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## SECTION DOOR & LOCK

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# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

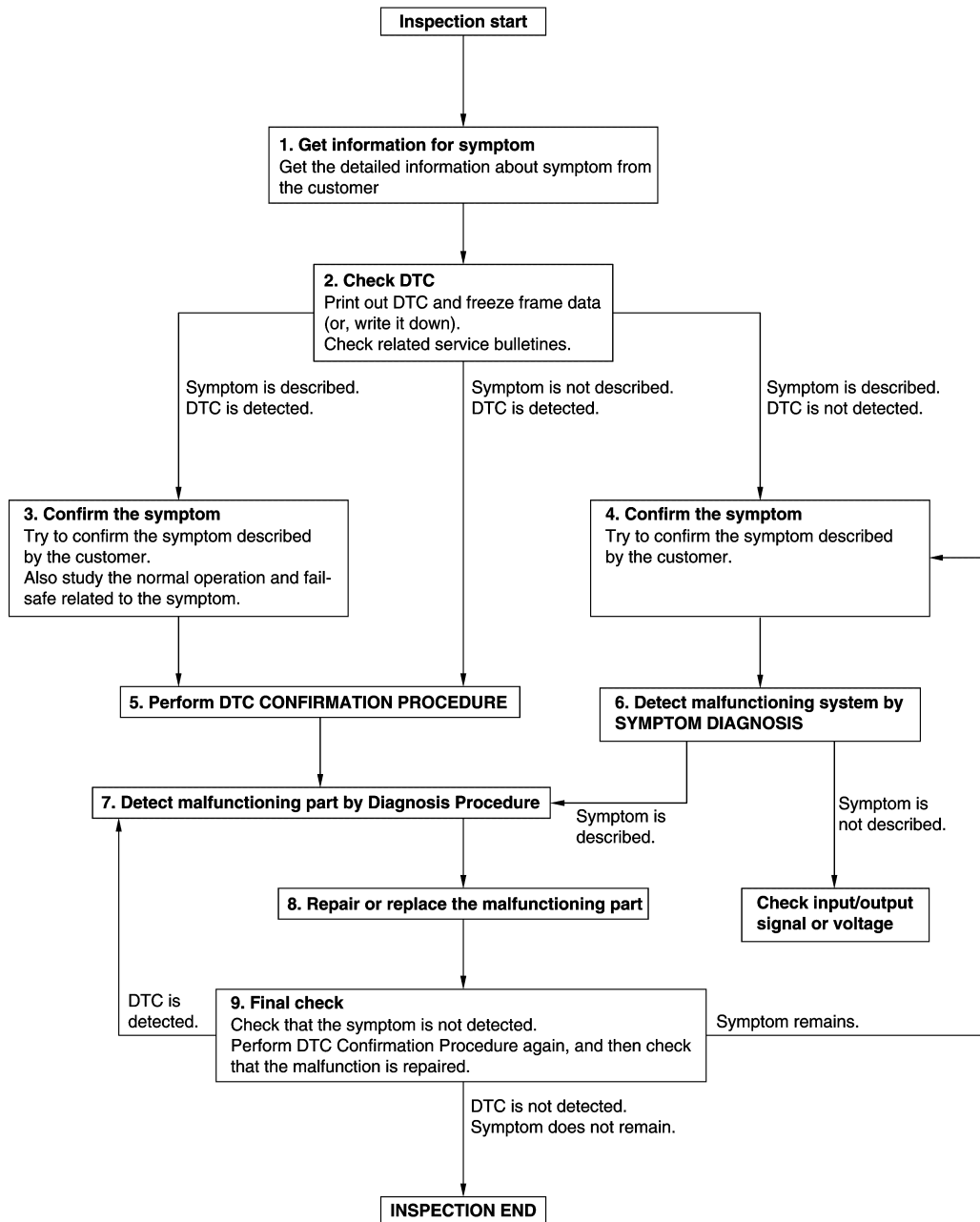
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000008281699

OVERALL SEQUENCE



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M  
N  
O  
P

DLK

DETAILED FLOW

JMKIA8652GB

# DIAGNOSIS AND REPAIR WORK FLOW

[WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

---

## 1. GET INFORMATION FOR SYMPTOM

---

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

>> GO TO 2.

---

## 2. CHECK DTC

---

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

Are any symptoms described and any DTC detected?

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

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

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

---

## 3. CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

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

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

>> GO TO 5.

---

## 4. CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

---

## 5. PERFORM DTC CONFIRMATION PROCEDURE

---

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

If two or more DTCs are detected, refer to [DLK-144. "DTC Inspection Priority Chart"](#) (BCM), and determine trouble diagnosis order.

**NOTE:**

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-46. "Intermittent Incident"](#).

---

## 6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

---

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

Is the symptom described?

YES >> GO TO 7.

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

---

## 7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

---

# DIAGNOSIS AND REPAIR WORK FLOW

[WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-46. "Intermittent Incident"](#).

## 8. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

## 9. FINAL CHECK

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

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

Is DTC detected and does symptom remain?

