (Driver side)

Refer to DLK-84, "PASSENGER SIDE: Component Function Check". (Passenger side)

Refer to <u>DLK-86</u>, "<u>REAR LH</u>: <u>Component Function Check"</u>. (Rear LH) Refer to <u>DLK-87</u>, "<u>REAR RH</u>: <u>Component Function Check"</u>. (Rear RH)

Refer to DLK-89, "BACK DOOR: Component Function Check". (Back door)

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CHECK INSIDE KEY ANTENNA

#### Check inside key antenna.

Refer to <u>DLK-119</u>, "INSTRUMENT CENTER: Component Function Check". (Instrument center)

Refer to DLK-122, "CONSOLE: Component Function Check". (Console)

Refer to DLK-125, "REAR SEAT : Component Function Check". (Rear seat)

#### 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-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

AUTO DOOR LOCK OPERATION DOES NOT OPERATE Α Description INFOID:0000000001515594 NOTE: В "AUTO RELOCK TIMER" is not OFF when setting on CONSULT-III. • Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow". • Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Understand the operation when does it work, refer to DLK-40, "AUTO DOOR LOCK: System Description". Conditions of Vehicle (Operating Conditions) Request switch operation and door lock and unlock switch operation are normal. D Diagnosis Procedure INFOID:0000000001515595 1. CHECK "AUTO RELOCK TIMER" SETTING IN "WORK SUPPORT" Е Check "AUTO RELOCK TIMER" setting in "Work Support". Refer to <u>DLK-67</u>, "CONSULT-III Function (INTELLIGENT KEY)". F Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Н Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1.

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### VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

### VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-**ATE**

Description INFOID:0000000001515596

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Understand the operation when does it work, refer to DLK-43, "VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

### Diagnosis Procedure

INFOID:0000000001515597

### 1. CHECK VEHICLE SPEED SIGNAL

Check vehicle speed signal.

Refer to DLK-137, "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-39, "Intermittent Incident".

NO >> GO TO 1.

#### **BACK DOOR DOES NOT OPENED**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

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### BACK DOOR DOES NOT OPENED Α Description INFOID:0000000001515598 NOTE: В Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. C Conditions of Vehicle (Operating Conditions) · Door lock function is normal. Vehicle speed is less than 5 km/h (3MPH). All doors are unlocked. D Diagnosis Procedure INFOID:0000000001515599 1. CHECK BACK DOOR OPENER SWITCH Е Check back door opener switch. Refer to DLK-107, "Component Function Check". F Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.check back door opener actuator Check back door opener actuator. Refer to DLK-103, "Component Function Check". Н 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-39, "Intermittent Incident". NO >> GO TO 1. DLK M Ν

### **IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE** [WITH I-KEY, WITHOUT SUPER LOCK]

< SYMPTOM DIAGNOSIS >

### IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE

Description INFOID:0000000001515600

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-54, "System Description".
- · Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000001515601

### 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-133, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

#### IGNITION KEY WARNING DOES NOT OPERATE

Α Description INFOID:0000000001515602 NOTE: В Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow"</u>.

 Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

 Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-54, "System Description".

· Door lock function is normal.

### Diagnosis Procedure

1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-133. "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-39, "Intermittent Incident".

NO >> GO TO 1.

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**DLK-229** 

### OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

## OFF POSITION WARNING DOES NOT OPERATE

### WARNING LAMP

### WARNING LAMP: Description

INFOID:0000000001515604

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-54">DLK-54</a>, "System Description".
- Door lock function is normal.

### WARNING LAMP: Diagnosis Procedure

INFOID:0000000001515605

### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-131, "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-39. "Intermittent Incident".

NO >> GO TO 1.

#### BUZZER (COMBINATION METER)

### BUZZER (COMBINATION METER): Description

INFOID:0000000001515606

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-54">DLK-54</a>, "System Description".
- Door lock function is normal.

### BUZZER (COMBINATION METER) : Diagnosis Procedure

INFOID:0000000001515607

### 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-133, "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-39, "Intermittent Incident".

NO >> GO TO 1.

### TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED)

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

# TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED) WARNING LAMP WARNING LAMP : Description

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-54</u>, "System Description".
- · Door lock function is normal.

### WARNING LAMP: Diagnosis Procedure

1. CHECK KEY WARNING LAMP

Check KEY warning lamp.

Refer to DLK-134, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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## TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE)

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

## TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE)

WARNING LAMP

WARNING LAMP: Description

INFOID:0000000001515612

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-54">DLK-54</a>, "System Description".
- Door lock function is normal.

### WARNING LAMP : Diagnosis Procedure

INFOID:0000000001515613

### 1. CHECK KEY WARNING LAMP

Check KEY warning lamp.

Refer to DLK-134, "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-39, "Intermittent Incident".

NO >> GO TO 1.

#### INTELLIGENT KEY WARNING BUZZER

### INTELLIGENT KEY WARNING BUZZER : Description

INFOID:0000000001515614

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-54">DLK-54</a>, "System Description".
- Door lock function is normal.

### INTELLIGENT KEY WARNING BUZZER : Diagnosis Procedure

INFOID:0000000001515615

### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-131, "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-39, "Intermittent Incident".

NO >> GO TO 1.

#### TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WIN-DOW) [WITH I-KEY, WITHOUT SUPER LOCK] < SYMPTOM DIAGNOSIS > TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WINDOW) WARNING LAMP В WARNING LAMP: Description INFOID:0000000001515618 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) D Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-54, "System Description". Door lock function is normal. Е WARNING LAMP: Diagnosis Procedure INFOID:0000000001515619 1. CHECK KEY WARNING LAMP Check KEY warning lamp. Refer to DLK-134, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. Н 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. BUZZER (COMBINATION METER) BUZZER (COMBINATION METER): Description INFOID:0000000001515620 DLK NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow". · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-54. "System Description". Door lock function is normal. BUZZER (COMBINATION METER): Diagnosis Procedure INFOID:0000000001515621 Ν 1. CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-133, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. Р 2.confirm the operation Confirm the operation again. Is the result normal?

>> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

YES

>> GO TO 1.

NO

### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description INFOID:000000001515622

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-54, "System Description".
- Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000001515623

### 1. CHECK "LOW BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"

Check "LOW BATT OF KEY FOB WARN" setting in "Work Support".

Refer to <u>DLK-67</u>, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "LOW BATT OF KEY FOB WARN" setting in "Work Support". Refer to <a href="DLK-67">DLK-67</a>, "CONSULT-III Function (INTELLIGENT KEY)".

### 2. CHECK INTELLIGENT KEY BATTERY

Check Intelligent Key battery.

Refer to DLK-138, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK KEY WARNING LAMP

Check KEY warning lamp.

Refer to DLK-134, "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-39, "Intermittent Incident".

NO >> GO TO 1.

## DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

## DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

Description INFOID:000000001515626

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-54</u>, "System Description".
- Door lock function is normal.

### Diagnosis Procedure

1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-131, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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### DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH IN-TELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

## DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH INTELLIGENT KEY

Description INFOID:000000001515624

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-54</u>, "System Description".
- Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000001515625

### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-131, "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-39, "Intermittent Incident".

NO >> GO TO 1.

### **BACK DOOR OPEN WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### BACK DOOR OPEN WARNING DOES NOT OPERATE

Description INFOID:0000000001515628 В

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Door lock function and back door opener function is normal.

### Diagnosis Procedure

1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-133, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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### **BUZZER REMINDER OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### BUZZER REMINDER OPERATION DOES NOT OPERATE

Description INFOID:000000001515630

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-22, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK WITH I-KEY LOCK", "ANSWER BACK WITH I-KEY UNLOCK" and "ANSWER BACK FUNCTION" are ON when setting on CONSULT-III.
- Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000001515631

### 1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

Check "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" setting in "Work Support".

Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT". Refer to <u>DLK-67</u>, "<u>CONSULT-III Function</u> (INTELLIGENT KEY)".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

### HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### HAZARD REMINDER OPERATION DOES NOT OPERATE

Description INFOID:000000001515632

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-22, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "HAZARD ANSWER BACK" is ON when setting on CONSULT-III.
- · Door lock function is normal.

### Diagnosis Procedure

1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

Check "HAZARD ANSWER BACK" setting in "Work Support".

Refer to DLK-67, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "Work Support". Refer to <u>DLK-67, "CONSULT-III Function (INTELLIGENT KEY)"</u>.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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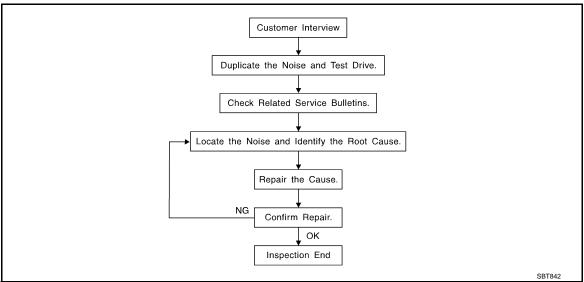
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### SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of the customer's comments; refer to <a href="DLK-244">DLK-244</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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by a test drive 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 bumble bee)
  Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you 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 you confirm the repair.

SQUEAK AND RATTLE TROUBLE DIAGNOSES [WITH I-KEY, WITHOUT SUPER LOCK] < 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: Α 1) Close a door. 2) Tap or push/pull around the area where the noise appears to be coming from. 3) Rev the engine. В 4) Use a floor jack to recreate vehicle "twist". 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on A/T model). 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer. Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs. If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body. LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE D 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Engine Ear or mechanics stethoscope). Е 2. Narrow down the noise to a more specific area and identify the cause of the noise by: removing the components in the area that you suspect the noise is coming from. Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise. tapping or pushing/pulling the component that you suspect is causing the noise. Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily. feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the placing a piece of paper between components that you suspect are causing the noise. Н looking for loose components and contact marks. Refer to DLK-242, "Inspection Procedure". REPAIR THE CAUSE If the cause is a loose component, tighten the component securely. • If the cause is insufficient clearance between components: - separate components by repositioning or loosening and retightening the component, if possible. - insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape are available through your authorized Nissan Parts Department. **CAUTION:** Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE: URETHANE PADS Insulates connectors, harness, etc. INSULATOR (Foam blocks) Insulates components from contact. Can be used to fill space behind a panel. INSULATOR (Light foam block) FELT CLOTHTAPE Used to insulate where movement does not occur. Ideal for instrument panel applications. The following materials, not available through NISSAN Parts Department, can also be used to repair squeaks and rattles. N

UHMW(TEFLON) TAPE

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use 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.

#### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

### Inspection Procedure

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

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 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:**

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

#### 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:

- Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks to repair the noise.

#### **TRUNK**

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner.

In addition look for:

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

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

#### SUNROOF/HEADLINING

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

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

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

#### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY, WITHOUT SUPER LOCK]

#### SEATS

When isolating seat noise it is important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- Headrest rods and holder
- A squeak between the seat pad cushion and frame
- 3. Rear seatback lock and bracket

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. 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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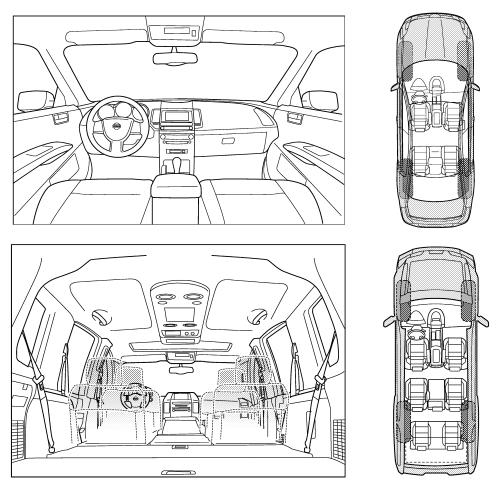
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### Dear Nissan Customer:

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

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

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



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

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### **SQUEAK AND RATTLE TROUBLE DIAGNOSES**

### [WITH I-KEY, WITHOUT SUPER LOCK]

Briefly describe the location where the no	se occurs:		
		_	
II. WHEN DOES IT OCCUR? (please ch	eck the boxes that apply)		
<ul><li>□ anytime</li><li>□ 1st time in the morning</li><li>□ only when it is cold outside</li><li>□ only when it is hot outside</li></ul>	☐ after sitting out in the rain☐ when it is raining or wet☐ dry or dusty conditions☐ other:		
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE		
<ul><li>☐ through driveways</li><li>☐ over rough roads</li><li>☐ over speed bumps</li></ul>	squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor) rattle (like shaking a baby rattle) knock (like a knock at the door) tick (like a clock second hand) thump (heavy, muffled knock noise)		
☐ only about mph ☐ on acceleration ☐ coming to a stop			
☐ on turns: left, right or either (circle) ☐ with passengers or cargo ☐ ather.	☐ buzz (like a bumble bee)		
other:			
☐ after driving miles or mi	nutes		
after driving miles or mi  TO BE COMPLETED BY DEALERSHIP	PERSONNEL	nitials of person performing	
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 I	nitials of person performing	
TO BE COMPLETED BY DEALERSHIP Test Drive Notes:  Vehicle test driven with customer - Noise verified on test drive	YES NO I	performing	
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 I	performing	

### **PRECAUTION**

### **PRECAUTIONS**

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIRBAG" 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 AIRBAG".
- 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.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

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#### NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-TEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

#### **OPERATION PROCEDURE**

1. Connect both battery cables.

#### NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- 3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- 4. Perform the necessary repair operation.
- 5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
- Perform a self-diagnosis check of all control units using CONSULT-III.

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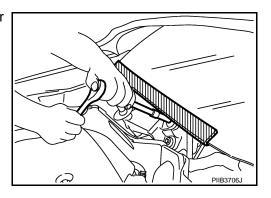
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### Precaution for Procedure without Cowl Top Cover

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**

### **Commercial Service Tools**

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Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Remover tool	PIIB7923J	Remove the clips, pawls, and metal clips
Power tool	PIIB1407E	

### **ON-VEHICLE REPAIR**

**HOOD** 

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 

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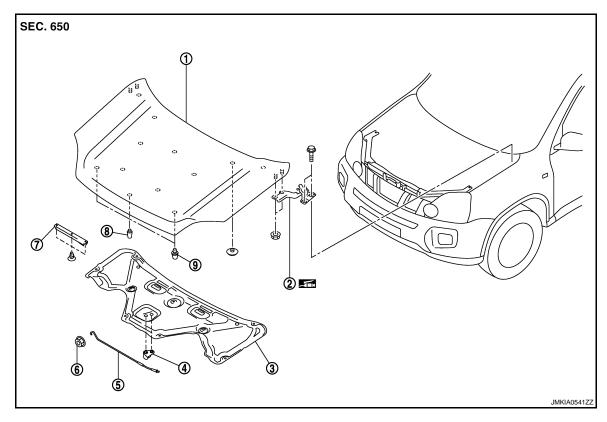
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#### **REMOVAL**



- Hood assembly
- 4. Clamp
- Radiator core seal 7.
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center

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

- Hood insulator 3.
- 6. Grommet
- Hood bumper rubber side

**ADJUSTMENT** 

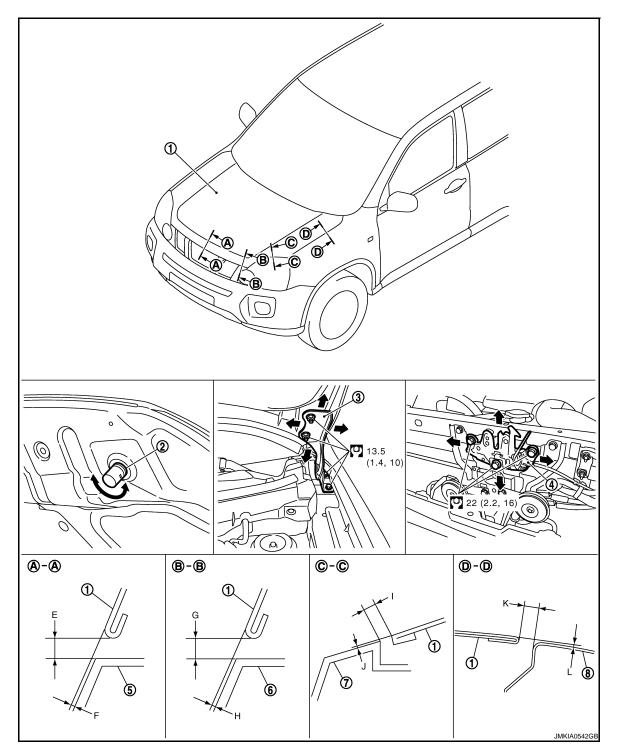
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- 1. Hood assembly
- 4. Hood lock assembly
- 7. Front combination lamp
- 2. Hood bumper rubber side
- 5. Front grille
- 8. Front fender

- 3. Hood hinge
- 6. Front bumper

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

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

#### **REMOVAL**

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

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

2. Remove the hood hinge mounting nuts on the hood to remove the hood assembly.

#### **CAUTION:**

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

- 3. Remove the following parts after removing the hood assembly.
  - Hood insulator
  - Clamp
  - Hood support rod
  - Grommet
  - · Radiator core seal
  - Hood bumper rubber center
  - Hood bumper rubber side

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to <u>DLK-251</u>, "HOOD ASSEMBLY: Adjustment".

### **HOOD ASSEMBLY : Adjustment**

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				mm(in)
Porti	on			Standard
Hood Front grill	<b>A</b> – <b>A</b>	Ε	Clearance	4.0 – 8.0 (0.157 – 0.315)
Hood – Front grill		F	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood Front humner	B – B	G	Clearance	4.0 – 8.0 (0.157 – 0.315)
Hood – Front bumper		Н	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood Front combination lamp	C – C	-	Clearance	1.8 – 6.2 (0.071 – 0.244)
Hood – Front combination lamp		J	Surface height	- 1.3 – 2.7 (- 0.051 – 0.106)
Hood – Front fender	D – D	K	Clearance	2.6 – 4.6 (0.102 – 0.181)
nood – Front lender		L	Surface height	- 1.0 – 1.0 (- 0.039 – 0.039)

- Check the clearance and the surface height between the hood and each part by visually and touching. (Fitting standard dimension in the table below should be satisfied.)
- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- In case any parts are out of specification, adjust them according to the procedures shown below.
- 4. Remove the hood lock and adjust the height by rotating the hood bumper rubber side until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.
- 5. Temporarily tighten the hood lock, and position by engaging it with the hood striker. Check the lock and striker for looseness and adjust the clearance and evenness with the striker to satisfy the specification.
- 6. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately. 200 mm (7.87 in) height or by pressing the hood lightly [approximately. 29 N (3 kg)].

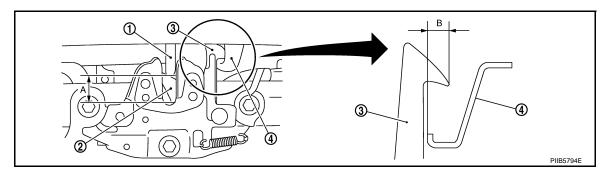
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Hood striker

Primary latch

Secondary striker

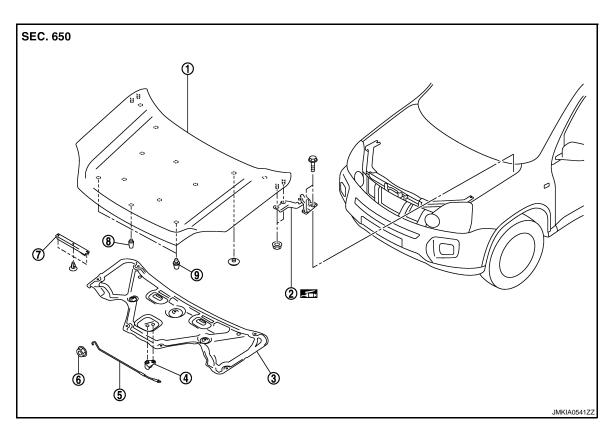
Secondary latch

: 20.0 mm (0.787 in) : 6.8 mm (0.268 in)

7. After adjustment tighten lock bolts to the specified torque.

#### **HOOD HINGE**

**HOOD HINGE: Exploded View** 



- Hood assembly
- 4. Clamp
- Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center
- Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

**HOOD HINGE: Removal and Installation** 

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

**REMOVAL** 

- Remove the hood assembly. Refer to <u>DLK-250</u>, "HOOD ASSEMBLY: Removal and Installation".
- Remove the front fender. Refer to <u>DLK-258</u>, "Removal and Installation".
- Remove the hood hinge mounting bolts, and then remove the hood hinge.

#### INSTALLATION

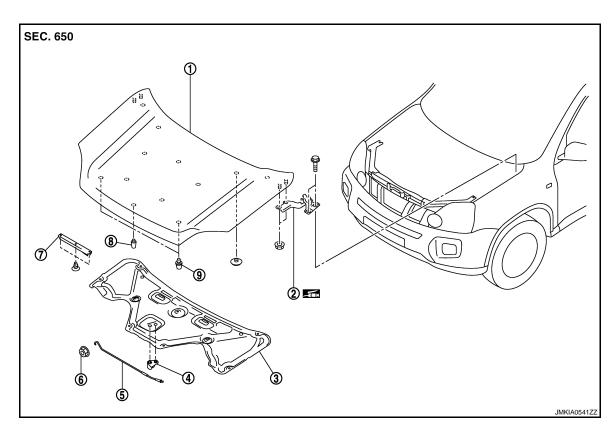
Install in the reverse order of removal.

### **CAUTION:**

- Before installation of hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts
- After installation, perform hood fitting adjustment. Refer to DLK-251, "HOOD ASSEMBLY: Adjustment".

# HOOD SUPPORT ROD

# **HOOD SUPPORT ROD:** Exploded View



- Hood assembly
- 4. Clamp
- Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center
- Hood insulator 3.
- 6. Gromet
- Hood bumper rubber side 9.

# HOOD SUPPORT ROD: Removal and Installation

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

# **WARNING:**

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

Remove the hood support rod from the grommet.

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

### INSTALLATION

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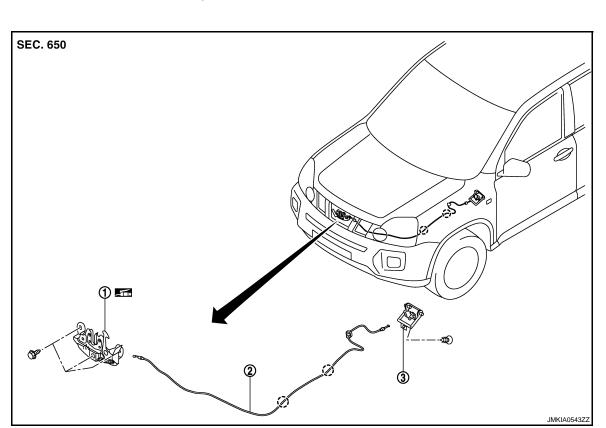
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Install in the reverse order of removal.

HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 



- 1. Hood lock assembly
- 2. Hood lock control cable
- 3. Hood lock opener



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

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

**REMOVAL** 

- 1. Remove the hood lock opener mounting bolts, and then remove the hood lock opener.
- 2. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 3. Remove the fender protector. Refer to EXT-21, "Removal and Installation".
- 4. Remove the hood lock mounting bolts, and then remove the hood lock.
- 5. Disconnect the hood lock cable from hood lock, and clip it from the hoodledge.
- Remove the grommet on the dash lower panel, and pull the hood lock control cable toward the passenger compartment.

#### **CAUTION:**

While pulling, do not to damage (peeling) the outside of the hood lock control cable.

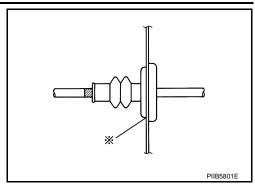
### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

• Do not to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.

Check that the cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \*mark) properly.



Check that the hood lock control cable is properly engaged with the hood lock.

After installation, perform hood fitting adjustment. Refer to <u>DLK-251, "HOOD ASSEMBLY: Adjust-ment"</u>.

After installation, perform the hood lock control inspection. Refer to <u>DLK-255</u>, "HOOD LOCK CONTROL: Inspection".

# **HOOD LOCK CONTROL**: Inspection

#### NOTE:

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

- 1. Check that the secondary latch is properly engaged with the secondary striker [6.8 mm (0.268 in) shown in the figure] by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20.0 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is condition 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:
  - Exert vertical force on right side and left side of hood lock.
  - Do not press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to the hood lock.

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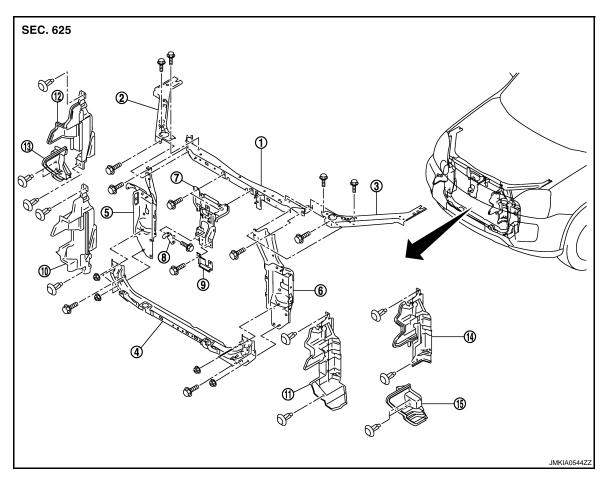
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# RADIATOR CORE SUPPORT

Exploded View



- Radiator core support upper center
- 4. Radiator core support lower
- 7. Hood lock support stay assembly
- 10. Air guide RH
- 13. Air guide lower RH (M9R model)
- 2. Radiator core support upper RH
- 5. Radiator core support side RH
- 8. Front bumper fascia center bracket
- 11. Air guide LH
- 14. Air guide upper LH (M9R model)
- 3. Radiator core support upper LH
- 6. Radiator core support side LH
- 9. Sensor bracket
- 12. Air guide upper RH (M9R model)
- 15. Air guide lower LH (M9R model)

### Removal and Installation

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### **REMOVAL**

- Remove the front bumper fascia and the energy absorber. Refer to <u>EXT-13, "Removal and Installation"</u>.
- 2. Remove the bumper reinforcement. Refer to <a href="EXT-13">EXT-13</a>, "Removal and Installation".
- 3. Disconnect the liquid tank connector. Refer to HA-66, "Exploded View".
- 4. Remove the front combination lamp. Refer to <u>EXL-213, "Removal and Installation"</u> (XENON TYPE), <u>EXL-409, "Removal and Installation"</u> (HALOGEN TYPE).
- 5. Remove the washer tank. Refer to WW-104, "Removal and Installation".
- 6. Remove the air inlet hose (LH) and air inlet tube (LH). Refer to EM-266, "Exploded View" (M9R model).
- 7. Remove the charge air cooler. Refer to EM-266, "Removal and Installation" (M9R model).
- Disconnect the hood lock control cable clamp, and then remove the hood lock assembly. Refer to <u>DLK-254</u>, "HOOD LOCK CONTROL: Removal and Installation".
- 9. Remove the air guide mounting clips, and remove the air guide (LH/RH).
- 10. Remove the horn. Refer to HRN-6, "Removal and Installation".

# RADIATOR CORE SUPPORT

# < ON-VEHICLE REPAIR >

[WITH I-KEY, WITHOUT SUPER LOCK]

- 11. Remove the Intelligent Key warning buzzer (with Intelligent Key systems). Refer to <u>DLK-298</u>, "Removal and Installation".
- 12. Disconnect the harness clips from the hood lock stay.
- 13. Remove the hood lock stay mounting bolts, and then remove the hood lock stay.
- 14. Remove the crush zone sensor. Refer to SR-15, "Removal and Installation".
- 15. Place securely the hood support rod inside the engine mounting bracket hole. CAUTION:

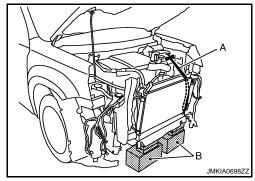
Check that the hood is securely fix.

- 16. Remove the radiator core support upper side (RH,LH) mounting bolts, and remove the radiator core support side (RH,LH).
- 17. Remove the radiator core support upper center mounting bolts, and remove the radiator core support upper center.
- 18. Disconnect the harness clamp from radiator core support side (LH).
- 19. Remove the radiator core support lower assembly mounting bolts.
- 20. Remove the radiator core support lower assembly while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.
  CAUTION:

Operate with two workers, because of its heavy weight.

21. Put some wooden blocks (B) under the radiator and condenser, and use a rope (A) to suspend it to prevent it from falling. CAUTION:

Operate with two workers, because of its heavy weight.



22. Remove the radiator core support side (RH,LH) mounting nuts, and remove the radiator core support side (RH,LH) from radiator core support lower.

### INSTALLATION

Install in the reverse order of removal.

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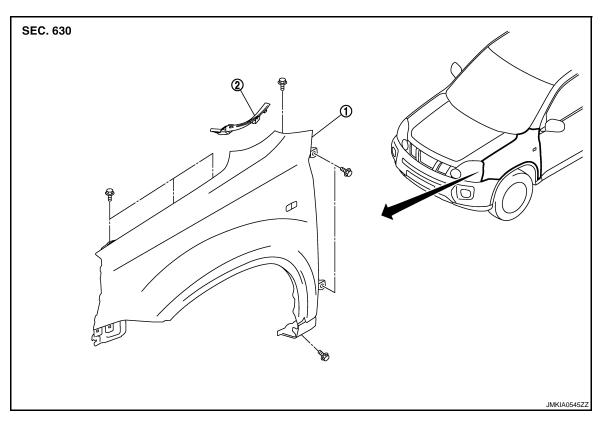
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# FRONT FENDER

Exploded View



1. Front fender

2. Front fender finisher

# Removal and Installation

INFOID:0000000001280635

### **REMOVAL**

- 1. Remove the fillet molding. Refer to EXT-24, "Removal and Installation".
- 2. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 3. Remove the front bumper fascia. Refer to EXT-13, "Removal and Installation".
- Remove the front combination lamp. Refer to <u>EXL-213</u>, "<u>Removal and Installation</u>" (XENON TYPE), <u>EXL-409</u>, "<u>Removal and Installation</u>" (HALOGEN TYPE).
- 5. Remove the inner fender protector. Refer to EXT-21, "Removal and Installation".
- 6. Remove the front fender finisher.
- 7. Remove the side turn signal lamp. Refer to EXL-222, "Removal and Installation".
- 8. Remove the mounting bolts and remove the front fender. **CAUTION:**

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

# **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- After installation, check the front fender adjustment. Refer to <u>DLK-251, "HOOD ASSEMBLY: Adjustment"</u> and <u>DLK-261, "DOOR ASSEMBLY: Adjustment"</u>.
- After installation, apply the touch-up paint (the body color) onto the head of the front fender mounting bolts.

# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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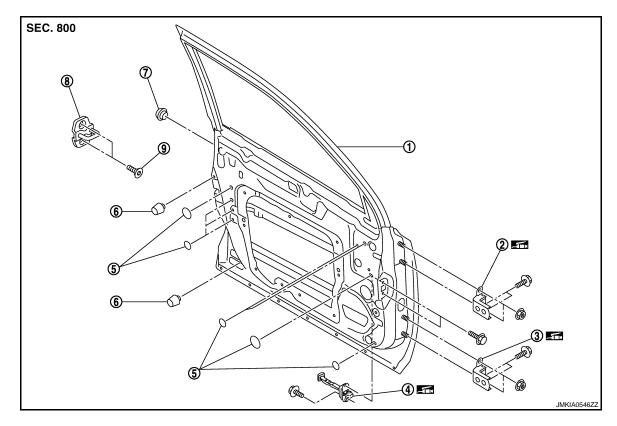
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# **REMOVAL**



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# **ADJUSTMENT**

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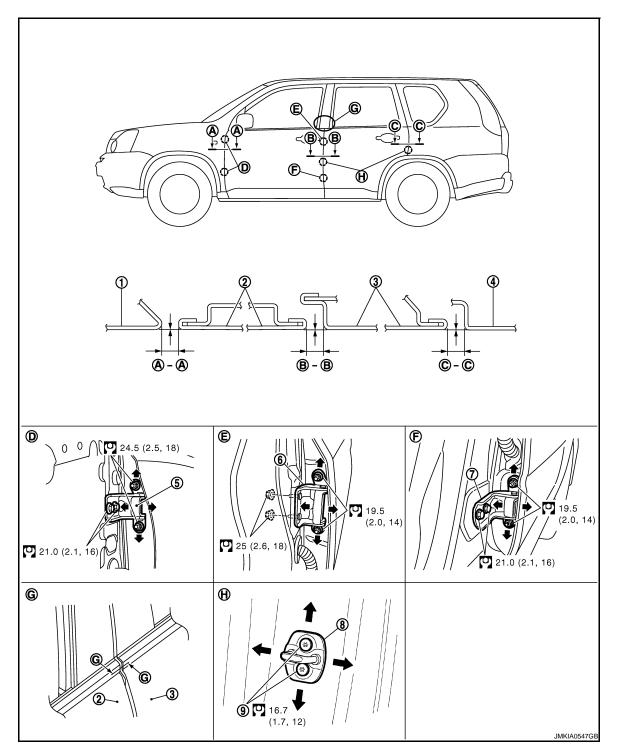
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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (lower)
- 2. Front door
- 5. Front door hinge
- 8. Door striker

- 3. Rear door
- 6. Rear door hinge (upper)

INFOID:0000000001280637

9. TORX bolt

# DOOR ASSEMBLY: Removal and Installation

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

### DOOR ASSEMBLT. Removal and installation

### **CAUTION:**

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

# FRONT DOOR

### < ON-VEHICLE REPAIR >

### [WITH I-KEY, WITHOUT SUPER LOCK]

### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-261</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR ASSEMBLY : Adjustment

CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

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Portion		Clearance	Surface height	
Front fender – Front door	<b>A</b> – <b>A</b>	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)	
Front door – Rear door	B – B	3.5 - 5.5 (0.138 - 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)	
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	- 1.0 – 1.0 (- 0.039 – 0.039)	

- 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 shall be satisfied.)
- In case any parts are out of specification, adjust them according to the procedures shown below.
- Remove the front fender. Refer to refer to <u>DLK-258</u>, "<u>Removal and Installation</u>".
- Loosen the door hinge mounting nuts on door side.
- Adjust the surface height and surface mismatch of the front door according to the fitting standard dimension.
- 6. Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the door hinge mounting bolts on body side.
- 8. 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 refer to <a href="DLK-258">DLK-258</a>, "Removal and Installation".

### **CAUTION:**

After installation, check the front fender adjustment. Refer to <a href="DLK-261">DLK-261</a>, "DOOR ASSEMBLY : <a href="Adjustment"</a>.

### DOOR STRIKER ADJUSTMENT

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

### DOOR STRIKER

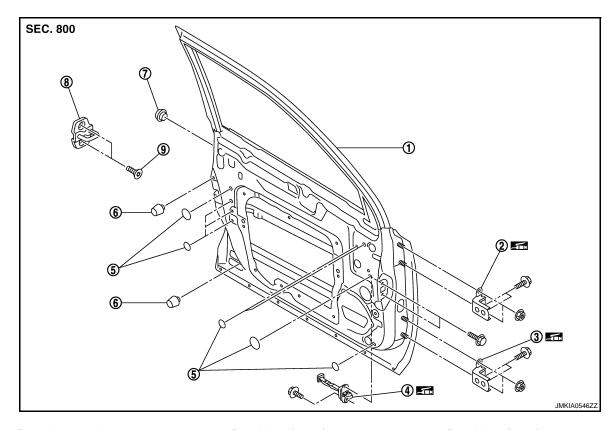
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# DOOR STRIKER: Exploded View

INFOID:0000000001280639



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001280640

### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-261, "DOOR ASSEMBLY: Adjustment"</u>.

# **DOOR HINGE**

DOOR HINGE: Exploded View

INFOID:0000000001298151

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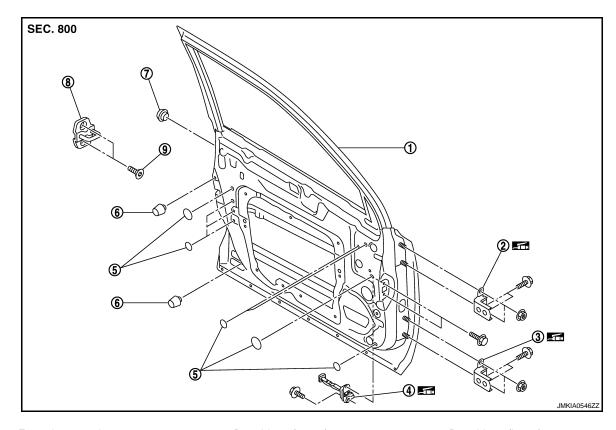
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001280642

# **REMOVAL**

- 1. Remove the front door assembly. Refer to <a href="DLK-260">DLK-260</a>, "DOOR ASSEMBLY: Removal and Installation".
- Remove the door hinge mounting bolts, and then remove the front door hinge.

### INSTALLATION

Install in the reverse order of removal.

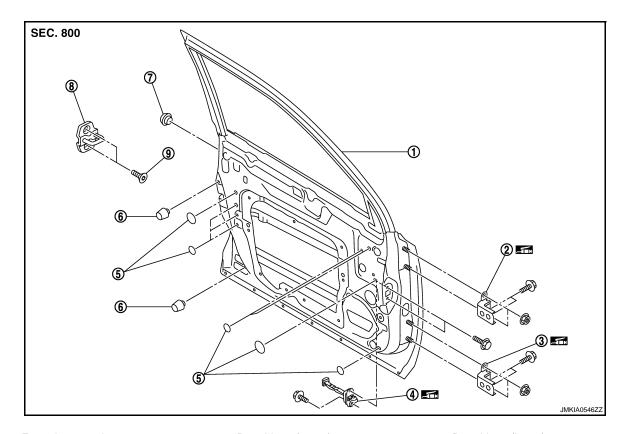
### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-261</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR CHECK LINK

# DOOR CHECK LINK: Exploded View

INFOID:0000000001298152



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001280644

# **REMOVAL**

- 1. Fully close the front door window.
- 2. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 3. Remove the front door speaker. Refer to AV-38, "Removal and Installation".
- 4. Remove the mounting bolts of the door check link on the vehicle.
- 5. Remove the mounting bolts of the door check link on the door panel.
- 6. Take the door check link out from the hole of the door panel.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

Check the front door open/close operation after installation.

# REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

INFOID:0000000001280645

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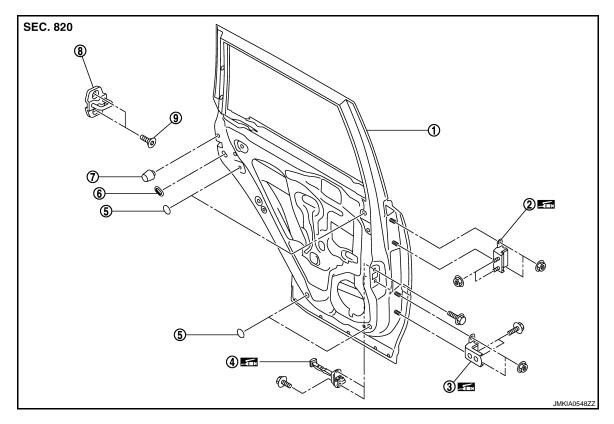
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# **REMOVAL**



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# **ADJUSTMENT**

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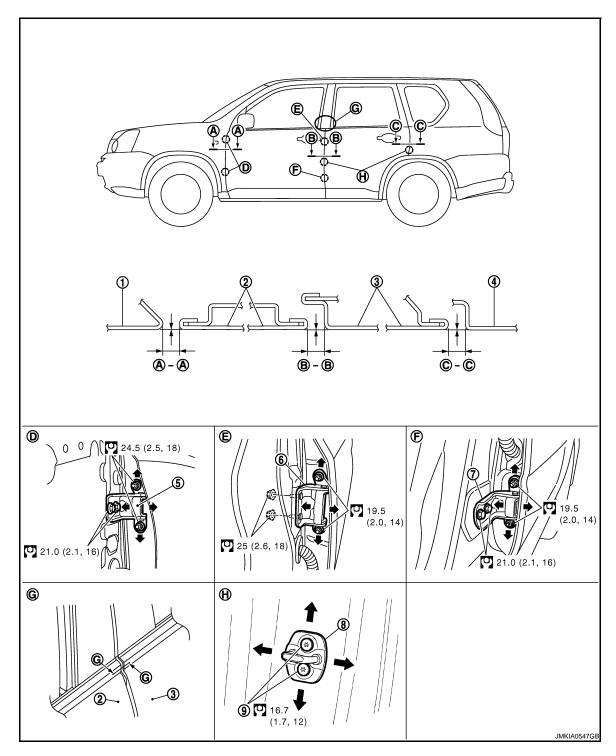
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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (lower)
- 2. Front door
- 5. Front door hinge
- 8. Door striker

- 3. Rear door
- 6. Rear door hinge (upper)

INFOID:0000000001280646

9. TORX bolt

# DOOR ASSEMBLY: Removal and Installation

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

### **CAUTION:**

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

### **REMOVAL**

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

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door lock/unlock operation after installation.
- Check the rear door open/close operation after installation.
- · Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <a href="DLK-267">DLK-267</a>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

DOOR ASSEMBLY : Adjustment

CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

INFOID:0000000001280647

mm(in)

Portion		Clearance	Surface height
Front door – Rear door	B – B	3.5 – 5.5 (0.138 – 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Rear door – Body side outer	C – C	3.5 - 5.5 (0.138 - 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	-1.5 – 1.5 (-0.059 – 0.059)

- 1. Check the clearance and surface height and surface mismatch between the rear door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the center pillar lower garnish. Refer to INT-16, "Removal and Installation".
- 4. Loosen the door 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 door hinge mounting nuts and bolts on body side.
- 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 lower garnish. Refer to INT-16, "Removal and Installation".

### DOOR STRIKER ADJUSTMENT

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

DOOR STRIKER

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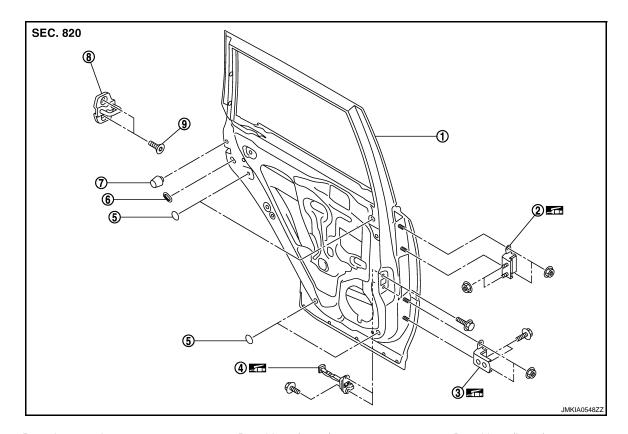
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# DOOR STRIKER: Exploded View

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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker
- Refer to GI-4, "Components" for symbols in the figure.

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

# DOOR STRIKER: Removal and Installation

INFOID:0000000001280649

### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-267, "DOOR ASSEMBLY: Adjustment"</u>.

# **DOOR HINGE**

DOOR HINGE: Exploded View

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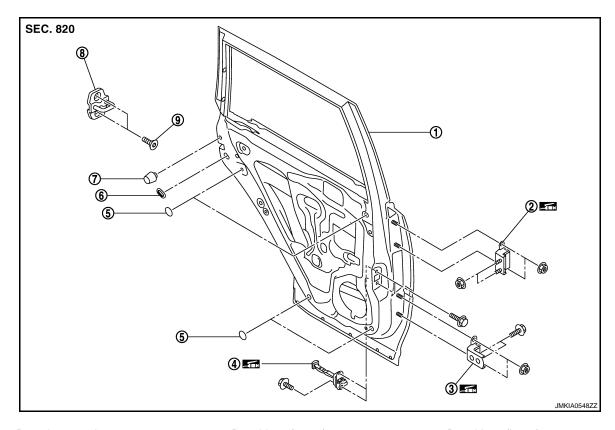
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001280651

# REMOVAL

- Remove the center pillar lower garnish. Refer to <u>INT-16. "Removal and Installation"</u>.
- 2. Remove the rear door assembly. Refer to DLK-266, "DOOR ASSEMBLY: Removal and Installation".
- 3. Remove the rear door hinge mounting bolts and nuts (body side), and then remove the door hinge.

# **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check the rear door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the rear door assembly, perform the fitting adjustment. Refer to <u>DLK-267</u>, "DOOR ASSEMBLY: Adjustment".
- After installing, apply the touch-up paint (the body color) onto the head of the hinge mounting nuts.
   DOOR CHECK LINK

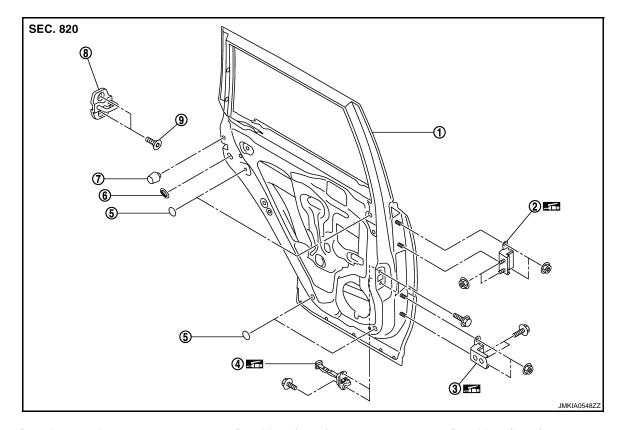
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# DOOR CHECK LINK: Exploded View

INFOID:0000000001298154



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001280653

# **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the rear door speaker.
- 3. Remove the mounting bolts of the check link on the vehicle.
- 4. Remove the door check link mounting bolts on the door panel.
- 5. Remove the door check link.

# **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

Check front door open/close operation after installation.

# BACK DOOR

**BACK DOOR ASSEMBLY** 

BACK DOOR ASSEMBLY: Exploded View

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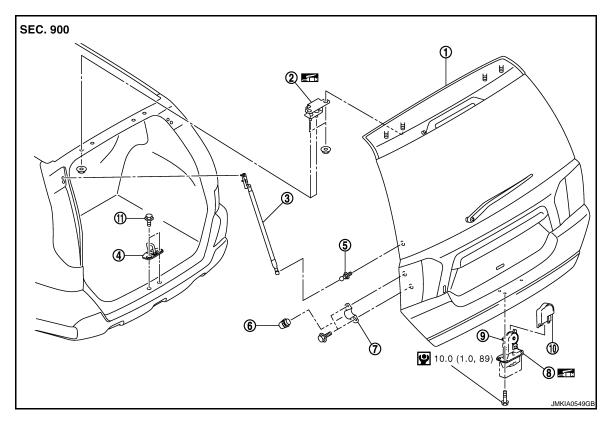
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# **REMOVAL**



- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt
- Refer to GI-4, "Components" for symbols in the figure.

- 3. Back door stay
- 6. Bumper rubber
- 9. Emergency lever

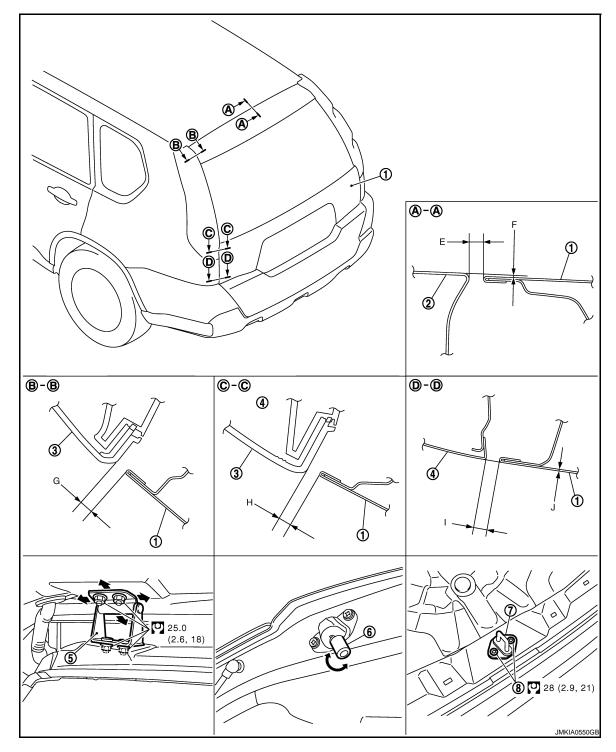
**ADJUSTMENT** 

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- 1. Back door
- 4. Body side outer
- 7. Back door striker
- 2. Roof
- 5. Back door hinge
- 8. TORX bolt

3. Rear combination lamp

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Bumper rubber

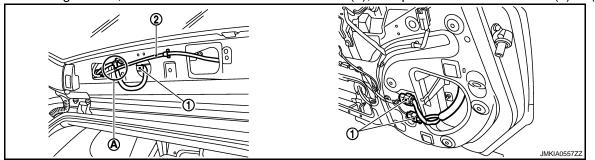
Refer to GI-4, "Components" for symbols in the figure.

# BACK DOOR ASSEMBLY: Removal and Installation

# **REMOVAL**

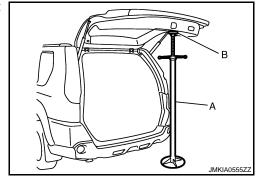
- 1. Remove the back door finisher inner (upper, lower, side LH). Refer to INT-31, "Removal and Installation".
- 2. Disconnect the connectors in the back door, and then remove the grommet, and pull out the harness.

3. Remove the grommet, and then disconnect the connectors (1), and pull out the washer tube (2) at (A).



- 4. Pull the harness out of the back door.
- Support the back door lock with the proper material to prevent it from falling.

A : Jack
B : Shop cloth



- 6. Remove the back door stay bracket mounting bolts on the back door.
- Remove the back door hinge mounting nuts on the back door and remove the back door assembly. CAUTION:

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

### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the back door lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-273, "BACK DOOR ASSEMBLY: Adjust-ment"</u>.

# BACK DOOR ASSEMBLY : Adjustment

				mm(in)
Portion	Standard			
Back door panel – Roof panel	<b>A</b> – <b>A</b>	E	Clearance	5.0 - 7.0 (0.197 - 0.276)
Back door parier - Roor parier		F	Surface height	-0.3 – 1.7 (-0.012 – 0.067)
Back door panel – Rear combination lamp		G	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Rear combination lamp		Н	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Body side outer		I	Clearance	5.0 - 7.0 (0.197 - 0.276)
		J	Surface height	-1.0 – 1.1 (0.039 – 0.043)

### FITTING ADJUSTMENT

- Check the clearance and the evenness between the back door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- In case any parts are out of specification, adjust them according to the procedures shown below.
- Loosen the bumper rubber.
- 4. Loosen the back door striker mounting bolts.

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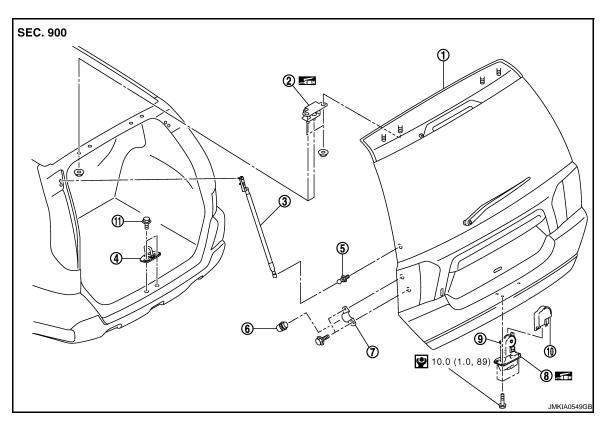
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- Lift up the back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with the back door closed.
- Check the clearance and evenness.
- Finally tighten the back door striker.

# BACK DOOR STRIKER

BACK DOOR STRIKER: Exploded View



- 1. Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

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

- Back door stay
- 6. Bumper rubber
- **Emergency lever**

# BACK DOOR STRIKER: Removal and Installation

### **REMOVAL**

Remove the TORX bolts, and then remove the back door striker.

### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

- Check the back door open/close operation after installation.
- When removing and installing the back door striker, be sure to perform the fitting adjustment. Refer to DLK-273, "BACK DOOR ASSEMBLY : Adjustment".

### BACK DOOR HINGE

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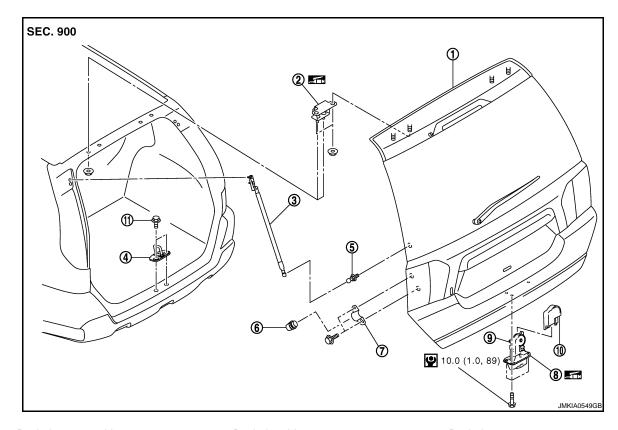
BACK DOOR HINGE: Exploded View

INFOID:0000000001298155

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- Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

3. Back door stay

6. Bumper rubber

Emergency lever

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

# BACK DOOR HINGE: Removal and Installation

INFOID:0000000001280660

# **REMOVAL**

- Remove the back door assembly. Refer to <u>DLK-272, "BACK DOOR ASSEMBLY: Removal and Installation"</u>.
- Remove the back door weather-strip. Refer to <u>DLK-277</u>, "BACK DOOR WEATHER-STRIP: Removal and <u>Installation"</u>.
- 3. Remove the luggage side lower finisher. Refer to <a href="INT-28">INT-28</a>, "Removal and Installation".
- 4. Remove the luggage side upper finisher. Refer to <a href="INT-28">INT-28</a>. "Removal and Installation".
- 5. Using remover tool, remove the headlining clip at the rear side of the headlining. Refer to <a href="INT-22">INT-22</a>, "NOR-MAL ROOF: Exploded View" (NORMAL ROOF), <a href="INT-25">INT-25</a>, "SUNROOF: Exploded View" (SUNROOF).
- 6. Remove the rear side of the headlining.
- 7. Remove the back door hinge mounting nuts (body side), and then remove the back door hinge.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the back door assembly, perform the fitting adjustment. Refer to <u>DLK-273</u>, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.

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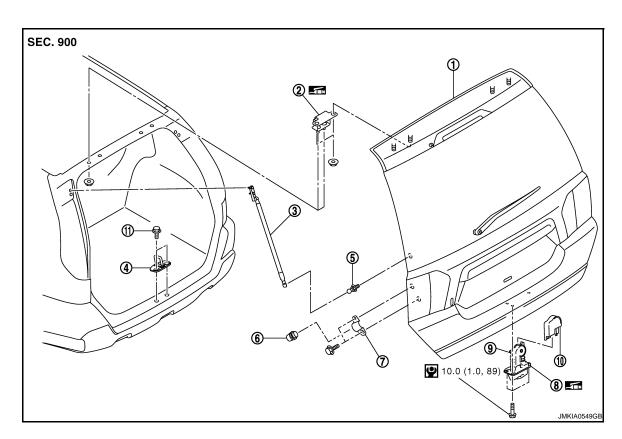
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**DLK-275** 

INFOID:0000000001298156

# **BACK DOOR STAY**

**BACK DOOR STAY: Exploded View** 



- 1. Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)

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

- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- **Emergency lever**

BACK DOOR STAY: Removal and Installation

### **REMOVAL**

- Remove the mounting bolts (body side), and then remove the back door stay bracket.
- Remove the stud ball (back door side), and then remove the back door stay.

# **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

Check the back door open/close operation after installation.

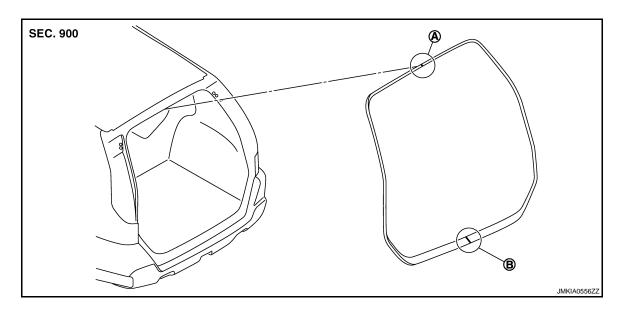
BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP: Exploded View

**REMOVAL** 

INFOID:0000000001280662

INFOID:0000000001280663



- 1. Back door weather-strip
- A. Mark (upper)
- B. Mark (lower)

# BACK DOOR WEATHER-STRIP: Removal and Installation

INFOID:0000000001280664

### **REMOVAL**

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

### **CAUTION:**

After removal, do not pull strongly on the weather-strip.

### INSTALLATION

- 1. Working from the upper section, align the weather-strip mark with vehicle center position mark and install the weather-strip onto the vehicle.
- 2. For the lower section, align the weather-strip seam with center of the back door striker.
- 3. After installation, pull the weather-strip gently to ensure that there is no loose section. **NOTE:**

# Make sure that the weather-strip is fit tightly at each corner and the luggage rear plate.

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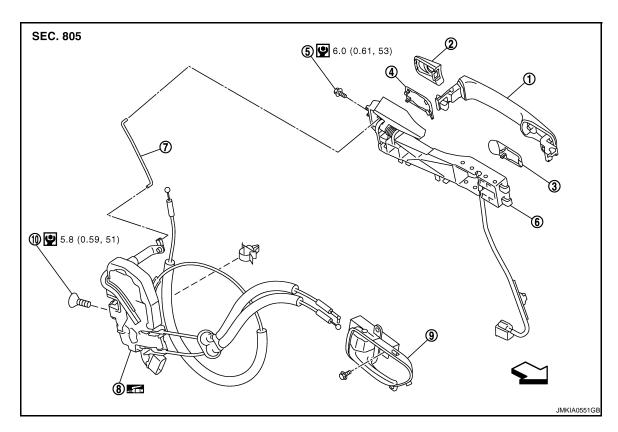
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# FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

INFOID:0000000001280665

INFOID:0000000001280666



- 1. Outside handle assembly
- 2. Door key cylinder assembly (driver side)
  - Outside handle escutcheon (passenger side)

- Rear gasket
- 7. Key rod
- 10. TORX bolt
- :Vehicle front

- 5. TORX bolt
- 8. Door lock assembly

- Front gasket
- 6. Outside handle bracket
- 9. Inside handle

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

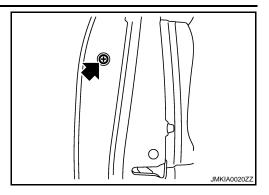
### DOOR LOCK: Removal and Installation

### **REMOVAL**

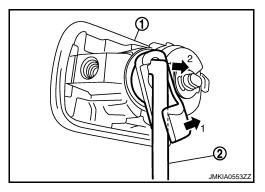
- 1. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- 4. Remove the front door module assembly. Refer to GW-17, "Exploded View".
- 5. Disconnect the door antenna and the door request switch connector and remove the harness clamp (models with Intelligent Key system).

Remove the door side grommet, and loosen the TORX bolt. CAUTION:

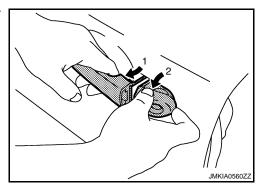
Do not forcibly remove the TORX bolt.



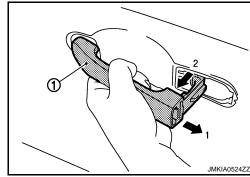
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



8. While pulling the outside handle, remove door key cylinder assembly.



- 9. Disconnect front door request switch harness connector (models with Intelligent Key system).
- 10. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



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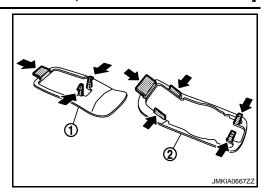
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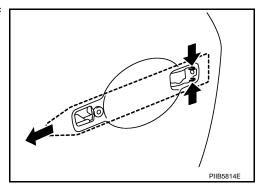
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11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly TORX bolts.
- 15. Disconnect the door lock actuator connector, and then remove the door lock assembly.
- 16. Remove the key rod from door lock assembly.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **INSIDE HANDLE**

# **INSIDE HANDLE: Exploded View**

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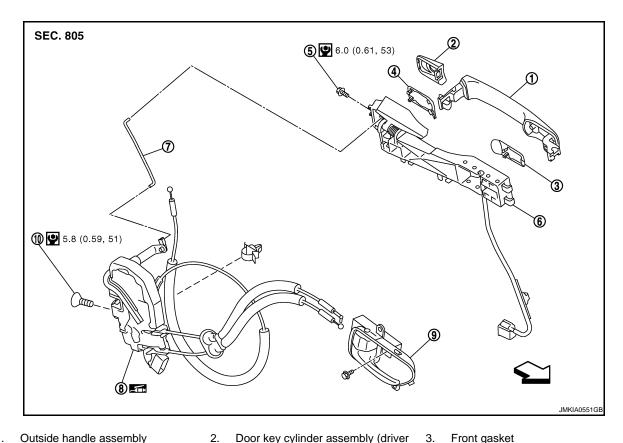
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- Outside handle assembly
- Door key cylinder assembly (driver Outside handle escutcheon (passen-
- ger side) 5. TORX bolt
- Door lock assembly

9.

Outside handle bracket

Inside handle

- 4. Rear gasket
- Key rod 7.
- 10. TORX bolt
- :Vehicle front

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

# **INSIDE HANDLE:** Removal and Installation

INFOID:0000000001280668

# **REMOVAL**

- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Remove the inside handle mounting bolts.
- Disconnect the inside handle knob cable and the lock knob cable, and then remove the inside handle.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **OUTSIDE HANDLE**

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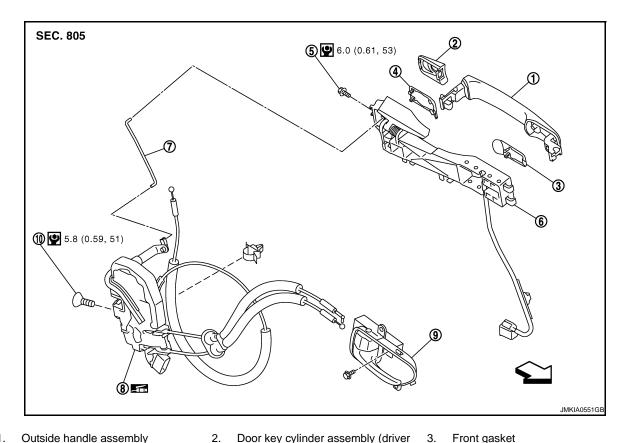
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# **OUTSIDE HANDLE: Exploded View**

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- Outside handle assembly
- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod
- 10. TORX bolt
- < > :Vehicle front

- TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

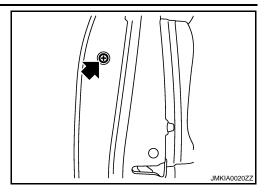
# OUTSIDE HANDLE: Removal and Installation

### **REMOVAL**

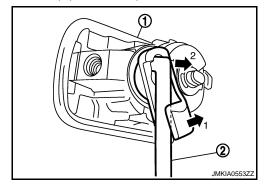
- 1. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- 4. Remove the front door module assembly. Refer to GW-17, "Exploded View".
- 5. Disconnect the connector and remove the harness clamp (models with Intelligent Key system).

Remove the door side grommet, and loosen the TORX bolt. CAUTION:

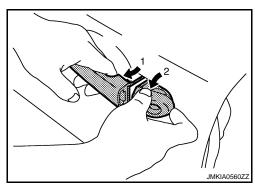
Do not forcibly remove the TORX bolt.



- Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod

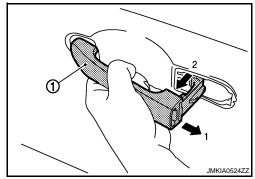


- 8. Disconnect the door key cylinder switch harness connector.
- While pulling the outside handle, remove the door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



10. Disconnect the front door request switch harness connector (models with Intelligent Key system).

11. While pulling the outside handle, slide toward rear of vehicle to remove the outside handle (1).



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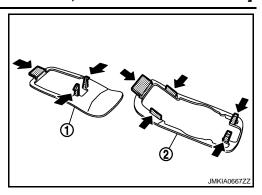
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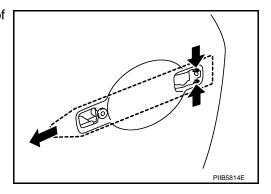
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12. Remove the front gasket (1) and rear gasket (2).



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



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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# REAR DOOR LOCK DOOR LOCK

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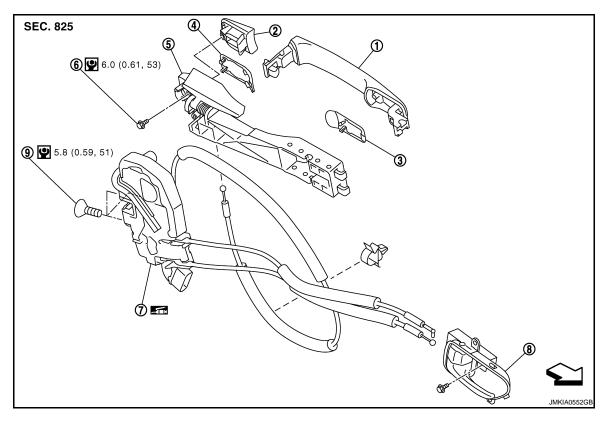
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DOOR LOCK: Exploded View



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- 3. Front gasket
- 6. TORX bolt
- 9. TORX bolt

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

# DOOR LOCK: Removal and Installation

# **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to GW-17, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- Disconnect the door lock actuator connector.

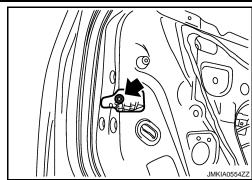
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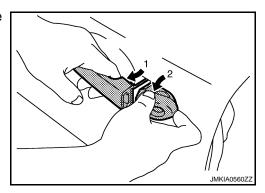
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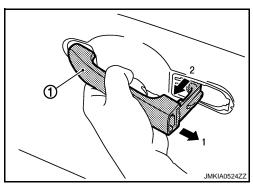
8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



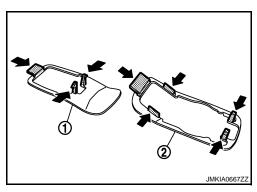
9. While pulling the outside handle, remove the outside handle escutcheon.



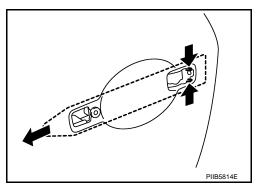
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly.

#### INSTALLATION

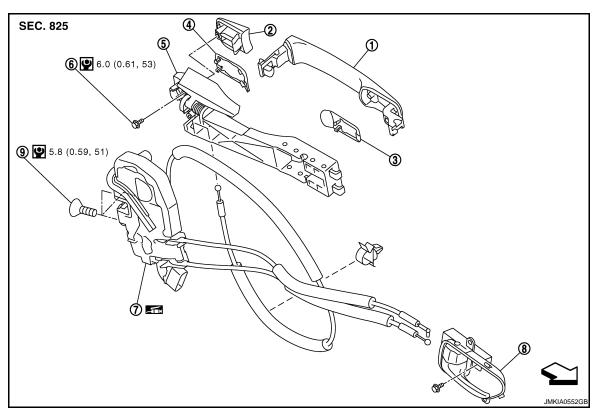
Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# INSIDE HANDLE

# **INSIDE HANDLE: Exploded View**



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

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

# **INSIDE HANDLE: Removal and Installation**

### **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the inside handle mounting screws.
- 3. Disconnect the inside handle knob cable, and then remove the inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### OUTSIDE HANDLE

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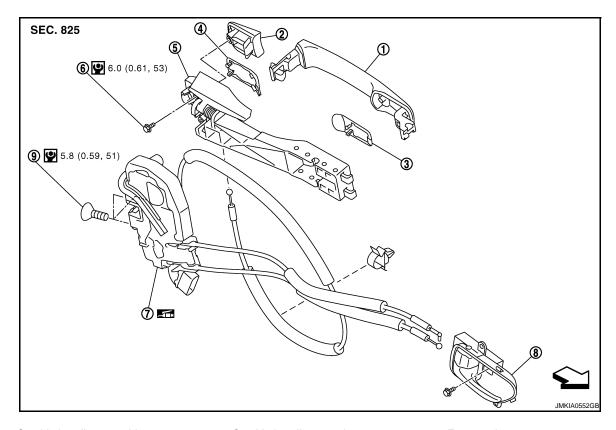
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# **OUTSIDE HANDLE: Exploded View**

INFOID:0000000001298160



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

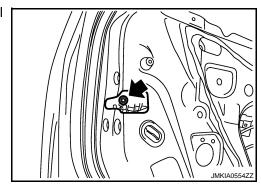
Refer to GI-4, "Components" for symbols in the figure.

# OUTSIDE HANDLE : Removal and Installation

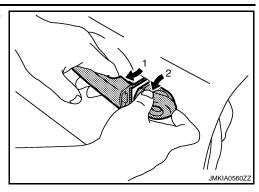
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### **REMOVAL**

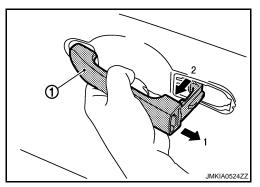
- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to GW-17, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.
- 8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



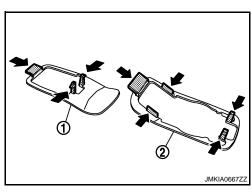
While pulling the outside handle, remove the outside handle escutcheon.



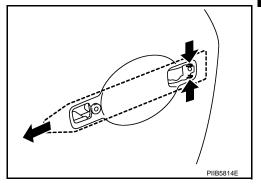
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



13. 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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

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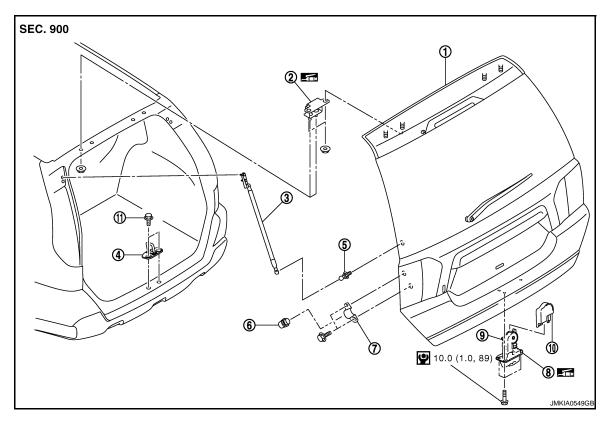
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# BACK DOOR LOCK DOOR LOCK

**DOOR LOCK: Exploded View** 

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- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- 9. Emergency lever

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# DOOR LOCK: Removal and Installation

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

#### **REMOVAL**

- 1. Remove the back door trim finisher lower. Refer to INT-31, "Removal and Installation".
- 2. Disconnect the back door lock assembly and back door opener switch connectors.
- Remove the back door lock mounting bolts, and then remove the back door lock and actuator.

#### **INSTALLTION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door lock/unlock operation after installation.

# **FUEL FILLER LID OPENER**

**FUEL FILLER LID** 

FUEL FILLER LID: Exploded View

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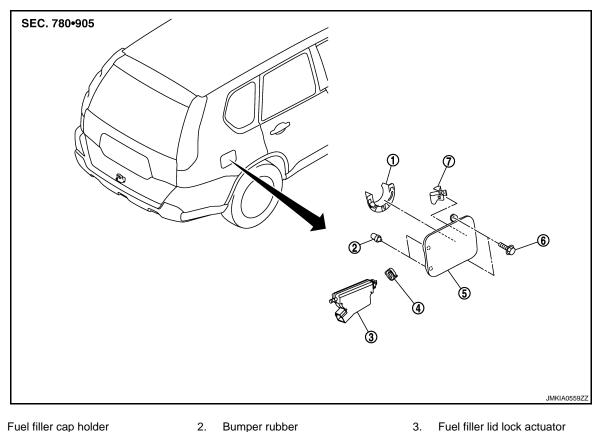
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Fuel filler cap holder

Spring

- Fuel filler lid lock seal 4.
- 2. Bumper rubber
- 5. Fuel filler lid assembly
- 6. TORX bolt

# FUEL FILLER LID: Removal and Installation

**REMOVAL** 

1. Fully open the fuel filler lid.

- 2. Remove the filler cap.
- Remove the TORX bolts, and then remove the fuel filler lid assembly.
- 4. Remove the following parts after removing the fuel filler lid assembly.
  - Fuel filler cap holder
  - Bumper rubber
  - Spring

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the fuel filler lid open/close operation after installation.
- After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

After installation, perform fitting adjustment.

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	Clearance	Evenness
Fuel filler lid— - Body side outer	2.0 - 4.0 (0.079 - 0.157)	-1.0 - 1.0 (-0.039 - 0.039)

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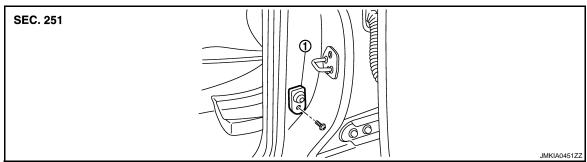
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# **DOOR SWITCH**

# **Exploded View**

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1. Door switch (driver side)

# Removal and Installation

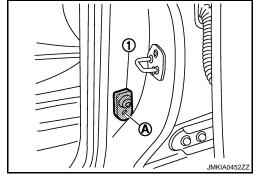
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### **REMOVAL**

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

#### NOTE

The same procedure is also performed for door switch (passenger side, rear LH and rear RH).



# **INSTALLATION**

Install in the reverse order of removal.

# INSIDE KEY ANTENNA INSTRUMENT CENTER

**INSTRUMENT CENTER:** Exploded View

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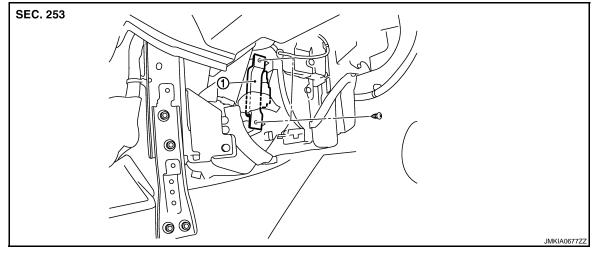
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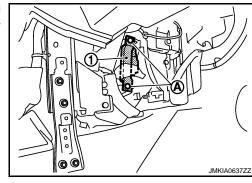
1. Inside key antenna (instrument center)

# **INSTRUMENT CENTER:** Removal and Installation

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### **REMOVAL**

- 1. Instrument lower cover RH. Refer to IP-12, "Removal and Installation".
- 2. Remove the inside key antenna (instrument center) mounting screw (A), and then remove inside key antenna (instrument center) (1).



INSTALLATION
Install in the reverse order of removal.

**CONSOLE** 

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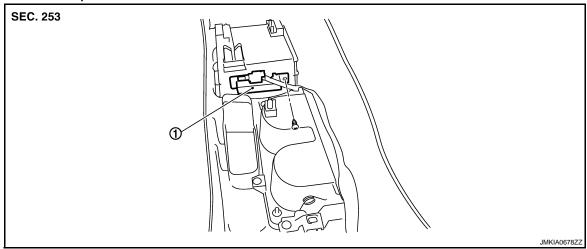
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**CONSOLE**: Exploded View

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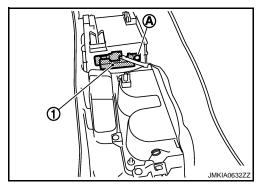
1. Inside key antenna (console)

# **CONSOLE**: Removal and Installation

INFOID:0000000001495980

#### **REMOVAL**

- 1. Remove the center console. Refer to <a href="IP-21">IP-21</a>, "Removal and Installation".
- 2. Remove the inside key antenna mounting screw (A), and then remove inside key antenna (console) (1).



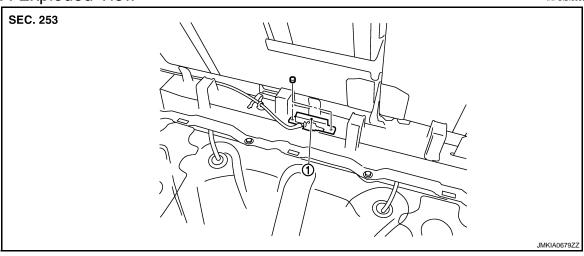
### **INSTALLATION**

Install in the reverse order of removal.

**REAR** 

# **REAR**: Exploded View

INFOID:0000000001495981



1. Inside key antenna (rear seat)

# **INSIDE KEY ANTENNA**

## < ON-VEHICLE REPAIR >

[WITH I-KEY, WITHOUT SUPER LOCK]

# **REAR**: Removal and Installation

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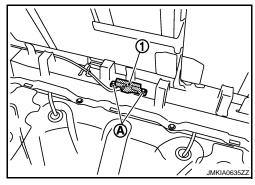
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### **REMOVAL**

- 1. Remove the luggage floor spacer. Refer to <a href="INT-28">INT-28</a>, "Removal and Installation".
- 2. Remove the inside key antenna (rear seat) mounting clips (A), and then remove inside key antenna (rear seat) (1).



### **INSTALLATION**

Install in the reverse order of removal.

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# **OUTSIDE KEY ANTENNA**

**DRIVER SIDE** 

DRIVER SIDE: Exploded View

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Refer to DLK-282, "OUTSIDE HANDLE: Removal and Installation".

DRIVER SIDE: Removal and Installation

INFOID:0000000001495984

#### **REMOVAL**

Remove the front outside handle LH. Refer to <u>DLK-575</u>, "OUTSIDE HANDLE: Removal and Installation".

### INSTALLATION

Install in the reverse order of removal.

PASSENGER SIDE

PASSENGER SIDE: Exploded View

INFOID:0000000001495985

Refer to DLK-282, "OUTSIDE HANDLE: Exploded View".

PASSENGER SIDE: Removal and Installation

INFOID:0000000001495986

#### **REMOVAL**

Remove the front outside handle RH. Refer to <u>DLK-282</u>, "<u>OUTSIDE HANDLE</u>: <u>Removal and Installation</u>".

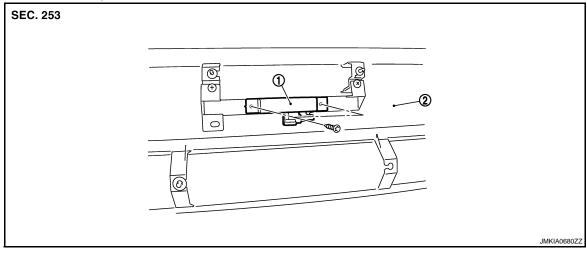
#### INSTALLATION

Install in the reverse order of removal.

**BACK DOOR** 

BACK DOOR: Exploded View

INFOID:0000000001495987



1. Outside key antenna (back door)

2. Back door lower finisher

#### BACK DOOR: Removal and Installation

INFOID:0000000001495988

### **REMOVAL**

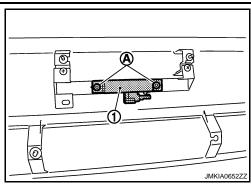
1. Remove the back door lower finisher. Refer to EXT-36, "Removal and Installation".

# **OUTSIDE KEY ANTENNA**

# < ON-VEHICLE REPAIR >

# [WITH I-KEY, WITHOUT SUPER LOCK]

2. Remove the outside key antenna (back door) (1) from back door finisher (2).



### **INSTALLATION**

Install in the reverse order of removal.

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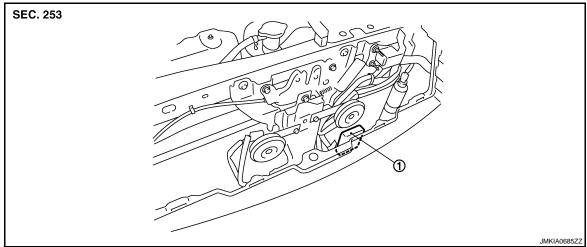
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# INTELLIGENT KEY WARNING BUZZER

# **Exploded View**





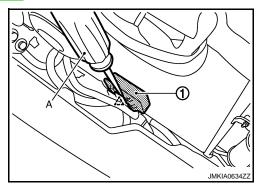
1. Intelligent Key warning buzzer

# Removal and Installation

INFOID:0000000001495990

### **REMOVAL**

- 1. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 2. Remove the Intelligent Key warning buzzer using flat-bladed screw driver (A) etc.



### **INSTALLATION**

Install in the reverse order of removal.

# **BACK DOOR REQUEST SWITCH**

# **Exploded View**

INFOID:0000000001495991

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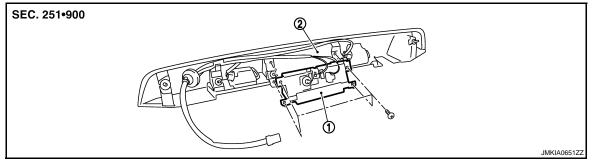
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1. Back door opener switch assembly

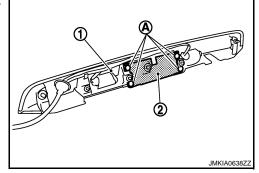
2. Back door finisher

# Removal and Installation

INFOID:0000000001495992

### **REMOVAL**

- 1. Remove the back door finisher. Refer to EXT-34, "Removal and Installation".
- Remove the back door opener switch assembly mounting bolt (A).
- 3. Remove the back door opener switch assembly (2) from back door finisher (1).



# **INSTALLATION**

Install in the reverse order of removal.

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# **BACK DOOR OPENER SWITCH**

< ON-VEHICLE REPAIR >

[WITH I-KEY, WITHOUT SUPER LOCK]

# **BACK DOOR OPENER SWITCH**

Exploded View

Refer to DLK-592, "Exploded View".

Removal and Installation

**REMOVAL** 

Refer to DLK-592, "Removal and Installation".

**INSTALLATION** 

Install in the reverse order of removal.

# INTELLIGENT KEY BATTERY

Exploded View

Refer to DLK-138, "Diagnosis Procedure".

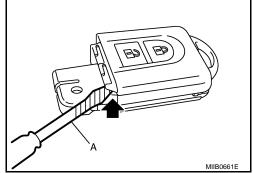
### Removal and Installation

# **REMOVAL**

- 1. Remove Intelligent Key cover.
- Insert a flat-bladed screwdriver (A) wrapped with tape as shown in the illustration and then separate lower and upper cases by twisting screwdriver.

#### **CAUTION:**

- Do not touch the circuit board or battery terminal.
- The Intelligent Key is water-resistant. However, if it does get wet, immediately wipe it dry.



- 3. Remove the circuit board assembly from the upper case (1). [Substrate assembly: circuit board (3) + rubber (2)]
- 4. Gently press the rubber (2) and remove the circuit board (3). CAUTION:

Do not touch the printed circuits directly.

5. Remove the battery (4) from the lower case (5) and replace it.

# Battery replacement : Coin-type lithium battery (CR2032)

#### **CAUTION:**

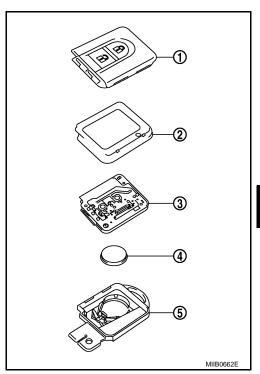
When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.

6. After replacement, assemble the upper and lower cases by engaging the hooks on their circumference while being careful not to pinch the rubber, etc.

### **CAUTION:**

After replacing the battery, check that all Intelligent Key functions work normally.

Refer to DLK-138, "Component Function Check".



#### INSTALLATION

Install in the reverse order of removal.

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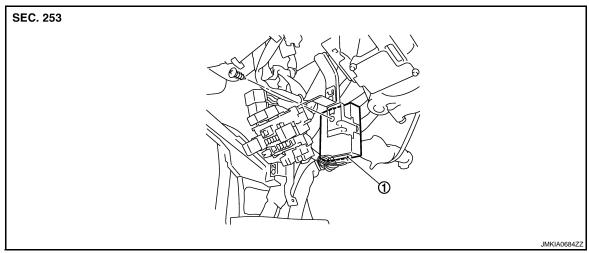
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INFOID:0000000001495996

# **INTELLIGENT KEY UNIT**

# **Exploded View**

INFOID:0000000001495997



1. Intelligent Key unit M40

# Removal and Installation

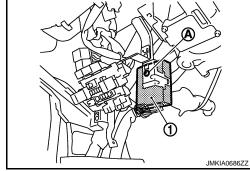
INFOID:0000000001495998

### **REMOVAL**

- 1. Remove lower instrument panel (driver side). Refer to IP-12, "Removal and Installation".
- 2. Remove the Intelligent Key unit mounting screw (A), and then remove Intelligent Key unit (1).

### NOTE:

Perform the system initialization when replacing Intelligent Key unit. Refer to <u>DLK-25</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".



### **INSTALLATION**

Install in the reverse order of removal.

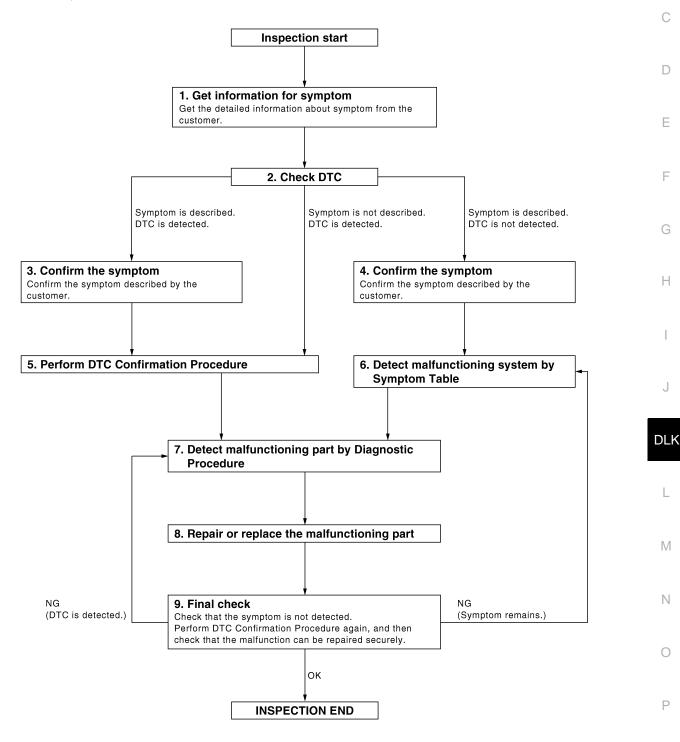
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

**OVERALL SEQUENCE** 



JMKIA0676GB

[WITH I-KEY & SUPER LOCK]

# 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

< BASIC INSPECTION >

# 2.check dtc

- Check DTC for Intelligent Key unit and BCM.
- Perform the following procedure if DTC is displayed.
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- Check related service bulletins for information.

#### Is any symptom described and any DTC detected?

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

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

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

# 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real-time diagnosis results. Verify 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 "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.

# ${f 5}$ .PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. If two or more DTCs are detected, refer to DLK-458, "DTC Inspection Priority Chart" (Intelligent Key unit), DLK-499, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

### Is DTC detected?

YES >> GO TO 7.

>> Refer to GI-39, "Intermittent Incident". NO

# O.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to Symptom Table based on the confirmed symptom in step 4.

>> GO TO 7.

# 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

#### NOTE:

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

>> GO TO 8.

# f 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.
- Check DTC. If DTC is displayed, erase it.

# **DIAGNOSIS AND REPAIR WORKFLOW**

< BASIC INSPECTION >

[WITH I-KEY & SUPER LOCK]

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Α >> GO TO 9. 9. FINAL CHECK When DTC was detected in step 9, perform DTC Confirmation Procedure or Component Function Check В again, and then check that the malfunctions have been fully repaired. When symptom was described by the customer, refer to the confirmed symptom in step 3 or 4, and check that the symptom is not detected. С Are all malfunctions corrected? NO (DTC is detected)>>GO TO 7. NO (Symptom remains)>>GO TO 6. D YES >> INSPECTION END Е Н DLK L M Ν 0

# **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

[WITH I-KEY & SUPER LOCK]

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

NFOID:0000000001280712

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III Operation Manual-NATS.

# **FUNCTION DIAGNOSIS**

# DOOR LOCK FUNCTION

DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH: System Diagram

INFOID:0000000001280714

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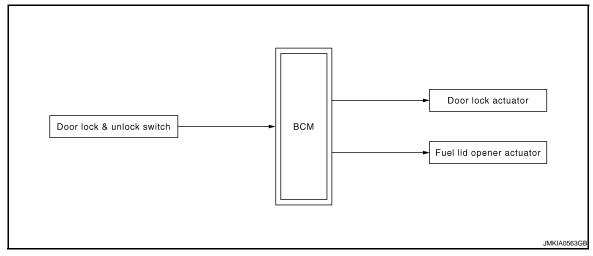
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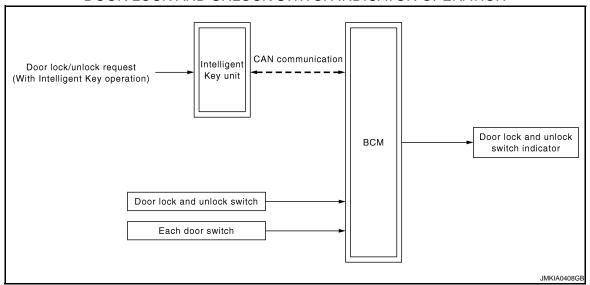
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#### DOOR LOCK AND UNLOCK SWITCH OPERATION



#### DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION



# DOOR LOCK AND UNLOCK SWITCH: System Description

INFOID:0000000001280715

### DOOR LOCK AND UNLOCK SWITCH OPERATION

Functions available by operating the door lock and unlock switch on center console. Interlocked with the lock/unlock operation of door lock and unlock switch, door lock actuators of all doors are locked/unlocked.

#### **Operation Condition**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the door lock and unlock switch is operated.

### < FUNCTION DIAGNOSIS >

Door lock and unlock switch	Operation condition
Lock operation	Following all conditions are satisfied.  • Except driver side doors are closed.  • Doors are not locked with Intelligent Key or door request switch.
Unlock operation	Following all conditions are satisfied.  • Doors are not locked with Intelligent Key or door request switch.

#### NOTE:

When the door lock is locked with Intelligent Key or door request switch (in super lock set state), door lock and unlock switch operation will be invalid until either following condition is satisfied.

- Turn ignition switch ON.
- Unlock with Intelligent key or door request switch.

#### DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION

Door lock and unlock switch indicator indicates door lock status. The indicator turn ON while ignition switch is ON and door lock is locked or super lock is set. If any door is opened, the indicator will be turn OFF. Door lock and unlock switch indicator have the following 2 functions.

#### 1 Minute Timer

A timer must be running to turn OFF the indicator. The timer will running for 1 minute after super lock set or lock with Intelligent Key, door request switch or auto door lock.

#### 30 Minutes Timer

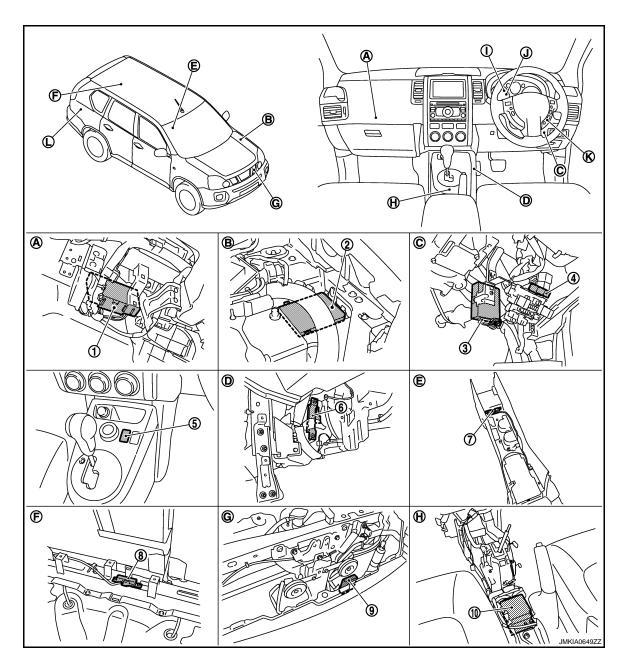
A timer must be running to turn OFF the indicator. The timer will running for 30 minutes after locking with door lock and unlock switch.

#### NOTE:

1 minuite timer condition is satisfied during 30 minutes timer is active, 30 minutes timer is not change to 1 minutes.

# DOOR LOCK AND UNLOCK SWITCH: Component Parts Location

INFOID:0000000001280716



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat)
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- 9. Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed

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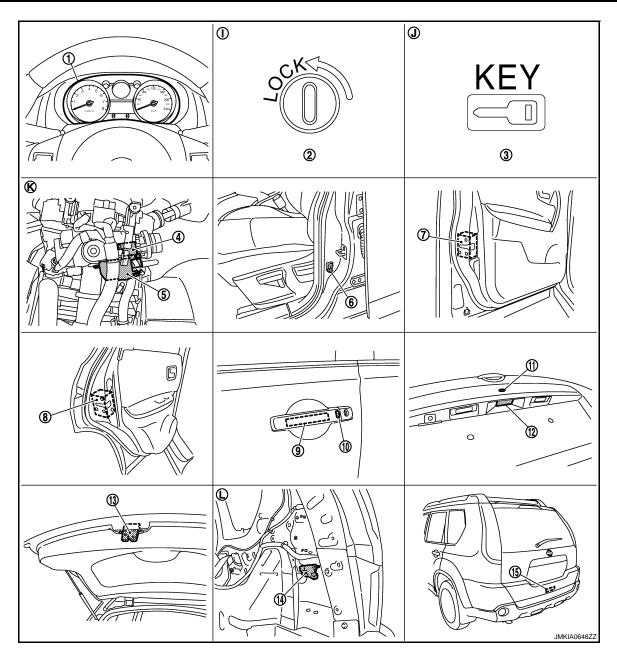
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- 1. Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- 8. Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) **B27**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# DOOR LOCK AND UNLOCK SWITCH: Component Description

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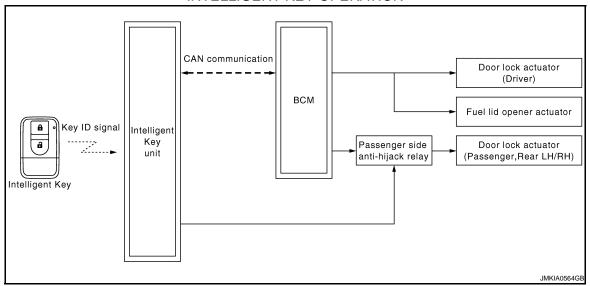
Item	Function
BCM	Controls the door lock function.
Door switch	Detects door state (open or close).
Door lock and unlock switch	Transmits door lock and unlock signal to BCM. Door lock/unlock switch indicator is built-in door lock/unlock switch.
Door lock actuator	Receives door lock/unlock signal from BCM and locks/unlock each door.

# INTELLIGENT KEY

# INTELLIGENT KEY: System Diagram

INFOID:0000000001280718

#### INTELLIGENT KEY OPERATION



# INTELLIGENT KEY: System Description

INFOID:0000000001280719

#### INTELLIGENT KEY OPERATION

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

This function can be set to OFF with CONSULT-III. For the setting information, refer to <u>DLK-349</u>. "CONSULT-III Function (INTELLIGENT KEY)".

#### **OPERATION CONDITION**

Remote controller operation	Operation condition
Lock	<ul> <li>All doors are closed</li> <li>Key switch is OFF (key is removed from ignition key cylinder)</li> <li>Ignition knob switch is OFF (Ignition switch is not pressed)</li> <li>No Intelligent Keys are inside the vehicle.</li> </ul>
Unlock	<ul> <li>Key switch is OFF (key is removed from ignition key cylinder)</li> <li>Ignition knob switch is OFF (Ignition switch is not pressed)</li> </ul>

#### **OPERATION AREA**

To ensure that the Intelligent Key works effectively, use within 100 cm range of each door, however the operable range may differ according to surroundings.

### LOCK AND UNLOCK CONTROL

When door lock and unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmitted from Intelligent Key to Intelligent Key unit.

When Intelligent Key unit receives the door lock and unlock signal, it operates door lock actuator.

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### SUPER LOCK OPERATION

Super lock provides a higher anti-theft performance than a conventional power door lock system. The super lock system is controlled by BCM.

When super lock is set, all doors can not be opened from the inside.

#### ANTI-HIJACK MODE

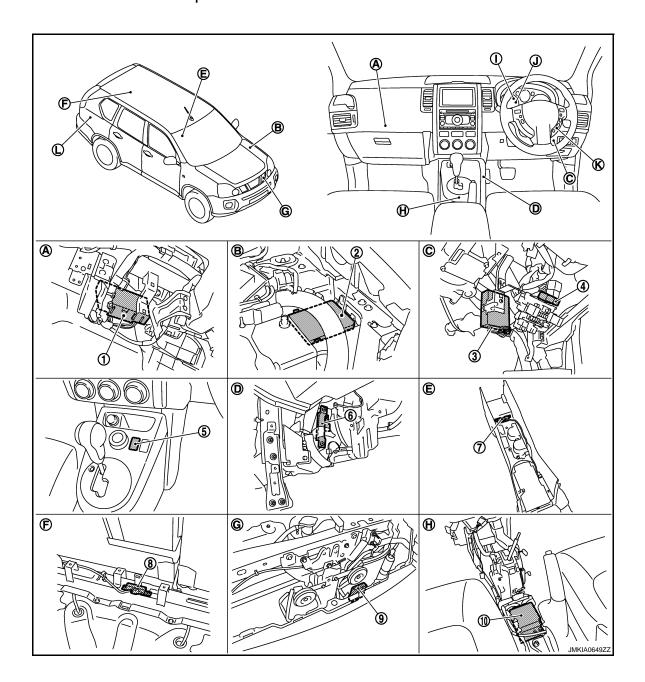
When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock all doors and back door can be opened with back door opener switch.

#### NOTE:

Anti-hijack mode can be set to ON or OFF with CONSULT-III. For the setting information, refer to <u>DLK-625</u>. "MULTIREMOTE ENT: CONSULT-III Function (BCM - MULTIREMOTE ENT)".