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

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

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M  
N  
O  
P

DLK

## INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

---

### INSPECTION AND ADJUSTMENT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000008281700

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

# POWER DOOR LOCK SYSTEM

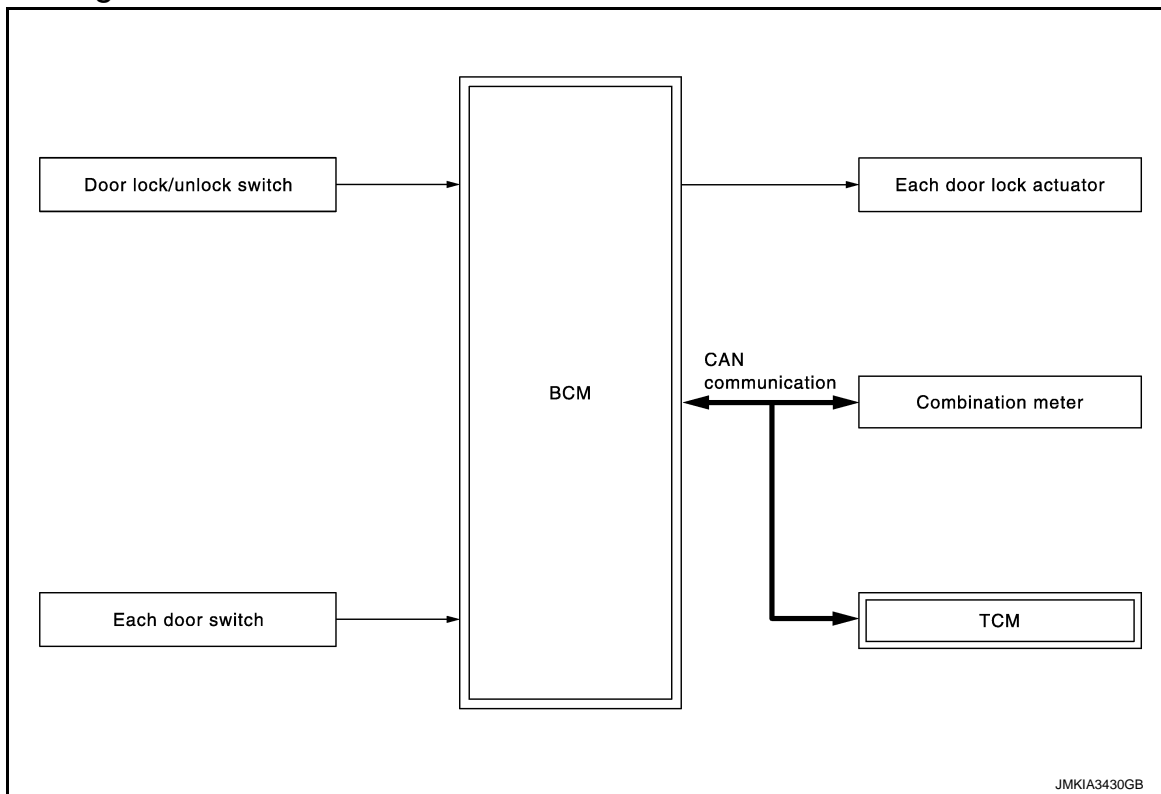
[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### POWER DOOR LOCK SYSTEM

#### System Diagram



#### System Description

INFOID:000000008281702

##### DOOR LOCK FUNCTION

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

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

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

###### Vehicle Speed Sensing Auto Door Lock\*1

All doors are locked when the vehicle speed reaches 10 km/h (6 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the unified meter and A/C amp. via CAN communication becomes 10 km/h (6 MPH) or more.

###### P Range Interlock Door Lock

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

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

###### Setting change of Automatic Door Lock/Unlock Function

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M  
N  
O  
P

DLK

# POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

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

OFF → ON : 2 blinks

ON → OFF : 1 blink

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

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

### IGN OFF Interlock Door Unlock\*1

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

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

### P Range Interlock Door Unlock

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

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

### Key out Interlock Door Unlock

When mechanical key is removed from ignition knob switch, all doors unlock.

When BCM detects that mechanical key is removed from ignition knob switch, BCM transmits unlock signal to all door lock actuators.

### Setting change of Automatic Door Lock/Unlock Function

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

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

OFF → ON : 2 blinks

ON → OFF : 1 blink

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



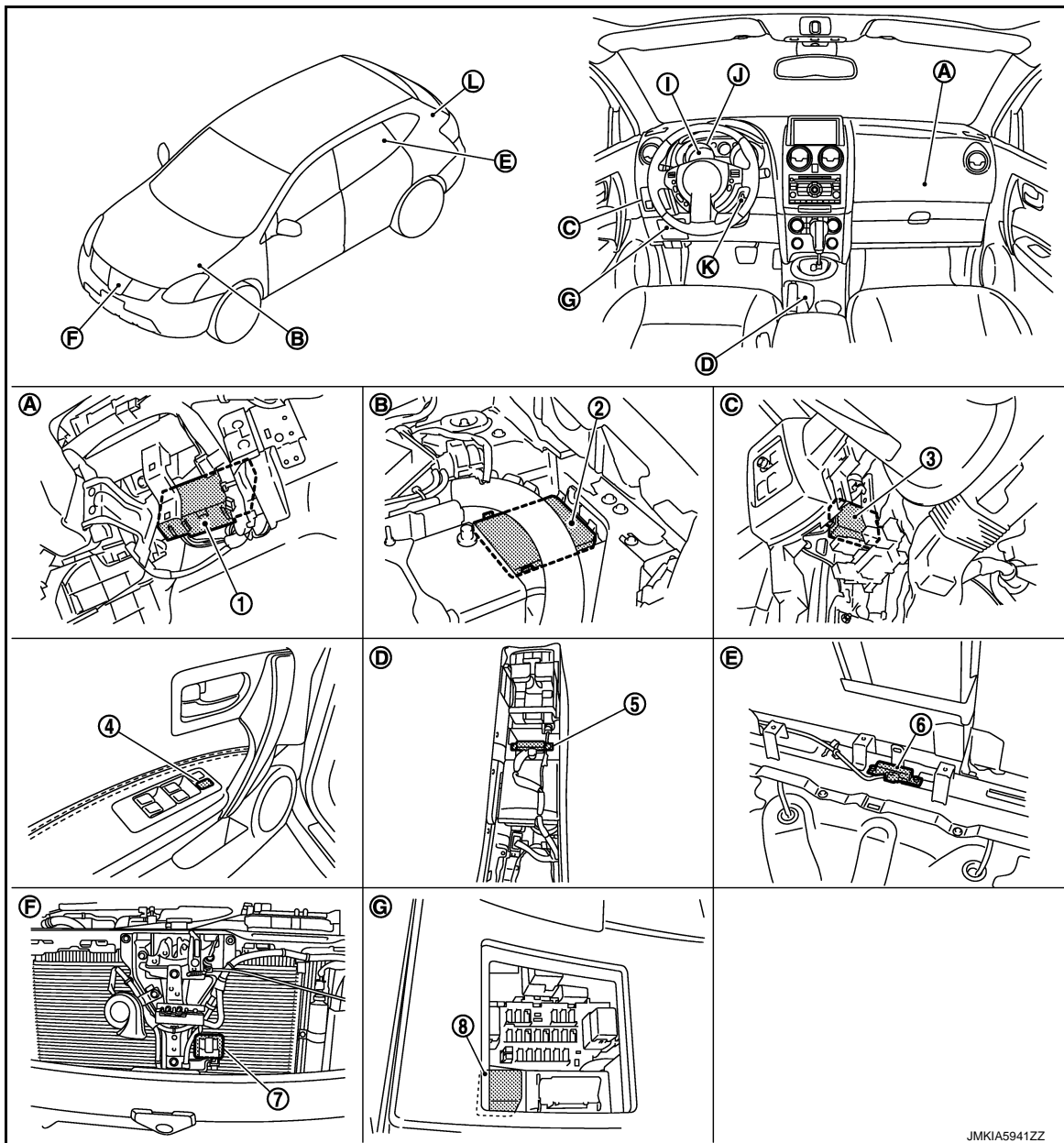
# POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008281703