# INTELLIGENT KEY: Component Parts Location

INFOID:0000000001393925



# DOOR LOCK FUNCTION

### < FUNCTION DIAGNOSIS >

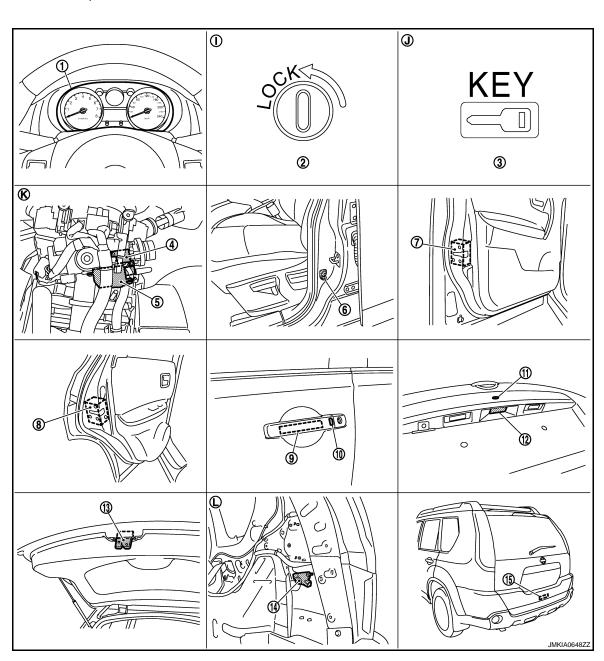
# [WITH I-KEY & SUPER LOCK]

Ί.	BCIVI
	M65, M66, M67

- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit
   M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- Inside key antenna (rear seat)
   B45
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer F25
- C. Over the instrument lower panel (driver side)
- F. View with luggage floor spacer removed



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# DOOR LOCK FUNCTION

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

1.	Combination meter M34	2.	Lock warning lamp M34	3.	Key warning lamp M34
4.	Ignition knob switch, key switch and key lock solenoid (key switch) M25	5.	Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25	6.	Front door switch (passenger side) B27
7.	Front door lock actuator (passenger side) D9	8.	Rear door lock actuator LH D85	9.	Out side key antenna and front door request switch (driver side) D10
10.	Out side key antenna and front door request switch (driver side) D10	11.	Back door opener switch assembly (request switch) D187	12.	Back door opener switch assembly (opener switch) D187
13.	Back door lock assembly D190	14.	Fuel lid opener actuator B58	15.	Out side key antenna (back door) D191
I.	Inside the combination meter	J.	Inside the combination meter	K.	View with steering column cover removed

L. Luggage side lower finisher (RH) removed.

# INTELLIGENT KEY: Component Description

INFOID:0000000001280721

Item	Function
Intelligent Key unit	Controls the door lock/unlock operation with BCM.
BCM	Controls the door lock/unlock operation with Intelligent Key unit.
Door switch	Detects door state (open or close).
Key switch	Detects mechanical key is inserted into ignition key cylinder.
Outside key antenna	Detects Intelligent Key is in detection area of outside key antenna.
Inside key antenna	Detects Intelligent Key is in detection area of inside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when lock/unlock button is pressed.
Passenger side anti-hijack relay	Controls the circuit of door lock actuator (passenger side, rear LH/RH).
Door lock actuator	Receives lock/unlock signal from BCM and lock and unlock each door.
Super lock actuator	Receives super lock set/release signal from BCM and set/release super lock system.

# DOOR REQUEST SWITCH

# DOOR REQUEST SWITCH: System Diagram

INFOID:0000000001280722

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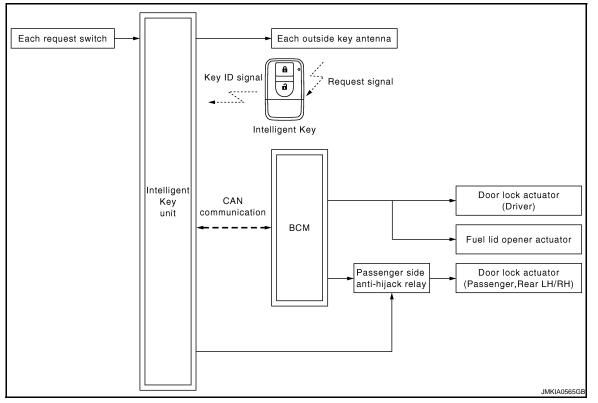
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#### DOOR REQUEST SWITCH OPERATION



# DOOR REQUEST SWITCH: System Description

INFOID:0000000001280723

### DOOR REQUEST SWITCH OPERATION

Only when pressing the request switch, it is possible to lock and unlock the door by carrying the Intelligent Key. The Intelligent Key system is a system that makes it possible to lock and unlock the door by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (Intelligent Key unit).

This function can be set to OFF with CONSULT-III. For the setting information, refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

#### **CAUTION:**

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

#### **OPERATION CONDITION**

If the following conditions are not satisfied, door lock and unlock operation is not performed even if the request switch is operated.

Each request switch operation	Operation condition	
Lock operation	<ul> <li>All doors are closed</li> <li>Key switch is OFF (Key is removed from ignition key cylinder)</li> <li>Ignition knob is OFF or LOCK position</li> <li>No Intelligent Keys are inside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area</li> </ul>	
Unlock Operation	<ul> <li>Key switch is OFF (Key is removed from ignition key cylinder)</li> <li>Ignition knob is OFF or lock position (Ignition switch is not pressed)</li> <li>Intelligent Key is not inside 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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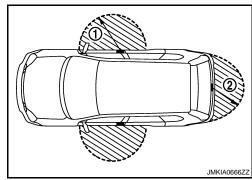
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#### DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

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 and passenger door handles (1) and the back door request switch (2). However, this operating range depends on the ambient conditions.



#### DOOR LOCK AND UNLOCK CONTROL

When the Intelligent Key detects that door request switch is pressed, it starts corresponding with outside key antenna (request switch pressed door). Then, the Intelligent Key is checked to be 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 Intelligent Key unit. Intelligent Key unit receives the key ID signal and compares it with the registered key ID. Intelligent Key unit sends door lock and unlock signal to BCM via CAN communication.

#### SUPER LOCK OPERATION

Super lock provides a higher anti-theft performance than a conventional power door lock system. The super lock system is controlled by BCM and Intelligent Key unit.

When super lock is set, all doors cannot be opened from inside.

#### ANTI-HIJACK MODE

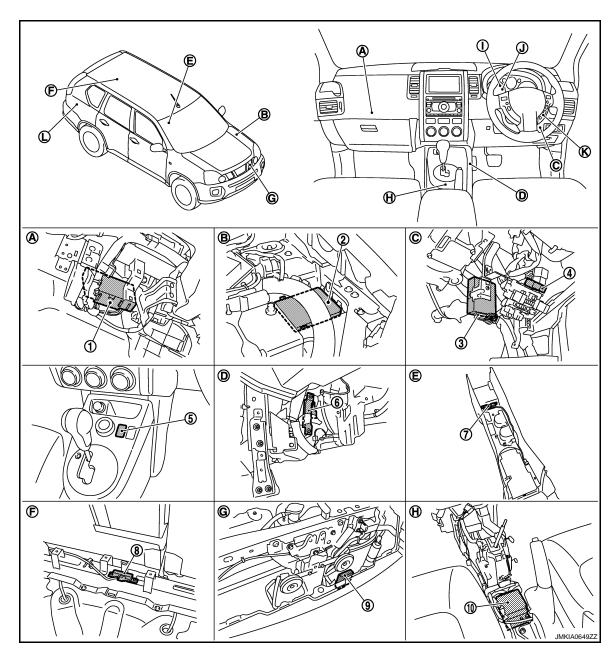
When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock back door only and back door can be opened with back door opener switch. Pressing back door opener switch a second time within 5 seconds will unlock all doors.

### NOTE:

Anti-hijack mode can be set to ON or OFF with CONSULT-III. For the setting information, refer to <u>DLK-349</u>, <u>"CONSULT-III Function (INTELLIGENT KEY)"</u>.

# DOOR REQUEST SWITCH : Component Parts Location

INFOID:0000000001393926



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat)
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed

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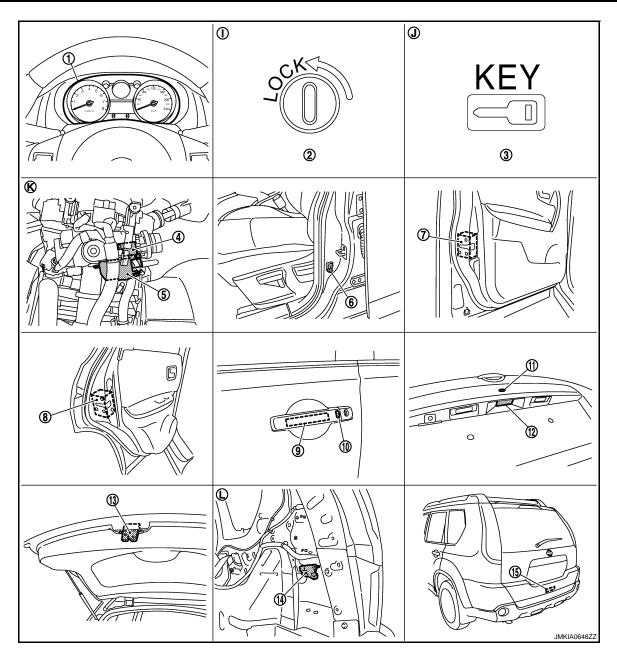
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- 1. Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- 8. Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) **B27**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# DOOR REQUEST SWITCH: Component Description

INFOID:0000000001280725

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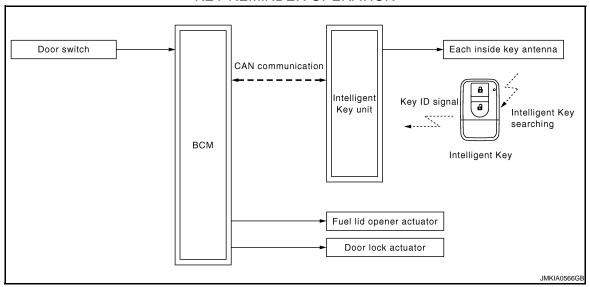
Item	Function
Intelligent Key unit	Controls the door lock function with BCM.
BCM	Controls the door lock function with Intelligent Key unit.
Door request switch	Transmits operation signal (lock and unlock) to Intelligent Key unit.
Door switch	Detects door state (open or close).
Key switch	Detects mechanical key is inserted into ignition key cylinder.
Ignition knob switch	Detects ignition knob state (push or release).
Outside key antenna	Detects Intelligent Key is in detection area of outside key antenna.
Inside key antenna	Detects Intelligent Key is in detection area of inside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when request signal is received from outside key antenna.
Passenger side anti-hijack relay	Controls the circuit of door lock actuator (passenger side, rear LH/RH).
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.
Super lock actuator	Receives super lock set/release signal from BCM and sets/releases super lock system.

# **KEY REMINDER**

# KEY REMINDER: System Diagram

INFOID:000000001280726

#### KEY REMINDER OPERATION



KEY REMINDER : System Description

INFOID:0000000001280727

# KEY REMINDER OPERATION

Key reminder have the following 2 functions.

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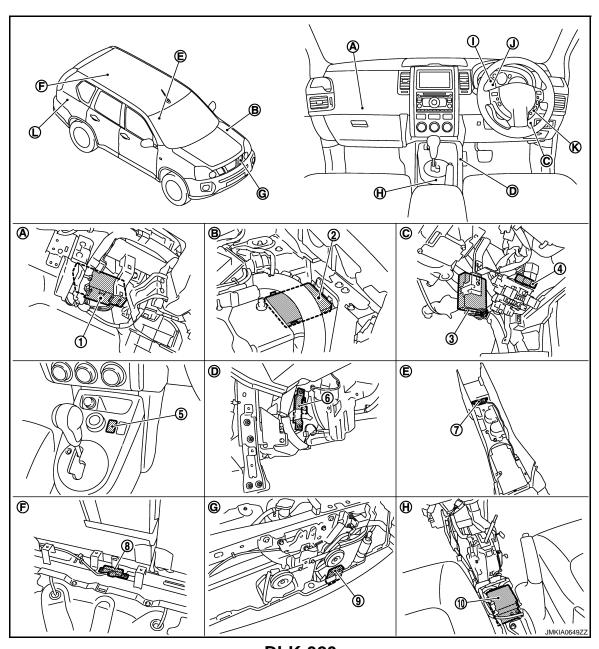
Operation	Operation condition	Operation
Driver door close	Right after driver side door is closed under the following conditions  Door lock operation  Driver side door is opened  Driver side door is in unlock state.	All doors unlock
Any door open to all door close	Right after all doors are closed under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

### **CAUTION:**

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

**KEY REMINDER: Component Parts Location** 

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# DOOR LOCK FUNCTION

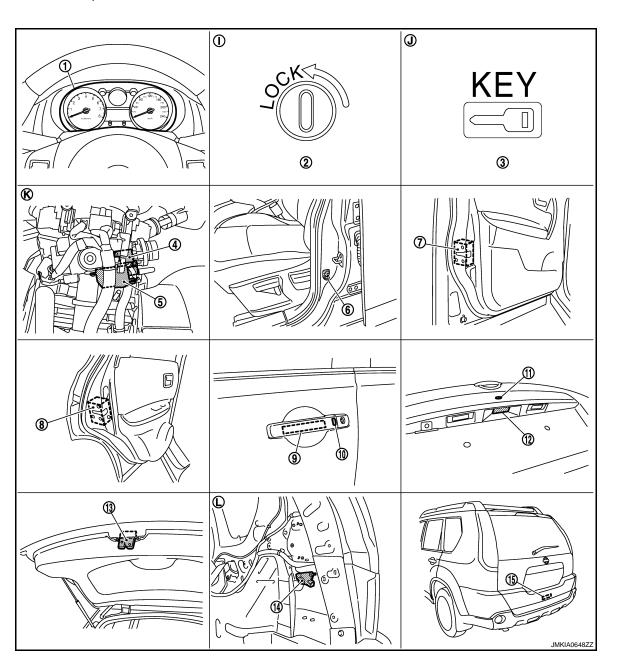
### < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

- 1. BCM M65, M66, M67
- Passenger side anti-hijack relay
- Inside key antenna (console) 7. M252
- 10. Air bag diagnosis sensor unit
- Over the glove box
- View with lower instrument cover re-
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- Inside key antenna (rear seat) 8.
- Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- 6. Inside key antenna (instrument center) M56
- 9. Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed



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- Combination meter M34
- Ignition knob switch, key switch and key lock solenoid (key switch)
- Front door lock actuator (passenger side) D9
- quest switch (driver side) D10
- 13. Back door lock assembly D190
- Inside the combination meter
- Luggage side lower finisher (RH) removed.

- 2. Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid)
- Rear door lock actuator LH 8. D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator **B58**
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side)
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- View with steering column cover removed

# KEY REMINDER: Component Description

INFOID:0000000001280729

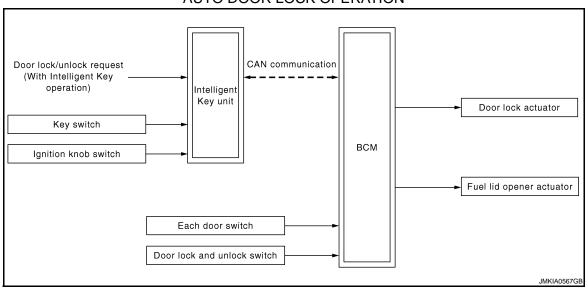
Item	Function
Intelligent Key unit	Controls the door lock function with BCM.
BCM	Controls the door lock and unlock operation with Intelligent Key unit.
Door switch	Detects door state (open or close).
Inside key antenna	Detects Intelligent Key is in detection area of inside key antenna.
Intelligent Key	Transmits key ID to Intelligent Key unit when Intelligent Key searching.
Door lock actuator	Receives lock and unlock signal from BCM and locks/unlocks each door.

# **AUTO DOOR LOCK**

# AUTO DOOR LOCK: System Diagram

INFOID:0000000001280730

# **AUTO DOOR LOCK OPERATION**



# AUTO DOOR LOCK: System Description

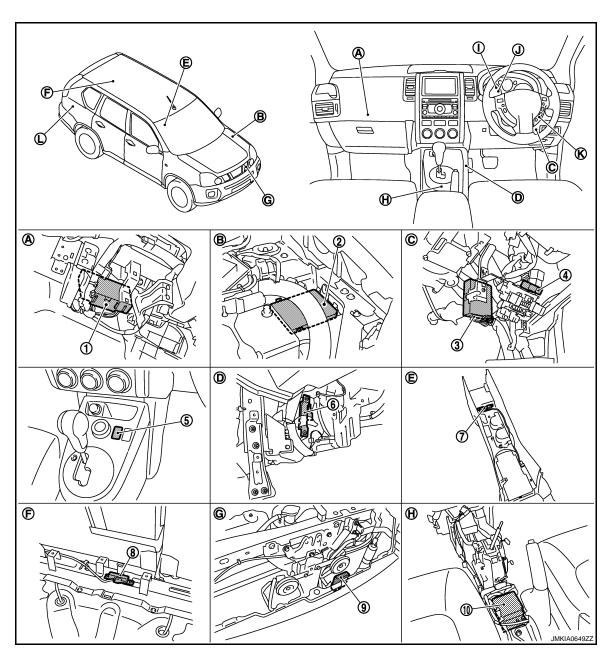
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#### **AUTO RELOCK OPERATION**

When all door is locked then doors are unlocked with Intelligent Key, door request switch or BCM does not receive the following signal within 2 minutes\*1, all doors are automatically locked.

- Any door is opened.
- Ignition knob is pressed.
- Ignition key is inserted into ignition key cylinder.
- Door is locked with Intelligent Key.
- Door is locked/unlocked with door lock and unlock switch.
- \*1: Auto door lock operation mode can be changed with CONSULT-III. Refer to <u>DLK-349</u>, "CONSULT-III Function (INTELLIGENT KEY)".

# AUTO DOOR LOCK: Component Parts Location



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat) B45
- 3. Intelligent Key unit
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer
   E25

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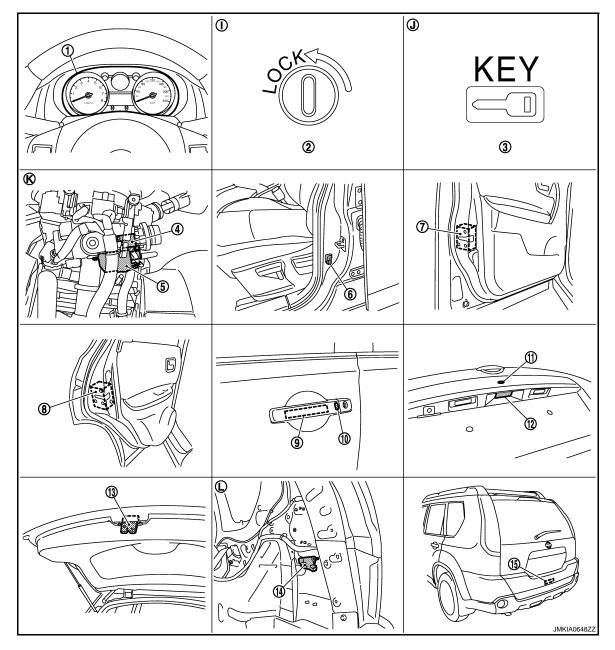
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**DLK-323** 

### [WITH I-KEY & SUPER LOCK]

- Over the glove box
- D. View with lower instrument cover removed
- View with front bumper fascia removed
- В. Engine room LH
- View with center console removed
- Н. View with center console removed
- C. Over the instrument lower panel (driver side)
- F. View with luggage floor spacer removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch)
- Front door lock actuator (passenger side) D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid)
- 8. Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58

- Key warning lamp 3. M34
- 6. Front door switch (passenger side) B27
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191

### DOOR LOCK FUNCTION

### < FUNCTION DIAGNOSIS >

### [WITH I-KEY & SUPER LOCK]

- Inside the combination meter
- J. Inside the combination meter
- K. View with steering column cover removed

Luggage side lower finisher (RH) removed.

# AUTO DOOR LOCK: Component Description

Item	Function	
Intelligent Key unit Controls the door lock function with BCM.		
BCM	Controls the door lock function with Intelligent Key unit.	
Door switch	Detects door state (open or close).	
Key switch	Detects mechanical key is inserted into ignition key cylinder.	
Ignition knob switch	Detects ignition knob state (push or release).	
Door lock and unlock switch	Transmits door lock and unlock signal to BCM.	
Door lock actuator	Receives lock and unlock signal from BCM and lock and unlock each door.	

# VEHICLE SPEED SENSING AUTO DOOR LOCK

# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Diagram

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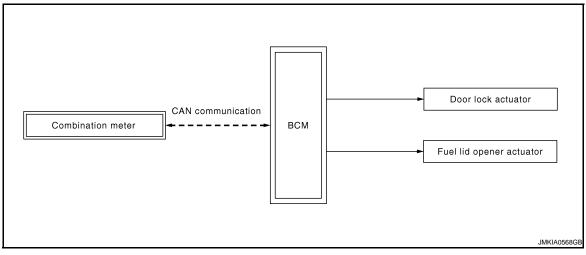
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### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION



VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description

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### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION

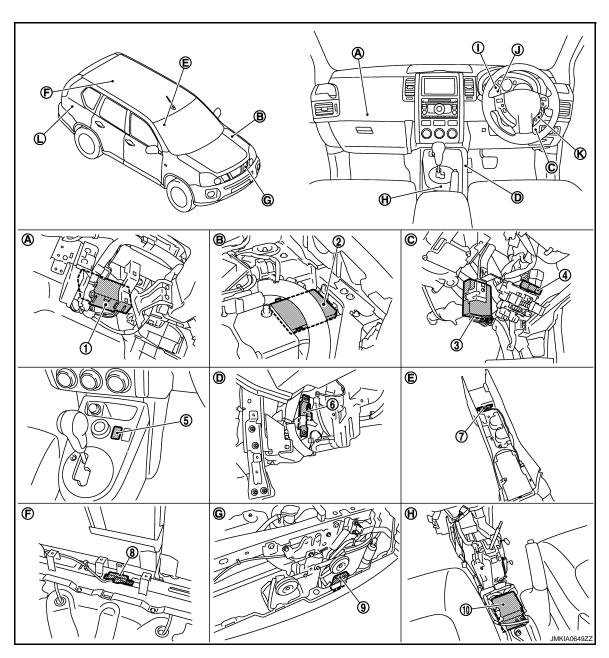
When the vehicle speed exceeds more than 25km/h (16 MPH), all doors are automatically locked. BCM receive the vehicle speed signal from combination meter via CAN communication.

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# VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Parts Location

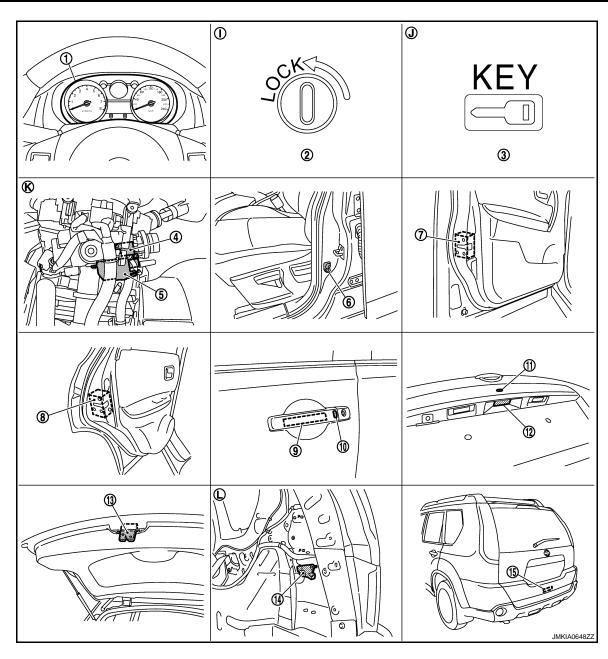
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- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- 5. Door lock and unlock switch M89
- 8. Inside key antenna (rear seat) B45
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer
   E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed



- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- quest switch (driver side)
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- 8. Rear door lock actuator LH D85
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch) D187
  - 14. Fuel lid opener actuator **B58**
  - Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) **B27**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

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# VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Description

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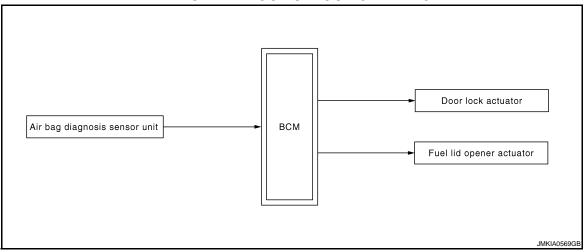
Item Function	
BCM Controls the door lock function.	
Combination meter Transmits vehicle speed signal to BCM via CAN communication.	
Door lock actuator	Receives door lock and unlock signal from BCM and lock and unlock each door.

# AIR BAG INTERLOCK UNLOCK

# AIR BAG INTERLOCK UNLOCK: System Diagram

INFOID:0000000001280738

### AIR BAG INTERLOCK UNLOCK OPERATION



# AIR BAG INTERLOCK UNLOCK: System Description

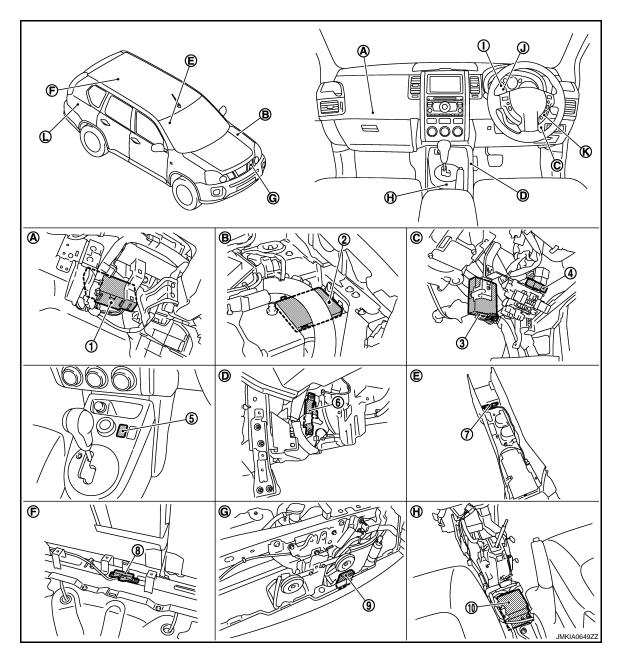
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### AIR BAG INTERLOCK UNLOCK OPERATION

When ignition switch is ON and BCM receive air bag deployment signal, it operates automatically to unlock all doors. Air bag diagnosis sensor unit sends the air bag deployment signal to BCM.

# AIR BAG INTERLOCK UNLOCK: Component Parts Location

INFOID:0000000001393930



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat)
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- 9. Intelligent Key warning buzzer F25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed

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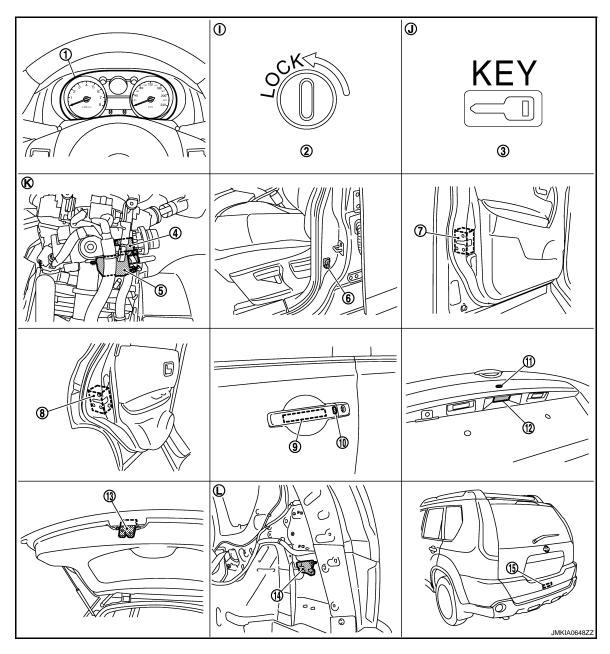
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- 1. Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- 8. Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) **B27**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# DOOR LOCK FUNCTION

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

# AIR BAG INTERLOCK UNLOCK : Component Description

INFOID:0000000001280741

Item	Function
BCM	Controls the door lock function.
Air bag diagnosis sensor unit	Transmits air bag deployment signal to BCM.
Door lock actuator	Receives door lock/unlock signal from BCM and lock and unlock each door.

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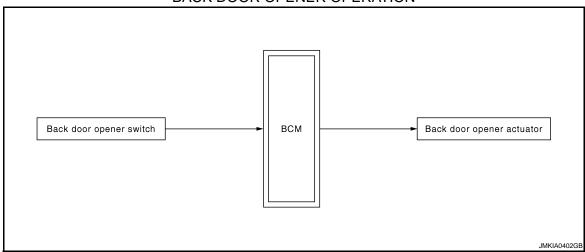
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# BACK DOOR OPENER FUNCTION BACK DOOR OPENER SWITCH

BACK DOOR OPENER SWITCH: System Diagram

INFOID:0000000001280742

### **BACK DOOR OPENER OPERATION**



# BACK DOOR OPENER SWITCH: System Description

INFOID:00000000001280743

### **BACK DOOR OPENER OPERATION**

When back door opener switch is pressed, BCM opens back door opener actuator.

#### NOTE:

Back door opener actuator is not for locking the back door. The function is only to open the back door.

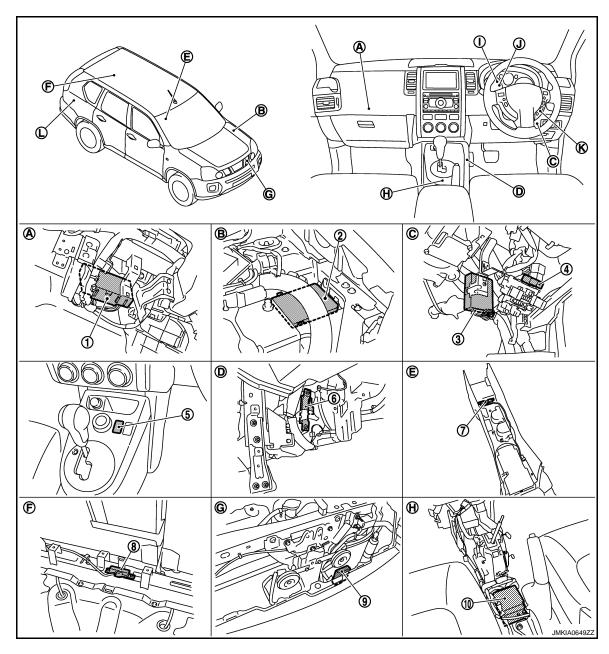
### **OPERATION CONDITION**

If the following conditions are not satisfied, back door opener operation is not performed.

Back door opener switch operation Operation Operation	
Back door open	<ul><li>Vehicle speed is less than 5 km/h (3 MPH).</li><li>All doors are unlocked.</li></ul>

# BACK DOOR OPENER SWITCH: Component Parts Location

INFOID:0000000001393931



- BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat)
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- 9. Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed

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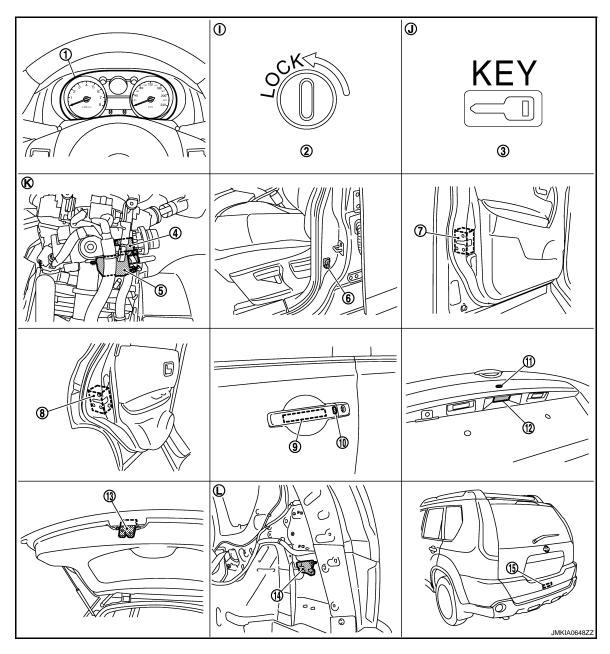
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- Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) B27
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# **BACK DOOR OPENER FUNCTION**

< FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

# BACK DOOR OPENER SWITCH : Component Description

INFOID:0000000001280745

Item	Function	
BCM	Controls the back door opener function.	
Back door opener switch	Transmits back door opener switch operation signal to BCM.	
Back door opener actuator	Opens the back door with the back door open signal from BCM.	
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.	

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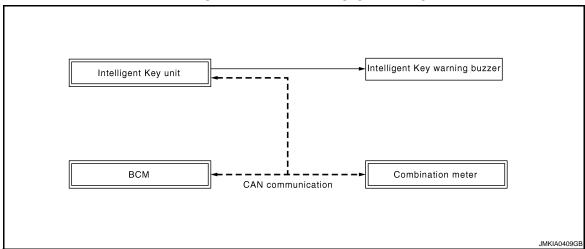
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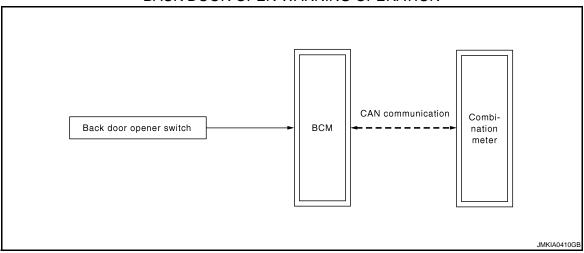
# WARNING FUNCTION

System Diagram

### INTELLIGENT KEY WARNING OPERATION



### BACK DOOR OPEN WARNING OPERATION



# System Description

INFOID:0000000001280747

### **DESCRIPTION**

The warning functions are as follows and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, key warning lamps and buzzer (built in combination meter).

### INTELLIGENT KEY WARNING OPERATION

Once one of the following conditions below is established, alert or warning will be executed.

Warning/Information functions				Warning chime	
		Operation conditions	Warning lamp	Combination meter buzzer	Intelligent Key warning buzz- er
Ignition knob return forgotten warning		When all the conditions below are met.  Ignition knob: OFF or LOCK (knob is pressed).  Door switch (driver side): ON (Door is open).	_	Active for 5 seconds (pipipipi, pipipipi···)	_
Ignition key warning (when mechanical key is used)		When all the conditions below are met. Ignition switch: OFF position. Key switch: ON (inserted) Door switch (driver side): ON (Door is open).	_	Active for 5 seconds (pipipipi, pipipipi····)	_
OFF position warning		pressed in while ignition switch is in (RED blinking) for 1 second		Active for 1 second (pipi, pipi···)	_
Take away warning	Any door open to all doors closed	When all the conditions below are met.  Ignition switch: Except LOCK position.  Door switch: ON to OFF (Door is open to closed).  Intelligent Key cannot be detected inside the vehicle.	"KEY" (RED blinking)	_	Active (pi, pi, pi)
	Door is open	When all the conditions below are met.  Door switch: ON (Door is open)  Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.	"KEY" (RED blinking)	_	_
	Take away through win- dow	<ul> <li>When all the conditions below are met.</li> <li>Key ID verification: OK</li> <li>Every 30 seconds when registered Intelligent Key cannot be detected inside the vehicle or result of vehicle speed verification is NG. (The registered Intelligent Key cannot be detected inside the vehicle when ignition switch is ON.)</li> <li>Key switch: OFF (Key is removed from ignition key cylinder.)</li> </ul>	"KEY" (RED blinking)	Active for 3 sec- onds (pipipi	_

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Warning/Information functions			Warning lamp	Warning chime	
		Operation conditions		Combination meter buzzer	Intelligent Key warning buzz- er
Request switch operation  Door lock operation warn-		<ul> <li>When request switch is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserted into ignition key cylinder.</li> <li>Intelligent Key is inside vehicle.</li> </ul>	_	_	Active for 2 seconds (pipipi)
Intelligent Key button operation	<ul> <li>When Intelligent Key button is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserted into ignition key cylinder.</li> </ul>	_	_	Active for 2 seconds (pipipi)	
Intelligent Key low battery warning		When Intelligent Key battery voltage is low, Intelligent Key unit is detected after ignition switch is turned ON.	"KEY" (GREEN blink- ing for 30 sec- onds)	_	_

## KEY WARNING LAMP & LOCK WARNING LAMP

The key indicator and lock indicator indicates Intelligent Key system status.

### **Operation Condition**

Behavior of lamps Operation condition		Operation condition	
	GREEN	Lighting	All the following conditions are satisfied.  Ignition knob is pushed in LOCK position. (Ignition knob switch is ON)  Ignition key is removed from ignition key cylinder. (Key switch is OFF)  Intelligent Key is detected inside of the vehicle.  KEY RED lighting/blinking conditions are not satisfied.
		Blinking	while Intelligent Key low battery warning is operating.
KEY	RED	Lighting	All the following conditions are satisfied.  Ignition knob is pushed. (Ignition knob switch is ON)  Ignition key is removed from ignition key cylinder. (Key switch is OFF)  Intelligent Key is not detected inside of the vehicle.
		Blinking	All the following conditions are satisfied.     Take away warning is operating.     KEY RED lighting condition is not satisfied.
LOCK	LOCK Blinking		While OFF position warning is operating.
KEY(RED) and LOCK lighting		CK lighting	All the following conditions are satisfied.     Ignition switch is ON.     Steering lock ID is NG.

### BACK DOOR OPEN WARNING OPERATION

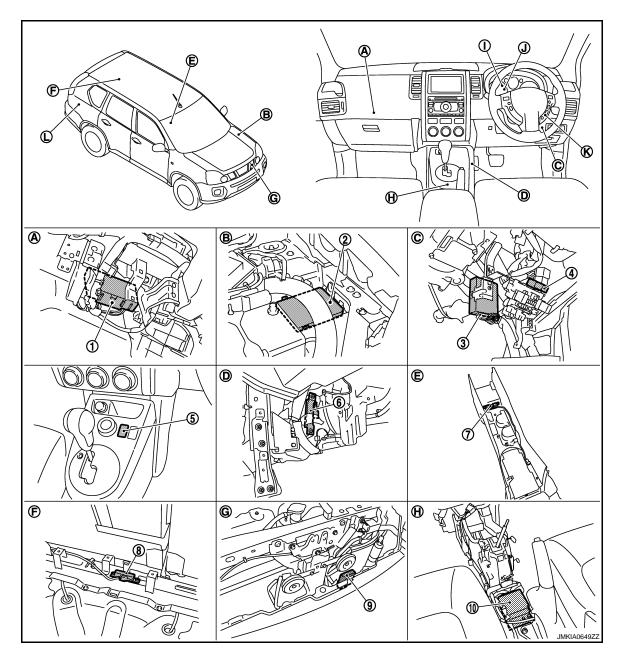
When back door opener switch is operated, when door lock is locked with door lock and unlock switch, speed sensing lock or only driver side is unlocked with anti-hijack function, the buzzer (built in combination meter) will sound.

### **KEY REMINDER OPERATION**

- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is pressed while the driver door is open and mechanical key is inserted ignition key cylinder.
- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is pressed while any door other than the driver door is open.

# Component Parts Location

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- BCM M65, M66, M67
- Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- Door lock and unlock switch M89
- 8. Inside key antenna (rear seat)
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- 3. Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- 9. Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- View with luggage floor spacer removed

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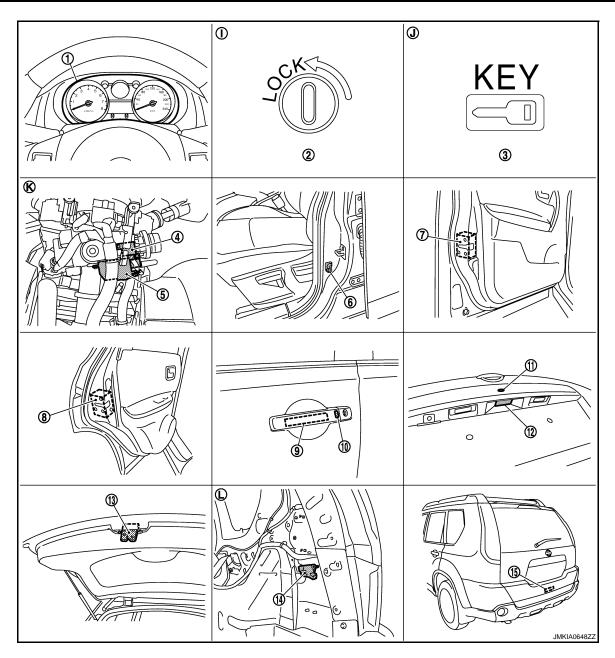
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- 1. Combination meter
- Ignition knob switch, key switch and key lock solenoid (key switch) M25
- 7. Front door lock actuator (passenger D9
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side) D10
- 13. Back door lock assembly D190
- I. Inside the combination meter
- Luggage side lower finisher (RH) removed.

- Lock warning lamp
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid) M25
- 8. Rear door lock actuator LH D85
- quest switch) D187
- 14. Fuel lid opener actuator B58
- Inside the combination meter

- 3. Key warning lamp M34
- Front door switch (passenger side) **B27**
- Out side key antenna and front door request switch (driver side) D10
- 12. Back door opener switch assembly (opener switch) D187
- 15. Out side key antenna (back door) D191
- K. View with steering column cover removed

# **WARNING FUNCTION**

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

# Component Description

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Item	Function	
BCM	Controls the warning function with Intelligent Key unit.	
Intelligent Key unit	Controls the warning function with BCM.	
Key switch	Detects that mechanical key is inserted into ignition key cylinder.	
Door switch	Detects door state (open or closed).	
Door lock and unlock switch	Transmits door lock and unlock signal to BCM.	
Requests to turn ON hazard warning lamp to BCM and turn signal indic combination meter.		
Combination meter	Turns ON the LOCK indicator, KEY indicator, turn signal indicator and buzzer (built in combination meter) by the request from Intelligent Key unit via CAN communication.	
Intelligent Key warning buzzer	Sounds by the request from Intelligent Key unit.	
Back door opener switch	Transmits back door open signal to BCM	

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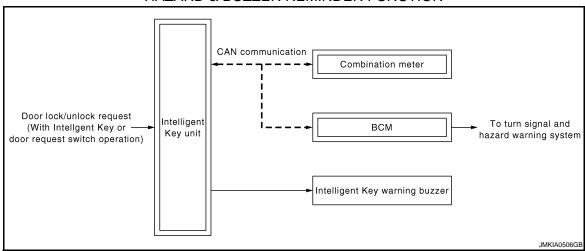
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System Diagram

### HAZARD & BUZZER REMINDER FUNCTION



# System Description

INFOID:0000000001280751

Depends on other setting

### HAZARD AND BUZZER REMINDER FUNCTION

When door is locked or unlocked by Intelligent Key or door request switch, Intelligent Key unit sounds buzzer and sends hazard request signal to BCM via CAN communication. Then BCM flashes hazard warning lamps as a reminder.

### NOTE:

Hazard and buzzer reminder function mode can be changed with CONSULT-III. Refer to <u>DLK-349</u>, "CONSULT-III Function (INTELLIGENT KEY)".

Hazard Operation

LOCK

Hazard reminder setting (With CONSULT-III)		Door lock operation (with Intelligent Key or door request switch)	Hazard warning lamp flash
	OFF	Any	_
		Lock	Once
	LOCK ONLY	Unlock	_
		Unlock (Anti-hijack)	_
HAZARD ANSWER BACK		Lock	_
HAZARD ANSWER BACK	UNLK ONLY	Unlock	Twice
		Unlock (Anti-hijack)	Twice (quick)
	LOCK/UNLK	Lock	Once
		Unlock	Twice
		Unlock (Anti-hijack)	Twice (quick)
zzer Operation			
Buzzer reminder setting (With CONSULT-III)		Door lock operation (with Intelligent Key or door request switch)	Buzzer warning sounds
		Lock	Once
ANSWER BACK WITH	TH BUZZER	Unlock	Depends on other setting
I-KEY			

Unlock (Anti-hijack)

Any

**OFF** 

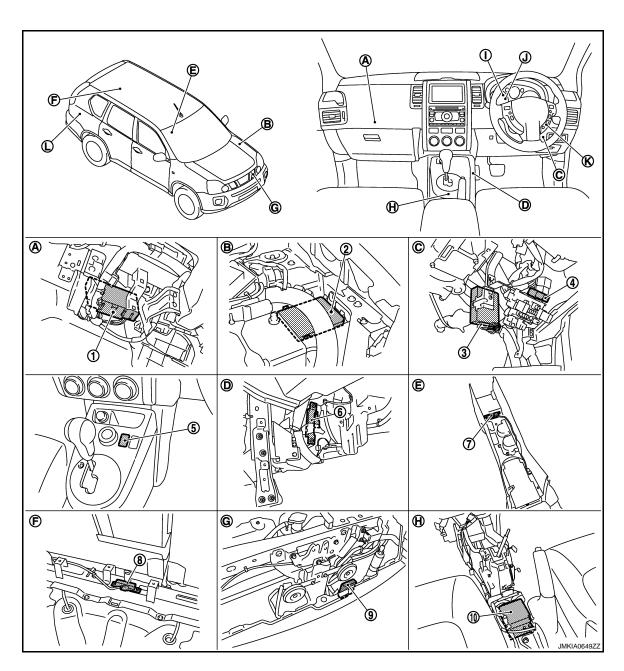
## < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

Buzzer reminder setting (With CONSULT-III)		Door lock operation (with Intelligent Key or door request switch)	Buzzer warning sounds
		Lock	Depends on other setting
ANSWER BACK WITH I-KEY UNLOCK	BUZZER	Unlock	Twice
		Unlock (Anti-hijack)	Twice
	OFF	Any	_
ANSWER BACK FUNC- TION	ON	Lock	Once
		Unlock	Twice
		Unlock (Anti-hijack)	Twice
	OFF	Any	_

# Component Parts Location

INFOID:0000000001393934



**DLK-343** 

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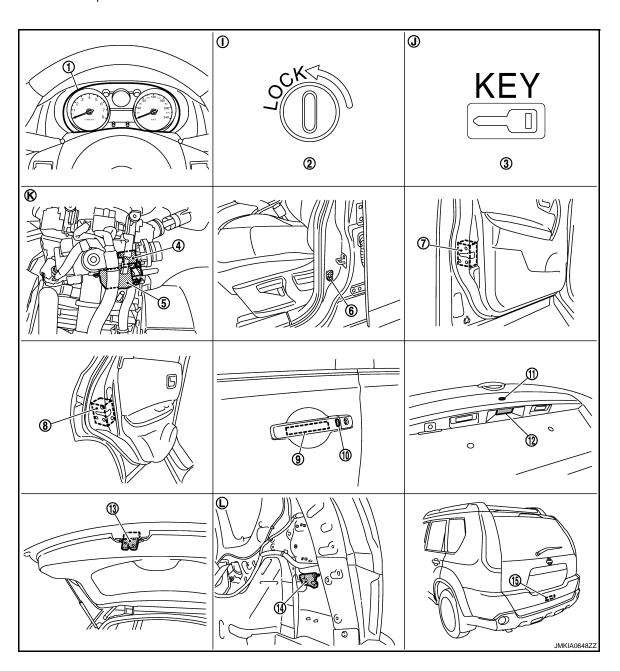
### < FUNCTION DIAGNOSIS >

### [WITH I-KEY & SUPER LOCK]

- 1. BCM M65, M66, M67
- 4. Passenger side anti-hijack relay M90
- 7. Inside key antenna (console) M252
- Air bag diagnosis sensor unit M59
- A. Over the glove box
- D. View with lower instrument cover removed
- G. View with front bumper fascia removed

- 2. IPDM E/R E11, E13
- 5. Door lock and unlock switch M89
- Inside key antenna (rear seat) B45
- B. Engine room LH
- E. View with center console removed
- H. View with center console removed

- Intelligent Key unit M40
- Inside key antenna (instrument center)
   M56
- Intelligent Key warning buzzer E25
- C. Over the instrument lower panel (driver side)
- F. View with luggage floor spacer re-



### < FUNCTION DIAGNOSIS >

### [WITH I-KEY & SUPER LOCK]

- Combination meter M34 Ignition knob switch, key switch and key lock solenoid (key switch) Front door lock actuator (passenger side)
- Ignition knob switch, key switch and key lock solenoid (key lock solenoid)

Rear door lock actuator LH

3. Key warning lamp M34 Front door switch (passenger side)

- D9
- Out side key antenna and front door
- 10. Out side key antenna and front door re- 11. Back door opener switch assembly (request switch (driver side)
- quest switch)
- request switch (driver side) D10

- 13. Back door lock assembly D190
- D187
- 12. Back door opener switch assembly (opener switch) D187

- Inside the combination meter
- 14. Fuel lid opener actuator **B58**

Inside the combination meter

Lock warning lamp

2.

8.

D85

15. Out side key antenna (back door) D191

Luggage side lower finisher (RH) removed.

View with steering column cover removed

# Component Description

INFOID:0000000001280753

Item	Function	
BCM	Controls the hazard and buzzer reminder function with Intelligent Key unit.	
Intelligent Key unit	Controls the hazard and buzzer reminder function with BCM.	
Combination meter	Turns ON the LOCK indicator, KEY indicator, turn signal indicator and buzzer (built in combination meter) by the request from Intelligent Key unit via CAN communication.	
Intelligent Key warning buzzer	Sounds by the request signal from Intelligent Key unit.	

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# < FUNCTION DIAGNOSIS >

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)

INFOID:0000000001569649

### APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to DLK-500, "DTC Index".
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

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

 $\times$ : Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
_	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
_	PTC HEATER*			

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

DOOR LOCK

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

INFOID:0000000001280755

**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.

## **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
PUSH SW*1	Indicates [ON/OFF] condition of ignition knob switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEYLESS LOCK*2	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK*2	Indicates [ON/OFF] condition of unlock signal from key fob.
I-KEY LOCK*1	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK*1	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.
UNLOCK WITH DR	This item is indicated, but not monitored.
UNLOCK SHOCK	Indicates [ON/OFF] condition of signal from air bag diagnosis unit.  ON: During the unlock operation interlock with air bag.  OFF: Other than above.
SHOCK SENSOR	<ul> <li>Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit.</li> <li>NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.)</li> <li>ON: During the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> <li>OFF: After the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> </ul>
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
SUPER LOCK*1	This test is able to check super lock operation [LOCK (SET)/UNLOCK (RELEASE)].
DOOR LOCK IND	This test is able to check door lock indicator (built in door lock and unlock switch on center console) operation [ON/OFF].
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK].

<sup>:\*1</sup> For the super lock equipped vehicle.

### **WORK SUPPORT**

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<sup>\*2:</sup> For the multi remote control system equipped vehicle.

### < FUNCTION DIAGNOSIS >

Test item	Description
SECURITY DOOR LOCK SET	<ul> <li>Anti hijack function mode can be changed in this mode.</li> <li>ON: Anti hijack mode is active.</li> <li>OFF: Anti hijack mode is inactive.</li> </ul>

# INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID-00000001280756

### **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	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
PUSH SW	Indicates [ON/OFF] condition of ignition knob switch.
I-KEY LOCK	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.

# **TRUNK**

TRUNK: CONSULT-III Function (BCM - TRUNK)

INFOID:0000000001280757

### APPLICATION ITEM

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

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.

### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
PUSH SW <sup>*1</sup>	Indicates [ON/OFF] condition of ignition knob switch.
TRNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch.
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener operation [ON/OFF].

<sup>\*2:</sup> For the remote keyless entry system equipped vehicle.

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

< FUNCTION DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

# CONSULT-III Function (INTELLIGENT KEY)

INFOID:0000000001280758

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### **APPLICATION ITEM**

CONSULT-III performs the following functions via CAN communication with Intelligent Key unit.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by Intelligent Key unit.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from Intelligent Key unit.
DATA MONITOR	The Intelligent Key unit input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.
ECU IDENTIFICATION	The Intelligent Key unit part number is displayed.

### **WORK SUPPORT**

Support item	Description	Selection item	Condition
CONFIRM KEY FOB ID	It can check whether Intelligent Key ID code is registered or not.	_	_
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window)	ON	Active
TAKE OUT FROM WINDOW WARN	mode can be changed.	OFF	Inactive
LOW BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can	ON	Active
LOW BATT OF RET FOB WARN	be changed.	OFF	Inactive
KEYLESS FUNCTION	Door lock function with Intelligent Key can be	ON	Active
RETLESS FUNCTION	changed.	OFF	Inactive
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed.	ON	Active
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed.	OFF	Inactive
SELECTIVE UNLOCK FUNCTION	Anti-hijack mode can be changed.	ON	Active
	Anti-nijack mode can be changed.	OFF	Inactive
HAZARD ANSWER BACK	Hazard reminder operation mode can be changed.	Refer to DLK-342.	
	Buzzer reminder operation (lock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY LOCK	mode by each door request switch can be changed.	OFF	Inactive
	Buzzer reminder operation (unlock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY UNLOCK	mode by each door request switch can be changed.	OFF	Inactive
AUTO RELOCK TIMER	Auto door lock operation mode can be	OFF	Inactive
AUTO RELOCK TIMER	changed.	2 min.	Active
ENGINE START BY I-KEY	Engine start function (by Intelligent Key)	ON	Active
	mode can be changed.	OFF	Inactive
LOCK/UNLOCK BY I-KEY	Door lock function by door request switch can	ON	Active
EGGINGINEGON DI FINET	be changed.	OFF	Inactive

**SELF-DIAG RESULT** 

Refer to DLK-458, "DTC Index".

**DATA MONITOR** 

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# [WITH I-KEY & SUPER LOCK]

Monitor Item	Condition
PUSH SW	Indicates [ON (pressed)/OFF (released)] condition of ignition knob switch.
KEY SW	Indicates [ON (inserted)/OFF (removed)] condition of key switch.
DR REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (driver side).
AS REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (passenger side).
BD/TR REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (back door).
IGN SW	Indicates [ON (ON or START position)/OFF (other than ON and START position)] condition of ignition switch ON position.
ACC SW	Indicates [ON/OFF] condition of ignition switch ACC position.
STOP LAMP SW	Indicates [ON/OFF] condition of stop lamp switch.
DOOR LOCK SIG	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
DOOR UNLOCK SIG	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
DOOR SW DR	Indicates [OPEN/CLOSE] condition of front door switch (driver side) from BCM via CAN communication.
DOOR SW AS	Indicates [OPEN/CLOSE] condition of front door switch (passenger side) from BCM via CAN communication.
DOOR SW RR	Indicates [OPEN/CLOSE] condition of rear door switch (RH) from BCM via CAN communication.
DOOR SW RL	Indicates [OPEN/CLOSE] condition of rear door switch (LH) from BCM via CAN communication.
DOOR BK SW	Indicates [OPEN/CLOSE] condition of back door switch from BCM via CAN communication.
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

### **ACTIVE TEST**

Test item	Description
DOOR LOCK/UNLOCK	This test is able to check door lock/unlock operation.  • ALL UNLK: All door lock actuators are unlocked.  • DR UNLK: Door lock actuator (driver side) is unlocked.  • AS UNLK: Door lock actuator (passenger side) is unlocked.  • BK UNLK: This item is indicated, but inactive.  • LOCK: All door lock actuator is locked.
ANTENNA	This test is able to check Intelligent Key antenna operation.  When the following condition are met, LED (on Intelligent Key) blinks.  ROOM ANT1: Inside key antenna (console) transmissions can be detected by Intelligent Key, when "ROOM ANT1" is selected.  ROOM ANT2: Inside key antenna (instrument center/rear seat) transmissions can be detected by Intelligent Key, when "ROOM ANT2" is selected.  DRIVER ANT: Outside key antenna (driver side) transmissions can be detected by Intelligent Key, when "DRIVER ANT" is selected.  ASSIST ANT: Outside key antenna (passenger side) transmissions can be detected by Intelligent Key, when "ASSIST ANT" is selected.  BK DOOR ANT: Outside key antenna (rear bumper) transmissions can be detected by Intelligent Key, when "BK DOOR ANT" is selected.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation.  ON OFF
INSIDE BUZZER	This test is able to check warning chime in combination meter operation.  Take OUT: Take away warning chime sounds.  KNOB: Ignition knob switch warning chime sounds.  KEY: Key warning chime sounds.  OFF

# **DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)**

# < FUNCTION DIAGNOSIS >

# [WITH I-KEY & SUPER LOCK]

Test item	Description
INDICATOR	This test is able to check warning lamp operation.  BLUE ON: Key warning lamp (green) illuminates.  RED ON: Key warning lamp (red) illuminates.  KNOB ON: Lock warning lamp illuminates.  BLUE IND: Key warning lamp (green) flashes.  RED IND: Key warning lamp (red) flashes.  KNOB IND: Lock warning lamp flashes.  OFF
KEY LOCK SOLENOID*1	<ul><li>This test is able to check key interlock operation.</li><li>LOCK: Key interlock is active.</li><li>UNLOCK: Key interlock is inactive.</li></ul>

<sup>\*1:</sup> The item is only for MT model.

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# COMPONENT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

Description INFOID:000000001559416

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

DTC Logic

### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When Intelligent Key unit cannot communicate CAN communication signal continuously for 2 seconds or more.	In CAN communication system, any item (or items) of the following listed below is malfunctioning.  Transmission Receiving (BCM) Receiving (IPDM E/R) Receiving (ECM) Receiving (METER/M&A) Receiving (MULTI AV)

# Diagnosis Procedure

INFOID:0000000001559418

## 1.PERFORM SELF DIAGNOSTIC

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

### Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-13, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-39, "Intermittent Incident".

# **U1010 CONTROL UNIT (CAN)**

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# U1010 CONTROL UNIT (CAN)

Description INFOID:0000000001559419

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

D DTC Logic INFOID:0000000001559420

### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause	
U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of Intelligent Key unit.	Intelligent Key unit	F

## Diagnosis Procedure

1. REPLACE INTELLIGENT KEY UNIT

When DTC [U1010] is detected, replace Intelligent Key unit.

>> Replace Intelligent Key unit.

## Special Repair Requirement

>> Work end.

1. REQUIRED WORK WHEN REPLACING INTELLIGENT KEY UNIT

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

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### [WITH I-KEY & SUPER LOCK]

### < COMPONENT DIAGNOSIS >

# POWER SUPPLY AND GROUND CIRCUIT INTELLIGENT KEY UNIT

# **INTELLIGENT KEY UNIT: Diagnosis Procedure**

INFOID:0000000001298174

# 1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
11	Battery power supply	14 (10A)
6	Ignition power supply	1 (10A)

### Is the fuse blown?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect Intelligent Key unit connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between Intelligent Key unit harness connector and ground.

	Terminal		
(+) (-)			Voltage (V) (Approx.)
Intelligent Key unit			(Approx.)
Connector	Terminal	Crownd	
M40	11	Ground	Dattanuvaltana
	6		Battery voltage

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit			Continuity
Connector	Terminal	Ground	Continuity
M40	12		Exists

### Does continuity exist?

YES >> Intelligent Key unit power supply and ground circuit are OK.

NO >> Repair harness or connector.

BCM

# BCM : Diagnosis Procedure

INFOID:0000000001298175

# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
41	Pottony newer cumply	10 (10A)
57	Battery power supply	J (50A)
3	Ignition power supply	1 (10A)
4	ACC power supply	20 (10A)

## POWER SUPPLY AND GROUND CIRCUIT

### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

### Is the fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

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

Terminals				
(+)			Condition	Voltage
В	CM	(–)	( )	
Connector	Terminal			
M66	41		Turn ignition switch OFF	- Battery voltage
M67	57	Ground	Turriginilori Switch OFF	
M65	3	Turn ignition switch ON		
COIVI	4		Turn ignition switch ACC	

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector Terminal		Ground	Continuity
M67	55		Exists

### Does continuity exist?

YES >> BCM power supply and ground circuit are OK.

NO >> Repair harness or connector.

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# DOOR LOCK AND UNLOCK SWITCH

Description INFOID:000000001298176

Transmits door lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000001298177

# 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "CDL LOCK SW "and "CDL UNLOCK SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-356</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000001298178

# 1. CHECK DOOR LOCK AND UNLOCK INPUT SIGNAL

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

Terminal				
(+)			Signal	
Door lock and unlock switch connector	Terminal	(–)	(Reference value)	
	1			
M89	2	Ground	(V) 15 10 5 0	
			JPMIA0154GB	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and door lock and unlock switch harness connector.

BCM connector	Terminal	Door lock and unlock switch connector	Terminal	Continuity
M65	32	M89	2	Exists
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4. Check continuity between BCM harness connector and ground.

### DOOR LOCK AND UNLOCK SWITCH

### < COMPONENT DIAGNOSIS >

### [WITH I-KEY & SUPER LOCK]

BCM connector	Terminal		Continuity
M65	32	Ground	Does not exist
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Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 3.check door lock and unlock switch ground

Check continuity between door lock and unlock switch harness connector and ground.

Door lock and unlock switch connector	Terminal	Ground	Continuity
M89	3	Giodila	Exists

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## 4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check voltage between BCM harness connector and ground.

	Terminal		
(+)	(+)		Signal (Reference value)
BCM connector	Terminal	(-)	(13131311331133)
	32		
M65	34	Ground	(V) 15 10 0 → 10ms JPMIA0154GB

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

## 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch

Refer to <u>DLK-357</u>, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace door lock and unlock switch. Refer to <u>DLK-596</u>, "Removal and Installation".

# 6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

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INFOID:0000000001298179

**DLK-357** 

## DOOR LOCK AND UNLOCK SWITCH

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

Door lock and unlock switch	Terminal		Condition	Continuity
M89	1	3	LOCK	Exists
IVIOS	2	3	UNLOCK	LAISIS

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Replace door lock and unlock switch. Refer to <u>DLK-596</u>, "Removal and Installation".

### DOOR LOCK AND UNLOCK SWITCH INDICATOR

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## DOOR LOCK AND UNLOCK SWITCH INDICATOR

Description INFOID:0000000001280776

The door lock and unlock switch indicates door lock status. The indicator will illuminate when a lock operation is accomplished, and during this status, if any door is opened, the indicator will turn OFF.

# Component Function Check

### INFOID:0000000001280777

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## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "DOOR LOCK IND" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK IND	:ON	Illuminated
BOOK LOOK IND	:OFF	Not illuminated

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-359</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

### INFOID:0000000001280778

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INDICATOR INPUT SIGNAL

Turn ignition switch OFF.

Check voltage between door lock and unlock switch harness connector and ground.

Terminal						
(+)			(+)		Condition	Voltage
Door lock and unlock switch connector	Terminal	( <del>-</del> )		(Approx.)		
M89	6	Ground	Door lock operation is accomplished	Battery voltage		
			Any door is OPEN	0		

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

Disconnect BCM connector and door lock and unlock switch connector.

Check continuity between BCM harness connector and door lock and unlock switch harness connector.

BCM connector	Terminal	Door lock and unlock switch connector	Terminal	Continuity
M65	17	M89	6	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	17	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between door lock and unlock switch harness connector and ground.

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## DOOR LOCK AND UNLOCK SWITCH INDICATOR

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

Door lock and unlock switch connector	Terminal	Ground	Continuity
M89	4	Giodila	Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### DOOR REQUEST SWITCH

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000001298180

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Transmits lock/unlock operation to Intelligent Key unit.

DRIVER SIDE: Component Function Check

INFOID:0000000001298181

## 1. CHECK FUNCTION

#### (II) With CONSULT-III

Check door request switch "DR REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DR REQ SW	Door request switch is pressed	:ON	
	Door request switch is released	:OFF	

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to <u>DLK-361</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001298182

## 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between Intelligent Key unit harness connector and ground.

Terminal				
(+	)		Door request switch condition	Voltage (V) (Approx.)
Intelligent Key unit connector	Terminal	(–)		
M40	F	Ground	Pressed	0
IVI40	5	Ground	Released	5

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2.check front door request switch circuit

Disconnect Intelligent Key unit connector.

2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (driver side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (driver side)	Terminal	Continuity
M40	5	D30	3	Fxists

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	5		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (driver side).

**DLK-361** 

#### < COMPONENT DIAGNOSIS >

## 3.check door request switch ground circuit

Check continuity between outside key antenna and front door request switch (driver side) harness connector and ground.

Outside key antenna and front door request switch (driver side) connector	Terminal	Ground	Continuity
D30	4		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace outside key antenna and front door request switch (driver side) ground circuit.

## 4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- 1. Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)
M40	5		5

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

## 5. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (driver side).

Refer to DLK-362, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front outside handle (driver side). Refer to <u>DLK-575, "OUTSIDE HANDLE : Removal and Installation".</u>

#### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

## DRIVER SIDE : Component Inspection

INFOID:0000000001298183

INFOID:0000000001298184

## 1. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (driver side).

Terminal			Continuity	
Outside key antenna and front door request switch (driver side)		Door request switch condition		
2	4	Pressed	Exists	
	4	Released	Does not exist	

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Replace front outside handle (driver side). Refer to <u>DLK-575</u>, "OUTSIDE HANDLE : Removal and <u>Installation"</u>.

### PASSENGER SIDE

### PASSENGER SIDE: Description

Transmits lock/unlock operation to Intelligent Key unit.

## PASSENGER SIDE: Component Function Check

INFOID:0000000001298185

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### 1. CHECK FUNCTION

**With CONSULT-III** 

Check door request switch "AS REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
AS REQ SW	Door request switch is pressed	:ON	
	Door request switch is released	:OFF	

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to <u>DLK-365</u>, "BACK DOOR : Diagnosis Procedure".

### PASSENGER SIDE: Diagnosis Procedure

## 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between Intelligent Key unit harness connector and ground.

Terminal					
(+)			Door request	Voltage (V)	
Intelligent Key unit connector	Terminal	(–)	switch condition	(Approx.)	
M40	25	Ground	Pressed	0	
17140	23	Ground	Released	5	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2.CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.

2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (passenger side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (passenger side) connector	Terminal	Continuity
M40	25	D69	3	Exists

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	25		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (passenger side).

## 3.check door request switch ground circuit

Check continuity between outside key antenna and front door request switch (passenger side) harness connector and ground.

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#### < COMPONENT DIAGNOSIS >

Outside key antenna and front door request switch (passenger side) connector	Terminal	Ground	Continuity
D69	4		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace outside key antenna and front door request switch (passenger side) ground circuit.

## 4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)	
M40	25		5	

#### Is the inspection result normal?

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

## 5. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (passenger side).

Refer to <u>DLK-366</u>, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace front outside handle (passenger side). Refer to <u>DLK-575, "OUTSIDE HANDLE : Removal</u> and Installation".

## 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

## PASSENGER SIDE: Component Inspection

INFOID:0000000001298187

INFOID:0000000001298188

### 1. CHECK DOOR REQUEST SWITCH

Check outside key antenna and front door request switch (passenger side).

Terminal				
Outside key antenna and front door request switch (passenger side)		Door request switch condition	Continuity	
2	1	Pressed	Exists	
3	4	Released	Does not exist	

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Replace front outside handle (passenger side). Refer to <u>DLK-575, "OUTSIDE HANDLE : Removal and Installation".</u>

BACK DOOR

### **BACK DOOR: Description**

Transmits lock/unlock operation to Intelligent Key unit.

## BACK DOOR: Component Function Check

INFOID:0000000001298189

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## 1. CHECK FUNCTION

(P) With CONSULT-III

Check door request switch "BD/TR REQ SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BD/TR REQ SW	Door request switch is pressed	:ON	
BB/TK KEQ 3W	Door request switch is released	:OFF	

#### Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to DLK-365, "BACK DOOR : Diagnosis Procedure".

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

## 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between Intelligent Key unit harness connector and ground.

	Terminal				
(+)			Door request	Voltage (V)	
Intelligent Key unit connector	Terminal	(-)	switch condition	(Approx.)	
M40	29	Ground	Pressed	0	
IVI+O	29	Ground	Released	5	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2. CHECK DOOR REQUEST SWITCH CIRCUIT

Disconnect Intelligent Key unit connector.

Check continuity between Intelligent Key unit harness connector and back door opener switch assembly (request switch) harness connector.

Intelligent Key unit connector	Terminal	Back door opener switch (request switch) connector	Terminal	Continuity
M40	29	D186	3	Exists

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	ierminai		Continuity
M40	29		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and back door opener switch assembly (request switch).

## 3.check door request switch ground circuit

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

Back door opener switch assembly (request switch) connector	(request switch) Terminal		Continuity
D186	4		Exists

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### DOOR REQUEST SWITCH

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door opener switch assembly (request switch) ground circuit.

## 4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- 1. Connect Intelligent Key unit connector.
- 2. Check voltage between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Voltage (V) (Approx.)	
M40	29		5	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### 5. CHECK DOOR REQUEST SWITCH

Check back door opener switch assembly (request switch).

Refer to DLK-366, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly (request switch). Refer to <u>DLK-592, "Removal and Installation".</u>

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

### BACK DOOR: Component Inspection

INFOID:0000000001298191

## 1. CHECK DOOR REQUEST SWITCH

Check back door opener switch assembly (request switch).

Terminal		Door request switch condition	Continuity	
Back door opener switch assembly (request switch)		Door request switch condition	Continuity	
2	4	Pressed	Exists	
3 4	Released	Does not exist		

#### Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Replace back door opener switch assembly (request switch). Refer to <u>DLK-592, "Removal and Installation".</u>

DOOR SWITCH

**DRIVER SIDE** 

DRIVER SIDE: Description

Detects door open/closed condition.

DRIVER SIDE : Component Function Check

INFOID:0000000001298193

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## 1. CHECK FUNCTION

## (II) With CONSULT-III

Check door switches "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-DR	OPEN	:ON	
DOOK SW-BK	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Refer to <u>DLK-367</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

## DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001298194

## 1. CHECK DOOR SWITCH INPUT SIGNAL

Turn ignition switch OFF.

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

Terminals		minals		
(+	-)		Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)	(,	(Approx.)
			OPEN	0
M65	15	Ground	CLOSE	(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

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## 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and front door switch (driver side) connector.

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

BCM connector	Terminal	Front door switch (driver side) connector	Terminal	Continuity
M65	15	B34	2	Exists

3. Check continuity between BCM harness connector and ground.

#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Ground	Continuity
M65	15	Giodila	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

### 3.check door switch

Check front door switch (driver side).

Refer to DLK-368, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to DLK-585, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

### DRIVER SIDE: Component Inspection

INFOID:0000000001298195

### 1. CHECK DOOR SWITCH

Check front door switch (driver side).

Terminal		Door switch condition	Continuity	
front door swi	tch (driver side)	Door Switch Condition	Continuity	
2	Ground part of door switch	Pressed	Exists	
	2 Ground part of door switch	Released	Does not exist	

#### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Replace front door switch (driver side). Refer to <u>DLK-585</u>, "Removal and Installation".

#### PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000001298196

Detects door open/closed condition.

PASSENGER SIDE: Component Function Check

INFOID:0000000001298197

INFOID:0000000001298198

## 1. CHECK FUNCTION

### (III) With CONSULT-III

Check door switches "DOOR SW-AS" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-AS	OPEN	: ON	
book ow no	CLOSE	: OFF	

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Refer to <u>DLK-368</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

## PASSENGER SIDE : Diagnosis Procedure

## 1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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

	Terminals		Door condition		
(+	)			Voltage (V)	
BCM connector	Terminal	(–)	2 001 00114.11011	(Approx.)	
			OPEN	0	
M65	14	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

### 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and front door switch (passenger side) connector.

Check continuity between BCM harness connector and front door switch (passenger side) harness connector.

BCM connector	Terminal	Front door switch (passenger side) connector	Terminal	Continuity
M65	14	B27	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	14	Giodila	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

## 3. CHECK DOOR SWITCH

Check front door switch (passenger side).

Refer to DLK-369, "PASSENGER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-585, "Removal and Installation"</u>.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

## PASSENGER SIDE : Component Inspection

## 1. CHECK DOOR SWITCH

Check front door switch (passenger side).

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Teri	Terminal		Continuity	
Front door switch	n (passenger side)	Door switch condition	Continuity	
2	Ground part of door switch	Pressed	Exists	
2	Ground part of door switch	Released	Does not exist	

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-585, "Removal and Installation"</u>.

REAR LH

**REAR LH: Description** 

INFOID:0000000001298200

Detects door open/closed condition.

REAR LH: Component Function Check

INFOID:0000000001298201

### 1. CHECK FUNCTION

#### (III) With CONSULT-III

Check door switches "DOOR SW-RL" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RL	OPEN	:ON	
DOOK SW-KE	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Refer to <u>DLK-370</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

## REAR LH: Diagnosis Procedure

INFOID:0000000001298202

## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals			
(+	·)		Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(Approx.)
			OPEN	0
M65	16	Ground	CLOSE	(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

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

## 2. CHECK DOOR SWITCH CIRCUIT

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

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INFOID:0000000001298205

M65 16 B71  3. Check continuity between BCM harness connector and ground.	2	Exists				
Check continuity between BCM harness connector and ground.	2	LAIGIG				
Check continuity between BCM harness connector and ground.						
BCM connector Terminal Grout		Continuity				

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Is the inspection result normal?

M65

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and rear door switch LH.

3.check door switch

Check rear door switch LH.

Refer to DLK-371, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch LH. Refer to DLK-585, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

## **REAR LH: Component Inspection**

1. CHECK DOOR SWITCH

Check rear door switch LH.

Terminal Rear door switch LH		Door switch condition	Continuity	
		Door Switch Condition		
2	Ground part of door switch	Pressed	Exists	
	2 Ground part of door switch	Released	Does not exist	

Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Replace rear door switch LH. Refer to <u>DLK-585</u>, "Removal and Installation".

REAR RH

**REAR RH: Description** 

INFOID:0000000001298204

Detects door open/close condition.

REAR RH: Component Function Check

1. CHECK FUNCTION

(II) With CONSULT-III

Check door switches "DOOR SW-RR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RR	OPEN	:ON	_
DOOK SW-KK	CLOSE	:OFF	

Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Refer to DLK-372, "REAR RH: Diagnosis Procedure".

## **REAR RH: Diagnosis Procedure**

INFOID:0000000001298206

## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

Terminals				
(+)			Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)	2 001 00110111011	(Approx.)
			OPEN	0
M65	12	Ground	CLOSE	(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2. CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Rear door switch RH connector	Terminal	Continuity
M65	12	B53	2	Exists

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	12	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

## 3.check door switch

Check rear door switch RH.

Refer to DLK-372, "REAR RH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch RH. Refer to <u>DLK-585, "Removal and Installation"</u>.

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### REAR RH: Component Inspection

INFOID:0000000001298207

## 1. CHECK DOOR SWITCH

Check rear door switch RH.

Te	rminal	Door switch condition	Continuity	
Rear door switch RH		Door Switch Condition	Continuity	
2	Ground part of door switch	Pressed	Exists	
2	Ground part of door switch	Released	Does not exist	

Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Replace rear door switch RH. Refer to DLK-585, "Removal and Installation".

BACK DOOR

**BACK DOOR: Description** 

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Detects back door open condition.

BACK DOOR: Component Function Check

Е INFOID:0000000001298209

### 1. CHECK FUNCTION

(III) With CONSULT-III

Check "BACK DOOR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BACK DOOR SW	OPEN	: ON	
	CLOSE	: OFF	

#### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

>> Refer to DLK-373, "BACK DOOR: Diagnosis Procedure".

## **BACK DOOR**: Diagnosis Procedure

INFOID:0000000001298210

## 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) INPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM harness connector and ground.

Terminals			Deal lead	V 16 00	
(+)		(_)	Back door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)			
M65	13	Ground	OPEN	0	
IVIOS	M65 13 Ground		CLOSE	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2. Ν

## 2.CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) CIRCUIT

Disconnect BCM connector back door lock assembly connector.

Check continuity between BCM harness connector and back door lock assembly (door switch) harness connector.

BCM connector	Terminal	Back door lock assembly (door switch) connector	Terminal	Continuity
M65	13	D190	2	Exists

Check continuity between BCM connector and ground.

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BCM connector	Terminal	Ground	Continuity
M65	13	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and back door lock assembly (door switch).

## 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly (door switch) connector	Terminal	Ground	Continuity
D190	3		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door lock assembly ground circuit.

#### 4. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector.
- Check voltage between BCM harness connector and ground.

	Terminals	V 16 0.0		
	(+)	( )	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	(11 - 7)	
M65	13	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Refer to DLK-374, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO

>> Replace back door lock assembly (door switch). Refer to <u>DLK-583, "DOOR LOCK: Removal and Installation".</u>

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

### >> INSPECTION END

## BACK DOOR : Component Inspection

INFOID:0000000001298211

## 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Tern	ninal	Back door condition	Continuity	
Back door lock assembly (door switch)		Back door condition	Continuity	
2	1	OPEN	Exists	
2	· ·	CLOSE	Does not exist	

#### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Replace back door lock assembly. Refer to <u>DLK-583, "DOOR LOCK: Removal and Installation"</u>.

### **KEY SWITCH**

Description INFOID:0000000001298212

Key switch detects that mechanical key is inserted into the key cylinder, and then transmits the signal to BCM and Intelligent Key unit.

### Component Function Check

INFOID:0000000001298213

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## 1. CHECK KEY SWITCH INPUT SIGNAL

Check key switch ("KEY SW") in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
KEY SW	Insert mechanical key into key cylinder	: ON	
	Remove mechanical key from key cylinder	: OFF	

### Is the inspection result normal?

YES >> Key switch is OK.

NO >> Refer to <u>DLK-375</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298214

## 1. CHECK KEY SWITCH INPUT SIGNAL

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

	Terminals			
(+)			Condition	Voltage (V)
Intelligent Key unit con- nector	Terminal	(–)		(Approx.)
M40	7	Ground	Insert mechanical key into key cylinder	Battery voltage
WHO	,	Ground	Remove mechanical key from key cylinder	0

Check voltage between BCM harness connector and ground.

	Terminals			V 1/2 0.0
(+)		( )	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		()
M65	5	Ground	Insert mechanical key into key cylinder	Battery voltage
IVIOS	5	Ground	Remove mechanical key from key cylinder	0

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- Remove mechanical key from key cylinder.
- Disconnect ignition knob switch, key switch and key lock solenoid connector. 2.
- Check voltage between ignition knob switch, key switch and key lock solenoid harness connector and ground.

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Т	erminals		
(+)			Voltage (V)
Ignition knob switch, key switch and key lock solenoid connector	Terminal	(–)	(Approx.)
M25	2	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.check key switch signal circuit

1. Check continuity between Intelligent Key unit harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

Intelligent Key unit connector	Terminal	Ignition knob switch, key switch and key lock solenoid connector	Terminal	Continuity
M40	7	M25	1	Exists

Check continuity between BCM harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

BCM connector	Terminal	Ignition knob switch, key switch and key lock solenoid connector	Terminal	Continuity
M65	5	M25	1	Exists

3. Check continuity between ignition knob switch, key switch and key lock solenoid harness connector and ground.

Ignition knob switch, key switch and key lock solenoid connector	Terminal	Ground	Continuity
M25	1	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK KEY SWITCH

Check key switch.

Refer to DLK-376, "Component Inspection".

#### Is the inspection result normal?

ves >> GO TO 5.

NO >> Replace key cylinder assembly.

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### Component Inspection

INFOID:0000000001298215

#### COMPONENT INSPECTION

1. CHECK KEY SWITCH

Check continuity between ignition knob switch, key switch and key lock solenoid terminals.

Terminal	Condition	Continuity
Ignition knob switch, key switch and key lock solenoid	Condition	Continuity

### **KEY SWITCH**

### < COMPONENT DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

1	2	Insert mechanical key into key cylinder	Exists
1	2	Remove mechanical key from key cylinder	Does not exist

## Is the inspection result normal?

YES >> Key switch is OK.

NO >> Replace key cylinder assembly.

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### **IGNITION KNOB SWITCH**

Description INFOID:000000001298216

Ignition knob switch detects that ignition knob is pressed, and then transmits the signal to Intelligent Key unit.

## Component Function Check

INFOID:0000000001298217

## 1. CHECK IGNITION KNOB SWITCH INPUT SIGNAL

Check ignition knob switch ("PUSH SW") in "Data Monitor" mode with CONSULT-III.

Monitor item	Conditi	ion
PUSH SW	Ignition knob switch is pressed	: ON
F 0311 3W	Ignition knob switch is released	: OFF

#### Is the inspection result normal?

YES >> Ignition knob switch is OK.

NO >> Refer to <u>DLK-378</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298218

## 1. CHECK IGNITION KNOB SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect Intelligent Key unit connector.
- 3. Check voltage between Intelligent Key unit harness connector and ground.

	Terminals			
(+)			Condition	Voltage (V)
Intelligent Key unit con- nector	Terminal	(–)		(Approx.)
M40	27	Ground	Ignition knob switch is pressed	Battery voltage
10140	21	Ground	Ignition knob switch is released	0

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2.CHECK IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- 1. Disconnect ignition knob switch, key switch and key lock solenoid connector.
- Check voltage between ignition knob switch, key switch and key lock solenoid harness connector and ground.

	Terminals		
(+)			Voltage (V)
Ignition knob switch, key switch and key lock solenoid connector	Terminal	(–)	(Approx.)
M25	4	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.check ignition knob switch signal circuit

1. Check continuity between Intelligent Key unit harness connector and ignition knob switch, key switch and key lock solenoid harness connector.

## **IGNITION KNOB SWITCH**

### < COMPONENT DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

0	Terminal	switch and key lock solenoid connector	Terminal	Continuity
	27	M25	3	Exists
ıity between iç	nition knob s	witch, key switch and key lo	ock solenoid c	onnector and ground.
witch, key ock solenoid or	Termina	l Ground		Continuity
	3			Does not exist
ON KNOB SV bb switch. "Component esult normal? O 5. ce ignition knows	VITCH  Inspection".  ob switch, key CIDENT	/ switch and key lock solend	oid.	
ECTION END				
ECTION END spection				INFOID:0000000001298.
	VITCH			INFOID:0000000001298:
Spection ON KNOB SV	on knob switc	h, key switch and key lock s	solenoid termii	nals under the followin
spection ON KNOB SV Detween ignition	on knob switc	h, key switch and key lock s Condition	solenoid termii	
spection ON KNOB SV Detween ignition Ch, key switch and lenoid	on knob switc			nals under the followin
	esult normal? O 4. r or replace has on KNOB SV bb switch. "Component esult normal? O 5. ce ignition knows	esult normal? O 4. r or replace harness. ON KNOB SWITCH bb switch. "Component Inspection". esult normal? O 5.	esult normal? O 4. r or replace harness. ON KNOB SWITCH bb switch. "Component Inspection". esult normal? O 5. ce ignition knob switch, key switch and key lock solenometers.	esult normal?  O 4. r or replace harness.  ON KNOB SWITCH  bb switch.  "Component Inspection".  esult normal?  O 5. ce ignition knob switch, key switch and key lock solenoid.

**DLK-379** 

#### [WITH I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

DRIVER SIDE

**DRIVER SIDE**: Description

DOOR LOCK ACTUATOR

INFOID:0000000001480684

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001480685

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The door lock actuator (driver side) is unlocked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (driver side) is OK.

NO >> Refer to <u>DLK-380</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

## DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001480686

## 1. CHECK BCM OUTPUT SIGNAL

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

Terminals					
(+)		( )	Condition of door lock and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(44,5)	
M67	56	Ground	Lock	$0 \to \text{Battery voltage} \to 0$	
IVIO7	60	Giouna	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2. CHECK DOOR LOCK ACTUATOR CIRCUIT 1

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

BCM connector	Terminal	Front door lock actuator (driver side) connector	Terminal	Continuity
M67	56	D29	1	Exists
WO	60	D23	2	LAISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO7	60		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

NO >> GO TO 3.

## 3.CHECK DOOR LOCK ACTUATOR CIRCUIT 2

Disconnect passenger side anti-hijack relay connector.

Check continuity between BCM harness connector and passenger side anti-hijack relay harness connec-

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M67	56	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### f 4.CHECK DOOR LOCK ACTUATOR CIRCUIT f 3

Check passenger side anti-hijack relay.

Passenger side relay connector	Terr	Continuity	
M90	3	4	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## ${f 5.}$ CHECK DOOR LOCK ACTUATOR CIRCUIT 4

Check continuity between passenger side anti-hijack relay harness connector and front door lock actuator (driver side) harness connector.

Passenger side anti-hijack relay connector	Terminal	Front door lock actuator (driver side) connector	Terminal	Continuity
M90	4	D29	1	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	4	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Description

Locks/unlocks the door with the signal from BCM.

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INFOID:0000000001480688

**DLK-381** 

#### < COMPONENT DIAGNOSIS >

## PASSENGER SIDE: Component Function Check

INFOID:0000000001480689

[WITH I-KEY & SUPER LOCK]

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition	
	:ALL UNLK	The all door lock actuators are unlocked	
DOOR LOCK/UNLOCK	:AS UNLK	The door lock actuator (passenger side) is locked	
	:LOCK	The all door lock actuators are locked	

#### Is the inspection result normal?

YES >> Front door lock actuator (passenger side) is OK.

>> Refer to DLK-382, "PASSENGER SIDE: Diagnosis Procedure". NO

## PASSENGER SIDE: Diagnosis Procedure

INFOID:000000001480690

## 1. CHECK BCM OUTPUT SIGNAL

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

Terminals				V ( 00	
(+)		( )	Condition of door lock and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(–)		,	
M67	56	Ground	Lock	$0 \to \text{Battery voltage} \to 0$	
IVIO7	54	Ground	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> GO TO 3.

>> GO TO 2. NO

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	56	D68	2	Exists
IVIO7	54		1	LAISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR LH

**REAR LH**: Description

INFOID:0000000001480692

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Locks/unlocks the door with the signal from BCM.

INFOID:0000000001480693

REAR LH: Component Function Check

## 1. CHECK FUNCTION

(I) With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOR EOCK/UNLOCK	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Rear door lock actuator LH is OK.

NO >> Refer to <u>DLK-383</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

## REAR LH: Diagnosis Procedure

INFOID:0000000001480694

## 1. CHECK BCM OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between BCM harness connector and ground.

Terminals			0 10 (1 1 1	V I. (10
(+)		(_)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		, ,
M67	56	Ground	Lock	0  o Battery voltage  o 0
IVIO7	54	Ground	Unlock	0 → Battery voltage → 0

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1 $\,$

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

BCM connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M67	56	D115	1	Exists
IVIO7	54	DIIS	2	LAISIS

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54	Does not e	Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 3.

## 3.CHECK DOOR LOCK ACTUATOR CIRCUIT ${\scriptstyle 2}$

1. Disconnect passenger side anti-hijack relay connector.

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#### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

Check continuity between BCM harness connector and passenger side anti-hijack relay harness connector.

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M67	56	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side anti-hijack relay.

Passenger side anti-hijack relay connector	Terminal		Continuity
M90	3	4	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

 Check continuity between passenger side anti-hijack relay harness connector and rear door lock actuator LH harness connector.

Passenger side anti-hijack relay connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M90	4	D115	1	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	4		Does not exist

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

#### 6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

**REAR RH** 

**REAR RH: Description** 

INFOID:0000000001480696

INFOID:0000000001480697

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

1. CHECK FUNCTION

(II) With CONSULT-III

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOK EGGIVONEGGIX	:LOCK	The all door lock actuators are locked

Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-385, "REAR RH: Diagnosis Procedure". NO

**REAR RH**: Diagnosis Procedure

## 1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM harness connector and ground.

Terminals				M. I
(+)	(+)		Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		X 11 - 7
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
IVIO7	54	Giodila	Unlock	0  o Battery voltage  o 0

Is the inspection result normal?

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

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1

Turn ignition switch OFF.

Disconnect BCM connector and rear door lock actuator RH connector. 2.

Check continuity between BCM harness connector and rear door lock actuator RH harness connector.

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	56	D95	2	Exists
IVIO7	54	D93	1	LAISIS

Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54	Does not	Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

>> GO TO 3. NO

## 3.CHECK DOOR LOCK ACTUATOR CIRCUIT ${\scriptstyle 2}$

Disconnect passenger side anti-hijack relay.

Check continuity between BCM harness connector and passenger side anti-hijack relay harness connector.

BCM connector	Terminal	Anti-hijack relay connector	Terminal	Continuity
M67	56	M90	3	Exists

Check continuity between BCM harness connector and ground.

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#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

BCM connector	Terminal	Ground	Continuity
M67	56	Oround	Does not exist

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side anti-hijack relay.

Anti-hijack relay connector	Terminal		Continuity
M90	4	3	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

1. Check continuity between passenger side anti-hijack relay harness connector and rear door lock actuator RH harness connector.

Passenger side anti-hijack relay connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M90	3	D95	3	Exists

2. Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	3		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### SUPER LOCK ACTUATOR

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000001298292

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The super lock system is controlled by BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001298293

INFOID:0000000001298294

## 1. CHECK FUNCTION

#### (II) With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Te	est item	Condition
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)
SOF LIN LOCK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)

#### Is the inspection result normal?

YES >> Front super lock actuator (driver side) is OK.

NO >> Refer to DLK-387, "DRIVER SIDE : Diagnosis Procedure".

## **DRIVER SIDE: Diagnosis Procedure**

### 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		(-)	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		( + )
M67	60	Ground	UNLOCK (RELEASE)	0 → Battery voltage → 0
59	Giodila	LOCK (SET)	0 → Ballery Vollage → 0	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK SUPER LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M67 59		D29	1	Exists
60	60	D29	2	EXISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
IVIO7	60	Does not	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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#### [WITH I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

# 3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001298296

The super lock system is controlled by BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000001298297

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test ite	em	Condition
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)
SUP LIX LOOK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)

#### Is the inspection result normal?

YES >> Front super lock actuator (passenger side) is OK.

NO >> Refer to <u>DLK-388</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

### PASSENGER SIDE: Diagnosis Procedure

#### INFOID:0000000001298298

## 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition	Voltage (V) (Approx.)
(+)				
BCM connector	Terminal	(-)		(1),
M67	54	Ground	UNLOCK (RELEASE)	$0 \rightarrow Battery\ voltage \rightarrow 0$
IVIO7	59	Giouna	LOCK (SET)	0 → Battery Voltage → 0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK SUPER LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM and front door lock actuator (passenger side) connector.
- 3. Check continuity between BCM connector and front door lock actuator (passenger side) connector.

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	59	D68	1	Exists
IVIO7	54	D00	2	LXISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
	54		Does not exist

### SUPER LOCK ACTUATOR

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

REAR LH

**REAR LH: Description** 

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The super lock system is controlled by BCM.

REAR LH: Component Function Check

INFOID:0000000001298301

INFOID:0000000001298302

### 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test item Condition The super lock actuator is locked (SET) :LOCK (SET) SUPER LOCK :UNLOCK (RELEASE) The super lock actuator is unlocked (RELEASE)

#### Is the inspection result normal?

YES >> Rear super lock actuator LH is OK.

NO >> Refer to <u>DLK-389</u>, "REAR LH: <u>Diagnosis Procedure</u>".

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

## 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				V I 00
(+)		( )	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(
M67	54	Ground	UNLOCK (RELEASE)	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
WO	59	Giodila	LOCK (SET)	0 → Battery Voltage → 0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK SUPER LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and rear door lock actuator LH connector.
- Check continuity between BCM connector and rear door lock actuator LH connector.

BCM connector	Terminal	Rear door lock actuator (pas- senger side) connector	Terminal	Continuity
M67	59	D115	1	Exists
54	54	0113	2	LAISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
	54		Does not exist

**DLK-389** 

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#### < COMPONENT DIAGNOSIS >

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

**REAR RH** 

**REAR RH**: Description

INFOID:0000000001298304

The super lock system is controlled by BCM.

REAR RH: Component Function Check

INFOID:0000000001298305

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test ite	m	Condition	
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)	
SOI EN EOCK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)	

#### Is the inspection result normal?

YES >> Rear super lock actuator RH is OK.

NO >> Refer to <u>DLK-390</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

## REAR RH: Diagnosis Procedure

INFOID:0000000001298306

## 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		(-)	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(1))
M67	54	Ground	UNLOCK (RELEASE)	0 → Battery voltage → 0
WO7	59	Glound	LOCK (SET)	0 → Battery Voltage → 0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK SUPER LOCK ACTUATOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM and rear door lock actuator RH connector.
- 3. Check continuity between BCM connector and rear door lock actuator RH connector.

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	59	D95	1	Exists
IVIO7	54	593	2	LAISIS

<sup>4.</sup> Check continuity between BCM connector and ground.

### **SUPER LOCK ACTUATOR**

### < COMPONENT DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
IVIO /	54		Does not exist

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Is the inspection result normal?

>> GO TO 3. YES

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

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## [WITH I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

## **BACK DOOR OPENER ACTUATOR**

Description INFOID:000000001298236

Opens the back door with the signal from BCM.

## Component Function Check

INFOID:0000000001298237

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "TRUNK/GLASS HATCH" in "Active Test" mode with CONSULT-III.

Test item		Condition
TRUNK/GLASS HATCH	:OPEN	Back door opener actuator operation

#### Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to <u>DLK-392</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298238

### 1. CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			0 155	V I. 00
(+)		(-)	Condition of back door opener switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	,	, , ,
M66	45	Ground	Pressed	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

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

BCM connector	Terminal	Back door lock assembly connector	Terminal	Continuity
M66	45	D190	4	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M66	45	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly connector	Terminal	Ground	Continuity
D190	3		Exists

#### Is the inspection result normal?

< COMPONENT DIAGNOSIS >	ER ACTUATOR [WITH I-KEY & SUPER LOCK]
YES >> GO TO 4.	
NO >> Repair or replace harness.	
4.CHECK INTERMITTENT INCIDENT	
Refer to GI-39, "Intermittent Incident".	
>> INSPECTION END	
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## < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## **FUEL LID OPENER ACTUATOR**

**Description** 

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

### Component Function Check

INFOID:0000000001298241

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The fuel lid opener actuator are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The fuel lid opener actuator is unlocked
	:LOCK	The fuel lid opener actuator are locked

#### Is the inspection result normal?

YES >> Fuel lid opener actuator is OK.

NO >> Refer to <u>DLK-394</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298242

## 1. CHECK BCM OUTPUT SIGNAL

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

Terminals			O a life and bandon	V 16 0.0
(+)		( )	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(=) and amount of		
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
IVIO /	60 Ground		Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2.CHECK FUEL LID OPENER ACTUATOR CIRCUIT 1

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

BCM connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M67	M67		2	Exists
WO7	60	B58	1	LAISIS

Check continuity between BCM harness connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
WO7	60		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 3.

3.CHECK FUEL LID OPENER ACTUATOR CIRCUIT  $^{
m 2}$ 

#### **FUEL LID OPENER ACTUATOR**

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

1. Disconnect passenger side anti-hijack relay connector.

2.	Check continuity	between BCM ha	ness connector and	passenger side anti-hija	ck relay connector.
----	------------------	----------------	--------------------	--------------------------	---------------------

BCM connector	Terminal	Passenger side anti-hijack re- lay connector	Terminal	Continuity
M67	56	M90	3	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M67	56	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK FUEL LID OPENER ACTUATOR CIRCUIT 3

Check passenger side of anti-hijack relay.

Passenger side anti-hijack re- lay connector	Terr	Continuity	
M90	3	4	Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

 Check continuity between passenger side anti-hijack relay harness connector and fuel lid opener actuator harness connector.

Passenger side anti-hijack relay connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M90	4	B58	2	Exists

Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack re- lay connector	Terminal	Ground	Continuity
M90	4		Does not exist

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

#### **6.**CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

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### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

### **BACK DOOR OPENER SWITCH**

Description INFOID:000000001298244

Sends the back door opening signal to BCM.

## Component Function Check

INFOID:0000000001298245

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "TRNK OPNR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition	
TRNK OPNR SW	Back door opener switch is pressed	:ON
	Back door opener switch is released	:OFF

#### Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-396</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298246

### 1. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			One life and the state of	V I 00	
(+)		(-)	Condition of back door opener switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	,	VII - /	
M65 29	Ground	Pressed	0		
	29	Giodila	Released	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and back door opener switch assembly (opener switch) connector.
- Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM connector	Terminal	Back door opener switch assembly (opener switch) connector	Terminal	Continuity
M65	29	D186	1	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	29	- Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

#### **BACK DOOR OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

Terminals			V. I	
(+)	(+)		Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	, , ,	
M65	29	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

4. CHECK BACK DOOR OPENER SWITCH GROUND CIRCUIT

Check continuity between back door opener switch assembly (opener switch) connector and ground.

Back door opener switch assembly (opener switch) connector	Terminal	Ground	Continuity
D186	2		Exists

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to DLK-397, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-593</u>, "Removal and Installation".

6.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

SPECTION INFOID:000000001298247

# 1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Back door opener switch assembly (opener switch)	Terminal		Back door opener switch condition	Continuity
D186	1	2	Pressed	Exists
D100	'	2	Released	Does not exist

Is the inspection result normal?

YES >> Back door opener switch assembly (opener switch) is OK.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-593, "Removal and Installation"</u>.

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#### **OUTSIDE KEY ANTENNA**

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

### **OUTSIDE KEY ANTENNA**

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001298248

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

### DRIVER SIDE: Component Function Check

INFOID:0000000001298249

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

#### (P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "DRIVER ANT".
- 3. When Intelligent Key is in outside key antenna (driver side) detection area, LED (on Intelligent Key) blinks.

Te	est Item	Outside Antenna	
ANTENNA	:DRIVER ANT	Outside key antenna (driver side)	

#### Is the inspection result normal?

YES >> Outside key antenna (driver side) is OK.

NO >> Refer to <u>DLK-404</u>, "BACK DOOR : <u>Diagnosis Procedure</u>".

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001298250

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terr	ninals					
	(+) gent Key unit onnector	Terminal	(-)	C	Condition	Signal (Reference value)	
	Driver side	19			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0397ZZ	
M40	(+)		Ground	Request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0514ZZ	
	Driver side	20		is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   S   S   S   S   S   S   S   S   S	
	(-)	-			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0515ZZ	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect Intelligent Key unit connector and outside key antenna and front door request switch (driver side) connector.
- 2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (driver side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (driver side) connector	Terminal	Continuity
M40	19	D30	1	Exists
- IVI+O	20	D30	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit connector and ground.

Intelligent Key unit connector	Terminal		Continuity	
M40	19	Ground	Does not exist	
IVI4U	20			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna (driver side).

# 3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace outside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and outside key antenna connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Terminals						
	(+)			Con	dition	Signal (Reference value)	
	gent Key unit onnector	Terminal	(–)			(Neierence value)	
	Driver side	(+) 19 Ground		Door request switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I	
M40	(+)		Ground _		When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0514ZZ	
WIFC	Driver side (-)			Door request switch	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0395ZZ	
			is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 18 18 18  JMKIA0515ZZ		

#### Is the inspection result normal?

YES >> Replace outside key antenna and front door request switch (driver side). Refer to <u>DLK-575, "OUT-SIDE HANDLE: Removal and Installation"</u>.

NO >> GO TO 4.

#### **OUTSIDE KEY ANTENNA**

# < COMPONENT DIAGNOSIS > 4. CHECK INTERMITTENT INCIDENT Refer to GI-39, "Intermittent Incident". >> INSPECTION END PASSENGER SIDE PASSENGER SIDE: Description Detects whether Intelligent Key is outside the vehicle. Integrated in front outside handle (passenger side).

# INFOID:0000000001298251

[WITH I-KEY & SUPER LOCK]

PASSENGER SIDE: Component Function Check

INFOID:0000000001298252

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# ${f 1}$ .CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

# (I) With CONSULT-III

- Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- Touch "ASSIST ANT".
- When Intelligent Key is in outside key antenna (passenger side) detection area, LED (on Intelligent Key)

	Test Item	Outside Antenna	
ANTENNA	:ASSIST ANT	Outside key antenna (passenger side)	

#### Is the inspection result normal?

YES >> Outside key antenna (passenger side) is OK.

NO >> Refer to DLK-401, "PASSENGER SIDE: Diagnosis Procedure".

# PASSENGER SIDE: Diagnosis Procedure

# INFOID:0000000001298253

# 1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminals					Signal (Reference value)	
	(+) Intelligent Key unit connector  Terminal		(–)	Condition			
	Passenger side	37			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1	
M40	(+)	37	Ground	Request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  MMINOS14ZZ	
	Passenger side	38		is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   S   JMKIA0395ZZ	
	(-)	(-) 38			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0515ZZ	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect Intelligent Key unit connector and outside key antenna and front door request switch (passenger side) connector.
- 2. Check continuity between Intelligent Key unit harness connector and outside key antenna and front door request switch (passenger side) harness connector.

Intelligent Key unit connector	Terminal	Outside key antenna and front door request switch (passenger side) connector	Terminal	Continuity
M40	37	D69	1	Exists
10140	38	509	2	LAISIS

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

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Intelligent Key unit connector	Terminal		Continuity	
M40	37	Ground	Does not exist	
IVI40	38		Does not exist	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna and front door request switch (passenger side).

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

- Replace outside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and outside key antenna connector.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Termir	nal					
(+) Intelligent Key unit connector Terminal		(–)	Condition		Signal (Reference value)	F	
	Passenger side	37			When Intelligent Key is in the anten- na detection area.	(V) 15 10 5 0  JMKJA0514ZZ	G
M40	(+)		Ground	Door request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0514ZZ	DL
IVI4U	Passenger side	38	Glound	is pressed	When Intelligent Key is in the anten- na detection area.	(V) 15 10 5 0 JMKIA0395ZZ	N
	(-)				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0515ZZ	P

#### Is the inspection result normal?

YES >> Replace outside key antenna and front door request switch (passenger side). Refer to <u>DLK-575</u>, "OUTSIDE HANDLE: Removal and Installation".

#### **OUTSIDE KEY ANTENNA**

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

NO >> GO TO 4.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

**BACK DOOR** 

**BACK DOOR: Description** 

INFOID:0000000001298254

Detects whether Intelligent Key is outside the vehicle. Installed in rear bumper.

### BACK DOOR: Component Function Check

INFOID:0000000001298255

#### ${f 1}$ .CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

#### (I) With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- Touch "BK DOOR ANT".
- When Intelligent Key is in outside key antenna (rear bumper) detection area, LED (on Intelligent Key) blinks.

Tes	t Item	Outside Antenna
ANTENNA	:BK DOOR ANT	Outside key antenna (rear bumper)

#### Is the inspection result normal?

YES >> Outside key antenna (back door) is OK.

NO >> Refer to <u>DLK-404</u>, "BACK DOOR : Diagnosis Procedure".

# BACK DOOR : Diagnosis Procedure

INFOID:0000000001298256

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminal						
(+)  Intelligent Key unit connector  Term		Terminal	(–)	C	Condition	Signal (Reference value)	
	Rear bumper	17			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0397ZZ	
M40	(+)	17		ound Request switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0514ZZ	
	Rear bumper (-)	Rear bumper			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0395ZZ	
					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0515ZZ	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect Intelligent Key unit connector and outside key antenna (back door) connector.

2. Check continuity between Intelligent Key unit harness connector and outside key antenna (back door) harness connector.

Intelligent Key unit connector	ierminai		Terminal	Continuity	
M40	17	D191	1	Exists	
W40	18	ופוט	2	EXISTS	

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal		Continuity
M40	17	Ground	Does not exist
WHO	18		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and outside key antenna (back door).

# 3. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

- Replace outside key antenna. (New antenna or other antenna)
- Connect Intelligent Key unit connector and outside key antenna (back door) connector.
- Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Terminal						
	(+)			Condition		Signal	
	Intelligent Key unit connector		(–)			(Reference value)	
	Rear bumper	17			When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0	
M40	(+)		Ground	Door request switch	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0	
	Rear bumper	18		is pressed	When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0 JMKIA0395ZZ	
	(-)				When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA0515ZZ	

#### Is the inspection result normal?

YES >> Replace outside key antenna (back door). Refer to EXT-36, "Removal and Installation". NO

#### **OUTSIDE KEY ANTENNA**

# [WITH I-KEY & SUPER LOCK] < COMPONENT DIAGNOSIS > 4. CHECK INTERMITTENT INCIDENT Α Refer to GI-39, "Intermittent Incident". >> INSPECTION END В С D Е F Н DLK M Ν

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#### **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# INSIDE KEY ANTENNA INSTRUMENT CENTER

**INSTRUMENT CENTER:** Description

INFOID:0000000001298257

Detects whether Intelligent Key is inside the vehicle.

### INSTRUMENT CENTER: Component Function Check

INFOID:0000000001298258

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

#### (P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- Touch "ROOM ANT 2".
- When Intelligent Key is in inside key antenna (instrument center) detection area, LED (on Intelligent Key) blinks.

-	Test Item	Inside Antenna		
ANTENNA :ROOM ANT 2		Inside key antenna (instrument center)		

#### Is the inspection result normal?

YES >> Inside key antenna (instrument center) is OK.

NO >> Refer to <u>DLK-408</u>, "<u>INSTRUMENT CENTER</u>: <u>Diagnosis Procedure</u>".

# **INSTRUMENT CENTER:** Diagnosis Procedure

INFOID:0000000001298259

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminals			Condition			
(+) Intelligent Key unit connector Term		Terminal	()			Signal (Reference value)	
	Instrument center	33			When Intelligent Key is in the antenna detection area.	(V) 15 10 15 11 1	
M40	(+)	33	— Ground	All doors are closed     Ignition knob switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0391ZZ	
WITO	Instrument center (-)	ent			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ	
					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

Intelligent Key unit connector	Terminal	Inside key antenna (instrument center) connector	Terminal	Continuity	
M40	33	M56	1	Exists	
10140	34	IVIO	2		

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal		Continuity	
M40	33	Ground	Does not exist	
WHO	34		Does not exist	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (instrument center).

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

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

	Terminals					
Intelli	(+)		(–)	Condition		Signal (Reference value)
	Intelligent Key unit connector		. ,			
	Instrument center	33			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
M40	(+)	33	Ground	All doors are closed     Ignition knob switch is pressed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 4 1 s JMKIA0391ZZ
W40	Instrument center (-)	Instrument center 34			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I
					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  JMKIA0390ZZ

#### Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-586, "INSTRUMENT CENTER:</u> Removal and Installation".

# **INSIDE KEY ANTENNA**

INSIDE RELATION	
< COMPONENT DIAGNOSIS >	[WITH I-KEY & SUPER LOCK]
NO >> GO TO 4.	
4.check intermittent incident	
Refer to GI-39, "Intermittent Incident".	
>> INSPECTION END CONSOLE	
CONSOLE : Description	INFOID:000000001298260
Detects whether Intelligent Key is inside the vehicle.	
CONSOLE : Component Function Check	INFOID:000000001298261
1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL	
<ol> <li>Check "ANTENNA" in "Active Test" mode with CONSULT-III.</li> <li>Touch "ROOM ANT 1".</li> <li>When Intelligent Key is in inside key antenna (console) detect</li> </ol>	ion area, LED (on Intelligent Key) blinks.
Test Item	Inside Antenna
ANTENNA :ROOM ANT 1	Inside key antenna (console)
Is the inspection result normal?	
YES >> Inside key antenna (console) is OK. NO >> Refer to <u>DLK-411</u> , "CONSOLE : <u>Diagnosis Procedure</u>	<u>"</u> -
CONSOLE : Diagnosis Procedure	INFOID:0000000001298262
1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1	
<ol> <li>Turn ignition switch OFF.</li> <li>Check signal between Intelligent Key unit harness connectors</li> </ol>	and ground with oscilloscope.

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	Terminal					
Intelliç	(+) Intelligent Key unit connector Terminal		(-)	Condition		Signal (Reference value)
	Console (+)	15		All doors are closed     Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1
M40					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s 1 s JMKIA0391ZZ
	Console (-)	onsole 16	Ground		When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ
		16			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  JMKIA0390ZZ

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect Intelligent Key unit connector and inside key antenna (console) connector.
- 2. Check continuity between Intelligent Key unit harness connector and inside key antenna (console) harness connector.

Intelligent Key unit connector	Terminal	Terminal Inside key antenna (console) connector		Continuity	
M40	15	M252	1	Exists	
M40 	16	IMZJZ	2	EXISIS	

<sup>3.</sup> Check continuity between Intelligent Key unit harness connector and ground.

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Intelligent Key unit connector	Terminal		Continuity
M40	15	Ground	Does not exist
IVI40	16		DOES HOLEKIST

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (console).

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

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and inside key antenna (console) connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Term	inal				
(+)			Condition		Signal	
Intelligent Key unit connector Terminal		(-)			(Reference value)	
	Console	15			When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0393ZZ
M40 -	(+)	15	Orașii l	All doors are closed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  MKIA0391ZZ
	Console (-)		<ul> <li>Ignition knob</li> </ul>	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1   I   I   I   I   I   I   I   I   I	
			When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0  JMKIA0390ZZ		

#### Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-587, "CONSOLE : Removal and Installation"</u>. NO >> GO TO 4.

4. CHECK INTERMITTENT INCIDENT

#### **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

REAR SEAT

REAR SEAT : Description

INFOID:0000000001298263

Detects whether Intelligent Key is inside the vehicle.

REAR SEAT : Component Function Check

INFOID:0000000001298264

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

#### (P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- Touch "ROOM ANT 2".
- 3. When Intelligent Key is in inside key antenna (rear seat) detection area, LED (on Intelligent Key) blinks.

	Inside Antenna	
ANTENNA	:ROOM ANT 2	Inside key antenna (rear seat)

#### Is the inspection result normal?

YES >> Inside key antenna (rear seat) is OK.

NO >> Refer to <u>DLK-414</u>, "<u>REAR SEAT</u>: <u>Diagnosis Procedure</u>".

### **REAR SEAT: Diagnosis Procedure**

INFOID:0000000001298265

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

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	Terminal						
	(+) Intelligent Key unit connector Terminal		(–)	Condition		Signal (Reference value)	
	Rear seat (+)	13		All doors are closed     Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 4 1 s  JMKIA0393ZZ	
M40					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0391ZZ	
Wife	Rear seat (-)		Ground		When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ	
					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.check inside key antenna circuit

1. Disconnect Intelligent Key unit connector and inside key antenna (rear seat) connector.

Check continuity between Intelligent Key unit harness connector and inside key antenna (rear seat) harness connector.

Intelligent Key unit connector Terminal		Inside key antenna (rear seat) connector	Terminal	Continuity
M40	13	B45	1	Exists
M40	14	D43	2	LAISIS

3. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal		Continuity	
M40	13	Ground	Does not exist	
WHO	14			

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna (rear seat).

# 3. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and inside key antenna (rear seat) connector.
- 3. Check signal between Intelligent Key unit harness connector and ground with oscilloscope.

	Terminal						
-	(+)			Со	ndition	Signal (Reference value)	
	Intelligent Key unit connector Terminal		(-)			(Reference value)	
	Rear seat (+)	13	Ground	All doors are closed     Ignition knob switch is pressed	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0393ZZ	
M40					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0391ZZ	
	Rear seat (-)				When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0392ZZ	
					When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0390ZZ	

#### Is the inspection result normal?

YES >> Replace inside key antenna (rear seat). Refer to <u>DLK-588, "REAR : Removal and Installation"</u>. NO >> GO TO 4.

# **INSIDE KEY ANTENNA**

< COMPONENT DIAGNOSIS >	INSIDE KET ANTENNA	[WITH I-KEY & SUPER LOCK]
4. CHECK INTERMITTENT INCIDE	 NT	<u> </u>
Refer to GI-39, "Intermittent Incident"		
>> INSPECTION END		
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#### [WITH I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

ANTI-HIJACK RELAY PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000001298266

Receives anti-hijack signal from Intelligent Key unit.

PASSENGER SIDE: Component Function Check

INFOID:0000000001298267

# 1. CHECK FUNCTION

- 1. All doors are locked using Intelligent Key or door request switch.
- 2. Press door request switch (passenger side), only passenger side door is UNLOCK.

#### Is the inspection result normal?

YES >> Anti-hijack relay is OK.

NO >> Refer to DLK-418, "PASSENGER SIDE : Diagnosis Procedure".

### PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001298268

# 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 1

Check voltage between Intelligent Key unit harness connector and ground.

Termina					
(+)		Condition	Voltage (V)		
Intelligent Key unit connector	- i leminai			(Approx.)	
M40	11	Ground	Ignition switch OFF	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 6.

# 2. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 2

Check voltage between Intelligent Key unit harness connector and ground.

Ter	minal					
(+)			Condition		Voltage (V)	
Intelligent Key unit connector Terminal		(–)			(Approx.)	
M40	40	Ground	Press front door request switch	Anti-hijack operation	Battery voltage → 0 → Battery voltage	
			(passenger side)	Other than above	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

# 3.check intelligent key unit ground circuit

Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit connector	Terminal	Ground	Continuity
M40	12		Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

#### < COMPONENT DIAGNOSIS >

# 4.CHECK PASSENGER SIDE ANTI-HIJACK RELAY GROUND CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect passenger side anti-hijack relay connector and Intelligent Key unit connector.
- Check voltage between passenger side anti-hijack relay harness connector and ground.

Terminal					
(+)			Condition	Voltage (V)	
Passenger side anti-hijack relay connector	Terminal (-)		<b>33.14.11.0</b> .1	(Approx.)	
M90	2	Ground	Ignition switch OFF	Battery voltage	

Check continuity between passenger side anti-hijack relay harness connector and Intelligent Key unit connector.

Passenger side anti-hijack relay connector	Terminal	Intelligent Key unit connector	Terminal	Continuity
M90	1	M40	40	Exists

Check continuity between passenger side anti-hijack relay harness connector and ground.

Passenger side anti-hijack relay connector	Terminal	Ground	Continuity
M90	1	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

# 5.CHECK PASSENGER SIDE ANTI-HIJACK RELAY

Check passenger side anti-hijack relay.

Refer to <u>DLK-419</u>, "PASSENGER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

>> Replace passenger side anti-hijack relay. Refer to <u>DLK-309</u>, "DOOR LOCK AND UNLOCK NO SWITCH: Component Parts Location".

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### PASSENGER SIDE: Component Inspection

1. CHECK ANTI-HIJACK RELAY

Check continuity passenger side anti-hijack relay terminals.

Passenger side anti-hijack relay connector	Terr	minal	Condition	Continuity
M90	4 3	Battery voltage direct current supply between terminals 1 and 2	Does not exist	
			Other than above	Exists

#### Is the inspection result normal?

YES >> Passenger side anti-hijack relay is OK.

>> Replace passenger side anti-hijack relay. Refer to DLK-309, "DOOR LOCK AND UNLOCK NO SWITCH: Component Parts Location".

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INFOID:0000000001298269

[WITH I-KEY & SUPER LOCK]

### INTELLIGENT KEY WARNING BUZZER

**Description** 

Answers back and warns about an inappropriate operation.

### Component Function Check

INFOID:0000000001298271

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check Intelligent Key warning buzzer "OUTSIDE BUZZER" in "Active Test" mode with CONSULT-III.

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Refer to <u>DLK-420, "Diagnosis Procedure"</u>.

### Diagnosis Procedure

INFOID:0000000001298272

# 1. CHECK INTELLIGENT KEY UNIT INPUT SIGNAL 1

Check voltage between Intelligent Key unit harness connector and ground.

Terminal				
(-	+)		Warning buzzer operation condition	Voltage (V) (Approx.)
Intelligent Key unit connector	Terminal	(–)		
M40	4	Ground	Sounding	0
17140	4	Giouna	Not sounding	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2. CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect Intelligent Key warning buzzer connector.
- Check voltage between Intelligent Key warning buzzer harness connector and ground.

Т	Terminal				
(+)			Voltage (V) (Approx.)		
Intelligent Key warning buzzer connector	Terminal	(–)	(Approx.)		
E25	1	Ground	Battery voltage		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace Intelligent Key warning buzzer power supply circuit.

#### 3.CHECK HARNESS CONTINUITY

- Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key warning buzzer harness connector and Intelligent Key unit harness connector.

Intelligent Key warning buzzer connector	Terminal	Intelligent Key unit connector	Terminal	Continuity
E25	3	M40	4	Exists

3. Check continuity between Intelligent Key warning buzzer harness connector and ground.

#### INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

#### [WITH I-KEY & SUPER LOCK]

Intelligent Key warning buzzer connector	Terminal	Ground	Continuity
E25	3		Does not exist
s the inspection result normal?			
YES >> GO TO 4.			
NO >> Repair or replace harness betw	veen Intelligent Kev	warning buzzer and	Intelligent Kev unit.

4. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to <u>DLK-421</u>, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-591</u>. "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

1. CHECK INTELLIGENT KEY WARNING BUZZER

Connect battery power supply to Intelligent Key warning buzzer terminals 1 and 3, and check the operation.

Intelligent Key warning buzzer	Teri	minal	Operation
connector	(+)	(-)	Buzzer sounds
E25	1	3	Duzzei sourius

#### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-591</u>, "Removal and Installation".

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### **BUZZER (COMBINATION METER)**

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# **BUZZER (COMBINATION METER)**

Description INFOID:000000001298274

Performs operation method guide and warning with buzzer.

### Component Function Check

INFOID:0000000001298275

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check the operation with "INSIDE BUZZER" in "Active Test" with CONSULT-III.

Test item	Condition		
	:TAKE OUT	Take away warning chime sounds	
INSIDE BUZZER	:KNOB	Ignition knob switch warning chime sounds	
	:KEY	Key warning chime sounds	

#### Is the inspection result normal?

Yes >> Warning buzzer in combination meter is OK.

No >> Refer to <u>DLK-422</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000001298276

# 1. CHECK BUZZER (COMBINATION METER) CIRCUIT

Refer to WCS-16, "Component Function Check".

#### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace buzzer (combination meter) circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

	KI	EY WARNING LAMP
< COMPONENT DIAGNO	SIS >	[WITH I-KEY & SUPER LOCK]
KEY WARNING LA	MP	
Description		INFOID:000000001298277
Performs operation method	I guide and war	ning together with buzzer.
Component Function	Check	INFOID:0000000001298278
1.CHECK FUNCTION		
(A) With CONSULT-III		
	NDICATOR" in	"Active Test" mode with CONSULT-III.
Test item		Condition
	:BLUE ON	Key warning lamp (green) illuminates
INDICATOR	:RED ON	Key warning lamp (red) illuminates
INDICATOR	:BLUE IND	Key warning lamp (green) flashes
	:RED IND	Key warning lamp (red) flashes
Is the inspection result norm Yes >> Key warning la No >> Refer to DLK-4	mp in combinat	
Diagnosis Procedure		INFOID:000000001298279
1. CHECK KEY WARNING	LAMP CIRCU	IT
Refer to MWI-24, "Diagnosis	s Description".	
Is the inspection result norr	nal?	
Yes >> GO TO 2.		
No >> Repair or repla	ce key warning	lamp circuit.

Refer to GI-39, "Intermittent Incident".

2. CHECK INTERMITTENT INCIDENT

>> INSPECTION END

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#### **LOCK WARNING LAMP**

#### < COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

### LOCK WARNING LAMP

Description INFOID:000000001298280

Performs operation method guide and warning together with buzzer.

### Component Function Check

INFOID:0000000001298281

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

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

Test item		Condition
INDICATOR	:KNOB ON	Lock warning lamp illuminates
INDICATOR	:KNOB IND	Lock warning lamp flashes

#### Is the inspection result normal?

Yes >> Lock warning lamp in combination meter is OK.

No >> Refer to <u>DLK-424</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:000000001298282

# 1. CHECK LOCK WARNING LAMP CIRCUIT

Refer to MWI-24, "Diagnosis Description".

#### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace lock warning lamp circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

HAZARD WARNING LAMPS		
< COMPONENT DIAGNOSIS >	[WITH I-KEY & SUPER LOCK]	
HAZARD WARNING LAMPS	,	Λ
Description	INFOID:000000001298283	Α
Performs answer-back for each operation with the number of blinks.	F	В
Component Function Check	INFOID:000000001298284	
1. CHECK FUNCTION		С
With CONSULT-III Check hazard warning lamp "FLASHER" in "Active Test" mode with CONS Is the inspection result normal? YES >> Hazard warning lamp circuit is OK. NO >> Refer to <a href="DLK-425">DLK-425</a> , "Diagnosis Procedure".		D E
Diagnosis Procedure	INFOID:000000001298285	=
1.CHECK HAZARD SWITCH CIRCUIT	F	F
Check hazard switch circuit.  Refer to EXL-84, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.		G
NO >> Repair or replace hazard warning switch circuit.  2.CHECK INTERMITTENT INCIDENT	ŀ	Н
Refer to GI-39, "Intermittent Incident".		

>> INSPECTION END

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#### **VEHICLE SPEED SIGNAL CIRCUIT**

< COMPONENT DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

#### VEHICLE SPEED SIGNAL CIRCUIT

**Description** 

Displays the vehicle speed signal received from combination meter as a numerical value (km/h).

### Component Function Check

INFOID:0000000001298287

# 1. CHECK FUNCTION

Check that all doors are automatically locked at the vehicle speed of more than 25 km/h (16 MPH).

#### Is the inspection result normal?

YES >> Vehicle speed signal circuit is OK.

NO >> Refer to <u>DLK-426, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000001298288

# 1. CHECK VEHICLE SPEED SIGNAL CIRCUIT

Check vehicle speed signal "VEHICLE SPEED" in "Data Monitor" mode with CONSULT-III.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace vehicle speed signal circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

#### INTELLIGENT KEY BATTERY

Description

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

- Door lock and unlock
- Engine start

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

#### Component Function Check

# 1. CHECK INTELLIGENT KEY FUNCTION

Does door lock and unlock operate when operating Intelligent Key switch?

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to <u>DLK-427</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

# 1. CHECK INTELLIGENT KEY BATTERY

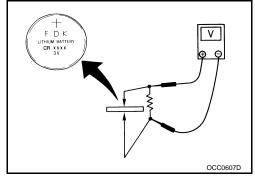
Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

#### 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-594</u>, "Removal and Installation".



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# **ECU DIAGNOSIS**

# INTELLIGENT KEY UNIT

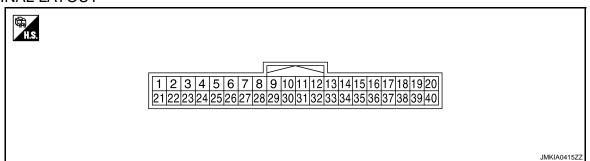
Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item		Condition				
PUSH SW	Ignition knob	Release	OFF			
PUSH 3W	Ignition knob	Press	ON			
KEN ON CM	Machanical kay	Removed	OFF			
KEY ON SW	Mechanical key	Inserted	ON			
DR REQ SW	Door request switch	Release	OFF			
DR REQ 3W	(driver)	Press	ON			
AS REQ SW	Door request switch	Release	OFF			
AS REQ SW	(passenger)	Press	ON			
BD/TR REQ SW	Door request switch	Release	OFF			
BD/TK REQ SW	(back door)	Press	ON			
IGN SW	lanition quitab	Other than ON position	OFF			
IGN SW	Ignition switch	ON position	ON			
ACC SW	lanition quitab	Other than ACC or ON position	OFF			
ACC SW	Ignition switch	ACC or ON position	ON			
STOP LAMP SW	Proko podal	Press	OFF			
STOP LAIVIP SVV	Brake pedal	Release	ON			
DOOR LOCK SIG	Lock button of	Release	OFF			
DOOR LOCK SIG	Intelligent Key	Press	ON			
DOOR UNLOCK SIG	Unlock button of	Release	OFF			
DOOK UNLOCK SIG	Intelligent Key	Press	ON			
DOOR SW DR	Door (driver eide)	Close	OFF			
DOOK SW DK	Door (driver side)	Open	ON			
DOOR SW AS	Door (passenger side)	Close	OFF			
DOOR SW AS	Door (passeriger side)	Open	ON			
DOOR SW RR	Door (roor DU)	Close	OFF			
DOOK SW KK	Door (rear RH)	Open	ON			
DOOR SW RL	Door (rear LH)	Close	OFF			
DOOK SWIKE	Door (real LT)	Open	ON			
DOOR BK SW	Back door	Close	OFF			
DOOK DK 3W	Dack door	Open	ON			
VEHICLE SPEED	/EHICLE SPEED While driving					

# TERMINAL LAYOUT



#### PHYSICAL VALUES

Terminal No.		\\ <i>\(\'</i> :==	Description				\/alua [\/]
+	_	Wire color	Signal name	Input/ Output	Condition		Value [V] (Approx.)
1	Ground	LG	Steering lock unit power supply	Output		_	5
2	Ground	L	CAN - H	Input/ Output		_	_
3	Ground	Р	CAN - L	Input/ Output		_	_
4	Ground	LG	Intelligent Key warn-	Output	Intelligent Key warning	Sounding	0
4	Giodila	LG	ing buzzer	Output	buzzer	Not sounding	Battery voltage
			Front door request		Front door	ON (Pressed)	0
5	Ground	Р	switch (driver side)	Input	request switch (driver side)	OFF (Released)	5
6	Ground	W	Ignition switch pow-	Input	Ignition	OFF or ACC	0
	Cround	• • • • • • • • • • • • • • • • • • • •	er supply	трис	switch	ON or START	Battery voltage
7	Ground	V	V Key switch	Input	When ignition key is inserted into ignition key cylinder		Battery voltage
,					When ignition key is not inserted into ignition key cylinder		0
11	Ground	٧	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
12	Ground	В	Ground	_	Ignition switch	ON	0
12	Ground	Y	Inside key antenna	Output	lgnition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1
13	Ground	Y	(+) (rear seat)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1

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Terminal No.		Wire	Description				Value [V]
+	_	color	Signal name	Input/ Output		Condition	(Approx.)
14	Ground	W	Inside key antenna (-) (rear seat)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1
	Ground					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 1 s JMKIA0390ZZ
15	Ground	SB	Inside key antenna	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna detection area	(V) 15 10 5 11 1 s  JMKIA0393ZZ
-			(+) (console)			When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0
16	Ground	BR	Inside key antenna	Output	Ignition knob	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   1   1   1   1   1   1   1   1   1
	Ground	- DIX	(-) (console)	Сири	is pressed.	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA0390ZZ

Terminal No.		Wire	Description				Value [V]																								
+	_	color	Signal name	Input/ Output	(	Condition	(Approx.)																								
17	Ground	SB	Outside key antenna	Output	When the back door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1																								
. /	Glound	JD	(+) (rear bumper)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0																								
			Outside key antenna	When the back door request switch is operated with ignition switch OFF	back door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1   A   D   D   D   D   D   D   D   D   D																								
18	Ground	V	(-) (rear bumper)		is o		Cutput	Culput	Guiput	Saput	Guiput			·	·				Cupu				Cuiput	Culput	Output	is ope	quest switch is operated with ignition	When Intelligent Key is not in the antenna detection area			
19	Ground	L	Outside key antenna	1	Outsut	front door quest swi	When the front door request switch (driver side)	front door request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1																					
18	Ground	L	(+) (driver side)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0																								

-	Terminal No.		\ <i>\(\lambda\)</i> :	Description				Value IVI
-	+	1	Wire color	Signal name	Input/ Output	(	Condition	Value [V] (Approx.)
	20	Ground	BR	Outside key antenna	When the front door request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0395ZZ	
	20	Glound	ы	(-) (driver side)	Output	(driver side) is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0515ZZ
_	0.0*1	Cround	10/	Kay la ak a alamaid	Outrut	Key lock so-	LOCK*2	Battery voltage
	22 <sup>*1</sup>	Ground	W	Key lock solenoid	Output	lenoid	UNLOCK*2	0
		Ground	BR	Front door request		Front door request	ON (Pressed)	0
	25			BR sw	switch (passenger side)	switch	Input switch	
_	26	Ground	R	Stop lamp switch	Input	Depress the b	rake pedal	Battery voltage
_	20	Orodria		Stop lamp switch	mpat	Release the b	-	0
	27	Ground	L	Ignition knob switch	Input	Ignition	When ignition knob switch is pressed	Battery voltage
_		O. Gaina		19o.		switch OFF	When ignition knob switch is released	0
	28	Ground	0	Unlock sensor	Input	Lock (ON)		5
_					•	Unlock (OFF)		0
	29	Ground	GR	Back door request switch	Input	Back door re- quest switch	ON (Pressed)	0
_						quest switch	OFF (Released)	5
_	31	Ground	GR	Steering lock unit ground	_	1		0
							LOCK status	5
	32	Ground	Р	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 6 4 2 0 100 ms JMKIA0433ZZ

Terminal No.		Wire Wire				Value [V]		
+	_	color	Signal name	Input/ Output	(	Condition	(Approx.)	
33	Ground	0	Inside key antenna	Output	Ignition knob	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 1 s JMKIA0393ZZ	
33	Glound	O	(+) (instrument center)	Output	is pressed.	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 	
			Inside key antenna		Ignition knob	When Intelligent Key is in the antenna detection area	(V) 15 10 5 11 1	
34	Ground	G	(-) (instrument center)	Output	is pressed.	When Intellig is not in the a	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0  JMKIA0390ZZ
27	Cround		Outside key antenna	Output	When the front door request switch (passenger	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0397ZZ	
37	Ground	L	(+) (passenger side)	Output	side) is oper- ated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0514ZZ	

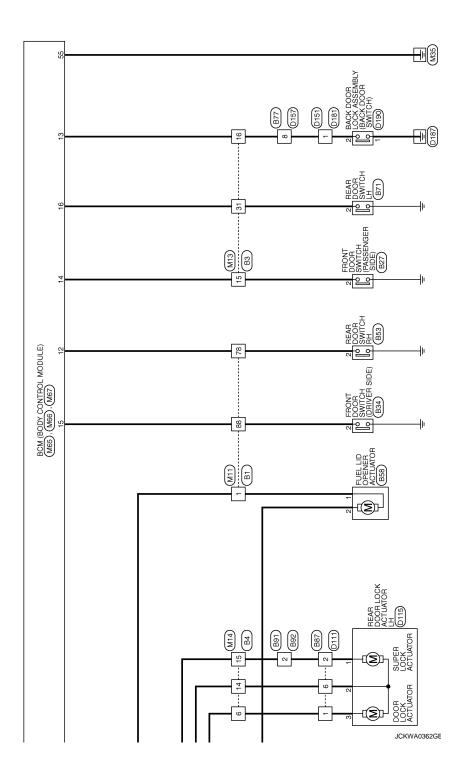
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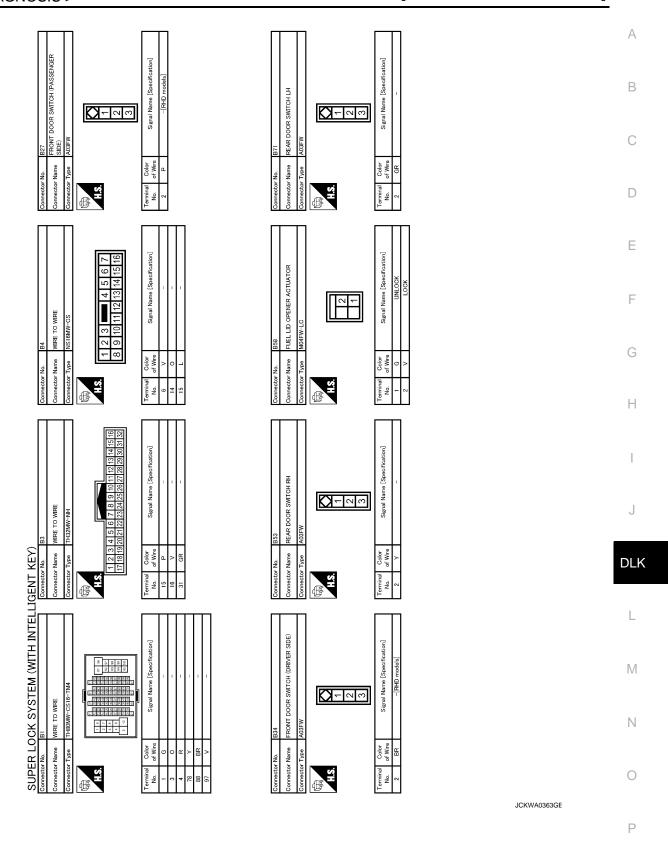
Term	ninal No.	Wire	Description				Value [V]
+	_	color	Signal name	Input/ Output	(	Condition	(Approx.)
38	Ground	0	Outside key antenna	Output	When the front door request switch (passenger	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1,1 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5
36	Glound	0	(-) (passenger side)	Output	side) is oper- ated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0515ZZ
40	Ground	Y	Passenger side anti-	Input	Press front door request	Anti-hijack operation	$\begin{array}{c} \text{Battery voltage} \rightarrow 0 \rightarrow \text{Battery} \\ \text{voltage} \end{array}$
40			hijack relay	•	switch (pas- senger side)	Other than above	Battery voltage

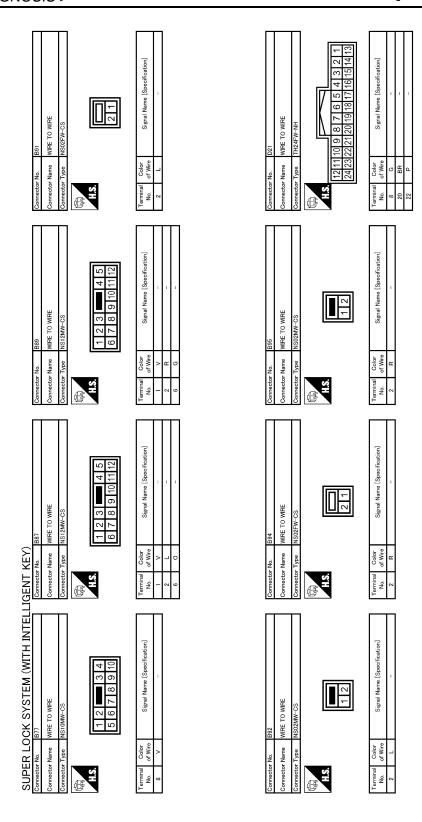
<sup>\*1:</sup> Only for MT model.

<sup>\*2:</sup> Key interlock operation is only for M/T model for operation condition, refer to <u>SEC-16</u>, "System Description".

Wiring Diagram - SUPER LOCK CONTROL SYSTEM -INFOID:0000000001558752 Α В To CAN system M11 B1 C D Е F BEFEYSE ■ NNFOCK \ G BCM (BODY CONTROL MODULE)
(M65), (M66), (M67) Н 12 D22 M21 M20 021 22 M21 D22 TBS 🌥 BELEASE UNLOCK / J SUPER LOCK SYSTEM (WITH INTELLIGENT KEY) DLK DOOR LOCK AND UNLOCK SWITCH L E105 M77 M 50A PASSENGER SIDE ANTI-HIJACK M90 N UNLOCK DOOR LOCK AND UNLOCK SWITCH (M89) 10 40 10 Ν LOCK - LOCK BATTERY 0 2007/02/28 Р JCKWA0361GE

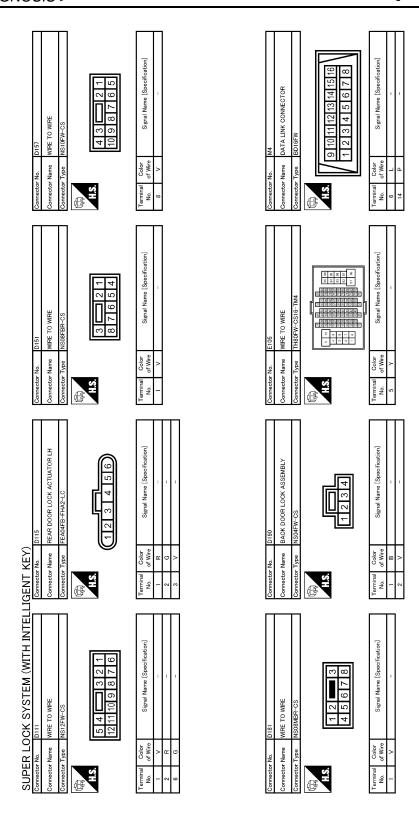






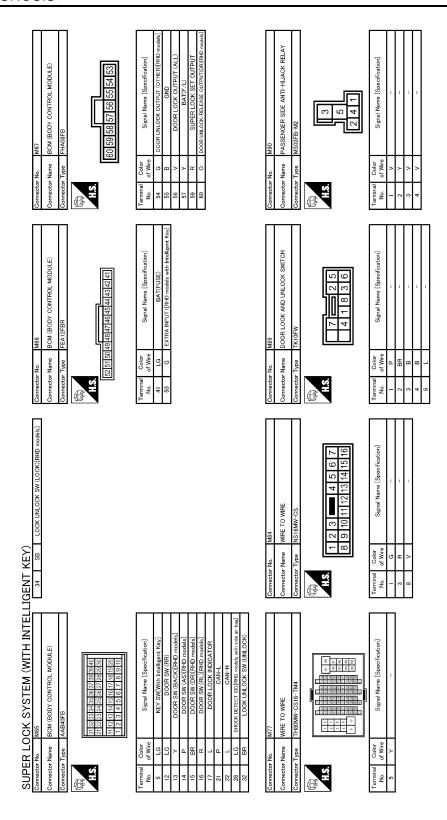
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	PROM DOOR LOOK ACTUATOR (DRIVER SIDE) FEAUMEB-FHAZ-LC	Signal Name [Specification]	DBS  REAR DOOR LOOK ACTUATOR RH  FEANTB-FHAZ-LC  6 5 4 3 2 1	Signal Name [Specification]		АВ
	Connector No.   P.29	Color   Colo	Connector No. D95 Connector Name REAR DOOR LOOK Connector Type FEANEB-FHA2-LC	Color   Colo		C
	D26 POWER WINDOW MAIN SWITCH NSG3FW-CS	Signal Name (Specification)	cs 3 2 1 10 9 8 7 6	Signal Name [Specification]		E F
	Connector No. 226 Connector Name POWER WIN Connector Type NSGRPV-CS	Terminal Color   No. of Wire   17   B   18   G	Connector No.   D91	Terminal Color   No. of Were   No. of Were   1		G H
	DOWER WINDOW MAIN SWITCH INSIGEW-CS  2 3 4	Signal Name [Specification]	DDB FRONT DOOR LOCK ACTUATOR (PASSENGER SIDE) FEAGHE-FHAZ-LC	Signal Name [Specification]		J
LIGENT KEY)		Terminal Color No. of Wire 6 BR	Connector No. Connector Name Connector Type H.S.	Color   Color   No. of Wire   No. of Wire   1		DLK
SUPER LOCK SYSTEM (WITH INTELLIGENT KEY)	3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name [Specification]	те. 121111098	Signal Name [Specification]		L M
SUPER LOCK SY:	Connector Name WIRE TO WIRE Connector Type INSIGNA-CS CONNECTOR INSIGNA	Terminal Color Signature of Wire 1 SB 8 8 8 10 0 0 12 B 12 B 12 B 12 B 12 B 12 B 12	Connector No. D62 Connector Name WIFE TO WIFE Connector Type NS16FW-CS H.S. T 6 5 4 11	Color   Color   No. of Were   No. of Were   No. of Were   1		N O
	<u> </u>				JCKWA0365GE	Р

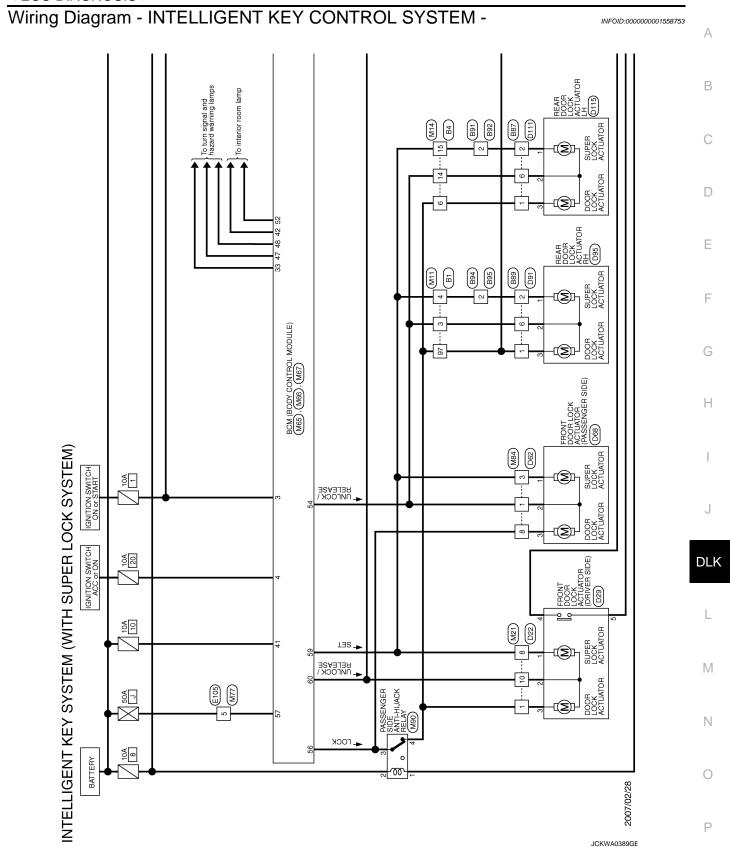


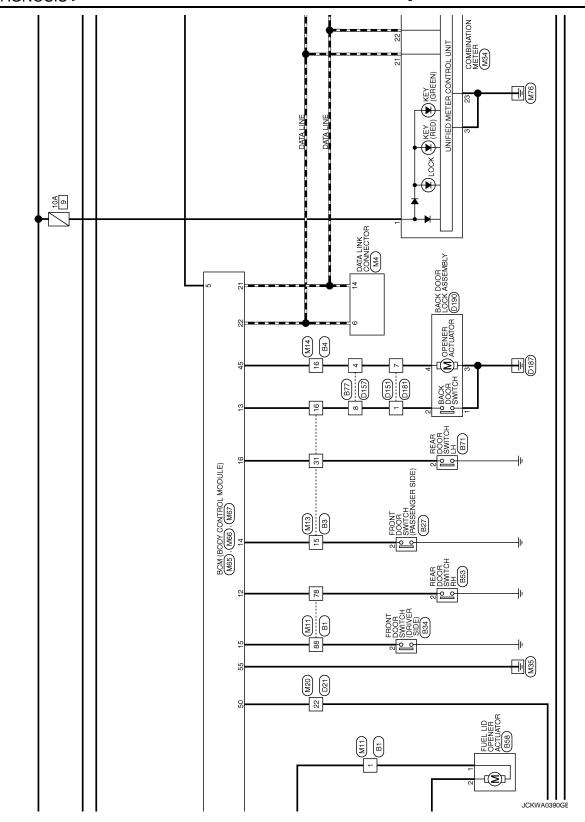
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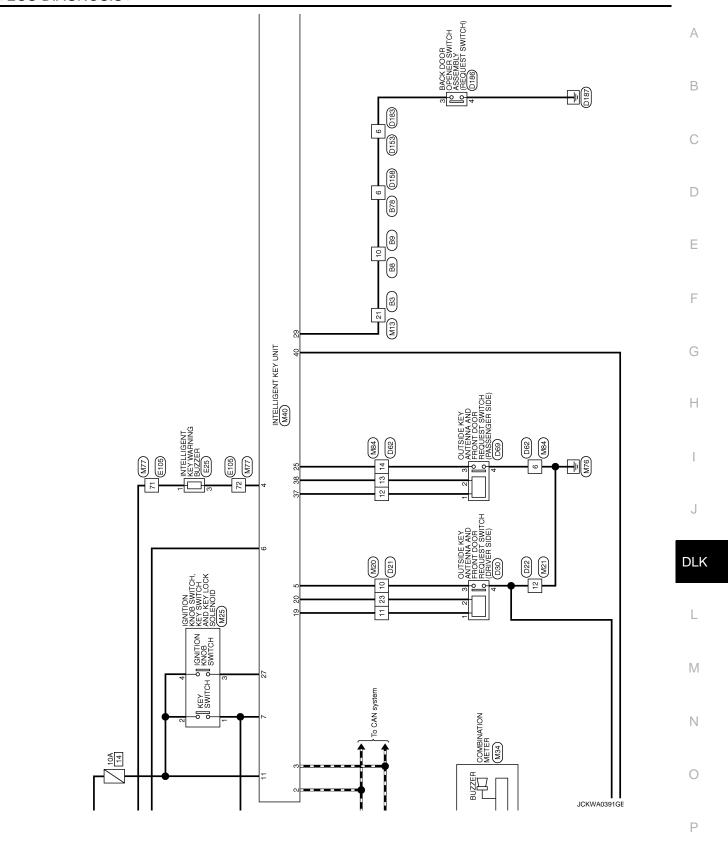
Connector No. MZ0 Connector Name WIRE TO WIRE	от Туре ТН24МW-NH  1 2 3 4 5 6 7 8 9 10 11 12  13 14 15 16 17 18 19 20 21 22 23 24	of Wire Signal Name [Specification] of Wire SB SB BR GRib Intelligent Key]	Connector No.         M59           Connector Name         AIR BAG DAGNOSIS SENSOR UNIT           Connector Type         IRZOFY-EX-SC           H.S.         18 17           5 6         11112 4 3           2 16 1 19 15 20 22 21	of Wire Signal Name [Specification]  LG With side air bag]		A B C
Connector No Connector Na	Connecto	Terminal No. 8 20 20 22	Connecto Connecto Connecto H.S.	Terminal No.		D
	1321 1098	Signal Name [Specification]	No.   M84	Signal Name [Specification] CAN-H CAN-L		Е
M14 WIRE TO WIRE	5FW-CS 5 4   14 13 12 1	Signal Nam	M94 COMBINATION METER SAB40FW    S   S   S   S   S   S   S   S   S	Signal Nam		F
	Type NSI6FW-CS 7 6 5 4 16 15 14 13	Octor of Wire R G C	me COMBINA  TO SAB40FW  TO SAB	Color of Wire		G
Connector No.	Connector Ty	Terminal O No. of 14 14 15 15	Connector No. Connector Name Connector Type H.S.	Terminal O O O O O O O O O O O O O O O O O O O		Н
П						П
	6 5 4 3 2 22 21 20 19 18	Signal Name (Speorfication)	M25 AND THE SWITCH KEY SWITCH AND KEVE LOCK SOLENDID TKOBMGY  T 2 3 4 5 6	Signal Name [Speoffcaton]		I
M13 WIRE TO WIRE	11 10 10 10 10 10 10 10 10 10 10 10 10 1	Signal Nam	M25 AND KNOB SW AND KEY LOCK SOIL TKOBMGY  1 2 3 4	Signal Nam		J
	r Type 16 15 14 1 32 31 30 2	O Color N Y D Wire	9 9	Odor of Wire LG		DLK
Connect	Connecto	Terminal No. 15 15 15 31	Connector No. Connector Typ	Terminal No. 2	•	
INTEL		الم		Ge George		L
M (WITH		Signal Name [Specification] -[RHD models]	1 5 6 7	Signal Name [Specification]		M
CK SYSTEM	TH80FW-CS16-TM4	Signal Nam	M21 WIRE TO WIRE NS16MW-CS  2 3 6 6 7 9 10 11 12 1	Signal Nam		
LOCK MIII	TI	of Wine of Wine V S B B R S S S S S S S S S S S S S S S S		C C C C C C C C C C C C C C C C C C C		Ν
SUPER LOCK SYSTEM (WITH INTELLIGENT KEY)  Connector No. MII Connector No. Connector No. Connector Name Connector Name Connector Name	Connector Type	7 Terminal O O O O O O O O O O O O O O O O O O O	Connector No. Connector Name Connector Type H.S.	Terminal O O O O O O O O O O O O O O O O O O O		0
121 0	<u></u> ,		<u></u> .		JCKWA0367GE	
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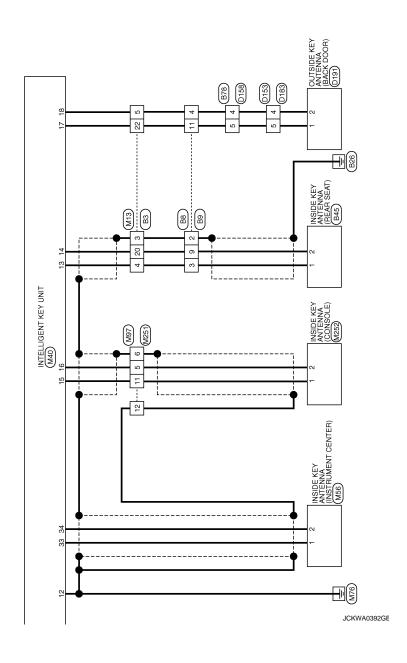


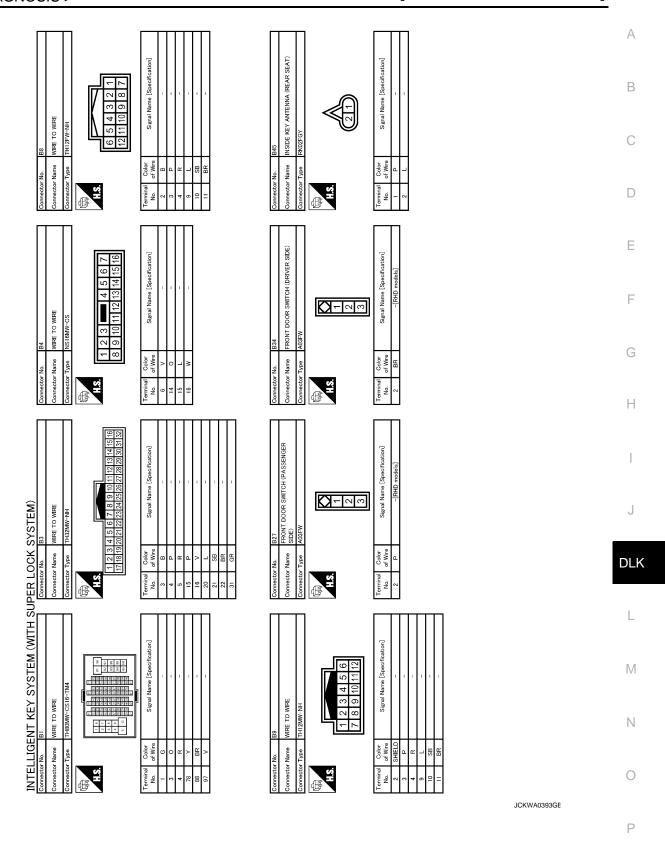
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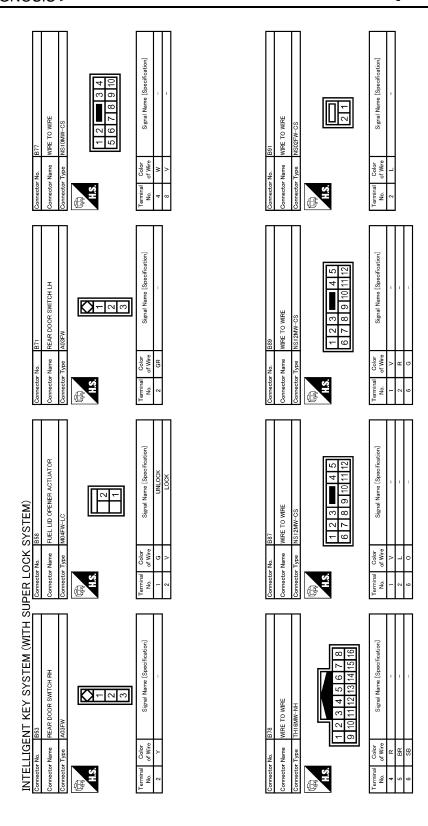






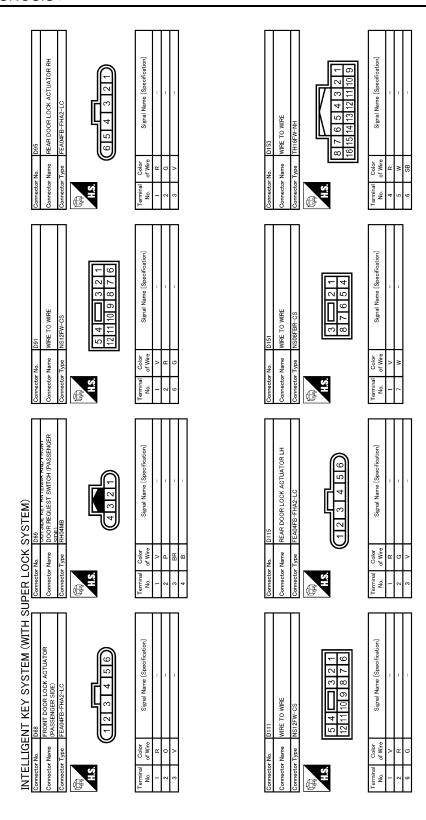






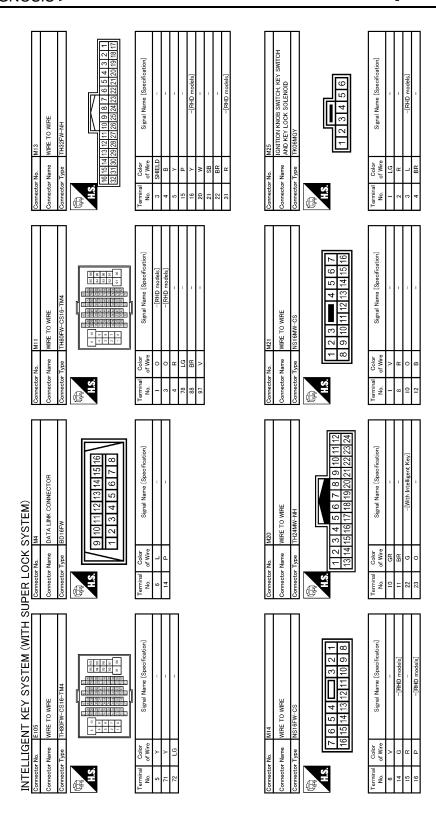
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No. D21  Name wite TO WIRE  Type THZ4FW-NH	242322212019181716151413	Color   Signal Name [Specification]   of Wire   Specification]   GR	D02 WHRE TO WIFE NISTIGFW-CS    6   5   4   3   2	16 15 14 13 12 11 10 9 8	Color   Signal Name [Specification]   O'Wire   Signal Name [Specification]   O   C   C   C   C   C   C   C   C   C		A B
Connector No. Connector Name Connector Type	δ	Terminal O No. of 10 of 11 11 22 23	Connector No. Connector Name Connector Type		Terminal C No. of No. 1 1 2 8 8 12 12 13 14 14		D
		Signal Name [Specification]	D00 OUTSIDE KEY ANTENNA AND FRONT DOOR REQUEST SWITCH (DRIVER SIDE) RHOAMB		Signal Name [Specification]		E F
Connector No. 895 Connector Name WIRE TO WIRE Connector Type NSUZMW-CS		Color of Wire R	r No. r Type	4 3 2	Color of Wire BR BR O O GR GR B		G
Connector No. Connector Typ	H.S.	Terminal No. 2	Connecto Connecto Connecto		Terminal No. 1		Н
SYSTEM) B94 WIRE TO WIRE NSQRW-CS	2 1	Signal Name (Specification)	PEONT DOOR LOCK ACTUATOR (DRIVER SIDE) FEAGARE FHA2-LC	4	Signal Name (Specification)		J
SUPER LOCK SYSTEM)  Connector No. B94  Connector Name WIRE TO WIRE  Connector Type NS02FW-CS	H.S.	Terminal Color No. of Wire 2 R	Connector No. D29 Connector Name SIDE) Connector Type FEAD		Terminal Color No. of Wire 1 2 0 2 0 4 P P 5 B		DLK
		مارا		<u></u>	ما ا		L
INTELLIGENT KEY SYSTEM (WITH Connector No. 1892  Connector Name WIRE TO WIRE  Connector Type INSIZMW-CS	1 2	Signal Name [Specification]	3	12 11 10 9 8	Signal Name [Specification]		M
ENT KEY B92 WIRE TO WIRE NS02MW-CS		Ш	022 VIRE TO W 4S16FW-C	16 15 14 13			Ν
INTELLIG Connector No. Connector Name Connector Type	S. T	Terminal Color No. of Wire 2 L	Connector No. Connector Type	<u> </u>	Color   Color		0
- <u>610 0</u> [ <u>B</u>						JCKWA0395GE	
							Р



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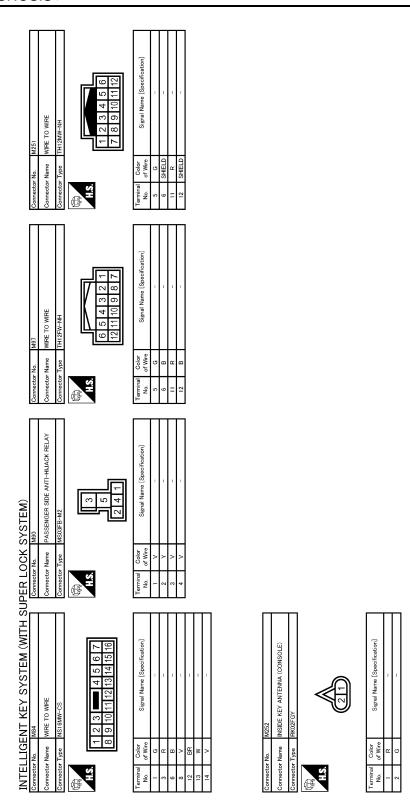
Connector No. D183 Connector Name WIRE TO WIRE Connector Type TH16MW-NH  LLS  1 2 3 4 5 6 7 8  9 10 11 12 13 14 15 16	Codor   Sigral Name [Speoifreation]	Connector No. E25 Connector Name INTELLIGENT KEY WARNING BUZZER Connector Type RKOSFBR  (1 2 3)	Color   Signal Name [Specification]   V   -   -		A B
Connector No. Connector Nar Connector Typ	Terminal No. No. 2 4 5 5 6	Connectt Connectt	Terminal No. No. 3		D
	Specification	OUTSIDE KEY ANTENNA (BACK DOOR) RROZFGY	Specification		Е
<b>1</b> 2 9	Signal Name [Specification]	KEY ANTENIN	Signal Name [Specification]		F
D181 NSOBMBR-CS 1 2 1 2 1 2 1 2 1 5 1 5 1 5 1 5 1 5 1 5					G
Connector No. Connector Name Connector Type H.S.	Terminal Color No. of Wise V	Connector No. Connector Type Connector Type H.S.	Color   Colo		
					Н
SYSTEM) D188 WHEE TO WIRE THIGHW-NH  R	Signal Name (Specification)	DI 90 BACK DOOR LOOK ASSEMBLY NSWEW-CS  1 2 3 4	Signal Name (Specification)		J
OK SYS'S' to D158 teme WIRE T WIPE T	of Wire SB		Octor of Wire B B W V		DLK
SUPER LOCK SYSTEM)  Connector No. D158  Connector Type ITHIFW-NH  Connector Type ITHIFW-NH  H.S. R 7 6 5 1 16 15 14 13	No. No. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Connector Nome Connector Type H.S.	Terminal No. 1	•	JLI
		:WBLY			L
INTELLIGENT KEY SYSTEM (WITH Someter No. D157  Domester Name WITE TO WHEE  Someter Type INSTORM-CS  A 3	Signal Name [Specification] -[RHD models]	D186 BACK DOOR OPENER SWITCH ASSEMBLY TKOGNW-1V  1 6 6 2 3 4 5	Signal Name [Specification] PASSIVE UNIT GND		M
SENT KEY DIST. WIRE TO WIRE NSIDEW-CS 1098					Ν
INTELLIG Connector Name Connector Type	Color   Colo	Connector Name Connector Type	Color   Color   Color   No.   Color   No.   Color		0
	<u> -                                     </u>		[ <u>F_   ]  </u>	JCKWA0397GE	
					Р



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Р

Cornector No. M56 Cornector Name (RNSTE VANTENNA (INSTRUMENT CENTER) Cornector Type (RNOZFCY  Terminal Color (2 1 )	Corrector No. M17  Corrector Name WIRE TO WIRE  Corrector Type TH80MY CSI 6-TM4  Terminal Color No. of Wire 5 71 Y 72 LG Corrector Name (Spacification)	A B C
CONSOLE (-) BACK DOOR (-) BACK DOOR (-) BACK DOOR (-) DRIVER DOOR (-) PROUEST SW(AS) RNUGS SW(RHO models) REQUEST SW(BD) INSTRUMENT (-) PASSENGER DOOR (-)	MAGT BCM (BODY CONTROL MODULE) FHA09FB FHA09FB BOD (S9) 58 57 56 55 54 53 BODOR LOW OF CUTPUT (ALL) BOOR LONG SET OUTPUT BLATELLO BOOR HALOCK SET OUTPUT BOOR LING KET SET SET SET SET SET SET SET SET SET S	E F G
SYSTEM    M40   INTELLIGENT KEY UNIT   18   19   17   19   19   19   19   19   19	M66   Commercer No   Commercer No	H J DLK
INTELLIGENT KEY SYSTEM (WITH SUPER LOCK Connector No.   Connector No.   Connector No.   Connector Name   Connector Name   COMBINATION METER   Connector Name   Connector Name   Connector Type   Connector Type   Connector Type   Connector Type   Connector Type   Connector Name   Connector Name	Connector No.   Mi65	L M N
	JCKWA0399GE	D



JCKWA0400GE

Wiring Diagram - BACK DOOR OPENER CONTROL SYSTEM -

INFOID:0000000001558754

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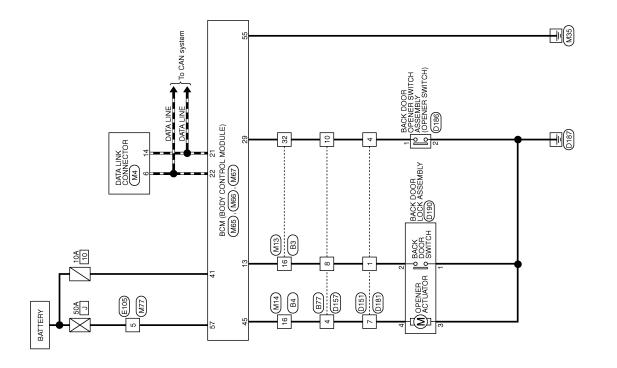
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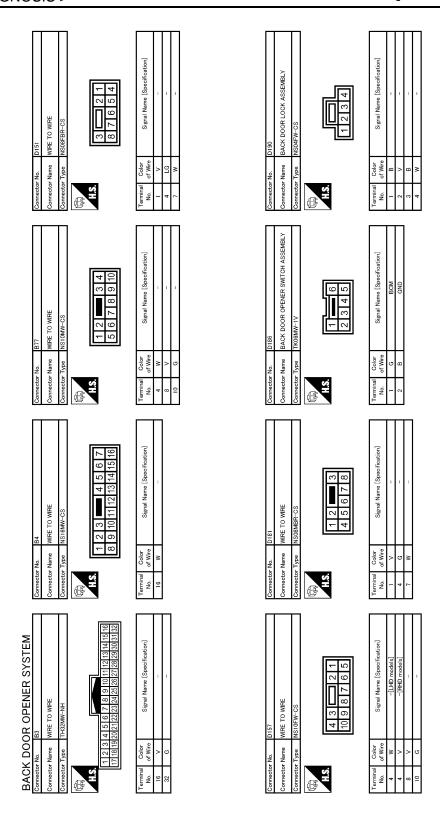
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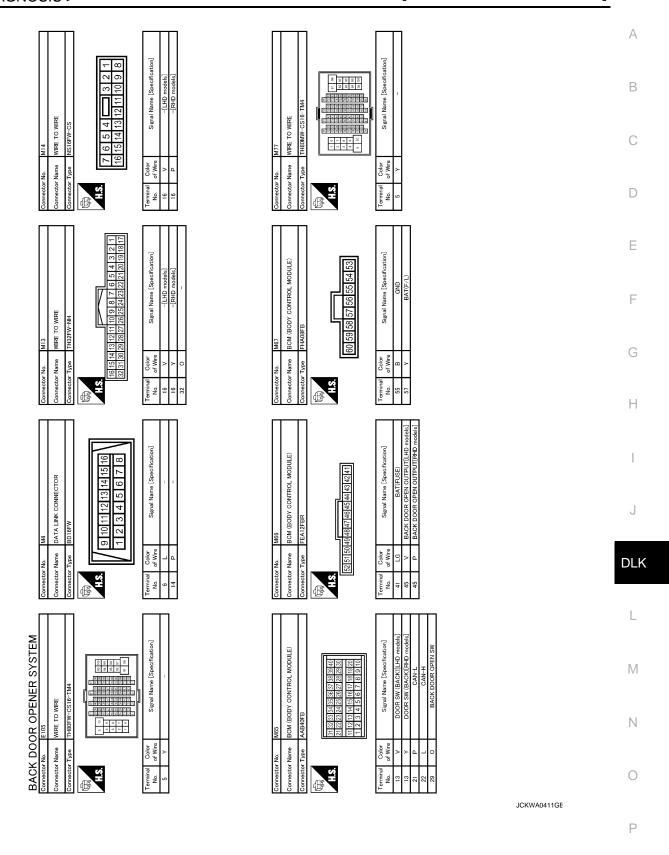
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2007/02/28

BACK DOOR OPENER SYSTEM



JCKWA0410GE



Fail Safe

Display contents of CONSULT-III	Fail-safe	Cancellation
B2013: STRG COMM 1	Inhibits steering look unlocking	Erase DTC
B2552: INTELLIGENT KEY	Inhibits steering look unlocking     Inhibits engine cranking     (BCM)     Fuel cut     (ECM)	Erase DTC
B2590: NATS MALFUNCTION	Inhibits steering look unlocking     Inhibits engine cranking     (BCM)     Fuel cut     (ECM)	Erase DTC

## DTC Inspection Priority Chart

INFOID:0000000001329202

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN) B2552: INTELIGENT KEY
2	B2013: STRG COMM 1     B2590: NATS MALFUNCTION

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Detection condition	Fail-safe	Diagnosis
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	Intelligent Key unit cannot receive CAN communication signal continuously for 2 seconds or more.	_	Check CAN communication system.  Refer to DLK-352
U1010: CONTROL UNIT (CAN)	Intelligent Key unit detects internal CAN communication circuit malfunction.	_	Replace Intelligent Key unit.
B2013: STRG COMM 1	The ID verification result between Intelligent key unit and steering lock unit are NG. Or Intelligent Key unit cannot communicate with steering lock unit.	×	Perform steering lock unit ID registration with CONSULT-III
B2552: INTELLIGENT KEY	Intelligent Key unit internal malfunction.	×	Replace Intelligent Key unit.
B2590: ID DISCORD BCM-I-KEY	The ID verification result between Intelligent key unit and BCM are NG. Or Intelligent Key unit cannot communicate with BCM.	×	Check NATS Refer to <u>SEC-57</u>

Α

В

## **BCM (BODY CONTROL MODULE)**

Reference Value INFOID:0000000001557098

## VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
ICNI ONI CW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
KEY ON OW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the lock side	On
CDL LINI OCK CW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the unlock side	On
DOOD CW DD	Driver's door closed	Off
DOOR SW-DR	Driver's door opened	On
DOOD CW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOR SW DI	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DACK DOOD OW	Back door closed	Off
BACK DOOR SW	Back door opened	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
KEV LINI OOK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
DITCH C/W	Return to ignition switch to "LOCK" position	Off
PUSH SW	Press ignition switch	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
VETLE99 LOCK	"LOCK" button of key fob is pressed	On
VEVI ESS LINII OOV	"UNLOCK" button of key fob is not pressed	Off
KEYLESS UNLOCK	"UNLOCK" button of key fob is pressed	On
	Ignition switch ON	NOMAL
SHOCK SENSOR	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
	Other than the following	Off
UNLOCK SHOCK	During the unlock operation interlocked with air bag	On
	NOTE:	On
UNLOCK WITH DR	The item is indicated, but not monitored	Off

Monitor Item	Condition	Value/Status
LOCK WITH SPEED	Vehicle speed sensing auto door lock function does not operate	Off
LOCK WITH SPEED	Vehicle speed sensing auto door lock function is operating	On
ACC ON SW	Ignition switch OFF	Off
ACC ON SW	Ignition switch ACC or ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
TAIL LAMD CM	Lighting switch OFF	Off
TAIL LAMP SW	Lighting switch 1ST	On
TUDNI CICNIAL D	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CICNIAL I	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
LUDEAM CVV	Lighting switch OFF	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LAMB OVALA	Lighting switch OFF	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAMB OW	Lighting switch OFF	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
D4 00 N 10 0 W	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIQUIT OW	Lighting switch OFF	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED 500 0W	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
DD 500 0W	Rear fog lamp switch OFF	Off
RR FOG SW	Rear fog lamp switch ON	On
ENGINE DUN	Engine stopped	Off
ENGINE RUN	Engine running	On
LIT OFN FAIL	Light & rain sensor is in normal condition	ОК
LIT-SEN FAIL	Light & rain sensor is with error	NOTOK
ALIT LIGHT OVO	Outside of the room is dark	On
AUT LIGHT SYS	Outside of the room is bright	Off
HD LIGHT TIME	_	Displays a setting time of the follow me home function set by the work support
ION OW CAN	Ignition switch OFF or ACC	Off
IGN SW CAN	Ignition switch ON	On
	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On
ED MIDES : CO.	Front wiper switch OFF	Off
FR WIPER LOW	Front wiper switch LO	On
	Front wiper switch OFF	Off
FR WIPER INT	Front wiper switch INT	On
	•	
FR WASHER SW	Front washer switch OFF	Off

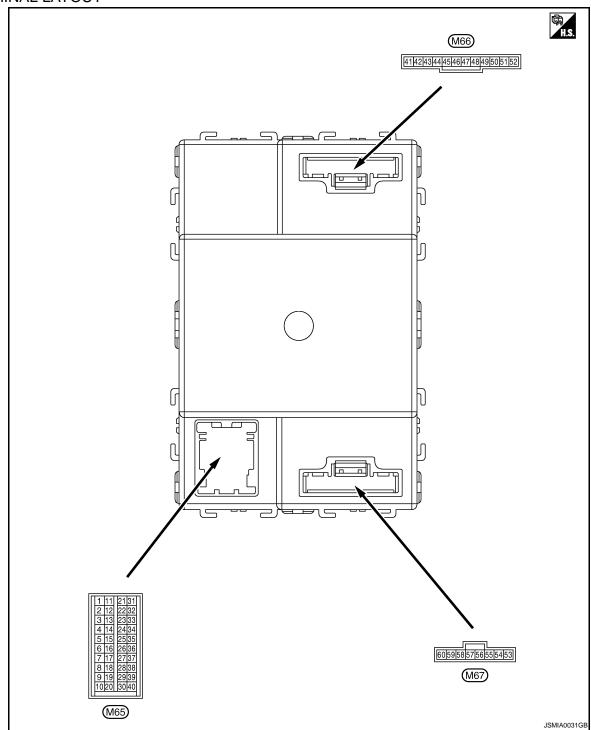
# BCM (BODY CONTROL MODULE) [WITH I-KEY & SUPER LOCK]

## < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	
ED WIDED STOD	Any position other than front wiper stop position	Off	
FR WIPER STOP	Front wiper stop position	On	
DD WIDED ON	Rear wiper switch OFF	Off	
RR WIPER ON	Rear wiper switch ON	On	
RR WIPER INT	Rear wiper switch OFF	Off	
RR WIPER INT	Rear wiper switch INT	On	
RR WIPER STOP	Rear wiper stop position	Off	
KK WIFEK STOP	Other than rear wiper stop position	On	
RR WASHER SW	Rear washer switch OFF	Off	
KK WASHER SW	Rear washer switch ON	On	
REVERSE SW CAN	NOTE:	Off	
REVERSE SW CAIN	The item is indicated, but not monitored	On	
H/L WASH SW	When headlamp washer switch is not pressed	Off	
H/L WASH SW	When headlamp washer switch is pressed	On	
FAN ON SIG	Blower fan motor switch OFF	Off	
	Blower fan motor switch ON (other than OFF)	On	
AIR COND SW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off	
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On	
LIAZADD CM	Hazard switch OFF	Off	
HAZARD SW	Hazard switch ON	On	
BRAKE SW	Brake pedal is not depressed	Off	
DRAKE SW	Brake pedal is depressed	On	
TRNK OPNR SW	When back door opener switch is not pressed	Off	
TRINK OF INC SW	When back door opener switch is pressed	On	D
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off	
	Open the hood	On	
AUTO RELOCK	Auto lock function does not operate	Off	
	Auto lock function is operating	On	
01.0 PDE 414.0=11	The vehicle without glass break sensor	Off	
GLS BREAK SEN	The vehicle with glass break sensor	On	<del></del>
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off	
-	Ignition switch ON	On	

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#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

### **CAUTION:**

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-28, "COMB SW: CONSULT-III Function (BCM COMB SW)".
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to <a href="BCS-9">BCS-9</a>, "System <a href="Description"</a>.

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

	nal No.	Description			Value	
(Wire	e color)	Signal name	Input/ Output	Condition	(Approx.)	
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
3	Cround	Ignition power sup-	lan.ut	Ignition switch OFF or ACC	0 V	
(W)	(=rollnd   9	ply	ply	Input	Ignition switch ON or START	Battery voltage
4	0	A 000		Ignition switch OFF	0 V	
(SB)	B) Ground ACC power supply		Input	Ignition switch ON or ACC	Battery voltage	
5 (1 C)*1	Cround	Kov awitch	Innut	Insert mechanical key into ignition key cylinder	Battery voltage	
(LG) *2	(LG) <sup>*1</sup> Ground (R) <sup>*2</sup>	Key switch	Input	Remove mechanical key from ignition key cylinder	0 V	

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Terminal No. (Wire color)		Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0166GB 1.3 V
6 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0167GB
					Rear washer switch ON	(V) 15 10 5 0 JPMIA0169GB 1.3 V
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	(V) 15 10 5 0 JPMIA0196GB 1.3 V

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

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Terminal No. (Wire color)		Description		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB	E (
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1 ms JPMIA0166GB 1.3 V	F
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB 1.3 V	· ·
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 6	(V) 15 10 5 0 JPMIA0169GB 1.3 V	DI
					Rear wiper INT (Wiper intermittent dial 4)	(V) 15 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10	N

Terminal No. Description (Wire color)					Value	
+ (vvire	COIOF)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 JPMIA0165GB 1.4 V
					Turn signal switch RH	(V) 15 10 5 0 JPMIA0166GB 1.3 V
8 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch LH	(V) 15 10 5 0 1ms JPMIA0167GB
					Front wiper switch LO	(V) 15 10 5 0 JPMIA0168GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 → ←1 ms JPMIA0196GB 1.3 V

# BCM (BODY CONTROL MODULE) [WITH I-KEY & SUPER LOCK]

## < ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		0 155		Value	А
+ (vvire	- color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF	(V) 15 10 5 0 1ms JPMIA0165GB	С
					Lighting switch 2ND	(V) 15 10 5 0 JPMIA0166GB 1.3 V	E F
9 (G)*3 (B)*4	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch PASS	(V) 15 10 5 0 JPMIA0167GB	G H
					Front wiper switch INT	(V) 15 10 5 0 1ms JPMIA0168GB	J DLK L
					Front wiper switch HI	(V) 15 10 5 0 DPMIA0196GB 1.3 V	M

	nal No.	Description				Value				
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)				
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB 1.3 V				
					Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0167GB				
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0168GB 1.3 V				
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0169GB				
										Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7
11 (B)	Ground	Audio link	Input/ Output	_	_	_				

# BCM (BODY CONTROL MODULE) [WITH I-KEY & SUPER LOCK]

## < ECU DIAGNOSIS >

	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	(V) 15 10 5 0 10 ms PKID0924E
					ON (When rear door RH opened)	0 V
13 (V)	Ground	and Back door switch Input Back door switch		OFF (When back door closed)	(V) 15 10 5 0	
(-)	(V)				ON (When back door opened)	10 ms
14 (P)*3 (BR)*4	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 ms 10 ms PKID0924E
					ON (When passenger door opened)	o V
15 (BR) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms PKID0924E
					ON (When driver door opened)	0 V

	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	(V) 15 10 5 0 10 ms PKID0924E	
-					(When rear door LH opened)	0 V	
17	Ground	Door lock status indi-	Output	Door lock status indicator	ON	12 V	
(L)		cator		HUICALUI	OFF	0 V	
20 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 5 0 10ms JPMIA0154GB	
					While pressing	1.1 V	
21 (P)	_	CAN-L	Input/ Output		_	_	
22 (L)	_	CAN-H	Input/ Output		_	_	
23 (V)	Ground	Security indicator	Output	Security indicator	ON	(V) 15 10 5 0 JPMIA0014GB	
				1	OFF	12 V	
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch O		12 V  (V) 15 10 5 0  JPMIA0156GB 8.7 V	
25 (G)	Ground	Alarm link	Output		_	_	

	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
26 (GR) <sup>*5</sup> (LG) <sup>*6</sup>	Ground	Blower fan motor switch	Input	Blower fan mo- tor switch	OFF	(V) 15 10 5 0 10 ms PKID0924E 11.2 V	
					ON (other than OFF)	0 V	
27 (P) <sup>*5</sup> (Y) <sup>*6</sup>	Ground	A/C switch	Input	Ignition switch ON	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	(V) 15 10 5 0 10 ms PKID0924E	
(1)					Compressor ON is re-	11.2 V	
					quested from auto amp. (A/C indicator ON and blower fan motor switch ON).	0 V	
				Ignition switch O	FF or ACC	0 V	
28 (LG) <sup>*7</sup> (R) <sup>*8</sup>	Ground	Shock detect sensor	Input	Ignition switch O	N	(V) 15 10 5 0 → -1.0s JPMIA0155GB	
						0.0 V	
29 (LG) <sup>*3</sup> (O) <sup>*4</sup>	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10ms JPMIA0154GB	
						1.2 V	
					Pressed	0 V	
32 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0	
						JPMIA0154GB 1.2 V	
					Pressed to the unlock side	0 V	

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 JPMIA0154GB
					ON	0 V
34 (SB)*3 (P)*4	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0 JPMIA0154GB
					Pressed to the lock side	0 V
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	(V) 15 10 5 0 → ←10ms JPMIA0154GB 1.2 V
					Pressed to the lock side	0 V
					All switch OFF	0 V
					Turn signal switch RH Lighting switch 2ND	(V)
36		Combination switch	•	switch (Wiper intermittent dial 4)	Lighting switch HI	15 10 5
(G)	Ground	OUTPUT 5	Output		Lighting switch 1ST	JPMIA0164GB 9.1 V
					All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
37		Combination switch		Combination	Rear washer switch ON (Wiper intermittent dial 4)	(V) 15
(R)	Ground	OUTPUT 2	Output	switch	Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	10 5 0 ——2ms ——2ms ——2ms
					Rear wiper switch ON (Wiper intermittent dial 4)	9.1 V

# BCM (BODY CONTROL MODULE) [WITH I-KEY & SUPER LOCK]

## < ECU DIAGNOSIS >

	nal No. color)	Description			Condition	Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
38 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front wiper switch LO Front wiper switch MIST Front wiper switch INT Lighting switch AUTO  Rear fog lamp switch ON  All switch OFF	0 V  (V) 15 10 5 0  JPMIA0162GB 9.3 V  0 V
39 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch LH Lighting switch PASS Lighting switch 2ND Front fog lamp switch ON	(V) 15 10 5 0 JPMIA0163GB 9.3 V
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)  Front wiper switch HI (Wiper intermittent dial 4)  Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3  Wiper intermittent dial 6  Wiper intermittent dial 7  Rear wiper switch INT (Wiper intermittent dial 4)	0 V  (V) 15 10  → 2ms  JPMIA0160GB  9.1 V
41 (LG)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	Battery voltage
42 (V)	Ground	Interior room lamp power supply	Output	Interior room lam	p battery saver activation p battery saver no activation	0 V 12 V
43 (SB)	Ground	Rear wiper motor	Output	Rear wiper switch		0 V 12 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	(V) 15 10 15
					Any position other than rear wiper stop position	0 V

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	(V) 15 10 5 0 **0.1s
					Not pressed	0 V
					Turn signal switch OFF	0 V
47 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
-					Turn signal switch OFF	0 V
48 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
49	Cround	Door for Jamp	Output	Door for lamp	OFF	0 V
(Y)	Ground	Rear fog lamp	Output	Rear fog lamp	ON	12 V
50 (G)	Ground	Unlock sensor	Input	Driver's door	Unlock	5 V 0 V
51				Depress the brak		Battery voltage
(R)	Ground	Stop lamp switch	Input	Release the brak	ke pedal	0 V
52		Room lamp timer	0 : :	Interior room	OFF	12 V
(R)	Ground	control	Output	lamp	ON	0 V
53 (L)	Ground	Power window pow- er supply (IGN)	Output	Ignition switch	OFF or ACC	0 V
					ON	(V)
54 (O)	Ground	Door unlock (All other than driv- er's door)	Output	Door lock/un- lock switch	Pressed to the unlock side	10 5 0 *** *0.1s SKIA9232E
					Not pressed	0 V
55 (B)	Ground	Ground	_	Ignition switch O	N	0 V

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITH I-KEY & SUPER LOCK]

	nal No.	Description				Value	А
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un-lock switch  Pressed to the lock side		0 V  (V) 15 10 5 0  → 0.1s  SKIA9232E	C
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage	Е
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch O	FF	12 V	
59	Ground	Super lock	Output	When lock buttor is not pressed	of key fob or Intelligent Key	0 V	F
(R)	Giouna	Super lock	Output	When lock buttor is pressed	of key fob or Intelligent Key	12 V	G
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0 ++0.1s SKIA9232E	Н
					Not pressed	0 V	

<sup>\*1:</sup> With Intelligent Key

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<sup>\*2:</sup> Without Intelligent Key

<sup>\*3:</sup> RHD models

<sup>\*4:</sup> LHD models

<sup>\*5:</sup> With gasoline engine

<sup>\*6:</sup> With diesel engine

<sup>\*7:</sup> RHD models with side air bag

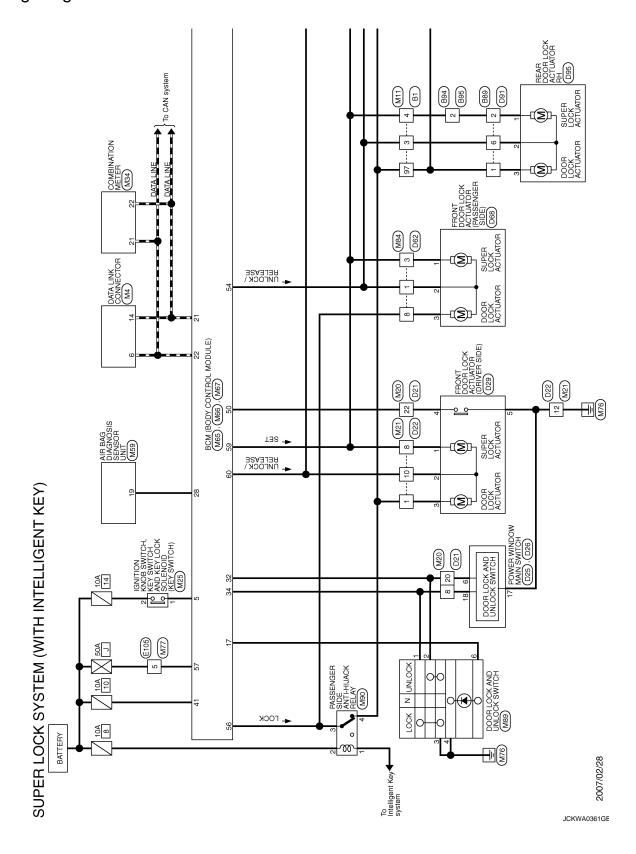
<sup>\*8:</sup> LHD models with side air bag

<sup>\*9:</sup> With xenon headlamp and daytime light system

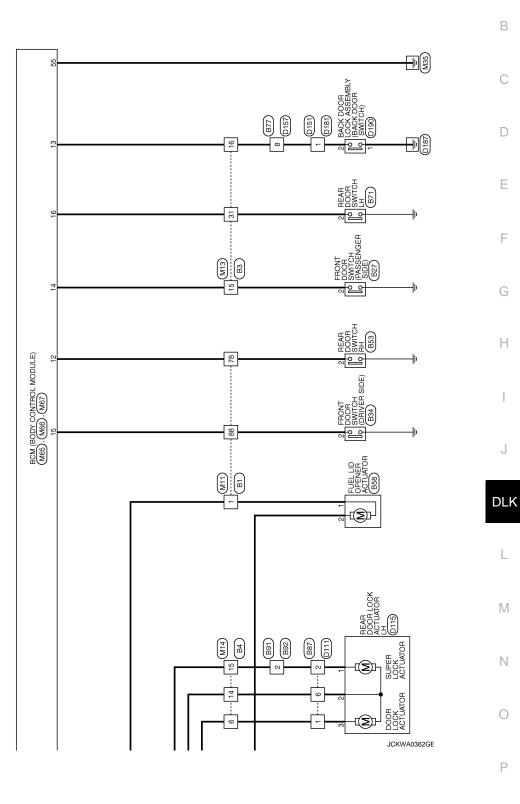
<sup>\*10:</sup> Except with xenon headlamp and daytime light system

Wiring Diagram - SUPER LOCK CONTROL SYSTEM -

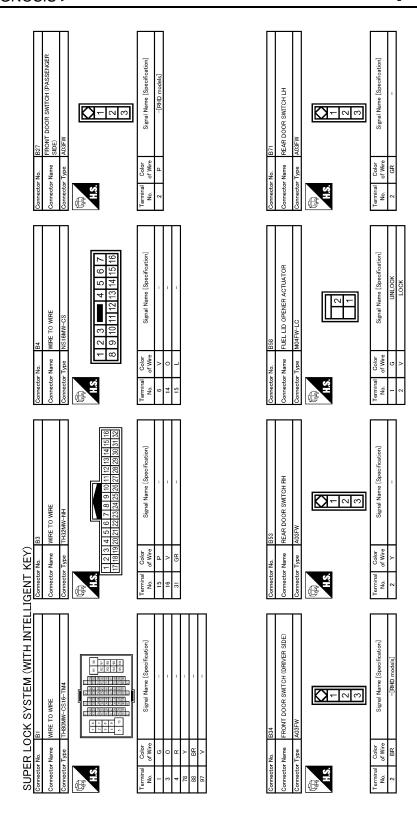
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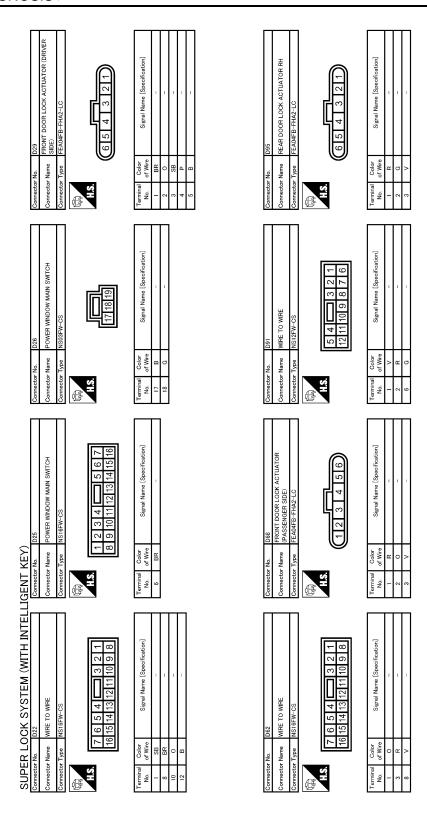


**DLK-477** 

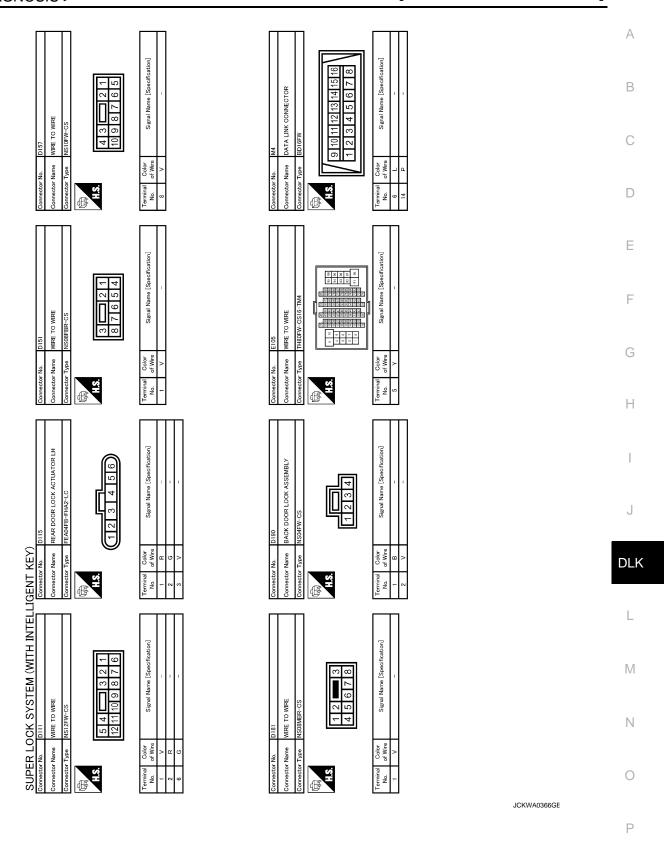


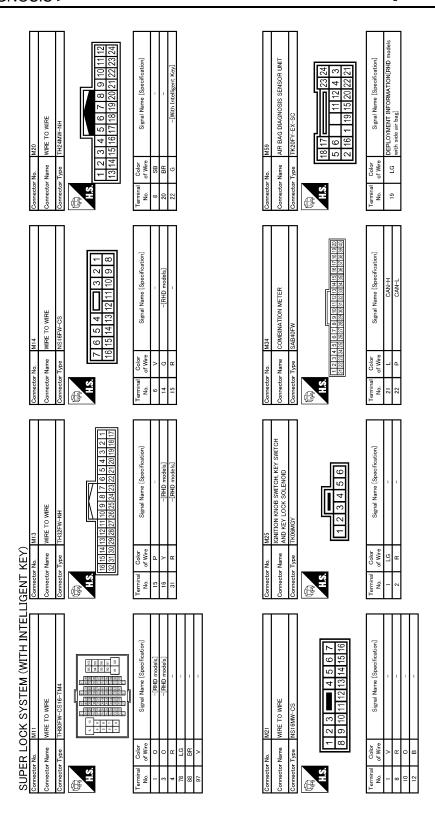
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Connector No. B91 Connector Name WIRE TO WIRE Connector Type NSOPHY-CS  ALS.	of Wre Signal Name [Specification]	Connector No. D21 Connector Name WIPE TO WIPE Connector Type TH24FW-NH  12.11110 9 8 7 6 5 4 3 2 1  24.23.22.21.20.19.18.17.16.15.14.13	of Wire Signal Name (Specification)  G C C C C C C C C C C C C C C C C C C		A B
Connecte	Terminal No.	Connects Connects Connects	Terminal No. 98 8 8 20 20 20 20 20 20 20 20 20 20 20 20 20		D
Connector No. B89 Connector Name WIRE TO WIRE Connector Type NST2MW-CS  1 2 3  4 5 6 7 8 9 10 11 12	Color   Signal Name   Specification   Color   Color	Connector No. B95 Connector Name WIRE TO WIRE Connector Type NSOZAWY-CS  LLS  1 2	Terminal Color No. of Wire Signal Name [Specification] 2 R -		E F G
Com		O O O O			Н
Connector Name   B87	Terminal   Color   Signal Name   Specification	Connector No. 594 Connector Name WIRE TO WIRE Connector Type NSDEW-CS	Terminal Color No of Wire Signal Name [Specification] 2 R		J DLK
NATE OF THE PROPERTY OF THE PR					L
SUPER LOCK SYSTEM (WITH INTEL Connector Na. B77 Connector Name WIRE TO WIRE Connector Type NISIOMW-CS	Terminal Color No. of Wire Signal Name [Specification]	Connector No. B92 Connector Name WIRE TO WIRE Connector Type NISOZMW-CS H.S.	Terminal Color Signal Name [Specification]  2 L		M N
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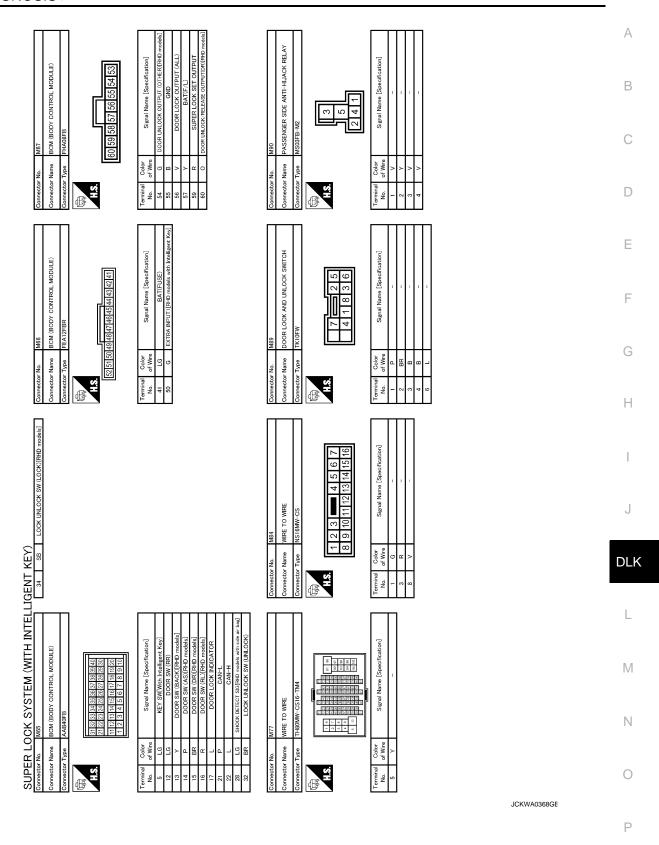


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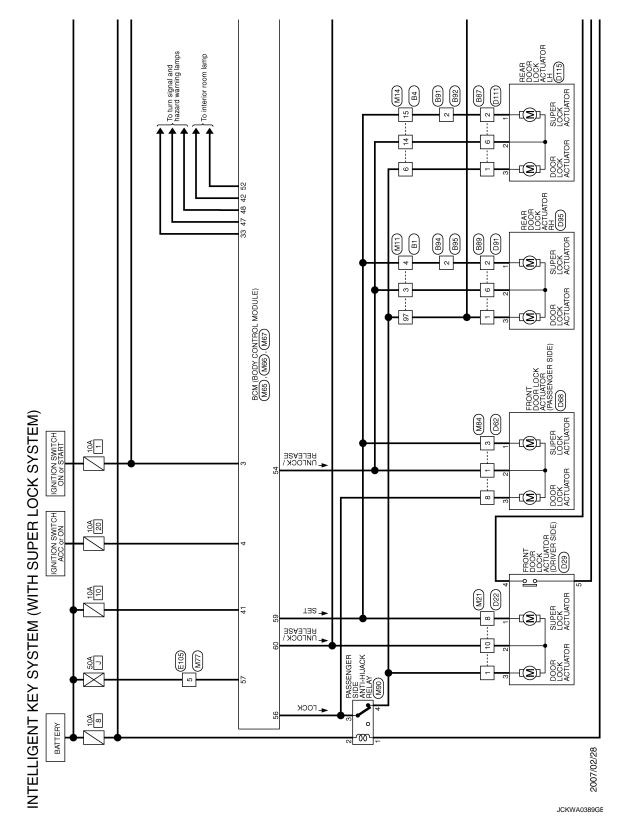