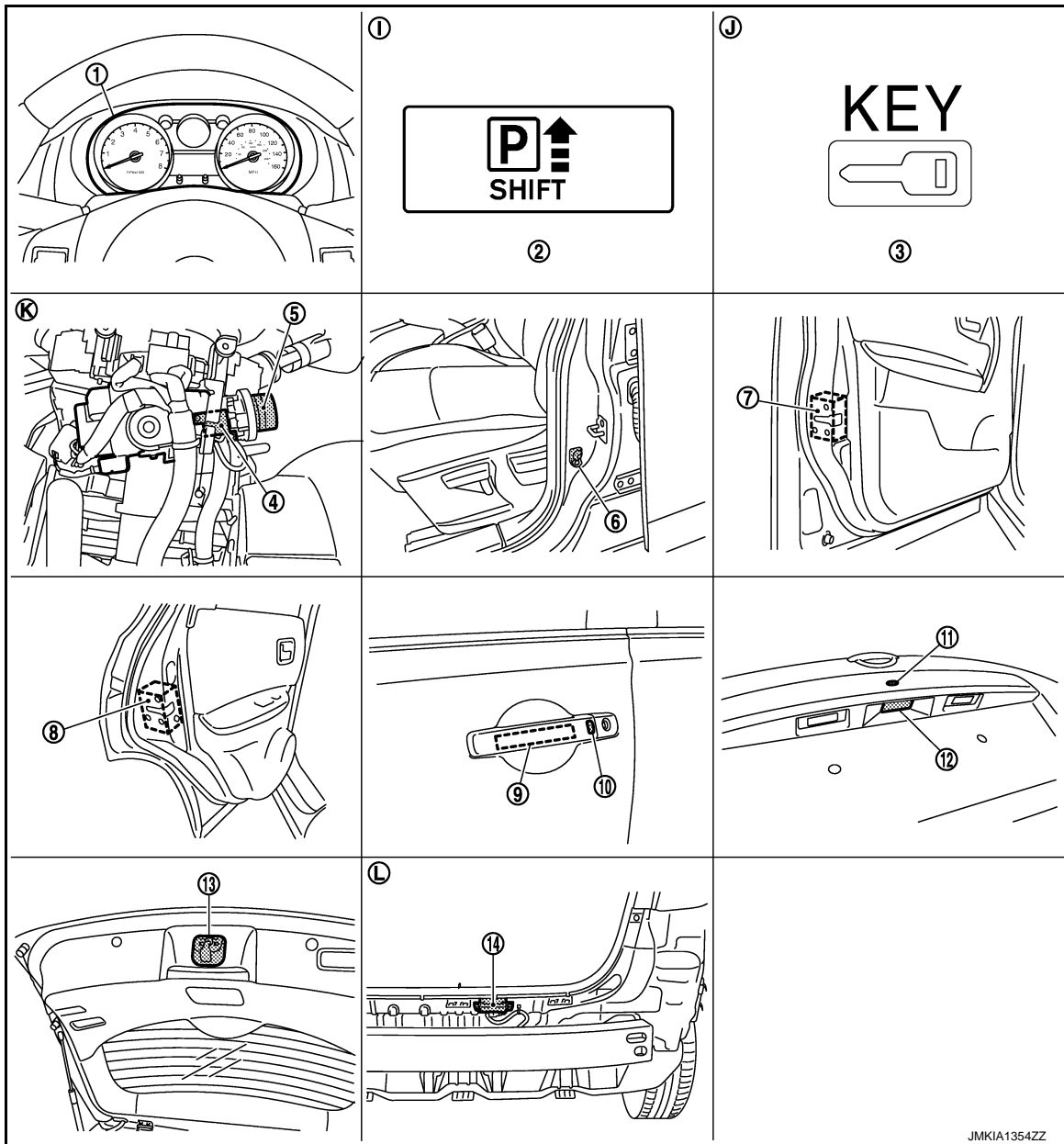
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

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# POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



JMKIA1354ZZ

- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

# POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## Component Description

INFOID:000000008281704

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Inputs lock or unlock signal to BCM.
Front door lock assembly (door lock actuator)	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
TCM	Transmits shift position signal to BCM via CAN communication line.

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**DLK**

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

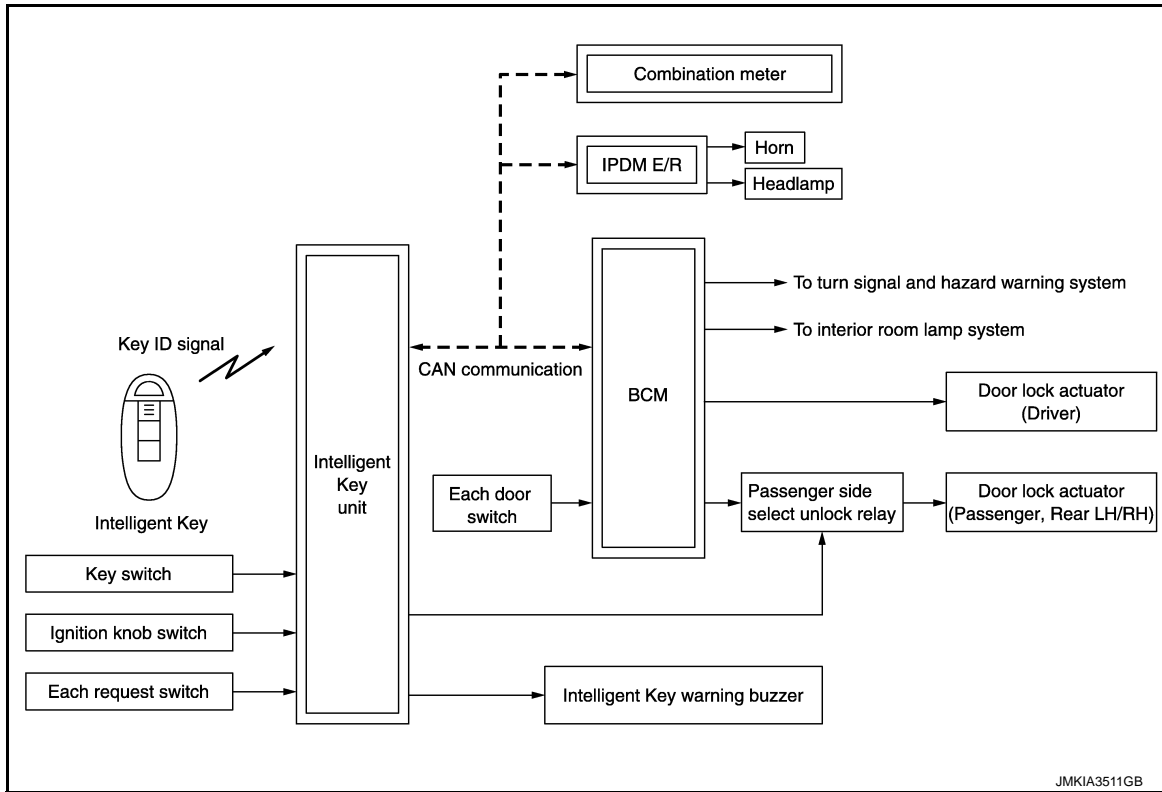
[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY SYSTEM

## INTELLIGENT KEY SYSTEM

## INTELLIGENT KEY SYSTEM : System Diagram

INFOID:0000000008281705



## INTELLIGENT KEY SYSTEM : System Description

INFOID:0000000008281706

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

**CAUTION:**

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

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

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	<a href="#">DLK-23</a>
Remote keyless entry function	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	<a href="#">DLK-27</a>
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	<a href="#">DLK-32</a>
Warning function	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver.	<a href="#">DLK-34</a>
Engine start function	The engine be turned on while carrying the Intelligent Key.	<a href="#">SEC-10</a>

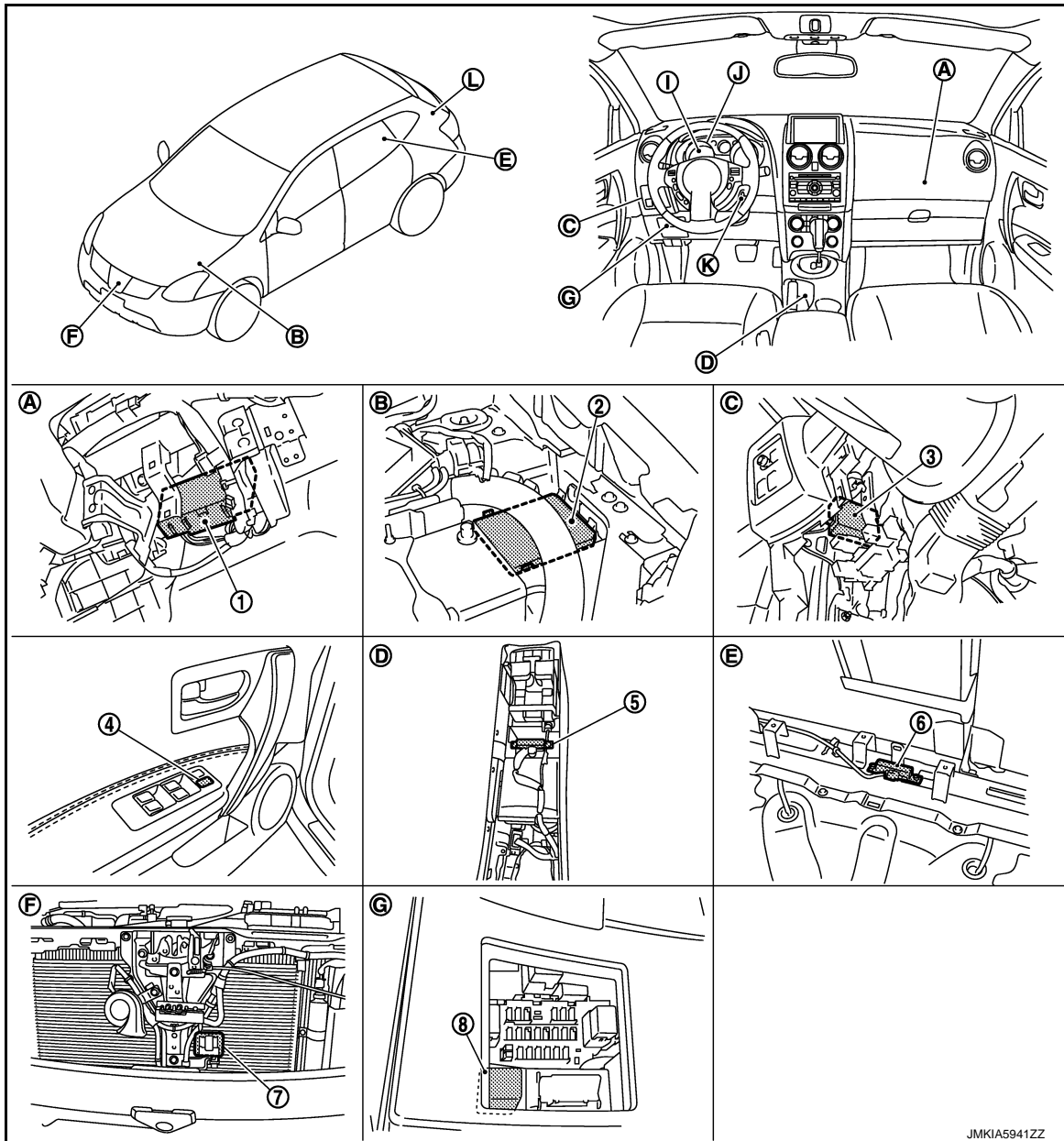
# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY SYSTEM : Component Parts Location