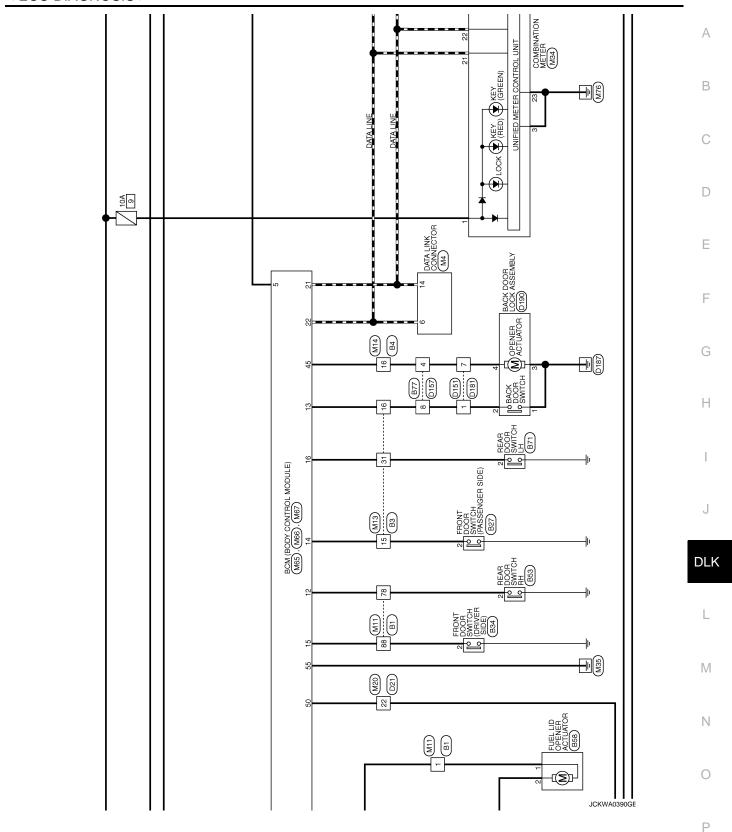
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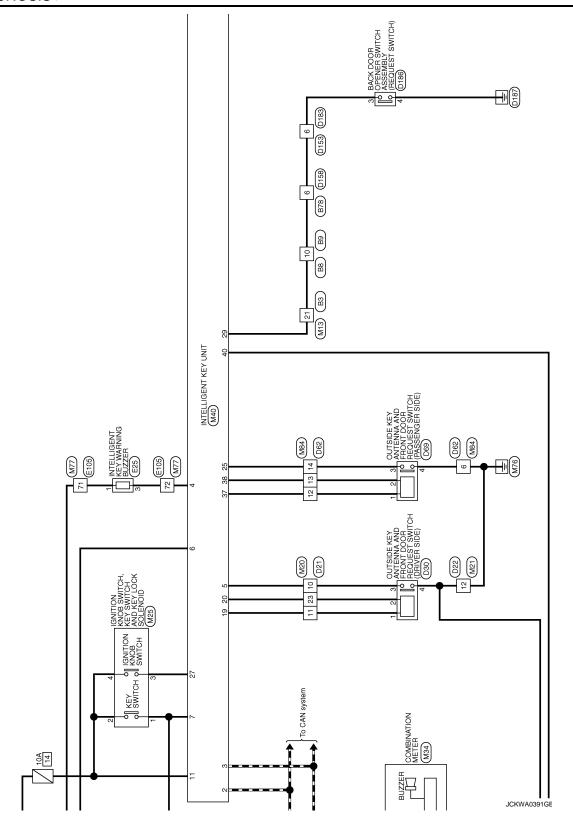


Wiring Diagram - INTELLIGENT KEY CONTROL SYSTEM -

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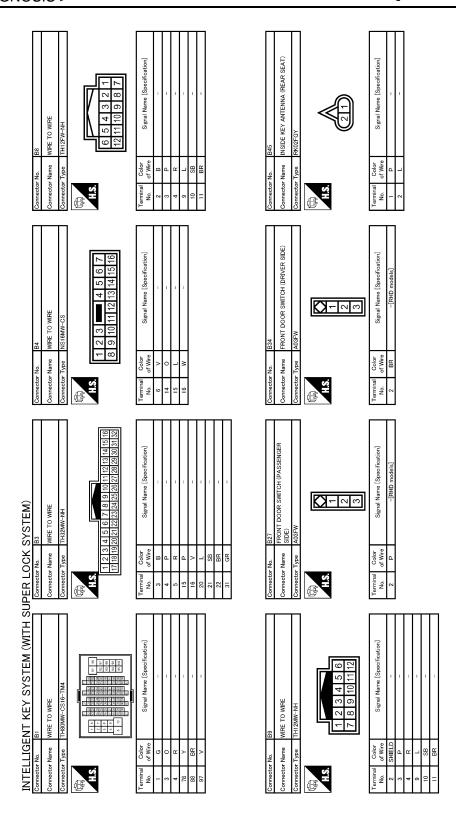
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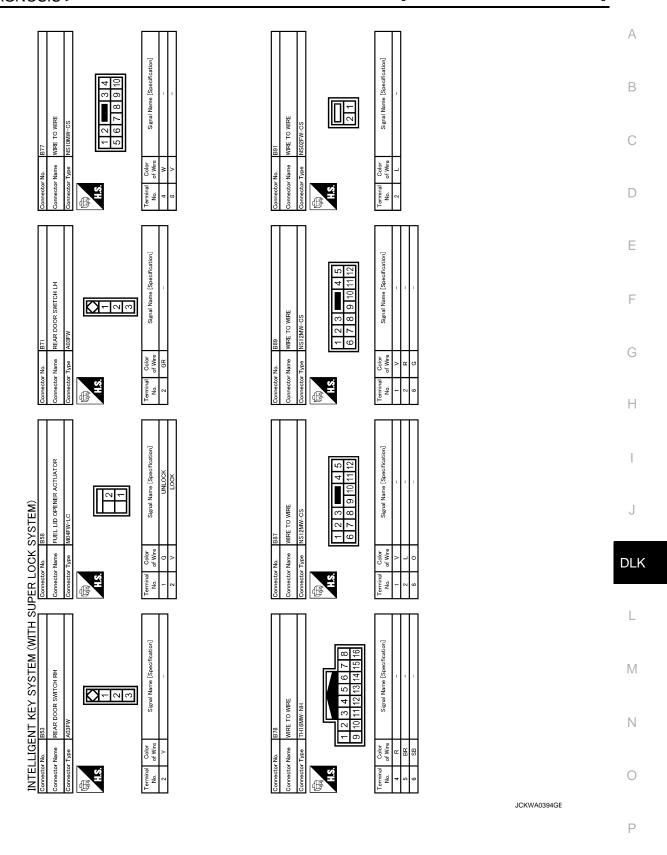
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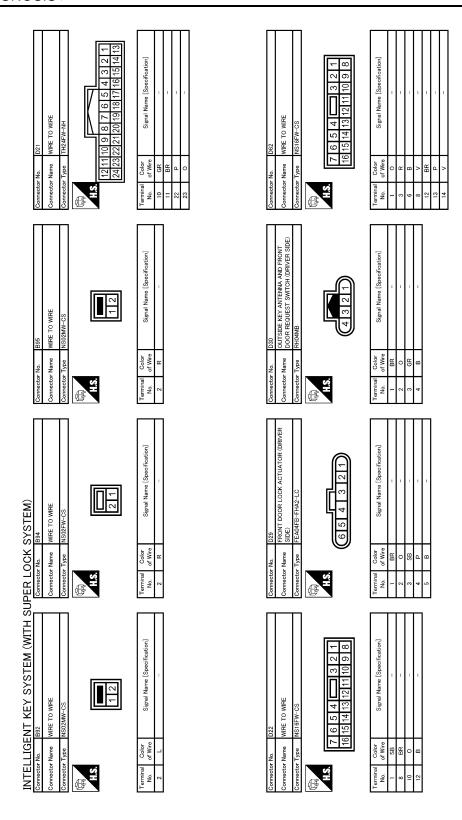
M13 INTELLIGENT KEY UNIT INSIDE KEY ANTENNA (INSTRUMENT CENTER) (M56) JCKWA0392GE

**DLK-487** 



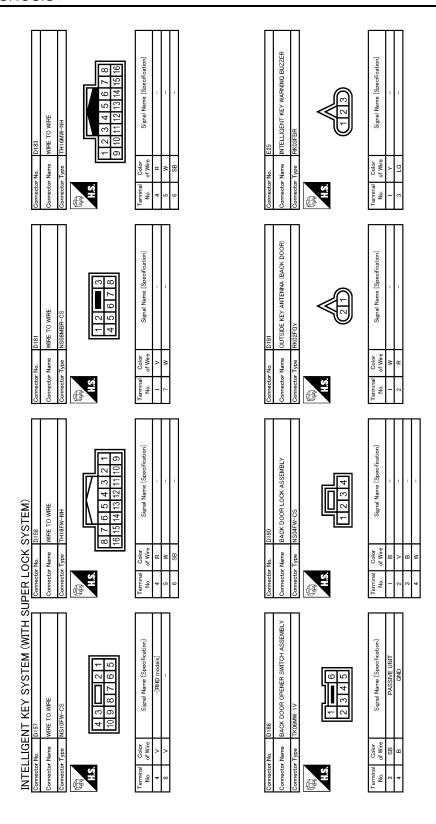
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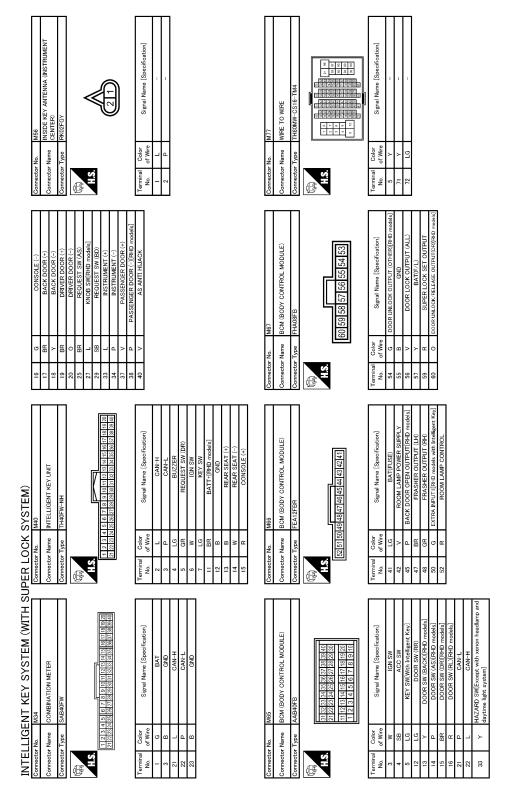
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Connector No. D85 Connector Name REAR DOOR LOCK ACTUATOR RH Connector Type FEASWED-FHA2-LC  MAS.  (6 5 4 3 2 1)	Signal Name [Specification]	9-NH 14 13 12 11 10 9 Signal Name [Specification]		В
Connector No D35 Connector Name REAR DC Connector Type FEAGHFB H.\$	Terminal   Color   No. of Wire   1   R Wire   2   G   S	Connector No. D153 Connector Name WIRE TO WIRE Connector Type TH16FW-NH H.S.  R. R. R. Signa of Wire Signa 6 SB		C
SS 3 2 1 10 9 8 7 6 6	Signal Name (Specification)	VINE  -CSS    CSS   CSS		E F
Connector No. D91  Connector Name WIRE TO WIRE  Connector Type NSIZFW-CS  H.S. 5 4	Terminal Golor   S	Connector No.   D151		G
SYSTEM)  Diss  Consumer set naviews must recent loose reculest switch (PASSENGER REGAMB)  Recommended to the set of the s	Signal Name [Specification]	PEAVE-FHA2-LC  FEAVER-FHA2-LC  T 2 3 4 5 6  Signal Name [Specification]		I
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INTELLIGENT KEY SYSTEM (WITH Connector Name FRONT DOOR LOCK ACTUATOR Connector Type FEADMFB-THA2-LC  ALS.  (123456	No of Wire   Signal   1	Connector No.   D111		N O
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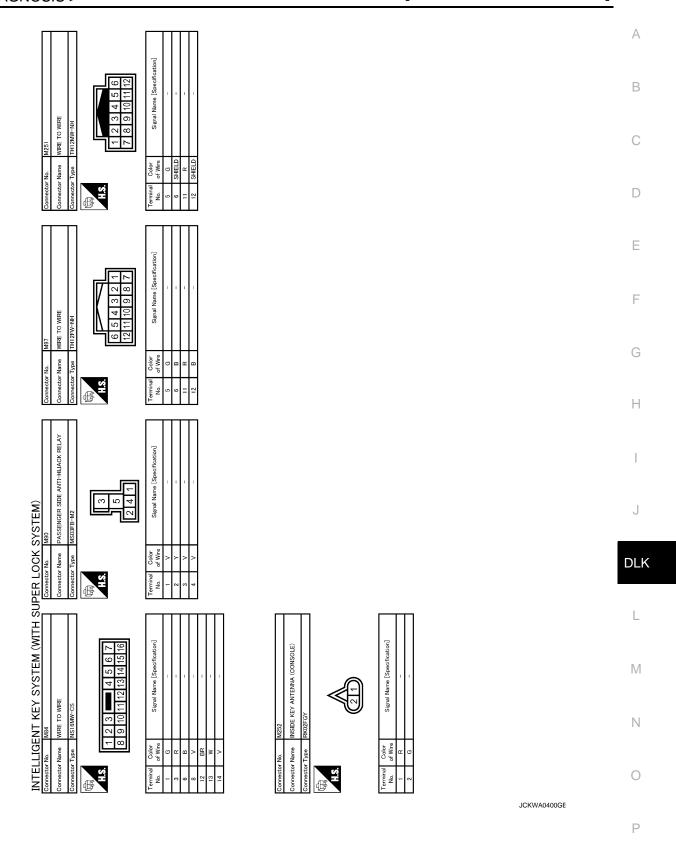


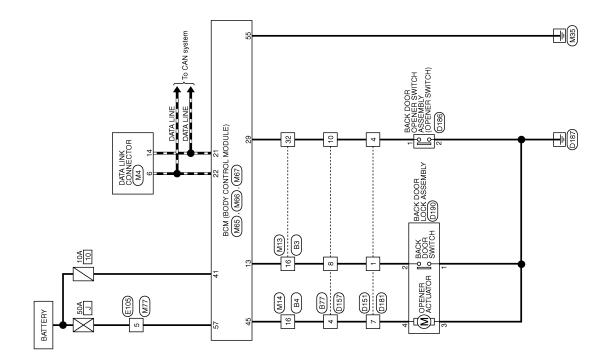
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		3 2 1	teou)	житсн -	tion]		Α
	WIRE -NH	10 9 8 7 6 5 4 3 2 26 25 24 23 22 21 20 19 18 1	Signal Name [Specification]	MAS IGNITION KNOB SWITCH, KEY SWITCH AND KEY LOCK SOLENOID TKGGMGY   1 2 3 4 5 6	Signal Name [Specification]		В
	Connector No. MI 3  Connector Name WIRE TO WIRE  Connector Type TH32FW-NH	H.S. 161514131211 323130292827	Color   Color   Color	ector No. ector Name ector Type	Terminal Color No. of Wire of Wire 2 2 R R BR L A BR		C
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M)	M4 DATA LINK CONNECTOR BD16FW	1213141516	Signal Name [Specification]	7 8 9 1011 17 8 9 1011	Signal Name [Specification]		l J
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GENT KE	wire to wire TH80FW-CS16-TM4			MI4 WIRE TO V NS16FW-C 7 6 5 16 15 14			Ν
INTELLIC	Connector Name Connector Type	H.S.	Color   Color   Color	Connector No. Connector Type Connector Type H.S.	Color   Colo		0
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JCKWA0399GE



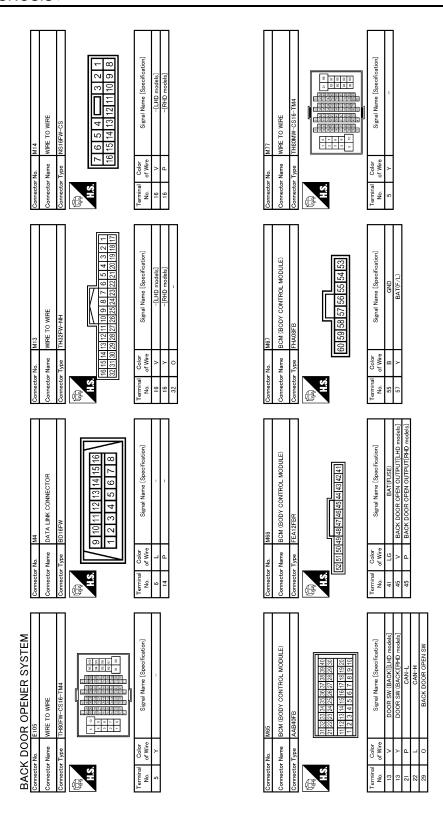


BACK DOOR OPENER SYSTEM

2007/02/28

JCKWA0409GE

	2 <del>2</del> <del>1</del>	Signal Name [Specification]	ASSEMBLY 44	Signal Name [Specification]		A B
Connector No. D151 Connector Name WIRE TO WIRE Connector Type NSOBFBR-CS	9 <u>2</u> 8	Color   Color   Signal Nam   Nam   Color   Signal Nam   V   V   V   V   V   V   V   V   V	Connector No.  Connector Name BACK DOOR LOCK ASSEMBLY Connector Type NSO4FW-CS  1 2 3 4	Terminal Color   Signal Nem   No. of Wire   Signal Nem   1   B   B		C
	<b></b>					Е
B77 WIRE TO WIRE NSIOMWP-CS	1 2 <b>•••</b> 3 4 5 6 7 8 9 10	Signal Name [Specification]	DIBS BACK DOOR OPENER SWITCH ASSEMBLY TKOBMW-1V 1 6 7 4 5	Signal Name [Specification] BCM GND		F
Connector No. B77 Connector Name WIRI Connector Type NSI	H.S.	Color   Color   Color   No. of Wre   No. of Wre   No. of Wre   Of Wre   Of Wre   Of   Of   Of   Of   Of   Of   Of   O	Connector No. D186 Connector Name BACK Connector Type TK086 H.S.	Color   Colo		G H
WHE TO WIRE NSIGNW-CS	2 3 <b></b> 4 5 6 7 9 10111213141516	Signal Name (Specification)	DIBI WRE TO WIRE NSOBMBR-CS 1 2	Signal Name [Specification]		J
Connector No. E	S. L	Terminal Codor No. of Wire 16 W	Connector No. Connector Type N. L.S.	Termina  Color   No. of Wire   1   4   Q     4   Q     7		DLK
NER SYSTEM	8 9 10 11 12 13 14 15 16 24 25 26 27 28 29 30 31 32	Signal Name [Specification]	E	Signal Name [Specification] -[LHD models] -[RHD models]		L M
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JCKWA0411GE

Fail Safe

INFOID:0000000001557100

### FAIL-SAFE CONTROL BY DTC

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

DTC	Fail-safe	Cancellation	-
B2190: NATS ANTENNA AMP	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC	-
B2191: DIFFERENCE OF KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC	-
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC	-
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC	=
B2194: DISCORD BCM-I-KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC	-
B2195: ANTI SCANNING	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC	-
B2196: DONGLE NG	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC	-

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

#### Condition of cancellation

- Turn ignition switch OFF.
- 2. Pass more than 1 minute after the rear wiper stop.
- Turn ignition switch ON.
- Operate the rear wiper switch.

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while activating the hazard warning lamp.

#### FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

#### Fail-safe Control

Auto light control: Headlamp is turned ON.

 B2195: ANTI SCANNING • B2196: DONGLE NG

• Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

## DTC Inspection Priority Chart

DTC Priority U1000: CAN COMM CIRCUIT 1 U1010: CONTROL UNIT (CAN) B2190: NATS ANTENNA AMP B2191: DIFFERNCE OF KEY B2192: ID DISCORD BCM-ECM 2 • B2193: CHAIN OF BCM-ECM B2194: DISCORD BCM-I-KEY

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INFOID:0000000001557101

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

DTC	TIME		Fail-safe	Reference	
U1000: CAN COMM CIRCUIT	0	1 - 39	_	BCS-33	
U1010: CONTROL UNIT (CAN)	0	1 - 39	_	BCS-34	
B2190: NATS ANTENNA AMP	CRNT	PAST	×	With Intelligent Key system: <u>SEC-41</u> Without Intelligent Key system: <u>SEC-254</u>	
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	With Intelligent Key system: <u>SEC-43</u> Without Intelligent Key system: <u>SEC-256</u>	
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-38</u> Without Intelligent Key system: <u>SEC-251</u>	
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-40</u> Without Intelligent Key system: <u>SEC-253</u>	
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	SEC-53	
B2195: ANTI SCANNING	CRNT	PAST	×	With Intelligent Key system: <u>SEC-54</u> Without Intelligent Key system: <u>SEC-264</u>	
B2196: DONGLE NG	CRNT	PAST	×	With Intelligent Key system: <u>SEC-55</u> Without Intelligent Key system: <u>SEC-265</u>	

# SYMPTOM DIAGNOSIS

## DOOR LOCK

Symptom Table

INFOID:0000000001470370

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

NO.	Function	Operation condition	Symptom	Diagnostic Item	Reference page	С
		Press door lock and unlock switch.	Door does not lock/unlock	All doors	DLK-503	
				Driver side	DLK-503	D
				Passenger side	DLK-504	-
				Rear LH	DLK-504	Е
	Door lock and			Rear RH	DLK-505	-
1 unloc	unlock switch	Open the door inside the vehicle.	Door does not inside the vehicle.	Driver side	DLK-506	
	function			Passenger side	DLK-506	F
				Rear LH	DLK-506	
				Rear RH	DLK-507	G
		Lock all doors with Intelligent Key or door request switch.	Door lock and unlock switch indicator does not illuminate.	_	DLK-508	
	latelline at IZee	Press Intelligent Key button.	Door does not lock/unlock	_	DLK-509	Н
2 Intelligent Key function			Anti-hijack function does not operate	_	DLK-510	-
Door request switch function		Press driver side door request switch.		_	DLK-511	
		Press passenger side door request switch.	Door does not lock/unlock	_	DLK-511	
	Door request	Press back door request switch.		_	DLK-512	
		Press driver side door request switch, when all doors are locked.	Anti-hijack function does not	Driver side door	DLK-514	J
		Press passenger side door request switch, when all doors are locked.	operate	Passenger side door	DLK-514	DLł
4	Key reminder function	Lock all doors with door lock and unlock switch, when Intelligent Key is inside of the vehicle.	Key reminder function does not operate	_	DLK-516	L
5	Auto door lock function	Unlock all doors and wait more than 2 minutes.	Auto door lock operation does not operate	_	DLK-517	
6	Vehicle speed sensing auto door lock func- tion	Vehicle speed is more than 25km/h.	Vehicle speed sensing auto door lock operation does not operate	_	DLK-518	M
7	Back door open- er function	Press back door opener switch.	Back door does not open	_	DLK-519	N

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## [WITH I-KEY & SUPER LOCK]

NO.	Function	Operation condition	Symptom	Diagnostic Item	Reference page
		Door is opened under the following condition.  • Ignition knob is OFF or LOCK position.	Ignition knob return forgotten warning does not operate	_	DLK-520
		Driver side door is opened under the following conditions.  Ignition switch is OFF position.  Mechanical key is inserts into ignition key cylinder.	lg conditions. Ignition switch is OFF position. Mechanical key is inserts into ignition key  Ignition key warning does not operate		DLK-521
		Door is opened under the following condition.  • Ignition knob is between ACC and OFF position or ignition knob is pressed in while ignition switch is in LOCK position.	OFF position warning does not operate	Warning lamp  Buzzer (Combination meter)	DLK-522 DLK-522
		Door is opened under the following conditions and wait more than 5 seconds.  • Engine is running.  • Take Intelligent Key out of the vehicle.		Warning lamp	DLK-523
		ony door open to all door close under the following conditions.  Take away warning does not operate		Intelligent Key warning buzzer	DLK-524
		Take Intelligent Key out of the vehicle.	operate	Warning lamp	DLK-524
		Take away through window Intelligent Key under the following condition and wait more than 30 seconds.		Buzzer (Combination meter)	DLK-525
8	Warning function	Engine is running.		Warning lamp	DLK-525
		Turn ignition switch ON position, when Intelligent Key battery is low voltage.	Intelligent Key low battery warning does not operate	_	DLK-527
		Press door request switch under the following conditions.  Door is opened.  Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserts into ignition key cylinder.  Intelligent Key is inside vehicle.	Door lock operation warning	_	DLK-528
		Press Intelligent Key button under the following conditions.  Door is opened.  Ignition switch is in ACC or OFF position or ignition knob is pressed in LOCK position or mechanical key is inserts into ignition key cylinder.	chime does not operate	_	DLK-529
		Press back door opener switch under the following conditions.  Door is locked with door lock and unlock switch.  Speed sensing lock or only driver side is unlocked with anti-hijack function.	Back door open warning does not operate	_	DLK-530
9	Hazard and buzzer reminder function	Press door request switch or Intelligent Key button.	Buzzer reminder operation does not operate	_	DLK-531
9		Press door request switch or Intelligent Key button.	Hazard reminder operation does not operate	_	DLK-532

#### [WITH I-KEY & SUPER LOCK] < SYMPTOM DIAGNOSIS > DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK Α SWITCH **ALL DOOR** В **ALL DOOR: Description** INFOID:0000000001470371 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) D Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Е Doors are not locked by Intelligent Key or door request switch. ALL DOOR: Diagnosis Procedure INFOID:0000000001470372 F ${f 1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Refer to DLK-354, "BCM: Diagnosis Procedure" (BCM). Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. Н 2.CHECK DOOR LOCK AND UNLOCK SWITCH Check door lock and unlock switch. Refer to DLK-356, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.check door switch Check door switch. DLK Refer to <u>DLK-368</u>, "PASSENGER SIDE: Component Function Check" (passenger side). Refer to DLK-370, "REAR LH: Component Function Check" (rear LH). Refer to DLK-371, "REAR RH: Component Function Check" (rear RH). Refer to <u>DLK-373</u>, "BACK DOOR: Component Function Check" (back door). Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION N Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. DRIVER SIDE **DRIVER SIDE: Description** INFOID:0000000001470399

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

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303. "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Except driver side, doors are closed.

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITH I-KEY & SUPER LOCK]

#### < SYMPTOM DIAGNOSIS >

- · Super lock is not in set state. Passenger side door is not in anti-hijack state.
- · Doors are not locked by Intelligent Key or door request switch.

## DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001470400

## 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-380, "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.

### Is the result normal?

>> Check intermittent incident. Refer to GI-39, "Intermittent Incident". YES

NO >> GO TO 1.

## PASSENGER SIDE

## PASSENGER SIDE : Description

INFOID:0000000001470401

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001470402

## 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (passenger side).

Refer to DLK-382, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

## **REAR LH: Description**

INFOID:0000000001470403

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303. "Work Flow"</u>.
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- · Passenger side door is not in anti-hijack state.

#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITH I-KEY & SUPER LOCK] < SYMPTOM DIAGNOSIS > Doors are not locked by Intelligent Key or door request switch. Α **REAR LH**: Diagnosis Procedure INFOID:0000000001470404 1. CHECK DOOR LOCK ACTUATOR В Check door lock actuator LH. Refer to DLK-383, "REAR LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION D Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. REAR RH F REAR RH: Description INFOID:0000000001470546 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Н Conditions of Vehicle (Operating Conditions) • Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Doors are not locked by Intelligent Key or door request switch. **REAR RH**: Diagnosis Procedure INFOID:0000000001470547 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator RH. DLK Refer to DLK-384, "REAR RH: 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-39, "Intermittent Incident". NO >> GO TO 1. N

#### DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001515936

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Doors are locked by Intelligent Key or door request switch.

## **DRIVER SIDE**: Diagnosis Procedure

INFOID:0000000001515937

## 1. CHECK SUPER LOCK ACTUATOR

Check super lock actuator (driver side).

Refer to DLK-387, "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.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

#### PASSENGER SIDE

## PASSENGER SIDE : Description

INFOID:0000000001515938

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Doors are locked by Intelligent Key or door request switch.

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001515939

## 1. CHECK SUPER LOCK ACTUATOR

Check super lock actuator (passenger side).

Refer to DLK-388, "PASSENGER SIDE: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

## REAR LH: Description

INFOID:0000000001515940

#### NOTE:

• Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303</u>, "Work Flow".

## DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE	
< SYMPTOM DIAGNOSIS > [WITH I-KEY & SUPER LOCK]	_
<ul> <li>Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.</li> <li>Conditions of Vehicle (Operating Conditions)</li> <li>Doors are locked by Intelligent Key or door request switch.</li> </ul>	d A
REAR LH : Diagnosis Procedure	, B
1.CHECK SUPER LOCK ACTUATOR	
Check super lock actuator LH.	С
Refer to <u>DLK-389, "REAR LH : Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 2.	D
NO >> Repair or replace the malfunctioning parts.	
2.CONFIRM THE OPERATION	_ E
Confirm the operation again.  Is the result normal?	
YES >> Check intermittent incident. Refer to GI-39. "Intermittent Incident". NO >> GO TO 1.	F
REAR RH	G
REAR RH: Description	
<ul> <li>NOTE:</li> <li>Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow"</u>.</li> <li>Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.</li> </ul>	H
Conditions of Vehicle (Operating Conditions)  • Doors are locked by Intelligent Key or door request switch.	
REAR RH : Diagnosis Procedure	3
1. CHECK SUPER LOCK ACTUATOR	J
Check super lock actuator RH.	DL
Refer to <u>DLK-390, "REAR RH: Component Function Check"</u> . <u>Is the inspection result normal?</u>	DL
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	L
2.CONFIRM THE OPERATION	=
Confirm the operation again.	M
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-39</u> , " <u>Intermittent Incident</u> ".	
NO >> GO TO 1.	Ν
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## DOOR LOCK AND UNLOCK SWITCH INDICATOR DOES NOT ILLUMINATE [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

## DOOR LOCK AND UNLOCK SWITCH INDICATOR DOES NOT ILLUMINATE

Description INFOID:0000000001524139

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

• Door lock function is normal.

## Diagnosis Procedure

INFOID:0000000001524140

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INDICATOR

Check door lock and unlock switch indicator.

Refer to DLK-359, "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-39, "Intermittent Incident".

>> GO TO 1. NO

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

NO

>> GO TO 1.

[WITH I-KEY & SUPER LOCK]

#### DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY Α Description INFOID:0000000001470544 NOTE: В Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow".</u> Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Door lock and unlock switch operations are normal. Emergency key is removed from ignition key cylinder. All doors are closed. D Ignition knob is not pressed. No Intelligent keys are inside the vehicle. Diagnosis Procedure Е INFOID:0000000001470545 $oldsymbol{1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Refer to DLK-354, "INTELLIGENT KEY UNIT: Diagnosis Procedure" (Intelligent Key unit). Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK DRIVER SIDE DOOR SWITCH Check drive side door switch. Refer to DLK-367, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK KEY SWITCH Check key switch. Refer to DLK-375, "Component Function Check". DLK Is the inspection result normal? >> GO TO 4. YES >> Repair or replace the malfunctioning parts. NO 4. CHECK IGNITION KNOB SWITCH Check ignition knob switch. Refer to DLK-378, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. N ${f 5.}$ CHECK INTELLIGENT KEY BATTERY Check Intelligent Key battery. Refer to DLK-427, "Component Function Check". Is the inspection result normal? YES >> GO TO 6. Р NO >> Repair or replace the malfunctioning parts. $\mathsf{6}.\mathsf{confirm}$ the operation Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

## ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

## ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

Description INFOID:0000000001470542

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Door lock and unlock switch operations are normal.
- Emergency key is removed from ignition key cylinder.
- All doors are closed.
- Ignition knob is not pressed.
- No Intelligent Keys are inside the vehicle.

## **Diagnosis Procedure**

INFOID:0000000001470543

# ${f 1}.$ check "selective unlock function" setting in "work support"

Check "SELECTIVE UNLOCK FUNCTION" setting in "WORK SUPPORT".

Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

>> Set "SELECTIVE UNLOCK FUNCTION" of "WORK SUPPORT". Refer to DLK-349, "CONSULT-III NO Function (INTELLIGENT KEY)".

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH Α DRIVER SIDE **DRIVER SIDE**: Description INFOID:0000000001470538 В NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow"</u>. · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Intelligent Key operation is normal. D "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III. Emergency key is removed from ignition key cylinder. Ignition switch is in OFF position. No Intelligent Keys are inside the vehicle. **DRIVER SIDE**: Diagnosis Procedure INFOID:0000000001470539 ${f 1}$ .CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT" F Check "LOCK/UNLOCK BY I-KEY" "WORK SUPPORT". Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. NO >> Set "LOCK/UNLOCK BY I-KEY" of "WORK SUPPORT". Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)". 2.CHECK DOOR REQUEST SWITCH Check door request switch. Refer to DLK-361, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK OUTSIDE KEY ANTENNA DLK Check outside key antenna. Refer to DLK-398, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YFS >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CONFIRM THE OPERATION M Confirm the operation again. Is the result normal? N YES >> Check Intermittent Incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. PASSENGER SIDE C PASSENGER SIDE : Description INFOID:0000000001470536 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Intelligent Key operation is normal.

"LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.

• Emergency key is removed from ignition key cylinder.

Ignition switch is in OFF position.

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

• No Intelligent Keys are inside the vehicle.

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001470537

## 1. CHECK DOOR REQUEST SWITCH

Check door request switch.

Refer to DLK-363, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK OUTSIDE KEY ANTENNA

Check outside key antenna.

Refer to DLK-401, "PASSENGER SIDE: 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-39, "Intermittent Incident".

NO >> GO TO 1.

**BACK DOOR** 

## **BACK DOOR: Description**

INFOID:0000000001470534

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303. "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

## **BACK DOOR: Diagnosis Procedure**

INFOID:0000000001470535

## 1. CHECK DOOR REQUEST SWITCH

Check back door request switch.

Refer to DLK-365, "BACK DOOR: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2. CHECK OUTSIDE KEY ANTENNA

Check outside key antenna.

Refer to DLK-404, "BACK DOOR: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

YES >> Check Intermittent Incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1.

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# ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000001548078

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

## DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001548079

## 1. CHECK "SELECTIVE UNLOCK FUNCTION" SETTING IN "WORK SUPPORT"

Check "SELECTIVE UNLOCK FUNCTION" setting in "WORK SUPPORT".

Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "SELECTIVE UNLOCK FUNCTION" of "WORK SUPPORT". Refer to <u>DLK-349</u>, "CONSULT-III Function (INTELLIGENT KEY)".

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

#### PASSENGER SIDE

### PASSENGER SIDE: Description

INFOID:0000000001548080

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303. "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key operation is normal.
- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Emergency key is removed from ignition key cylinder.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000000154808

## 1. CHECK PASSENGER SIDE ANTI-HIJACK RELAY

Check passenger side anti-hijack relay.

Refer to DLK-418, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

# ANTI-HIJACK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

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YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## KEY REMINDER FUNCTION DOES NOT OPERATE

Description INFOID:0000000001470530

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303, "Work Flow".</u>
- Understand the operation when does it work, refer to <u>DLK-319</u>, "KEY REMINDER: System Description".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

## Diagnosis Procedure

INFOID:0000000001470531

## 1. CHECK DOOR SWITCH

#### Check door switch.

Refer to DLK-367, "DRIVER SIDE: Component Function Check". (Driver side)

Refer to DLK-368, "PASSENGER SIDE: Component Function Check". (Passenger side)

Refer to <u>DLK-370</u>, "<u>REAR LH</u>: <u>Component Function Check</u>". (Rear LH) Refer to <u>DLK-371</u>, "<u>REAR RH</u>: <u>Component Function Check</u>". (Rear RH)

Refer to DLK-373, "BACK DOOR: Component Function Check". (Back door)

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK INSIDE KEY ANTENNA

#### Check inside key antenna.

Refer to <u>DLK-408</u>, "INSTRUMENT CENTER: Component Function Check". (Instrument center)

Refer to DLK-411, "CONSOLE: Component Function Check". (Console)

Refer to DLK-414, "REAR SEAT : Component Function Check". (Rear seat)

#### 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-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description INFOID:000000001470528

#### NOTE:

- "AUTO RELOCK TIMER" is not OFF when setting on CONSULT-III.
- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- Understand the operation when does it work, refer to <u>DLK-322, "AUTO DOOR LOCK: System Description"</u>. Conditions of Vehicle (Operating Conditions)
- Request switch operation and door lock and unlock switch operation are normal.

## Diagnosis Procedure

INFOID:0000000001470529

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# 1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT"

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

Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "AUTO LOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-349</u>, "CONSULT-III Function (INTELLIGENT KEY)"

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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## VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

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

Description INFOID:0000000001470526

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to DLK-303, "Work Flow".
- Understand the operation when does it work, refer to DLK-325, "VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

## Diagnosis Procedure

INFOID:0000000001470527

## 1. CHECK VEHICLE SPEED SIGNAL

Check vehicle speed signal.

Refer to DLK-426, "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-39, "Intermittent Incident".

NO >> GO TO 1.

### **BACK DOOR DOES NOT OPENED**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

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## BACK DOOR DOES NOT OPENED Α Description INFOID:0000000001470524 NOTE: Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303. "Work</u> Flow". • Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) · Door lock function is normal. Vehicle speed is less than 5 km/h (3MPH). D All doors are unlocked. Diagnosis Procedure INFOID:0000000001470525 Е 1. CHECK BACK DOOR OPENER SWITCH Check back door opener switch. F Refer to DLK-396, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK BACK DOOR OPENER ACTUATOR Check back door opener actuator. Н Refer to DLK-392, "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-39, "Intermittent Incident". DLK NO >> GO TO 1. Ν

## **IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE** [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

## IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE

Description INFOID:0000000001470522

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>. "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-336, "System Description".
- Door lock function is normal.

## **Diagnosis Procedure**

INFOID:0000000001470523

## 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-422, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## IGNITION KEY WARNING DOES NOT OPERATE

Description INFOID:000000001470520

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-336</u>, "System <u>Description</u>".
- Door lock function is normal.

## Diagnosis Procedure

1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-422, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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## OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# OFF POSITION WARNING DOES NOT OPERATE WARNING LAMP

## WARNING LAMP: Description

INFOID:0000000001470463

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-336</u>, "System Description".
- Door lock function is normal.

## WARNING LAMP : Diagnosis Procedure

INFOID:0000000001470464

## 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-420, "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-39, "Intermittent Incident".

NO >> GO TO 1.

## **BUZZER (COMBINATION METER)**

## BUZZER (COMBINATION METER): Description

INFOID:0000000001470465

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-336</u>, "System <u>Description"</u>.
- Door lock function is normal.

## BUZZER (COMBINATION METER): Diagnosis Procedure

INFOID:0000000001470466

## 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-422, "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-39. "Intermittent Incident".

NO >> GO TO 1.

## TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED) [WITH I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

## TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED) WARNING LAMP

INFOID:0000000001470437

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## WARNING LAMP: Description

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>, "Work Flow".
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-336, "System Description".
- Door lock function is normal.

## WARNING LAMP: Diagnosis Procedure

INFOID:0000000001470438

## 1. CHECK KEY WARNING LAMP

Check KEY warning lamp.

Refer to DLK-423, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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# TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE)

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE)

WARNING LAMP

WARNING LAMP : Description

INFOID:0000000001470439

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-303, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-336">DLK-336</a>, "System Description".
- Door lock function is normal.

## WARNING LAMP : Diagnosis Procedure

INFOID:0000000001470440

## 1. CHECK KEY WARNING LAMP

Check KEY warning lamp.

Refer to DLK-423, "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-39, "Intermittent Incident".

NO >> GO TO 1.

### INTELLIGENT KEY WARNING BUZZER

## INTELLIGENT KEY WARNING BUZZER: Description

INFOID:0000000001470441

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-336">DLK-336</a>, "System Description".
- Door lock function is normal.

## INTELLIGENT KEY WARNING BUZZER : Diagnosis Procedure

INFOID:0000000001470442

## 1.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-420, "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-39, "Intermittent Incident".

NO >> GO TO 1.

#### TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WIN-DOW) [WITH I-KEY & SUPER LOCK] < SYMPTOM DIAGNOSIS > TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WINDOW) WARNING LAMP В WARNING LAMP: Description INFOID:0000000001470417 NOTE: Before performing the diagnosis in the following table, check "WORK FLOW". Refer to DLK-303, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. D Conditions of Vehicle (Operating Conditions) Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-336, "System Description". Е Door lock function is normal. WARNING LAMP: Diagnosis Procedure INFOID:0000000001470418 F 1. CHECK KEY WARNING LAMP Check KEY warning lamp. Refer to DLK-423, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. >> Repair or replace the malfunctioning parts. NO Н 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. BUZZER (COMBINATION METER) BUZZER (COMBINATION METER): Description INFOID:0000000001470435 DLK NOTE: Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>, "Work Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) M Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-336</u>, "System Description". Door lock function is normal. Ν BUZZER (COMBINATION METER): Diagnosis Procedure INFOID:0000000001470436 1. CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-422, "Component Function Check". Is the inspection result normal? Р YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal?

>> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

# TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WINDOW)

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

NO >> GO TO 1.

# INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

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#### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE Α Description INFOID:0000000001470415 NOTE: Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303</u>. "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-336, "System Description". D Door lock function is normal. Diagnosis Procedure INFOID:0000000001470416 Е 1. CHECK "LOW BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT" Check "LOW BATT OF KEY FOB WARN" setting in "WORK SUPPORT". F Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. >> Set "LOW BATT OF KEY FOB WARN" setting in "WORK SUPPORT". Refer to DLK-349, "CON-NO SULT-III Function (INTELLIGENT KEY)". 2.CHECK INTELLIGENT KEY BATTERY Check Intelligent Key battery. Refer to DLK-427, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK KEY WARNING LAMP Check KEY warning lamp. Refer to DLK-423, "Component Function Check". DLK 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-39, "Intermittent Incident". NO >> GO TO 1. N

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

Description INFOID:000000001470411

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-336</u>, "System Description".
- Door lock function is normal.

## Diagnosis Procedure

INFOID:0000000001470412

## 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-420, "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-39, "Intermittent Incident".

NO >> GO TO 1.

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH INTELLIGENT KEY

Description INFOID:000000001470413

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-303, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-336">DLK-336</a>, "System Description".
- Door lock function is normal.

## Diagnosis Procedure

1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-420, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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## **BACK DOOR OPEN WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## BACK DOOR OPEN WARNING DOES NOT OPERATE

Description INFOID:000000001470409

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

• Door lock function and back door opener function is normal.

## Diagnosis Procedure

INFOID:0000000001470410

# 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-422, "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-39, "Intermittent Incident".

NO >> GO TO 1.

## **BUZZER REMINDER OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## BUZZER REMINDER OPERATION DOES NOT OPERATE

Description INFOID:000000001470407

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303. "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK WITH I-KEY LOCK", "ANSWER BACK WITH I-KEY UNLOCK" and "ANSWER BACK FUNCTION" are ON when setting on CONSULT-III.
- Door lock function is normal.

## Diagnosis Procedure

1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

Check "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT".

Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT". Refer to <u>DLK-349</u>, "CONSULT-III Function (INTELLIGENT KEY)".

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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## HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

## HAZARD REMINDER OPERATION DOES NOT OPERATE

Description INFOID:000000001470405

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-303</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "HAZARD ANSWER BACK" is ON when setting on CONSULT-III.
- Door lock function is normal.

## Diagnosis Procedure

INFOID:0000000001470406

## 1.CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to DLK-349, "CONSULT-III Function (INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-349</u>, "CONSULT-III <u>Function (INTELLIGENT KEY)"</u>.

## 2. CONFIRM THE OPERATION

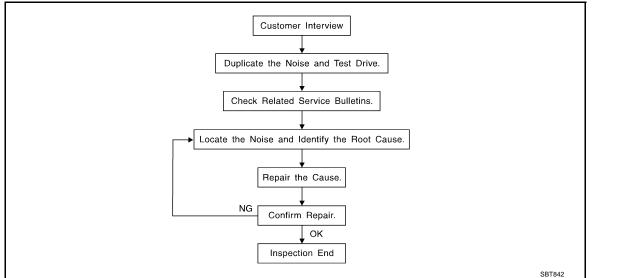
Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of the customer's comments; refer to <a href="DLK-875">DLK-875</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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by a test drive 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
- dent on materials/often brought on by activity.
  Rattle (Like shaking a baby rattle)
  Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing
- Knock (Like a knock on a door)
   Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
  Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumble bee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge
  as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

clip or fastener/incorrect clearance.

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

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#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

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

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

#### 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 (Engine Ear or mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- removing the components in the area that you suspect the noise is coming from.
  - Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
  - Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the
  noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.
  - Refer to <u>DLK-873</u>, "Inspection Procedure".

#### REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape are available through your authorized Nissan Parts Department.

#### **CAUTION:**

# Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

• URETHANE PADS

Insulates connectors, harness, etc.

• INSULATOR (Foam blocks)

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

- INSULATOR (Light foam block)
- FELT CLOTHTAPE

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

The following materials, not available through NISSAN Parts Department, can also be used to repair squeaks and rattles.

UHMW(TEFLON) TAPE

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

• DUCT TAPE

Use 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.

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

Inspection Procedure INFOID:0000000001537522 Α Refer to Table of Contents for specific component removal and installation information. INSTRUMENT PANEL В Most incidents are caused by contact and movement between: Cluster lid A and instrument panel Acrylic lens and combination meter housing Instrument panel to front pillar garnish Instrument panel to windshield 5. Instrument panel mounting pins D Wiring harnesses behind the combination meter A/C defroster duct and duct joint Е 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 har-F CAUTION: Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair. CENTER CONSOLE Components to pay attention to include: 1. Shifter assembly cover to finisher Н A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. **DOORS** Pay attention to the: 1. Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher Wiring harnesses tapping DLK 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. You can usually insulate the areas with felt cloth tape or insulator foam blocks to repair the noise. TRUNK Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for: 1. Trunk lid dumpers out of adjustment 2. Trunk lid striker out of adjustment Ν 3. Trunk lid torsion bars knocking together A loose license plate or bracket Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise. SUNROOF/HEADLINING Р 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

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these

Front or rear windshield touching headlining and squeaking

incidents. Repairs usually consist of insulating with felt cloth tape.

#### < SYMPTOM DIAGNOSIS >

[WITH I-KEY & SUPER LOCK]

#### SEATS

When isolating seat noise it is important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

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

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- Engine wall mounts and connectors
- Loose radiator mounting pins
- Hood bumpers out of adjustment
- 6. 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.

## **Diagnostic Worksheet**

INFOID:0000000001537523

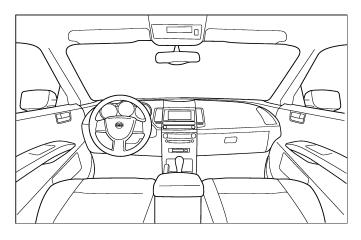


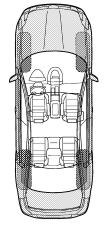
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

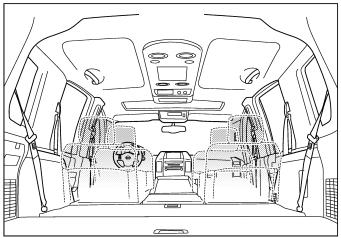
#### Dear Nissan Customer:

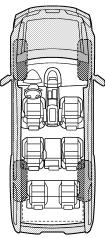
We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be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

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









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

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SQUEAK & RATTLE DIAGNOSTIC WO	RKSH	EET -	page 2					
Briefly describe the location where the no	ise occ	curs:						
II. WHEN DOES IT OCCUR? (please che	eck the	boxes	that ap	ply)				
<ul><li>☐ anytime</li><li>☐ 1st time in the morning</li><li>☐ only when it is cold outside</li><li>☐ only when it is hot outside</li></ul>		☐ after sitting out in the rain ☐ when it is raining or wet ☐ dry or dusty conditions ☐ other:						
III. WHEN DRIVING:	IV.	V. WHAT TYPE OF NOISE						
<ul> <li>□ through driveways</li> <li>□ over rough roads</li> <li>□ over speed bumps</li> <li>□ only about mph</li> <li>□ on acceleration</li> <li>□ coming to a stop</li> <li>□ on turns: left, right or either (circle)</li> <li>□ with passengers or cargo</li> <li>□ other:</li> <li>□ after driving miles or mir</li> </ul> TO BE COMPLETED BY DEALERSHIP Test Drive Notes:	minutes							
		•	/ES	NO	Initials of person performing			
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm	m repa	ıir						
VIN:								

This form must be attached to Work Order

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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. Information necessary to service the system safely is included in the "SRS AIRBAG" 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 Baq Module, see the "SRS AIRBAG".
- . 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.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000001524330

#### NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

#### **OPERATION PROCEDURE**

1. Connect both battery cables.

#### NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- 3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- 4. Perform the necessary repair operation.
- When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
- Perform a self-diagnosis check of all control units using CONSULT-III.

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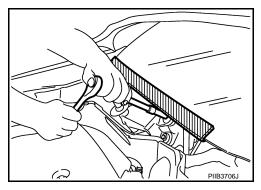
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# Precaution for Procedure without Cowl Top Cover

INFOID:0000000001451702

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



Work

INFOID:0000000001451703

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

# **PREPARATION**

# **PREPARATION**

# **Commercial Service Tools**

Tool name		Description	
Engine ear	SIIA0995E	Locating the noise	
Remover tool		Remove the clips, pawls, and metal clips	
	PIIB7923J		
Power tool			
	PIIB1407E		

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# **ON-VEHICLE REPAIR**

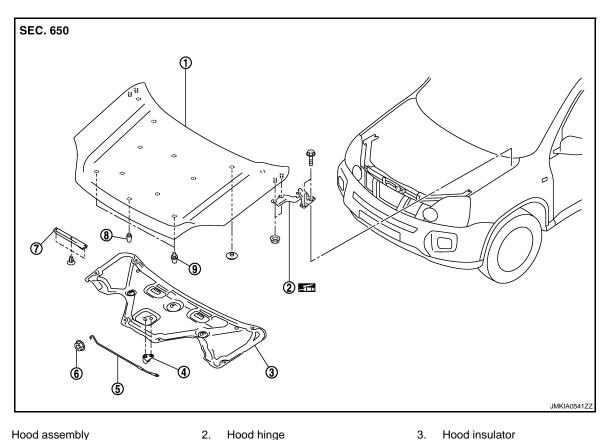
**HOOD** 

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 

INFOID:0000000001451705

# **REMOVAL**



- Hood assembly
- 4. Clamp
- 7. Radiator core seal

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

- Hood hinge
- 5. Hood support rod
- 8.
- Hood bumper rubber center
- 6. Grommet
- Hood bumper rubber side

# **ADJUSTMENT**

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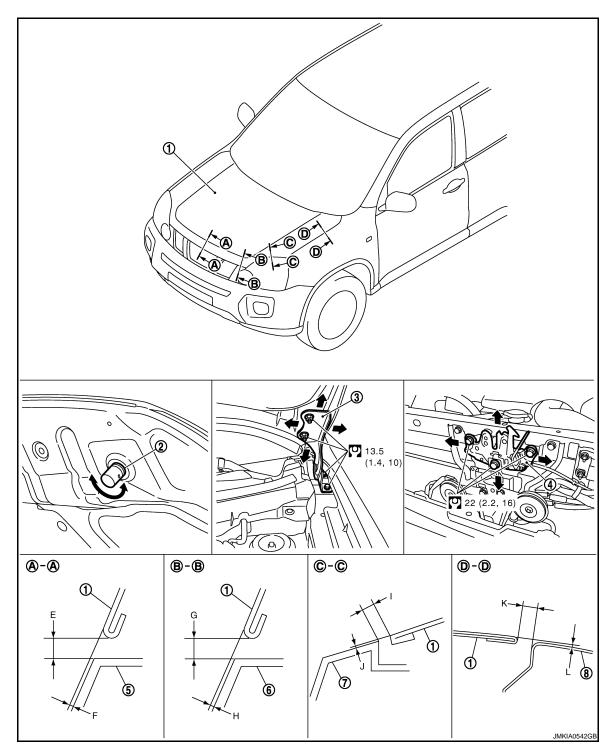
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- Hood assembly
- Hood lock assembly
- Front combination lamp
- Hood bumper rubber side
- Front grille
- Front fender

- 3. Hood hinge
- Front bumper

# **HOOD ASSEMBLY: Removal and Installation**

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

# **REMOVAL**

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

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

2. Remove the hood hinge mounting nuts on the hood to remove the hood assembly.

#### **CAUTION:**

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

- 3. Remove the following parts after removing the hood assembly.
  - Hood insulator
  - Clamp
  - Hood support rod
  - Grommet
  - · Radiator core seal
  - Hood bumper rubber center
  - Hood bumper rubber side

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

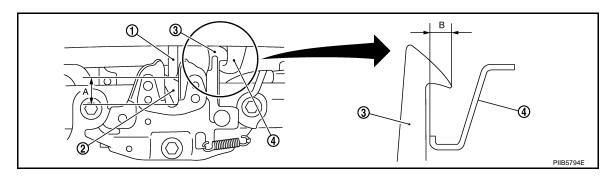
- · Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-ment"</u>.

# **HOOD ASSEMBLY: Adjustment**

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				mn
Porti	on			Standard
Hood – Front grill	A – A	Е	Clearance	4.0 - 8.0 (0.157 - 0.315)
Hood – Front grill	A-A	F	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood Front humber	B – B	G	Clearance	4.0 – 8.0 (0.157 – 0.315)
Hood – Front bumper		Н	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood – Front combination lamp	O C - C	I	Clearance	1.8 – 6.2 (0.071 – 0.244)
Hood – Front Combination lamp		J	Surface height	- 1.3 – 2.7 (- 0.051 – 0.106)
Hood – Front fender	D – D	K	Clearance	2.6 - 4.6 (0.102 - 0.181)
Hood – Front lender	ט-ט	L	Surface height	- 1.0 – 1.0 (- 0.039 – 0.039)

- 1. Check the clearance and the surface height between the hood and each part by visually and touching. (Fitting standard dimension in the table below should be satisfied.)
- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- 3. In case any parts are out of specification, adjust them according to the procedures shown below.
- 4. Remove the hood lock and adjust the height by rotating the hood bumper rubber side until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.
- 5. Temporarily tighten the hood lock, and position by engaging it with the hood striker. Check the lock and striker for looseness and adjust the clearance and evenness with the striker to satisfy the specification.
- 6. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately. 200 mm (7.87 in) height or by pressing the hood lightly [approximately. 29 N (3 kg)].



Hood striker

Primary latch

Secondary striker

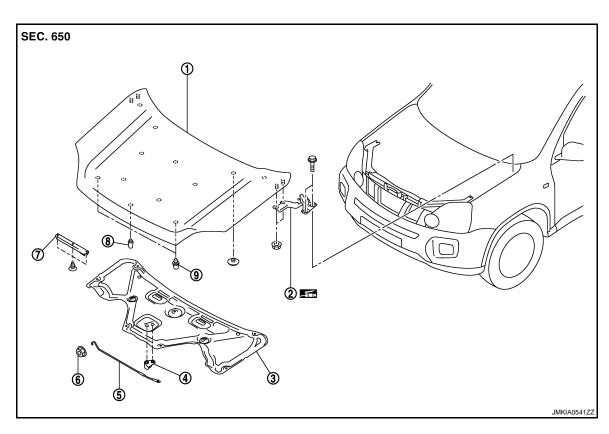
Secondary latch

: 20.0 mm (0.787 in) : 6.8 mm (0.268 in)

7. After adjustment tighten lock bolts to the specified torque.

**HOOD HINGE** 

**HOOD HINGE: Exploded View** 



- 1. Hood assembly
- Clamp 4.
- 7. Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center
- 3. Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

**HOOD HINGE**: Removal and Installation

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

**REMOVAL** 

**DLK-545** 

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- 1. Remove the hood assembly. Refer to DLK-880, "HOOD ASSEMBLY: Removal and Installation".
- 2. Remove the front fender. Refer to <u>DLK-888</u>, "Removal and Installation".
- 3. Remove the hood hinge mounting bolts, and then remove the hood hinge.

#### INSTALLATION

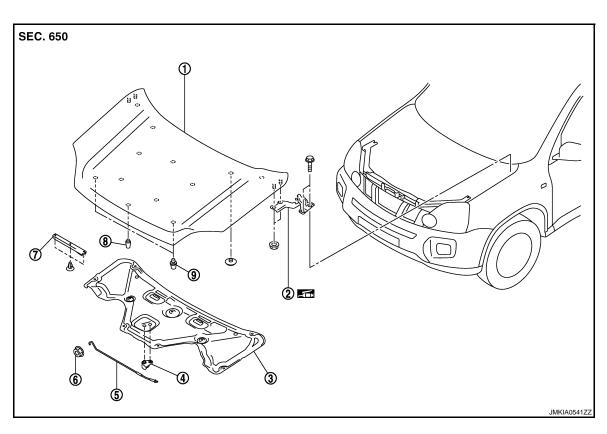
Install in the reverse order of removal.

### **CAUTION:**

- Before installation of hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts and nuts.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-ment"</u>.

# **HOOD SUPPORT ROD**

# **HOOD SUPPORT ROD: Exploded View**



- Hood assembly
- 4. Clamp
- 7. Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- 8. Hood bumper rubber center
- Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

# HOOD SUPPORT ROD: Removal and Installation

### **REMOVAL**

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

#### **WARNING:**

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

2. Remove the hood support rod from the grommet.

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

#### INSTALLATION

# **DLK-546**

Install in the reverse order of removal.

### HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 

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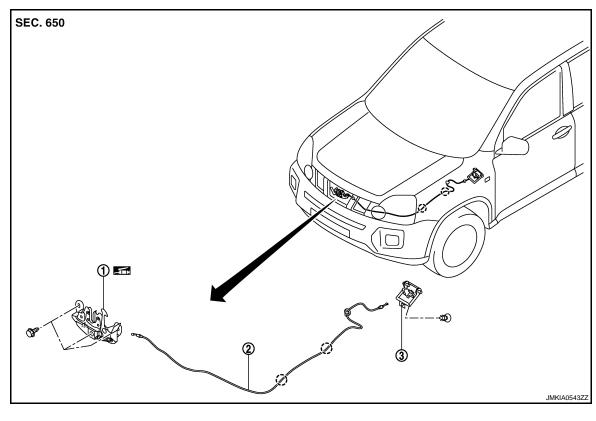
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1. Hood lock assembly

2. Hood lock control cable

3. Hood lock opener

( ) :Clip

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

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

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### **REMOVAL**

Remove the hood lock opener mounting bolts, and then remove the hood lock opener.

- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- 3. Remove the fender protector. Refer to EXT-21, "Removal and Installation".
- 4. Remove the hood lock mounting bolts, and then remove the hood lock.
- 5. Disconnect the hood lock cable from hood lock, and clip it from the hoodledge.
- Remove the grommet on the dash lower panel, and pull the hood lock control cable toward the passenger compartment.

#### **CAUTION:**

While pulling, do not to damage (peeling) the outside of the hood lock control cable.

#### **INSTALLATION**

Install in the reverse order of removal.

# **CAUTION:**

Do not to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.

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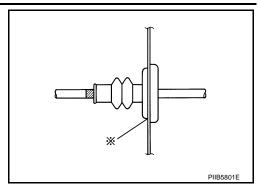
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### < ON-VEHICLE REPAIR >

Check that the cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \*mark) properly.



- Check that the hood lock control cable is properly engaged with the hood lock.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-ment".</u>
- After installation, perform the hood lock control inspection. Refer to <u>DLK-885, "HOOD LOCK CONTROL</u>: Inspection".

# **HOOD LOCK CONTROL**: Inspection

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#### NOTE:

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

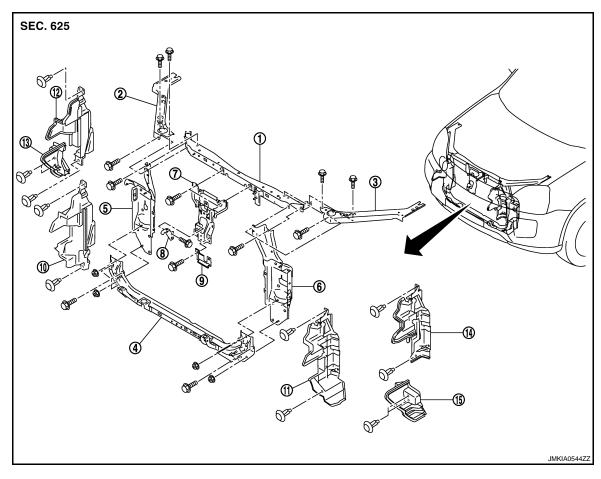
- Check that the secondary latch is properly engaged with the secondary striker [6.8 mm (0.268 in) shown in the figure] by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20.0 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is condition 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:

- Exert 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:0000000001451716



- Radiator core support upper center
- Radiator core support lower
- Hood lock support stay assembly 7.
- 10. Air guide RH
- 13. Air guide lower RH (M9R model)
- 2. Radiator core support upper RH
- 5. Radiator core support side RH
- Front bumper fascia center bracket
- 11. Air guide LH
- Air guide upper LH (M9R model)
- 3. Radiator core support upper LH
- 6. Radiator core support side LH
- Sensor bracket 9.
- Air guide upper RH (M9R model) 12.
- 15. Air guide lower LH (M9R model)

#### Removal and Installation

#### REMOVAL

- Remove the front bumper fascia and the energy absorber. Refer to EXT-13, "Removal and Installation". 1.
- 2. Remove the bumper reinforcement. Refer to EXT-13, "Removal and Installation".
- Disconnect the liquid tank connector. Refer to HA-66, "Exploded View". 3.
- Remove the front combination lamp. Refer to EXL-213, "Removal and Installation" (XENON TYPE), EXL-409, "Removal and Installation" (HALOGEN TYPE).
- Remove the washer tank. Refer to WW-104, "Removal and Installation".
- Remove the air inlet hose (LH) and air inlet tube (LH). Refer to EM-266, "Exploded View" (M9R model). 6.
- 7. Remove the charge air cooler. Refer to EM-266, "Removal and Installation" (M9R model).
- Disconnect the hood lock control cable clamp, and then remove the hood lock assembly. Refer to DLK-884, "HOOD LOCK CONTROL: Removal and Installation".
- Remove the air guide mounting clips, and remove the air guide (LH/RH).
- 10. Remove the horn. Refer to HRN-6, "Removal and Installation".

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# **RADIATOR CORE SUPPORT**

# < ON-VEHICLE REPAIR >

[WITH I-KEY & SUPER LOCK]

- 11. Remove the Intelligent Key warning buzzer (with Intelligent Key systems). Refer to <u>DLK-298</u>, "Removal and Installation".
- 12. Disconnect the harness clips from the hood lock stay.
- 13. Remove the hood lock stay mounting bolts, and then remove the hood lock stay.
- 14. Remove the crush zone sensor. Refer to SR-15, "Removal and Installation".
- 15. Place securely the hood support rod inside the engine mounting bracket hole. **CAUTION:**

#### Check that the hood is securely fix.

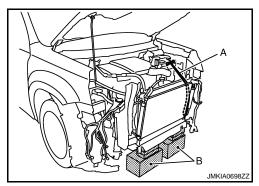
- Remove the radiator core support upper side (RH,LH) mounting bolts, and remove the radiator core support side (RH,LH).
- 17. Remove the radiator core support upper center mounting bolts, and remove the radiator core support upper center.
- 18. Disconnect the harness clamp from radiator core support side (LH).
- 19. Remove the radiator core support lower assembly mounting bolts.
- 20. Remove the radiator core support lower assembly while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.
  CAUTION:

# Operate with two workers, because of its heavy weight.

21. Put some wooden blocks (B) under the radiator and condenser, and use a rope (A) to suspend it to prevent it from falling.

CAUTION:

Operate with two workers, because of its heavy weight.



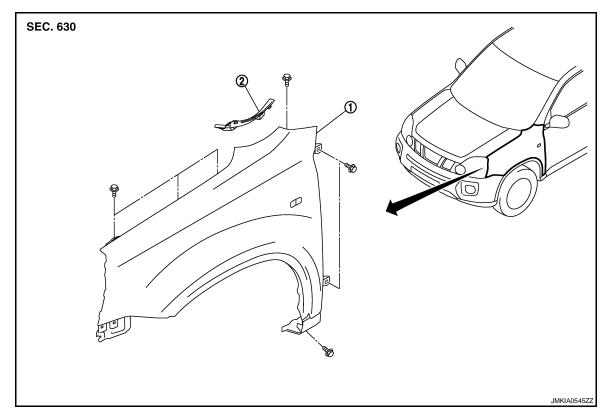
22. Remove the radiator core support side (RH,LH) mounting nuts, and remove the radiator core support side (RH,LH) from radiator core support lower.

#### INSTALLATION

Install in the reverse order of removal.

# FRONT FENDER

**Exploded View** INFOID:0000000001451718



1. Front fender Front fender finisher

# Removal and Installation

**REMOVAL** 

Remove the fillet molding. Refer to EXT-24, "Removal and Installation".

- Remove the front grille. Refer to EXT-18, "Removal and Installation".
- Remove the front bumper fascia. Refer to EXT-13, "Removal and Installation". 3.
- Remove the front combination lamp. Refer to EXL-213, "Removal and Installation" (XENON TYPE), EXL-409, "Removal and Installation" (HALOGEN TYPE).
- 5. Remove the inner fender protector. Refer to EXT-21, "Removal and Installation".
- Remove the front fender finisher.
- Remove the side turn signal lamp. Refer to EXL-222, "Removal and Installation".
- Remove the mounting bolts and remove the front fender. **CAUTION:**

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

# INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- After installation, check the front fender adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-</u> ment" and DLK-891, "DOOR ASSEMBLY: Adjustment".
- After installation, apply the touch-up paint (the body color) onto the head of the front fender mounting bolts.

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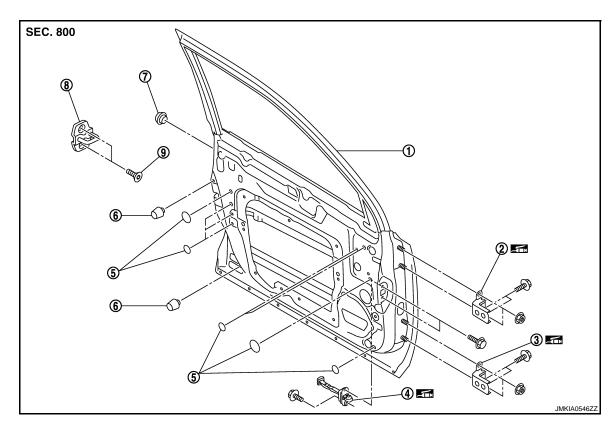
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# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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# **REMOVAL**



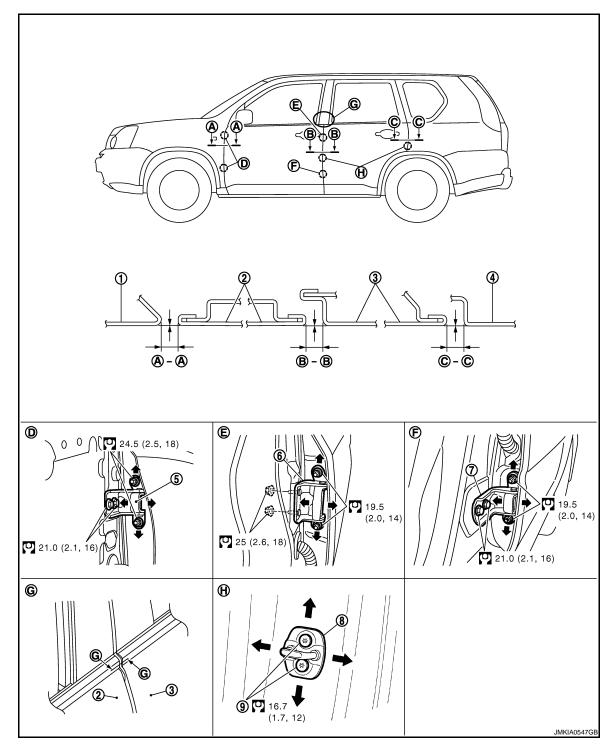
- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# **ADJUSTMENT**



- Front fender
- Body side outer 4.
- Rear door hinge (lower)
- 2. Front door
- Front door hinge
- Door striker

- 3. Rear door
- 6. Rear door hinge (upper)
- 9. TORX bolt

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

# DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

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

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#### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-891</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR ASSEMBLY : Adjustment

INFOID:0000000001451722

### CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

Portion		Clearance	Surface height
Front fender – Front door	A – A	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	B – B	3.5 – 5.5 (0.138 – 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	- 1.0 – 1.0 (- 0.039 – 0.039)

- 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 shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the front fender. Refer to refer to DLK-888, "Removal and Installation".
- Loosen the door hinge mounting nuts on door side.
- 5. Adjust the surface height and surface mismatch of the front door according to the fitting standard dimension.
- 6. Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the door hinge mounting bolts on body side.
- 8. 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 refer to DLK-888, "Removal and Installation".

#### **CAUTION:**

After installation, check the front fender adjustment. Refer to <u>DLK-891, "DOOR ASSEMBLY:</u> Adjustment".

#### DOOR STRIKER ADJUSTMENT

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

### DOOR STRIKER

DOOR STRIKER: Exploded View

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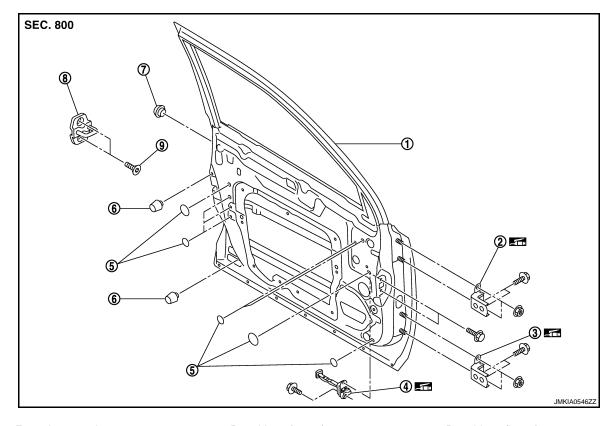
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001451724

### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-891, "DOOR ASSEMBLY: Adjustment"</u>.

# DOOR HINGE

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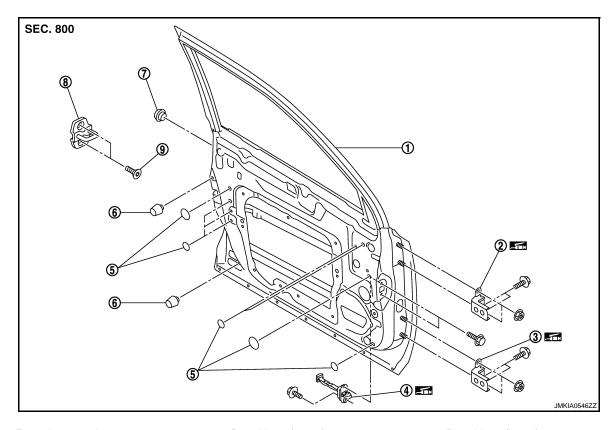
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DOOR HINGE: Exploded View

INFOID:0000000001451726



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001451727

# REMOVAL

- 1. Remove the front door assembly. Refer to <u>DLK-890. "DOOR ASSEMBLY: Removal and Installation"</u>.
- 2. Remove the door hinge mounting bolts, and then remove the front door hinge.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-891</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR CHECK LINK

DOOR CHECK LINK: Exploded View

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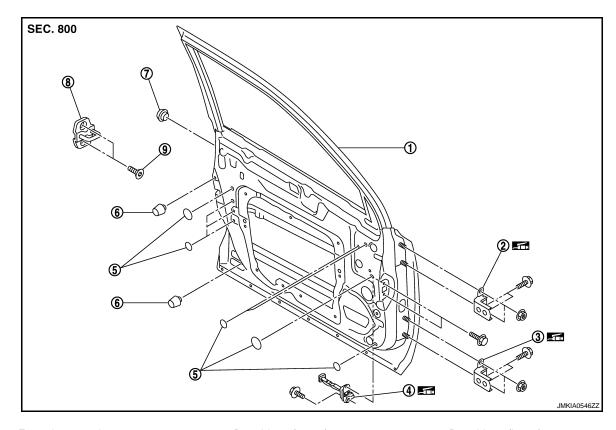
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001451730

### **REMOVAL**

- 1. Fully close the front door window.
- 2. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 3. Remove the front door speaker. Refer to AV-38, "Removal and Installation".
- 4. Remove the mounting bolts of the door check link on the vehicle.
- 5. Remove the mounting bolts of the door check link on the door panel.
- 6. Take the door check link out from the hole of the door panel.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the front door open/close operation after installation.

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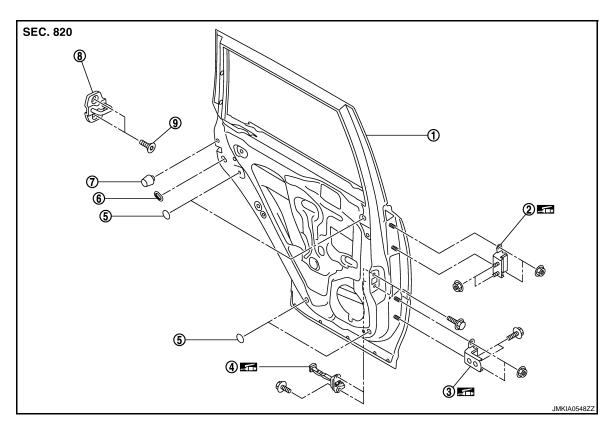
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# REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

INFOID:0000000001451731

# **REMOVAL**



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# **ADJUSTMENT**

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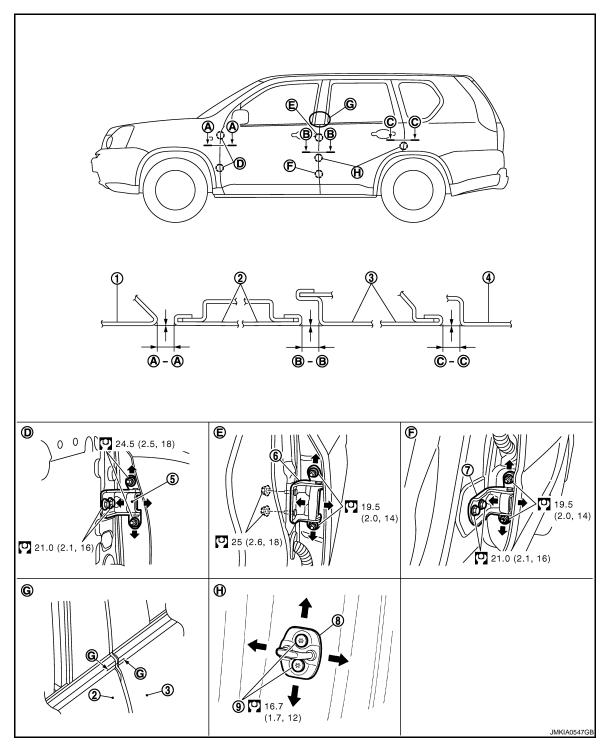
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- Front fender
- Body side outer 4.
- Rear door hinge (lower)
- 2. Front door
- Front door hinge
- Door striker

- 3. Rear door
- 6. Rear door hinge (upper)
- 9. TORX bolt

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

# DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

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

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### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door lock/unlock operation after installation.
- Check the rear door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-897, "DOOR ASSEMBLY: Adjust-ment".</u>
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

DOOR ASSEMBLY : Adjustment

INFOID:0000000001451733

#### CLEARANCE. SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

Portion		Clearance	Surface height
Front door – Rear door	B – B	3.5 - 5.5 (0.138 - 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Rear door – Body side outer	C – C	3.5 - 5.5 (0.138 - 0.217)	-1.0 - 1.0 (-0.039 - 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	-1.5 – 1.5 (-0.059 – 0.059)

- 1. Check the clearance and surface height and surface mismatch between the rear door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the center pillar lower garnish. Refer to INT-16, "Removal and Installation".
- 4. Loosen the door 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 door hinge mounting nuts and bolts on body side.
- 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 lower garnish. Refer to INT-16, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

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

# DOOR STRIKER

# DOOR STRIKER: Exploded View

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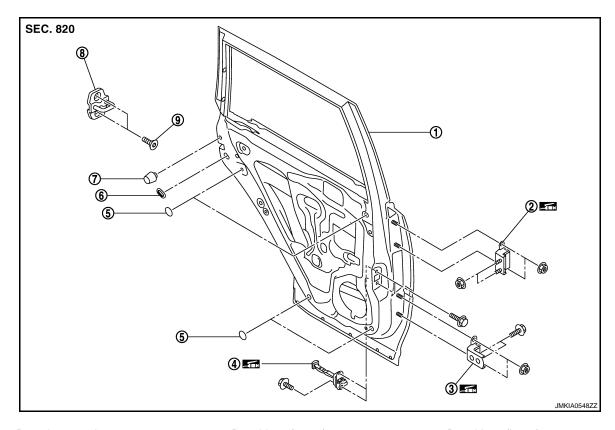
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001451735

### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-897, "DOOR ASSEMBLY : Adjustment"</u>.

# DOOR HINGE

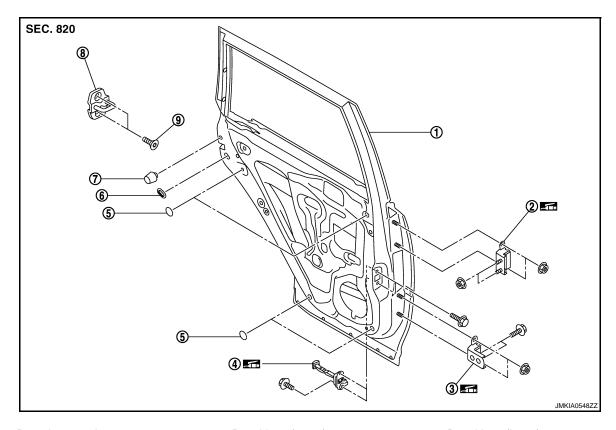
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**DOOR HINGE: Exploded View** 

INFOID:0000000001451737



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- Door hinge (upper)
- 5. Seal
- 8. Door striker

- Door hinge (lower)
- Hole cover
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001451738

#### **REMOVAL**

- Remove the center pillar lower garnish. Refer to <u>INT-16</u>, "Removal and Installation".
- Remove the rear door assembly. Refer to <u>DLK-896</u>, "DOOR ASSEMBLY: Removal and Installation".
- Remove the rear door hinge mounting bolts and nuts (body side), and then remove the door hinge.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the rear door assembly, perform the fitting adjustment. Refer to <u>DLK-</u> 897, "DOOR ASSEMBLY: Adjustment".
- After installing, apply the touch-up paint (the body color) onto the head of the hinge mounting nuts. DOOR CHECK LINK

DOOR CHECK LINK: Exploded View

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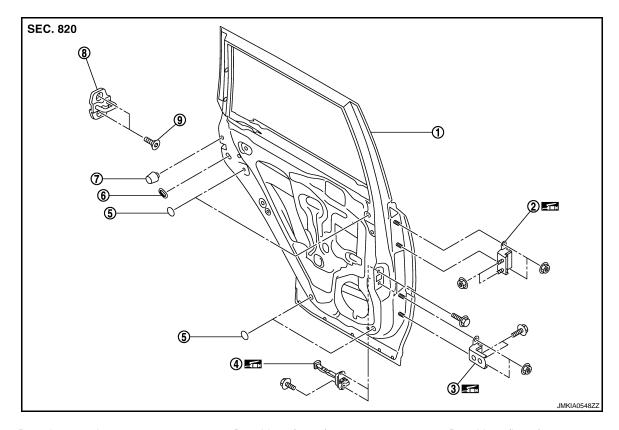
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001451741

### **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the rear door speaker.
- 3. Remove the mounting bolts of the check link on the vehicle.
- 4. Remove the door check link mounting bolts on the door panel.
- 5. Remove the door check link.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check front door open/close operation after installation.

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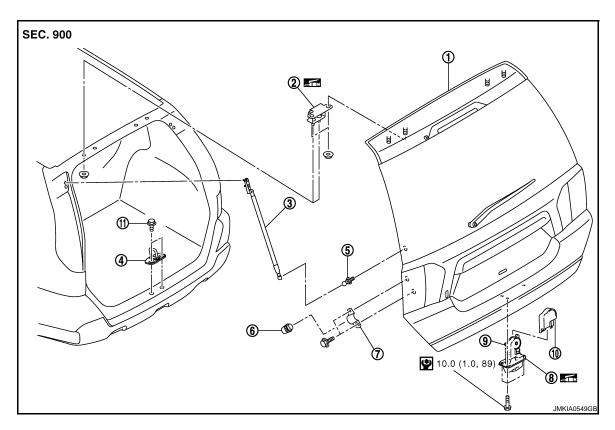
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# **BACK DOOR BACK DOOR ASSEMBLY**

BACK DOOR ASSEMBLY: Exploded View

INFOID:0000000001451742

# **REMOVAL**



- 1. Back door assembly
- Back door striker
- Bumper rubber bracket 7.
- 10. Back door lock cover (RH handle)

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

- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- Back door stay
- 6. Bumper rubber
- Emergency lever 9.

# **ADJUSTMENT**

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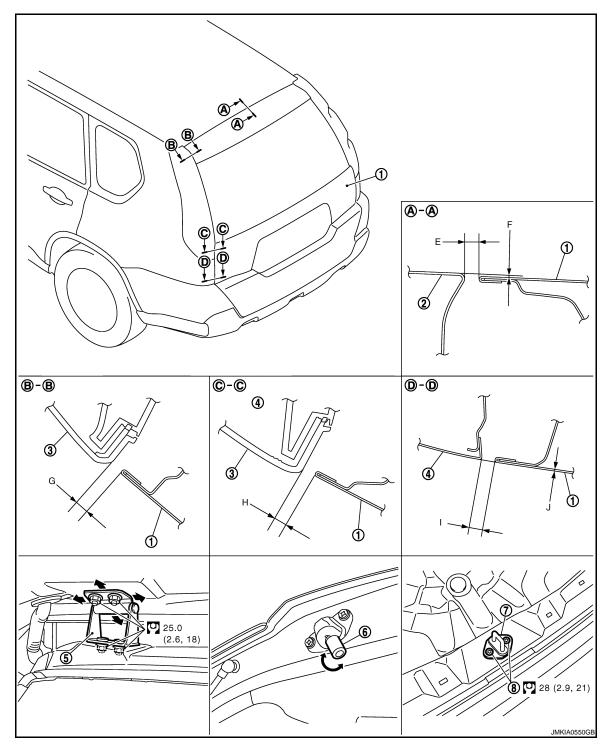
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- Back door
- Body side outer
- Back door striker
- 2. Roof
- Back door hinge
- TORX bolt

Rear combination lamp

Bumper rubber

3.

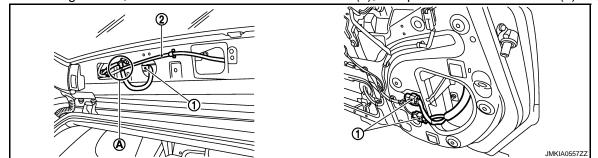
Refer to GI-4, "Components" for symbols in the figure.

# BACK DOOR ASSEMBLY: Removal and Installation

# **REMOVAL**

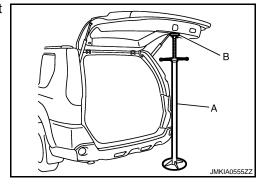
- Remove the back door finisher inner (upper, lower, side LH). Refer to INT-31, "Removal and Installation".
- Disconnect the connectors in the back door, and then remove the grommet, and pull out the harness.

3. Remove the grommet, and then disconnect the connectors (1), and pull out the washer tube (2) at (A).



- Pull the harness out of the back door.
- Support the back door lock with the proper material to prevent it from falling.

A : JackB : Shop cloth



- Remove the back door stay bracket mounting bolts on the back door.
- Remove the back door hinge mounting nuts on the back door and remove the back door assembly. CAUTION:

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

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the back door lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-903</u>, "<u>BACK DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".

# BACK DOOR ASSEMBLY : Adjustment

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				mm(in)
Portion	Standard			
Back door panel – Roof panel	<b>A</b> – <b>A</b>	Е	Clearance	5.0 - 7.0 (0.197 - 0.276)
Back door parier – Roor parier		F	Surface height	-0.3 – 1.7 (-0.012 – 0.067)
Back door panel – Rear combination lamp	B-B	G	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Rear combination lamp		H	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Body side outer		- 1	Clearance	5.0 - 7.0 (0.197 - 0.276)
		J	Surface height	-1.0 - 1.1 (0.039 - 0.043)

#### FITTING ADJUSTMENT

- 1. Check the clearance and the evenness between the back door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Loosen the bumper rubber.
- Loosen the back door striker mounting bolts.

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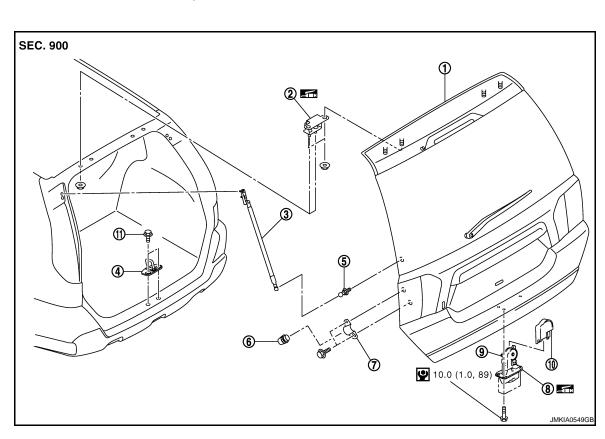
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- 5. Lift up the back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with the back door closed.
- 6. Check the clearance and evenness.
- 7. Finally tighten the back door striker.

# BACK DOOR STRIKER

# **BACK DOOR STRIKER: Exploded View**



- 1. Back door assembly
- 4. Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

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

### Back door stay

- 6. Bumper rubber
- 9. Emergency lever

# BACK DOOR STRIKER: Removal and Installation

### REMOVAL

Remove the TORX bolts, and then remove the back door striker.

### **INSTALLATION**

Install in the reverse order of removal.

# **CAUTION:**

- Check the back door open/close operation after installation.
- When removing and installing the back door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-903</u>, "<u>BACK DOOR ASSEMBLY</u>: <u>Adjustment</u>".

# BACK DOOR HINGE

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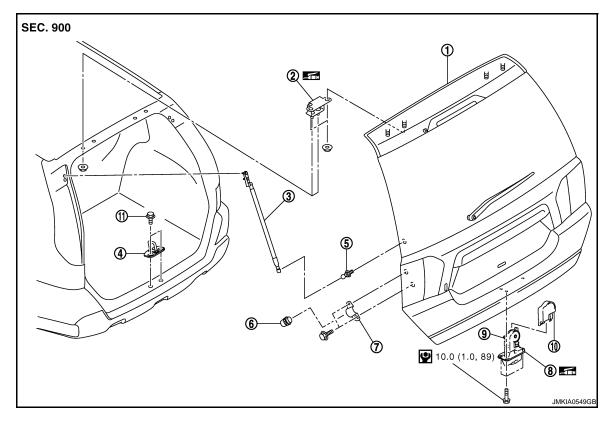
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**BACK DOOR HINGE: Exploded View** 

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- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- Back door stay stud ball
- 11. TORX bolt
- Back door lock assembly
- Refer to GI-4, "Components" for symbols in the figure.

- 3. Back door stay
- Bumper rubber 6.
- 9. **Emergency lever**

BACK DOOR HINGE: Removal and Installation

#### **REMOVAL**

- 1. Remove the back door assembly. Refer to DLK-902, "BACK DOOR ASSEMBLY: Removal and Installa-
- 2. Remove the back door weather-strip. Refer to <u>DLK-907</u>, "BACK DOOR WEATHER-STRIP: Removal and Installation".
- 3. Remove the luggage side lower finisher. Refer to <a href="INT-28">INT-28</a>, "Removal and Installation".
- 4. Remove the luggage side upper finisher. Refer to <a href="INT-28">INT-28</a>. "Removal and Installation".
- Using remover tool, remove the headlining clip at the rear side of the headlining. Refer to INT-22, "NOR-MAL ROOF: Exploded View" (NORMAL ROOF), INT-25, "SUNROOF: Exploded View" (SUNROOF).
- Remove the rear side of the headlining.
- Remove the back door hinge mounting nuts (body side), and then remove the back door hinge.

### INSTALLATION

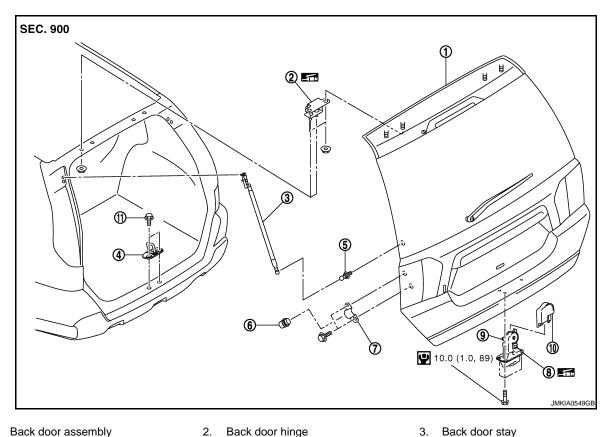
Install in the reverse order of removal.

#### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the back door assembly, perform the fitting adjustment. Refer to DLK-903, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.

# **BACK DOOR STAY**

**BACK DOOR STAY: Exploded View** 



- Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- - 11. TORX bolt
- Back door lock assembly

Back door stay stud ball

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

**Emergency lever** 

Bumper rubber

BACK DOOR STAY: Removal and Installation

### **REMOVAL**

- Remove the mounting bolts (body side), and then remove the back door stay bracket.
- Remove the stud ball (back door side), and then remove the back door stay.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door open/close operation after installation.

BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP: Exploded View

**REMOVAL** 

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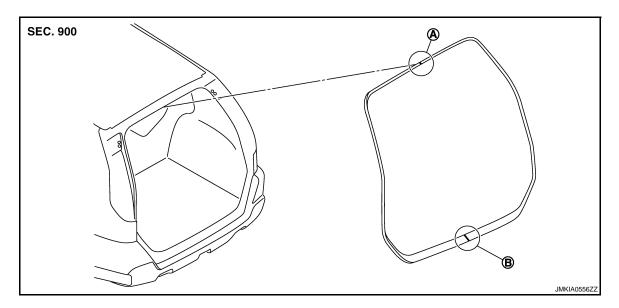
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- 1. Back door weather-strip
- A. Mark (upper)
- B. Mark (lower)

# BACK DOOR WEATHER-STRIP: Removal and Installation

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### REMOVAL

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

#### **CAUTION:**

After removal, do not pull strongly on the weather-strip.

### INSTALLATION

- 1. Working from the upper section, align the weather-strip mark with vehicle center position mark and install the weather-strip onto the vehicle.
- 2. For the lower section, align the weather-strip seam with center of the back door striker.
- 3. After installation, pull the weather-strip gently to ensure that there is no loose section. **NOTE:** 
  - Make sure that the weather-strip is fit tightly at each corner and the luggage rear plate.

# FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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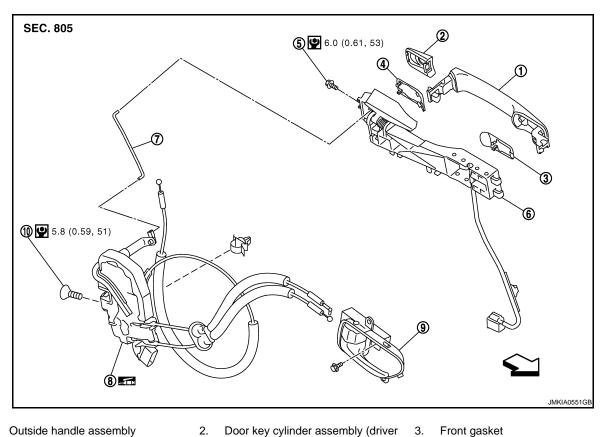
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Outside handle assembly

Door key cylinder assembly (driver

Outside handle escutcheon (passenger side)

- Rear gasket
- Key rod

4.

**REMOVAL** 

- 10. TORX bolt
- :Vehicle front

- 5. TORX bolt
- Door lock assembly
- 6. Outside handle bracket
- 9. Inside handle

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

# DOOR LOCK: Removal and Installation

Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation". 1.

- Disconnect the inside handle knob cable and the lock knob cable.
- Remove the front door glass. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>".
- Remove the front door module assembly. Refer to GW-17, "Exploded View".
- Disconnect the door antenna and the door request switch connector and remove the harness clamp Р 5. (models with Intelligent Key system).

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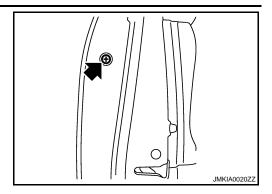
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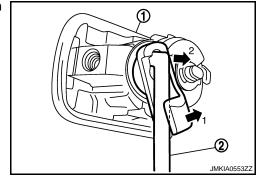
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Remove the door side grommet, and loosen the TORX bolt. CAUTION:

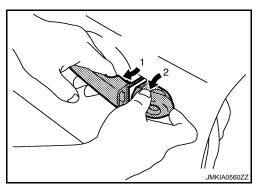
Do not forcibly remove the TORX bolt.



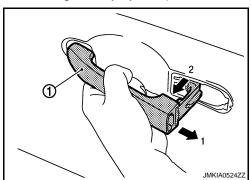
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



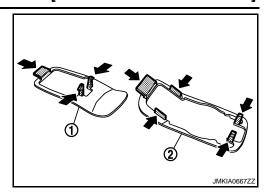
8. While pulling the outside handle, remove door key cylinder assembly.



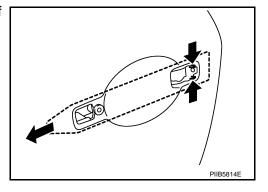
- 9. Disconnect front door request switch harness connector (models with Intelligent Key system).
- 10. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly TORX bolts.
- 15. Disconnect the door lock actuator connector, and then remove the door lock assembly.
- 16. Remove the key rod from door lock assembly.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **INSIDE HANDLE**

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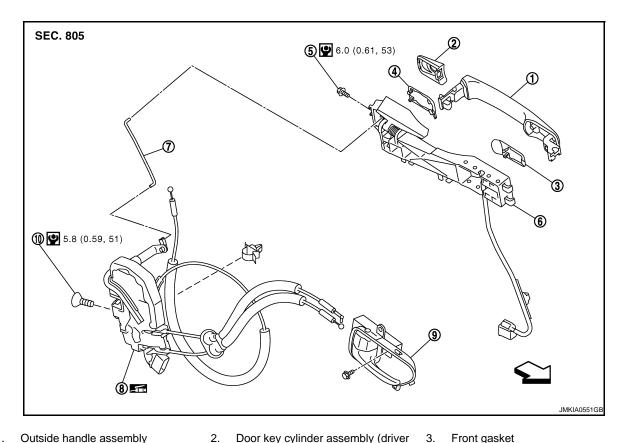
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# **INSIDE HANDLE: Exploded View**

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- Outside handle assembly
- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod
- 10. TORX bolt
- < > :Vehicle front

- 5. TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

# INSIDE HANDLE: Removal and Installation

### **REMOVAL**

- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Remove the inside handle mounting bolts.
- Disconnect the inside handle knob cable and the lock knob cable, and then remove the inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **OUTSIDE HANDLE**

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**OUTSIDE HANDLE: Exploded View** 

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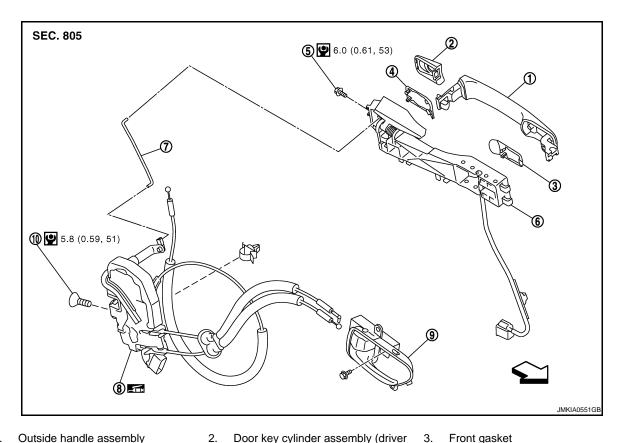
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- Outside handle assembly
- Door key cylinder assembly (driver Outside handle escutcheon (passen-

- 4. Rear gasket
- Key rod 7.
- 10. TORX bolt
- :Vehicle front

- ger side) 5. TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

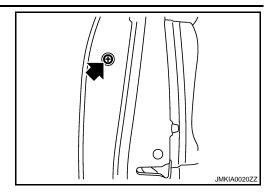
# **OUTSIDE HANDLE: Removal and Installation**

**REMOVAL** 

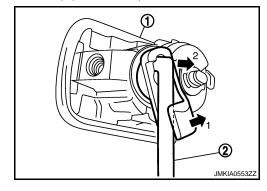
- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- Remove the front door module assembly. Refer to <u>GW-17</u>, "<u>Exploded View</u>".
- Disconnect the connector and remove the harness clamp (models with Intelligent Key system).

Remove the door side grommet, and loosen the TORX bolt. CAUTION:

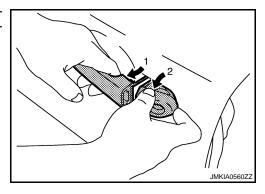
Do not forcibly remove the TORX bolt.



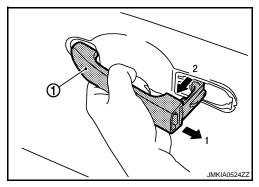
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



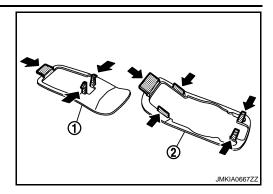
- 8. Disconnect the door key cylinder switch harness connector.
- While pulling the outside handle, remove the door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



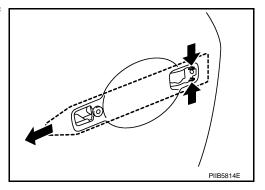
- 10. Disconnect the front door request switch harness connector (models with Intelligent Key system).
- 11. While pulling the outside handle, slide toward rear of vehicle to remove the outside handle (1).