INFOID:000000008281707



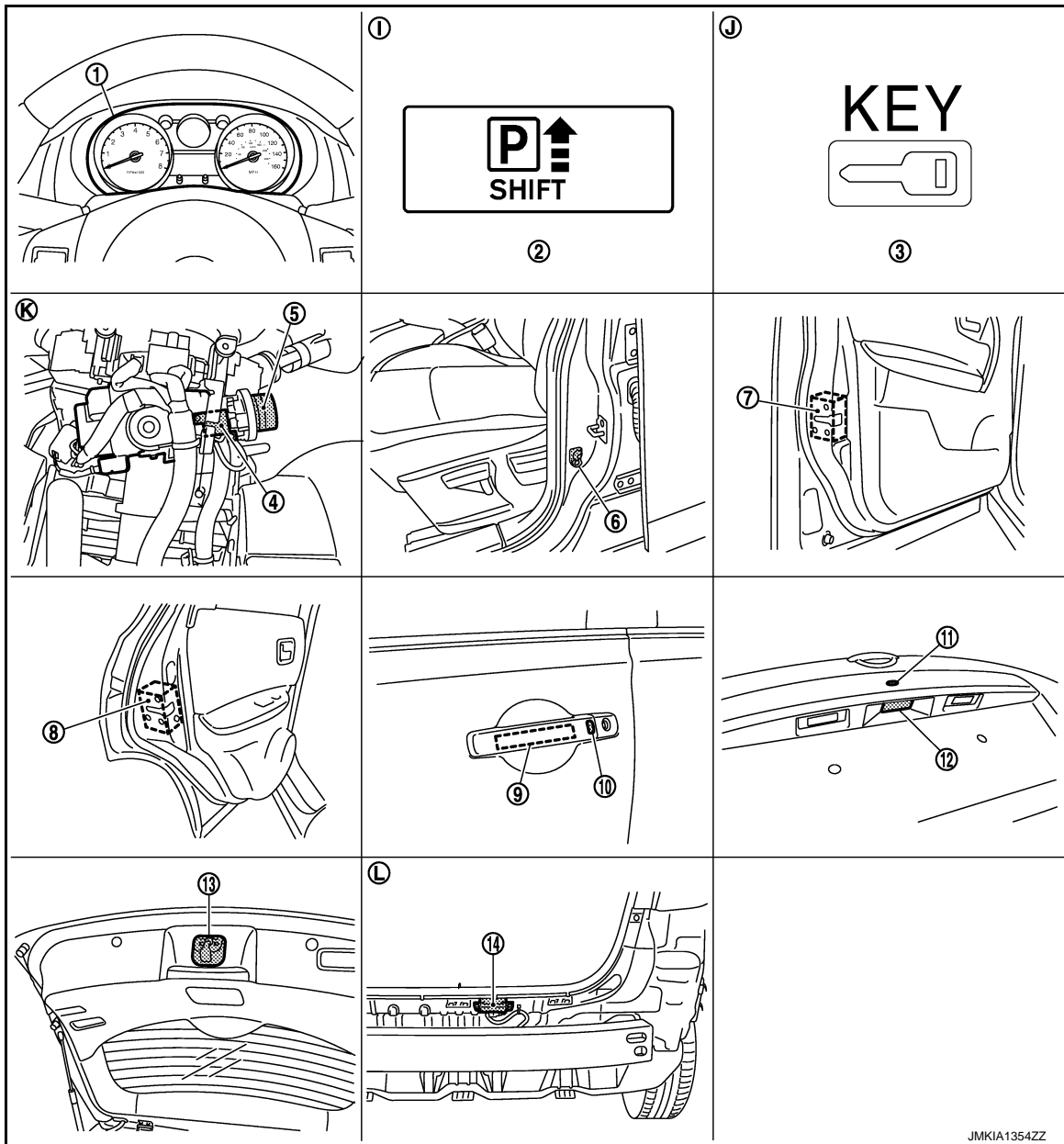
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

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# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Outside key antenna (back door)  |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY SYSTEM : Component Description

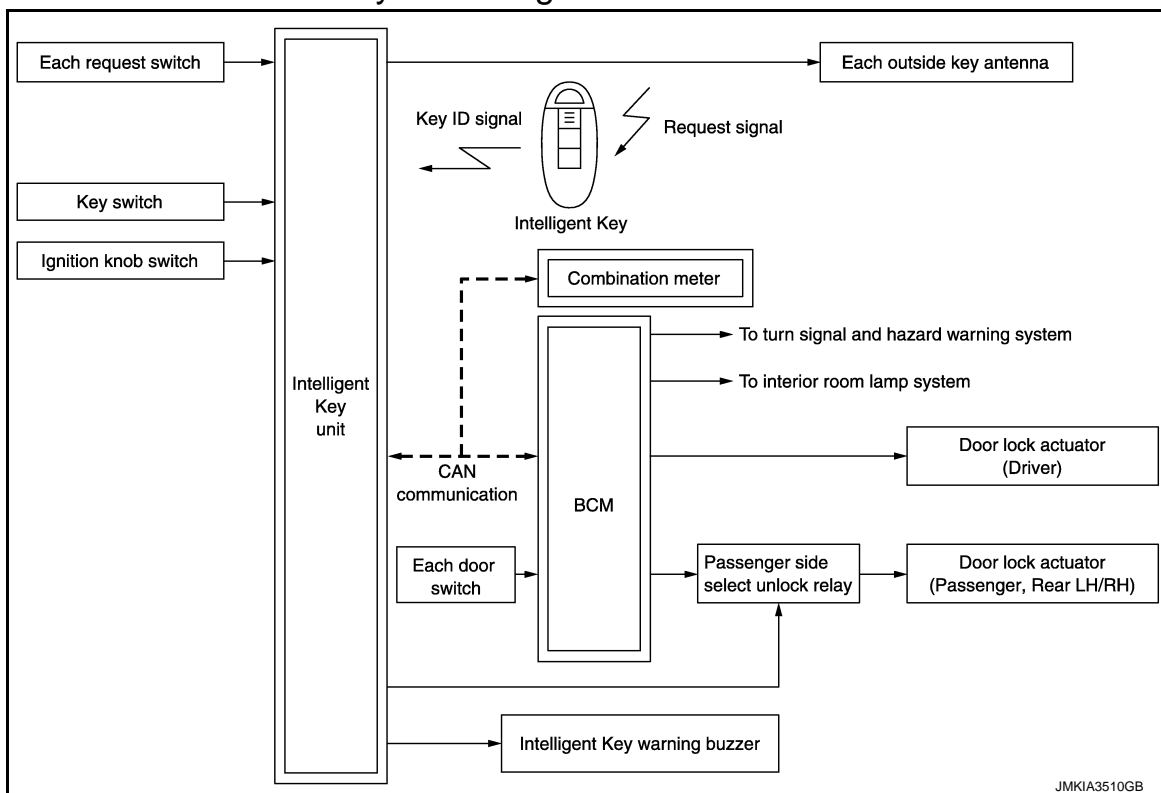
INFOID:000000008281708

Item	Function
BCM	Controls the Intelligent Key system.
Front door lock assembly (door lock actuator)	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to Intelligent Key unit.
Outside antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.

## DOOR LOCK FUNCTION

### DOOR LOCK FUNCTION : System Diagram

INFOID:000000008281709



### DOOR LOCK FUNCTION : System Description

INFOID:000000008281710

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

#### OPERATION DESCRIPTION

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

#### OPERATION CONDITION

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# INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

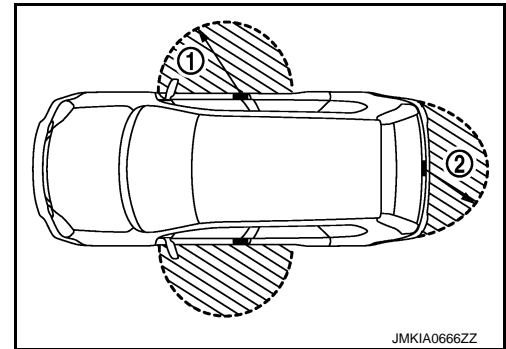
If the following conditions are not satisfied, door lock and unlock operation is not performed even if the request switch is operated.

Each request switch operation	Operation condition
Lock Operation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>

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

### OUTSIDE KEY ANTENNA DETECTION AREA

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



### SELECTIVE UNLOCK FUNCTION

When a LOCK signal is sent from door request switch (driver side or passenger side), all doors will be locked. When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door will be unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 5 seconds, all other door will be unlocked.

### HAZARD AND BUZZER REMINDER FUNCTION

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

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

Operating Function of Hazard and Buzzer Reminder

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

### How to Change Hazard and Buzzer Reminder Mode

Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

### AUTO DOOR LOCK FUNCTION

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

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

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

### ROOM LAMP OPERATION



# INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

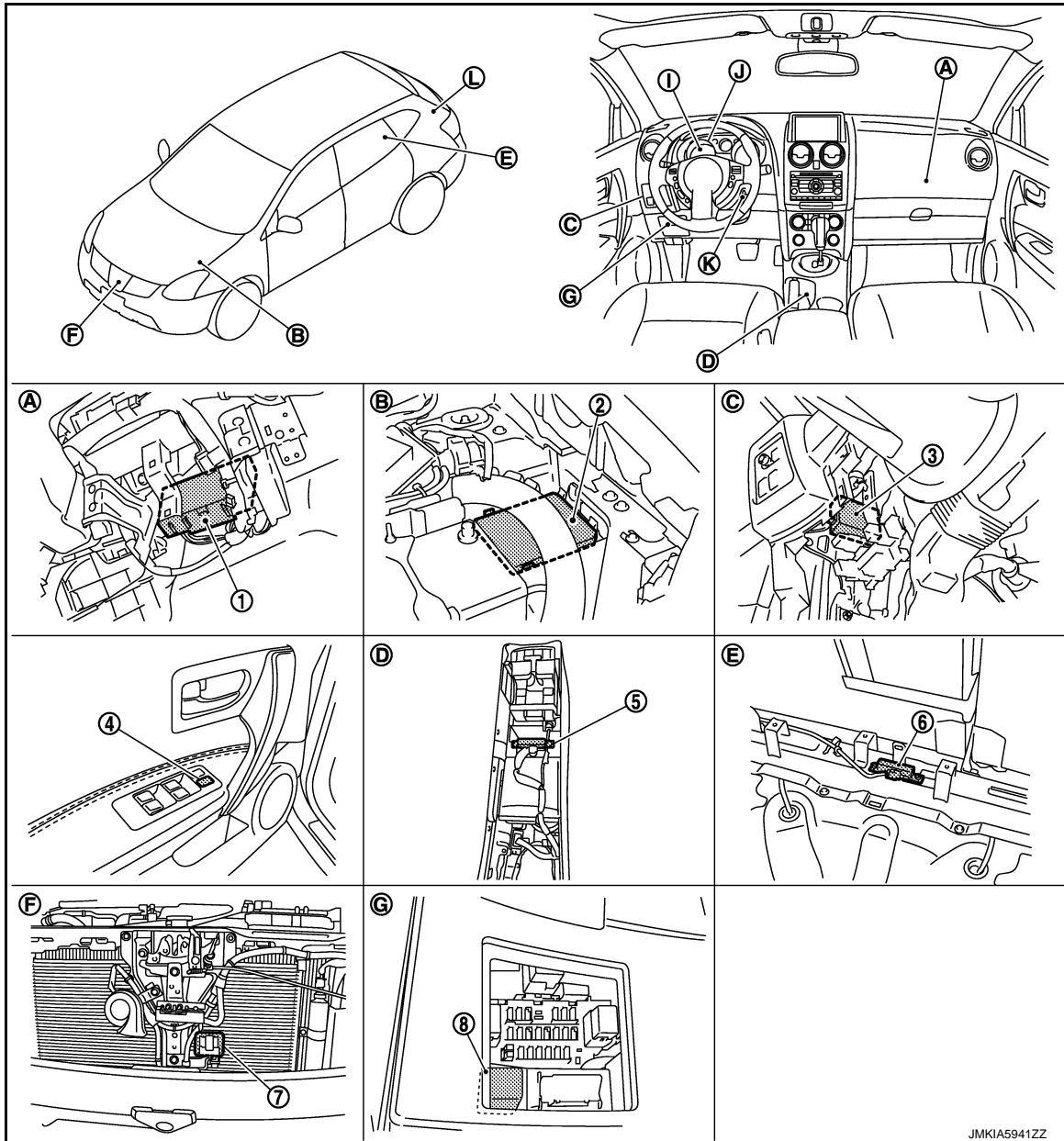
When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch OFF (all the doors are closed)

Intelligent Key system turns ON interior lamp by receiving UNLOCK signal from door request switch. For detailed description, refer to [INL-6, "System Description"](#).