12. Remove the front gasket (1) and rear gasket (2).



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



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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

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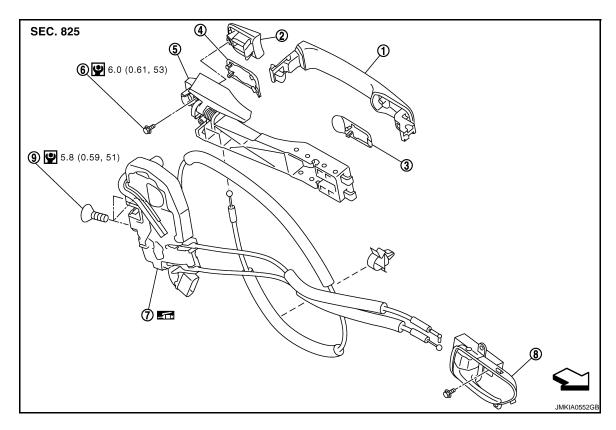
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# REAR DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- 3. Front gasket
- 6. TORX bolt
- 9. TORX bolt

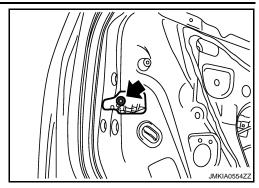
Refer to  $\underline{\text{GI-4, "Components"}}$  for symbols in the figure.

### DOOR LOCK: Removal and Installation

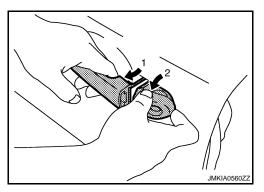
REMOVAL

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to GW-17, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.

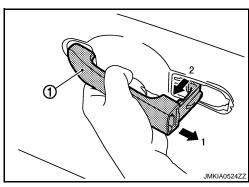
8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



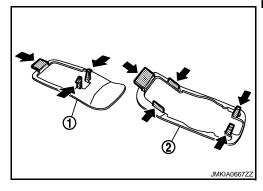
9. While pulling the outside handle, remove the outside handle escutcheon.



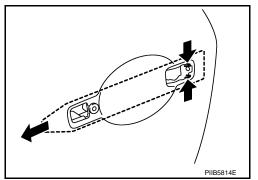
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



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- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly.

#### INSTALLATION

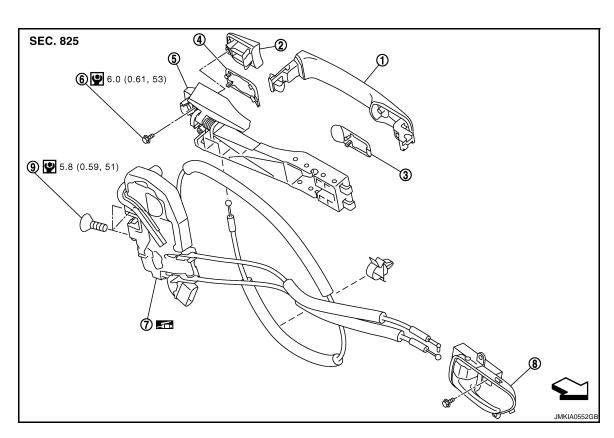
Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### **INSIDE HANDLE**

**INSIDE HANDLE: Exploded View** 



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

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

### **INSIDE HANDLE:** Removal and Installation

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### **REMOVAL**

- 1. Remove the rear door finisher. Refer to <a href="INT-13">INT-13</a>, "REAR DOOR FINISHER: Removal and Installation".
- Remove the inside handle mounting screws.
- 3. Disconnect the inside handle knob cable, and then remove the inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

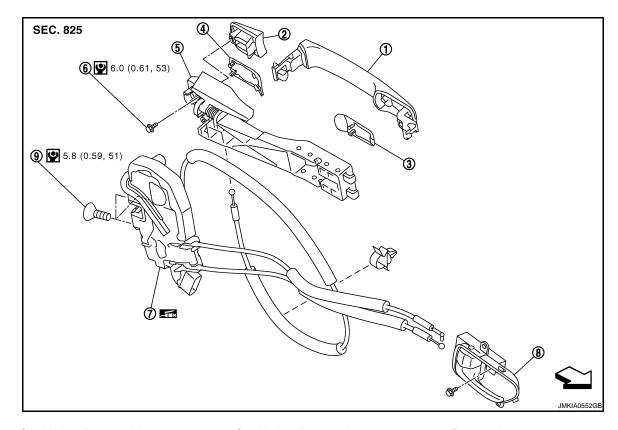
#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### OUTSIDE HANDLE

## **OUTSIDE HANDLE: Exploded View**

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- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

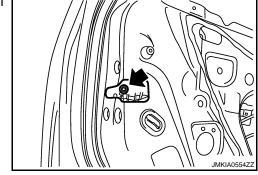
Refer to GI-4, "Components" for symbols in the figure.

### OUTSIDE HANDLE : Removal and Installation

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### **REMOVAL**

- 1. Remove the rear door finisher. Refer to <a href="INT-13">INT-13</a>, "REAR DOOR FINISHER: Removal and Installation".
- Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- Remove the lower partition sash. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.
- 8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



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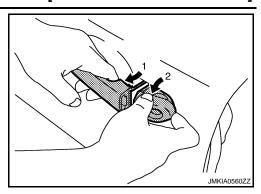
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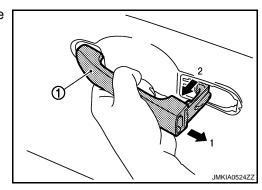
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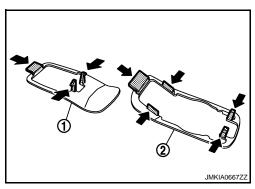
9. While pulling the outside handle, remove the outside handle escutcheon.



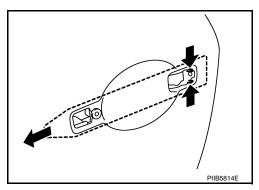
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



13. 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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# BACK DOOR LOCK

**DOOR LOCK** 

**DOOR LOCK: Exploded View** 

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Α

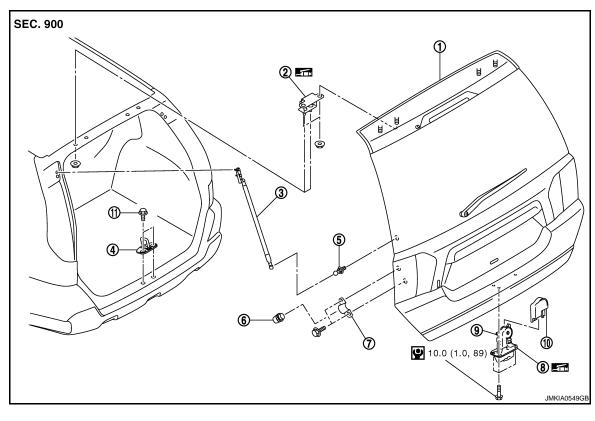
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- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- 9. Emergency lever

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

### DOOR LOCK: Removal and Installation

1. Remove the back door trim finisher lower. Refer to <a href="INT-31">INT-31</a>, "Removal and Installation".

- 2. Disconnect the back door lock assembly and back door opener switch connectors.
- Remove the back door lock mounting bolts, and then remove the back door lock and actuator.

### **INSTALLTION**

Install in the reverse order of removal.

#### **CAUTION:**

**REMOVAL** 

Check the back door lock/unlock operation after installation.

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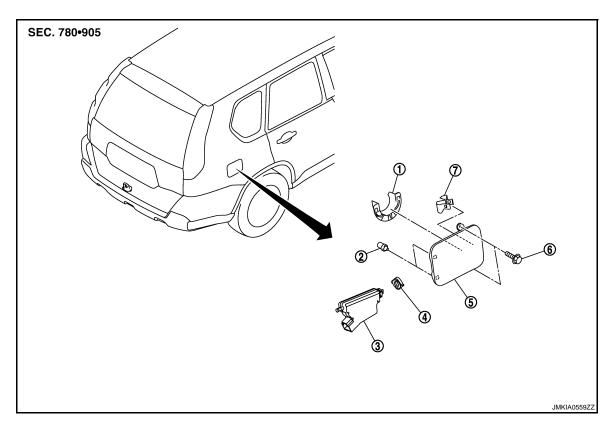
INFOID:0000000001451773

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# FUEL FILLER LID OPENER FUEL FILLER LID

FUEL FILLER LID: Exploded View

INFOID:0000000001451774



1. Fuel filler cap holder

Spring

- 4. Fuel filler lid lock seal
- 2. Bumper rubber
- 5. Fuel filler lid assembly
- 3. Fuel filler lid lock actuator
- 6. TORX bolt

### FUEL FILLER LID: Removal and Installation

### **REMOVAL**

- 1. Fully open the fuel filler lid.
- 2. Remove the filler cap.
- 3. Remove the TORX bolts, and then remove the fuel filler lid assembly.
- 4. Remove the following parts after removing the fuel filler lid assembly.
  - Fuel filler cap holder
  - Bumper rubber
  - Spring

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the fuel filler lid open/close operation after installation.
- After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

After installation, perform fitting adjustment.

mm(in)

INFOID:0000000001451775

	Clearance	Evenness
Fuel filler lid— - Body side outer	2.0 - 4.0 (0.079 - 0.157)	-1.0 - 1.0 (-0.039 - 0.039)

# **DOOR SWITCH**

**Exploded View** 

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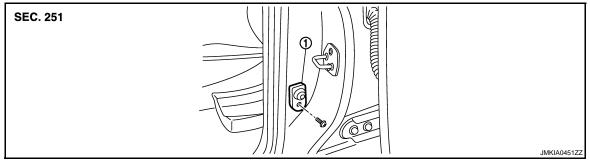
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1. Door switch (driver side)

### Removal and Installation

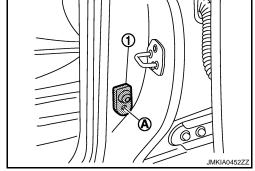
INFOID:0000000001281005

### **REMOVAL**

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

### NOTE:

The same procedure is also performed for door switch (passenger side, rear LH and rear RH).



### **INSTALLATION**

Install in the reverse order of removal.

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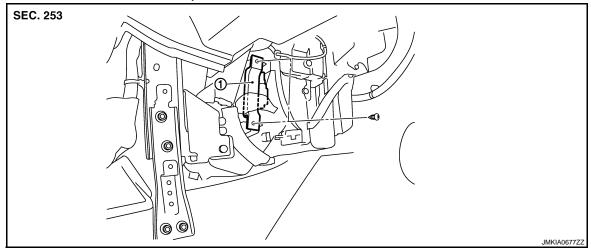
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# INSIDE KEY ANTENNA INSTRUMENT CENTER

# **INSTRUMENT CENTER: Exploded View**

INFOID:0000000001281006



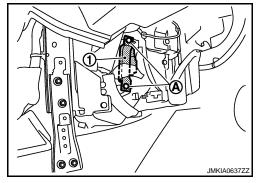
1. Inside key antenna (instrument center)

### INSTRUMENT CENTER: Removal and Installation

INFOID:0000000001281007

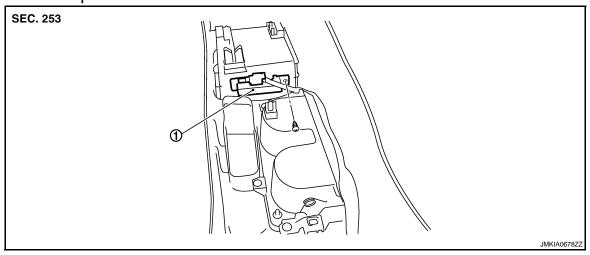
### **REMOVAL**

- 1. Instrument lower cover RH. Refer to IP-12, "Removal and Installation".
- 2. Remove the inside key antenna (instrument center) mounting screw (A), and then remove inside key antenna (instrument center) (1).



INSTALLATION
Install in the reverse order of removal.
CONSOLE

**CONSOLE**: Exploded View



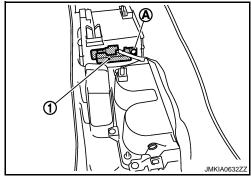
1. Inside key antenna (console)

### **CONSOLE**: Removal and Installation

INFOID:0000000001281009

**REMOVAL** 

- 1. Remove the center console. Refer to <a href="IP-21">IP-21</a>, "Removal and Installation".
- 2. Remove the inside key antenna mounting screw (A), and then remove inside key antenna (console) (1).

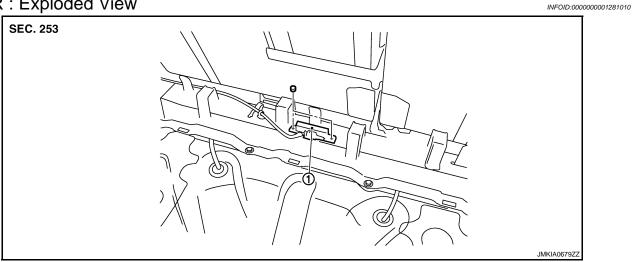


**INSTALLATION** 

Install in the reverse order of removal.

**REAR** 

**REAR**: Exploded View



1. Inside key antenna (rear seat)

**DLK-587** 

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### **INSIDE KEY ANTENNA**

< ON-VEHICLE REPAIR >

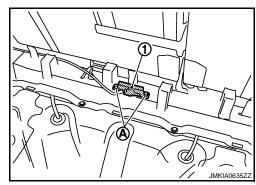
[WITH I-KEY & SUPER LOCK]

**REAR**: Removal and Installation

INFOID:0000000001281011

### **REMOVAL**

- 1. Remove the luggage floor spacer. Refer to <a href="INT-28">INT-28</a>, "Removal and Installation".
- 2. Remove the inside key antenna (rear seat) mounting clips (A), and then remove inside key antenna (rear seat) (1).



### **INSTALLATION**

Install in the reverse order of removal.

### **OUTSIDE KEY ANTENNA**

< ON-VEHICLE REPAIR >

[WITH I-KEY & SUPER LOCK]

### **OUTSIDE KEY ANTENNA**

**DRIVER SIDE** 

DRIVER SIDE: Exploded View

INFOID:0000000001281012

Refer to DLK-575, "OUTSIDE HANDLE: Exploded View".

DRIVER SIDE: Removal and Installation

INFOID:0000000001281013

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#### REMOVAL

Remove the front outside handle LH. Refer to DLK-575, "OUTSIDE HANDLE: Removal and Installation".

#### INSTALLATION

Install in the reverse order of removal.

PASSENGER SIDE

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PASSENGER SIDE: Exploded View

INFOID:0000000001281014

Refer to DLK-575, "OUTSIDE HANDLE: Exploded View".

PASSENGER SIDE: Removal and Installation

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#### REMOVAL

Remove the front outside handle RH. Refer to <a href="DLK-575">DLK-575</a>, "OUTSIDE HANDLE: Removal and Installation".

#### INSTALLATION

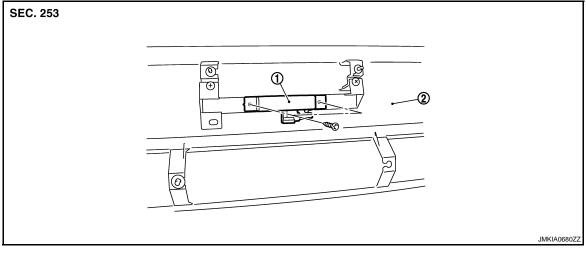
Install in the reverse order of removal.

**BACK DOOR** 

BACK DOOR : Exploded View

INFOID:0000000001281016

INFOID:0000000001281017



1. Outside key antenna (back door)

Back door lower finisher

### BACK DOOR: Removal and Installation

### **REMOVAL**

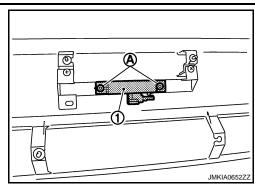
Remove the back door lower finisher. Refer to <u>EXT-36</u>, "Removal and Installation".

## **OUTSIDE KEY ANTENNA**

### < ON-VEHICLE REPAIR >

# [WITH I-KEY & SUPER LOCK]

2. Remove the outside key antenna (back door) (1) from back door finisher (2).

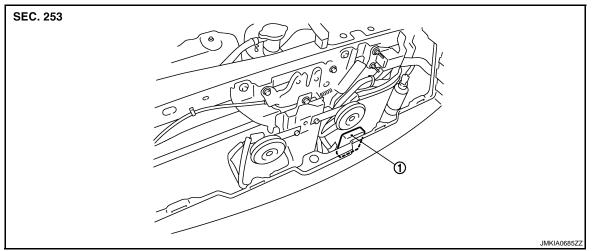


### **INSTALLATION**

Install in the reverse order of removal.

# INTELLIGENT KEY WARNING BUZZER

**Exploded View** 

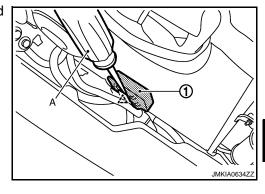


1. Intelligent Key warning buzzer

### Removal and Installation

**REMOVAL** 

- 1. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 2. Remove the Intelligent Key warning buzzer using flat-bladed screw driver (A) etc.



**INSTALLATION** 

Install in the reverse order of removal.

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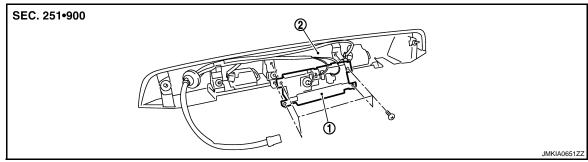
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**DLK-591** 

# **BACK DOOR REQUEST SWITCH**

# **Exploded View**

INFOID:0000000001281020



1. Back door opener switch assembly

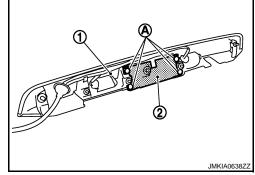
Back door finisher

### Removal and Installation

INFOID:0000000001281021

### **REMOVAL**

- 1. Remove the back door finisher. Refer to EXT-34, "Removal and Installation".
- 2. Remove the back door opener switch assembly mounting bolt (A).
- 3. Remove the back door opener switch assembly (2) from back door finisher (1).



### **INSTALLATION**

Install in the reverse order of removal.

ON-VEHICLE REPAIR >	[WITH I-KEY & SUPER LOCK]
BACK DOOR OPENER SWITCH	
Exploded View	INFOID:000000001281022
Refer to DLK-592, "Exploded View".	
Removal and Installation	INFOID:000000001281023
REMOVAL Refer to <u>DLK-592, "Removal and Installation"</u> .	
NSTALLATION astall in the reverse order of removal.	

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INFOID:0000000001281025

# INTELLIGENT KEY BATTERY

Exploded View

Refer to DLK-594, "Removal and Installation".

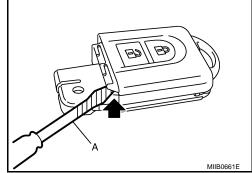
### Removal and Installation

### **REMOVAL**

- 1. Remove Intelligent Key cover.
- 2. Insert a flat-bladed screwdriver (A) wrapped with tape as shown in the illustration and then separate lower and upper cases by twisting screwdriver.

#### **CAUTION:**

- Do not touch the circuit board or battery terminal.
- The Intelligent Key is water-resistant. However, if it does get wet, immediately wipe it dry.



- 3. Remove the circuit board assembly from the upper case (1). [Substrate assembly: circuit board (3) + rubber (2)]
- 4. Gently press the rubber (2) and remove the circuit board (3). CAUTION:

Do not touch the printed circuits directly.

5. Remove the battery (4) from the lower case (5) and replace it.

Battery replacement : Coin-type lithium battery (CR2032)

#### **CAUTION:**

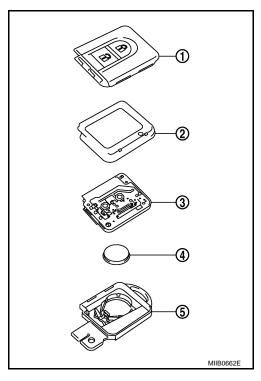
When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.

6. After replacement, assemble the upper and lower cases by engaging the hooks on their circumference while being careful not to pinch the rubber, etc.

### **CAUTION:**

After replacing the battery, check that all Intelligent Key functions work normally.

Refer to DLK-427, "Component Function Check".

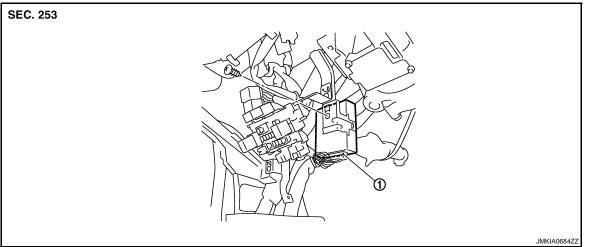


#### INSTALLATION

Install in the reverse order of removal.

# **INTELLIGENT KEY UNIT**

**Exploded View** 



1. Intelligent Key unit M40

### Removal and Installation

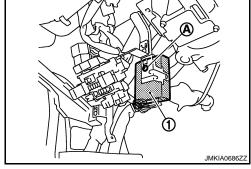
**REMOVAL** 

1. Remove lower instrument panel (driver side). Refer to <a href="IP-12">IP-12</a>, "Removal and Installation".

2. Remove the Intelligent Key unit mounting screw (A), and then remove Intelligent Key unit (1).

### NOTE:

Perform the system initialization when replacing Intelligent Key unit. Refer to <u>DLK-306</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".



**INSTALLATION** 

Install in the reverse order of removal.

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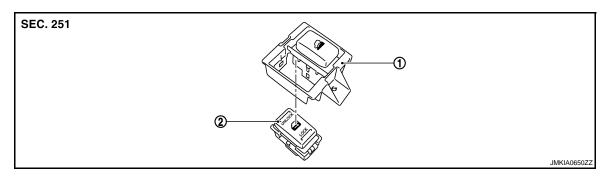
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**DLK-595** 

# DOOR LOCK AND UNLOCK SWITCH

Exploded View



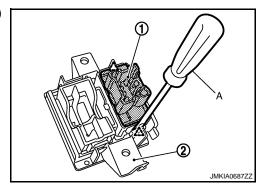
1. Switch bracket

2. Door lock and unlock switch

### Removal and Installation

Remove the door lock and unlock switch (1) from switch bracket (2) using flat-bladed screw driver (A) etc.

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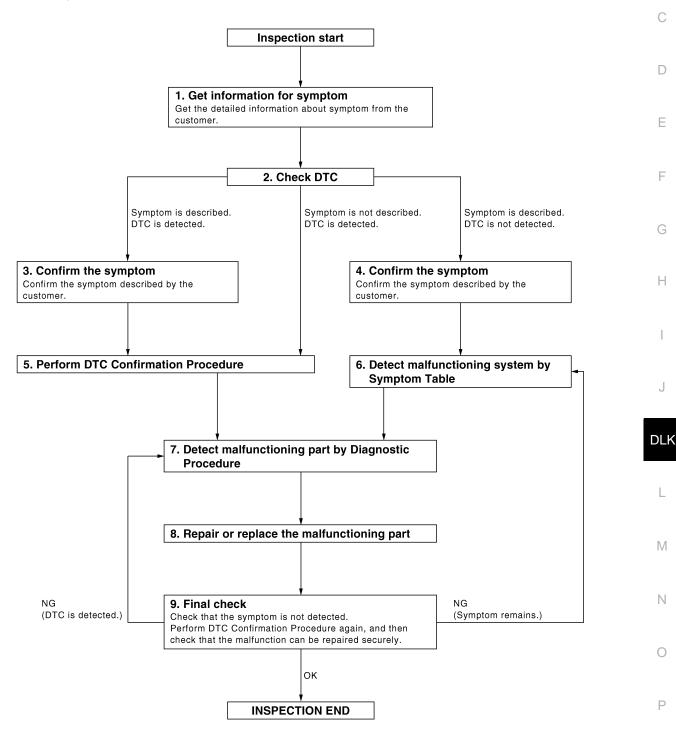
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

**OVERALL SEQUENCE** 



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[WITHOUT I-KEY & SUPER LOCK]

### < BASIC INSPECTION >

# 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

### 2.check dtc

- Check DTC for BCM.
- Perform the following procedure if DTC is displayed.
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- Check related service bulletins for information.

#### Is any symptom described and any DTC detected?

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

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

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

## 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real-time diagnosis results. Verify 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 "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.

# ${f 5}$ .PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. If two or more DTCs are detected, refer to DLK-690, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

### Is DTC detected?

>> GO TO 7. YES

>> Refer to GI-39, "Intermittent Incident". NO

# O.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to Symptom Table based on the confirmed symptom in step 4.

>> GO TO 7.

# 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

#### NOTE:

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

>> GO TO 8.

## $oldsymbol{8}$ .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.
- Check DTC. If DTC is displayed, erase it.

### **DIAGNOSIS AND REPAIR WORKFLOW**

< BASIC INSPECTION >

[WITHOUT I-KEY & SUPER LOCK]

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Α >> GO TO 9. 9. FINAL CHECK When DTC was detected in step 9, perform DTC Confirmation Procedure or Component Function Check В again, and then check that the malfunctions have been fully repaired. When symptom was described by the customer, refer to the confirmed symptom in step 3 or 4, and check that the symptom is not detected. С Are all malfunctions corrected? NO (DTC is detected)>>GO TO 7. NO (Symptom remains)>>GO TO 6. D YES >> INSPECTION END Е Н DLK L M Ν 0

**DLK-599** 

### **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

[WITHOUT I-KEY & SUPER LOCK]

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000001281031

Perform the system initialization when replacing or registering Keyfob and ignition key.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III Operation Manual-NATS.

# **FUNCTION DIAGNOSIS**

# DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH: System Diagram

INFOID:0000000001281033

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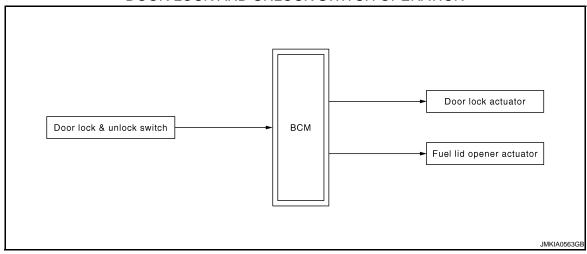
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### DOOR LOCK AND UNLOCK SWITCH OPERATION



# DOOR LOCK AND UNLOCK SWITCH: System Description

INFOID:0000000001281034

#### DOOR LOCK AND UNLOCK SWITCH OPERATION

Functions are available by operating the door lock and unlock switch on center console. Interlocked with the lock/unlock operation of door lock and unlock switch, door lock actuators of all doors are locked/unlocked.

### **Operation Condition**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the door lock and unlock switch is operated.

Door lock and unlock switch	Operation condition
Lock operation	All the following conditions are satisfied.  • Except driver side, doors are closed.  • Doors are not locked with keyfob.
Unlock operation	All the following all conditions are satisfied.  • Doors are not locked with keyfob.

#### NOTE:

When the door lock is locked with keyfob, door lock and unlock switch operation will be invalid until either of the following conditions is satisfied.

- Turn ignition switch ON.
- Unlock operation by keyfob.

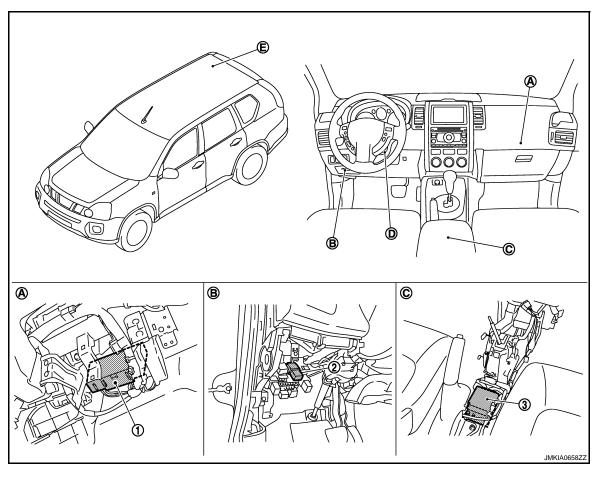
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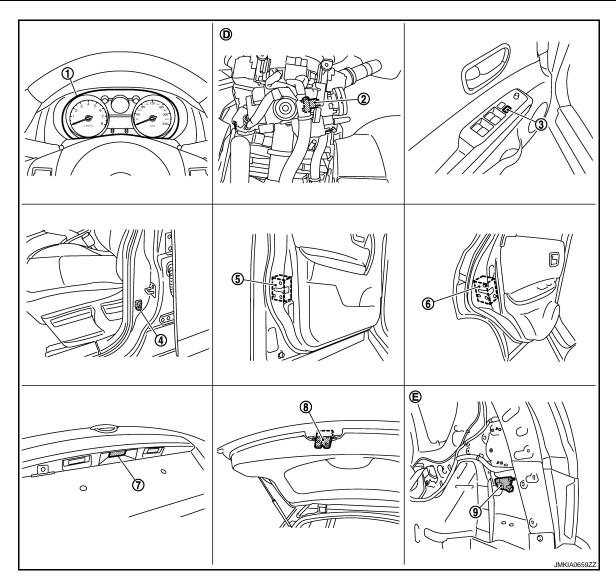
DOOR LOCK AND UNLOCK SWITCH: Component Parts Location

INFOID:0000000001281035



- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- D. View with steering column cover re-
- Key switch M24
- 5. Front door lock actuator (driver side)
- 8. Back door lock assembly D190
- E. View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- 6. Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# DOOR LOCK AND UNLOCK SWITCH: Component Description

INFOID:0000000001281036

Item	Function
BCM	Controls the door lock and unlock function.
Door switch	Detects door state (open or closed).
Door lock and unlock switch	Transmits door lock and unlock signal to BCM. Door lock and unlock switch indicator is built in door lock and unlock switch.
Door lock actuator	Receives door lock and unlock signal from BCM and locks and unlocks each door.

## **KEYFOB**

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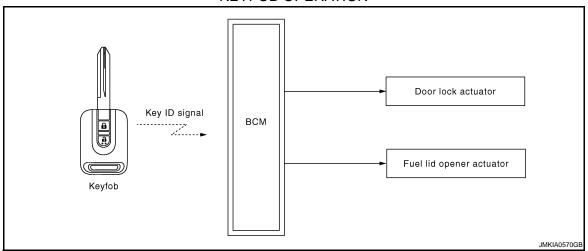
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### **KEYFOB**: System Diagram

INFOID:0000000001281037

#### **KEYFOB OPERATION**



### **KEYFOB**: System Description

INFOID:0000000001281038

#### **KEYFOB OPERATION**

The multi remote control system can be locked and unlocked by pressing door lock and unlock button of keyfob.

#### DOOR LOCK AND UNLOCK OPERATION

When door lock and unlock button of keyfob is pressed, door lock and unlock signal transmits from keyfob to BCM. When BCM receives the door lock and unlock signal, it operates door lock actuator.

### **OPERATION CONDITION**

Remote controller operation	Operation condition
Lock/unlock	Key switch is OFF (key is removed from ignition key cylinder).

#### OPERATION AREA

To ensure that the keyfob works effectively, use within 100 cm range of each door, however the operable range may differ according to surroundings.

### ANTI-HIJACK MODE

When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock all doors and back door can be opened with back door opener switch.

### NOTE:

Anti-hijack mode can be set to ON or OFF with CONSULT-III. For the setting information, refer to <a href="MULTIREMOTE ENT">DLK-625</a>. <a href="MULTIREMOTE ENT">"MULTIREMOTE ENT</a>.

**KEYFOB**: Component Parts Location

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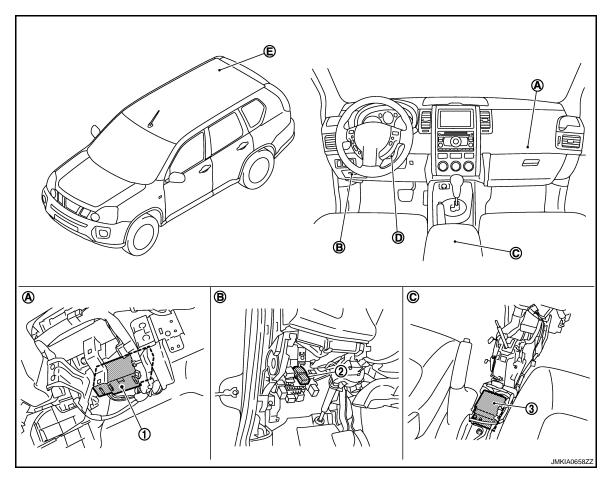
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- 1. BCM M65, M66, M67
- A. Over the glove box

- 2. Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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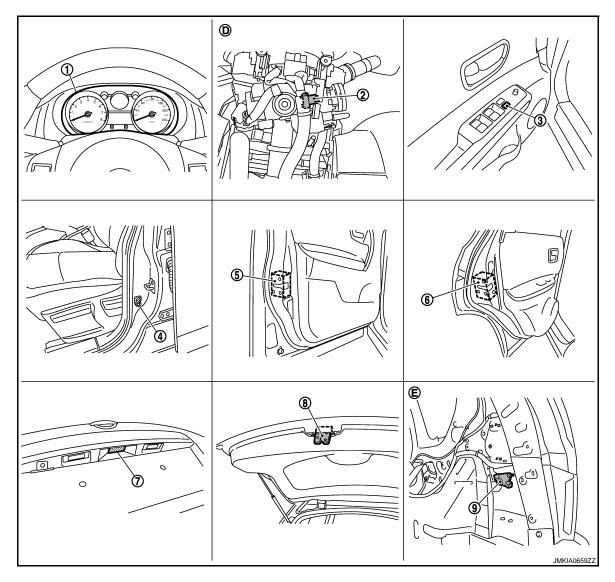
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- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- D. View with steering column cover re-
- 2. Key switch M24
- Front door lock actuator (driver side)D9
- 8. Back door lock assembly D190
- E. View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# **KEYFOB**: Component Description

INFOID:0000000001281040

Item	Function
BCM	Controls the door lock function.
Key switch	Detects that ignition key is inserted into ignition key cylinder.
Door lock actuator	Receives lock and unlock signal from BCM and locks and unlocks each door.

### **AUTO DOOR LOCK**

# AUTO DOOR LOCK: System Diagram

INFOID:0000000001281041

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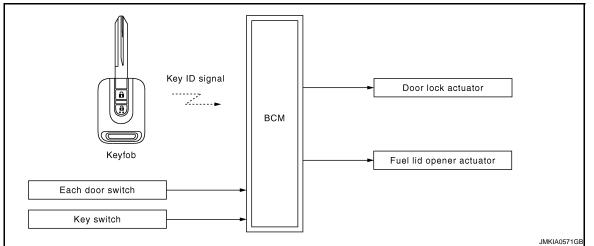
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### **AUTO DOOR LOCK OPERATION**



# AUTO DOOR LOCK: System Description

INFOID:0000000001281042

### **AUTO RELOCK OPERATION**

When all doors are locked and then doors are unlocked with keyfob, if BCM does not receive the following signal within 2 minutes\*1, all doors are automatically locked.

- Any door is opened.
- Ignition key is inserted into ignition key cylinder.
- Door is locked with keyfob.
- Door is locked/unlocked with door lock and unlock switch.

\*1: The time can be changed with CONSULT-III. Refer to <u>DLK-625</u>, "<u>MULTIREMOTE ENT</u>: <u>CONSULT-III</u> <u>Function (BCM - MULTIREMOTE ENT)</u>".

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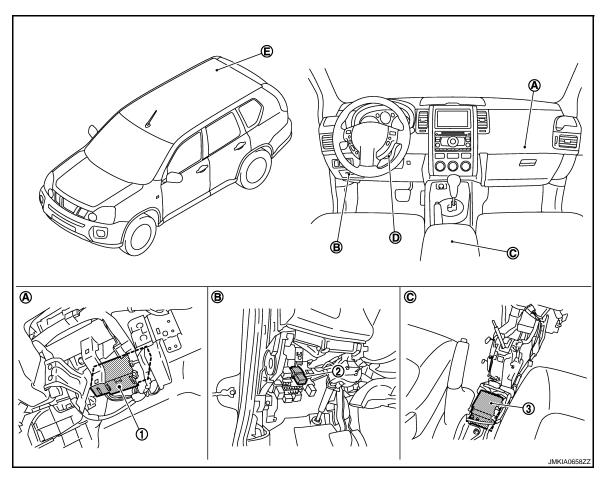
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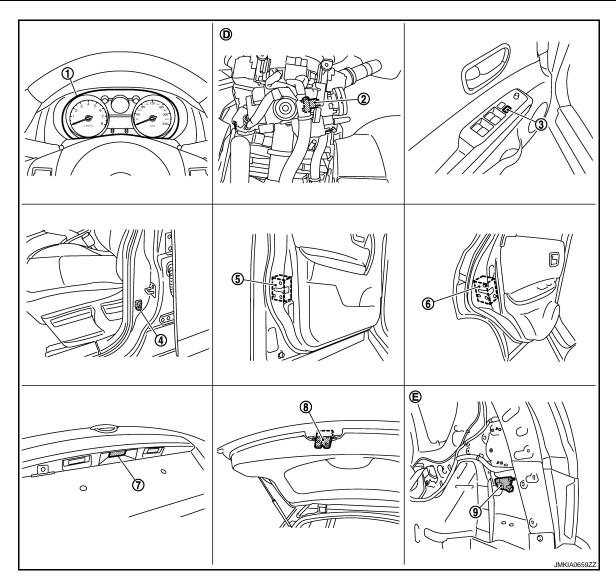
AUTO DOOR LOCK : Component Parts Location

INFOID:0000000001394632



- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



Combination meter M34

Door lock actuator

- Front door switch (driver side) **B34**
- Back door opener switch assembly (opener switch) D186
- D. View with steering column cover re-
- Key switch 2. M24
- Front door lock actuator (driver side)
- Back door lock assembly D190
- View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- 6. Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# AUTO DOOR LOCK: Component Description

**Function** Item **BCM** Controls the door lock function. Door switch Detects door state (open or closed). Key switch Detects that ignition key is inserted into ignition key cylinder. Door lock/unlock switch Transmits door lock/unlock signal to BCM. Keyfob Transmits key ID to BCM when lock and unlock button is pressed.

VEHICLE SPEED SENSING AUTO DOOR LOCK

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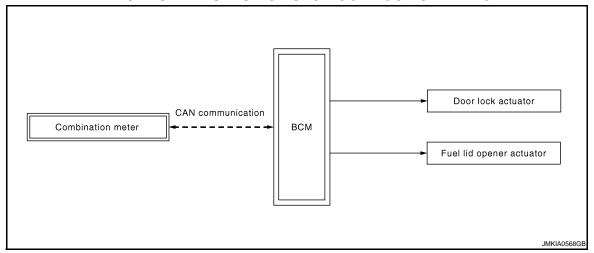
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Receives lock/unlock signal from BCM and locks/unlocks each door.

# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Diagram

INFOID:0000000001281045

### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION



# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description

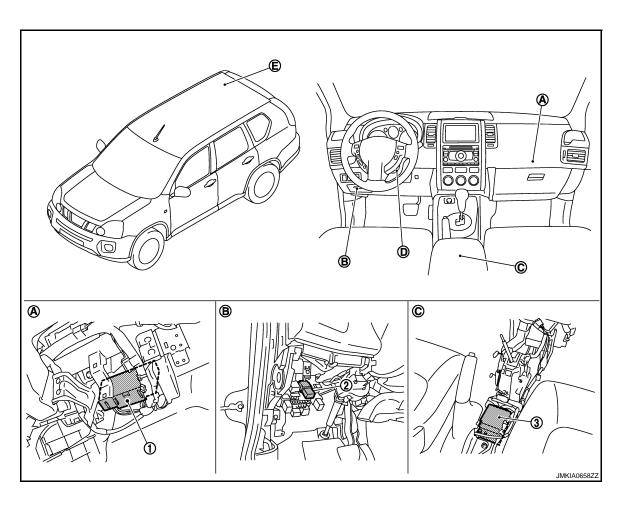
INFOID:0000000001281046

### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION

When the vehicle speed exceeds more than 25 km/h (16 MPH), all doors are automatically locked. The vehicle speed signal is received from combination meter via CAN communication.

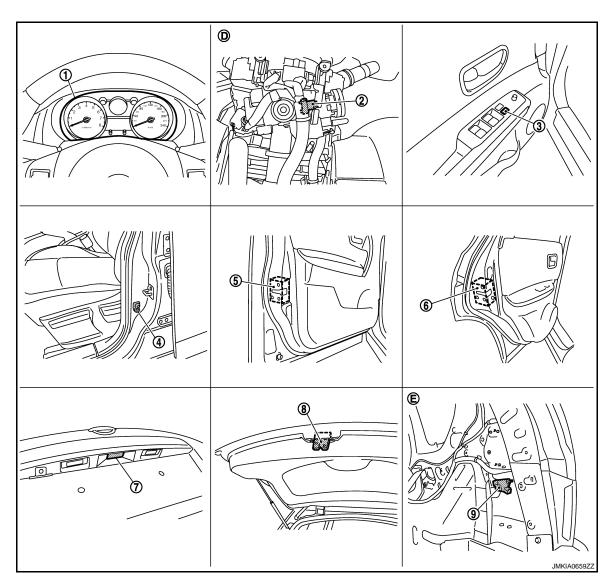
## VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Parts Location

INFOID:0000000001394634



- 1. BCM M65, M66, M67
- A. Over the glove box

- 2. Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- View with steering column cover removed
- 2. Key switch M24
- 5. Front door lock actuator (driver side) D9
- 8. Back door lock assembly D190
- View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Description

INFOID:0000000001281048

Item	Function
BCM	Controls the door lock function.
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.
Door lock actuator	Receives door lock and unlock signal from BCM and locks and unlocks each door.

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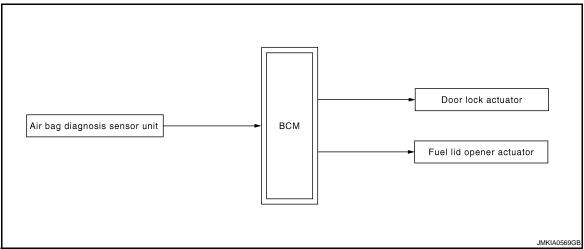
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### AIR BAG INTERLOCK UNLOCK

# AIR BAG INTERLOCK UNLOCK: System Diagram

INFOID:0000000001281049

### AIR BAG INTERLOCK UNLOCK OPERATION



# AIR BAG INTERLOCK UNLOCK: System Description

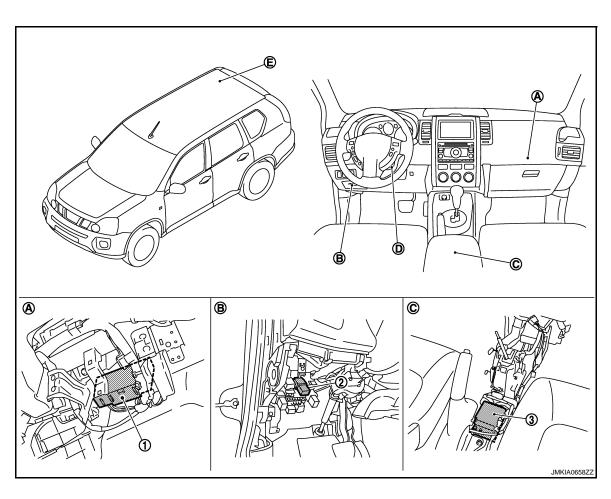
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### AIR BAG INTERLOCK UNLOCK OPERATION

When ignition switch is ON and BCM receive air bag deployment signal, it operates automatically to unlock all doors. Air bag diagnosis sensor unit sends the air bag deployment signal to BCM.

# AIR BAG INTERLOCK UNLOCK: Component Parts Location

INFOID:0000000001394635



- 1. BCM M65, M66, M67
- Over the glove box

- 2. Passenger side anti-hijack relay M90
- View with fuse box lid removed B.

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- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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- 1. Combination meter M34
- 4. Front door switch (driver side) **B34**
- Back door opener switch assembly 7. (opener switch) D186
- View with steering column cover removed
- 2. Key switch M24
- 5. Front door lock actuator (driver side) D9
- 8. Back door lock assembly D190
- View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# AIR BAG INTERLOCK UNLOCK: Component Description

INFOID:0000000001281052

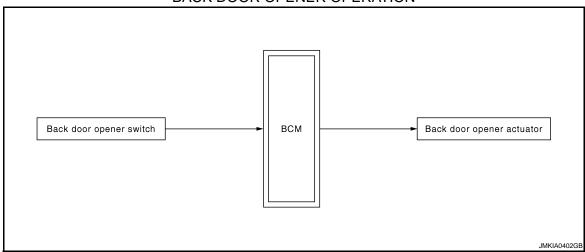
Item	Function
BCM	Controls the door lock function.
Air bag diagnosis sensor unit	Transmits air bag deployment signal to BCM.
Door lock actuator	Receives door lock and unlock signal from BCM and lock and unlock each door.

# BACK DOOR OPENER FUNCTION BACK DOOR OPENER SWITCH

BACK DOOR OPENER SWITCH: System Diagram

INFOID:0000000001281053

#### **BACK DOOR OPENER OPERATION**



# BACK DOOR OPENER SWITCH: System Description

INFOID:0000000001281054

#### **BACK DOOR OPENER OPERATION**

When back door opener switch is pressed, BCM opens back door opener actuator.

#### NOTE:

Back door opener actuator is not for locking the back door. The function is only to open the back door.

#### **OPERATION CONDITION**

If the following conditions are not satisfied, back door opener operation is not performed.

Back door opener switch operation	Operation condition
Back door open	<ul><li>Vehicle speed is less than 5 km/h (3 MPH).</li><li>All doors are unlocked.</li></ul>

BACK DOOR OPENER SWITCH: Component Parts Location

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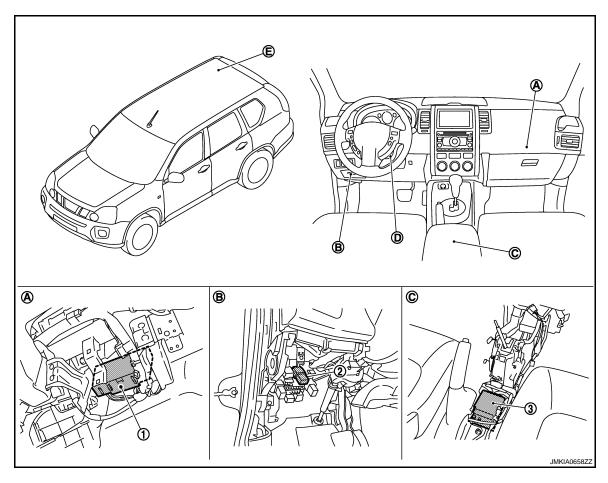
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- 1. BCM M65, M66, M67
- A. Over the glove box

- 2. Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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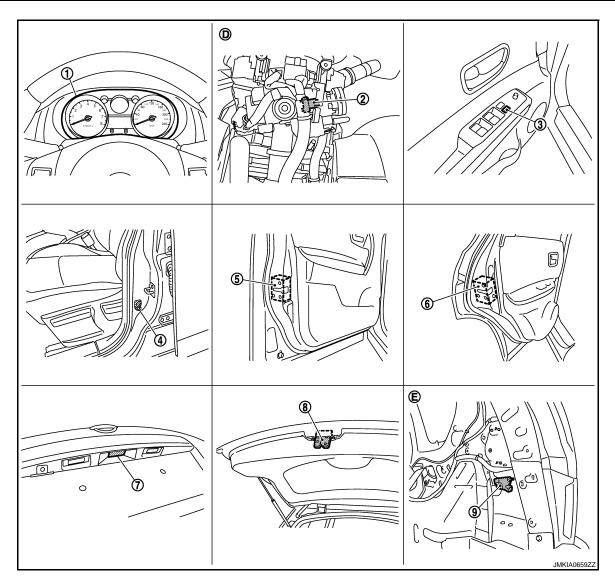
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- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- D. View with steering column cover re-
- 2. Key switch M24
- 5. Front door lock actuator (driver side)
- 8. Back door lock assembly D190
- E. View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- 6. Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# BACK DOOR OPENER SWITCH: Component Description

INFOID:0000000001281056

Item	Function
BCM	Controls the back door opener function.
Back door opener switch	Transmits back door opener switch operation signal to BCM.
Back door opener actuator	Opens the back door with the back door open signal from BCM.
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.

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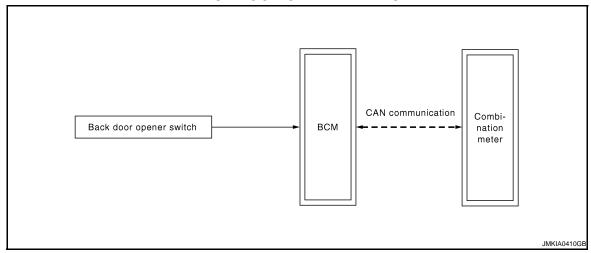
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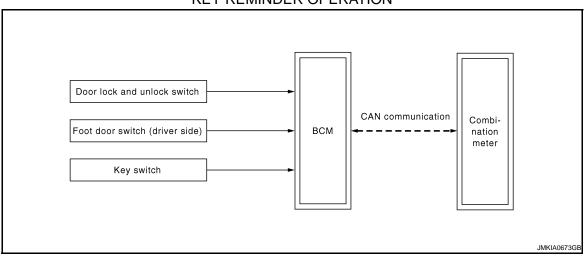
# WARNING FUNCTION

System Diagram

#### BACK DOOR OPEN WARNING



#### KEY REMINDER OPERATION



# System Description

INFOID:0000000001281058

#### BACK DOOR OPEN WARNING OPERATION

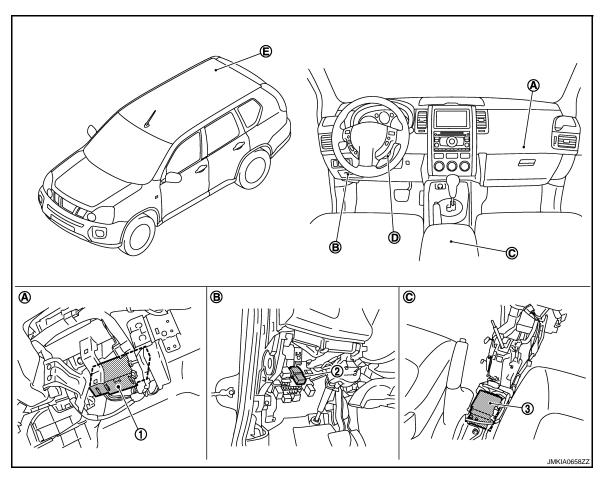
Back door opener switch is operated, when door lock is locked with door lock and unlock switch, by speed sensing lock or when only the driver side is unlocked by the anti-hijack function, the buzzer (built in combination meter) will sound.

#### KEY REMINDER OPERATION

- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is pressed while the driver door is open and mechanical key is inserted ignition key cylinder.
- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is pressed while any door other than the driver door is open.

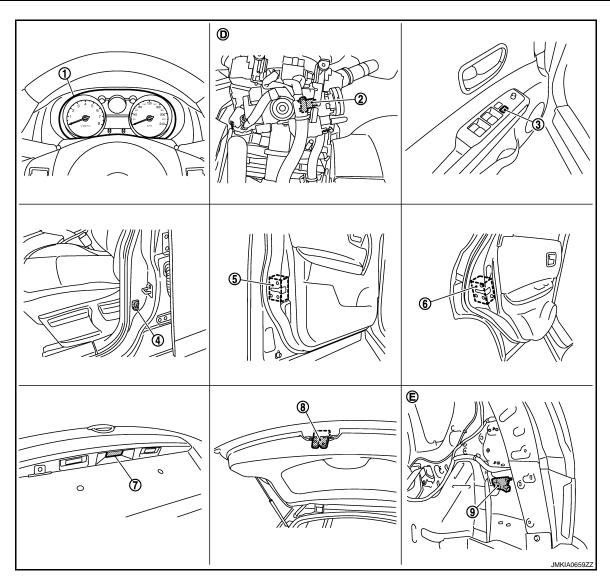
# Component Parts Location

INFOID:0000000001394638



- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- D. View with steering column cover removed
- Key switch M24
- 5. Front door lock actuator (driver side)
- 8. Back door lock assembly D190
- E. View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- 6. Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# Component Description

INFOID:0000000001281060

Item	Function
BCM	Controls the warning function.
Combination meter	Sounds the buzzer by the request signal from BCM via CAN communication.
Back door opener switch	Transmit back door open signal to BCM

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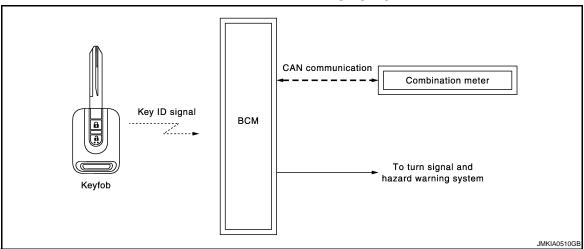
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# HAZARD REMINDER FUNCTION

System Diagram

#### HAZARD REMINDER FUNCTION



# System Description

INFOID:0000000001281062

#### HAZARD REMINDER OPERATION

When door is locked or unlocked by keyfob, then BCM flashes hazard warning lamp as a reminder. **NOTE:** 

Hazard reminder mode can be changed with CONSULT-III. Refer to <u>DLK-625, "MULTIREMOTE ENT : CONSULT-III Function (BCM - MULTIREMOTE ENT)"</u>.

Hazard reminder setting (With CONSULT-III)		Door lock operation (with keyfob)	Hazard warning lamp flash
MODE 1		_	_
	MODE 2	Lock	Once
	WIODL 2	Unlock	_
HAZARD LAMP SET	MODE 3	Lock	_
		Unlock	Twice
	MODE 4	Lock	Once
	WODL 4	Unlock	Twice

# Component Parts Location

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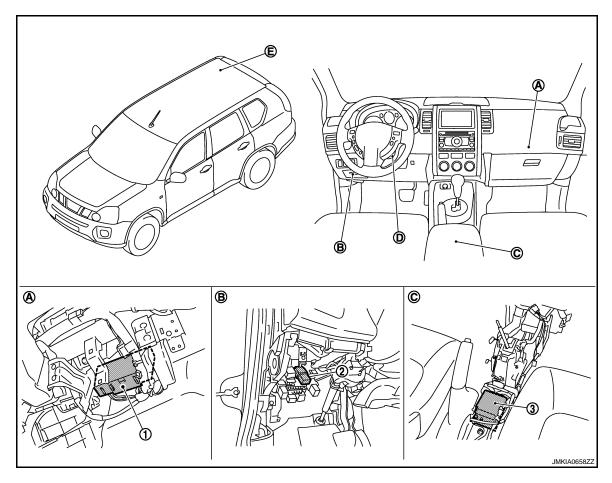
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- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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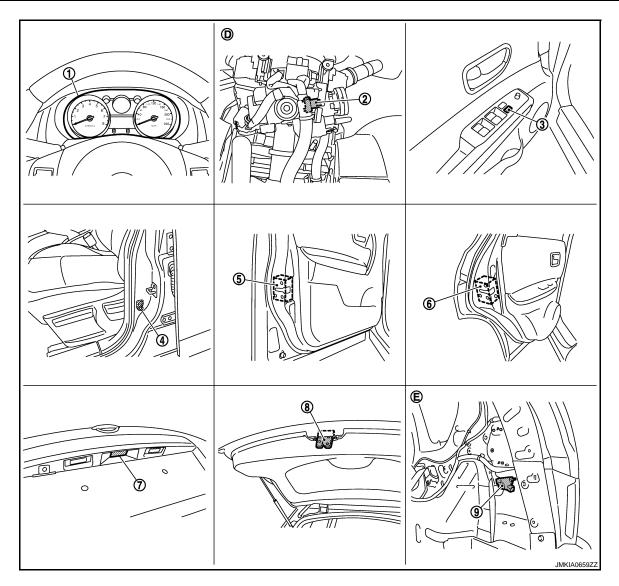
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- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch assembly (opener switch) D186
- D. View with steering column cover removed
- 2. Key switch M24
- 5. Front door lock actuator (driver side)
  D9
- 8. Back door lock assembly D190
- E. View with luggage side lower finisher (RH) removed.
- 3. Power window main switch (Door lock and unlock switch) D5,D6
- 6. Rear door lock actuator LH D85
- 9. Fuel lid opener actuator B58

# Component Description

INFOID:0000000001281064

Item	Function
ВСМ	Controls the hazard reminder system.
Combination meter	Turns ON the turn signal indicator (built in combination meter) by the request from BCM via CAN communication.
Keyfob	Transmits key ID to BCM when lock and unlock button is pressed.

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)

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#### APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to DLK-691, "DTC Index".
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

Occasion and	CONSULT-III sub system selection item	Diagnosis mode		
System		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
_	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
<del></del>	PTC HEATER*			

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

DOOR LOCK

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

INFOID:0000000001281066

**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.

#### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
PUSH SW <sup>*1</sup>	Indicates [ON/OFF] condition of ignition knob switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEYLESS LOCK*2	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK*2	Indicates [ON/OFF] condition of unlock signal from key fob.
I-KEY LOCK*1	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK*1	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.
UNLOCK WITH DR	This item is indicated, but not monitored.
UNLOCK SHOCK	Indicates [ON/OFF] condition of signal from air bag diagnosis unit.  ON: During the unlock operation interlock with air bag.  OFF: Other than above.
SHOCK SENSOR	<ul> <li>Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit.</li> <li>NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.)</li> <li>ON: During the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> <li>OFF: After the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> </ul>
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

#### **ACTIVE TEST**

Test item	Description
SUPER LOCK*1	This test is able to check super lock operation [LOCK (SET)/UNLOCK (RELEASE)].
DOOR LOCK IND	This test is able to check door lock indicator (built in door lock and unlock switch on center console) operation [ON/OFF].
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK].

<sup>:\*1</sup> For the super lock equipped vehicle.

### **WORK SUPPORT**

 $<sup>^{\</sup>star 2}\!\!:$  For the multi remote control system equipped vehicle.

# **DIAGNOSIS SYSTEM (BCM)**

#### < FUNCTION DIAGNOSIS >

#### [WITHOUT I-KEY & SUPER LOCK]

Test item	Description
SECURITY DOOR LOCK SET	<ul> <li>Anti hijack function mode can be changed in this mode.</li> <li>ON: Anti hijack mode is active.</li> <li>OFF: Anti hijack mode is inactive.</li> </ul>

# MULTIREMOTE ENT

# MULTIREMOTE ENT: CONSULT-III Function (BCM - MULTIREMOTE ENT)

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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.	

#### **DATA MONITOR**

Monitor Item	Condition		
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.		
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.		
KEY ON SW	Indicates [ON/OFF] condition of key switch.		
KEYKESS LOCK	Indicates [ON/OFF] condition of lock signal from key fob.		
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from key fob.		
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).		
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).		
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.		
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.		
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.		
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.		
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.		
RKE LOCK AND UNLOCK	This item is indicated, but not monitored.		
MEMORY 1	Indicates [ON/OFF] condition of remote controller ID code registration.		
MEMORY 2	Indicates [ON/OFF] condition of remote controller ID code registration.		
MEMORY 3	Indicates [ON/OFF] condition of remote controller ID code registration.		
MEMORY 4	Indicates [ON/OFF] condition of remote controller ID code registration.		
MEMORY 5	Indicates [ON/OFF] condition of remote controller ID code registration.		

#### **ACTIVE TEST**

Test item	Description
DOOR LOCK	This test is able to check warning chime in combination meter operation. [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK]
INT LAMP This test is able to check interior lamp operation [ON/OFF].	
FLASHER	This test is able to check flasher operation [LH/RH/OFF].

#### **WORK SUPPORT**

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# **DIAGNOSIS SYSTEM (BCM)**

# [WITHOUT I-KEY & SUPER LOCK]

### < FUNCTION DIAGNOSIS >

Test item	Description	
HAZARD LAMP SET  Answer back function (hazard) mode can be changed in this mode. For the detail of the setting, refer to DLK-620, "System Description".		
AUTO LOCK SET	Auto door lock time can be changed in this mode.  • MODE 1: 1 minute  • MODE 2: 2 minutes  • MODE 3: 3 minutes  • MODE 4: 4 minutes  • MODE 5: 5 minutes	

# **TRUNK**

TRUNK: CONSULT-III Function (BCM - TRUNK)

INFOID:0000000001281068

#### **APPLICATION ITEM**

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

Diagnosis mode	Function Description	
DATA MONITOR	The BCM input/output signals are displayed.	
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.	

#### **DATA MONITOR**

Monitor Item	Condition	
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.	
KEY ON SW	Indicates [ON/OFF] condition of key switch.	
PUSH SW <sup>*1</sup>	Indicates [ON/OFF] condition of ignition knob switch.	
TRNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch.	
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].	

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

#### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener operation [ON/OFF].

<sup>\*2:</sup> For the remote keyless entry system equipped vehicle.

# **COMPONENT DIAGNOSIS**

# U1000 CAN COMM CIRCUIT

Description INFOID:000000001298310

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

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.	In CAN communication system, any item (or items) of the following listed below is malfunctioning.  Transmission Receiving (IPDM E/R) Receiving (ECM) Receiving (METER/M&A) Receiving (MULTI AV)	

### Diagnosis Procedure

1.PERFORM SELF DIAGNOSTIC

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

#### Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-13, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-39, "Intermittent Incident".

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[WITHOUT I-KEY & SUPER LOCK]

# U1010 CONTROL UNIT (CAN)

**Description**INFOID:000000001298313

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

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of BCM.	ВСМ

# Diagnosis Procedure

INFOID:0000000001298315

# 1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM.

### Special Repair Requirement

INFOID:0000000001298316

# 1. REQUIRED WORK WHEN REPLACING INTELLIGENT KEY UNIT

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

>> Work end.

### POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM: Diagnosis Procedure

INFOID:0000000001298318

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# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.	
41	Pottory power cupply	10 (10A)	
57	Battery power supply	J (50A)	
4	ACC power supply	20 (10A)	

#### Is the fuse fusing?

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

NO >> GO TO 2.

# 2. CHECK POWER SUPPLY CIRCUIT

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

Terminals				
	(+)		Condition	Voltage (Approx.)
В	ВСМ			
Connector	Terminal			
M66	41		Turn ignition switch OFF	
M67	57	Ground	Turri igrillion switch OFF	Battery voltage
M65	4		Turn ignition switch ACC	

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M67	55		Exists

#### Does continuity exist?

YES >> BCM power supply and ground circuit are OK.

NO >> Repair harness or connector.

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### DOOR LOCK AND UNLOCK SWITCH

Description INFOID:000000001298319

Transmits door lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000001298320

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "CDL LOCK SW "and "CDL UNLOCK SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
ODL GINLOCK SW	UNLOCK	: ON	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-630</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000001298321

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch (door lock and unlock switch) connector.
- 3. Check voltage between power window main switch (door lock and unlock switch) and ground.

Terminal				
(+)			Signal (Reference value)	
Power window main switch (door lock and unlock switch) connector	Terminal	(–)		
D5	6			
D6	18	Ground	(V) 15 10 0 → ←10ms JPMIA0154GB	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between BCM connector and power window main switch (door lock and unlock switch) connector.

BCM connector	Terminal	Power window main switch (door lock and unlock switch) connector	Terminal	Continuity
M65	32	D5	6	Exists
	34	D6	18	LAISIS

### DOOR LOCK AND UNLOCK SWITCH

#### < COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY & SUPER LOCK]

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M65	32	Ground	Does not exist
MIOS	34		Does not exist

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between power window main switch (door lock and unlock switch) connector and ground.

Power window main switch (door lock and unlock switch) connector	Terminal	Ground	Continuity
D6	17		Exists

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

# 4. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector.
- 2. Check voltage between BCM connector and ground.

	Terminal		
(+	(+) BCM connector Terminal		Signal (Reference value)
BCM connector			(
	32		
M65	34	Ground	(V) 15 10 5 0 10ms 10ms

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

# 5. CHECK DOOR LOCK AND UNLOCK SWITCH

Check power window main switch (door lock and unlock switch).

Refer to <u>DLK-631</u>, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace power window main switch (door lock and unlock switch). Refer to <a href="PWC-83">PWC-83</a>, "Removal and Installation".

# 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### Component Inspection

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

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INFOID:0000000001298322

### DOOR LOCK AND UNLOCK SWITCH

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

Power window main switch	Terminal		Condition	Continuity
D5	6	17	LOCK	Exists
D6	18	17	UNLOCK	LAISIS

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Replace power windou main switch. Refer to PWC-83, "Removal and Installation".

DOOR SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001298496

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Detects door open/closed condition.

DRIVER SIDE: Component Function Check

INFOID:0000000001298497

# 1. CHECK FUNCTION

(III) With CONSULT-III

Check door switches "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-DR	OPEN	:ON	
DOOK SW-BK	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

>> Refer to DLK-633, "DRIVER SIDE : Diagnosis Procedure". NO

# DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001298498

# 1. CHECK DOOR SWITCH INPUT SIGNAL

Turn ignition switch OFF.

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

	Terminals			
(-	(+)		Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		(Approx.)
			OPEN	0
M65	15	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Front door switch (driver side) connector	Terminal	Continuity
M65	15	B34	2	Exists

Check continuity between BCM harness connector and ground.

#### [WITHOUT I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Ground	Continuity
M65	15	Olouliu	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

### 3.check door switch

Check front door switch (driver side).

Refer to DLK-634, "DRIVER SIDE: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (driver side). Refer to DLK-292, "Removal and Installation".

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

### DRIVER SIDE: Component Inspection

INFOID:0000000001298499

### 1. CHECK DOOR SWITCH

Check front door switch (driver side).

Terminal		Door switch condition	Continuity	
front door switch (driver side)		Door Switch Condition		
2	2 Cround part of door quitab		Exists	
2	Ground part of door switch	Released	Does not exist	

#### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Replace front door switch (driver side). Refer to <u>DLK-292</u>, "Removal and Installation".

#### PASSENGÉR SIDE

PASSENGER SIDE: Description

INFOID:0000000001298500

Detects door open/closed condition.

PASSENGER SIDE: Component Function Check

INFOID:0000000001298501

INFOID:0000000001298502

# 1. CHECK FUNCTION

#### (III) With CONSULT-III

Check door switches "DOOR SW-AS" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-AS	OPEN	: ON	
	CLOSE	: OFF	

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Refer to <u>DLK-634, "PASSENGER SIDE : Diagnosis Procedure"</u>.

# PASSENGER SIDE : Diagnosis Procedure

# 1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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

(+) BCM				
DCM.			Door condition	Voltage (V) (Approx.)
connector	Terminal	(–)		(Approx.)
			OPEN	0
M65	14	Ground	CLOSE	(V) 15 10 5 0 10 ms  JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 4.

NO  $\Rightarrow$  GO TO 2. 2. CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Front door switch (passenger side) connector	Terminal	Continuity
M65	14	B27	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	14	Ground	Does not exist

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

3. CHECK DOOR SWITCH

Check front door switch (passenger side).

Refer to DLK-635, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-292, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

1. CHECK DOOR SWITCH

Check front door switch (passenger side).

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INFOID:0000000001298503

Ter	Terminal Front door switch (passenger side)		Continuity
Front door switc			
2	Ground part of door switch	Pressed	Exists
2	Ground part of door switch	Released	Does not exist

#### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-753, "Removal and Installation"</u>.

REAR LH

REAR LH : Description

INFOID:0000000001298504

Detects door open/closed condition.

REAR LH: Component Function Check

INFOID:0000000001298505

### 1. CHECK FUNCTION

#### (III) With CONSULT-III

Check door switches "DOOR SW-RL" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RL	OPEN	:ON	
	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Refer to <u>DLK-636</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

# REAR LH: Diagnosis Procedure

INFOID:0000000001298506

# 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals				
(-	(+)		Door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(Approx.)	
			OPEN	0	
M65	16	Ground	CLOSE	(V) 15 10 5 0 JPMIA0011GB	

#### Is the inspection result normal?

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

# 2. CHECK DOOR SWITCH CIRCUIT

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

#### [WITHOUT I-KEY & SUPER LOCK]

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BCM connector	Terminal	Rear door switch LH connector	Terminal	Continuity
M65	16	B71	2	Exists
Check continuity between	BCM harness connec	tor and ground.		
BCM connector	Term	ninal	0	Continuity
M65	16	6	Ground	Does not exist
the inspection result norma YES >> GO TO 3. NO >> Repair or replace CHECK DOOR SWITCH	harness between BCN	/I and rear door sw	itch LH.	
Check rear door switch LH. Refer to DLK-637, "REAR LH IS the inspection result norma YES >> GO TO 4. NO >> Replace rear doo  LCHECK INTERMITTENT II	l <u>?</u> r switch LH. Refer to <u>D</u>		and Installation"	
Refer to GI-39, "Intermittent In	ncident".			
>> INSPECTION EN				INFOID:000000000
.CHECK DOOR SWITCH				
Check rear door switch LH.				
Termi	nal	Door switch co	ndition	Continuity
Rear door s	witch LH	Door switch co	Hallon	Continuity
2	Ground part of door switch	Pressed Released		Exists  Does not exist
YES >> Rear door switch NO >> Replace rear doo		LK-753, "Removal	and Installation"	

REAR RH

**REAR RH: Description** 

INFOID:0000000001298508

Detects door open/close condition.

**REAR RH: Component Function Check** INFOID:0000000001298509

# 1. CHECK FUNCTION

(III) With CONSULT-III

Check door switches "DOOR SW-RR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RR	OPEN	:ON	_
	CLOSE	:OFF	

#### Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Refer to <u>DLK-638</u>, "REAR RH: <u>Diagnosis Procedure"</u>.

# REAR RH: Diagnosis Procedure

INFOID:0000000001298510

# 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals			
(+)			Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)	2001 00114111011	(Approx.)
			OPEN	0
M65	12	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2. CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Rear door switch RH connector	Terminal	Continuity
M65	12	B53	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	12	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

# 3.check door switch

Check rear door switch RH.

Refer to DLK-638, "REAR RH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch RH. Refer to <u>DLK-753, "Removal and Installation"</u>.

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

#### REAR RH: Component Inspection

INFOID:0000000001298511

# 1. CHECK DOOR SWITCH

Check rear door switch RH.

#### [WITHOUT I-KEY & SUPER LOCK]

Terminal		Door switch condition	Continuity	
Rear door switch RH		Door Switch Condition	Continuity	
2	Ground part of door switch	Pressed	Exists	
2	Ground part of door switch	Released	Does not exist	

Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Replace rear door switch RH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

BACK DOOR

**BACK DOOR: Description** 

INFOID:0000000001298512

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Detects back door open condition.

**BACK DOOR: Component Function Check** 

INFOID:0000000001298513

### 1. CHECK FUNCTION

(III) With CONSULT-III

Check "BACK DOOR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BACK DOOR SW	OPEN	: ON	
BACK DOOK SW	CLOSE	: OFF	

### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Refer to <u>DLK-639</u>, "BACK DOOR : Diagnosis Procedure".

# **BACK DOOR: Diagnosis Procedure**

INFOID:0000000001298514

# 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between BCM harness connector and ground.

Terminals		David Jane				
(1	+)	Back door condition		condition		Voltage (V) (Approx.)
BCM connector	Terminal	(-)		,		
M65	13 Ground	Ground	OPEN	0		
IVIOS		Giodila	CLOSE	Battery voltage		

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

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# 2.CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) CIRCUIT

Disconnect BCM connector back door lock assembly connector.

Check continuity between BCM harness connector and back door lock assembly (door switch) harness connector.

BCM connector	Terminal	Back door lock assembly (door switch) connector	Terminal	Continuity
M65	13	D190	2	Exists

3. Check continuity between BCM connector and ground.

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BCM connector	Terminal	Ground	Continuity
M65	13	Glound	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and back door lock assembly (door switch).

# 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly (door switch) connector	Terminal	Ground	Continuity
D190	3		Exists

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door lock assembly ground circuit.

#### 4. CHECK BCM OUTPUT SIGNAL

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

Terminals			
(+)		(_)	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	(11 - 7
M65	13	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### 5. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Refer to DLK-640, "BACK DOOR: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO

>> Replace back door lock assembly (door switch). Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation".</u>

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# BACK DOOR : Component Inspection

INFOID:0000000001298515

# 1. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH)

Check back door lock assembly (door switch).

Terminal  Back door lock assembly (door switch)		Back door condition	Continuity
		Back door condition	Continuity
2	1	OPEN	Exists
2	ı	CLOSE	Does not exist

#### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Replace back door lock assembly. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

### KEY SWITCH

Description INFOID:000000001298516

Key switch detects that mechanical key is inserted into the key cylinder, and then transmits the signal to BCM and Intelligent Key unit.

### Component Function Check

INFOID:0000000001298517

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# 1. CHECK KEY SWITCH INPUT SIGNAL

Check key switch ("KEY ON SW") in "Data Monitor" mode with CONSULT-III. Refer to <u>DLK-64, "DOOR LOCK CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	Condition		
KEY ON SW	Insert mechanical key into key cylinder	: ON	
	Remove mechanical key from key cylinder	: OFF	

#### Is the inspection result normal?

YES >> Key switch is OK.

NO >> Refer to <u>DLK-641</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000001298518

# 1. CHECK KEY SWITCH INPUT SIGNAL

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

	Terminals			V-16 0.0	
(+)		(_)	Condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(11 - /	
M65	5	Ground	Insert mechanical key into key cylinder	Battery voltage	
IVIOS	3	Ground	Remove mechanical key from key cylinder	0	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- 1. Remove mechanical key from key cylinder.
- 2. Disconnect key switch connector.
- 3. Check voltage between key switch harness connector and ground.

	V 14 0 0		
(+)		(-)	Voltage (V) (Approx.)
Key switch connector	witch connector Terminal		( 41.5.4)
M24	2	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3. CHECK KEY SWITCH SIGNAL CIRCUIT

1. Check continuity between BCM harness connector and key switch connector.

**DLK-641** 

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#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Key switch connector	Terminal	Continuity
M65	5	M24	1	Exists

2. Check continuity between ignition knob switch, key switch and key lock solenoid connector and ground.

Key switch connector	Terminal	Ground	Continuity
M24	1	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK KEY SWITCH

Check key switch function.

Refer to <u>DLK-642</u>, "Component Inspection".

### Is the inspection result normal?

yes >> GO TO 5.

NO >> Replace key cylinder assembly.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident"

#### >> INSPECTION END

# Component Inspection

INFOID:0000000001298519

#### COMPONENT INSPECTION

# 1. CHECK KEY SWITCH

Check continuity between key switch terminals.

Terminal  Key switch		Condition	Continuity
1	1 2	Insert mechanical key into key cylinder	Exists
ı		Remove mechanical key from key cylinder	Does not exist

#### Is the inspection result normal?

YES >> Key switch is OK.

NO >> Replace key cylinder assembly.

**DRIVER SIDE** 

**DRIVER SIDE: Description** 

INFOID:0000000001298522

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Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001298523

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The door lock actuator (driver side) is unlocked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (driver side) is OK.

>> Refer to DLK-643, "DRIVER SIDE : Diagnosis Procedure".

# DRIVER SIDE: Diagnosis Procedure

#### INFOID:0000000001298524

# 1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM connector and ground.

Terminals				
(+)		(–)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		
M67	56	Ground	Lock	0  o Battery voltage  o 0
IVIO 7	60	Giouna	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

Disconnect BCM and front door lock actuator (driver side) connector.

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

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M67	56	D9	1	Exists
60	60	D9	2	LAISIS

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
IVIO7	60		Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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#### [WITHOUT I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

# 3.check intermittent incident

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001298526

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000001298527

### 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:AS UNLK	The door lock actuator (passenger side) is locked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (passenger side) is OK.

NO >> Refer to <u>DLK-644</u>, "PASSENGER SIDE : <u>Diagnosis Procedure</u>".

# PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001298528

# 1. CHECK BCM OUTPUT SIGNAL

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

Terminals				
(+)		(-)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		
M67	56	Ground	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$
IVIO7	54	Giouria	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	56	D48	2	Exists
54	D40	1	EXISIS	

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity	
M67	56	Ground	Does not exist	
IVIO7	54		Does not exist	

#### < COMPONENT DIAGNOSIS >

#### [WITHOUT I-KEY & SUPER LOCK]

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

REAR LH

**REAR LH: Description** 

LH: Description

Locks/unlocks the door with the signal from BCM.

REAR LH: Component Function Check

1. CHECK FUNCTION

(P) With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOK EOCHONEOCK	:LOCK	The all door lock actuators are locked

Is the inspection result normal?

YES >> Rear door lock actuator LH is OK.

NO >> Refer to <u>DLK-645</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

**REAR LH: Diagnosis Procedure** 

1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

2. Check voltage between BCM connector and ground.

Terminals			O a litti a a C la a a la a l	V 16 (A.)
(+)		( )	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		,
M67	56	Ground	Lock	0  o Battery voltage  o 0
IVIO7	54	Giouna	Unlock	0  o Battery voltage  o 0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM and rear door lock actuator LH connector.

2. Check continuity between BCM connector and rear door lock actuator LH connector.

BCM connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M67	56	D85	1	Exists
IVIO7	54	200	2	LAISIS

3. Check continuity between BCM connector and ground.

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# [WITHOUT I-KEY & SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal		Continuity	
M67	56	Ground	Does not exist	
IVIO7	54		Does not exist	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check intermittent incident

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

**REAR RH** 

**REAR RH**: Description

INFOID:0000000001298534

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

INFOID:0000000001298535

INFOID:0000000001298536

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition	
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked	
BOOK EOCHONEOCK	:LOCK	The all door lock actuators are locked	

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-646</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

# **REAR RH: Diagnosis Procedure**

# 1. CHECK BCM OUTPUT SIGNAL

1. Turn ignition switch OFF.

Check voltage between BCM connector and ground.

Terminals			0 11:	V. I
(+)		(-)	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		, ,
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
WO7	54	Glound	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM and rear door lock actuator RH connector.
- 3. Check continuity between BCM connector and rear door lock actuator RH connector.

### < COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY & SUPER LOCK]

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	56	D105	2	Exists
IVIO7	54	2103	1	LAISIS

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4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54		Does not exist

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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3. CHECK INTERMITTENT INCIDENT

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Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

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#### **BACK DOOR OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# **BACK DOOR OPENER ACTUATOR**

Description INFOID.000000001298538

Opens the back door with the signal from BCM.

# Component Function Check

INFOID:0000000001298539

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "TRUNK/GLASS HATCH" in "Active Test" mode with CONSULT-III.

Test item		Condition
TRUNK/GLASS HATCH	:OPEN	Back door opener actuator operation

#### Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to <u>DLK-648</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298540

# 1. CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			0 155 (1 1 1	V. V
(+)		(-)	Condition of back door opener switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	,	<b>、</b>
M66	45	Ground	Pressed	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

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

BCM connector	Terminal	Back door lock assembly connector	Terminal	Continuity
M66	45	D190	4	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M66	45	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly connector	Terminal	Ground	Continuity
D190	3		Exists

#### Is the inspection result normal?

BACK DOOR OPEN < COMPONENT DIAGNOSIS >	IER ACTUATOR [WITHOUT I-KEY & SUPER LOCK]
YES >> GO TO 4.	[IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
NO >> Repair or replace harness.	
4.CHECK INTERMITTENT INCIDENT	
Refer to GI-39, "Intermittent Incident".	
>> INSPECTION END	
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[WITHOUT I-KEY & SUPER LOCK]

## **FUEL LID OPENER ACTUATOR**

Description INFOID:000000001298542

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

## Component Function Check

INFOID:0000000001298543

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The fuel lid opener actuator are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The fuel lid opener actuator is unlocked
	:LOCK	The fuel lid opener actuator are locked

#### Is the inspection result normal?

YES >> Fuel lid opener actuator is OK.

NO >> Refer to <u>DLK-650</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298544

## 1. CHECK BCM OUTPUT SIGNAL

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

Terminals (+)		O a little of level at	V 16 (1.0)		
		Condition of door lock and unlock switch	Voltage (V) (Approx.)		
BCM connector	Terminal	(-)		(11 - /	
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	
IVIO7	60	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK FUEL LID OPENER ACTUATOR CIRCUIT

- 1. Disconnect BCM and fuel lid opener actuator connector.
- 2. Check continuity between BCM connector and fuel lid opener actuator connector.

BCM connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M67	56	B58	2	Exists
IVIO7	M67 60		1	LXISIS

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	60		DOES HOLEKIST

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

 ${f 3.}$ CHECK INTERMITTENT INCIDENT

#### **FUEL LID OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

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#### **BACK DOOR OPENER SWITCH**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

## **BACK DOOR OPENER SWITCH**

Description INFOID:000000001298546

Sends the back door opening signal to BCM.

## Component Function Check

INFOID:0000000001298547

## 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "TRNK OPNR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
TRNK OPNR SW	Back door opener switch is pressed	:ON	
TRNK OPNR SW	Back door opener switch is released	:OFF	

#### Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-652</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298548

#### 1. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals		On a life on a fill and a line of			
(+)		(-)	Condition of back door opener switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	•	, , , , , , , , , , , , , , , , , , ,	
M65	29	Ground	Pressed	0	
1000 29	Giouna	Released	Battery voltage		

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

# 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and back door opener switch assembly (opener switch) connector.
- Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM connector	Terminal	Back door opener switch assembly (opener switch) connector	Terminal	Continuity
M65	29	D186	1	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	29	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### $oldsymbol{3}.$ CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

#### **BACK DOOR OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

#### [WITHOUT I-KEY & SUPER LOCK]

Terminals				
(+)	(+)		Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		
M65	29	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

4. CHECK BACK DOOR OPENER SWITCH GROUND CIRCUIT

Check continuity between back door opener switch assembly (opener switch) connector and ground.

Back door opener switch assembly (opener switch) connector	Terminal	Ground	Continuity
D186	2		Exists

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to <u>DLK-653</u>, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-754</u>, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Back door opener switch assembly (opener switch)	Terminal		Back door opener switch condition	Continuity
D186	1	2	Pressed	Exists
D186	'		Released	Does not exist

Is the inspection result normal?

YES >> Back door opener switch assembly (opener switch) is OK.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-754, "Removal and Installation"</u>.

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## **BUZZER (COMBINATION METER)**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# **BUZZER (COMBINATION METER)**

**Description** 

Performs operation method guide and warning with buzzer.

## Component Function Check

INFOID:0000000001298551

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check the operation with "INSIDE BUZZER" in "Active Test" with CONSULT-III.

Test item	Condition		
	:TAKE OUT	Take away warning chime sounds	
INSIDE BUZZER	:KNOB	Ignition knob switch warning chime sounds	
	:KEY	Key warning chime sounds	

#### Is the inspection result normal?

Yes >> Warning buzzer in combination meter is OK.

No >> Refer to <u>DLK-654</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298552

# 1. CHECK BUZZER (COMBINATION METER) CIRCUIT

Refer to DLK-654, "Component Function Check".

#### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace buzzer (combination meter) circuit.

## 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

HAZARD WARNING LAMPS < COMPONENT DIAGNOSIS > [WITHOUT I-KEY & SUPER LOCK	q					
HAZARD WARNING LAMPS	A					
Description						
Performs answer-back for each operation with the number of blinks.						
Component Function Check	3554					
1. CHECK FUNCTION	С					
With CONSULT-III Check hazard warning lamp "FLASHER" in "Active Test" mode with CONSULT-III. Is the inspection result normal? YES >> Hazard warning lamp circuit is OK.	D					
NO >> Refer to <u>DLK-655</u> , " <u>Diagnosis Procedure</u> ".  Diagnosis Procedure	E 3555					
1. CHECK HAZARD SWITCH CIRCUIT	F					
Check hazard switch circuit.  Refer to EXL-84, "Component Function Check".						
Is the inspection result normal?  YES >> GO TO 2.	G					
NO >> Repair or replace hazard warning switch circuit.						
2. CHECK INTERMITTENT INCIDENT	Н					

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

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#### **VEHICLE SPEED SIGNAL CIRCUIT**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

## VEHICLE SPEED SIGNAL CIRCUIT

**Description** 

Displays the vehicle speed signal received from combination meter as a numerical value (km/h).

### Component Function Check

INFOID:0000000001298557

# 1. CHECK FUNCTION

Check that all doors are automatically locked at the vehicle speed of more than 25 km/h (16 MPH).

#### Is the inspection result normal?

YES >> Vehicle speed signal circuit is OK.

NO >> Refer to <u>DLK-656</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298558

# 1. CHECK VEHICLE SPEED SIGNAL CIRCUIT

Check vehicle speed signal "VEHICLE SPEED" in "Data Monitor" mode with CONSULT-III.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace vehicle speed signal circuit.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

## **KEYFOB BATTERY**

Description INFOID:000000001281142

Remote door lock and unlock control entry function available when operating on button.

• Door lock and unlock

## Component Function Check

1. CHECK KEYFOB FUNCTION

Does door lock and unlock operate with operating keyfob switch?

Is the inspection result normal?

YES >> Keyfob is OK.

NO >> Refer to <u>DLK-657</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

1. CHECK KEYFOB BATTERY

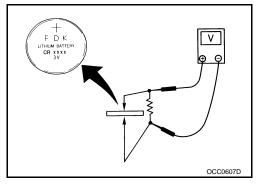
Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

Standard: Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace keyfob.

NO >> Replace keyfob battery. Refer to <u>DLK-755, "Exploded View"</u>.



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# **ECU DIAGNOSIS**

# BCM (BODY CONTROL MODULE)

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
ICN ON SW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
KEN ON SW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the lock side	On
CDL LINI OCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the unlock side	On
DOOD OW DD	Driver's door closed	Off
DOOR SW-DR	Driver's door opened	On
DOOD OW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD OW DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
DOOD OW DI	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DAOK BOOD OW	Back door closed	Off
BACK DOOR SW	Back door opened	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
I KEN IINI OOK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
DI IOH OW	Return to ignition switch to "LOCK" position	Off
PUSH SW	Press ignition switch	On
KEM EGG LOOK	"LOCK" button of key fob is not pressed	Off
KEYLESS LOCK	"LOCK" button of key fob is pressed	On
1/5// 500 LINII 001/	"UNLOCK" button of key fob is not pressed	Off
KEYLESS UNLOCK	"UNLOCK" button of key fob is pressed	On
	Ignition switch ON	NOMAL
SHOCK SENSOR	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
TIMEOUR SHOOK	Other than the following	Off
UNLOCK SHOCK	During the unlock operation interlocked with air bag	On

## < ECU DIAGNOSIS >

# [WITHOUT I-KEY & SUPER LOCK]

Monitor Item	Condition	Value/Status
JNLOCK WITH DR	NOTE: The item is indicated, but not monitored	On Off
	Vehicle speed sensing auto door lock function does not operate	Off
LOCK WITH SPEED	Vehicle speed sensing auto door lock function is operating	On
	Ignition switch OFF	Off
ACC ON SW	Ignition switch ACC or ON	On
	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
	Lighting switch OFF	Off
TAIL LAMP SW	Lighting switch 1ST	On
	Turn signal switch OFF	Off
URN SIGNAL R	Turn signal switch RH	On
	Turn signal switch OFF	Off
URN SIGNAL L	Turn signal switch LH	On
	Lighting switch OFF	Off
II BEAM SW	Lighting switch HI	On
15 A D J A A A D OW 4	Lighting switch OFF	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
LITO LIQUIT OW	Lighting switch OFF	Off
UTO LIGHT SW	Lighting switch AUTO	On
TD FOO CW	Front fog lamp switch OFF	Off
R FOG SW	Front fog lamp switch ON	On
ID FOC CW	Rear fog lamp switch OFF	Off
R FOG SW	Rear fog lamp switch ON	On
NGINE RUN	Engine stopped	Off
INGINE RUN	Engine running	On
IT-SEN FAIL	Light & rain sensor is in normal condition	ОК
III-OLIVI AIL	Light & rain sensor is with error	NOTOK
AUT LIGHT SYS	Outside of the room is dark	On
OT LIGHT 313	Outside of the room is bright	Off
ID LIGHT TIME	_	Displays a setting time of the follow me home function set by the work support
SN SW CAN	Ignition switch OFF or ACC	Off
GN SW CAN	Ignition switch ON	On
R WIPER HI	Front wiper switch OFF	Off
IN WIFER FIL	Front wiper switch HI	On
D WIDED I OW	Front wiper switch OFF	Off
R WIPER LOW	Front wiper switch LO	On
FR WIPER INT	Front wiper switch OFF	Off
IV ANLEW HAL	Front wiper switch INT	On

**DLK-659** 

## < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
ED WIDED STOD	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
DD WIDED ON	Rear wiper switch OFF	Off
RR WIPER ON	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
RR WIPER INT	Rear wiper switch INT	On
DD WIDED CTOD	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
DD WACHED CW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DEVEDOE OW OAN	NOTE:	Off
REVERSE SW CAN	The item is indicated, but not monitored	On
11/1 14/4 011 014/	When headlamp washer switch is not pressed	Off
H/L WASH SW	When headlamp washer switch is pressed	On
54N 0N 010	Blower fan motor switch OFF	Off
FAN ON SIG	Blower fan motor switch ON (other than OFF)	On
ALD COND OW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
AIR COND SW	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
114.74.00.014/	Hazard switch OFF	Off
HAZARD SW	Hazard switch ON	On
DDAKE OW	Brake pedal is not depressed	Off
BRAKE SW	Brake pedal is depressed	On
TRAIK ORNE OW	When back door opener switch is not pressed	Off
TRNK OPNR SW	When back door opener switch is pressed	On
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
AUTO RELOCK	Auto lock function does not operate	Off
AUTO RELOUR	Auto lock function is operating	On
GLS BREAK SEN	The vehicle without glass break sensor	Off
GLO DREAK SEIN	The vehicle with glass break sensor	On
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off
	Ignition switch ON	On

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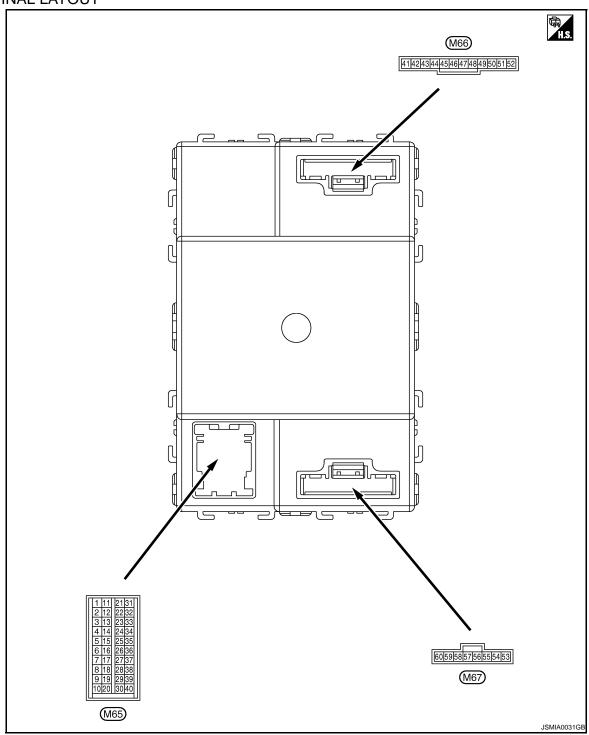
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**TERMINAL LAYOUT** 



#### PHYSICAL VALUES

#### **CAUTION:**

• Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.

- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-28, "COMB SW: CONSULT-III Function (BCM COMB SW)".
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to <u>BCS-9</u>, "System <u>Description"</u>.

	nal No.	Description			Value	
(Wire	color)	Signal name	Input/ Output	Condition	(Approx.)	
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move	
3	Ground	Ignition power sup-	Input	Ignition switch OFF or ACC	0 V	
(W)	Ground	ply	Input	Ignition switch ON or START	Battery voltage	
4	Ground	ACC power supply	Input	Ignition switch OFF	0 V	
(SB)	Ground	ACC power supply	Input	Ignition switch ON or ACC	Battery voltage	
5 (LG) <sup>*1</sup>	Ground			Insert mechanical key into ignition key cylinder	Battery voltage	
(R)*2	Ground	Key switch Inp		Remove mechanical key from ignition key cylinder	0 V	

## < ECU DIAGNOSIS >

Terminal No. (Wire color)  Description		0 155		Value		
+	<u>–</u>	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 1.3 V
6 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0167GB 1.3 V
					Rear washer switch ON	(V) 15 10 5 0 JPMIA0169GB 1.3 V
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3	(V) 15 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

	nal No.	Description				Value	
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB 1.4 V	
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0166GB 1.3 V	
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch		Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB 1.3 V
					Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 6	(V) 15 10 5 0 → 1ms JPMIA0169GB 1.3 V	
					Rear wiper INT (Wiper intermittent dial 4)	(V) 15 10 5 0	

## < ECU DIAGNOSIS >

	Terminal No. Description (Wire color)					Value	А
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	^
					All switch OFF	(V) 15 10 5 0 →1ms JPMIA0165GB 1.4 V	ВС
					Turn signal switch RH	(V) 15 10 5 0 JPMIA0166GB 1.3 V	E F
8 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch LH	(V) 15 10 5 0 JPMIA0167GB 1.3 V	G H
					Front wiper switch LO	(V) 15 10 5 0 → 1ms JPMIA0168GB 1.3 V	J DLK L
					Front washer switch ON	(V) 15 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10	M

	Terminal No. Description (Wire color)				Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 JPMIA0165GB
					Lighting switch 2ND	(V) 15 10 5 0 JPMIA0166GB 1.3 V
9 (G) <sup>*3</sup> (B) <sup>*4</sup>	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch PASS	(V) 15 10 5 0 → 1 ms JPMIA0167GB
					Front wiper switch INT	(V) 15 10 5 0 JPMIA0168GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 → ←1 ms JPMIA0196GB 1.3 V

## < ECU DIAGNOSIS >

Terminal No. (Wire color)		Description	Description		Value		/			
+	-	Signal name	Input/ Output		Condition	(Approx.)	,			
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB 1.3 V	E (			
					Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0167GB	F			
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB 1.3 V	ŀ			
								Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0169GB 1.3 V	DI
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 JPMIA0196GB 1.3 V	1			
11 (B)	Ground	Audio link	Input/ Output	_	_	_	(			

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
12 (LG)	Ground	d Rear door switch RH	Input	Input Rear door switch RH	OFF (When rear door RH closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (When rear door RH opened)	0 V
13 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 10 PKID0924E 11.2 V
					ON (When back door opened)	0 V
14 (P)*3 (BR)*4	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (When passenger door opened)	0 V
15 (BR) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms 10 ms PKID0924E
					ON (When driver door opened)	0 V

## < ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		0 - 181 -		Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	(V) 15 10 5 0 PKID0924E	
					ON (When rear door LH opened)	11.2 V	
17 (L)	Ground	Door lock status indi- cator	Output	Door lock status indicator	ON OFF	12 V 0 V	
20 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 5 0 → → 10ms JPMIA0154GB	
04			l		While pressing	1.1 V 0 V	
21 (P)	_	CAN-L	Input/ Output		_	_	
22 (L)	_	CAN-H	Input/ Output		_	_	
23 (V)	Ground	Security indicator	Output	Security indicator	ON	0 V  (V) 15 10 5 0  JPMIA0014GB	
				Ignition switch O	OFF FF or ACC	12 V 12 V	
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch O	N	(V) 15 10 5 0 10ms JPMIA0156GB 8.7 V	
25	Ground	Alarm link	Output			0.1 V	

Terminal No.		Description				Value	
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
26 (GR) <sup>*5</sup> (LG) <sup>*6</sup>	Ground	Blower fan motor switch	Input	Blower fan mo- tor switch	OFF	(V) 15 10 5 0 10 ms 11.2 V	
					ON (other than OFF)	0 V	
27 (P)*5 (Y)*6	Ground	A/C switch	Input	Ignition switch ON	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V	
					Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	0 V	
				Ignition switch OFF or ACC		0 V	
28 (LG) <sup>*7</sup> (R) <sup>*8</sup>	Ground	Shock detect sensor	Input	Ignition switch ON		(V) 15 10 5 0 JPMIA0155GB 6.0 V	
29 (LG) <sup>*3</sup> (O) <sup>*4</sup>	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	
					Pressed	0 V	
32 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 1010ms JPMIA0154GB	
					Pressed to the unlock side	1.2 V	

	nal No.	Description		On a Pitter		Value	
+	color)	Signal name	Input/ Output		Condition	(Approx.)	
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 → ←10ms JPMIA0154GB	
					ON	0 V	
34 (SB) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0 → ←10ms JPMIA0154GB	
					Pressed to the lock side	0 V	
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	(V) 15 10 5 0 → ←10ms JPMIA0154GB	
					Pressed to the lock side	0 V	
36 (G)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Turn signal switch RH Lighting switch 2ND Lighting switch HI Lighting switch HI	0 V  (V) 15 10 5 0  JPMIA0164GB 9.1 V	
					All switch OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch ON (Wiper intermittent dial 4) Rear washer switch ON	(V) 15	
37 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	(Wiper intermittent dial 4)  Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 5  Wiper intermittent dial 6	10 5 0 → -2ms JPMIA0161GB	
					Rear wiper switch ON (Wiper intermittent dial 4)	9.1 V	

Terminal No.		Description				Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
	_		Output		All switch OFF	0 V	
					Front wiper switch LO		
	Ground			O bin - tin -	Front wiper switch MIST	(V) 15	
38		Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	10	
(W)					Lighting switch AUTO	ŏ	
					Rear fog lamp switch ON	JPMIA0162GB	
					All switch OFF	0 V	
					Turn signal switch LH		
				Combination	Lighting switch PASS	(V) 15	
39	Ground	Combination switch	Output	switch	Lighting switch 2ND	10	
(Y)		OUTPUT 4		(Wiper intermittent dial 4)	Front fog lamp switch ON	JPMIA0163GB	
					All switch OFF (Wiper intermittent dial 4)	9.3 V 0 V	
					Front wiper switch HI (Wiper intermittent dial 4)		
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 	
					Rear wiper switch INT (Wiper intermittent dial 4)	9.1 V	
41 (LG)	Ground	Battery power sup- ply	Input	Ignition switch O	,	Battery voltage	
42	Cround	Interior room lamp	Outout	Interior room lam	p battery saver activation	0 V	
(V)	Ground	power supply	Output	Interior room lam	p battery saver no activation	12 V	
43	Ground	Rear wiper motor	Output	Rear wiper switch	h OFF	0 V	
(SB)	Cround	rtodi wipor motor	Catpat	Rear wiper switch	h ON	12 V	
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	
					Any position other than rear wiper stop position	0 V	

Terminal No. (Wire color)		Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	(V) 15 10 5 0 *** 0.1s	
					Not pressed	0 V	
					Turn signal switch OFF	0 V	
47 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s	
						6.5 V	
					Turn signal switch OFF	0 V	
48 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E	
49	Ground	Poor fog Jamp	Output	Poor for lamp	OFF	0 V	
(Y)	Ground	Rear fog lamp	Output	Rear fog lamp	ON	12 V	
50	Ground	Unlock concor	Input	Driver's door	Unlock	5 V	
(G)	Giodila	Unlock sensor	Input	Driver's door	lock	0 V	
51	Ground	Stop lamp switch	Input	Depress the bra	ke pedal	Battery voltage	
(R)	Ground	Grob ramp switch	прис	Release the bral	ke pedal	0 V	
52	Ground	Room lamp timer	Output	Interior room	OFF	12 V	
	Ciound	control	σαιραί	lamp	ON	0 V	
(R)						0.1/	
53	Ground	Power window pow-	Qutnut	Ignition switch	OFF or ACC	0 V	
	Ground	Power window pow- er supply (IGN)	Output	Ignition switch	OFF or ACC	12 V	
53	Ground		Output	Ignition switch  Door lock/un-lock switch			
53 (L)		er supply (IGN)  Door unlock (All other than driv-		Door lock/un-	ON	12 V  (V) 15 10 5 0  ++0.1s	

#### < ECU DIAGNOSIS >

Terminal No.		Description				Value	
(Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
					Not pressed	0 V	
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un- lock switch	Pressed to the lock side	(V) 15 10 5 0 ++0.1s SKIA9232E	
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage	
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch OFF		12 V	
59	Crownd	Cuparlask	Outrout	When lock buttor is not pressed	of key fob or Intelligent Key	0 V	
(R)	Ground	Super lock	Output	When lock buttor is pressed	of key fob or Intelligent Key	12 V	
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0 *****************************	
					Not pressed	0 V	

<sup>\*1:</sup> With Intelligent Key

<sup>\*2:</sup> Without Intelligent Key

<sup>\*3:</sup> RHD models

<sup>\*4:</sup> LHD models

<sup>\*5:</sup> With gasoline engine

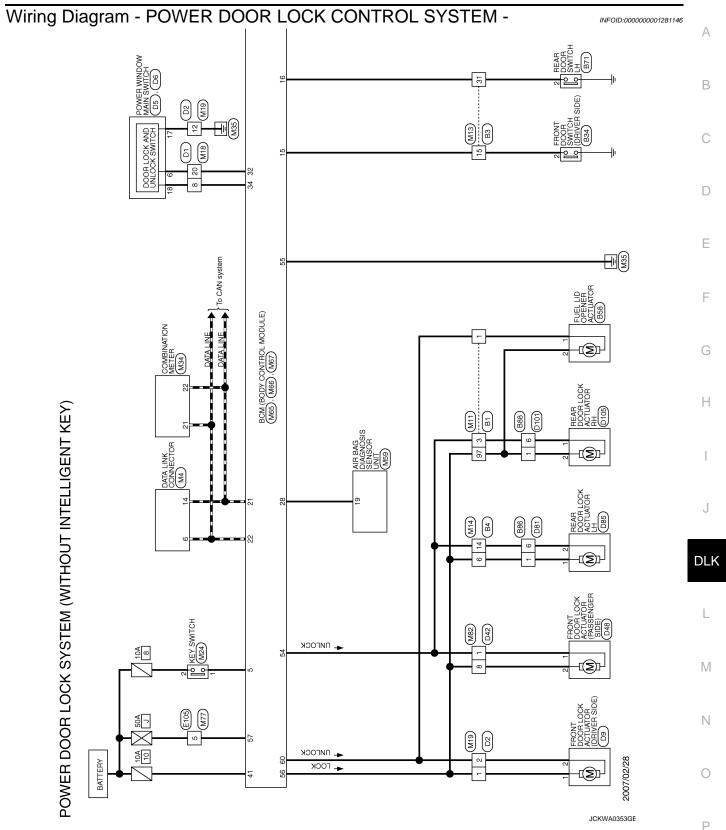
<sup>\*6:</sup> With diesel engine

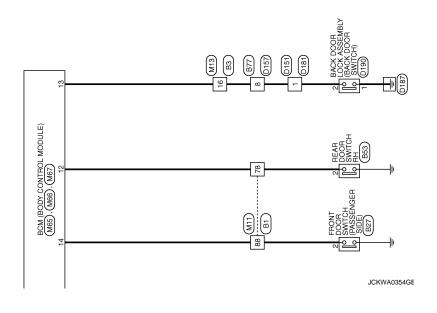
<sup>\*7:</sup> RHD models with side air bag

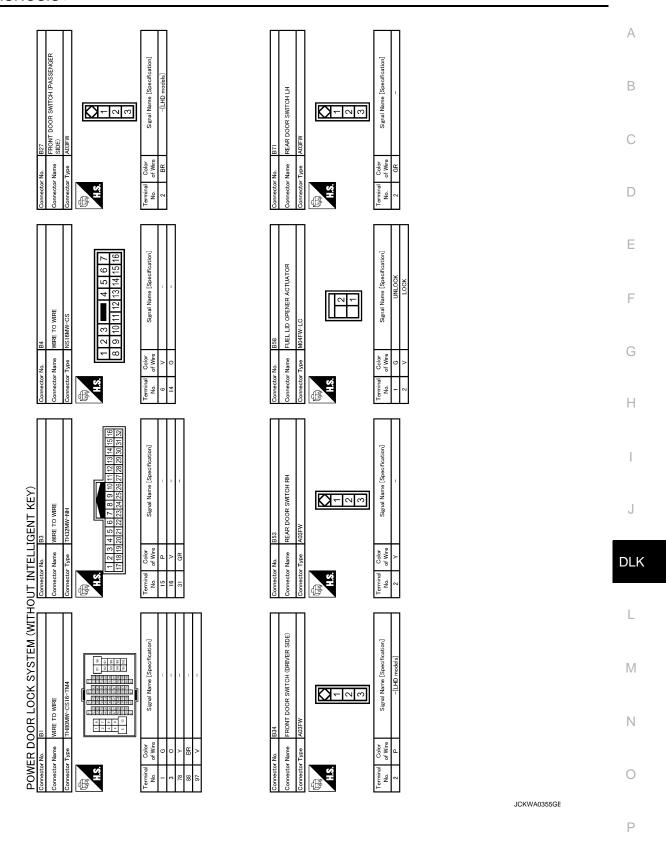
<sup>\*8:</sup> LHD models with side air bag

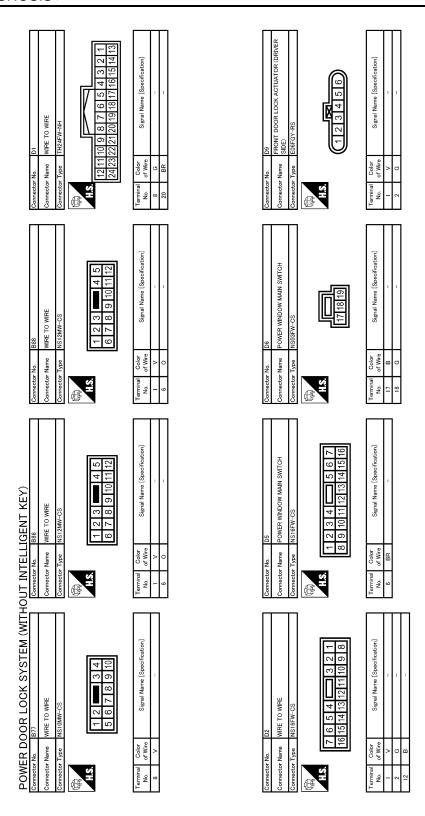
<sup>\*9:</sup> With xenon headlamp and daytime light system

<sup>\*10:</sup> Except with xenon headlamp and daytime light system



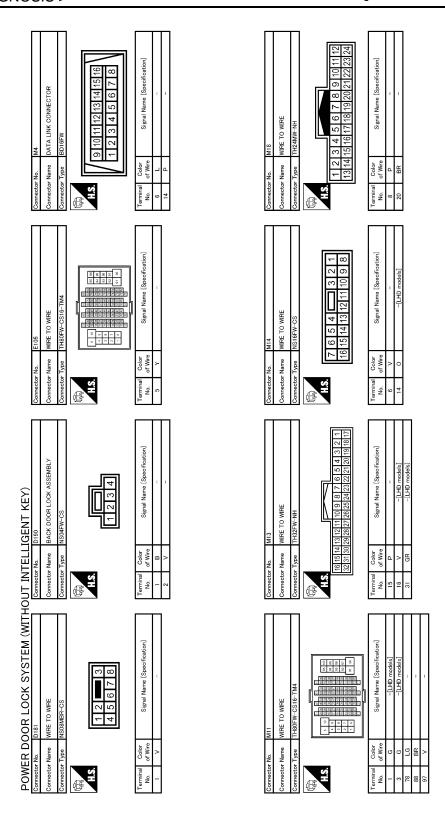




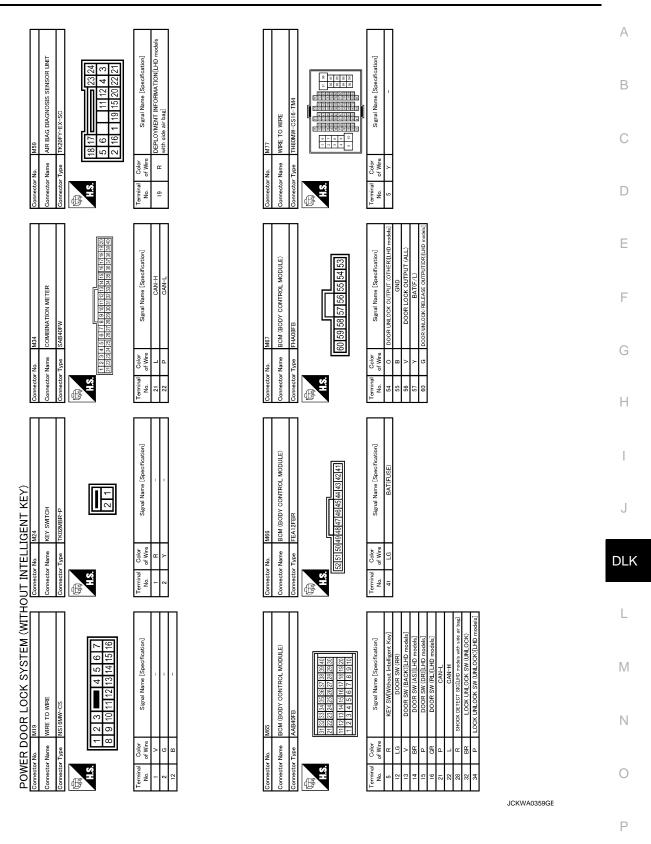


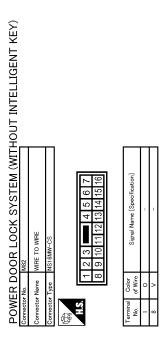
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OR LOCK ACTUATOR LH RS Signal Name [Specification]	АВ
Cornector Name   EEAR DOOR LOCK ACTUATOR LH	C
	E
WITHE TO WITHE   NISTRINGE	F
Connector No.  Connector Name Connector Type  Terminal Color No.  Connector No.  Connector No.  Gornactor No.  Terminal Color	Н
Signal Name [Specification]  Signal Name [Specification]  Signal Name [Specification]  Signal Name [Specification]	I
Connector Name   FRONT DOOR LOOK	DLK
	L
Signal Name [Specification]   Specification]   Signal Name [Specification]   Specification]   Signal Name [Specification]   Specification]   Signal Name [Specification]   Signal Name [Specification]   Specification]   Signal Name [Specification]   Specification]   Spe	M
DOWER DOOR LOCK SYSTEM (WIT Connector Name   D42   D42   D42   D42   D42   D42   D42   D42   D42   D43   D	N O
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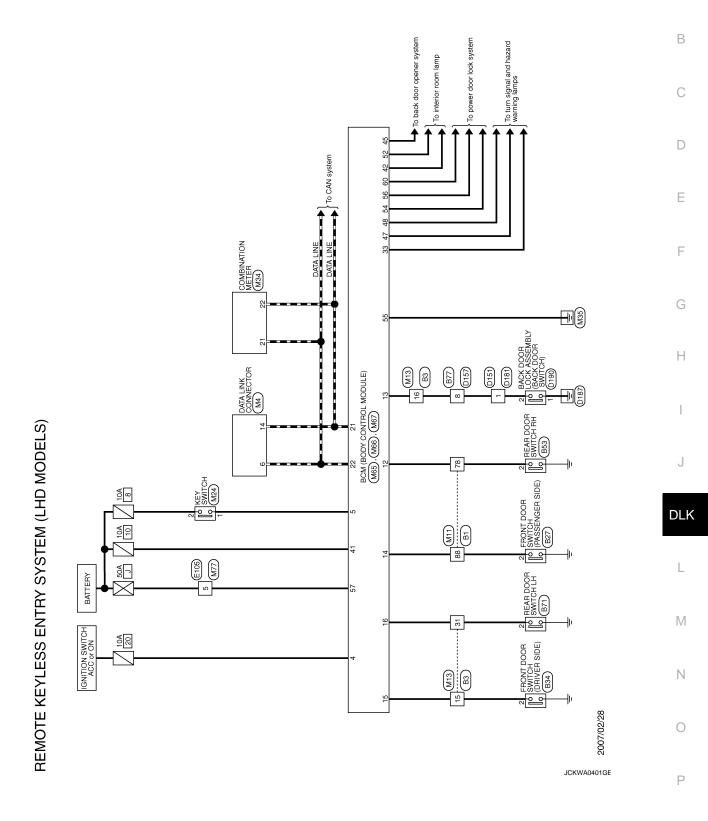


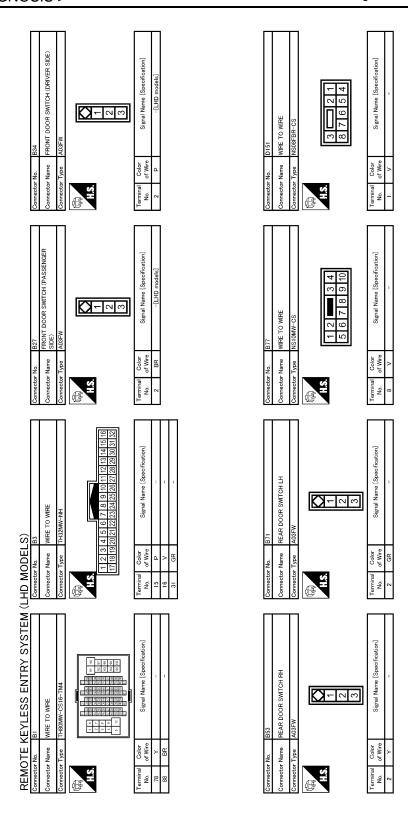
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Wiring Diagram - REMOTE KEYLESS ENTRY CONTROL SYSTEM -

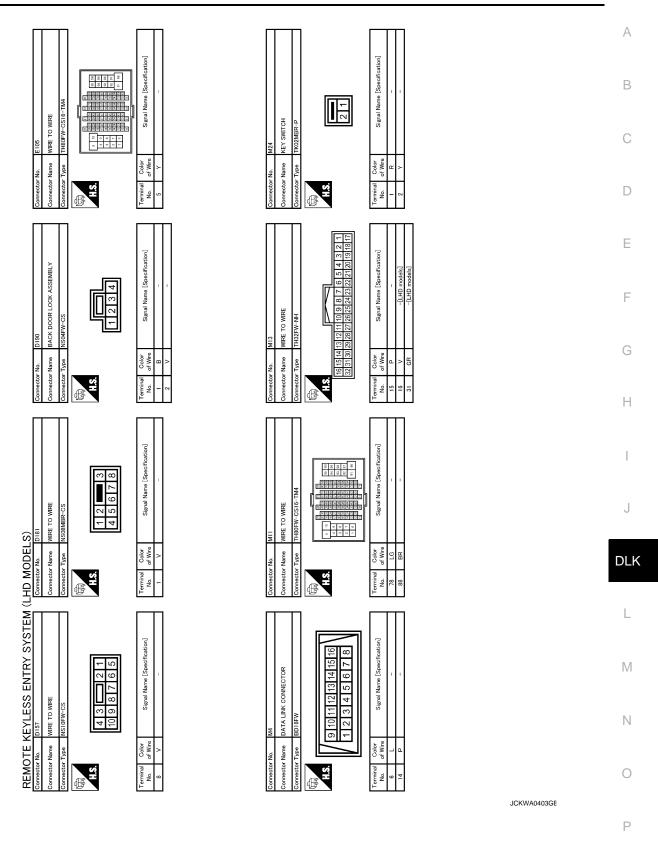
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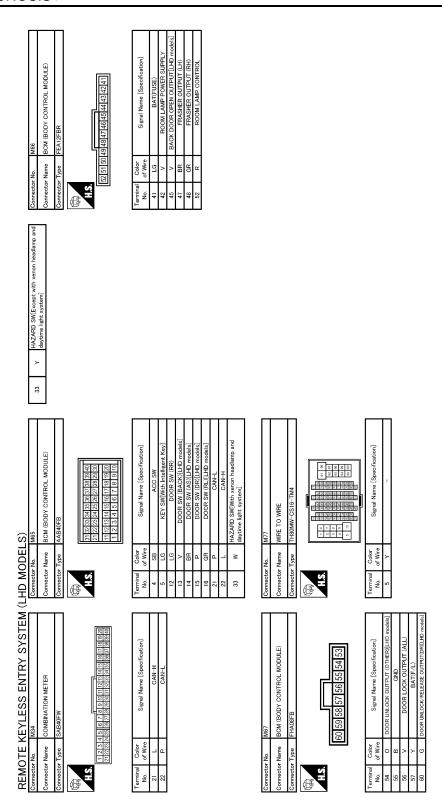
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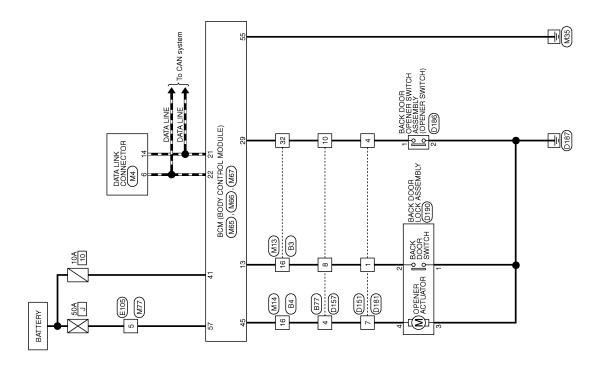
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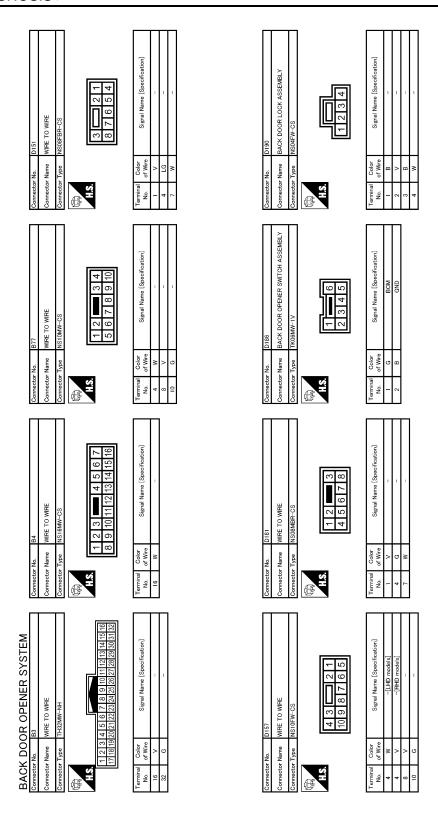
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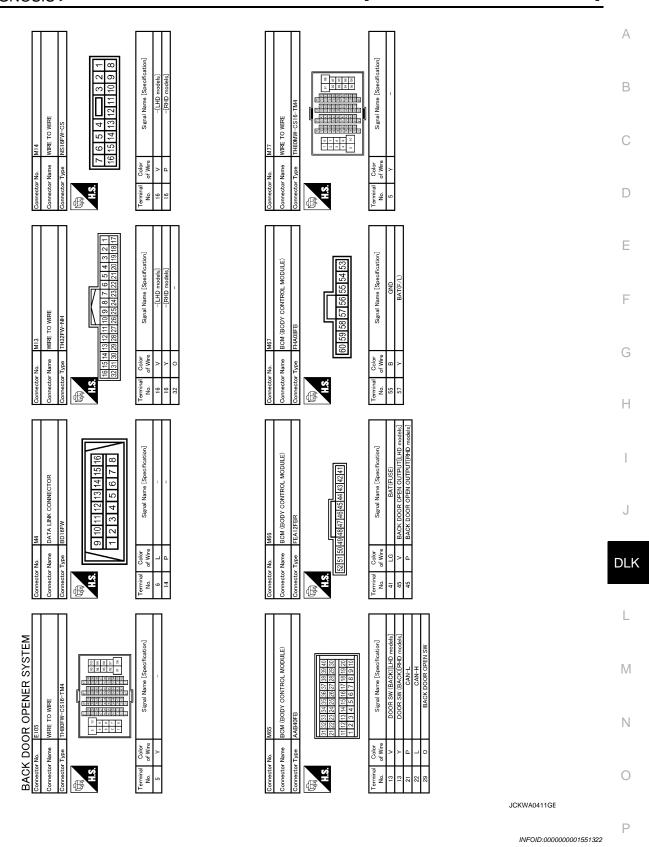
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BACK DOOR OPENER SYSTEM



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Fail Safe

# FAIL-SAFE CONTROL BY DTC

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

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2195: ANTI SCANNING	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2196: DONGLE NG	<ul> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

#### Condition of cancellation

- 1. Turn ignition switch OFF.
- 2. Pass more than 1 minute after the rear wiper stop.
- Turn ignition switch ON.
- 4. Operate the rear wiper switch.

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while activating the hazard warning lamp.

#### FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

#### Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

# DTC Inspection Priority Chart

INFOID:0000000001551323

Priority	DTC				
1	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)				
2	B2190: NATS ANTENNA AMP B2191: DIFFERNCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2194: DISCORD BCM-I-KEY B2195: ANTI SCANNING B2196: DONGLE NG				

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DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF  $\rightarrow$  ON again.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 ightarrow 2 
  ightarrow 3...38 
  ightarrow 39 after returning to the normal condition whenever ignition switch OFF ightarrow ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch  $OFF \rightarrow ON$  after returning to the normal condition if the malfunction is detected again.

DTC	TI	IME	Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	_	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	_	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	With Intelligent Key system: <u>SEC-41</u> Without Intelligent Key system: <u>SEC-254</u>
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	With Intelligent Key system: <u>SEC-43</u> Without Intelligent Key system: <u>SEC-256</u>
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-38</u> Without Intelligent Key system: <u>SEC-251</u>
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-40</u> Without Intelligent Key system: <u>SEC-253</u>
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	<u>SEC-53</u>
B2195: ANTI SCANNING	CRNT	PAST	×	With Intelligent Key system: <u>SEC-54</u> Without Intelligent Key system: <u>SEC-264</u>
B2196: DONGLE NG	CRNT	PAST	×	With Intelligent Key system: <u>SEC-55</u> Without Intelligent Key system: <u>SEC-265</u>

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# SYMPTOM DIAGNOSIS

# **DOOR LOCK**

Symptom Table

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

NO.	Function	Operation condition	Symptom	Diagnostic Item	Reference page
				All doors	DLK-693
	Door lock and			Driver side	DLK-693
1	unlock switch	Press door lock and unlock switch.	Door does not lock/unlock	Passenger side	DLK-694
	function			Rear LH	DLK-694
				Rear RH	DLK-695
2	Key reminder function	Open the door, when mechanical key is inserts into ignition key cylinder.	Key reminder function does not operate	_	DLK-696
3	Auto door lock function	Unlock all doors and wait more than 2 minutes.	Auto door lock operation does not operate	_	DLK-697
4	Vehicle speed sensing auto door lock func- tion	Vehicle speed is more than 25km/h.	Vehicle speed sensing auto door lock operation does not operate	_	DLK-698
5	Back door open- er function	Press back door opener switch.	Back door does not open	_	DLK-699
6	Warning function	Press back door opener switch under the following conditions.  Door is locked with door lock and unlock switch.  Speed sensing lock or only driver side is unlocked with anti-hijack function.	Back door open warning does not operate	_	DLK-700
7	Hazard reminder function	Press Key fob button.	Hazard reminder operation does not operate	_	DLK-701

#### [WITHOUT I-KEY & SUPER LOCK] < SYMPTOM DIAGNOSIS > DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK Α SWITCH **ALL DOOR** В **ALL DOOR: Description** INFOID:0000000001515651 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-597, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) D Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Е Doors are not locked by key fob. ALL DOOR: Diagnosis Procedure INFOID:0000000001515652 F ${f 1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Refer to DLK-629, "BCM: Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. Н 2.CHECK KEY FOB BATTERY Check key fob battery. Refer to DLK-657, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.check door switch DLK Check door switch. Refer to <u>DLK-634</u>, "PASSENGER SIDE: Component Function Check" (passenger side). Refer to DLK-636, "REAR LH: Component Function Check" (rear LH). Refer to DLK-637, "REAR RH: Component Function Check" (rear RH). Refer to <u>DLK-639</u>, "BACK DOOR: Component Function Check" (back door). Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION N Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. DRIVER SIDE **DRIVER SIDE: Description** INFOID:0000000001515653

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

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Except driver side, doors are closed.

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITHOUT I-KEY & SUPER LOCK]

### < SYMPTOM DIAGNOSIS >

- · Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- · Doors are not locked by key fob.

# DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001515654

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-643, "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.

# Is the result normal?

>> Check intermittent incident. Refer to GI-39, "Intermittent Incident". YES

NO >> GO TO 1.

# PASSENGER SIDE

# PASSENGER SIDE : Description

INFOID:0000000001515655

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-597, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

# PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001515656

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (passenger side).

Refer to DLK-644, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

# **REAR LH: Description**

INFOID:0000000001515657

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597, "Work Flow"</u>.
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- · Passenger side door is not in anti-hijack state.

#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITHOUT I-KEY & SUPER LOCK] < SYMPTOM DIAGNOSIS > Doors are not locked by Intelligent Key or door request switch. Α **REAR LH**: Diagnosis Procedure INFOID:0000000001515658 1. CHECK DOOR LOCK ACTUATOR В Check door lock actuator LH. Refer to DLK-645, "REAR LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. $2.\mathsf{confirm}$ the operation D Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. REAR RH F REAR RH: Description INFOID:0000000001515659 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Н Conditions of Vehicle (Operating Conditions) • Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Doors are not locked by Intelligent Key or door request switch. **REAR RH**: Diagnosis Procedure INFOID:0000000001515660 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator RH. DLK Refer to DLK-646, "REAR RH: 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-39, "Intermittent Incident". NO >> GO TO 1. N

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# **KEY REMINDER FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# KEY REMINDER FUNCTION DOES NOT OPERATE

Description INFOID:000000001515675

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-597</u>. "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

• Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

INFOID:0000000001515676

# 1. CHECK DOOR SWITCH

Check door switch.

Refer to <u>DLK-633</u>, "DRIVER SIDE: Component Function Check". (Driver side)

# Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK KEY SWITCH

Check key switch.

Refer to DLK-641, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description

NOTE:

"AUTO RELOCK TIMER" is not OFF when setting on CONSULT-III.

Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597</u>, "Work Flow".
Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Understand the operation when does it work, refer to <u>DLK-607, "AUTO DOOR LOCK: System Description"</u>.
 Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

1 0050// "AUTO LOOK OFT" OFTTING IN "WORK OURRORT"

1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT"

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

Refer to DLK-623, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

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-39, "Intermittent Incident".

NO >> GO TO 1.

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# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITHOUT I-KEY & SUPER LOCK]

< SYMPTOM DIAGNOSIS >

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

Description INFOID:0000000001515679

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-597</u>. "Work Flow".
- Understand the operation when does it work, refer to <u>DLK-610</u>, "VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

INFOID:0000000001515680

# 1. CHECK VEHICLE SPEED SIGNAL

Check vehicle speed signal.

Refer to DLK-656, "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-39, "Intermittent Incident".

NO >> GO TO 1.

# **BACK DOOR DOES NOT OPENED**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

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# BACK DOOR DOES NOT OPENED Α Description INFOID:0000000001515681 NOTE: Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-597. "Work</u> Flow". • Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) · Door lock function is normal. Vehicle speed is less than 5 km/h (3MPH). D All doors are unlocked. Diagnosis Procedure INFOID:0000000001515682 Е 1. CHECK BACK DOOR OPENER SWITCH Check back door opener switch. F Refer to DLK-652, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK BACK DOOR OPENER ACTUATOR Check back door opener actuator. Н Refer to DLK-648, "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-39, "Intermittent Incident". DLK NO >> GO TO 1. Ν

**DLK-699** 

# **BACK DOOR OPEN WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# BACK DOOR OPEN WARNING DOES NOT OPERATE

Description INFOID:000000001515711

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

• Door lock function and back door opener function is normal.

# Diagnosis Procedure

INFOID:0000000001515712

# 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-654, "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-39, "Intermittent Incident".

NO >> GO TO 1.

# HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# HAZARD REMINDER OPERATION DOES NOT OPERATE

Description INFOID:0000000001515715

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-597, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "HAZARD ANSWER BACK" is ON when setting on CONSULT-III.
- · Door lock function is normal.

# **Diagnosis Procedure**

1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

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

Refer to DLK-625, "MULTIREMOTE ENT: CONSULT-III Function (BCM - MULTIREMOTE ENT)".

# Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-625</u>, "<u>MULTIRE-MOTE ENT</u>: <u>CONSULT-III Function (BCM - MULTIREMOTE ENT)"</u>.

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

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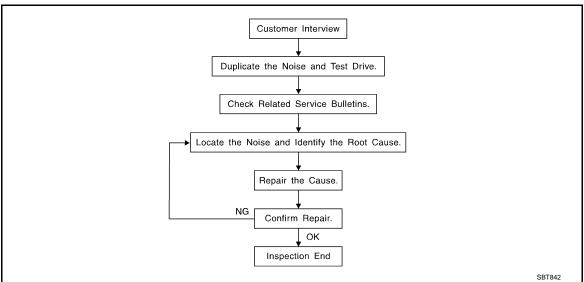
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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of the customer's comments; refer to <a href="DLK-875">DLK-875</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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by a test drive 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 bumble bee)
  Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you 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 you confirm the repair.

SQUEAK AND RATTLE TROUBLE DIAGNOSES [WITHOUT I-KEY & SUPER LOCK] < 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: Α 1) Close a door. 2) Tap or push/pull around the area where the noise appears to be coming from. 3) Rev the engine. В 4) Use a floor jack to recreate vehicle "twist". 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on A/T model). 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer. Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs. If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body. LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE D 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Engine Ear or mechanics stethoscope). Е 2. Narrow down the noise to a more specific area and identify the cause of the noise by: removing the components in the area that you suspect the noise is coming from. Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise. tapping or pushing/pulling the component that you suspect is causing the noise. Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily. feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the placing a piece of paper between components that you suspect are causing the noise. Н looking for loose components and contact marks. Refer to DLK-873, "Inspection Procedure". REPAIR THE CAUSE If the cause is a loose component, tighten the component securely. • If the cause is insufficient clearance between components: - separate components by repositioning or loosening and retightening the component, if possible. - insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape are available through your authorized Nissan Parts Department. **CAUTION:** Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE: URETHANE PADS Insulates connectors, harness, etc. INSULATOR (Foam blocks) Insulates components from contact. Can be used to fill space behind a panel. INSULATOR (Light foam block) FELT CLOTHTAPE Used to insulate where movement does not occur. Ideal for instrument panel applications. The following materials, not available through NISSAN Parts Department, can also be used to repair

squeaks and rattles.

UHMW(TEFLON) TAPE

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use 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.

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

# Inspection Procedure

INFOID:0000000001537525

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

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 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:**

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

#### **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:

- Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks to repair the noise.

#### **TRUNK**

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner.

In addition look for:

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

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

#### SUNROOF/HEADLINING

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

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

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

#### SEATS

When isolating seat noise it is important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- Headrest rods and holder
- A squeak between the seat pad cushion and frame
- 3. Rear seatback lock and bracket

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. 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** 

INFOID:0000000001537526



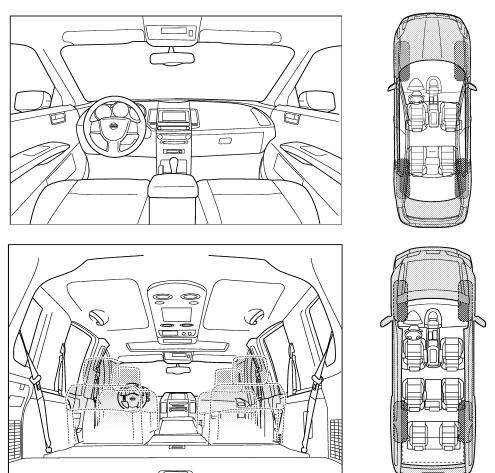
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### Dear Nissan Customer:

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

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

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



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

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# **SQUEAK AND RATTLE TROUBLE DIAGNOSES**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY & SUPER LOCK]

Briefly describe the location where the no	oise occurs:			
II. WHEN DOES IT OCCUR? (please ch	eck the box	es that ap	ply)	
<ul><li>□ anytime</li><li>□ 1st time in the morning</li><li>□ only when it is cold outside</li><li>□ only when it is hot outside</li></ul>	☐ whe	r sitting ou n it is rain or dusty co r:	ing or wet	
III. WHEN DRIVING:	IV. WH	AT TYPE	OF NOISI	Ē
☐ through driveways ☐ over rough roads ☐ over speed bumps	☐ crea	ık (like wa e (like sha	lking on a king a bal	
☐ only about mph ☐ on acceleration ☐ coming to a stop	☐ tick	ck (like a k (like a cloo no (heavy	ck second	•
on turns: left, right or either (circle) with passengers or cargo		z (like a bu		•
☐ other: miles or miles or mi	inutes			
TO BE COMPLETED BY DEALERSHIF Test Drive Notes:	PERSONN	YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive				
<ul><li>Noise source located and repaired</li><li>Follow up test drive performed to confir</li></ul>	m repair	Ш	Ш	
•	Cus			
- Follow up test drive performed to confir	Cusi	e: ———		

# **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. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

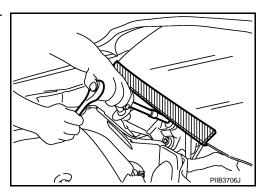
- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation 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 AIRBAG".
- 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.

# Precaution for Procedure without Cowl Top Cover

INFOID:0000000001451783

INFOID:0000000001451784

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.

# [WITHOUT I-KEY & SUPER LOCK]

# **PREPARATION**

# **PREPARATION**

# **Commercial Service Tools**

Tool name		Description	
Engine ear	SIIA0995E	Locating the noise	
Remover tool	PIIB7923J	Remove the clips, pawls, and metal clips	
	F 1107 9230		
Power tool			
	PIIB1407E		

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# **ON-VEHICLE REPAIR**

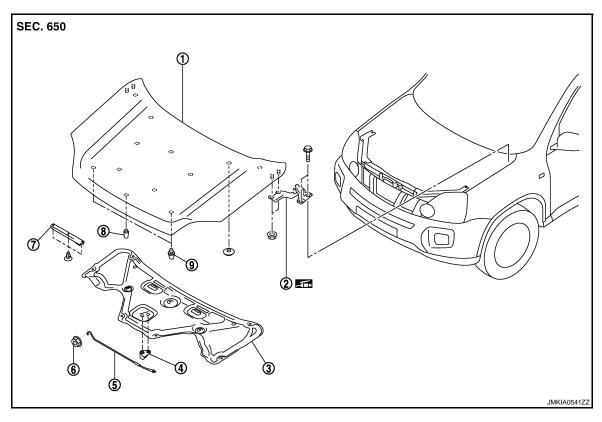
**HOOD** 

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 

INFOID:0000000001451790

### **REMOVAL**



- Hood assembly
- 4. Clamp
- 7. Radiator core seal

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

- Hood hinge
- 5. Hood support rod
- 8. Hood bumper rubber center
- Hood insulator 3.
- 6. Grommet
- Hood bumper rubber side

# **ADJUSTMENT**

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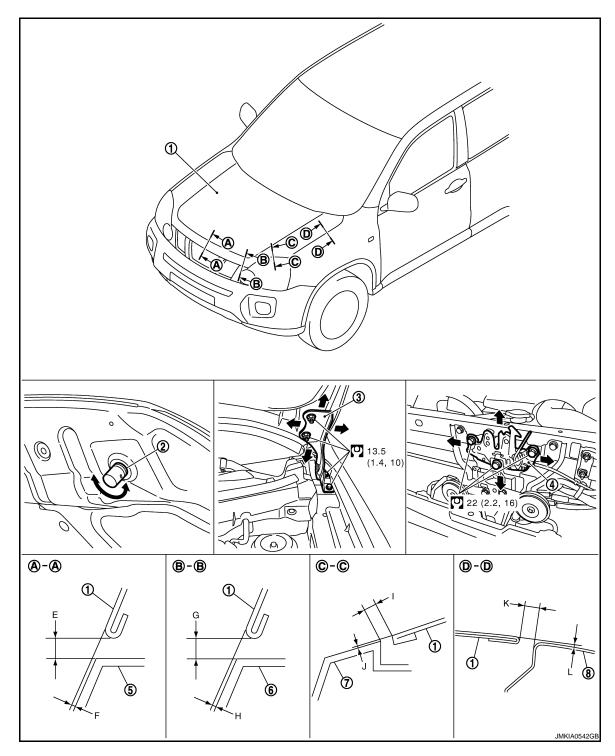
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- Hood assembly
- Hood lock assembly
- Front combination lamp
- Hood bumper rubber side
- Front grille
- Front fender

- 3. Hood hinge
- Front bumper

# **HOOD ASSEMBLY: Removal and Installation**

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

### **REMOVAL**

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

# **DLK-711**

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

2. Remove the hood hinge mounting nuts on the hood to remove the hood assembly.

#### **CAUTION:**

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

- 3. Remove the following parts after removing the hood assembly.
  - Hood insulator
  - Clamp
  - Hood support rod
  - Grommet
  - · Radiator core seal
  - Hood bumper rubber center
  - Hood bumper rubber side

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

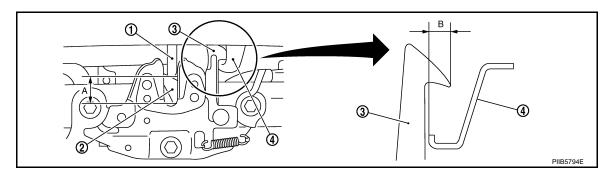
- · Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to <a href="DLK-881">DLK-881</a>, "HOOD ASSEMBLY: Adjustment".

# **HOOD ASSEMBLY: Adjustment**

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Porti	Standard			
Hood – Front grill	A – A	Е	Clearance	4.0 – 8.0 (0.157 – 0.315)
		F	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
	B – B	G	Clearance	4.0 – 8.0 (0.157 – 0.315)
Hood – Front bumper		Н	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Head Front combination laws	C – C		Clearance	1.8 – 6.2 (0.071 – 0.244)
Hood – Front combination lamp		J	Surface height	- 1.3 – 2.7 (- 0.051 – 0.106)
	D – D	K	Clearance	2.6 – 4.6 (0.102 – 0.181)
Hood – Front fender		L	Surface height	- 1.0 – 1.0 (- 0.039 – 0.039)

- 1. Check the clearance and the surface height between the hood and each part by visually and touching. (Fitting standard dimension in the table below should be satisfied.)
- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- 3. In case any parts are out of specification, adjust them according to the procedures shown below.
- 4. Remove the hood lock and adjust the height by rotating the hood bumper rubber side until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.
- 5. Temporarily tighten the hood lock, and position by engaging it with the hood striker. Check the lock and striker for looseness and adjust the clearance and evenness with the striker to satisfy the specification.
- 6. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately. 200 mm (7.87 in) height or by pressing the hood lightly [approximately. 29 N (3 kg)].



Hood striker

Primary latch

Secondary striker

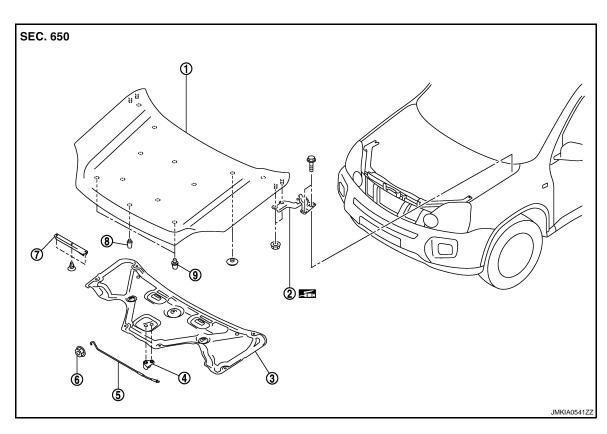
Secondary latch

: 20.0 mm (0.787 in) : 6.8 mm (0.268 in)

7. After adjustment tighten lock bolts to the specified torque.

**HOOD HINGE** 

**HOOD HINGE: Exploded View** 



- 1. Hood assembly
- Clamp 4.
- 7. Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center
- 3. Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

**HOOD HINGE**: Removal and Installation

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

**REMOVAL** 

**DLK-713** 

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- 1. Remove the hood assembly. Refer to DLK-880, "HOOD ASSEMBLY: Removal and Installation".
- 2. Remove the front fender. Refer to <a href="DLK-888">DLK-888</a>, "Removal and Installation".
- 3. Remove the hood hinge mounting bolts, and then remove the hood hinge.

#### INSTALLATION

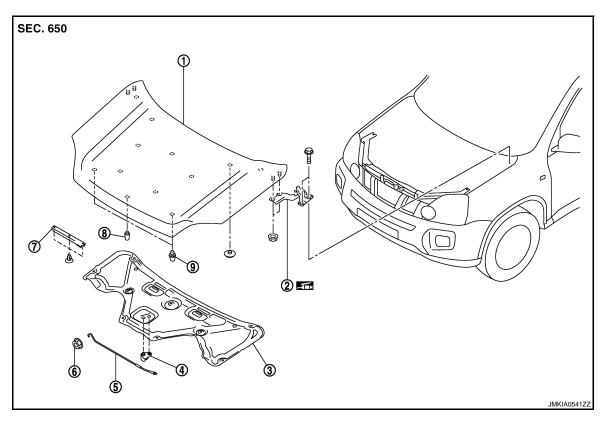
Install in the reverse order of removal.

#### **CAUTION:**

- Before installation of hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts and nuts.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjustment".</u>

# HOOD SUPPORT ROD

# **HOOD SUPPORT ROD: Exploded View**



- Hood assembly
- 4. Clamp
- 7. Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- 8. Hood bumper rubber center
- Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

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

# HOOD SUPPORT ROD: Removal and Installation

#### **REMOVAL**

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

#### **WARNING:**

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

2. Remove the hood support rod from the grommet.

#### INSTALLATION

### **DLK-714**

Install in the reverse order of removal.

# HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 



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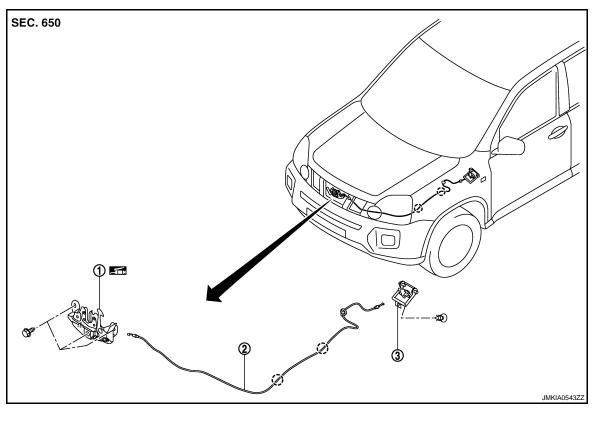
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1. Hood lock assembly

2. Hood lock control cable

3. Hood lock opener

( ) :Clip

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

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

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#### **REMOVAL**

Remove the hood lock opener mounting bolts, and then remove the hood lock opener.

- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- 3. Remove the fender protector. Refer to EXT-21, "Removal and Installation".
- 4. Remove the hood lock mounting bolts, and then remove the hood lock.
- 5. Disconnect the hood lock cable from hood lock, and clip it from the hoodledge.
- Remove the grommet on the dash lower panel, and pull the hood lock control cable toward the passenger compartment.

**DLK-715** 

#### **CAUTION:**

While pulling, do not to damage (peeling) the outside of the hood lock control cable.

#### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

Do not to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.

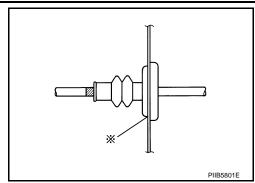
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Check that the cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \*mark) properly.



- Check that the hood lock control cable is properly engaged with the hood lock.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-ment"</u>.
- After installation, perform the hood lock control inspection. Refer to <u>DLK-885, "HOOD LOCK CONTROL</u>: Inspection".

# HOOD LOCK CONTROL: Inspection

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#### NOTE:

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

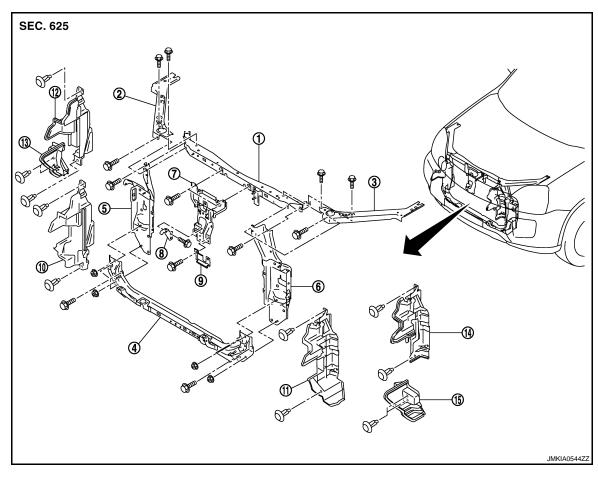
- Check that the secondary latch is properly engaged with the secondary striker [6.8 mm (0.268 in) shown in the figure] by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20.0 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is condition 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:

- Exert 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:0000000001451801



- Radiator core support upper center
- Radiator core support lower
- Hood lock support stay assembly 7.
- 10. Air guide RH
- 13. Air guide lower RH (M9R model)
- 2. Radiator core support upper RH
- 5. Radiator core support side RH
- Front bumper fascia center bracket
- 11. Air guide LH
- Air guide upper LH (M9R model)
- 3. Radiator core support upper LH
- 6. Radiator core support side LH
- Sensor bracket 9.
- 12. Air guide upper RH (M9R model)
- 15. Air guide lower LH (M9R model)

#### Removal and Installation

#### REMOVAL

- Remove the front bumper fascia and the energy absorber. Refer to EXT-13, "Removal and Installation". 1.
- 2. Remove the bumper reinforcement. Refer to EXT-13, "Removal and Installation".
- Disconnect the liquid tank connector. Refer to HA-66, "Exploded View". 3.
- Remove the front combination lamp. Refer to EXL-213, "Removal and Installation" (XENON TYPE), EXL-409, "Removal and Installation" (HALOGEN TYPE).
- Remove the washer tank. Refer to WW-104, "Removal and Installation".
- Remove the air inlet hose (LH) and air inlet tube (LH). Refer to EM-266, "Exploded View" (M9R model). 6.
- 7. Remove the charge air cooler. Refer to EM-266, "Removal and Installation" (M9R model).
- Disconnect the hood lock control cable clamp, and then remove the hood lock assembly. Refer to DLK-884, "HOOD LOCK CONTROL: Removal and Installation".
- Remove the air guide mounting clips, and remove the air guide (LH/RH).
- 10. Remove the horn. Refer to HRN-6, "Removal and Installation".

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### RADIATOR CORE SUPPORT

# < ON-VEHICLE REPAIR >

[WITHOUT I-KEY & SUPER LOCK]

- 11. Remove the Intelligent Key warning buzzer (with Intelligent Key systems). Refer to <u>DLK-298</u>, "Removal and Installation".
- 12. Disconnect the harness clips from the hood lock stay.
- 13. Remove the hood lock stay mounting bolts, and then remove the hood lock stay.
- 14. Remove the crush zone sensor. Refer to SR-15, "Removal and Installation".
- 15. Place securely the hood support rod inside the engine mounting bracket hole. **CAUTION:**

#### Check that the hood is securely fix.

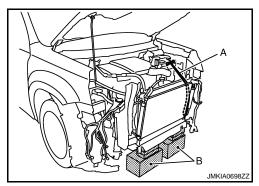
- 16. Remove the radiator core support upper side (RH,LH) mounting bolts, and remove the radiator core support side (RH,LH).
- 17. Remove the radiator core support upper center mounting bolts, and remove the radiator core support upper center.
- 18. Disconnect the harness clamp from radiator core support side (LH).
- 19. Remove the radiator core support lower assembly mounting bolts.
- 20. Remove the radiator core support lower assembly while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.
  CAUTION:

### Operate with two workers, because of its heavy weight.

21. Put some wooden blocks (B) under the radiator and condenser, and use a rope (A) to suspend it to prevent it from falling.

CAUTION:

Operate with two workers, because of its heavy weight.



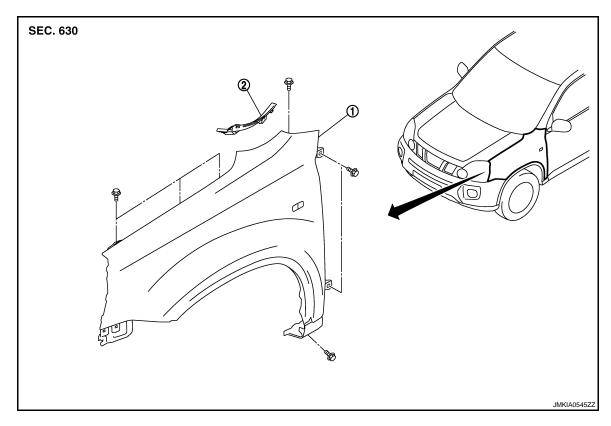
22. Remove the radiator core support side (RH,LH) mounting nuts, and remove the radiator core support side (RH,LH) from radiator core support lower.

#### INSTALLATION

Install in the reverse order of removal.

# FRONT FENDER

**Exploded View** INFOID:0000000001451803



1. Front fender Front fender finisher

# Removal and Installation

**REMOVAL** 

Remove the fillet molding. Refer to EXT-24, "Removal and Installation".

- Remove the front grille. Refer to EXT-18, "Removal and Installation".
- Remove the front bumper fascia. Refer to EXT-13, "Removal and Installation". 3.
- Remove the front combination lamp. Refer to EXL-213, "Removal and Installation" (XENON TYPE), EXL-409, "Removal and Installation" (HALOGEN TYPE).
- 5. Remove the inner fender protector. Refer to EXT-21, "Removal and Installation".
- 6. Remove the front fender finisher.
- Remove the side turn signal lamp. Refer to EXL-222, "Removal and Installation".
- Remove the mounting bolts and remove the front fender. **CAUTION:**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- After installation, check the front fender adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-</u> ment" and DLK-891, "DOOR ASSEMBLY: Adjustment".
- After installation, apply the touch-up paint (the body color) onto the head of the front fender mounting bolts.

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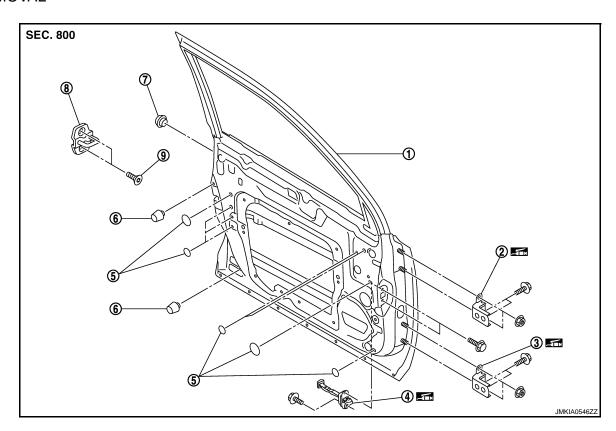
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# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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### **REMOVAL**



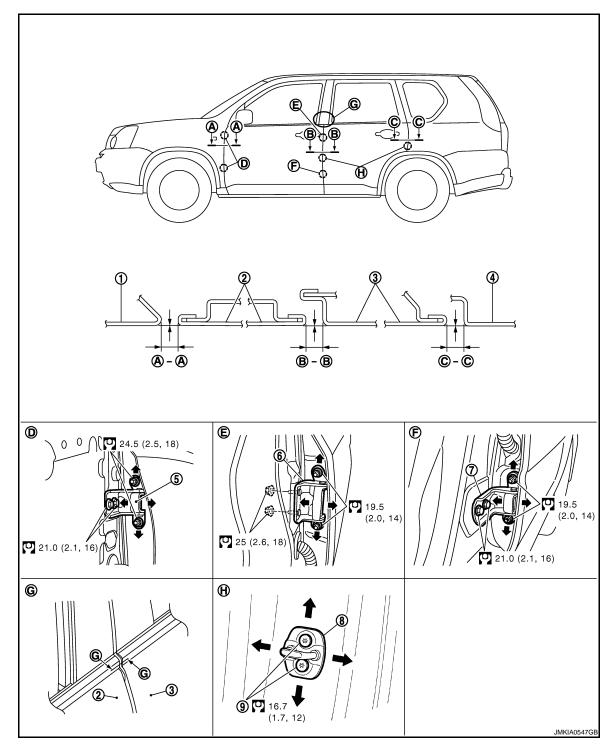
- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Sea
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# **ADJUSTMENT**



- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (lower)
- 2. Front door
- 5. Front door hinge
- Door striker

- 3. Rear door
- 6. Rear door hinge (upper)
- 9. TORX bolt

2005 4005MDDV B

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

# DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

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

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### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-891</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR ASSEMBLY : Adjustment

INFOID:0000000001451807

#### CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

Portion		Clearance	Surface height
Front fender – Front door	A – A	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	B – B	3.5 – 5.5 (0.138 – 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	- 1.0 – 1.0 (- 0.039 – 0.039)

- 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 shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the front fender. Refer to refer to DLK-888, "Removal and Installation".
- Loosen the door hinge mounting nuts on door side.
- 5. Adjust the surface height and surface mismatch of the front door according to the fitting standard dimension.
- 6. Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the door hinge mounting bolts on body side.
- 8. 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 refer to DLK-888, "Removal and Installation".

#### **CAUTION:**

After installation, check the front fender adjustment. Refer to <u>DLK-891, "DOOR ASSEMBLY:</u> Adjustment".

#### DOOR STRIKER ADJUSTMENT

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

#### DOOR STRIKER

DOOR STRIKER: Exploded View

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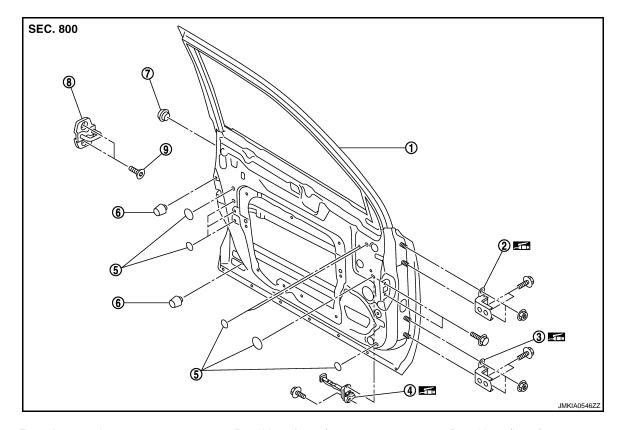
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

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#### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-891, "DOOR ASSEMBLY: Adjustment"</u>.

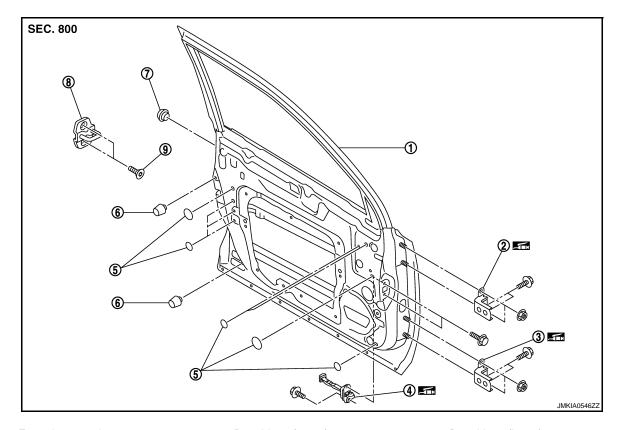
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DOOR HINGE: Exploded View

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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

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#### **REMOVAL**

- 1. Remove the front door assembly. Refer to <u>DLK-890. "DOOR ASSEMBLY: Removal and Installation"</u>.
- 2. Remove the door hinge mounting bolts, and then remove the front door hinge.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-891</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR CHECK LINK

DOOR CHECK LINK: Exploded View

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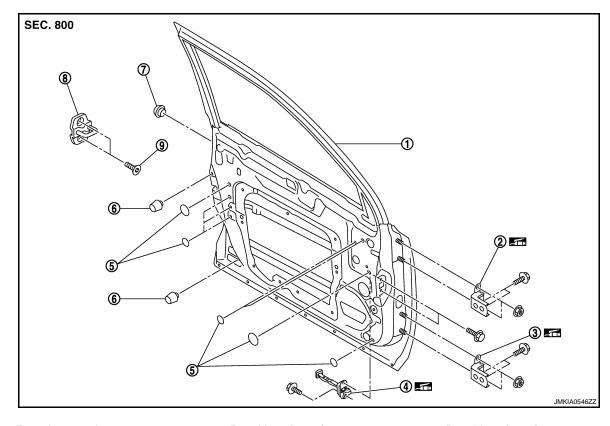
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

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# REMOVAL

- Fully close the front door window.
- 2. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 3. Remove the front door speaker. Refer to AV-38, "Removal and Installation".
- 4. Remove the mounting bolts of the door check link on the vehicle.
- 5. Remove the mounting bolts of the door check link on the door panel.
- Take the door check link out from the hole of the door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the front door open/close operation after installation.

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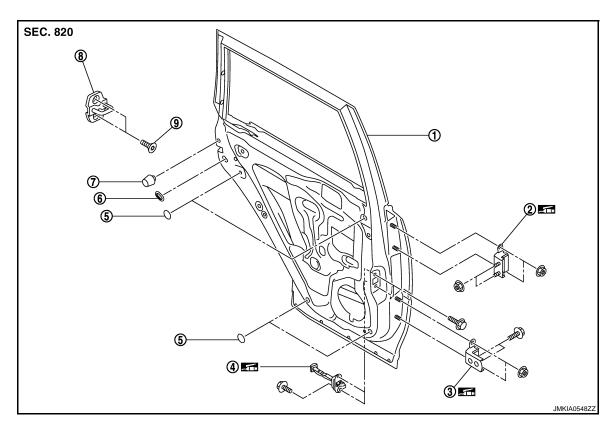
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# REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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# **REMOVAL**

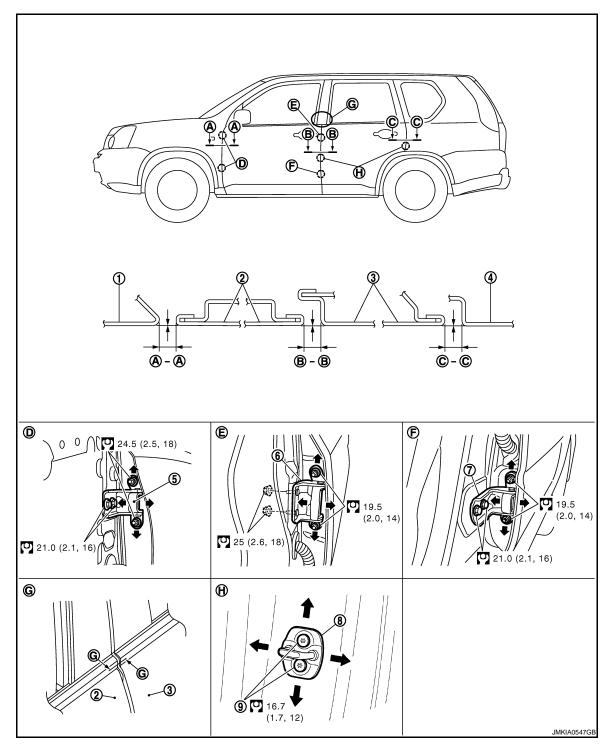


- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber

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

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker
- o. Seal
- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

## **ADJUSTMENT**



- Front fender
- Body side outer 4.
- Rear door hinge (lower)
- 2. Front door
- Front door hinge
- Door striker

- 3. Rear door
- 6. Rear door hinge (upper)
- 9. TORX bolt

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

# DOOR ASSEMBLY: Removal and Installation

# **CAUTION:**

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

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#### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door lock/unlock operation after installation.
- Check the rear door open/close operation after installation.
- · Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-897, "DOOR ASSEMBLY: Adjust-ment".</u>
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

DOOR ASSEMBLY : Adjustment

INFOID:0000000001451818

#### CLEARANCE. SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

Portion		Clearance	Surface height
Front door – Rear door	B – B	3.5 – 5.5 (0.138 – 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Rear door – Body side outer	C – C	3.5 – 5.5 (0.138 – 0.217)	-1.0 - 1.0 (-0.039 - 0.039)
Front door – Rear door	<b>G</b> – <b>G</b>	3.0 - 6.0 (0.118 - 0.236)	-1.5 - 1.5 (-0.059 - 0.059)

- 1. Check the clearance and surface height and surface mismatch between the rear door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the center pillar lower garnish. Refer to INT-16, "Removal and Installation".
- 4. Loosen the door 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 door hinge mounting nuts and bolts on body side.
- 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 lower garnish. Refer to INT-16, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

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

# DOOR STRIKER

# DOOR STRIKER: Exploded View

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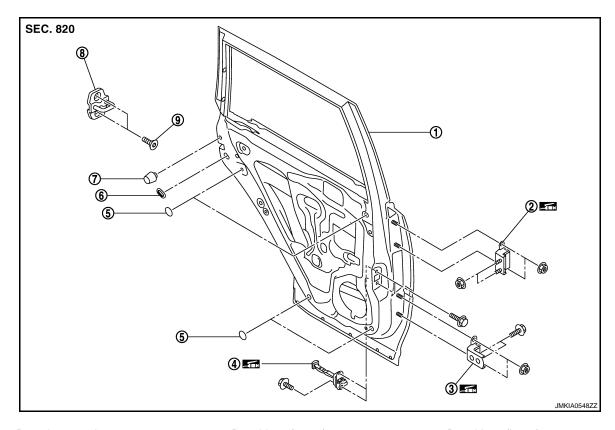
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001451820

#### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-897, "DOOR ASSEMBLY: Adjustment"</u>.

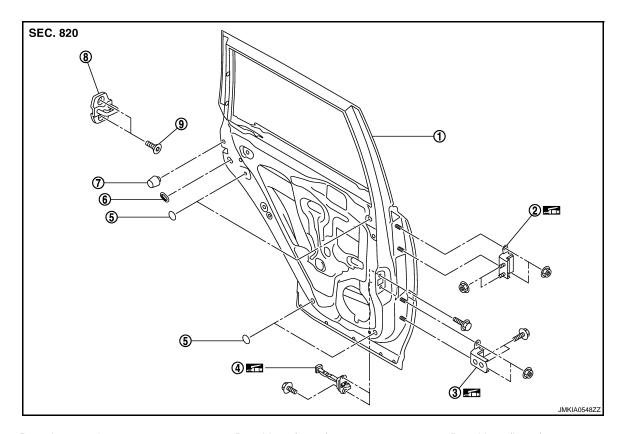
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DOOR HINGE: Exploded View

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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker
- Refer to GI-4, "Components" for symbols in the figure.

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

# DOOR HINGE: Removal and Installation

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#### **REMOVAL**

- Remove the center pillar lower garnish. Refer to <u>INT-16, "Removal and Installation"</u>.
- 2. Remove the rear door assembly. Refer to <a href="DLK-896">DLK-896</a>, "DOOR ASSEMBLY: Removal and Installation".
- 3. Remove the rear door hinge mounting bolts and nuts (body side), and then remove the door hinge.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the rear door assembly, perform the fitting adjustment. Refer to <u>DLK-897</u>, "DOOR ASSEMBLY: Adjustment".
- After installing, apply the touch-up paint (the body color) onto the head of the hinge mounting nuts.
   DOOR CHECK LINK

# DOOR CHECK LINK: Exploded View

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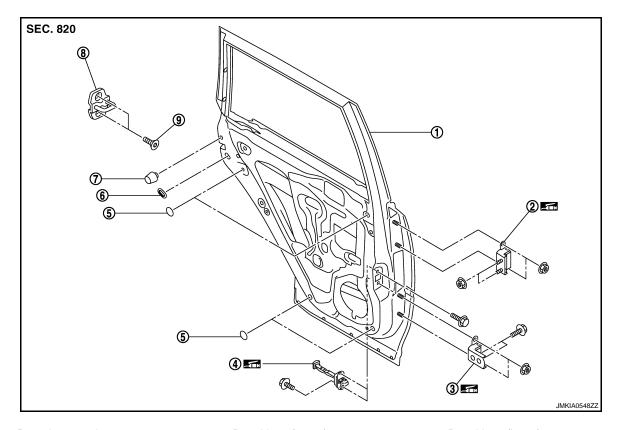
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001451826

#### **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the rear door speaker.
- 3. Remove the mounting bolts of the check link on the vehicle.
- 4. Remove the door check link mounting bolts on the door panel.
- 5. Remove the door check link.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check front door open/close operation after installation.

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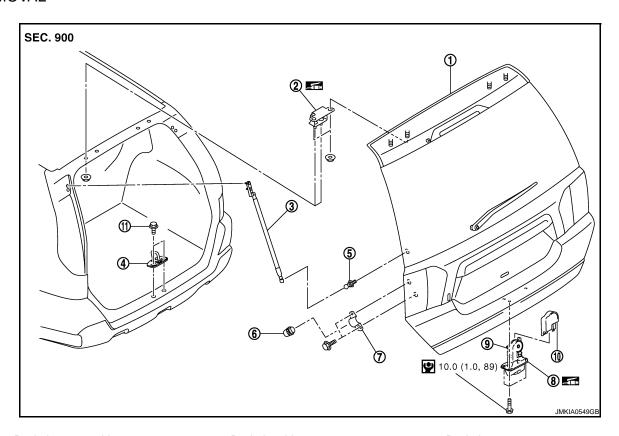
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# **BACK DOOR BACK DOOR ASSEMBLY**

BACK DOOR ASSEMBLY: Exploded View

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# **REMOVAL**



- 1. Back door assembly
- Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)

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

- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- Back door stay
- 6. Bumper rubber
- Emergency lever 9.

# **ADJUSTMENT**

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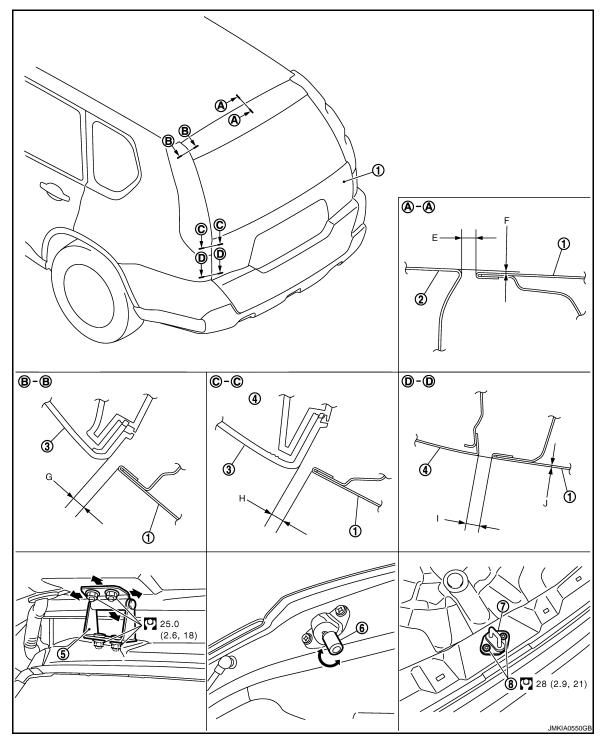
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- Back door
- Body side outer
- Back door striker
- 2. Roof
- Back door hinge
- TORX bolt

3.

Rear combination lamp

Bumper rubber

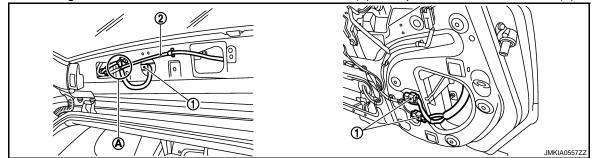
Refer to GI-4, "Components" for symbols in the figure.

# BACK DOOR ASSEMBLY: Removal and Installation

# **REMOVAL**

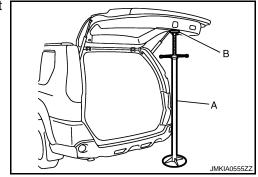
- Remove the back door finisher inner (upper, lower, side LH). Refer to INT-31, "Removal and Installation".
- Disconnect the connectors in the back door, and then remove the grommet, and pull out the harness.

3. Remove the grommet, and then disconnect the connectors (1), and pull out the washer tube (2) at (A).



- 4. Pull the harness out of the back door.
- Support the back door lock with the proper material to prevent it from falling.

A : JackB : Shop cloth



- 6. Remove the back door stay bracket mounting bolts on the back door.
- Remove the back door hinge mounting nuts on the back door and remove the back door assembly. CAUTION:

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

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the back door lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-903</u>, "<u>BACK DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".

# BACK DOOR ASSEMBLY : Adjustment

INFOID:0000000001451829

				mm(in)
Portion				Standard
Back door panel – Roof panel	<b>A</b> – <b>A</b>	Е	Clearance	5.0 - 7.0 (0.197 - 0.276)
Back door parier – Roor parier	A-A	F	Surface height	-0.3 – 1.7 (-0.012 – 0.067)
Back door panel – Rear combination lamp		G	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Rear combination lamp		H	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Body side outer		- 1	Clearance	5.0 - 7.0 (0.197 - 0.276)
		J	Surface height	-1.0 - 1.1 (0.039 - 0.043)

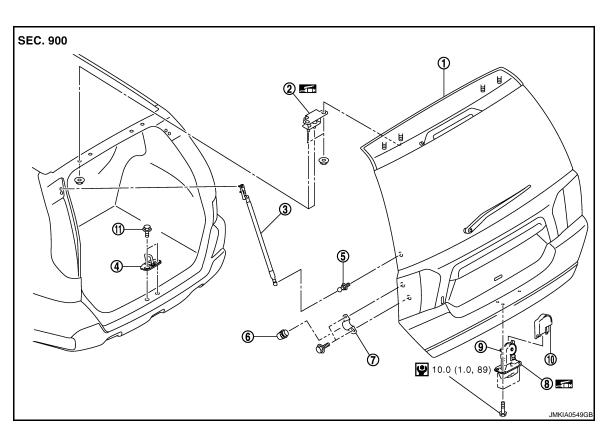
#### FITTING ADJUSTMENT

- 1. Check the clearance and the evenness between the back door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Loosen the bumper rubber.
- Loosen the back door striker mounting bolts.

- Lift up the back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with the back door closed.
- Check the clearance and evenness.
- Finally tighten the back door striker.

# BACK DOOR STRIKER

# BACK DOOR STRIKER: Exploded View



- Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- Back door stay stud ball

2.

Back door lock assembly

Back door hinge

- 11. TORX bolt

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

### Back door stay

- 6. Bumper rubber
- **Emergency lever**

# BACK DOOR STRIKER: Removal and Installation

#### REMOVAL

Remove the TORX bolts, and then remove the back door striker.

#### INSTALLATION

Install in the reverse order of removal.

## **CAUTION:**

- Check the back door open/close operation after installation.
- When removing and installing the back door striker, be sure to perform the fitting adjustment. Refer to DLK-903, "BACK DOOR ASSEMBLY: Adjustment".

# **BACK DOOR HINGE**

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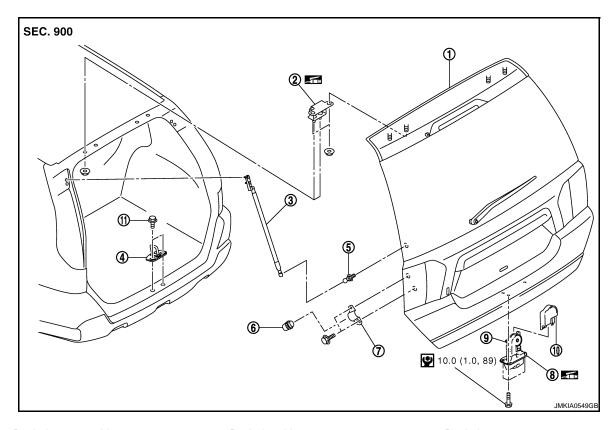
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**BACK DOOR HINGE: Exploded View** 

INFOID:0000000001451833



- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)

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

- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber 6.
- 9. **Emergency lever**

# BACK DOOR HINGE: Removal and Installation

INFOID:0000000001451834

# **REMOVAL**

- 1. Remove the back door assembly. Refer to DLK-902, "BACK DOOR ASSEMBLY: Removal and Installa-
- 2. Remove the back door weather-strip. Refer to <u>DLK-907</u>, "BACK <u>DOOR WEATHER-STRIP</u>: Removal and Installation".
- 3. Remove the luggage side lower finisher. Refer to <a href="INT-28">INT-28</a>, "Removal and Installation".
- 4. Remove the luggage side upper finisher. Refer to <a href="INT-28">INT-28</a>. "Removal and Installation".
- Using remover tool, remove the headlining clip at the rear side of the headlining. Refer to INT-22, "NOR-MAL ROOF: Exploded View" (NORMAL ROOF), INT-25, "SUNROOF: Exploded View" (SUNROOF).
- Remove the rear side of the headlining.
- Remove the back door hinge mounting nuts (body side), and then remove the back door hinge.

## INSTALLATION

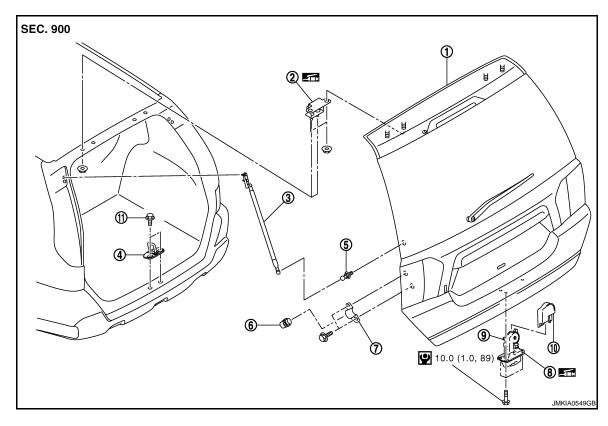
Install in the reverse order of removal.

#### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the back door assembly, perform the fitting adjustment. Refer to DLK-903, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.

# **BACK DOOR STAY**

BACK DOOR STAY: Exploded View



- 1. Back door assembly
- Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- 9. Emergency lever

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

# BACK DOOR STAY: Removal and Installation

#### **REMOVAL**

- 1. Remove the mounting bolts (body side), and then remove the back door stay bracket.
- 2. Remove the stud ball (back door side), and then remove the back door stay.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door open/close operation after installation.

BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP: Exploded View

**REMOVAL** 

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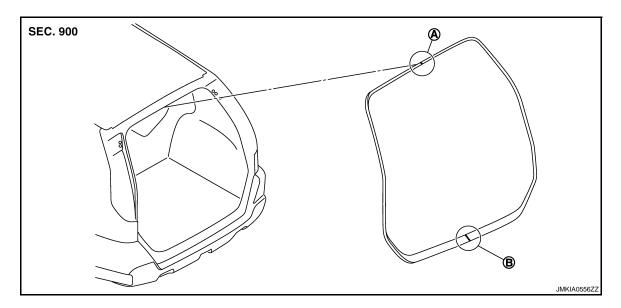
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- 1. Back door weather-strip
- A. Mark (upper)
- B. Mark (lower)

# BACK DOOR WEATHER-STRIP: Removal and Installation

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#### **REMOVAL**

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

#### **CAUTION:**

After removal, do not pull strongly on the weather-strip.

#### INSTALLATION

- 1. Working from the upper section, align the weather-strip mark with vehicle center position mark and install the weather-strip onto the vehicle.
- 2. For the lower section, align the weather-strip seam with center of the back door striker.
- 3. After installation, pull the weather-strip gently to ensure that there is no loose section. **NOTE:** 
  - Make sure that the weather-strip is fit tightly at each corner and the luggage rear plate.

# FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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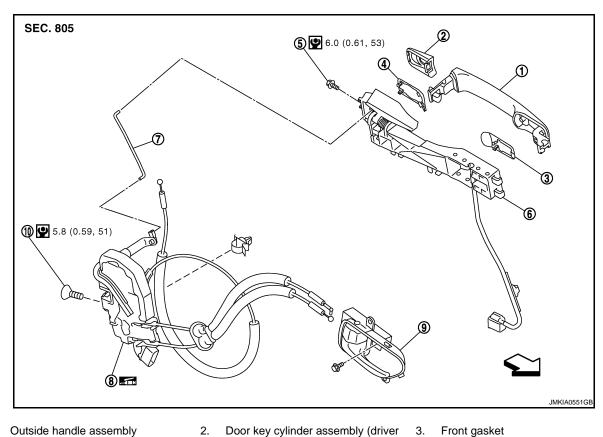
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Outside handle assembly

Door key cylinder assembly (driver side)

Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod

**REMOVAL** 

- 10. TORX bolt
- :Vehicle front

- 5. TORX bolt
- Door lock assembly

Outside handle bracket

9. Inside handle

6.

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

#### DOOR LOCK: Removal and Installation

Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation". 1.

- Disconnect the inside handle knob cable and the lock knob cable.
- Remove the front door glass. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>".
- Remove the front door module assembly. Refer to GW-17, "Exploded View".
- Disconnect the door antenna and the door request switch connector and remove the harness clamp Р 5. (models with Intelligent Key system).

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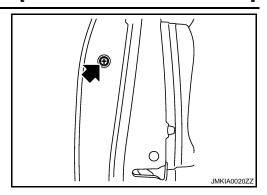
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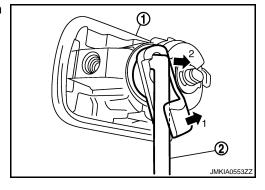
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Remove the door side grommet, and loosen the TORX bolt. CAUTION:

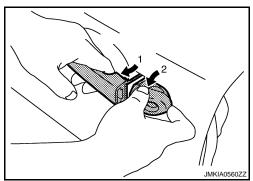
Do not forcibly remove the TORX bolt.



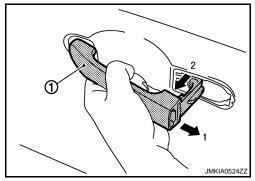
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



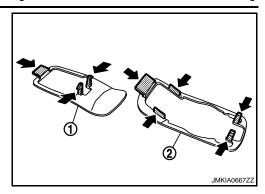
8. While pulling the outside handle, remove door key cylinder assembly.



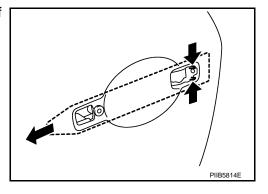
- 9. Disconnect front door request switch harness connector (models with Intelligent Key system).
- 10. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly TORX bolts.
- 15. Disconnect the door lock actuator connector, and then remove the door lock assembly.
- 16. Remove the key rod from door lock assembly.

# **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **INSIDE HANDLE**

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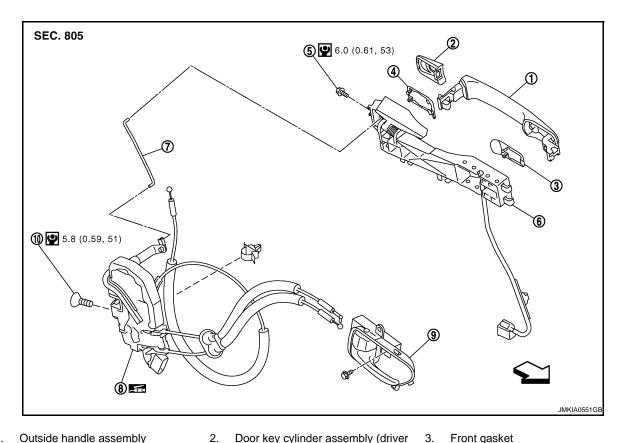
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# **INSIDE HANDLE: Exploded View**

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- Outside handle assembly
- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod
- 10. TORX bolt
- < > :Vehicle front

- 5. TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

# INSIDE HANDLE: Removal and Installation

#### **REMOVAL**

- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Remove the inside handle mounting bolts.
- Disconnect the inside handle knob cable and the lock knob cable, and then remove the inside handle.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# **OUTSIDE HANDLE**

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# **OUTSIDE HANDLE: Exploded View**

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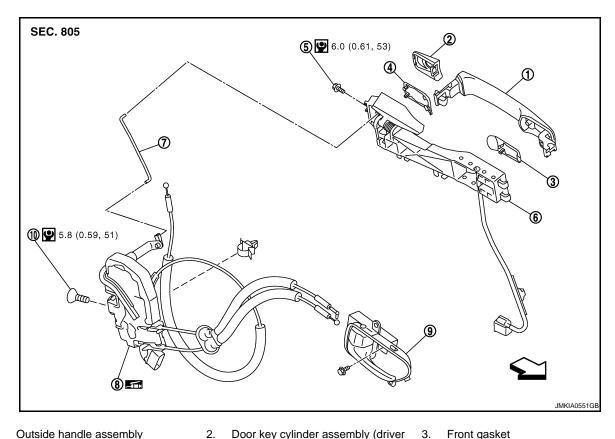
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- Outside handle assembly
- Door key cylinder assembly (driver Outside handle escutcheon (passen-
- ger side) 5. TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

- 4. Rear gasket
- Key rod 7.
- 10. TORX bolt
- :Vehicle front

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

# **OUTSIDE HANDLE: Removal and Installation**

INFOID:0000000001451847

#### **REMOVAL**

- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- Remove the front door module assembly. Refer to <u>GW-17</u>, "<u>Exploded View</u>".
- Disconnect the connector and remove the harness clamp (models with Intelligent Key system).

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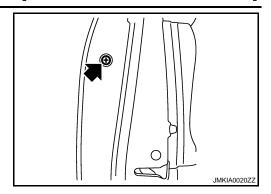
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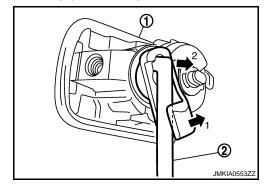
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Remove the door side grommet, and loosen the TORX bolt. CAUTION:

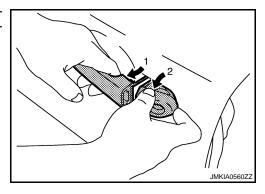
Do not forcibly remove the TORX bolt.



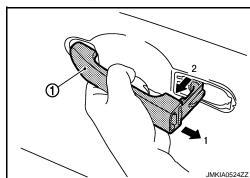
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



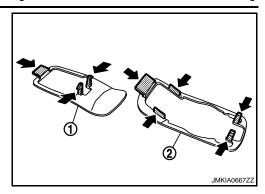
- 8. Disconnect the door key cylinder switch harness connector.
- While pulling the outside handle, remove the door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



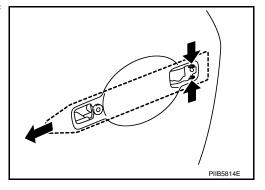
- 10. Disconnect the front door request switch harness connector (models with Intelligent Key system).
- 11. While pulling the outside handle, slide toward rear of vehicle to remove the outside handle (1).



12. Remove the front gasket (1) and rear gasket (2).



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



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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

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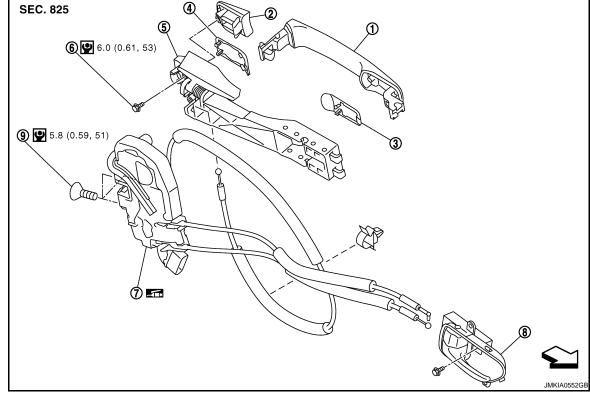
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# **REAR DOOR LOCK** DOOR LOCK

**DOOR LOCK: Exploded View** 

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- Outside handle assembly
- 4. Rear gasket
- Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket 3.
- TORX bolt
- TORX bolt

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

# DOOR LOCK: Removal and Installation

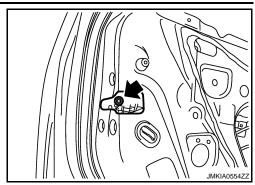
**REMOVAL** 

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to GW-17, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.

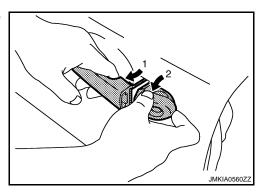
# **REAR DOOR LOCK**

# [WITHOUT I-KEY & SUPER LOCK]

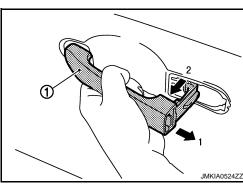
8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



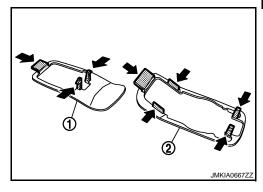
9. While pulling the outside handle, remove the outside handle escutcheon.



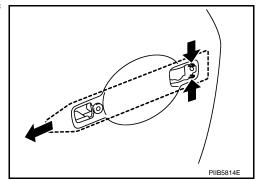
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



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- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly.

#### INSTALLATION

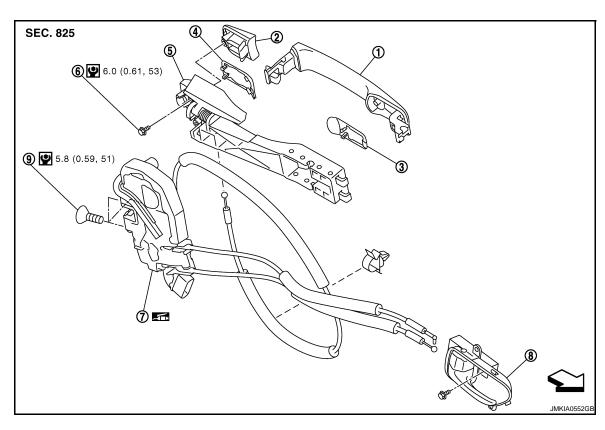
Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

## **INSIDE HANDLE**

# INSIDE HANDLE: Exploded View



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

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

# **INSIDE HANDLE:** Removal and Installation

INFOID:0000000001451852

# **REMOVAL**

- 1. Remove the rear door finisher. Refer to <a href="INT-13">INT-13</a>, "REAR DOOR FINISHER: Removal and Installation".
- Remove the inside handle mounting screws.
- 3. Disconnect the inside handle knob cable, and then remove the inside handle.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

#### OUTSIDE HANDLE

# **OUTSIDE HANDLE: Exploded View**

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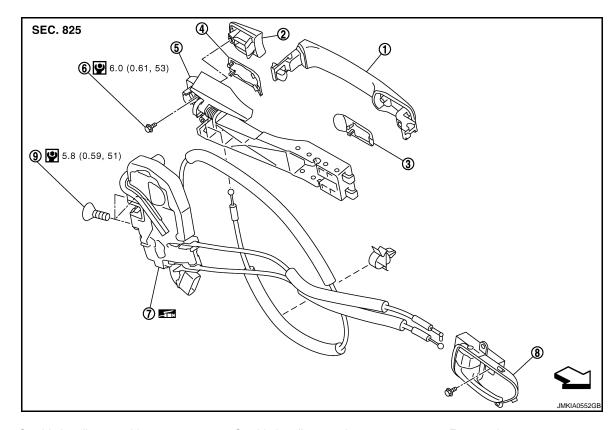
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- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- 6. TORX bolt
- 9. TORX bolt

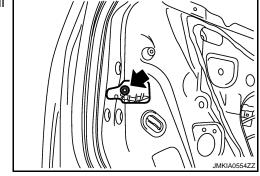
Refer to GI-4, "Components" for symbols in the figure.

# OUTSIDE HANDLE : Removal and Installation

INFOID:0000000001451855

#### **REMOVAL**

- 1. Remove the rear door finisher. Refer to <a href="INT-13">INT-13</a>, "REAR DOOR FINISHER: Removal and Installation".
- Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- Remove the lower partition sash. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.
- 8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



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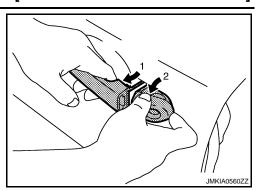
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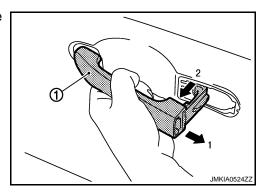
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# [WITHOUT I-KEY & SUPER LOCK]

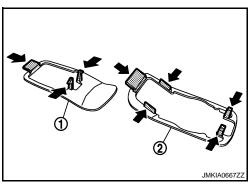
9. While pulling the outside handle, remove the outside handle escutcheon.



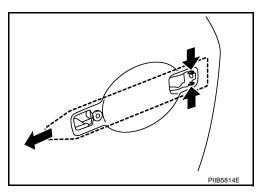
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



13. 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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# BACK DOOR LOCK

**DOOR LOCK** 

DOOR LOCK: Exploded View

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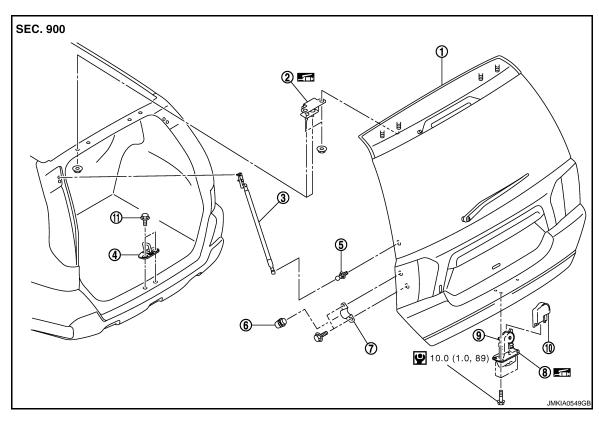
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- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- 9. Emergency lever

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

# DOOR LOCK: Removal and Installation

REMOVAL

- 1. Remove the back door trim finisher lower. Refer to <a href="INT-31">INT-31</a>, "Removal and Installation".
- 2. Disconnect the back door lock assembly and back door opener switch connectors.
- 3. Remove the back door lock mounting bolts, and then remove the back door lock and actuator.

#### **INSTALLTION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door lock/unlock operation after installation.

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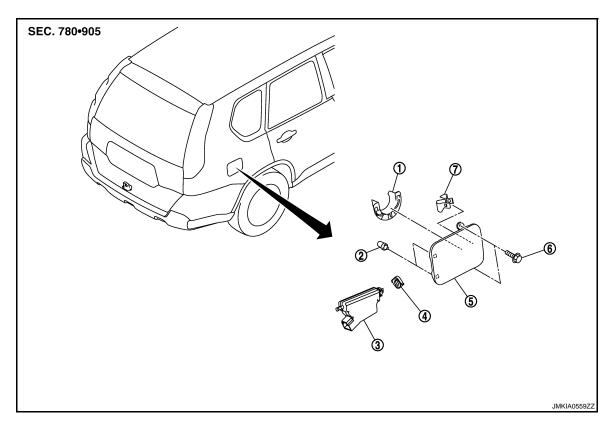
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# FUEL FILLER LID OPENER

**FUEL FILLER LID** 

FUEL FILLER LID: Exploded View

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1. Fuel filler cap holder

Spring

- 4. Fuel filler lid lock seal
- 2. Bumper rubber
- 5. Fuel filler lid assembly
- 3. Fuel filler lid lock actuator
- 6. TORX bolt

# FUEL FILLER LID: Removal and Installation

# **REMOVAL**

- 1. Fully open the fuel filler lid.
- 2. Remove the filler cap.
- 3. Remove the TORX bolts, and then remove the fuel filler lid assembly.
- 4. Remove the following parts after removing the fuel filler lid assembly.
  - Fuel filler cap holder
  - Bumper rubber
  - Spring

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the fuel filler lid open/close operation after installation.
- After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

After installation, perform fitting adjustment.

mm(in)

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	Clearance	Evenness
Fuel filler lid— - Body side outer	2.0 - 4.0 (0.079 - 0.157)	-1.0 - 1.0 (-0.039 - 0.039)

# **DOOR SWITCH**

**Exploded View** 

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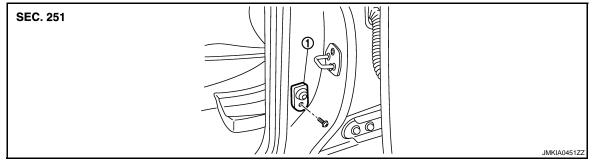
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1. Door switch (driver side)

# Removal and Installation

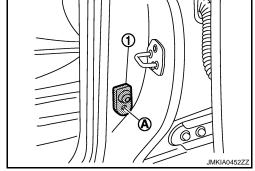
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# **REMOVAL**

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

#### NOTE:

The same procedure is also performed for door switch (passenger side, rear LH and rear RH).



# **INSTALLATION**

Install in the reverse order of removal.

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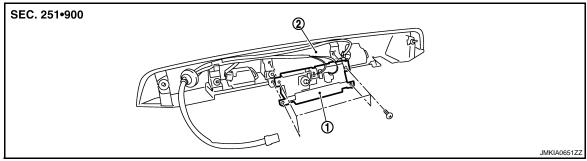
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# **BACK DOOR OPENER SWITCH**

# **Exploded View**

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1. Back door opener switch assembly

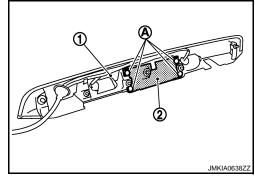
Back door finisher

# Removal and Installation

INFOID:0000000001495970

# **REMOVAL**

- 1. Remove the back door finisher. Refer to <a href="INT-31">INT-31</a>, "Removal and Installation".
- 2. Remove the back door opener switch assembly mounting bolt (A).
- 3. Remove the back door opener switch assembly (2) from back door finisher (1).



# **INSTALLATION**

Install in the reverse order of removal.

# **KEYFOB BATTERY**

Exploded View

Refer to DLK-755, "Removal and Installation".

Removal and Installation

#### **REMOVAL**

- 1. Remove installation screw (7) on the rear of keyfob.
- Place the key with the lower case (6) facing up. Set a screw-driver (A) wrapped with tape into illustration of the lower case (6) and separate the lower case (6) from the upper case (1).
   CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. When replacing the circuit board assembly, remove circuit board assembly from the upper case (1).

[Circuit board assembly: Switch rubber (3) + Board surface (4)] **CAUTION:** 

Do not touch the printed circuits directly.

4. Remove the battery (5) from the lower case (6) and replace it.

Battery replacement : Coin-type lithium battery (CR2032)

#### **CAUTION:**

When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.

5. After replacement, fit the lower and upper cases together, part (2), (3) and tighten with the screw.

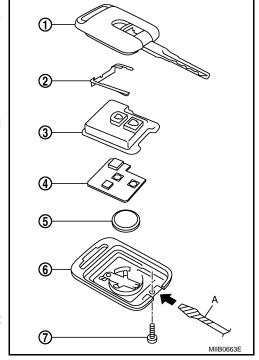
**CAUTION:** 

After replacing the battery, Be sure to check that door locking operates normally using the keyfob.

Refer to DLK-657, "Component Function Check".

#### **INSTALLATION**

Install in the reverse order of removal.



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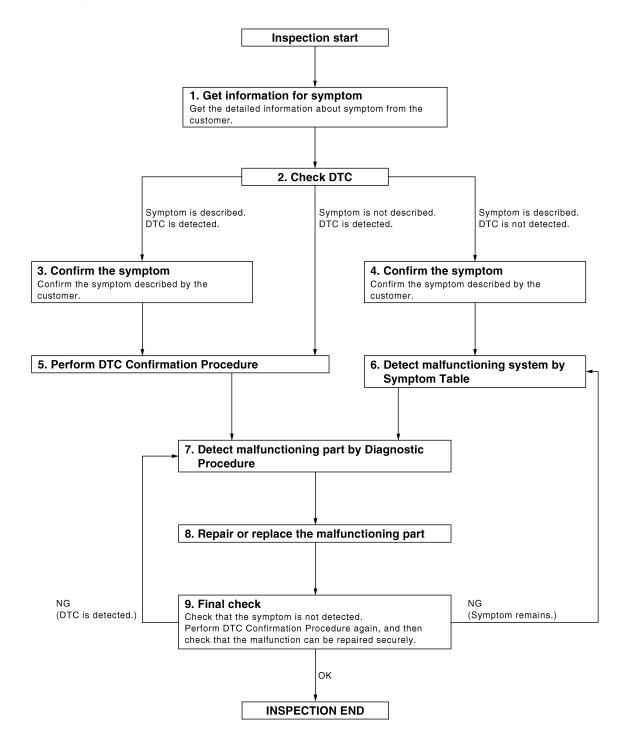
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

#### **OVERALL SEQUENCE**



### DIAGNOSIS AND REPAIR WORKFLOW

[WITHOUT I-KEY, WITH SUPER LOCK]

#### < BASIC INSPECTION >

# 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

### 2.CHECK DTC

- Check DTC for BCM.
- Perform the following procedure if DTC is displayed.
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- Check related service bulletins for information.