## DOOR LOCK FUNCTION : Component Parts Location

INFOID:000000008281711



- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

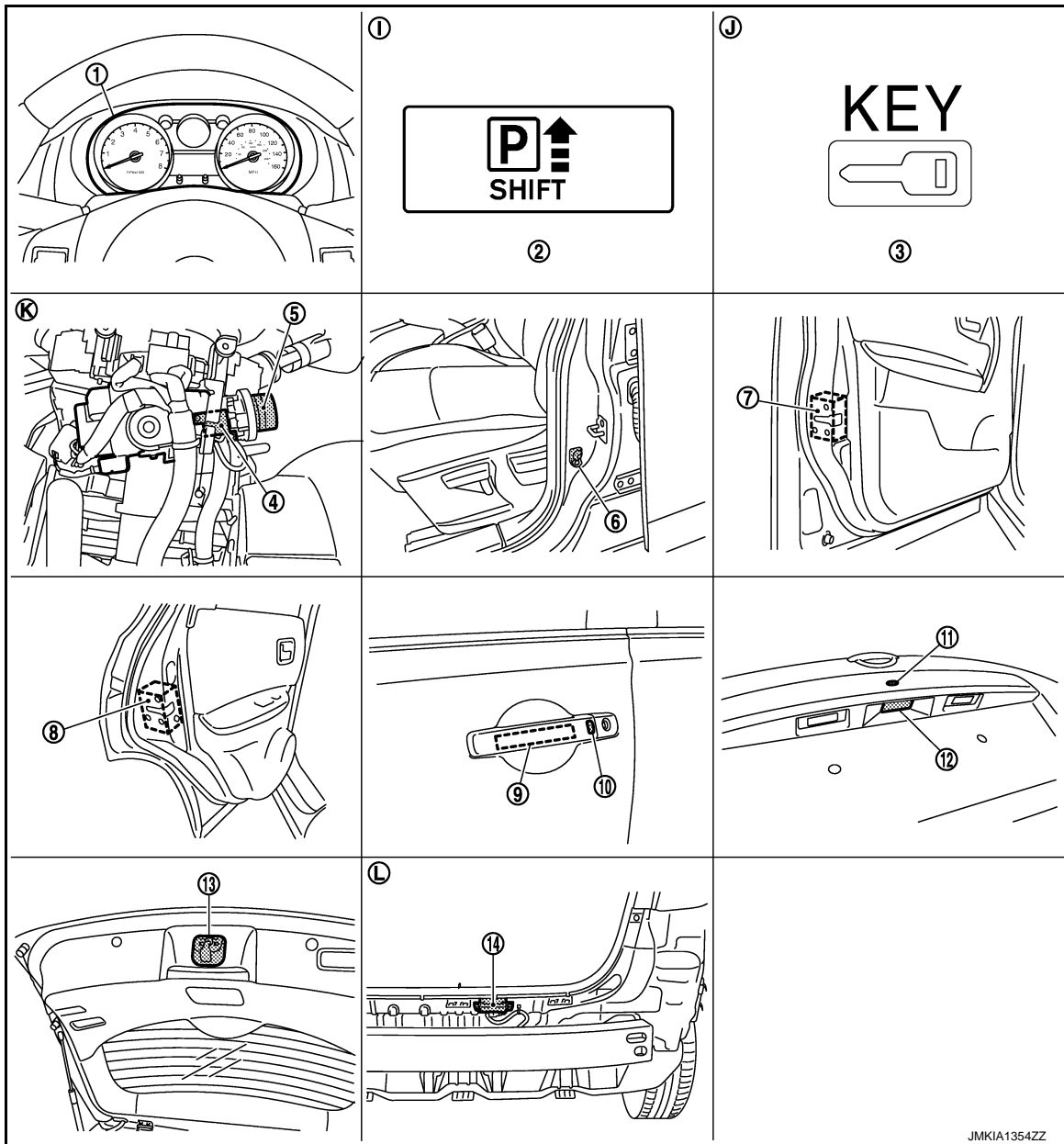
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# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR LOCK FUNCTION : Component Description

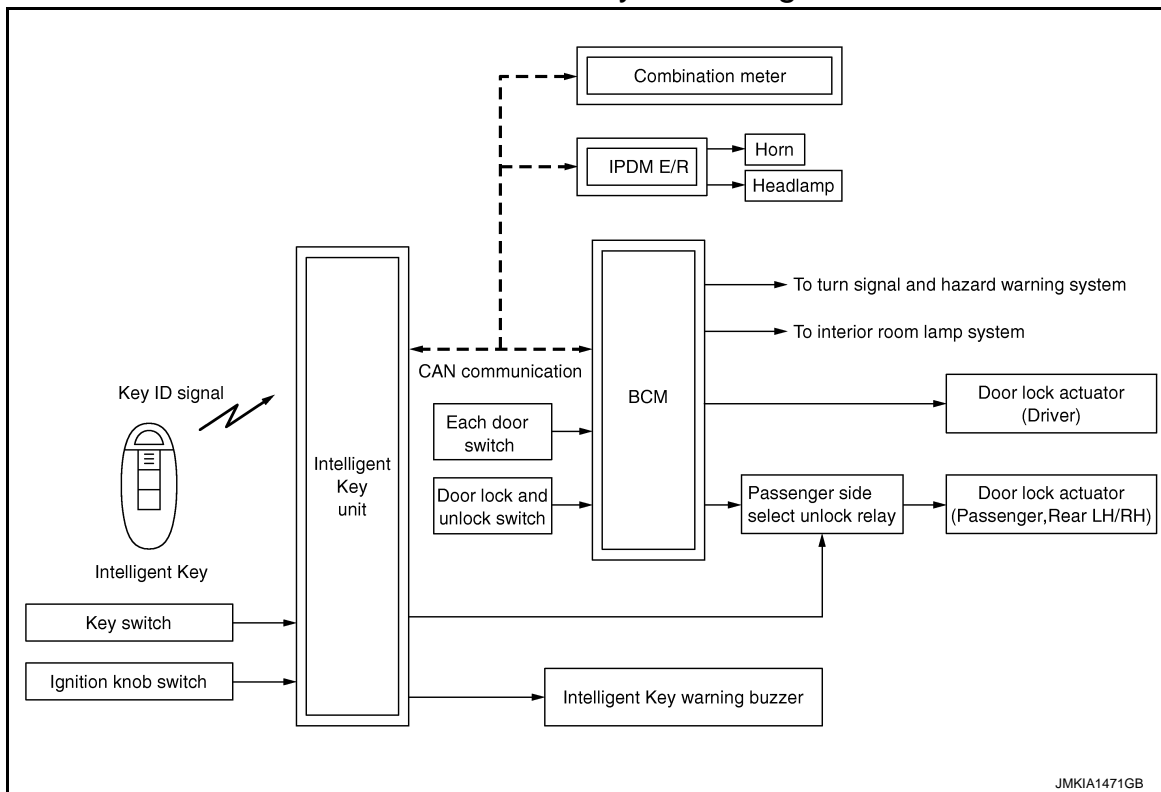
INFOID:000000008281712

Item	Function
BCM	Controls the door lock function.
Front door lock assembly (door lock actuator)	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
Request switch	Inputs lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Intelligent Key warning buzzer	Warns the user of the door lock/unlock condition and inappropriate operations with the buzzer sound.
Hazard warning lamps	Warns the user of the door lock/unlock condition and in appropriate operations with the lamps blink.

## REMOTE KEYLESS ENTRY FUNCTION

### REMOTE KEYLESS ENTRY FUNCTION : System Diagram

INFOID:000000008281713



### REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:000000008281714

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

#### OPERATION

Remote keyless entry system controls operation of the following items

- Door lock/unlock
- Hazard and horn reminder
- Auto door lock
- Panic alarm

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# INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

- Selective unlock function

### OPERATION AREA

To ensure the Intelligent Key works effectively, use within 1 m (3 ft) range of each door, however the operable range may differ according to surroundings.

### DOOR LOCK/UNLOCK FUNCTION

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmits from Intelligent Key to Intelligent Key unit.
- When Intelligent Key unit receives the door lock/unlock signal, it operate door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 1 time) as a reminder.

### OPERATION CONDITION

Remote controller operation	Operation condition
Lock	<ul style="list-style-type: none"><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 style="list-style-type: none"><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>

### SELECTIVE UNLOCK FUNCTION

When a LOCK signal is sent from door request switch (driver side or passenger side), all doors will be locked. When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door will be unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 5 seconds, all other door will be unlocked.