#### Is any symptom described and any DTC detected?

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

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

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

# 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

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

Verify 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 "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. If two or more DTCs are detected, refer to DLK-856, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

### Is DTC detected?

YES >> GO TO 7.

>> Refer to GI-39, "Intermittent Incident". NO

# O.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to Symptom Table based on the confirmed symptom in step 4.

## 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

# Inspect according to Diagnostic Procedure of the system.

#### NOTE:

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

>> GO TO 8.

>> GO TO 7.

# f 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.
- Check DTC. If DTC is displayed, erase it.

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### **DIAGNOSIS AND REPAIR WORKFLOW**

[WITHOUT I-KEY, WITH SUPER LOCK]

#### < BASIC INSPECTION >

>> GO TO 9.

# 9. FINAL CHECK

When DTC was detected in step 9, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunctions have been fully repaired.

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

### Are all malfunctions corrected?

NO (DTC is detected)>>GO TO 7. NO (Symptom remains)>>GO TO 6.

YES >> INSPECTION END

# **INSPECTION AND ADJUSTMENT**

BASIC INSPECTION > [WITHOUT I-KEY, WITH SUPER LC	
INSPECTION AND ADJUSTMENT	ONTROL LINIT
ADDITIONAL SERVICE WHEN REPLACING C	ONTROL UNIT
ADDITIONAL SERVICE WHEN REPLACING CO	NTROL UNIT: Description
Perform the system initialization when replacing or registering K	eyfob and ignition key.
ADDITIONAL SERVICE WHEN REPLACING COl quirement	NTROL UNIT : Special Repair Re-
Refer to the CONSULT-III Operation Manual-NATS.	
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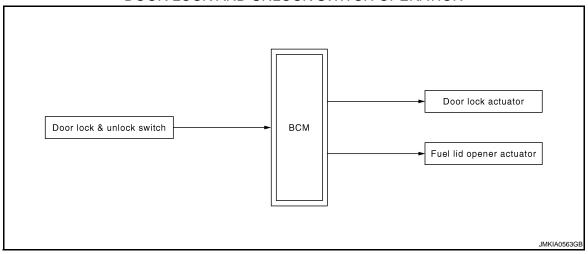
# **FUNCTION DIAGNOSIS**

# DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

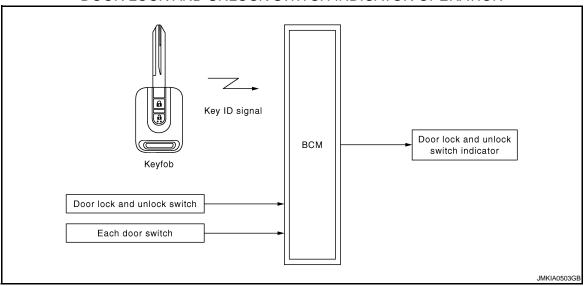
DOOR LOCK AND UNLOCK SWITCH: System Diagram

INFOID:0000000001281238

#### DOOR LOCK AND UNLOCK SWITCH OPERATION



#### DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION



# DOOR LOCK AND UNLOCK SWITCH: System Description

INFOID:0000000001281239

### DOOR LOCK AND UNLOCK SWITCH OPERATION

Functions are available by operating the door lock and unlock switch on center console. Interlocked with the lock/unlock operation of door lock and unlock switch, door lock actuators of all doors are locked/unlocked.

#### **OPERATION CONDITION**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the door lock and unlock switch is operated.

Door lock and unlock switch	Operation condition	
Lock operation	All the following conditions are satisfied.  Except driver side, doors are closed.  Doors are not locked with keyfob.	
Unlock operation	All the following all conditions are satisfied.  • Doors are not locked with keyfob.	

#### NOTE:

When the door is locked with keyfob, door lock and unlock switch operation will be invalid until either of the following conditions is satisfied.

- Turn ignition switch ON.
- Unlock operation by keyfob.

#### DOOR LOCK AND UNLOCK SWITCH INDICATOR OPERATION

Door lock and unlock switch indicator indicates door lock status. The indicator turn ON while ignition switch is ON and door is locked. If any door is opened, the indicator will turn OFF.

Door lock and unlock switch indicator have the following 2 functions.

#### 1 Minute Timer

A timer must be running to turn OFF the indicator. The timer will run for 1 minute after locking with keyfob or auto door lock.

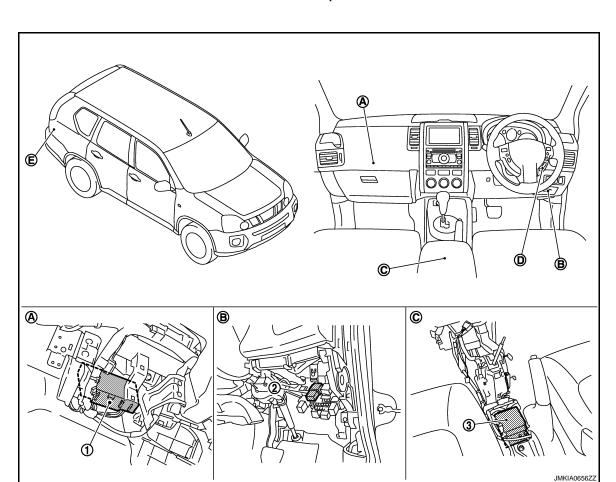
#### 30 Minutes Timer

A timer must be running to turn OFF the indicator. The timer will run for 30 minutes after locking with door lock and unlock switch.

#### NOTE:

1 minute timer condition is satisfied while 30 minutes timer is active, however 30 minutes timer does not change when 1 minutes timer is active.

### DOOR LOCK AND UNLOCK SWITCH: Component Parts Location



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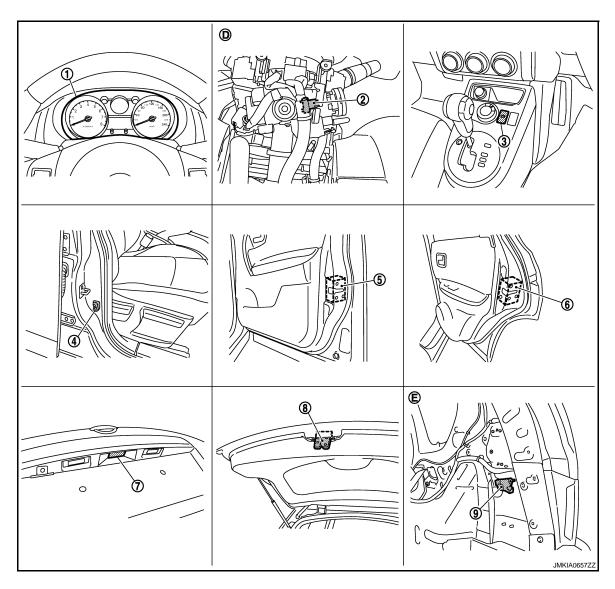
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### [WITHOUT I-KEY, WITH SUPER LOCK]

- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- Air bag diagnosis sensor unit
   M50
- C. View with center console removed



- Combination meter
   M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- View with steering column cover removed
- 2. Key switch M25
- 5. Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9. D190
- Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# DOOR LOCK AND UNLOCK SWITCH: Component Description

INFOID:0000000001281241

Item	Function	
BCM	Controls the door lock and unlock function.	
Door switch	Detects door state (open or closed).	

### DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

#### [WITHOUT I-KEY, WITH SUPER LOCK]

Item	Function	
Door lock and unlock switch	Transmits door lock and unlock signal to BCM. Door lock and unlock switch indicator is built in door lock and unlock switch.	
Door lock actuator	Receives door lock and unlock signal from BCM and locks and unlocks each door.	

### **KEYFOB**

# **KEYFOB**: System Diagram

INFOID:0000000001281242

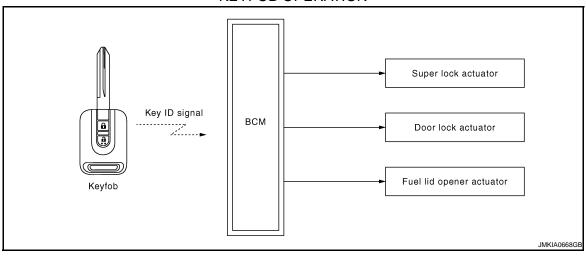
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#### KEYFOB OPERATION



### **KEYFOB**: System Description

INFOID:0000000001281243

#### **KEYFOB OPERATION**

The the multi remote control system can be locked and unlocked pressing door lock and unlock button of keyfob.

#### **OPERATION CONDITION**

Remote controller operation	Operation condition
Lock/unlock	Key switch is OFF (key is removed from ignition key cylinder).

#### **OPERATION AREA**

To ensure that the keyfob works effectively, use within 100 cm range of each door, however the operable range may differ according to surroundings.

#### DOOR LOCK AND UNLOCK CONTROL

When door lock and unlock button of keyfob is pressed, door lock and unlock signal transmits from keyfob to BCM. When BCM receives the door lock and unlock signal, it operates door lock actuator.

#### SUPER LOCK OPERATION

Super lock provides a higher anti-theft performance than a conventional power door lock system. The super lock system is controlled by BCM.

When super lock is set, all doors cannot be opened from inside.

#### ANTI-HIJACK MODE

When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock all doors and back door can be opened with back door opener switch.

#### NOTE:

Anti-hijack mode can be set to ON or OFF with CONSULT-III. For the setting information, refer to <a href="MULTIREMOTE ENT">DLK-784</a>, <a href="MULTIREMOTE ENT">"MULTIREMOTE ENT"</a>.

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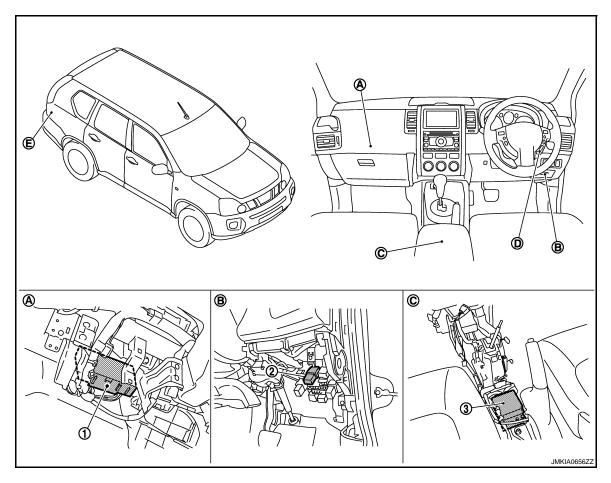
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**DLK-763** 

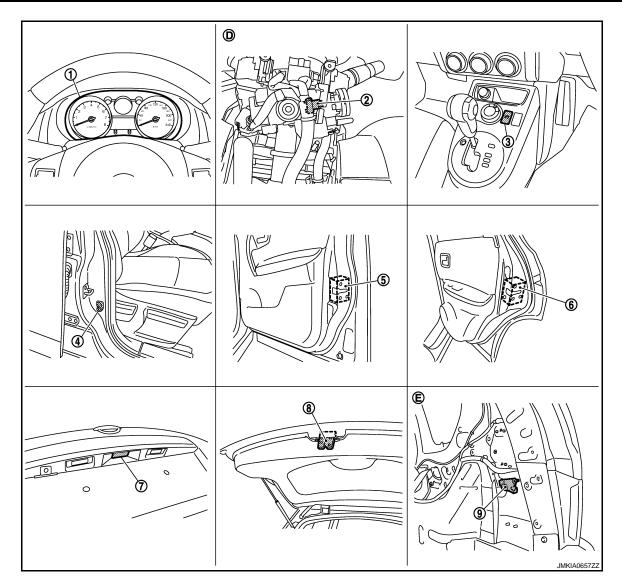
# **KEYFOB**: Component Parts Location

INFOID:0000000001388721



- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- D. View with steering column cover re-
- Key switch M25
- 5. Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9. D190
- 3. Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# **KEYFOB**: Component Description

Item Function

BCM Controls the door lock function.

Key switch Detect that ignition key is inserted into ignition key cylinder.

Door lock actuator Receives lock and unlock signal from BCM and locks and unlocks each door.

**AUTO DOOR LOCK** 

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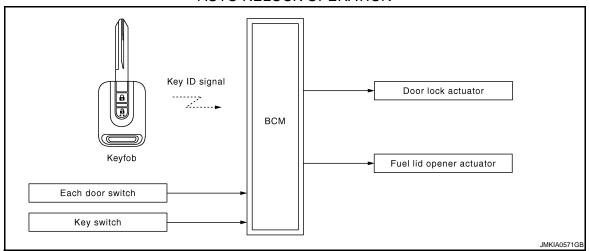
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INFOID:0000000001281245

# AUTO DOOR LOCK: System Diagram

INFOID:0000000001281246

#### **AUTO RELOCK OPERATION**



# AUTO DOOR LOCK: System Description

INFOID:0000000001281247

### **AUTO RELOCK OPERATION**

When all doors are locked and then doors are unlocked with keyfob, if BCM does not receive the following signal within 2 minutes\*1, all doors are automatically locked.

- Any door is opened.
- Ignition key is inserted into ignition key cylinder.
- Door is locked with keyfob.
- Door is locked/unlocked with door lock and unlock switch.

<sup>\*1:</sup> The time can be changed with CONSULT-III. Refer to <u>DLK-784</u>, "<u>MULTIREMOTE ENT</u>: <u>CONSULT-III</u> <u>Function (BCM - MULTIREMOTE ENT)</u>".

AUTO DOOR LOCK: Component Parts Location

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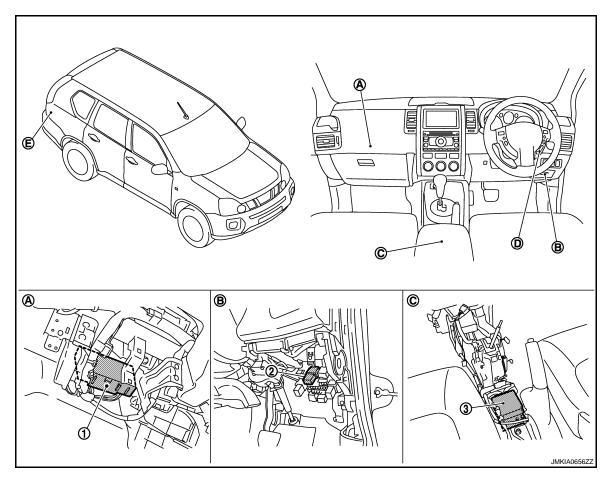
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- 1. BCM M65, M66, M67
- A. Over the glove box

- 2. Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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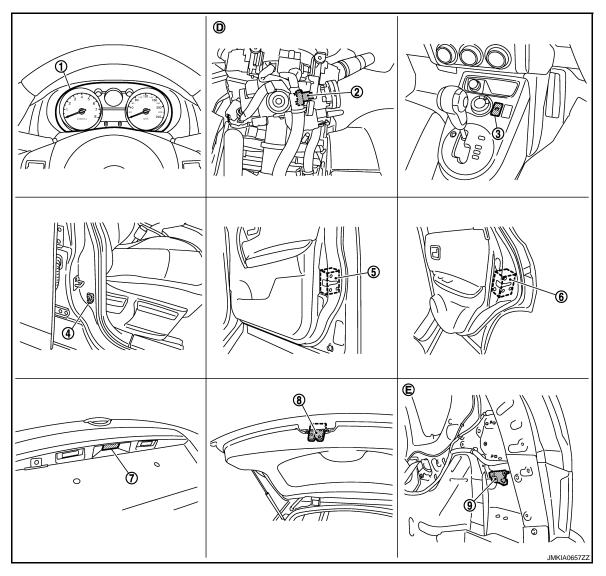
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- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- D. View with steering column cover removed
- 2. Key switch M25
- 5. Front door lock actuator (driver side)
  D29
- Back door lock assembly (back door switch) 9. D190
- Door lock and unlock switch M89
- Rear door lock actuator RH D95
- Fuel lid opener actuator B58

# AUTO DOOR LOCK: Component Description

INFOID:0000000001281249

Item	Function	
BCM	Controls the door lock function.	
Door switch	Detects door state (open or closed).	
Key switch	Detects that ignition key is inserted into ignition key cylinder.	
Door lock/unlock switch	Transmits door lock/unlock signal to BCM.	
Keyfob	Transmits key ID to BCM when lock and unlock button is pressed.	
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.	

# VEHICLE SPEED SENSING AUTO DOOR LOCK

# VEHICLE SPEED SENSING AUTO DOOR LOCK: System Diagram

INFOID:0000000001281250

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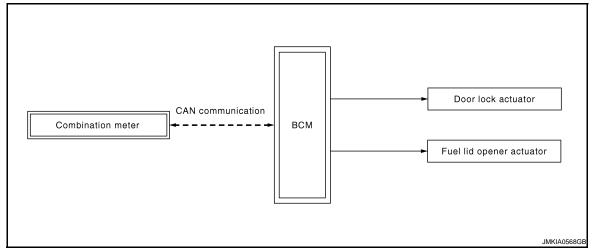
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#### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION



VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description

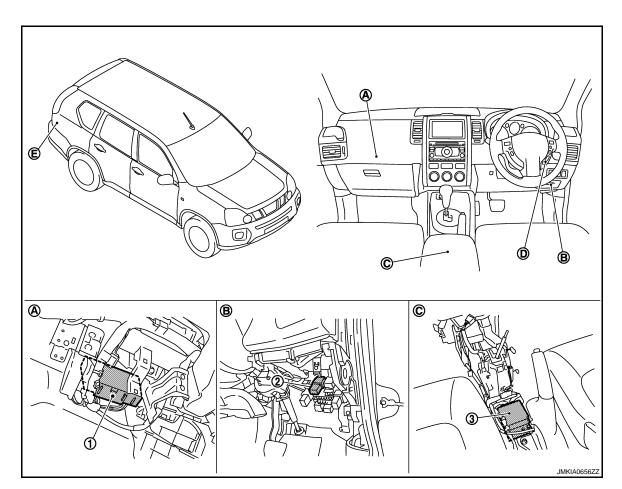
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#### VEHICLE SPEED SENSING AUTO DOOR LOCK OPERATION

When the vehicle speed exceeds more than 25 km/h (16 MPH), all doors are automatically locked. The vehicle speed signal is received from combination meter via CAN communication.

VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Parts Location

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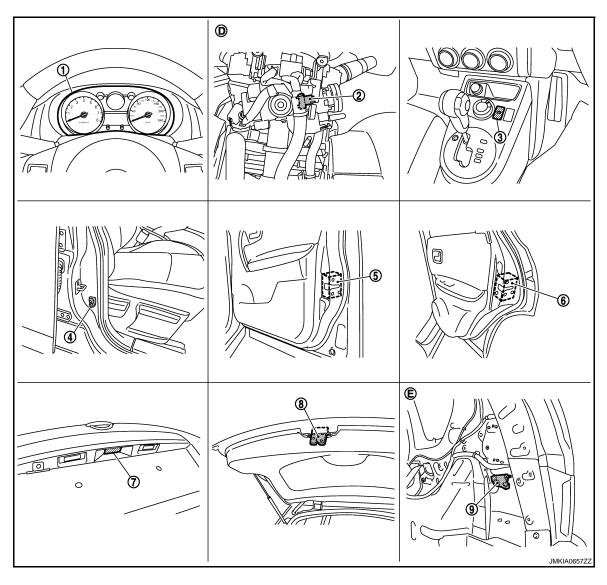
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- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit
- C. View with center console removed



- Combination meter
   M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- View with steering column cover removed
- 2. Key switch M25
- 5. Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9. D190
- Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# VEHICLE SPEED SENSING AUTO DOOR LOCK: Component Description

INFOID:0000000001281253

Item	Function	
BCM	Controls the door lock function.	
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.	
Door lock actuator	Receives door lock and unlock signal from BCM and locks and unlocks each door.	

### AIR BAG INTERLOCK UNLOCK

# AIR BAG INTERLOCK UNLOCK: System Diagram

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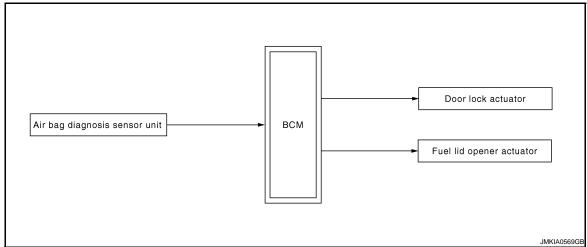
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# AIR BAG INTERLOCK UNLOCK OPERATION

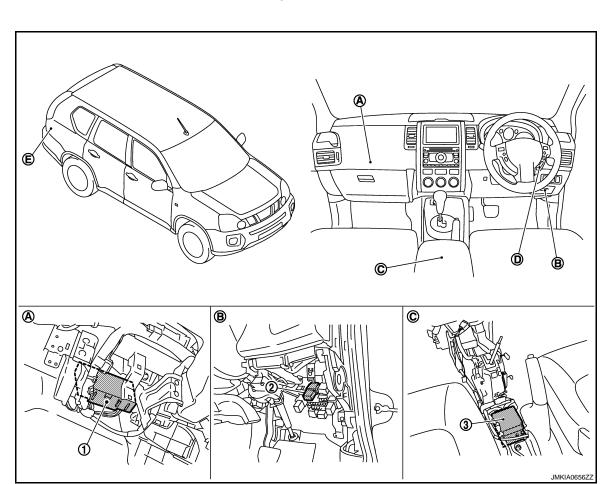


AIR BAG INTERLOCK UNLOCK: System Description

# AIR BAG INTERLOCK UNLOCK OPERATION

When ignition switch is ON and BCM receive air bag deployment signal, it operates automatically to unlock all doors. Air bag diagnosis sensor unit sends the air bag deployment signal to BCM.

AIR BAG INTERLOCK UNLOCK: Component Parts Location



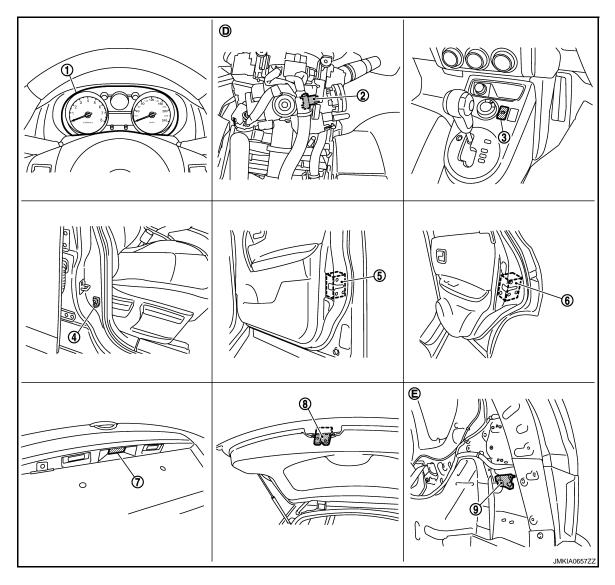
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- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- View with steering column cover removed
- 2. Key switch M25
- 5. Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9. D190
- Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# AIR BAG INTERLOCK UNLOCK : Component Description

INFOID:0000000001281257

Item	Function	
BCM	Controls the door lock function.	
Air bag diagnosis sensor unit	Transmits air bag deployment signal to BCM.	
Door lock actuator Receives door lock and unlock signal from BCM and lock and unlock each do		

### **BACK DOOR OPENER FUNCTION**

< FUNCTION DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# BACK DOOR OPENER FUNCTION BACK DOOR OPENER SWITCH

BACK DOOR OPENER SWITCH: System Diagram

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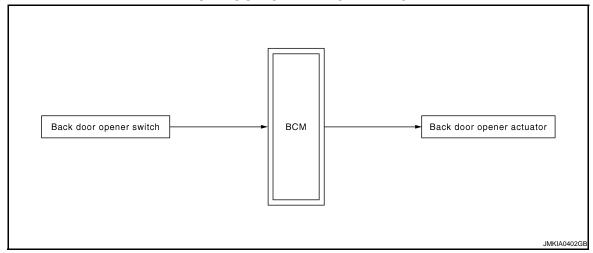
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#### **BACK DOOR OPENER OPERATION**



# BACK DOOR OPENER SWITCH: System Description

INFOID:0000000001281259

### **BACK DOOR OPENER OPERATION**

When back door opener switch is pressed, BCM opens back door opener actuator.

#### NOTE:

Back door opener actuator is not for locking the back door. The function is only to open the back door.

### **OPERATION CONDITION**

If the following conditions are not satisfied, back door opener operation is not performed.

Back door opener switch operation	Operation condition
Back door open	<ul> <li>Vehicle speed is less than 5 km/h (3 MPH).</li> <li>All doors are unlocked.</li> </ul>

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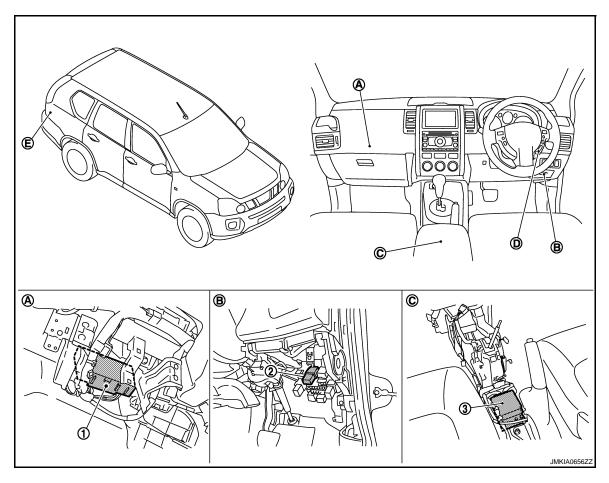
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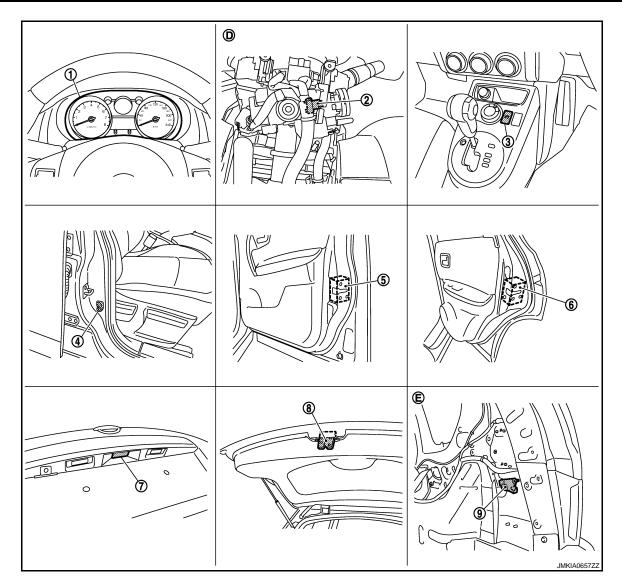
# BACK DOOR OPENER SWITCH : Component Parts Location

INFOID:0000000001393920



- BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- D. View with steering column cover removed
- Key switch M25
- 5. Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9.
   D190
- 3. Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# BACK DOOR OPENER SWITCH: Component Description

INFOID:0000000001281261

Item	Function	
ВСМ	Controls the back door opener function.	
Back door opener switch	Transmits back door opener switch operation signal to BCM.	
Back door opener actuator	Opens the back door with the back door open signal from BCM.	
Combination meter	Transmits vehicle speed signal to BCM via CAN communication.	

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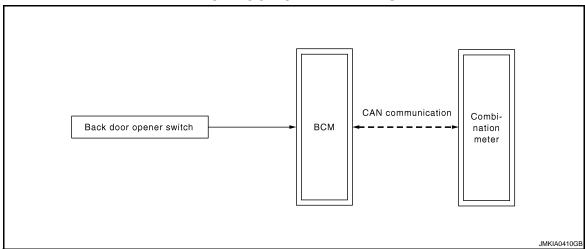
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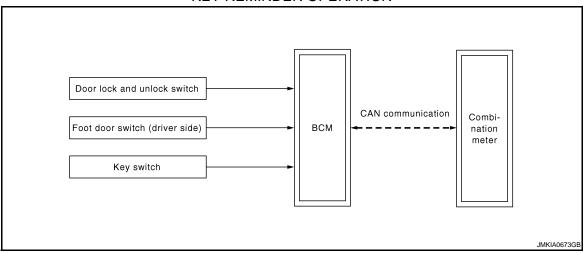
# WARNING FUNCTION

System Diagram

#### BACK DOOR OPEN WARNING



### **KEY REMINDER OPERATION**



# **System Description**

INFOID:0000000001281263

#### BACK DOOR OPEN WARNING OPERATION

Back door opener switch is operated, when door is locked with door lock and unlock switch, by speed sensing lock or when only the driver side is unlocked by the anti-hijack function, the buzzer (built in combination meter) will sound.

#### **KEY REMINDER OPERATION**

- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is
  pressed while the driver door is open and mechanical key is inserted ignition key cylinder.
- The buzzer (combination meter) will sound and the doors will not lock if the door lock and unlock switch is
  pressed while any door other than the driver door is open.

# Component Parts Location

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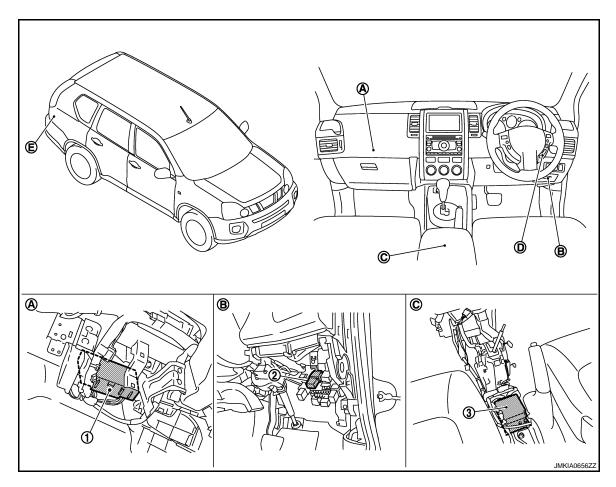
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- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed

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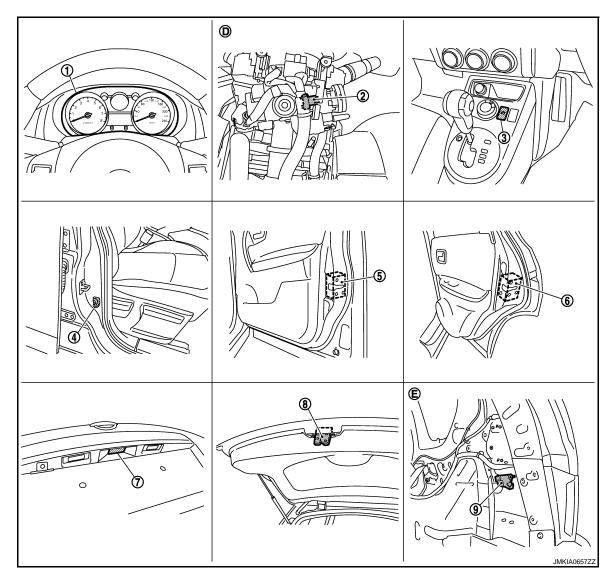
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- Combination meter M34
- 4. Front door switch (driver side) B34
- 7. Back door opener switch D186
- D. View with steering column cover removed
- 2. Key switch M25
- 5. Front door lock actuator (driver side)
  D29
- Back door lock assembly (back door switch) 9.
   D190
- Door lock and unlock switch M89
- Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# Component Description

INFOID:0000000001281265

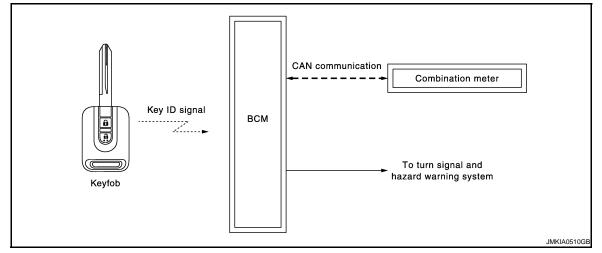
Item	Function	
BCM	Controls the warning function.	
Combination meter	Sounds the buzzer by the request signal from BCM via CAN communication.	
Back door opener switch	Transmit back door open signal to BCM	

# HAZARD REMINDER FUNCTION

System Diagram

NFOID:000000001281266

### HAZARD REMINDER FUNCTION



# System Description

### HAZARD REMINDER OPERATION

When door is locked or unlocked by keyfob, then BCM flashes hazard warning lamp as a reminder. **NOTE:** 

Hazard reminder mode can be changed with CONSULT-III. Refer to <u>DLK-782, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Hazard reminder se (With CONSULT-		Door lock operation (with keyfob)	Hazard warning lamp flash
MOD		_	_
HAZARD LAMP SET	MODE 2	Lock	Once
		Unlock	_
	MODE 3	Lock	_
		Unlock	Twice
	MODE 4	Lock	Once
		Unlock	Twice

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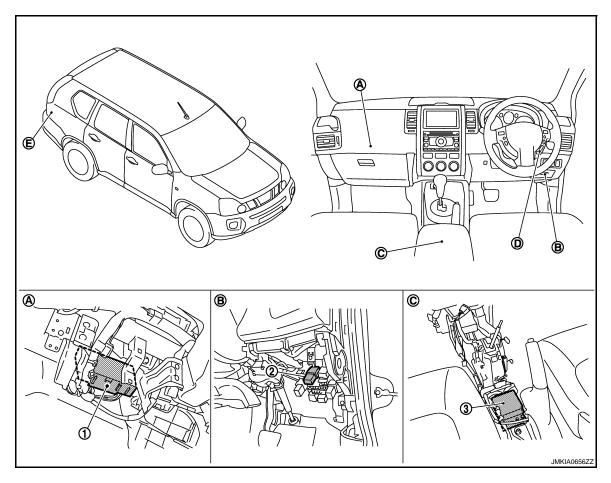
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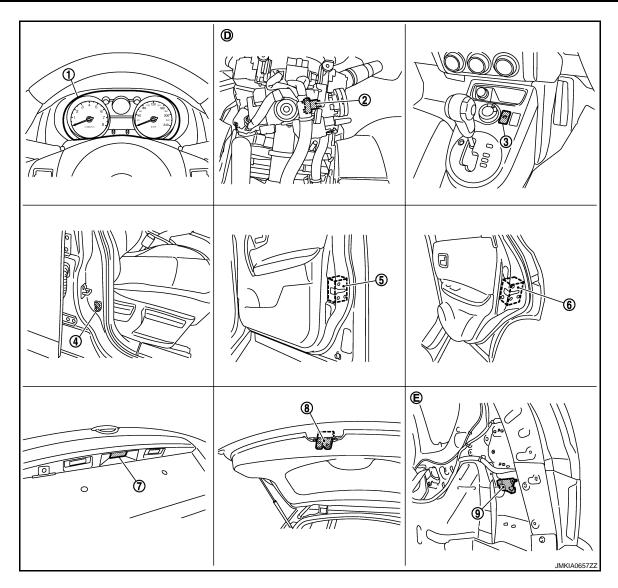
# Component Parts Location

INFOID:0000000001393922



- 1. BCM M65, M66, M67
- A. Over the glove box

- Passenger side anti-hijack relay M90
- B. View with fuse box lid removed
- 3. Air bag diagnosis sensor unit M59
- C. View with center console removed



- Combination meter M34
- Front door switch (driver side) B34
- Back door opener switch 7. D186
- View with steering column cover re-D.
- 2. Key switch M25
- Front door lock actuator (driver side) D29
- Back door lock assembly (back door switch) 9. D190
- 3. Door lock and unlock switch M89
- 6. Rear door lock actuator RH D95
  - Fuel lid opener actuator B58

# Component Description

INFOID:0000000001281269

Item	Function
BCM	Controls the hazard reminder system.
Combination meter	Turns ON the turn signal indicator (built in combination meter) by the request from BCM via CAN communication.
Keyfob	Transmits key ID to BCM when lock and unlock button is pressed.

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**COMMON ITEM** 

COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)

INFOID:0000000001569653

#### APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to DLK-857, "DTC Index".
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul><li>Read and save the vehicle specification.</li><li>Write the vehicle specification when replacing BCM.</li></ul>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

×: Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
_	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
_	PTC HEATER*			

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

DOOR LOCK

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

INFOID:0000000001398980

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

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

### < FUNCTION DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

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.

### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
PUSH SW*1	Indicates [ON/OFF] condition of ignition knob switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEYLESS LOCK*2	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK*2	Indicates [ON/OFF] condition of unlock signal from key fob.
I-KEY LOCK*1	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK*1	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.
UNLOCK WITH DR	This item is indicated, but not monitored.
UNLOCK SHOCK	Indicates [ON/OFF] condition of signal from air bag diagnosis unit.  ON: During the unlock operation interlock with air bag.  OFF: Other than above.
SHOCK SENSOR	<ul> <li>Indicates [NOMAL/ON/OFF] condition of circuit between BCM and air bag diagnosis sensor unit.</li> <li>NORMAL: Ignition switch ON. (BCM is receiving normal condition signal from air bag diagnosis sensor unit.)</li> <li>ON: During the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> <li>OFF: After the receiving of air bag deployment signal from air bag diagnosis sensor unit.</li> </ul>
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
SUPER LOCK*1	This test is able to check super lock operation [LOCK (SET)/UNLOCK (RELEASE)].
DOOR LOCK IND	This test is able to check door lock indicator (built in door lock and unlock switch on center console) operation [ON/OFF].
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK].

<sup>:\*1</sup> For the super lock equipped vehicle.

### **WORK SUPPORT**

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<sup>\*2:</sup> For the multi remote control system equipped vehicle.

[WITHOUT I-KEY, WITH SUPER LOCK]

Test item	Description
SECURITY DOOR LOCK SET	<ul> <li>Anti hijack function mode can be changed in this mode.</li> <li>ON: Anti hijack mode is active.</li> <li>OFF: Anti hijack mode is inactive.</li> </ul>

# **MULTIREMOTE ENT**

# MULTIREMOTE ENT: CONSULT-III Function (BCM - MULTIREMOTE ENT)

INFOID:0000000001398981

### **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.

#### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
KEYKESS LOCK	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from key fob.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
RKE LOCK AND UNLOCK	This item is indicated, but not monitored.
MEMORY 1	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 2	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 3	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 4	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 5	Indicates [ON/OFF] condition of remote controller ID code registration.

### **ACTIVE TEST**

Test item	Description
DOOR LOCK	This test is able to check warning chime in combination meter operation. [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK]
INT LAMP	This test is able to check interior lamp operation [ON/OFF].
FLASHER	This test is able to check flasher operation [LH/RH/OFF].

### **WORK SUPPORT**

### < FUNCTION DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

Test item	Description
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. For the detail of the setting, refer to <a href="DLK-779">DLK-779</a> , "System Description".
AUTO LOCK SET	Auto door lock time can be changed in this mode.  • MODE 1: 1 minute  • MODE 2: 2 minutes  • MODE 3: 3 minutes  • MODE 4: 4 minutes  • MODE 5: 5 minutes

**TRUNK** 

TRUNK: CONSULT-III Function (BCM - TRUNK)

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### **APPLICATION ITEM**

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

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.

### **DATA MONITOR**

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
PUSH SW <sup>*1</sup>	Indicates [ON/OFF] condition of ignition knob switch.
TRNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch.
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

<sup>\*1:</sup> For the Intelligent key equipped vehicle.

### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener operation [ON/OFF].

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<sup>\*2:</sup> For the remote keyless entry system equipped vehicle.

# COMPONENT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

Description INFOID:000000001450378

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

DTC Logic (INFOID:000000001450379

#### 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.	In CAN communication system, any item (or items) of the following listed below is malfunctioning.  Transmission Receiving (IPDM E/R) Receiving (ECM) Receiving (METER/M&A) Receiving (MULTI AV)

# Diagnosis Procedure

INFOID:0000000001450380

# 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-13, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-39, "Intermittent Incident".

# **U1010 CONTROL UNIT (CAN)**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# U1010 CONTROL UNIT (CAN)

Description INFOID:000000001450381

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 <a href="LAN-25">LAN-25</a>, "CAN Communication Signal Chart".

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause	
U1010	CONTROL UNIT (CAN)	When detecting error during the initial diagnosis of CAN controller of BCM.	BCM	F

### Diagnosis Procedure

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM.

### Special Repair Requirement

>> Work end.

1. REQUIRED WORK WHEN REPLACING INTELLIGENT KEY UNIT

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

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### POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM: Diagnosis Procedure

INFOID:0000000001298754

# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
41	Pattory power cupply	10 (10A)
57	Battery power supply	J (50A)
4	ACC power supply	20 (10A)

#### Is the fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

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

	Terminals				
(+)		(+)		Voltage	
Е	BCM	(-) Condition		(Approx.)	
Connector	Terminal	-			
M66	41		Turn ignition switch OFF		
M67	57	Ground	Ground Turn ignition switch OFF		
M65	4	Turn ignition switch ACC			

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

# 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M67	55		Exists

#### Does continuity exist?

YES >> BCM power supply and ground circuit are OK.

NO >> Repair harness or connector.

### DOOR LOCK AND UNLOCK SWITCH

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

### DOOR LOCK AND UNLOCK SWITCH

Description INFOID:0000000001450402

Transmits door lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000001450403

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# 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "CDL LOCK SW "and "CDL UNLOCK SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
CDL LOCK SW	LOCK	: ON	
	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-789</u>, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000001450404

# 1. CHECK DOOR LOCK AND UNLOCK INPUT SIGNAL

Turn ignition switch OFF.

2. Disconnect door lock and unlock switch connector.

Check voltage between door lock and unlock switch harness connector and ground.

Terminal			
(+)			Signal
Door lock and unlock switch connector	Terminal	(–)	(Reference value)
	1		
M89	2	Ground	(V) 15 10 5 0 → 10ms JPMIA0154GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- Check continuity between BCM harness connector and door lock and unlock switch harness connector.

BCM connector	Terminal	Door lock and unlock switch connector	Terminal	Continuity
M65	32	M89	2	Exists
	34		1	LAISIS

Check continuity between BCM harness connector and ground.

# **DLK-789**

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### DOOR LOCK AND UNLOCK SWITCH

# < COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY, WITH SUPER LOCK]

INFOID:0000000001450405

BCM connector	Terminal		Continuity
M65	32	Ground	Does not exist
IVIOS	34		Does not exist

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# ${f 3.}$ CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between door lock and unlock switch harness connector and ground.

Door lock and unlock switch connector	Terminal	Ground	Continuity
M89	3	Giodila	Exists

### Is the inspection result normal?

YES >> GO TO 5.

>> Repair or replace harness. NO

### 4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check voltage between BCM harness connector and ground.

Terminal			0: 1	
(+)		(-)	Signal (Reference value)	
BCM connector	Terminal	(-)	( 111111, 1111,	
	32			
M65	34	Ground	(V) 15 10 0 → ←10ms JPMIA0154GB	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

### ${f 5.}$ CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch

Refer to DLK-790, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace door lock and unlock switch. Refer to <u>DLK-925</u>, "Exploded View".

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

### DOOR LOCK AND UNLOCK SWITCH

### < COMPONENT DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

Door lock and unlock switch	Terminal		Condition	Continuity
M89	1	3	LOCK	Exists
	2		UNLOCK	LXISIS

### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Replace door lock and unlock switch. Refer to <u>DLK-925, "Exploded View"</u>.

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### DOOR LOCK AND UNLOCK SWITCH INDICATOR

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

### DOOR LOCK AND UNLOCK SWITCH INDICATOR

Description INFOID:000000001480714

The door lock and unlock switch indicates door lock status. The indicator will illuminate when a lock operation is accomplished, and during this status, if any door is opened, the indicator will turn OFF.

### Component Function Check

INFOID:0000000001480715

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check "DOOR LOCK IND" in "Active Test" mode with CONSULT-III.

Test item		Condition	
DOOR LOCK IND	:ON	Illuminated	
	:OFF	Not illuminated	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-792</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000001480716

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INDICATOR INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Check voltage between door lock and unlock switch harness connector and ground.

Terminal					
(+)			Condition	Voltage	
Door lock and unlock switch connector	Terminal	(-)		(Approx.)	
M89	M89 6 Groun		Door lock operation is accomplished	Battery voltage	
			Any door is OPEN	0	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check door lock and unlock switch circuit

- 1. Disconnect BCM connector and door lock and unlock switch connector.
- Check continuity between BCM harness connector and door lock and unlock switch harness connector.

BCM connector	Terminal	Door lock and unlock switch connector	Terminal	Continuity
M65	17	M89	6	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	17	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between door lock and unlock switch harness connector and ground.

## DOOR LOCK AND UNLOCK SWITCH INDICATOR

### < COMPONENT DIAGNOSIS >

## [WITHOUT I-KEY, WITH SUPER LOCK]

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Door lock and unlock switch connector	Terminal		Continuity
M89	4	- Ground -	Exists
the inspection result normal?	<u> </u>		LAISIS
YES >> GO TO 4.			
NO >> Repair or replace harness.			
.CHECK INTERMITTENT INCIDENT			
efer to GI-39, "Intermittent Incident".			
>> INSPECTION END			

### < COMPONENT DIAGNOSIS >

DOOR SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001298572

Detects door open/closed condition.

DRIVER SIDE: Component Function Check

INFOID:0000000001298573

## 1. CHECK FUNCTION

## (II) With CONSULT-III

Check door switches "DOOR SW-DR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-DR	OPEN	:ON	
DOOK SW-DK	CLOSE	:OFF	

### Is the inspection result normal?

YES >> Front door switch (driver side) is OK.

NO >> Refer to <u>DLK-794</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001298574

## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals				
(+)			Door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(–)		(Approx.)	
			OPEN	0	
M65	15	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2. CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Front door switch (driver side) connector	Terminal	Continuity
M65	15	B34	2	Exists

3. Check continuity between BCM harness connector and ground.

1. Turn ignition switch OFF.

## [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Terminal	0	Continuity
M65	15	Ground	Does not exist
Is the inspection result normal YES >> GO TO 3. NO >> Repair or replace 3.CHECK DOOR SWITCH	? harness between BCM	and door switch.	
4. CHECK INTERMITTENT II	SIDE: Component Inspe ? or switch (driver side). Re NCIDENT		val and Installation".
Refer to <u>GI-39, "Intermittent In</u>	<u>icident</u> .		
>> INSPECTION EN DRIVER SIDE : Compo			
DRIVER SIDE : COMPO 1.check door switch	ment mopeuton		INFOID:00000000129857
Check front door switch (drive	r side).		
Termir	nal		
front door switch		Door switch condition	Continuity
2	Ground part of door switch	Pressed	Exists
	Ground part of door switch	Released	Does not exist
YES >> Front door switch NO >> Replace front doo PASSENGER SIDE  PASSENGER SIDE : D  Detects door open/closed con PASSENGER SIDE : C	escription dition.		val and Installation".  INFOID:00000000129857
1.CHECK FUNCTION			
With CONSULT-III Check door switches "DOOR S	SW-AS" in "Data Monito	r" mode with CONSULT-	III.
Monitor item		Condition	on
DOOR SW-AS			ON OFF
	? (passenger side) is OK. , "PASSENGER SIDE : I		
PASSENGER SIDE : D	iagnosis Procedure	9	INFOID:00000000129857
1. CHECK DOOR SWITCH IN	NPLIT SIGNAL		

INFOID:0000000001298579

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

	Terminals			
(+)			Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		(Approx.)
			OPEN	0
M65	14	Ground	CLOSE	(V) 15 10 5 0 10 ms

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2.CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Front door switch (passenger side) connector	Terminal	Continuity
M65	14	B27	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	14	Glound	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

## 3. CHECK DOOR SWITCH

Check front door switch (passenger side).

Refer to DLK-796, "PASSENGER SIDE: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-292, "Removal and Installation"</u>.

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

## PASSENGER SIDE: Component Inspection

1. CHECK DOOR SWITCH

Check front door switch (passenger side).

### [WITHOUT I-KEY, WITH SUPER LOCK]

	Terminal Front door switch (passenger side)		Continuity
Front door sv			Continuity
2	Ground part of door switch	Pressed	Exists
2	Ground part of door switch	Released	Does not exist

### Is the inspection result normal?

YES >> Front door switch (passenger side) is OK.

NO >> Replace front door switch (passenger side). Refer to <u>DLK-922, "Removal and Installation"</u>.

### **REAR LH**

**REAR LH: Description** 

INFOID:0000000001298580

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Detects door open/closed condition.

REAR LH: Component Function Check

INFOID:0000000001298581

## 1. CHECK FUNCTION

### (III) With CONSULT-III

Check door switches "DOOR SW-RL" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RL	OPEN	:ON	
DOOR SW-RL	CLOSE	:OFF	

### Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Refer to <u>DLK-797</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

## REAR LH: Diagnosis Procedure

INFOID:0000000001298582

## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

	Terminals			
(	(+)		Door condition	Voltage (V) (Approx.)
BCM connector	Terminal	(–)		(Approx.)
			OPEN	0
M65	16	Ground	CLOSE	(V) 15 10 5 0 10 ms

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2. CHECK DOOR SWITCH CIRCUIT

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

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### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Rear door switch LH connector	Terminal	Continuity
M65	16	B71	2	Exists

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	16	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and rear door switch LH.

## 3.CHECK DOOR SWITCH

Check rear door switch LH.

Refer to DLK-798, "REAR LH: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear door switch LH. Refer to <u>DLK-922</u>, "Removal and Installation".

## 4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

#### >> INSPECTION END

## REAR LH: Component Inspection

INFOID:0000000001298583

### 1. CHECK DOOR SWITCH

Check rear door switch LH.

Terminal Rear door switch LH		Door switch condition	Continuity
		Door Switch Condition	Continuity
2	2 Ground part of door switch		Exists
۷	Ground part of door switch	Released	Does not exist

### Is the inspection result normal?

YES >> Rear door switch LH is OK.

NO >> Replace rear door switch LH. Refer to <u>DLK-922</u>, "Removal and Installation".

REAR RH

REAR RH : Description

INFOID:0000000001298584

Detects door open/close condition.

REAR RH: Component Function Check

INFOID:0000000001298585

## 1. CHECK FUNCTION

#### (II) With CONSULT-III

Check door switches "DOOR SW-RR" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
DOOR SW-RR	OPEN	:ON	
	CLOSE	:OFF	

### Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Refer to <u>DLK-799</u>, "REAR RH: <u>Diagnosis Procedure</u>".

## **REAR RH: Diagnosis Procedure**

INFOID:0000000001298586

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## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

Terminals				
(+)			Door condition	Voltage (V)
BCM connector	Terminal	(-)	2 001 00114.11011	(Approx.)
			OPEN	0
M65	12	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB

### Is the inspection result normal?

>> GO TO 4. YES

NO >> GO TO 2.

## 2.CHECK DOOR SWITCH CIRCUIT

- Disconnect BCM connector and rear door switch RH connector.
- Check continuity between BCM harness connector and rear door switch RH harness connector.

BCM connector	Terminal	Rear door switch RH connector	Terminal	Continuity
M65	12	B53	2	Exists

Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	12	Ground	Does not exist

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

## 3.check door switch

Check rear door switch RH.

Refer to DLK-799, "REAR RH: Component Inspection".

### Is the inspection result normal?

YES >> GO TO 4.

>> Replace rear door switch RH. Refer to <u>DLK-922</u>, "Removal and Installation". NO

### 4.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

### >> INSPECTION END

### REAR RH: Component Inspection

INFOID:0000000001298587

## 1. CHECK DOOR SWITCH

Check rear door switch RH.

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Terminal  Rear door switch RH		Door switch condition	Continuity
		Door Switch Condition	Continuity
2	Ground part of door switch	Pressed	Exists
2	Ground part of door switch	Released	Does not exist

#### Is the inspection result normal?

YES >> Rear door switch RH is OK.

NO >> Replace rear door switch RH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation"</u>.

**BACK DOOR** 

**BACK DOOR: Description** 

INFOID:0000000001298588

Detects back door open condition.

**BACK DOOR: Component Function Check** 

INFOID:0000000001298589

### 1. CHECK FUNCTION

### (III) With CONSULT-III

Check "BACK DOOR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition		
BACK DOOR SW	OPEN	: ON	
	CLOSE	: OFF	

### Is the inspection result normal?

YES >> Back door lock assembly (door switch) is OK.

NO >> Refer to <u>DLK-800, "BACK DOOR: Diagnosis Procedure"</u>.

## **BACK DOOR: Diagnosis Procedure**

INFOID:0000000001298590

## 1.check back door lock assembly (door switch) input signal

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

Terminals					
(-	+)	(-)	Back door condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		<b>,</b> , , , , , , , , , , , , , , , , , ,	
M65	13	Ground	OPEN	0	
COIVI	13	Ground	CLOSE	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

## 2. CHECK BACK DOOR LOCK ASSEMBLY (DOOR SWITCH) CIRCUIT

- Disconnect BCM connector back door lock assembly connector.
- 2. Check continuity between BCM harness connector and back door lock assembly (door switch) harness connector.

BCM connector	Terminal	Back door lock assembly (door switch) connector	Terminal	Continuity
M65	13	D190	2	Exists

3. Check continuity between BCM connector and ground.

## [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Ter	minal	Ground	Continuity
M65		13		Does not exist
s the inspection result normal?				
YES >> GO TO 3.		20M and back door last.	l- l- / -l	l = = = =
·		BCM and back door lock	assembly (d	loor switch).
.CHECK BACK DOOR LOCK	ASSEMBLY GR	OUND CIRCUIT		
Check continuity between back	door lock assem	oly harness connector an	d ground.	
Back door lock assembly	Termi	nal		Continuity
(door switch) connector		Ground	I	
D190	3			Exists
s the inspection result normal?				
YES >> GO TO 4. NO >> Repair or replace ba	ok door look oo	combly around aircuit		
<u>'</u>		embly ground circuit.		
1.CHECK BCM OUTPUT SIGN	IAL			
<ul><li>Connect BCM connector.</li><li>Check voltage between BCI</li></ul>	A harness conn	ctor and ground		
2. Check vollage between bol	n namess come	ctor and ground.		
	Terminals			Voltage (V)
(+)		(–)	(Approx.)	
BCM connector	Terminal	( )		
M65	13	Ground	В	attery voltage
s the inspection result normal?				
YES >> GO TO 5.				
NO >> GO TO 6.				
CHECK BACK DOOR LOCK		OOR SWITCH)		
Check back door lock assembly Refer to <u>DLK-801, "BACK DOO</u> I		annostion"		
	R: Component ii	ispection.		
s the inspection result normal? YES >> GO TO 6.				
	ock assembly (d	oor switch). Refer to DLK	(-290, "DOC	OR LOCK : Removal
Installation"	, (	,		
$\hat{o}.$ CHECK INTERMITTENT INC	IDENT			
Refer to GI-39, "Intermittent Inci-	dent".			
>> INSPECTION END				
BACK DOOR : Compone	nt Inspection			INFOID:00000000
	•			IIVI CID.00000000
1.CHECK BACK DOOR LOCK	ASSEMBLY (DO	OOR SWITCH)		
Check back door lock assembly	(door switch).			
Terminal	1			
			1	
Back door lock assembly (do		Back door condition		Continuity

	Back door lock assembly (door switch)		Back door condition	Continuity
			Back door condition	Continuity
	2	1	OPEN	Exists
	2	'	CLOSE	Does not exist

Is the inspection result normal?

YES

>> Back door lock assembly (door switch) is OK. >> Replace back door lock assembly. Refer to <a href="DLK-290">DLK-290</a>, "DOOR LOCK: Removal and Installation". NO

### **KEY SWITCH**

Description INFOID:000000001301148

Key switch detects that mechanical key is inserted into the key cylinder, and then transmits the signal to BCM and Intelligent Key unit.

### Component Function Check

INFOID:0000000001301149

## 1. CHECK KEY SWITCH INPUT SIGNAL

Check key switch ("KEY ON SW") in "Data Monitor" mode with CONSULT-III. Refer to <u>DLK-782</u>, "DOOR <u>LOCK</u>: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

Monitor item	Condition	
KEY ON SW	Insert mechanical key into key cylinder	: ON
RET ON OW	Remove mechanical key from key cylinder	: OFF

### Is the inspection result normal?

YES >> Key switch is OK.

NO >> Refer to <u>DLK-802</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001301150

## 1. CHECK KEY SWITCH INPUT SIGNAL

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

	Terminals			V/-16 () ()	
(+)		(_)	Condition	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(11 - )	
M65	5	Ground	Insert mechanical key into key cylinder	Battery voltage	
WOS	3	Ground	Remove mechanical key from key cylinder	0	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- 1. Remove mechanical key from key cylinder.
- 2. Disconnect key switch connector.
- Check voltage between key switch harness connector and ground.

	V 16 00		
(+)		(-)	Voltage (V) (Approx.)
Key switch connector Terminal		(-)	(11 - 7
M24 2		Ground	Battery voltage

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3. CHECK KEY SWITCH SIGNAL CIRCUIT

1. Check continuity between BCM harness connector and key switch connector.

## [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Terminal	Key switch connector	Terminal	Continuity
M65	5	M24	1	Exists
2. Check continuity between	en ignition knob s	witch, key switch and key	/ lock solenoid c	connector and ground.
Key switch connector	Terminal	Groun	d	Continuity
M24	1	Groun	d	Does not exist
s the inspection result norr YES >> GO TO 4. NO >> Repair or repla 1.CHECK KEY SWITCH				
Check key switch function. Refer to <u>DLK-803, "Compo</u> s the inspection result norr				
yes >> GO TO 5. NO >> Replace key cy O.CHECK INTERMITTEN	•			
Refer to <u>GI-39, "Intermitten</u>	t Incident"			
>> INSPECTION I	END			
Component Inspectio	n			INFOID:00000000130115
COMPONENT INSPECT	ION			
1. CHECK KEY SWITCH				
Check continuity between k	key switch terminal	S.		
Termin	al	Condition		Continuity
Key swi	tch	Condition		Continuity
1	2	Insert mechanical key int		Exists
		Remove mechanical key fr	om key cylinder	Does not exist
s the inspection result norr YES >> Key switch is C NO >> Replace key cy	OK.			

### [WITHOUT I-KEY, WITH SUPER LOCK]

### < COMPONENT DIAGNOSIS >

**DRIVER SIDE** 

**DRIVER SIDE: Description** 

DOOR LOCK ACTUATOR

INFOID:0000000001470504

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001470505

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:DR UNLK	The door lock actuator (driver side) is unlocked
	:LOCK	The all door lock actuators are locked

#### Is the inspection result normal?

YES >> Front door lock actuator (driver side) is OK.

NO >> Refer to <u>DLK-804</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

## DRIVER SIDE: Diagnosis Procedure

INFOID:0000000001470506

### 1. CHECK BCM OUTPUT SIGNAL

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

Terminals (+)				
		( )	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		()
M67	56	Ground	Lock	0  o Battery voltage  o 0
10107	60	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M67	56	D9	1	Exists
60	60	Da	2	EXISIS

### 3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
WO	60		Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:000000001470508

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000001470509

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## 1. CHECK FUNCTION

(P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
	:ALL UNLK	The all door lock actuators are unlocked
DOOR LOCK/UNLOCK	:AS UNLK	The door lock actuator (passenger side) is locked
	:LOCK	The all door lock actuators are locked

### Is the inspection result normal?

YES >> Front door lock actuator (passenger side) is OK.

NO >> Refer to <u>DLK-805</u>, "PASSENGER SIDE : <u>Diagnosis Procedure</u>".

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001470510

## 1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM connector and ground.

	Terminals			
(+)	′		Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		( + + )
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
IVIO7	54	Ground	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.check door lock actuator circuit

1. Disconnect BCM and front door lock actuator (passenger side) connector.

2. Check continuity between BCM connector and front door lock actuator (passenger side) connector.

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	56	D48	2	Exists
IVIO7	54	D46	1	EXISIS

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54		Does not exist

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### DOOR LOCK ACTUATOR

[WITHOUT I-KEY, WITH SUPER LOCK]

#### < COMPONENT DIAGNOSIS >

Is the inspection result normal?

>> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

**REAR LH** 

YES

**REAR LH: Description** 

INFOID:0000000001470512

Locks/unlocks the door with the signal from BCM.

REAR LH: Component Function Check

INFOID:0000000001470513

### 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition
DOOR LOCK/UNLOCK	:ALL UNLK	The all door lock actuators are unlocked
DOOK EGGNONEGER	:LOCK	The all door lock actuators are locked

### Is the inspection result normal?

YES >> Rear door lock actuator LH is OK.

NO >> Refer to DLK-806, "REAR LH: Diagnosis Procedure".

## **REAR LH: Diagnosis Procedure**

INFOID:0000000001470514

## 1. CHECK BCM OUTPUT SIGNAL

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

	Terminals			V 16 00	
(+)		(–)	Condition of door lock and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		, ,	
M67	56	Ground	Lock	$0 \to \text{Battery voltage} \to 0$	
IVIO7	54		Giodila	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM and rear door lock actuator LH connector.
- 2. Check continuity between BCM connector and rear door lock actuator LH connector.

BCM connector	Terminal	Rear door lock actuator LH connector	Terminal	Continuity
M67	M67 56		1	Exists
IVIO7	54	D85	2 EXISTS	LAISIS

3. Check continuity between BCM connector and ground.

### DOOR LOCK ACTUATOR

### < COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Terminal		Continuity	
M67	56	Ground	Does not exist	
IVIO /	54		Does not exist	
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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check intermittent incident

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

**REAR RH** 

**REAR RH: Description** 

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

1. CHECK FUNCTION

INFOID:0000000001470516

INFOID:0000000001470517

(P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item Condition :ALL UNLK The all door lock actuators are unlocked DOOR LOCK/UNLOCK :LOCK The all door lock actuators are locked

Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-807, "REAR RH: Diagnosis Procedure".

## REAR RH: Diagnosis Procedure

INFOID:0000000001470518

## 1. CHECK BCM OUTPUT SIGNAL

Turn ignition switch OFF.

Check voltage between BCM connector and ground.

Terminals			O a life a a fall a sala al	V I 00
(+)		Condition of door lock  (-) and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		(11 - /
M67	56	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
54	Ground	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and rear door lock actuator RH connector.
- Check continuity between BCM connector and rear door lock actuator RH connector.

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**DLK-807** 

### **DOOR LOCK ACTUATOR**

### < COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	56	D105	2 Exists	
IVIO7	54	D103	1	LAISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	56	Ground	Does not exist
	54		DOES HOLEKIST

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

### SUPER LOCK ACTUATOR

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

## SUPER LOCK ACTUATOR

**DRIVER SIDE** 

DRIVER SIDE : Description

INFOID:0000000001281330

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The super lock system is controlled by BCM.

DRIVER SIDE : Component Function Check

INFOID:0000000001281331

INFOID:0000000001281332

## 1. CHECK FUNCTION

(II) With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Te	est item	Condition
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)
SOF LIN LOCK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)

#### Is the inspection result normal?

YES >> Front super lock actuator (driver side) is OK.

NO >> Refer to <u>DLK-809</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

## DRIVER SIDE: Diagnosis Procedure

## 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		( )	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		()
M67	60	Ground	UNLOCK (RELEASE)	0 → Battery voltage → 0
59	Giodila	LOCK (SET)	0 → Ballery Vollage → 0	

#### Is the inspection result normal?

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

## 2.CHECK SUPER LOCK ACTUATOR CIRCUIT

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

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M67	59	D29	1	Exists
IVIO7	60	D29	2 Exist	LAISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity	
M67	59	Ground	Does not exist	
IVIO7	60		Does not exist	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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## 3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001281335

The super lock system is controlled by BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000001281336

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test ite	em	Condition	
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)	
SUP LIX LOOK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)	

### Is the inspection result normal?

YES >> Front super lock actuator (passenger side) is OK.

NO >> Refer to <u>DLK-810</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

### PASSENGER SIDE: Diagnosis Procedure

#### INFOID:0000000001281337

### 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		(–)	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		VII - /
M67	54	Ground	UNLOCK (RELEASE)	$0 \rightarrow Battery\ voltage \rightarrow 0$
IVIO7	59	Giouna	LOCK (SET)	0 → Battery Voltage → 0

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK SUPER LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM and front door lock actuator (passenger side) connector.
- 3. Check continuity between BCM connector and front door lock actuator (passenger side) connector.

BCM connector	Terminal	Front door lock actuator (passenger side) connector	Terminal	Continuity
M67	M67		1	Exists
IVIO7	54	D68	2	LXISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	59	Ground Does not exis	
	54		Does not exist

### SUPER LOCK ACTUATOR

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

REAR LH

**REAR LH: Description** 

INFOID:000000001281339

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The super lock system is controlled by BCM.

REAR LH: Component Function Check

INFOID:0000000001281340

1.CHECK FUNCTION

(P)With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test	item	Condition
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)
OOI LIK LOOK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)

Is the inspection result normal?

YES >> Rear super lock actuator LH is OK.

NO >> Refer to <u>DLK-811</u>, "REAR LH: <u>Diagnosis Procedure</u>".

**REAR LH: Diagnosis Procedure** 

INFOID:0000000001281341

## 1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		( )	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(
M67	54	Ground	UNLOCK (RELEASE)	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
WO	59	Giodila	LOCK (SET)	0 → Battery Voltage → 0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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## 2. CHECK SUPER LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

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

BCM connector	Terminal	Rear door lock actuator (pas- senger side) connector	Terminal	Continuity
M67	59	D115	1	Exists
IVIO7	54	5113	2	LAISIS

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
	54		Does not exist

INFOID:0000000001281343

INFOID:0000000001281345

### < COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 3. NO >> Repair or replace harness.

3.check intermittent incident

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

**REAR RH** 

REAR RH : Description

The super lock system is controlled by BCM.

REAR RH: Component Function Check

1. CHECK FUNCTION

(P) With CONSULT-III

Check "SUPER LOCK" in "Active Test" mode with CONSULT-III.

Test ite	m	Condition	
SUPER LOCK	:LOCK (SET)	The super lock actuator is locked (SET)	
SOI EN EOCK	:UNLOCK (RELEASE)	The super lock actuator is unlocked (RELEASE)	

### Is the inspection result normal?

YES >> Rear super lock actuator RH is OK.

NO >> Refer to <u>DLK-812</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

## REAR RH: Diagnosis Procedure

1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals				
(+)		( )	Condition	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		VII - /
M67	54	Ground	UNLOCK (RELEASE)	0 → Battery voltage → 0
IVIO7	59	Ground	LOCK (SET)	→ Dattery Voltage → 0

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK SUPER LOCK ACTUATOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM and rear door lock actuator RH connector.
- 3. Check continuity between BCM connector and rear door lock actuator RH connector.

BCM connector	Terminal	Rear door lock actuator RH connector	Terminal	Continuity
M67	59	D95	1	Exists
WO	54		2	LAISIS

<sup>4.</sup> Check continuity between BCM connector and ground.

## **SUPER LOCK ACTUATOR**

### < COMPONENT DIAGNOSIS >

## [WITHOUT I-KEY, WITH SUPER LOCK]

BCM connector	Terminal		Continuity
M67	59	Ground	Does not exist
IVIO 7	54		Does not exist

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Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END.

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### **BACK DOOR OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

## **BACK DOOR OPENER ACTUATOR**

Description INFOID:000000001298612

Opens the back door with the signal from BCM.

## Component Function Check

INFOID:0000000001298613

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "TRUNK/GLASS HATCH" in "Active Test" mode with CONSULT-III.

Test item		Condition
TRUNK/GLASS HATCH	:OPEN	Back door opener actuator operation

#### Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to <u>DLK-814</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000001298614

### 1. CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			0 100	V I 00
(+)		(-)	Condition of back door opener switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	·	,
M66	45	Ground	Pressed	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

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

BCM connector	Terminal	Back door lock assembly connector	Terminal	Continuity
M66	45	D190	4	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M66	45	Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

Back door lock assembly connector	Terminal	Ground	Continuity
D190	3		Exists

#### Is the inspection result normal?

< COMPONENT DIAGNOSIS >	PENER ACTUATOR [WITHOUT I-KEY, WITH SUPER LOCK]
YES >> GO TO 4.	
NO >> Repair or replace harness.  4.CHECK INTERMITTENT INCIDENT	A
Refer to GI-39, "Intermittent Incident".	В
>> INSPECTION END	
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[WITHOUT I-KEY, WITH SUPER LOCK]

### **FUEL LID OPENER ACTUATOR**

Description

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

## Component Function Check

INFOID:0000000001301309

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "DOOR LOCK/UNLOCK" in "Active Test" mode with CONSULT-III.

Test item		Condition	
	:ALL UNLK	The fuel lid opener actuator are unlocked	
DOOR LOCK/UNLOCK	:DR UNLK	The fuel lid opener actuator is unlocked	
	:LOCK	The fuel lid opener actuator are locked	

### Is the inspection result normal?

YES >> Fuel lid opener actuator is OK.

NO >> Refer to <u>DLK-816</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001301310

### 1. CHECK BCM OUTPUT SIGNAL

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

Terminals			Condition of documents	V. II (1.0)	
(+)		(–)	Condition of door lock and unlock switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)		, ,	
M67	56	Ground	Lock	$0 \to \text{Battery voltage} \to 0$	
IVIO7	60	Giodila	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK FUEL LID OPENER ACTUATOR CIRCUIT

- 1. Disconnect BCM and fuel lid opener actuator connector.
- 2. Check continuity between BCM connector and fuel lid opener actuator connector.

BCM connector	Terminal	Fuel lid opener actuator connector	Terminal	Continuity
M67	56	B58	2	Exists
	60	550	1	LAISIS

3. Check continuity between BCM connector and ground.

BCM connector	BCM connector Terminal		Continuity	
M67	56	Ground	Does not exist	
	60		DOES HOLEKIST	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

## **FUEL LID OPENER ACTUATOR**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

Refer to GI-39, "Intermittent Incident"

>> INSPECTION END

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### **BACK DOOR OPENER SWITCH**

[WITHOUT I-KEY, WITH SUPER LOCK]

### < COMPONENT DIAGNOSIS >

### **BACK DOOR OPENER SWITCH**

Description INFOID:000000001298620

Sends the back door opening signal to BCM.

## Component Function Check

INFOID:0000000001298621

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check "TRNK OPNR SW" in "Data Monitor" mode with CONSULT-III.

Monitor item	Condition	
TRNK OPNR SW	Back door opener switch is pressed	:ON
	Back door opener switch is released	:OFF

#### Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-818</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:000000001298622

### 1. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector and ground.

Terminals			On a life and the state of	V-16 (A.A.	
(+)		( )	Condition of back door opener switch	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	'	, II ,	
M65	29	Ground	Pressed	0	
IVIOS	29	Ground	Released	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

## 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and back door opener switch assembly (opener switch) connector.
- Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM connector	Terminal	Back door opener switch assembly (opener switch) connector	Terminal	Continuity
M65	29	D186	1	Exists

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65 29		Ground	Does not exist

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### $oldsymbol{3}.$ CHECK BCM OUTPUT SIGNAL

Check voltage between BCM harness connector and ground.

### **BACK DOOR OPENER SWITCH**

< COMPONENT DIAGNOSIS >

### [WITHOUT I-KEY, WITH SUPER LOCK]

Terminals				
(+)		( )	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	(11 - 7	
M65	29	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 6.

4. CHECK BACK DOOR OPENER SWITCH GROUND CIRCUIT

Check continuity between back door opener switch assembly (opener switch) connector and ground.

Back door opener switch assembly (opener switch) connector	Terminal	Ground	Continuity
D186	2		Exists

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to DLK-819, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-923, "Removal and Installation"</u>.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

## Component Inspection

INFOID:0000000001298623

1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Back door opener switch assembly (opener switch)	Terminal		Back door opener switch condition	Continuity
D186	1	2	Pressed	Exists
D100	I	2	Released	Does not exist

Is the inspection result normal?

YES >> Back door opener switch assembly (opener switch) is OK.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-923, "Removal and Installation"</u>.

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## **BUZZER (COMBINATION METER)**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

## **BUZZER (COMBINATION METER)**

Description INFOID:000000001298624

Performs operation method guide and warning with buzzer.

## Component Function Check

INFOID:0000000001298625

## 1. CHECK FUNCTION

### (P)With CONSULT-III

Check the operation with "INSIDE BUZZER" in "Active Test" with CONSULT-III.

Test item	Condition		
	:TAKE OUT	Take away warning chime sounds	
INSIDE BUZZER	:KNOB	Ignition knob switch warning chime sounds	
	:KEY	Key warning chime sounds	

### Is the inspection result normal?

Yes >> Warning buzzer in combination meter is OK.

No >> Refer to <u>DLK-820</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298626

## 1. CHECK BUZZER (COMBINATION METER) CIRCUIT

Refer to DLK-820, "Component Function Check".

### Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace buzzer (combination meter) circuit.

## 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **HAZARD WARNING LAMPS**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

COMIT CITETY BIXONOGIC			
HAZARD WARNING LAMPS	А		
Description INFOID:000000001298627			
Performs answer-back for each operation with the number of blinks.	В		
Component Function Check			
1. CHECK FUNCTION	С		
With CONSULT-III Check hazard warning lamp "FLASHER" in "Active Test" mode with CONSULT-III.      Is the inspection result normal?        Consumption	D		
YES >> Hazard warning lamp circuit is OK. NO >> Refer to <u>DLK-821, "Diagnosis Procedure"</u> .	Е		
Diagnosis Procedure			
1. CHECK HAZARD SWITCH CIRCUIT	F		
Check hazard switch circuit.  Refer to DLK-821, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.	G		
NO >> Repair or replace hazard warning switch circuit.  2.CHECK INTERMITTENT INCIDENT	Н		
Refer to GI-39, "Intermittent Incident".			
>> INSPECTION END	I		
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### **VEHICLE SPEED SIGNAL CIRCUIT**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

### VEHICLE SPEED SIGNAL CIRCUIT

Description INFOID:000000001298630

Displays the vehicle speed signal received from combination meter as a numerical value (km/h).

### Component Function Check

INFOID:0000000001298631

## 1. CHECK FUNCTION

Check that all doors are automatically locked at the vehicle speed of more than 25 km/h (16 MPH).

### Is the inspection result normal?

YES >> Vehicle speed signal circuit is OK.

NO >> Refer to <u>DLK-822</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000001298632

## 1. CHECK VEHICLE SPEED SIGNAL CIRCUIT

Check vehicle speed signal "VEHICLE SPEED" in "Data Monitor" mode with CONSULT-III.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace vehicle speed signal circuit.

## 2. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

### **KEYFOB BATTERY**

< COMPONENT DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

## **KEYFOB BATTERY**

Description INFOID:000000001281364

Remote door lock and unlock control entry function available when operating on button.

· Door lock and unlock

## Component Function Check

## 1. CHECK KEYFOB FUNCTION

Does door lock and unlock operate with operating keyfob switch?

Is the inspection result normal?

YES >> Keyfob is OK.

NO >> Refer to <u>DLK-823</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

## 1. CHECK KEYFOB BATTERY

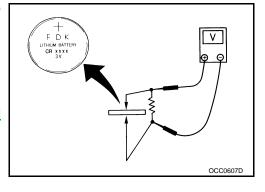
Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

### Standard: Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace keyfob.

NO >> Replace keyfob battery. Refer to <u>DLK-924, "Exploded View"</u>.



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## **ECU DIAGNOSIS**

## BCM (BODY CONTROL MODULE)

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
ICNI ONI CW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
KEN ON OW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
ODL LOOK OW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the lock side	On
CDL LINI OCK CW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the unlock side	On
DOOD OW DD	Driver's door closed	Off
DOOR SW-DR	Driver's door opened	On
D00D 0W 40	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
D00D 0W DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
20020111	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
DAOK DOOD OW	Back door closed	Off
BACK DOOR SW	Back door opened	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
DUCU CW	Return to ignition switch to "LOCK" position	Off
PUSH SW	Press ignition switch	On
KEM EGG LOOK	"LOCK" button of key fob is not pressed	Off
KEYLESS LOCK	"LOCK" button of key fob is pressed	On
VEV/ 500 HNI 00V	"UNLOCK" button of key fob is not pressed	Off
KEYLESS UNLOCK	"UNLOCK" button of key fob is pressed	On
	Ignition switch ON	NOMAL
SHOCK SENSOR	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
TIMEOUN STIOCK	Other than the following	Off
UNLOCK SHOCK	During the unlock operation interlocked with air bag	On

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITHOUT I-KEY, WITH SUPER LOCK]

Monitor Item	Condition	Value/Status
UNLOCK WITH DR	NOTE: The item is indicated, but not monitored	On Off
	Vehicle speed sensing auto door lock function does not operate	Off
LOCK WITH SPEED	Vehicle speed sensing auto door lock function does not operate vehicle speed sensing auto door lock function is operating	On
	Ignition switch OFF	Off
ACC ON SW	Ignition switch ACC or ON	On
	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
	Lighting switch OFF	Off
TAIL LAMP SW	Lighting switch 1ST	On
	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
	Lighting switch OFF	Off
HI BEAM SW	Lighting switch HI	On
	Lighting switch OFF	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
	Lighting switch OFF	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Lighting switch OFF	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
DD 500 0W	Rear fog lamp switch OFF	Off
RR FOG SW	Rear fog lamp switch ON	On
	Engine stopped	Off
ENGINE RUN	Engine running	On
	Light & rain sensor is in normal condition	ОК
LIT-SEN FAIL	Light & rain sensor is with error	NOTOK
ALIT LIGHT OVO	Outside of the room is dark	On
AUT LIGHT SYS	Outside of the room is bright	Off
HD LIGHT TIME	_	Displays a setting time of the follow me home function set by the work support
IGN SW CAN	Ignition switch OFF or ACC	Off
IGN SW CAN	Ignition switch ON	On
FR WIPER HI	Front wiper switch OFF	Off
FR WIFER AI	Front wiper switch HI	On
FR WIPER LOW	Front wiper switch OFF	Off
I IN WIFER LOW	Front wiper switch LO	On
ED WIDED INT	Front wiper switch OFF	Off
FR WIPER INT	Front wiper switch INT	On

**DLK-825** 

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS >

## [WITHOUT I-KEY, WITH SUPER LOCK]

Monitor Item	Condition	Value/Status
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
RR WIPER ON	Rear wiper switch OFF	Off
KK WIFEK ON	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
KK WIPEK IINI	Rear wiper switch INT	On
DD WIDED CTOD	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
DD WACHED CW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DEVEDOE OW OAN	NOTE:	Off
REVERSE SW CAN	The item is indicated, but not monitored	On
H/L WASH SW	When headlamp washer switch is not pressed	Off
	When headlamp washer switch is pressed	On
EAN ON OIO	Blower fan motor switch OFF	Off
FAN ON SIG	Blower fan motor switch ON (other than OFF)	On
AID COND OW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
AIR COND SW	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
	Hazard switch OFF	Off
HAZARD SW	Hazard switch ON	On
DDAKE OW	Brake pedal is not depressed	Off
BRAKE SW	Brake pedal is depressed	On
TDAIK ODAID OW	When back door opener switch is not pressed	Off
TRNK OPNR SW	When back door opener switch is pressed	On
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
AUTO RELOCK	Auto lock function does not operate	Off
AUTO RELOCK	Auto lock function is operating	On
CLS DDEAK SEN	The vehicle without glass break sensor	Off
GLS BREAK SEN	The vehicle with glass break sensor	On
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off
	Ignition switch ON	On

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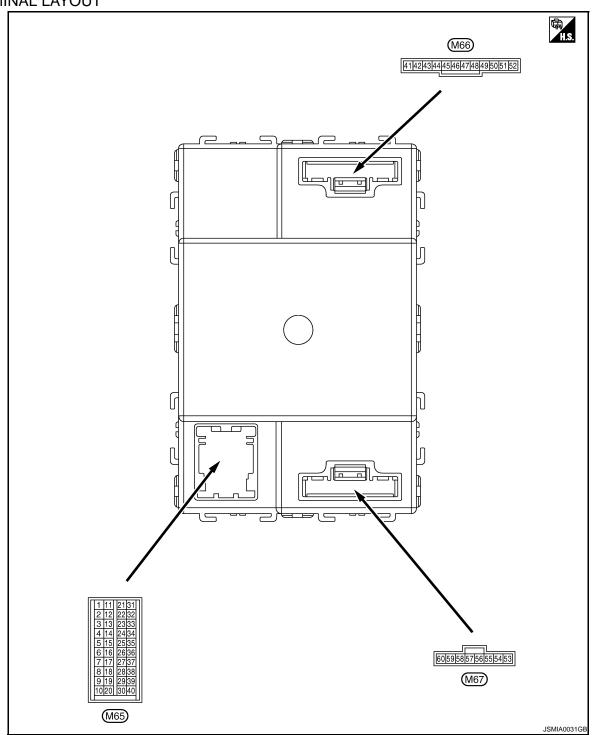
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**TERMINAL LAYOUT** 



### PHYSICAL VALUES

### **CAUTION:**

• Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.

- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-28, "COMB SW: CONSULT-III Function (BCM COMB SW)".
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to <u>BCS-9</u>, "System <u>Description"</u>.

# BCM (BODY CONTROL MODULE) [WITHOUT I-KEY, WITH SUPER LOCK]

## < ECU DIAGNOSIS >

	nal No.	Description  Signal name  Input/ Output			Value (Approx.)
+ (Wire	color)			Condition	
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
3	Ground	Ignition power sup-		Ignition switch OFF or ACC	0 V
(W)	(W) Ground ply		Input	Ignition switch ON or START	Battery voltage
4	Cround	ACC nower aunnly	Innut	Ignition switch OFF	0 V
(SB)	Ground ACC power supply Input		iriput	Ignition switch ON or ACC	Battery voltage
5 (LG) <sup>*1</sup>		ey switch Input	Insert mechanical key into ignition key cylinder	Battery voltage	
(R)*2	, ,		Remove mechanical key from ignition key cylinder	0 V	

### < ECU DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

Ρ

	inal No.	Description				Value	А
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0165GB	С
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0166GB 1.3 V	E
6 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0167GB 1.3 V	G H
					Rear washer switch ON	(V) 15 10 5 0 JPMIA0169GB 1.3 V	J DLK L
					Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3	(V) 15 10 5 0 JPMIA0196GB	M
						1.3 V	$\circ$

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB 1.4 V
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0166GB 1.3 V
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 → 1ms JPMIA0168GB 1.3 V
					Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 6	(V) 15 10 5 0 1ms JPMIA0169GB 1.3 V
					Rear wiper INT (Wiper intermittent dial 4)	(V) 15 10 5 0

### < ECU DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

Ρ

Signal name Output  All switch OFF  All switch OFF  Turn signal switch RH  Combination switch (Wiper intermittent dial 4)  Front wiper switch LO  (V)  15  10  10  (Approx.)  (Approx.)  (V)  15  10  10  11  11  11  11  11  11  11		inal No. e color)	Description			On a distant	Value	А
Turn signal switch RH  Combination switch INPUT 1  Combination switch (Wiper intermittent dial 4)  Front wiper switch LO  Front wiper switch LO  (V)  1.3 V  (V)  15  1.3 V  Front wiper switch LO  (V)  15  10  10  10  10  11  PMACHISCIBLE  1.3 V  (V)  15  10  10  10  10  10  10  11  11  12  13  14  15  10  15  15		1	Signal name	Input/ Output		Condition	(Approx.)	$\sqcap$
8 (V) Ground Combination switch INPUT 1 Input Input Wiper intermittent dial 4)  Combination switch (Wiper intermittent dial 4)  Turn signal switch RH  (V) 15						All switch OFF	→ ←1 ms	B C D
(V) Front wiper switch LO  (Wiper intermittent dial 4)  Front wiper switch LO  (V)  1.3 V  (V)  1.3 V  (V)  1.5						Turn signal switch RH	10 5 0 → ←1 ms JPMIA0166GB	E
JPMIA0168GB  1.3 V  (V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10	8 (V)	Ground		Input	switch (Wiper intermit-	Turn signal switch LH	→ ←1 ms	G H
						Front wiper switch LO	→ ←1 ms JPMIA0168GB	DLK
Front washer switch ON  O  JPMIA0196GB  1.3 V						Front washer switch ON	10 5 0 → 1 ms JPMIA0196GB	M

	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF	(V) 15 10 5 0 JPMIA0165GB 1.4 V	
					Lighting switch 2ND	(V) 15 10 5 0 1ms JPMIA0166GB 1.3 V	
9 (G)*3 (B)*4	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch PASS	(V) 15 10 5 0 1ms JPMIA0167GB	
					Front wiper switch INT	(V) 15 10 5 0 JPMIA0168GB 1.3 V	
					Front wiper switch HI	(V) 15 10 5 0 → 1 ms JPMIA0196GB 1.3 V	

### < ECU DIAGNOSIS >

# [WITHOUT I-KEY, WITH SUPER LOCK]

Р

Terminal No. Description (Wire color)		Description				Value	Δ
+	- COIOT)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0165GB	C
					Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 1ms JPMIA0167GB	F
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0168GB	F
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0169GB 1.3 V	DI
					Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 JPMIA0196GB 1.3 V	N
11 (B)	Ground	Audio link	Input/ Output	_	_	_	(

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (When rear door RH opened)	0 V
13 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (When back door opened)	0 V
14 (P)*3 (BR)*4	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (When passenger door opened)	0 V
15 (BR)*3 (P)*4	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms 10 ms PKID0924E
					ON (When driver door opened)	0 V

### < ECU DIAGNOSIS >

Termin		Description				Value	А
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	^
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	(V) 15 10 5 0 10 ms PKID0924E	В
					ON (When rear door LH opened)	11.2 V 0 V	D E
17 (L)	Ground	Door lock status indi- cator	Output	Door lock status indicator	ON OFF	12 V 0 V	
20 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10	F G H
					While pressing	0 V	1
21 (P)	_	CAN-L	Input/ Output		_	_	
22 (L)	_	CAN-H	Input/ Output		_	_	J
23 (V)	Ground	Security indicator	Output	Security indicator	ON  Blinking  OFF	0 V (V) 15 10 5 0 10.3 V	DLK L
				Ignition switch O		12 V	Ν
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 JPMIA0156GB 8.7 V	O P
25	Ground	Alarm link	Output			_	

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
26 (GR) <sup>*5</sup> (LG) <sup>*6</sup>	Ground	Blower fan motor switch	Input	Blower fan mo- tor switch	OFF	(V) 15 10 5 0 10 ms PKID0924E 11.2 V
					ON (other than OFF)	0 V
27 (P)*5 (Y)*6	Ground	A/C switch	Input	Ignition switch ON	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	(V) 15 10 5 0 10 ms PKID0924E
					Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	0 V
				Ignition switch O	FF or ACC	0 V
28 (LG) <sup>*7</sup> (R) <sup>*8</sup>	Ground	Shock detect sensor	Input	Ignition switch O	N	(V) 15 10 5 0 1.0s JPMIA0155GB
29 (LG)* <sup>3</sup> (O)* <sup>4</sup>	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 → ←10ms JPMIA0154GB 1.2 V
					Pressed	0 V
32 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0 
					Pressed to the unlock side	1.2 V

### < ECU DIAGNOSIS >

	nal No. color)	Description			Condition	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0  JPMIA0154GB 1.3 V	B C
					ON	0 V	
34 (SB) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	(V) 15 10 5 0	E
						JPMIA0154GB 1.2 V	G
					Pressed to the lock side	0 V	
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	(V) 15 10 5 0 JPMIA0154GB	H I
						1.2 V	J
					Pressed to the lock side	0 V	
					All switch OFF	0 V	DL
					Turn signal switch RH Lighting switch 2ND	(V) 15	
36		Combination switch		Combination switch	Lighting switch HI	15	L
(G)	Ground	OUTPUT 5	Output	(Wiper intermittent dial 4)	Lighting switch 1ST	10 5 0 	N
					All switch OFF (Wiper intermittent dial 4)	9.1 V	N
					Front washer switch ON		
					(Wiper intermittent dial 4)		C
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15	
37 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the condition below with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 5  Wiper intermittent dial 6	10 5 0 	Р
					Rear wiper switch ON (Wiper intermittent dial 4)	9.1 V	

	nal No.	Description				Val.
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switch OFF	0 V
					Front wiper switch LO	
				Cambinatian	Front wiper switch MIST	(V) 15
38	0	Combination switch	0	Combination switch	Front wiper switch INT	10 11 11 11 11 11
(W)	Ground	OUTPUT 3	Output	(Wiper intermit-	Lighting switch AUTO	ŏ de la companya de l
				tent dial 4)	Rear fog lamp switch ON	JPMIA0162GB
					All switch OFF	0 V
					Turn signal switch LH	
				Combination	Lighting switch PASS	(V) 15
39	Ground	Combination switch	Output	switch	Lighting switch 2ND	10
(Y)	Cround	OUTPUT 4	Output	(Wiper intermit- tent dial 4)		0
				torit didi 4)	Front fog lamp switch ON	→ -2ms
						JPMIA0163GB
						9.3 V
					All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the condition below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 2ms JPMA0160GB
					Rear wiper switch INT (Wiper intermittent dial 4)	9.1 V
41 (LG)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	Battery voltage
42		Interior room lamp	<u> </u>	Interior room lam	p battery saver activation	0 V
(V)	Ground	power supply	Output	Interior room lam	p battery saver no activation	12 V
43	0	December of the second	0	Rear wiper switch	h OFF	0 V
(SB)	Ground	Rear wiper motor	Output	Rear wiper switch ON		12 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	(V) 15 10 5 0 
					Any position other than rear wiper stop position	0 V

### < ECU DIAGNOSIS >

	nal No.	Description				Value	/
+	color)	Signal name	Input/ Output		Condition	(Approx.)	/
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	(V) 15 10 5 0 *** 0.1s	(
					Not pressed  Turn signal switch OFF	0 V 0 V	[
47 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 11 1 s	E F
					Tarakan in 1 OFF	6.5 V	
					Turn signal switch OFF	0 V	ı
48 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s	
40					OFF	6.5 V	
49 (Y)	Ground	Rear fog lamp	Output	Rear fog lamp	ON	12 V	D
50 (G)	Ground	Unlock sensor	Input	Driver's door	Unlock	5 V	
51				Depress the bra		Battery voltage	
(R)	Ground	Stop lamp switch	Input	Release the bra	ke pedal	0 V	
52	Ground	Room lamp timer	Output	Interior room	OFF	12 V	
(R)	2.30	control		lamp	ON	0 V	
53 (L)	Ground	Power window pow- er supply (IGN)	Output	Ignition switch	OFF or ACC	0 V 12 V	
54 (O)	Ground	Door unlock (All other than driv- er's door)	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0 ***0.1s	(
					Not pressed	0 V	
55		Ground		Ignition switch C		0 V	

#### < ECU DIAGNOSIS >

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
					Not pressed	0 V
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un- lock switch	Pressed to the lock side	(V) 15 10 5 0 ++0.1s SKIA9232E
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch O	FF	12 V
59	0	Our en la ele	Outroit	When lock buttor is not pressed	of key fob or Intelligent Key	0 V
(R)	Ground	Super lock	Output	When lock buttor is pressed	of key fob or Intelligent Key	12 V
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	(V) 15 10 5 0 ++0.1s SKIA9232E
					Not pressed	0 V

<sup>\*1:</sup> With Intelligent Key

<sup>\*2:</sup> Without Intelligent Key

<sup>\*3:</sup> RHD models

<sup>\*4:</sup> LHD models

<sup>\*5:</sup> With gasoline engine

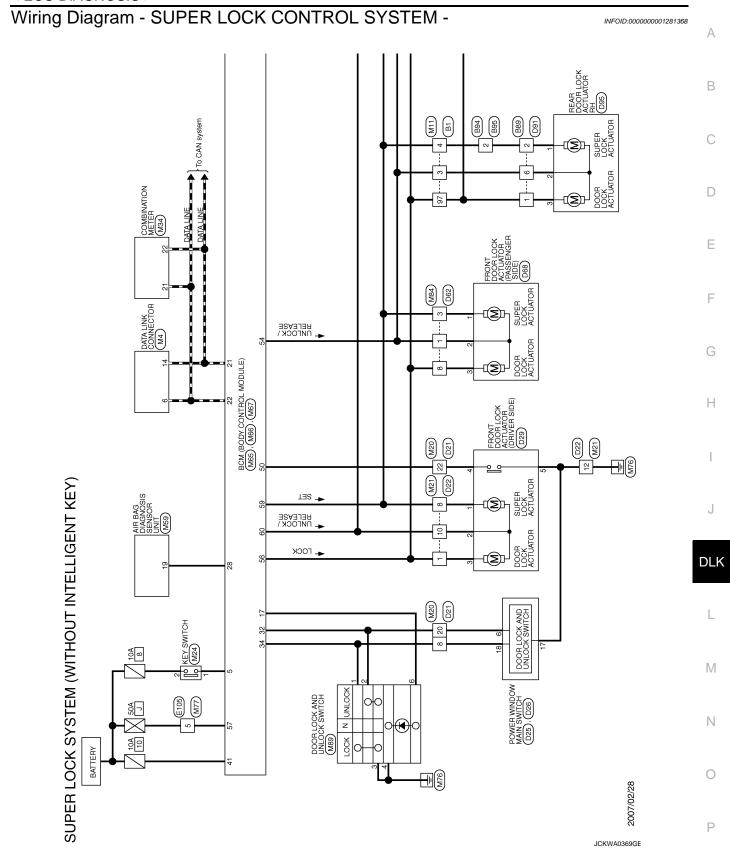
<sup>\*6:</sup> With diesel engine

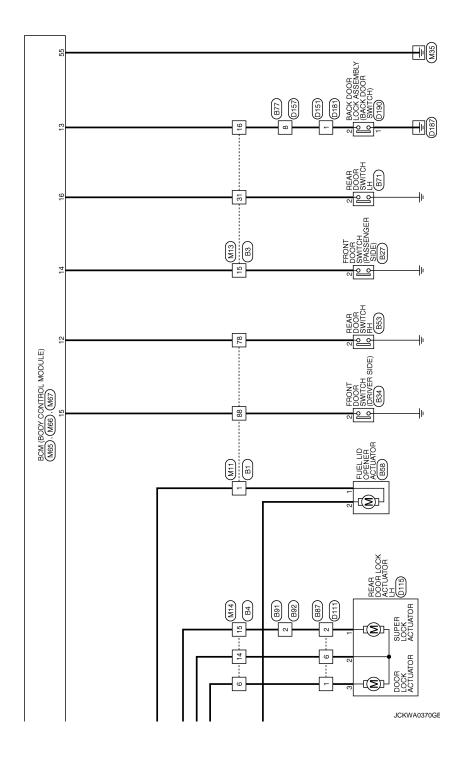
<sup>\*7:</sup> RHD models with side air bag

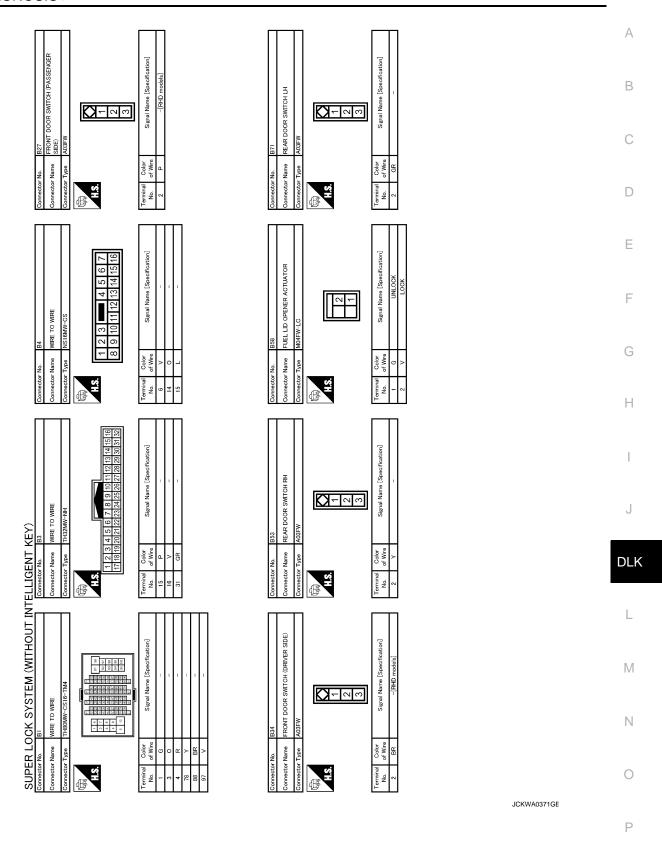
<sup>\*8:</sup> LHD models with side air bag

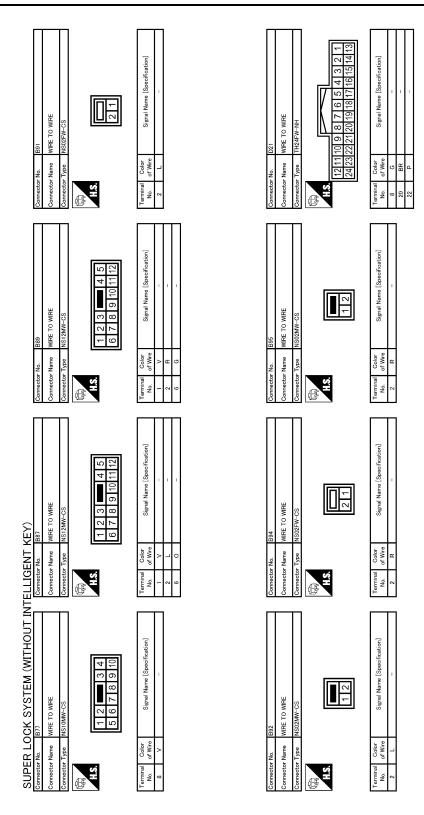
<sup>\*9:</sup> With xenon headlamp and daytime light system

<sup>\*10:</sup> Except with xenon headlamp and daytime light system



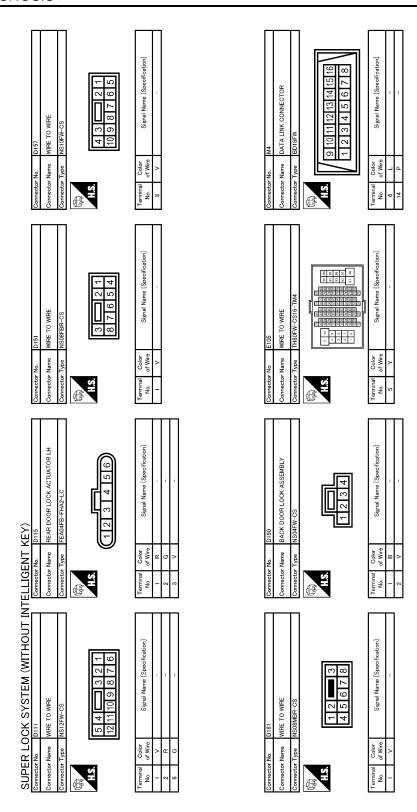




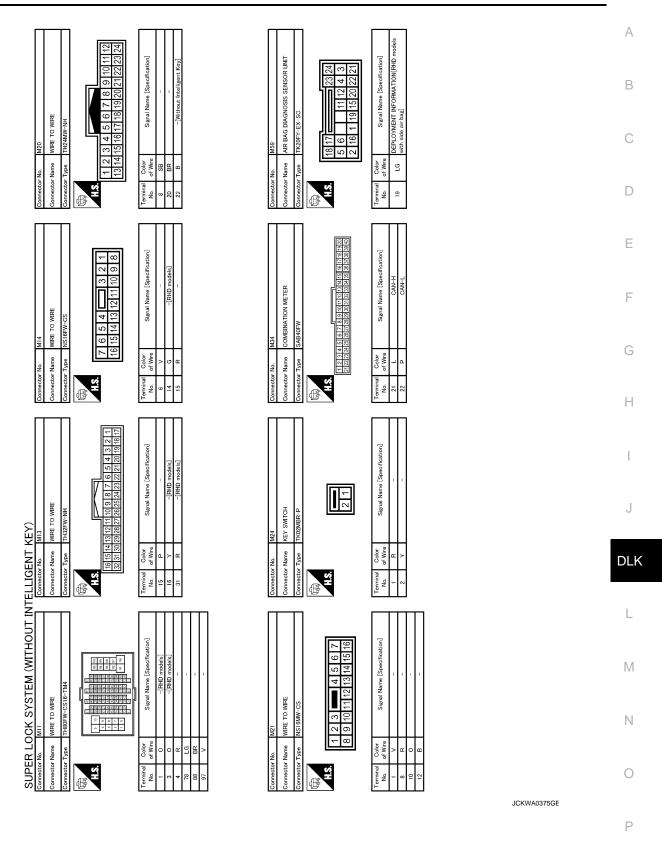


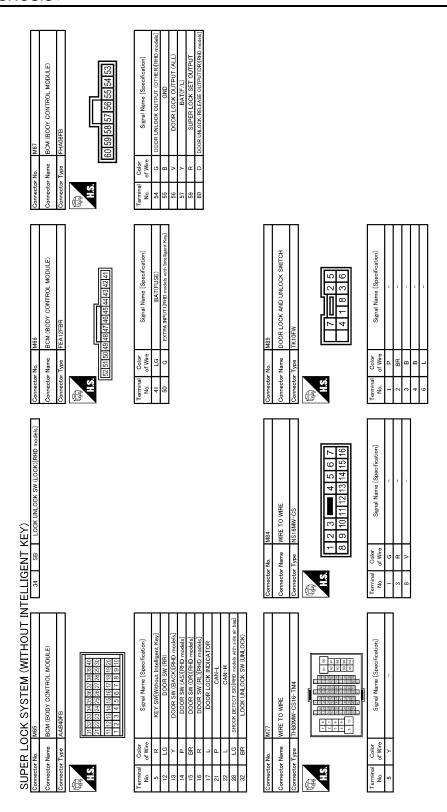
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SUBSE LOCK SYSTEM WITHOUT MYELLOGAT KEY)    Control by the part of	1029 FROMI DOOR LOCK ACTUATOR (DRIVER SIDE) FEAGAFB-FHA2-LC 6   5   4   3   2   1 )	Signal Name (Specification)	PEADER FORK ACTUATOR RH FEADURE FHAZ-LC  6 5 4 3 2 1	Signal Name [Specification]		АВ
SUPER LOCK SYSTEM WITHOUT INTELLIGENT KEY)  Streets from first off the contract how for the c	nector No.	Color of Wire BR BR SB SB B P P P		Color of Wire R R C V V		
SUPER LOCK SYSTEM (WITHOUT INTELLIGENT KEY)   Consider this process than process	WINDOW MAIN SWITCH 1-CS 1-CS 1-CS 1-CS 1-CS 1-CS 1-CS 1-CS	Signal Name [Specification]	E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name [Specification]		
SUPER LOCK SYSTEM (WITHOUT INTELLIGENT KEY)						
Connector Name   WITE TO WITE   Connector Name   Connec	WINDOW MAIN SWITCH F-CS  4		DOOR LOOK ACTUATOR NGER SIDE) B-FHA2-LC	Signal Name [Specification]		J
Connector Name   WIRE TO WIRE	Connector No. D25 Connector Name POWER Connector Type INSTEPP  H.S.	Color of Wire	Connector No. Connector Name Connector Type			
JCKWA0373GE		nal Name [Specification]	3 2 1 2 1 12 1 10 9 8	nal Name (Specification)		
JCKWA0373GE	SUPER LOCK SY.  Connector Nun. D22  Connector Nune WIRE TO WII  Connector Type NSI 16TV-CS  MA  T 6 5 4	Color SB SB BR	16	Color of Wire O Wire V		
					JCKWA0373GE	Р



JCKWA0374GE





JCKWA0376GE

Wiring Diagram - REMOTE KEYLESS ENTRY CONTROL SYSTEM -

INFOID:0000000001281369 Α В ◆ To back door opener system To turn signal and hazard warning lamps To super lock system C D To CAN system Е COMBINATION METER (M34) F G M35 BACK DOOR LOCK ASSEMBLY (BACK DOOR SWITCH) 2 Н DATA LINK CONNECTOR (M4) 0157 D151 (D181) BCM (BODY CONTROL MODULE) (M65) (M66) (M67) REAR DOOR SWITCH LH J 31 FRONT DOOR SWITCH (PASSENGER SIDE) SWITCH (M24) DLK M13 E105 M77 L 2 REAR DOOR SWITCH RH B53 M 78 SWITCH (DRIVER SIDE) (B34) Ν

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REMOTE KEYLESS ENTRY SYSTEM (RHD MODELS)

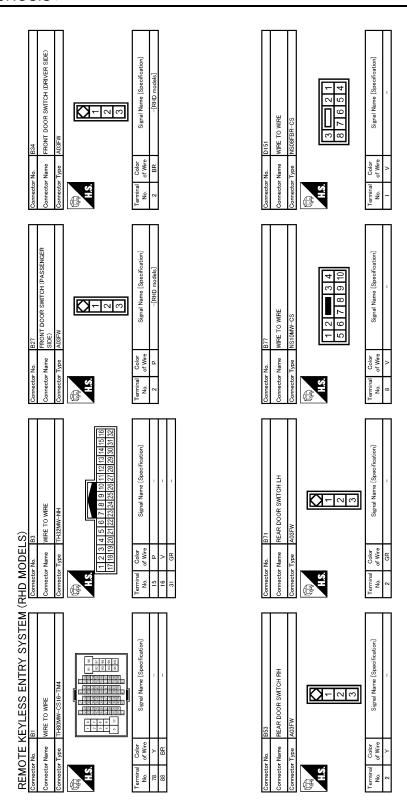
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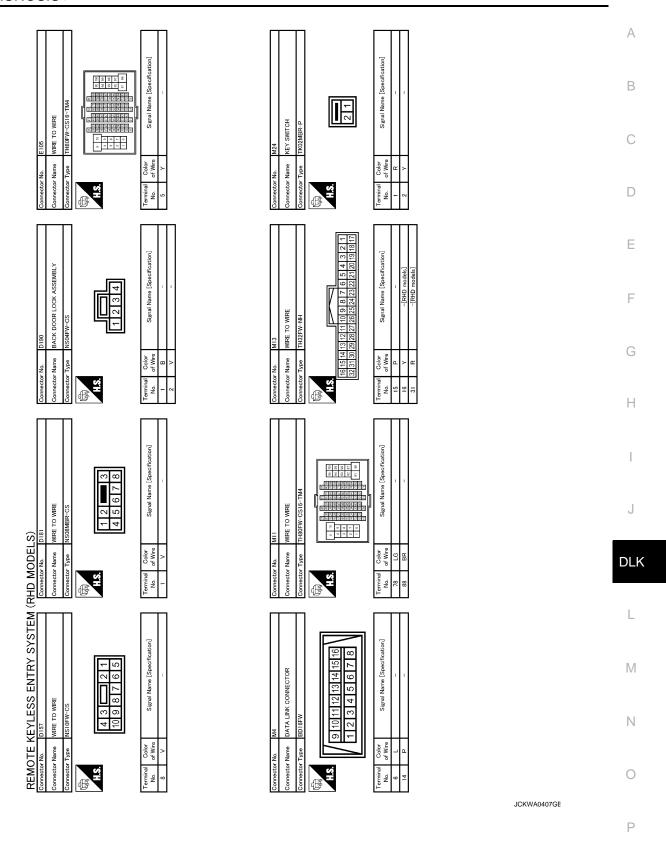
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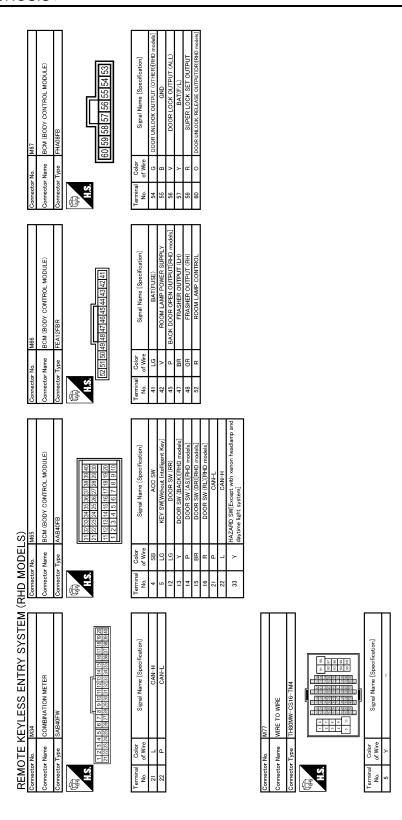
BATTERY

IGNITION SWITCH ACC or ON



JCKWA0406GE





JCKWA0408GE

Wiring Diagram - BACK DOOR OPENER CONTROL SYSTEM -

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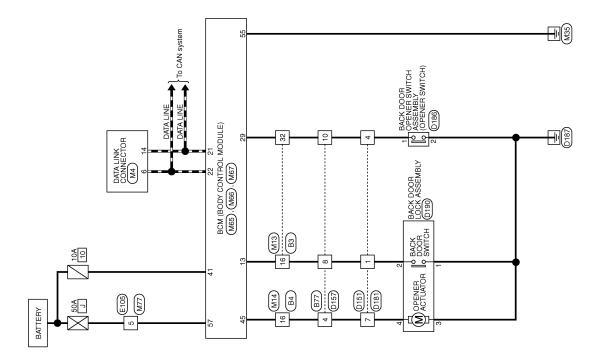
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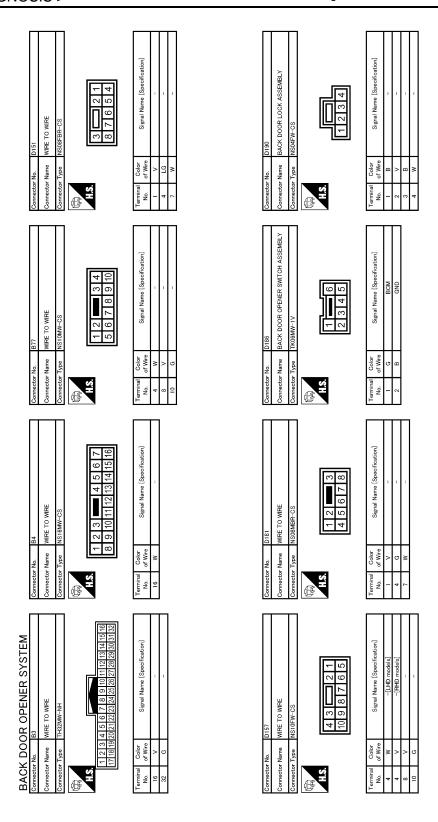
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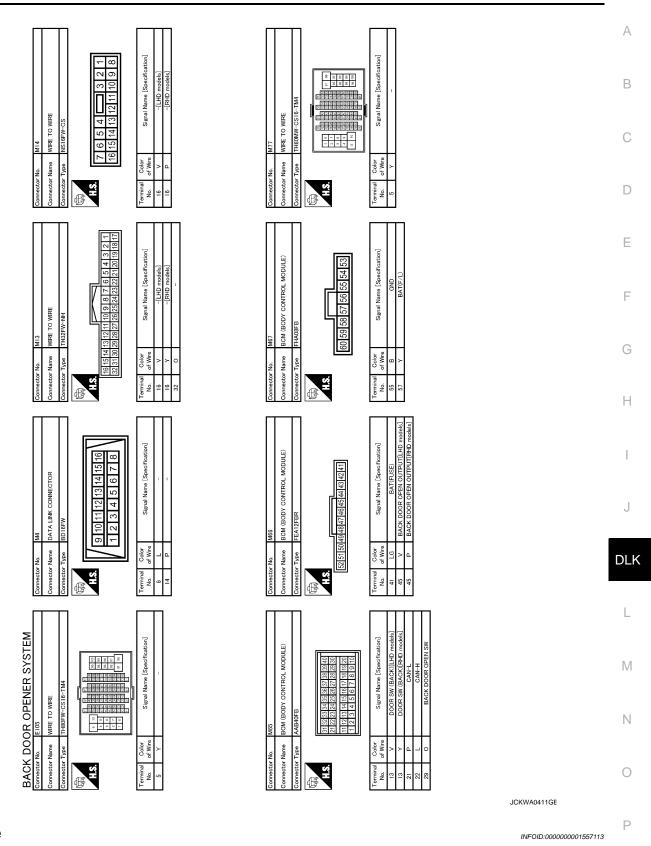
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JCKWA0409GE

BACK DOOR OPENER SYSTEM



JCKWA0410GE



### Fail Safe

### FAIL-SAFE CONTROL BY DTC

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

#### [WITHOUT I-KEY, WITH SUPER LOCK]

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2195: ANTI SCANNING	Inhibits engine cranking     Inhibits steering lock unlocking (Intelligent Key unit)     Fuel cut (ECM)	Erase DTC
B2196: DONGLE NG	<ul> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

#### Condition of cancellation

- 1. Turn ignition switch OFF.
- 2. Pass more than 1 minute after the rear wiper stop.
- 3. Turn ignition switch ON.
- 4. Operate the rear wiper switch.

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

#### NOTE:

The blinking speed is normal while activating the hazard warning lamp.

#### FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

#### Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

# DTC Inspection Priority Chart

INFOID:0000000001557114

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERNCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2194: DISCORD BCM-I-KEY</li> <li>B2195: ANTI SCANNING</li> <li>B2196: DONGLE NG</li> </ul>

[WITHOUT I-KEY, WITH SUPER LOCK]

#### < ECU DIAGNOSIS >

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

DTC	TI	IME	Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	_	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	_	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	With Intelligent Key system: <u>SEC-41</u> Without Intelligent Key system: <u>SEC-254</u>
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	With Intelligent Key system: <u>SEC-43</u> Without Intelligent Key system: <u>SEC-256</u>
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-38</u> Without Intelligent Key system: <u>SEC-251</u>
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	With Intelligent Key system: <u>SEC-40</u> Without Intelligent Key system: <u>SEC-253</u>
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	<u>SEC-53</u>
B2195: ANTI SCANNING	CRNT	PAST	×	With Intelligent Key system: <u>SEC-54</u> Without Intelligent Key system: <u>SEC-264</u>
B2196: DONGLE NG	CRNT	PAST	×	With Intelligent Key system: <u>SEC-55</u> Without Intelligent Key system: <u>SEC-265</u>

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# **SYMPTOM DIAGNOSIS**

# DOOR LOCK

Symptom Table

INFOID:0000000001515880

The diagnostics item numbers show the sequence for inspection. Inspection in order from item 1.

NO.	Function	Operation condition	Symptom	Diagnostic Item	Reference page
				All doors	DLK-859
		Press door lock and unlock switch.		Driver side	DLK-859
			Door does not lock/unlock	Passenger side	DLK-860
				Rear LH	DLK-860
	Door lock and			Rear RH	DLK-861
1	unlock switch function	Open the door from inside the vehicle.		Driver side	DLK-862
			Door does not open from inside the vehicle.	Passenger side	DLK-862
				Rear LH	DLK-862
				Rear RH	DLK-863
		Lock all doors with key fob.	Door lock and unlock switch indicator does not illuminate.	_	DLK-864
2	Key reminder function	Open the door, when mechanical key is inserts into ignition key cylinder.	Key reminder function does not operate	_	DLK-865
3	Auto door lock function	Unlock all doors and wait more than 2 minutes.	Auto door lock operation does not operate	_	DLK-866
4	Vehicle speed sensing auto door lock func- tion	Vehicle speed is more than 25km/h.	Vehicle speed sensing auto door lock operation does not operate	_	DLK-867
5	Back door open- er function	Press back door opener switch.	Back door does not open	_	DLK-868
6	Warning function	Press back door opener switch under the following conditions.  Door is locked with door lock and unlock switch.  Speed sensing lock or only driver side is unlocked with anti-hijack function.	Back door open warning does not operate	_	DLK-869
7	Hazard reminder function	Press Key fob button.	Hazard reminder operation does not operate	_	DLK-870

#### [WITHOUT I-KEY, WITH SUPER LOCK] < SYMPTOM DIAGNOSIS > DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK Α SWITCH **ALL DOOR** В **ALL DOOR: Description** INFOID:0000000001515881 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-756, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) D Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Е Doors are not locked by key fob. ALL DOOR: Diagnosis Procedure INFOID:0000000001515882 F ${f 1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT Check power supply and ground circuit. Refer to DLK-788, "BCM: Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. Н 2.CHECK KEY FOB BATTERY Check key fob battery. Refer to DLK-823, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.check door switch DLK Check door switch. Refer to <u>DLK-795</u>, "PASSENGER SIDE: Component Function Check" (passenger side). Refer to DLK-797, "REAR LH: Component Function Check" (rear LH). Refer to DLK-798, "REAR RH: Component Function Check" (rear RH). Refer to <u>DLK-800</u>, "BACK DOOR: Component Function Check" (back door). Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CONFIRM THE OPERATION N Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. DRIVER SIDE **DRIVER SIDE: Description** INFOID:0000000001515883

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

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Except driver side, doors are closed.

### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITHOUT I-KEY, WITH SUPER LOCK]

#### < SYMPTOM DIAGNOSIS >

- · Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- · Doors are not locked by key fob.

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

INFOID:0000000001515884

### 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-804, "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.

#### Is the result normal?

>> Check intermittent incident. Refer to GI-39, "Intermittent Incident". YES

NO >> GO TO 1.

### PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:0000000001515885

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-756, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- Passenger side door is not in anti-hijack state.
- Doors are not locked by Intelligent Key or door request switch.

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001515886

### 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (passenger side).

Refer to DLK-644, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

### **REAR LH: Description**

INFOID:0000000001515887

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow"</u>.
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Except driver side, doors are closed.
- Super lock is not in set state.
- · Passenger side door is not in anti-hijack state.

#### DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [WITHOUT I-KEY, WITH SUPER LOCK] < SYMPTOM DIAGNOSIS > Doors are not locked by Intelligent Key or door request switch. Α **REAR LH**: Diagnosis Procedure INFOID:0000000001515888 1. CHECK DOOR LOCK ACTUATOR В Check door lock actuator LH. Refer to DLK-645, "REAR LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION D Confirm the operation again. Is the result normal? Е YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. REAR RH F REAR RH: Description INFOID:0000000001515889 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Н Conditions of Vehicle (Operating Conditions) • Except driver side, doors are closed. Super lock is not in set state. Passenger side door is not in anti-hijack state. Doors are not locked by Intelligent Key or door request switch. **REAR RH**: Diagnosis Procedure INFOID:0000000001515890 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator RH. DLK Refer to DLK-646, "REAR RH: 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-39, "Intermittent Incident". NO >> GO TO 1. N

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### DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000001515924

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-756, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

· Doors are locked by key fob.

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000001515925

### 1. CHECK SUPER LOCK ACTUATOR

Check super lock actuator (driver side).

Refer to DLK-809, "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.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

### PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:0000000001515926

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Doors are locked by key fob.

## PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001515927

# 1. CHECK SUPER LOCK ACTUATOR

Check super lock actuator (passenger side).

Refer to DLK-810, "PASSENGER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

REAR LH

### REAR LH: Description

INFOID:0000000001515928

#### NOTE:

• Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow"</u>.

### DOOR DOES NOT OPEN FROM INSIDE THE VEHICLE

#### [WITHOUT I-KEY, WITH SUPER LOCK] < SYMPTOM DIAGNOSIS > · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Α Conditions of Vehicle (Operating Conditions) Doors are locked by key fob. **REAR LH**: Diagnosis Procedure В INFOID:0000000001515929 1. CHECK SUPER LOCK ACTUATOR Check super lock actuator LH. Refer to DLK-811, "REAR LH: Component Function Check". Is the inspection result normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Е Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". F NO >> GO TO 1. REAR RH **REAR RH: Description** INFOID:0000000001515930 NOTE: Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. Conditions of Vehicle (Operating Conditions) Doors are locked by key fob. **REAR RH**: Diagnosis Procedure INFOID:0000000001515931 1. CHECK SUPER LOCK ACTUATOR Check super lock actuator RH. DLK Refer to DLK-812, "REAR RH: 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. M Is the result normal? YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident". NO >> GO TO 1. Ν

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### DOOR LOCK AND UNLOCK SWITCH INDICATOR DOES NOT ILLUMINATE [WITHOUT I-KEY, WITH SUPER LOCK]

< SYMPTOM DIAGNOSIS >

### DOOR LOCK AND UNLOCK SWITCH INDICATOR DOES NOT ILLUMINATE

Description INFOID:0000000001524141

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-756, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

• Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000001524142

# 1. CHECK DOOR LOCK AND UNLOCK SWITCH INDICATOR

Check door lock and unlock switch indicator.

Refer to DLK-792, "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-39, "Intermittent Incident".

>> GO TO 1. NO

# **KEY REMINDER FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# KEY REMINDER FUNCTION DOES NOT OPERATE

Description

NOTE:

Description

NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-756</u>. "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

· Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

# 1. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-794, "DRIVER SIDE: Component Function Check". (Driver side)

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK KEY SWITCH

Check key switch.

Refer to DLK-802, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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INFOID:0000000001515892

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

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description INFOID:000000001515893

#### NOTE:

- "AUTO RELOCK TIMER" is not OFF when setting on CONSULT-III.
- Before performing the diagnosis in the following table, check "Work Flow". Refer to DLK-756, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- Understand the operation when does it work, refer to <u>DLK-766, "AUTO DOOR LOCK: System Description"</u>. Conditions of Vehicle (Operating Conditions)
- Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

INFOID:0000000001515894

# 1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT"

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

Refer to DLK-782, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### 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-39, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITHOUT I-KEY, WITH SUPER LOCK]

< SYMPTOM DIAGNOSIS >

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-**ATE** 

Description INFOID:0000000001515895

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to DLK-756, "Work Flow".
- Understand the operation when does it work, refer to DLK-769, "VEHICLE SPEED SENSING AUTO DOOR LOCK: System Description".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Request switch operation and door lock and unlock switch operation are normal.

# Diagnosis Procedure

1. CHECK VEHICLE SPEED SIGNAL

Check vehicle speed signal.

Refer to DLK-822, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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## **BACK DOOR DOES NOT OPENED**

[WITHOUT I-KEY, WITH SUPER LOCK]

## < SYMPTOM DIAGNOSIS >

# BACK DOOR DOES NOT OPENED

Description INFOID:000000001515897

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-756</u>. "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Door lock function is normal.
- Vehicle speed is less than 5 km/h (3MPH).
- All doors are unlocked.

# Diagnosis Procedure

INFOID:0000000001515898

# 1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-814, "Component Function Check".

# Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK BACK DOOR OPENER ACTUATOR

Check back door opener actuator.

Refer to DLK-814, "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-39, "Intermittent Incident".

NO >> GO TO 1.

# **BACK DOOR OPEN WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# BACK DOOR OPEN WARNING DOES NOT OPERATE

Description INFOID:000000001515899

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756. "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

Door lock function and back door opener function is normal.

# Diagnosis Procedure

1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-820, "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-39, "Intermittent Incident".

NO >> GO TO 1.

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# HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# HAZARD REMINDER OPERATION DOES NOT OPERATE

Description INFOID:000000001515901

#### NOTE:

- Before performing the diagnosis in the following table, check "Work Flow". Refer to <u>DLK-756, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- "HAZARD ANSWER BACK" is ON when setting on CONSULT-III.
- · Door lock function is normal.

# Diagnosis Procedure

INFOID:0000000001515902

# 1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT-III

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

Refer to DLK-784, "MULTIREMOTE ENT: CONSULT-III Function (BCM - MULTIREMOTE ENT)".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-784, "MULTIRE-MOTE ENT</u>: CONSULT-III Function (BCM - MULTIREMOTE ENT)".

# 2. CONFIRM THE OPERATION

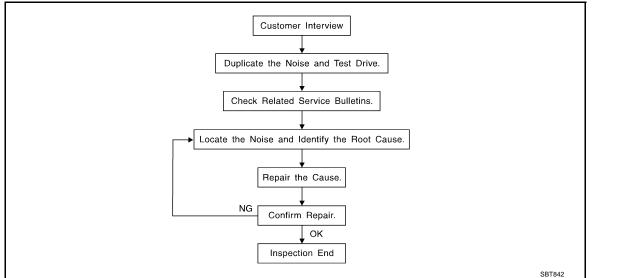
Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".

NO >> GO TO 1.

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of the customer's comments; refer to <a href="DLK-875">DLK-875</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, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by a test drive 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 bumble bee)
- Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you 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 you confirm the repair.

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#### < SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

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

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

#### 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 (Engine Ear or mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- removing the components in the area that you suspect the noise is coming from.
  - Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
  - Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the
  noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.
  - Refer to DLK-873, "Inspection Procedure".

#### REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape are available through your authorized Nissan Parts Department.

#### **CAUTION:**

# Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

• URETHANE PADS

Insulates connectors, harness, etc.

• INSULATOR (Foam blocks)

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

- INSULATOR (Light foam block)
- FELT CLOTHTAPE

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

The following materials, not available through NISSAN Parts Department, can also be used to repair squeaks and rattles.

UHMW(TEFLON) TAPE

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use 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.

#### < SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

Inspection Procedure INFOID:0000000001537528 Α Refer to Table of Contents for specific component removal and installation information. INSTRUMENT PANEL В Most incidents are caused by contact and movement between: Cluster lid A and instrument panel Acrylic lens and combination meter housing 3. Instrument panel to front pillar garnish Instrument panel to windshield 5. Instrument panel mounting pins D Wiring harnesses behind the combination meter A/C defroster duct and duct joint Е 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 har-F CAUTION: Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair. CENTER CONSOLE Components to pay attention to include: 1. Shifter assembly cover to finisher Н A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. **DOORS** Pay attention to the: 1. Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher Wiring harnesses tapping DLK 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. You can usually insulate the areas with felt cloth tape or insulator foam blocks to repair the noise. TRUNK Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for: 1. Trunk lid dumpers out of adjustment 2. Trunk lid striker out of adjustment Ν Trunk lid torsion bars knocking together A loose license plate or bracket Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise. SUNROOF/HEADLINING Р 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

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these

Front or rear windshield touching headlining and squeaking

incidents. Repairs usually consist of insulating with felt cloth tape.

#### < SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

#### SEATS

When isolating seat noise it is important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

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

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

< SYMPTOM DIAGNOSIS >

[WITHOUT I-KEY, WITH SUPER LOCK]

# **Diagnostic Worksheet**

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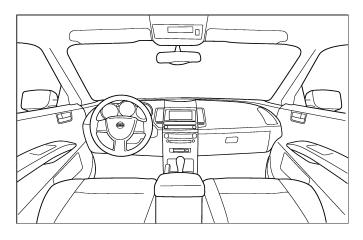


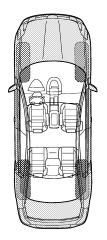
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

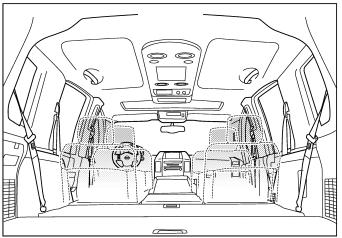
### Dear Nissan Customer:

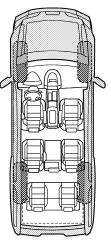
We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be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

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









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

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Briefly describe the location where the no	ise occu	rs:			
II. WHEN DOES IT OCCUR? (please che	eck the b	oxes that ap	ply)		
<ul><li>□ anytime</li><li>□ 1st time in the morning</li><li>□ only when it is cold outside</li><li>□ only when it is hot outside</li></ul>	☐ wl ☐ dr	ter sitting ou nen it is raini y or dusty co her:	ing or we		
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE				
<ul> <li>□ through driveways</li> <li>□ over rough roads</li> <li>□ over speed bumps</li> <li>□ only about mph</li> <li>□ on acceleration</li> <li>□ coming to a stop</li> <li>□ on turns: left, right or either (circle)</li> <li>□ with passengers or cargo</li> <li>□ other:</li> <li>□ after driving miles or min</li> </ul>	☐ cr☐ ra☐ kr☐ tio☐ th☐ bu	eak (like wa ttle (like sha ock (like a k k (like a cloc	lking on a king a ba nock at th ck second , muffled	ne door) I hand) knock noise)	
TO BE COMPLETED BY DEALERSHIP Test Drive Notes:	PERSO	NNEL			
		YES	NO	Initials of person performing	
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm	m repair				
VIN:					
W.O.# —————		ate: ——— ched to Work			

**DLK-876** 

# **PRECAUTION**

# **PRECAUTIONS**

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

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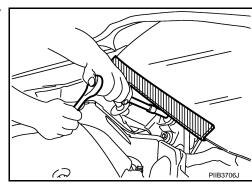
The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIRBAG" 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 Baq Module, see the "SRS AIRBAG".
- 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.

# 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**

# **Commercial Service Tools**

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Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Remover tool	PIIB7923J	Remove the clips, pawls, and metal clips
Power tool	PIIB1407E	

# **ON-VEHICLE REPAIR**

**HOOD** 

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 

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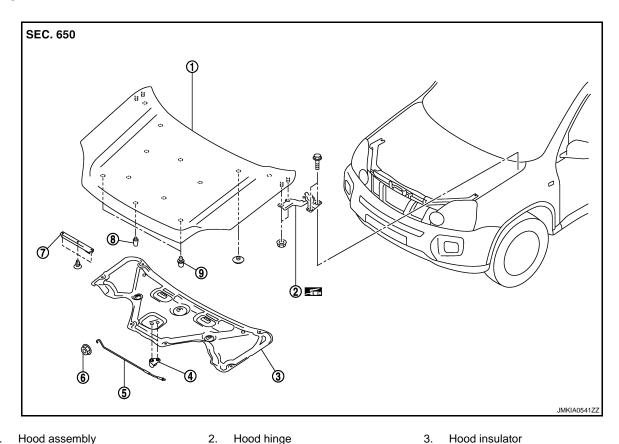
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### **REMOVAL**

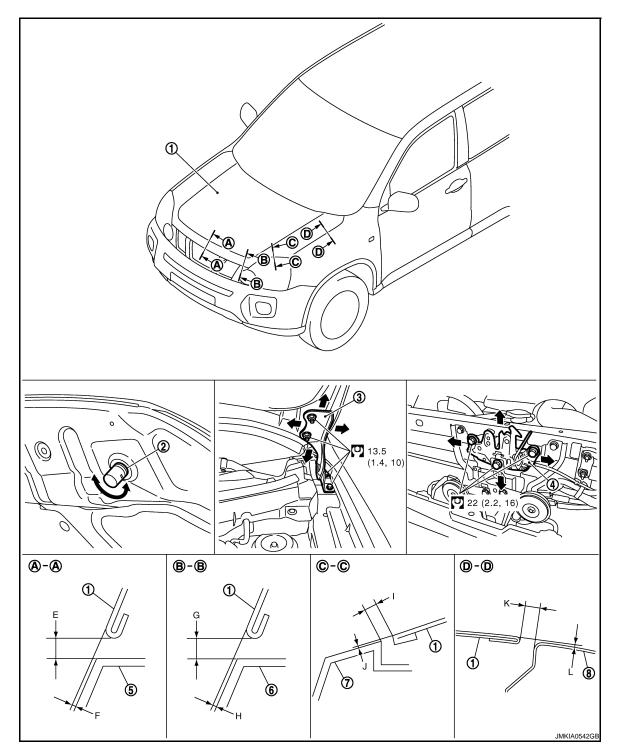


- Hood assembly
- 4. Clamp
- Radiator core seal 7.
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center
- 3.
- 6. Grommet
- Hood bumper rubber side

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

**ADJUSTMENT** 

**DLK-879** 



- 1. Hood assembly
- 4. Hood lock assembly
- 7. Front combination lamp
- 2. Hood bumper rubber side
- 5. Front grille
- 8. Front fender

- 3. Hood hinge
- 6. Front bumper

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

# **HOOD ASSEMBLY: Removal and Installation**

### **REMOVAL**

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

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

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

#### **CAUTION:**

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

- 3. Remove the following parts after removing the hood assembly.
  - Hood insulator
  - Clamp
  - Hood support rod
  - Grommet
  - · Radiator core seal
  - Hood bumper rubber center
  - Hood bumper rubber side

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to <u>DLK-881</u>, "HOOD ASSEMBLY: Adjustment".

# HOOD ASSEMBLY : Adjustment

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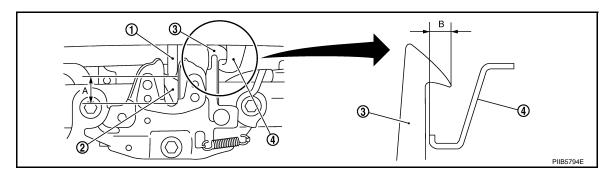
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Porti	Standard			
Hood – Front grill	<b>A</b> – <b>A</b>	E	Clearance	4.0 – 8.0 (0.157 – 0.315)
		F	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood – Front bumper	B – B	G	Clearance	4.0 – 8.0 (0.157 – 0.315)
		Н	Surface height	- 0.4 – 4.0 (- 0.016 – 0.157)
Hood – Front combination lamp	C-C	I	Clearance	1.8 – 6.2 (0.071 – 0.244)
	0-0	J	Surface height	- 1.3 – 2.7 (- 0.051 – 0.106)
Hood – Front fender	D – D	K	Clearance	2.6 – 4.6 (0.102 – 0.181)
		L	Surface height	- 1.0 – 1.0 (- 0.039 – 0.039)

- Check the clearance and the surface height between the hood and each part by visually and touching. (Fitting standard dimension in the table below should be satisfied.)
- Remove the front grille. Refer to <u>EXT-18</u>, "Removal and Installation".
- In case any parts are out of specification, adjust them according to the procedures shown below.
- 4. Remove the hood lock and adjust the height by rotating the hood bumper rubber side until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.
- 5. Temporarily tighten the hood lock, and position by engaging it with the hood striker. Check the lock and striker for looseness and adjust the clearance and evenness with the striker to satisfy the specification.
- 6. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately. 200 mm (7.87 in) height or by pressing the hood lightly [approximately. 29 N (3 kg)].



Hood striker

2. Primary latch

Secondary striker

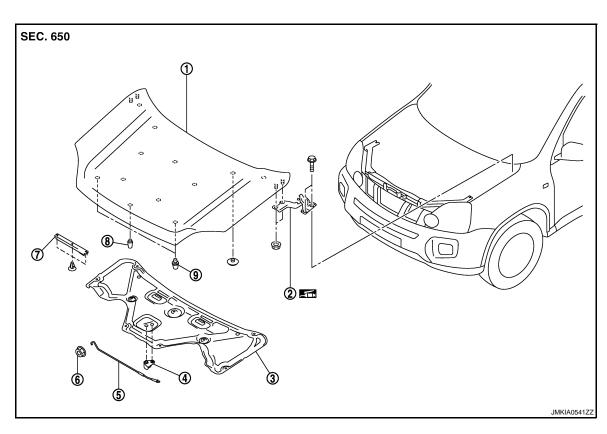
4. Secondary latch

A : 20.0 mm (0.787 in) B : 6.8 mm (0.268 in)

7. After adjustment tighten lock bolts to the specified torque.

# **HOOD HINGE**

**HOOD HINGE: Exploded View** 



- Hood assembly
- 4. Clamp
- 7. Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- 8. Hood bumper rubber center
- Hood insulator
- 6. Gromet
- 9. Hood bumper rubber side

**HOOD HINGE**: Removal and Installation

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

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- Remove the hood assembly. Refer to <u>DLK-880</u>, "HOOD ASSEMBLY: Removal and Installation".
- Remove the front fender. Refer to <u>DLK-888</u>, "Removal and Installation".
- Remove the hood hinge mounting bolts, and then remove the hood hinge.

#### INSTALLATION

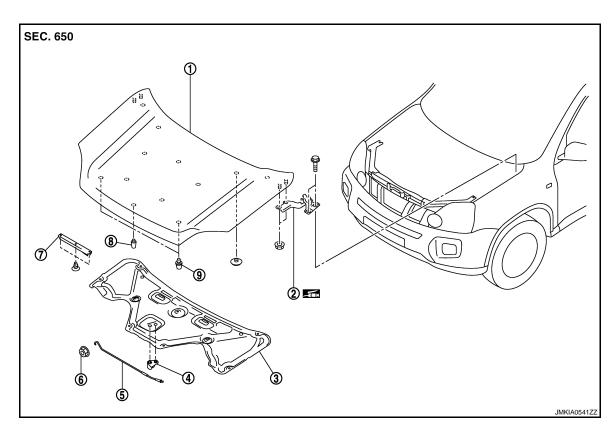
Install in the reverse order of removal.

#### **CAUTION:**

- Before installation of hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts
- After installation, perform hood fitting adjustment. Refer to DLK-881, "HOOD ASSEMBLY: Adjustment".

### HOOD SUPPORT ROD

# **HOOD SUPPORT ROD:** Exploded View



- Hood assembly
- 4. Clamp
- Radiator core seal
- 2. Hood hinge
- 5. Hood support rod
- Hood bumper rubber center

3.

6.

Gromet Hood bumper rubber side 9.

Hood insulator

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

### HOOD SUPPORT ROD: Removal and Installation

REMOVAL

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

**WARNING:** 

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

Remove the hood support rod from the grommet.

#### INSTALLATION

**DLK-883** 

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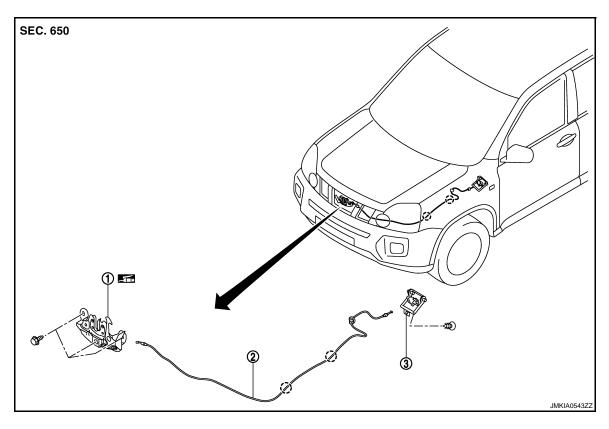
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Install in the reverse order of removal.

HOOD LOCK CONTROL

**HOOD LOCK CONTROL: Exploded View** 

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- 1. Hood lock assembly
- 2. Hood lock control cable
- 3. Hood lock opener



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

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

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#### **REMOVAL**

- 1. Remove the hood lock opener mounting bolts, and then remove the hood lock opener.
- 2. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 3. Remove the fender protector. Refer to EXT-21, "Removal and Installation".
- 4. Remove the hood lock mounting bolts, and then remove the hood lock.
- 5. Disconnect the hood lock cable from hood lock, and clip it from the hoodledge.
- Remove the grommet on the dash lower panel, and pull the hood lock control cable toward the passenger compartment.

#### **CAUTION:**

While pulling, do not to damage (peeling) the outside of the hood lock control cable.

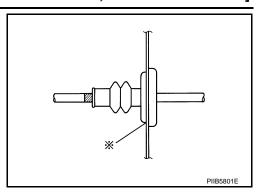
#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

• Do not to bend the cable too much, keeping the radius 100 mm (3.94 in) or more.

Check that the cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \*mark) properly.



Check that the hood lock control cable is properly engaged with the hood lock.

After installation, perform hood fitting adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjust-ment"</u>.

• After installation, perform the hood lock control inspection. Refer to <u>DLK-885, "HOOD LOCK CONTROL</u>: 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 secondary striker [6.8 mm (0.268 in) shown in the figure] by hood weight.
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approximately 20.0 mm (0.787 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is condition 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:
  - Exert vertical force on right side and left side of hood lock.
  - Do not press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to the hood lock.

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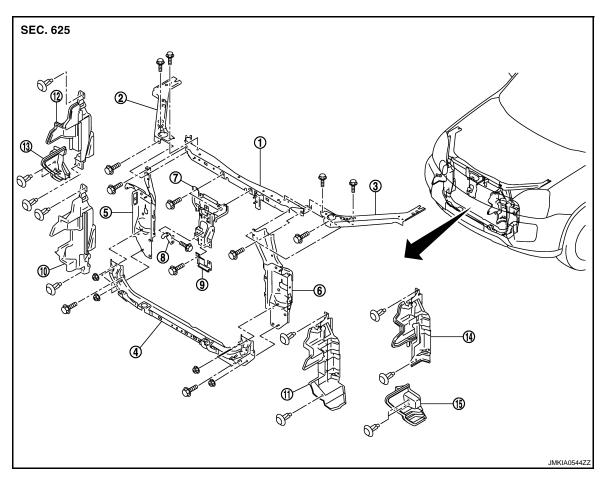
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# RADIATOR CORE SUPPORT

Exploded View



- Radiator core support upper center
- 4. Radiator core support lower
- 7. Hood lock support stay assembly
- 10. Air guide RH
- 13. Air guide lower RH (M9R model)
- 2. Radiator core support upper RH
- 5. Radiator core support side RH
- 8. Front bumper fascia center bracket
- 11. Air guide LH
- 14. Air guide upper LH (M9R model)
- 3. Radiator core support upper LH
- 6. Radiator core support side LH
- 9. Sensor bracket
- 12. Air guide upper RH (M9R model)
- 15. Air guide lower LH (M9R model)

#### Removal and Installation

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#### **REMOVAL**

- Remove the front bumper fascia and the energy absorber. Refer to <u>EXT-13, "Removal and Installation"</u>.
- 2. Remove the bumper reinforcement. Refer to <a href="EXT-13">EXT-13</a>, "Removal and Installation".
- 3. Disconnect the liquid tank connector. Refer to HA-66, "Exploded View".
- 4. Remove the front combination lamp. Refer to <u>EXL-213, "Removal and Installation"</u> (XENON TYPE), <u>EXL-409, "Removal and Installation"</u> (HALOGEN TYPE).
- 5. Remove the washer tank. Refer to WW-104, "Removal and Installation".
- 6. Remove the air inlet hose (LH) and air inlet tube (LH). Refer to EM-266, "Exploded View" (M9R model).
- 7. Remove the charge air cooler. Refer to EM-266, "Removal and Installation" (M9R model).
- 8. Disconnect the hood lock control cable clamp, and then remove the hood lock assembly. Refer to <a href="DLK-884">DLK-884</a>, "HOOD LOCK CONTROL: Removal and Installation".
- 9. Remove the air guide mounting clips, and remove the air guide (LH/RH).
- 10. Remove the horn. Refer to HRN-6, "Removal and Installation".

### RADIATOR CORE SUPPORT

### < ON-VEHICLE REPAIR >

### [WITHOUT I-KEY, WITH SUPER LOCK]

- 11. Remove the Intelligent Key warning buzzer (with Intelligent Key systems). Refer to <u>DLK-298</u>, "Removal and Installation".
- 12. Disconnect the harness clips from the hood lock stay.
- 13. Remove the hood lock stay mounting bolts, and then remove the hood lock stay.
- 14. Remove the crush zone sensor. Refer to SR-15, "Removal and Installation".
- 15. Place securely the hood support rod inside the engine mounting bracket hole. **CAUTION:**

Check that the hood is securely fix.

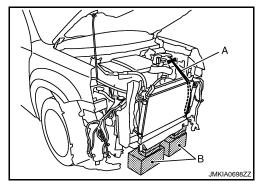
- 16. Remove the radiator core support upper side (RH,LH) mounting bolts, and remove the radiator core support side (RH,LH).
- 17. Remove the radiator core support upper center mounting bolts, and remove the radiator core support upper center.
- 18. Disconnect the harness clamp from radiator core support side (LH).
- 19. Remove the radiator core support lower assembly mounting bolts.
- 20. Remove the radiator core support lower assembly while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.
  CAUTION:

Operate with two workers, because of its heavy weight.

21. Put some wooden blocks (B) under the radiator and condenser, and use a rope (A) to suspend it to prevent it from falling.

CAUTION:

Operate with two workers, because of its heavy weight.



22. Remove the radiator core support side (RH,LH) mounting nuts, and remove the radiator core support side (RH,LH) from radiator core support lower.

#### **INSTALLATION**

Install in the reverse order of removal.

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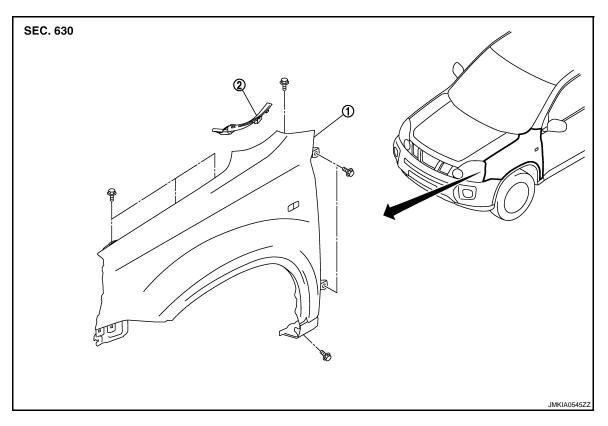
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# FRONT FENDER

Exploded View



1. Front fender

Front fender finisher

# Removal and Installation

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#### **REMOVAL**

- 1. Remove the fillet molding. Refer to EXT-24, "Removal and Installation".
- 2. Remove the front grille. Refer to EXT-18, "Removal and Installation".
- 3. Remove the front bumper fascia. Refer to EXT-13, "Removal and Installation".
- Remove the front combination lamp. Refer to <u>EXL-213</u>, "<u>Removal and Installation</u>" (XENON TYPE), <u>EXL-409</u>, "<u>Removal and Installation</u>" (HALOGEN TYPE).
- 5. Remove the inner fender protector. Refer to EXT-21, "Removal and Installation".
- 6. Remove the front fender finisher.
- 7. Remove the side turn signal lamp. Refer to EXL-222, "Removal and Installation".
- 8. Remove the mounting bolts and remove the front fender. **CAUTION:**

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

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- After installation, check the front fender adjustment. Refer to <u>DLK-881, "HOOD ASSEMBLY: Adjustment"</u> and <u>DLK-891, "DOOR ASSEMBLY: Adjustment"</u>.
- After installation, apply the touch-up paint (the body color) onto the head of the front fender mounting bolts.

# [WITHOUT I-KEY, WITH SUPER LOCK]

# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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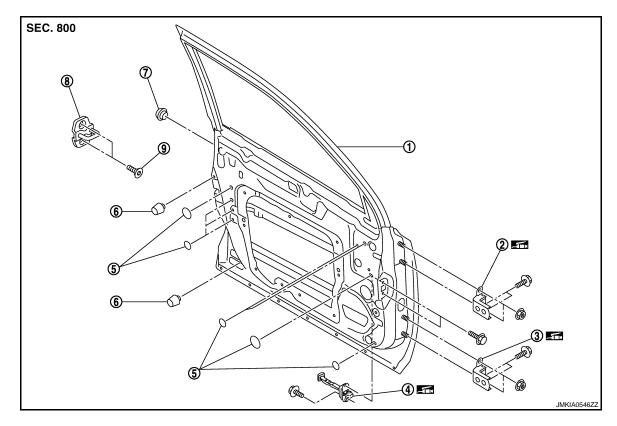
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### **REMOVAL**



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

### **ADJUSTMENT**

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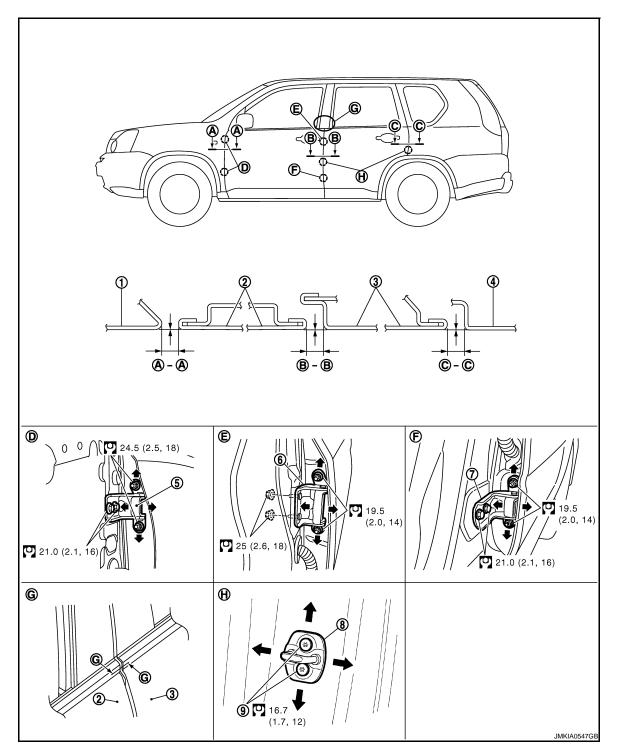
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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (lower)
- 2. Front door
- 5. Front door hinge
- 8. Door striker

- 3. Rear door
- 6. Rear door hinge (upper)

INFOID:0000000001451880

9. TORX bolt

### DOOR ASSEMBLY: Removal and Installation

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

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#### **CAUTION:**

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

### FRONT DOOR

#### < ON-VEHICLE REPAIR >

### [WITHOUT I-KEY, WITH SUPER LOCK]

#### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-</u> 891, "DOOR ASSEMBLY: Adjustment".
- · After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

# DOOR ASSEMBLY : Adjustment

CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

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Portion		Clearance	Surface height
Front fender – Front door	<b>A</b> – <b>A</b>	3.4 - 5.4 (0.134 - 0.213)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	B – B	3.5 - 5.5 (0.138 - 0.217)	- 1.0 – 1.0 (- 0.039 – 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	- 1.0 – 1.0 (- 0.039 – 0.039)

- 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 shall be satisfied.)
- In case any parts are out of specification, adjust them according to the procedures shown below.
- Remove the front fender. Refer to refer to DLK-888, "Removal and Installation".
- Loosen the door hinge mounting nuts on door side.
- Adjust the surface height and surface mismatch of the front door according to the fitting standard dimension.
- Temporarily tighten the hinge mounting nuts on door side.
- 7. Loosen the door hinge mounting bolts on body side.
- 8. 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 refer to DLK-888, "Removal and Installation".

### **CAUTION:**

After installation, check the front fender adjustment. Refer to DLK-891, "DOOR ASSEMBLY: Adjustment".

#### DOOR STRIKER ADJUSTMENT

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

#### DOOR STRIKER

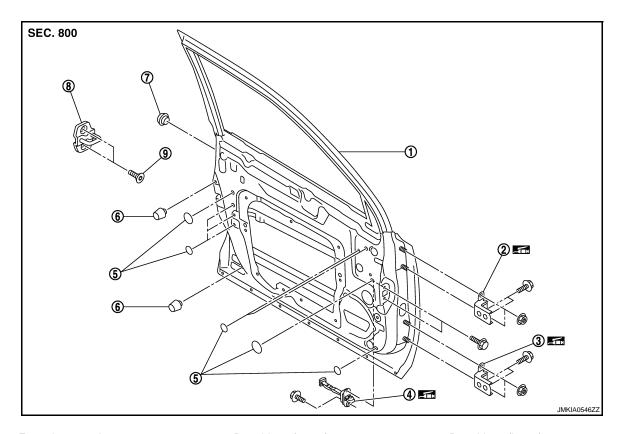
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# DOOR STRIKER: Exploded View

INFOID:0000000001451882



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001451883

#### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the front door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-891, "DOOR ASSEMBLY: Adjustment"</u>.

## DOOR HINGE

**DOOR HINGE: Exploded View** 

INFOID:0000000001451885

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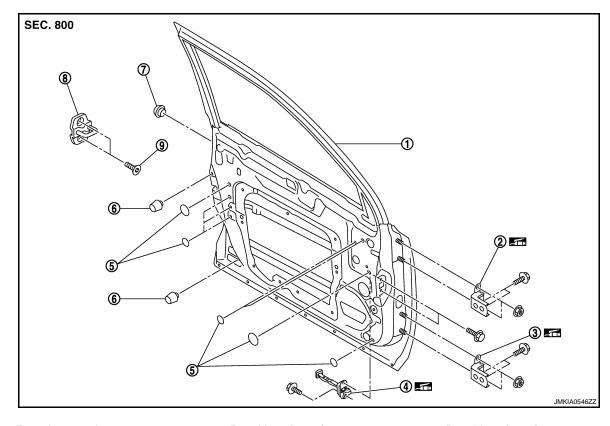
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- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001451886

#### **REMOVAL**

- 1. Remove the front door assembly. Refer to <a href="DLK-890">DLK-890</a>, "DOOR ASSEMBLY: Removal and Installation".
- Remove the door hinge mounting bolts, and then remove the front door hinge.

#### **INSTALLATION**

Install in the reverse order of removal.

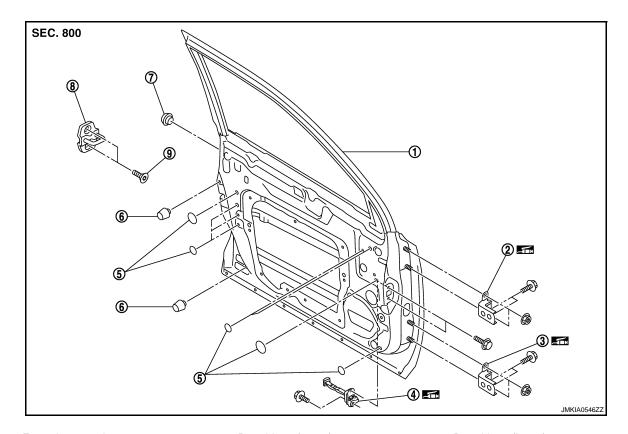
#### **CAUTION:**

- Check the front door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the front door assembly, perform the fitting adjustment. Refer to <u>DLK-891</u>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

### DOOR CHECK LINK

# DOOR CHECK LINK: Exploded View

INFOID:0000000001451888



- 1. Front door panel
- 4. Door check link
- 7. Grommet

- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Door bumper rubber
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001451889

### **REMOVAL**

- 1. Fully close the front door window.
- 2. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 3. Remove the front door speaker. Refer to AV-38, "Removal and Installation".
- 4. Remove the mounting bolts of the door check link on the vehicle.
- 5. Remove the mounting bolts of the door check link on the door panel.
- 6. Take the door check link out from the hole of the door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the front door open/close operation after installation.

# [WITHOUT I-KEY, WITH SUPER LOCK]

# REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

INFOID:0000000001451890

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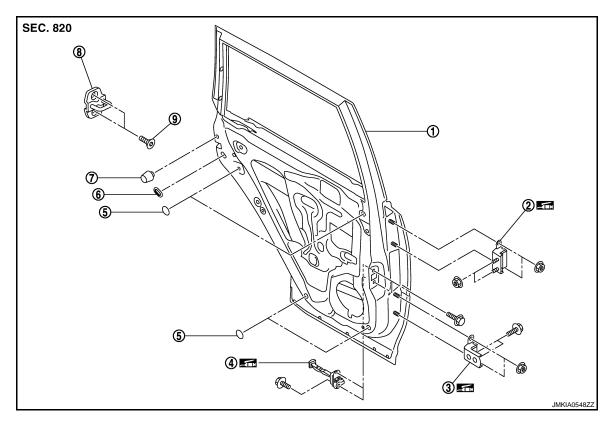
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### **REMOVAL**



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

### **ADJUSTMENT**

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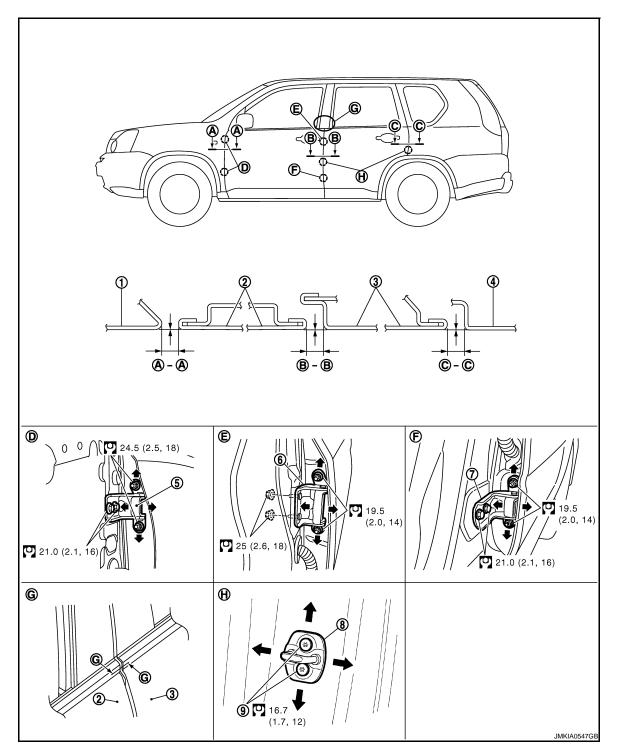
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- 1. Front fender
- 4. Body side outer
- 7. Rear door hinge (lower)
- 2. Front door
- 5. Front door hinge
- 8. Door striker

- 3. Rear door
- 6. Rear door hinge (upper)

INFOID:0000000001451891

9. TORX bolt

### DOOR ASSEMBLY: Removal and Installation

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

#### DOOR ASSEMBLY. Removal and installation

#### **CAUTION:**

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

#### **REMOVAL**

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

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door lock/unlock operation after installation.
- Check the rear door open/close operation after installation.
- · Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <a href="DLK-897">DLK-897</a>, "DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the door hinge mounting nuts.

DOOR ASSEMBLY : Adjustment

INFOID:0000000001451892

#### CLEARANCE, SURFACE HEIGHT AND SURFACE MISMATCH ADJUSTMENT

mm(in)

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Portion		Clearance	Surface height
Front door – Rear door	B – B	3.5 – 5.5 (0.138 – 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Rear door – Body side outer	C – C	3.5 - 5.5 (0.138 - 0.217)	-1.0 – 1.0 (-0.039 – 0.039)
Front door – Rear door	G – G	3.0 - 6.0 (0.118 - 0.236)	-1.5 – 1.5 (-0.059 – 0.059)

- 1. Check the clearance and surface height and surface mismatch between the rear door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- 2. In case any parts are out of specification, adjust them according to the procedures shown below.
- 3. Remove the center pillar lower garnish. Refer to INT-16, "Removal and Installation".
- 4. Loosen the door 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 door hinge mounting nuts and bolts on body side.
- 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 lower garnish. Refer to INT-16, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

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

DOOR STRIKER

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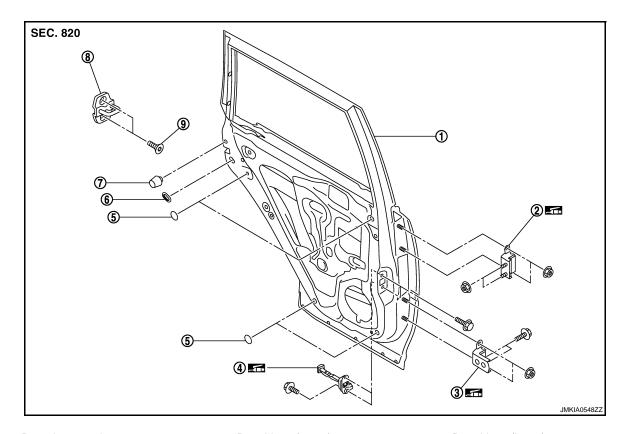
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# DOOR STRIKER: Exploded View

INFOID:0000000001451893



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker
- Door hinge (lower)
  - 6. Hole cover
  - 9. TORX bolt

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

# DOOR STRIKER: Removal and Installation

INFOID:0000000001451894

#### **REMOVAL**

Remove the TORX bolts, and then remove the door striker.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- When removing and installing the door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-897, "DOOR ASSEMBLY: Adjustment"</u>.

## DOOR HINGE

**DOOR HINGE: Exploded View** 



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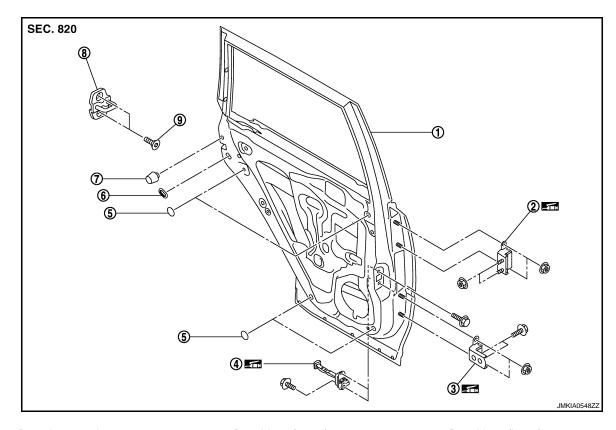
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- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR HINGE: Removal and Installation

INFOID:0000000001451897

#### **REMOVAL**

- Remove the center pillar lower garnish. Refer to <u>INT-16. "Removal and Installation"</u>.
- 2. Remove the rear door assembly. Refer to <u>DLK-896</u>, "<u>DOOR ASSEMBLY</u>: <u>Removal and Installation</u>".
- 3. Remove the rear door hinge mounting bolts and nuts (body side), and then remove the door hinge.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the rear door open/close operation after installation.
- Check the door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the rear door assembly, perform the fitting adjustment. Refer to <u>DLK-897</u>, "DOOR ASSEMBLY: Adjustment".
- After installing, apply the touch-up paint (the body color) onto the head of the hinge mounting nuts.
   DOOR CHECK LINK

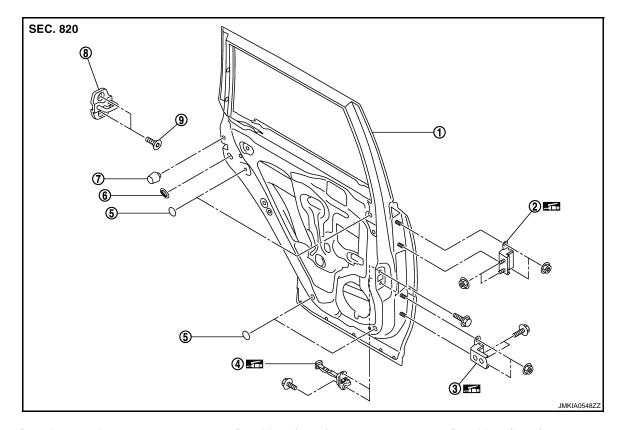
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# DOOR CHECK LINK: Exploded View

INFOID:0000000001451899



- 1. Rear door panel
- 4. Door check link
- 7. Door bumper rubber
- 2. Door hinge (upper)
- 5. Seal
- 8. Door striker

- 3. Door hinge (lower)
- 6. Hole cover
- 9. TORX bolt

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

# DOOR CHECK LINK: Removal and Installation

INFOID:0000000001451900

# REMOVAL

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the rear door speaker.
- 3. Remove the mounting bolts of the check link on the vehicle.
- 4. Remove the door check link mounting bolts on the door panel.
- 5. Remove the door check link.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check front door open/close operation after installation.

# **BACK DOOR**

**BACK DOOR ASSEMBLY** 

BACK DOOR ASSEMBLY: Exploded View

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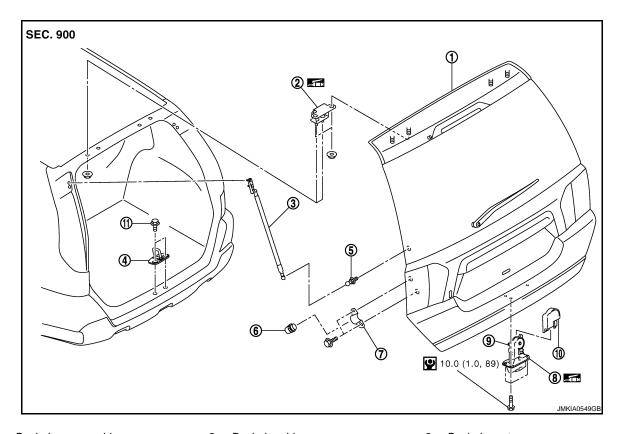
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### **REMOVAL**



- 1. Back door assembly
- 4. Back door striker
- 7. Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- 5. Back door stay stud ball
- 8. Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- 6. Bumper rubber
- 9. Emergency lever

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

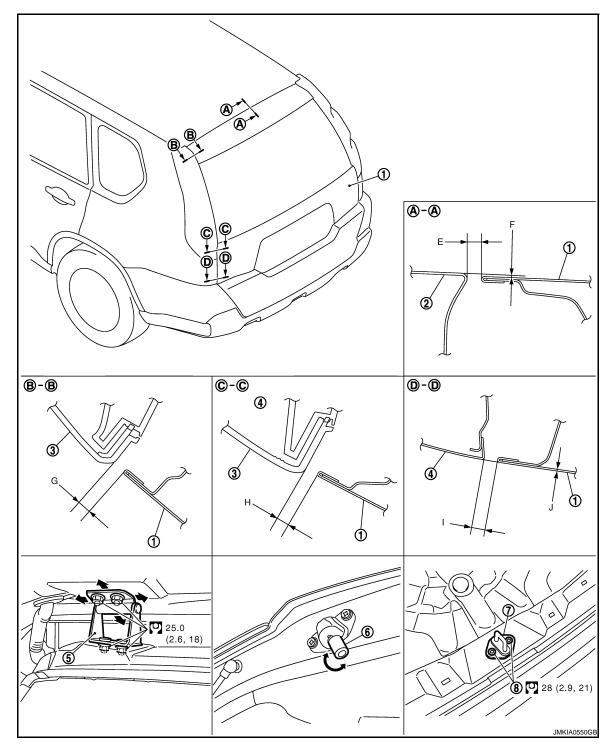
### **ADJUSTMENT**

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- 1. Back door
- 4. Body side outer
- 7. Back door striker
- 2. Roof
- 5. Back door hinge
- 8. TORX bolt

3. Rear combination lamp

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Bumper rubber

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

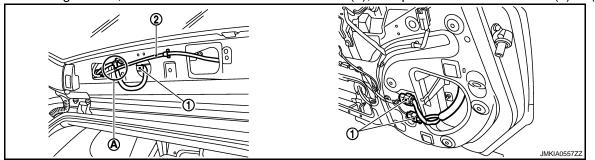
### BACK DOOR ASSEMBLY: Removal and Installation

### **REMOVAL**

- 1. Remove the back door finisher inner (upper, lower, side LH). Refer to INT-31, "Removal and Installation".
- 2. Disconnect the connectors in the back door, and then remove the grommet, and pull out the harness.

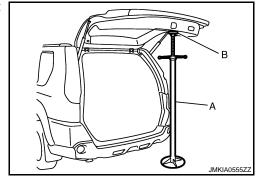
### [WITHOUT I-KEY, WITH SUPER LOCK]

3. Remove the grommet, and then disconnect the connectors (1), and pull out the washer tube (2) at (A).



- 4. Pull the harness out of the back door.
- Support the back door lock with the proper material to prevent it from falling.

A : Jack
B : Shop cloth



- 6. Remove the back door stay bracket mounting bolts on the back door.
- Remove the back door hinge mounting nuts on the back door and remove the back door assembly. CAUTION:

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

### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the back door lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-903, "BACK DOOR ASSEMBLY: Adjust-ment"</u>.

# BACK DOOR ASSEMBLY : Adjustment

				mm(in)
Portion	Standard			
Back door panel – Roof panel	<b>A</b> – <b>A</b>	E	Clearance	5.0 - 7.0 (0.197 - 0.276)
		F	Surface height	-0.3 – 1.7 (-0.012 – 0.067)
Back door panel – Rear combination lamp	B-B	G	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Rear combination lamp	C-C	Н	Clearance	4.0 - 8.0 (0.157 - 0.315)
Back door panel – Body side outer	D-D		Clearance	5.0 - 7.0 (0.197 - 0.276)
		J	Surface height	-1.0 - 1.1 (0.039 - 0.043)

#### FITTING ADJUSTMENT

- Check the clearance and the evenness between the back door and each part visually and by touching. (Fitting standard dimension in the table below shall be satisfied.)
- In case any parts are out of specification, adjust them according to the procedures shown below.
- Loosen the bumper rubber.
- 4. Loosen the back door striker mounting bolts.

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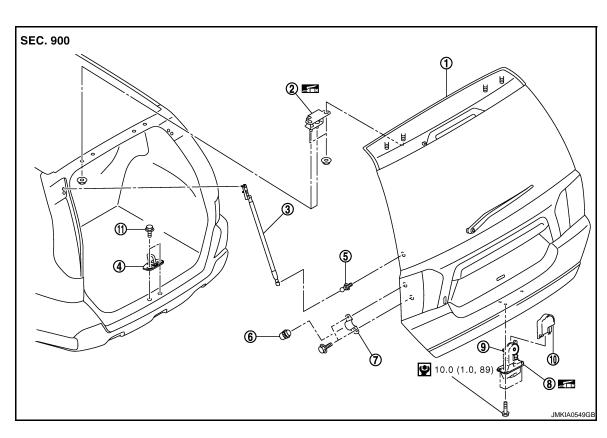
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- Lift up the back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with the back door closed.
- Check the clearance and evenness.
- Finally tighten the back door striker.

### BACK DOOR STRIKER

# BACK DOOR STRIKER: Exploded View



- 1. Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

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

- Back door stay
- 6. Bumper rubber
- **Emergency lever**

### BACK DOOR STRIKER: Removal and Installation

### **REMOVAL**

Remove the TORX bolts, and then remove the back door striker.

### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

- Check the back door open/close operation after installation.
- When removing and installing the back door striker, be sure to perform the fitting adjustment. Refer to DLK-903, "BACK DOOR ASSEMBLY: Adjustment".

### BACK DOOR HINGE

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INFOID:0000000001451904

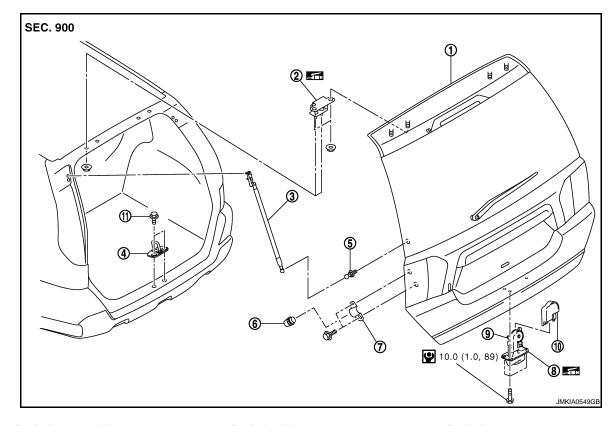
**BACK DOOR HINGE: Exploded View** 

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- Back door assembly
- Back door striker 4.
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- Back door stay
- Bumper rubber
- **Emergency lever**

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

### BACK DOOR HINGE: Removal and Installation

INFOID:0000000001451908

### **REMOVAL**

- Remove the back door assembly. Refer to DLK-902, "BACK DOOR ASSEMBLY: Removal and Installa-
- 2. Remove the back door weather-strip. Refer to <a href="DLK-907">DLK-907</a>, "BACK DOOR WEATHER-STRIP: Removal and Installation".
- Remove the luggage side lower finisher. Refer to <u>INT-28</u>, "Removal and Installation".
- Remove the luggage side upper finisher. Refer to INT-28, "Removal and Installation".
- Using remover tool, remove the headlining clip at the rear side of the headlining. Refer to INT-22, "NOR-MAL ROOF: Exploded View" (NORMAL ROOF), INT-25, "SUNROOF: Exploded View" (SUNROOF).
- 6. Remove the rear side of the headlining.
- Remove the back door hinge mounting nuts (body side), and then remove the back door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check the back door open/close operation after installation.
- Check the hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing the back door assembly, perform the fitting adjustment. Refer to DLK-903, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting nuts.

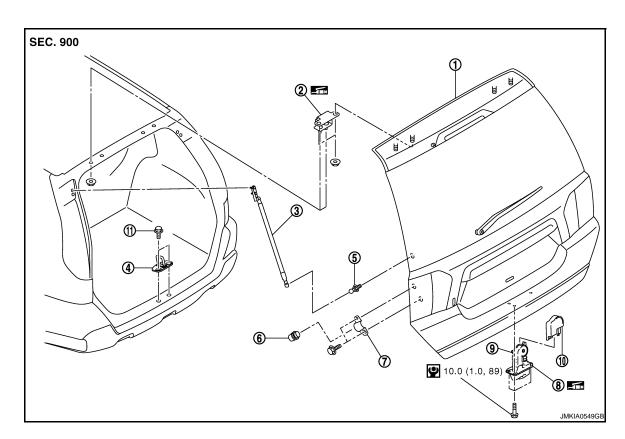
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INFOID:0000000001451910

# **BACK DOOR STAY**

**BACK DOOR STAY: Exploded View** 



- 1. Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)

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

- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- **Emergency lever**

BACK DOOR STAY: Removal and Installation

### **REMOVAL**

- Remove the mounting bolts (body side), and then remove the back door stay bracket.
- Remove the stud ball (back door side), and then remove the back door stay.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door open/close operation after installation.

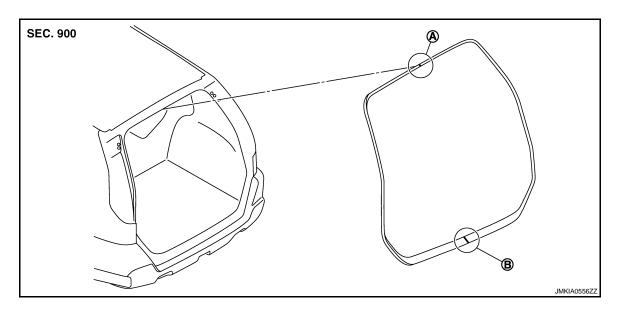
BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP: Exploded View

**REMOVAL** 

INFOID:0000000001451911

INFOID:0000000001451912



- 1. Back door weather-strip
- A. Mark (upper)
- B. Mark (lower)

### BACK DOOR WEATHER-STRIP: Removal and Installation

INFOID:0000000001451913

### **REMOVAL**

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

### **CAUTION:**

After removal, do not pull strongly on the weather-strip.

#### INSTALLATION

- 1. Working from the upper section, align the weather-strip mark with vehicle center position mark and install the weather-strip onto the vehicle.
- 2. For the lower section, align the weather-strip seam with center of the back door striker.
- 3. After installation, pull the weather-strip gently to ensure that there is no loose section. **NOTE:**

### Make sure that the weather-strip is fit tightly at each corner and the luggage rear plate.

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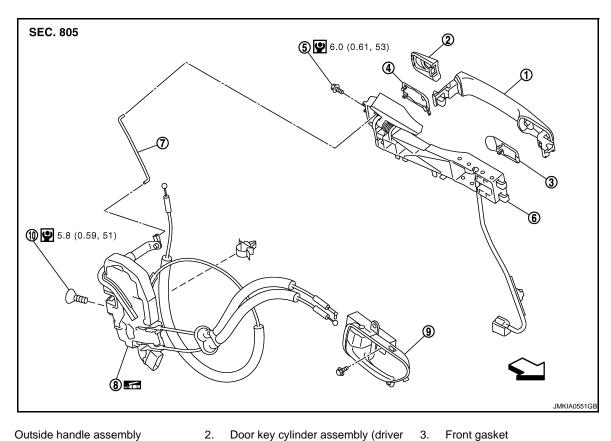
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# FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

INFOID:0000000001451914



- Outside handle assembly
- Door key cylinder assembly (driver side)
  - Outside handle escutcheon (passenger side)

- Rear gasket
- Key rod
- 10. TORX bolt
- <br />
  :Vehicle front

- TORX bolt
- Door lock assembly

Outside handle bracket

INFOID:0000000001451915

Inside handle 9.

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

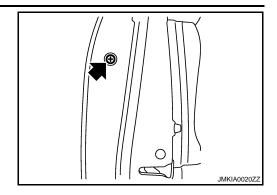
## DOOR LOCK: Removal and Installation

**REMOVAL** 

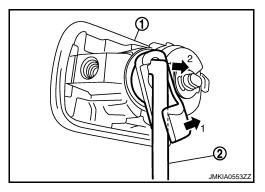
- 1. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- Remove the front door module assembly. Refer to GW-17, "Exploded View".
- Disconnect the door antenna and the door request switch connector and remove the harness clamp 5. (models with Intelligent Key system).

6. Remove the door side grommet, and loosen the TORX bolt. **CAUTION:** 

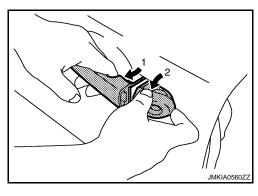
Do not forcibly remove the TORX bolt.



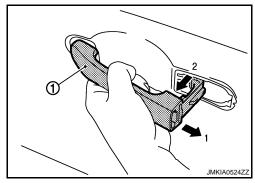
- 7. Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod



8. While pulling the outside handle, remove door key cylinder assembly.



- 9. Disconnect front door request switch harness connector (models with Intelligent Key system).
- 10. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



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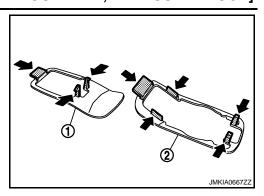
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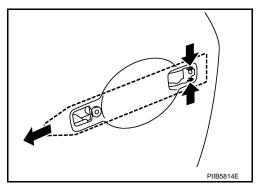
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11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly TORX bolts.
- 15. Disconnect the door lock actuator connector, and then remove the door lock assembly.
- 16. Remove the key rod from door lock assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### **INSIDE HANDLE**

**INSIDE HANDLE: Exploded View** 

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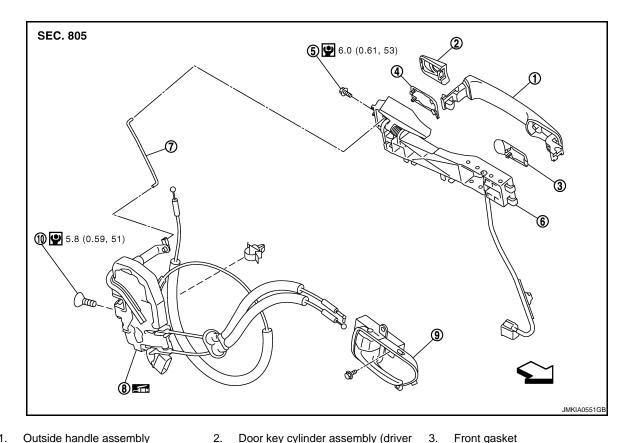
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- Outside handle assembly
- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod 7.
- 10. TORX bolt
- :Vehicle front

- 5. TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

### **INSIDE HANDLE:** Removal and Installation

**REMOVAL** 

- Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Remove the inside handle mounting bolts.
- Disconnect the inside handle knob cable and the lock knob cable, and then remove the inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### **OUTSIDE HANDLE**

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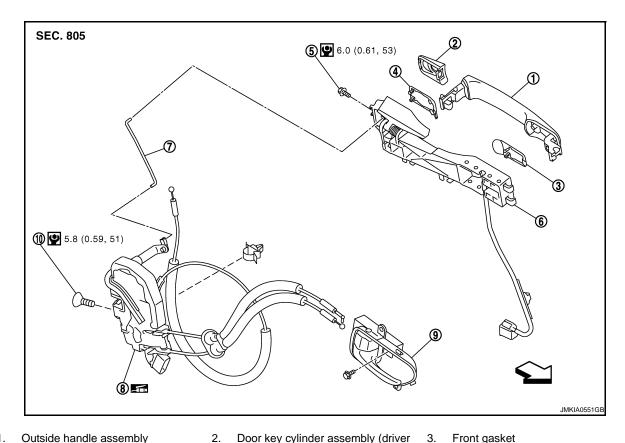
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# **OUTSIDE HANDLE: Exploded View**

INFOID:0000000001451920

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- Outside handle assembly
- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)

- 4. Rear gasket
- Key rod
- 10. TORX bolt
- < > :Vehicle front

- TORX bolt
- Door lock assembly
- Outside handle bracket
- 9. Inside handle

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

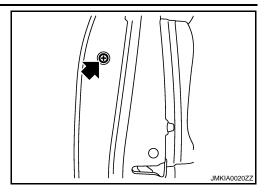
# **OUTSIDE HANDLE: Removal and Installation**

### **REMOVAL**

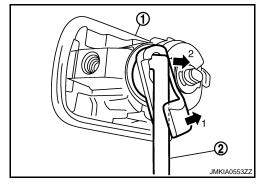
- 1. Remove the front door finisher. Refer to INT-10, "FRONT DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable and the lock knob cable.
- 3. Remove the front door glass. Refer to GW-17, "Removal and Installation".
- 4. Remove the front door module assembly. Refer to GW-17, "Exploded View".
- 5. Disconnect the connector and remove the harness clamp (models with Intelligent Key system).

6. Remove the door side grommet, and loosen the TORX bolt. **CAUTION:** 

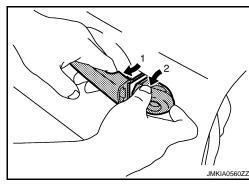
Do not forcibly remove the TORX bolt.



- Reach in to separate the door key cylinder rod connection (on the handle) (driver side).
  - 1. Door key cylinder assembly
  - 2. Key rod

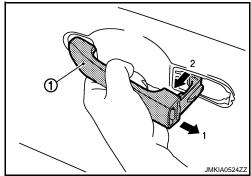


- 8. Disconnect the door key cylinder switch harness connector.
- While pulling the outside handle, remove the door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



10. Disconnect the front door request switch harness connector (models with Intelligent Key system).

11. While pulling the outside handle, slide toward rear of vehicle to remove the outside handle (1).



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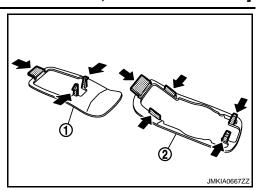
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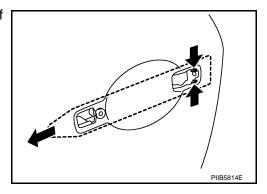
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12. Remove the front gasket (1) and rear gasket (2).



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



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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

# REAR DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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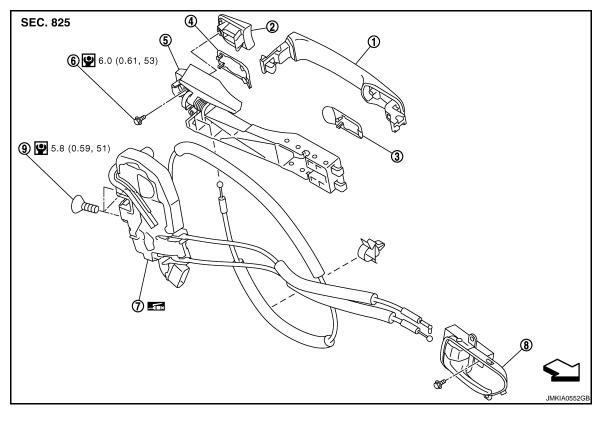
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- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- 3. Front gasket
- 6. TORX bolt
- 9. TORX bolt

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

### DOOR LOCK: Removal and Installation

### **REMOVAL**

- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to GW-17, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- Disconnect the door lock actuator connector.

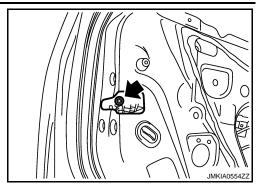
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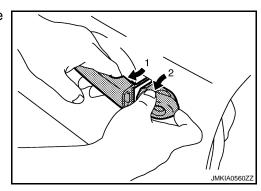
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INFOID:0000000001451923

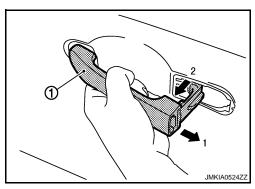
8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



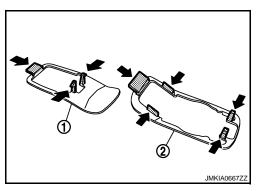
9. While pulling the outside handle, remove the outside handle escutcheon.



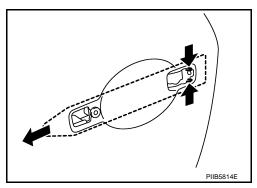
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



- 13. Reach in to separate the outside handle cable connection.
- 14. Remove the door lock assembly.

#### INSTALLATION

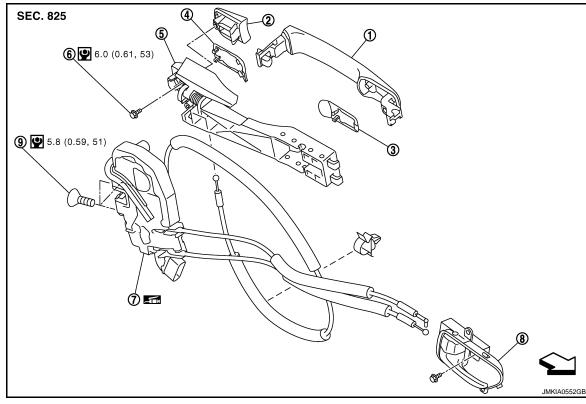
Install in the reverse order of removal.

#### **CAUTION:**

- · To install each rod, rotate the rod holder until a click is felt.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

### INSIDE HANDLE

**INSIDE HANDLE: Exploded View** 



- Outside handle assembly
- 4. Rear gasket
- Door lock assembly
- Outside handle escutcheon
- 5. Outside handle bracket
- Inside handle

- 6.
- TORX bolt

Front gasket

TORX bolt

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

### **INSIDE HANDLE: Removal and Installation**

### **REMOVAL**

- Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- Remove the inside handle mounting screws.
- Disconnect the inside handle knob cable, and then remove the inside handle.

### **INSTALLATION**

Install in the reverse order of removal.

### **CAUTION:**

- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

#### OUTSIDE HANDLE

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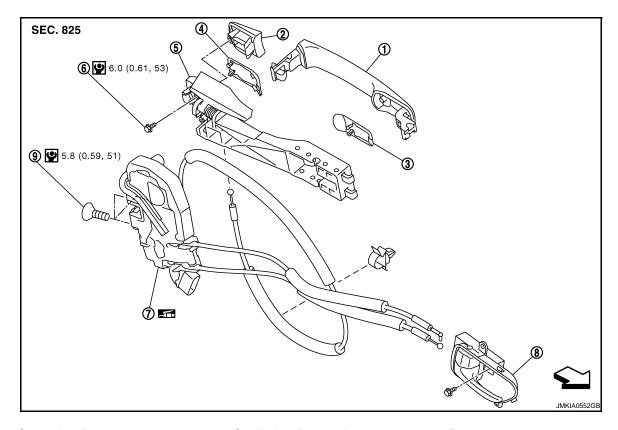
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# **OUTSIDE HANDLE: Exploded View**

INFOID:0000000001451928



- 1. Outside handle assembly
- 4. Rear gasket
- 7. Door lock assembly
- 2. Outside handle escutcheon
- 5. Outside handle bracket
- 8. Inside handle

- Front gasket
- TORX bolt
- 9. TORX bolt

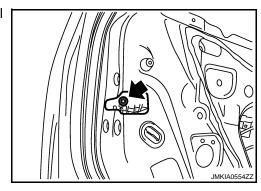
Refer to GI-4, "Components" for symbols in the figure.

# OUTSIDE HANDLE : Removal and Installation

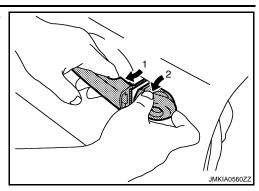
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# REMOVAL

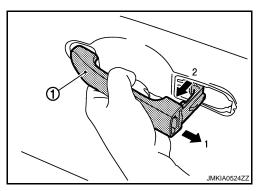
- 1. Remove the rear door finisher. Refer to INT-13, "REAR DOOR FINISHER: Removal and Installation".
- 2. Disconnect the inside handle knob cable.
- 3. Remove the door sealing screen. Refer to GW-23, "Removal and Installation".
- 4. Remove the lower partition sash. Refer to <u>GW-17</u>, "Removal and Installation".
- 5. Remove the corner piece assembly. Refer to GW-17, "Removal and Installation".
- 6. Remove the door lock assembly TORX bolts.
- 7. Disconnect the door lock actuator connector.
- 8. Slide the door lock assembly from the inside the door panel until the outside handle escutcheon TORX bolt can be seen.



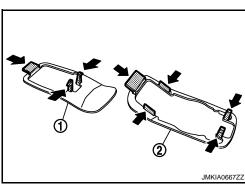
9. While pulling the outside handle, remove the outside handle escutcheon.



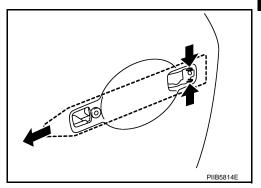
10. While pulling the outside handle(1), slide toward rear of vehicle to remove the outside handle.



11. Remove the front gasket (1) and the rear gasket (2).



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



13. 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.
- Check the door lock/unlock operation after installation.
- Check the door open/close operation after installation.

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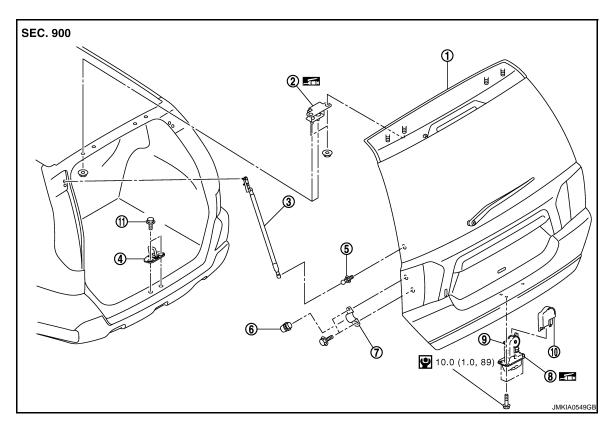
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# BACK DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

INFOID:0000000001451930

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- 1. Back door assembly
- Back door striker
- Bumper rubber bracket
- 10. Back door lock cover (RH handle)
- 2. Back door hinge
- Back door stay stud ball
- Back door lock assembly
- 11. TORX bolt

- 3. Back door stay
- Bumper rubber
- **Emergency lever**

DOOR LOCK: Removal and Installation

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

### **REMOVAL**

- 1. Remove the back door trim finisher lower. Refer to INT-31, "Removal and Installation".
- Disconnect the back door lock assembly and back door opener switch connectors.
- Remove the back door lock mounting bolts, and then remove the back door lock and actuator.

### **INSTALLTION**

Install in the reverse order of removal.

#### **CAUTION:**

Check the back door lock/unlock operation after installation.

# **FUEL FILLER LID OPENER**

**FUEL FILLER LID** 

FUEL FILLER LID: Exploded View

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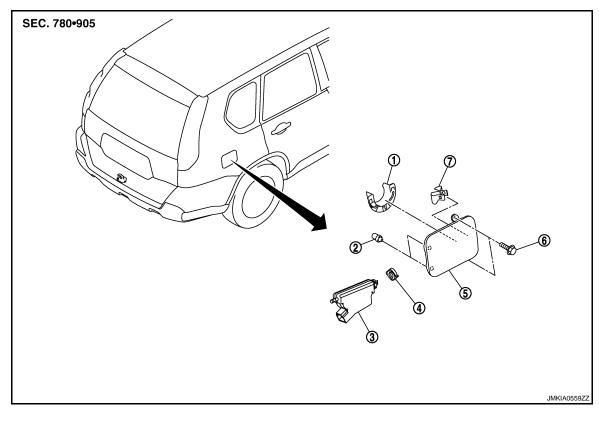
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- Fuel filler cap holder
- Fuel filler lid lock seal 4.

Spring

- 2. Bumper rubber
- 5. Fuel filler lid assembly
- Fuel filler lid lock actuator
- 6. TORX bolt

### FUEL FILLER LID: Removal and Installation

INFOID:0000000001451934

### **REMOVAL**

- 1. Fully open the fuel filler lid.
- 2. Remove the filler cap.
- Remove the TORX bolts, and then remove the fuel filler lid assembly.
- 4. Remove the following parts after removing the fuel filler lid assembly.
  - Fuel filler cap holder
  - Bumper rubber
  - Spring

### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check the fuel filler lid open/close operation after installation.
- After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

After installation, perform fitting adjustment.

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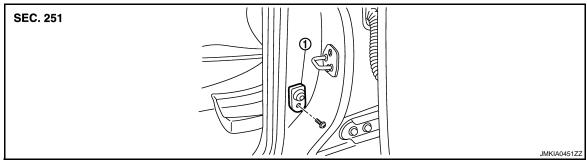
		11111(111)
	Clearance	Evenness
Fuel filler lid— - Body side outer	2.0 - 4.0 (0.079 - 0.157)	-1.0 - 1.0 (-0.039 - 0.039)

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# **DOOR SWITCH**

# **Exploded View**

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1. Door switch (driver side)

### Removal and Installation

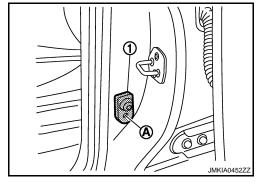
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### **REMOVAL**

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

#### NOTE:

The same procedure is also performed for door switch (passenger side, rear LH and rear RH).



### **INSTALLATION**

Install in the reverse order of removal.

# **BACK DOOR OPENER SWITCH**

# **Exploded View**

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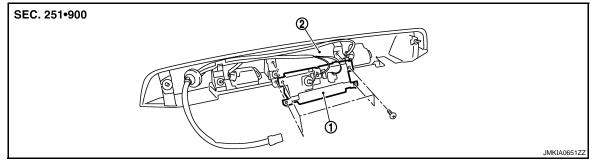
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1. Back door opener switch assembly

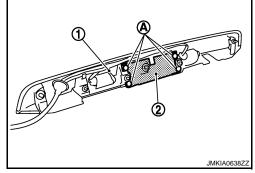
2. Back door finisher

### Removal and Installation

INFOID:0000000001495974

### **REMOVAL**

- 1. Remove the back door finisher. Refer to EXT-34, "Removal and Installation".
- 2. Remove the back door opener switch assembly mounting bolt (A).
- 3. Remove the back door opener switch assembly (2) from back door finisher (1).



**INSTALLATION** 

Install in the reverse order of removal.

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### **KEYFOB BATTERY**

Exploded View

Refer to DLK-924, "Removal and Installation".

### Removal and Installation

#### INFOID:0000000001281456

### **REMOVAL**

- 1. Remove installation screw (7) on the rear of keyfob.
- Place the key with the lower case (6) facing up. Set a screw-driver (A) wrapped with tape into illustration of the lower case (6) and separate the lower case (6) from the upper case (1).
   CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. When replacing the circuit board assembly, remove circuit board assembly from the upper case (1).

[Circuit board assembly: Switch rubber (3) + Board surface (4)] **CAUTION:** 

Do not touch the printed circuits directly.

4. Remove the battery (5) from the lower case (6) and replace it.

Battery replacement : Coin-type lithium battery (CR2032)

#### **CAUTION:**

When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.

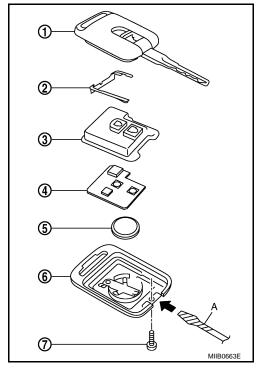
 After replacement, fit the lower and upper cases together, part (2), (3) and tighten with the screw.
 CAUTION:

After replacing the battery, Be sure to check that door locking operates normally using the keyfob.

Refer to DLK-823, "Component Function Check".

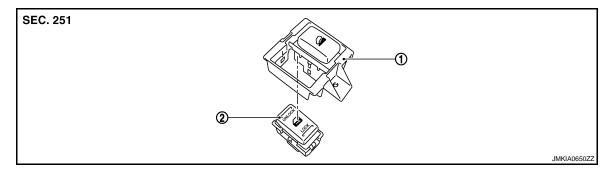
# INSTALLATION

Install in the reverse order of removal.



# DOOR LOCK AND UNLOCK SWITCH

Exploded View



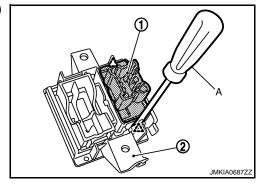
1. Switch bracket

2. Door lock and unlock switch

### Removal and Installation

Remove the door lock and unlock switch (1) from switch bracket (2) using flat-bladed screw driver (A) etc.





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