### PANIC ALARM FUNCTION

When ignition switch is OFF or lock (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), BCM receives panic alarm signal from Intelligent Key.

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

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off:

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

Panic alarm function mode can be changed by "PANIC ALARM SET" mode in "WORK SUPPORT". Refer to [DLK-49. "CONSULT Function \(INTELLIGENT KEY\)".](#)

### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM blinks hazard warning lamps as a reminder. The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating Function of Hazard and Horn Reminder

Intelligent Key operation	C mode		S mode	
	Lock	Unlock	Lock	Unlock
Hazard warning lamp blink	Twice	Once	Twice	—
Horn sound	Once	—	—	—

Hazard and horn reminder does not operate if any door switch is ON (any door is OPEN).

### How to Change Hazard and Horn Reminder Mode

#### Ⓟ With CONSULT

Refer to [DLK-49. "CONSULT Function \(INTELLIGENT KEY\)".](#)

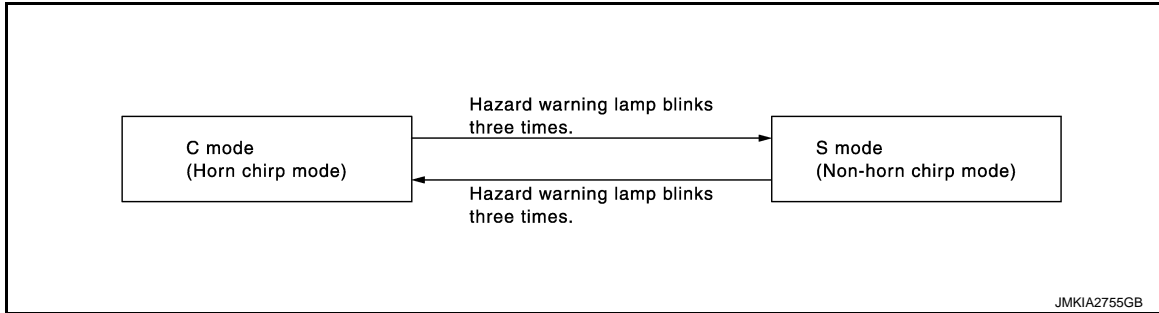
#### Ⓟ Without CONSULT

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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



## AUTO DOOR LOCK FUNCTION

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

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

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

## ROOM LAMP ILLUMINATION OPERATION

When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch OFF (all the doors are closed)

Intelligent Key system turns ON interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to [INL-6, "System Description"](#).

## ID CODE ENTRY PROCEDURE

Intelligent Key ID setup WITH CONSULT.

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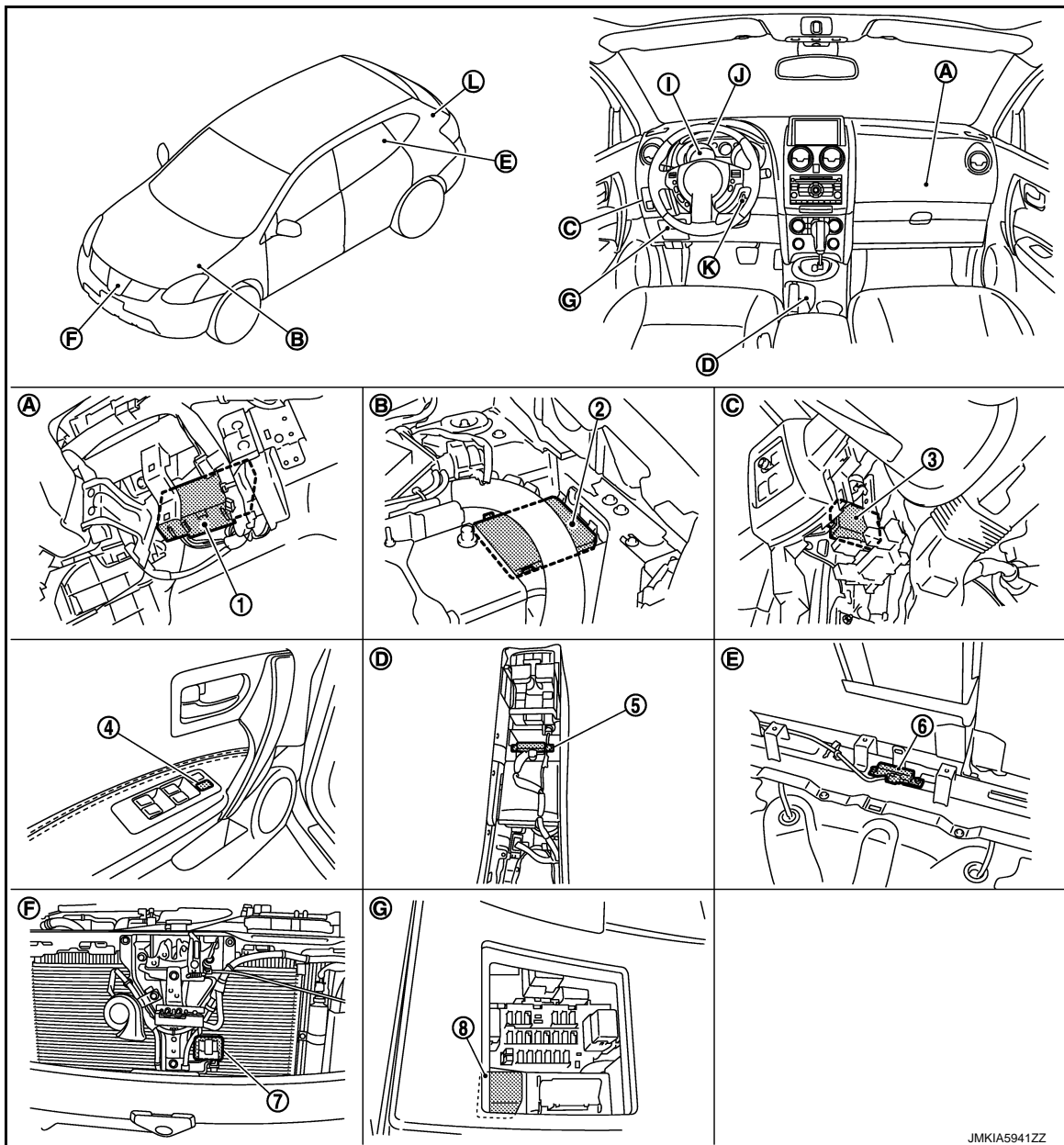
# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location

INFOID:000000008281715



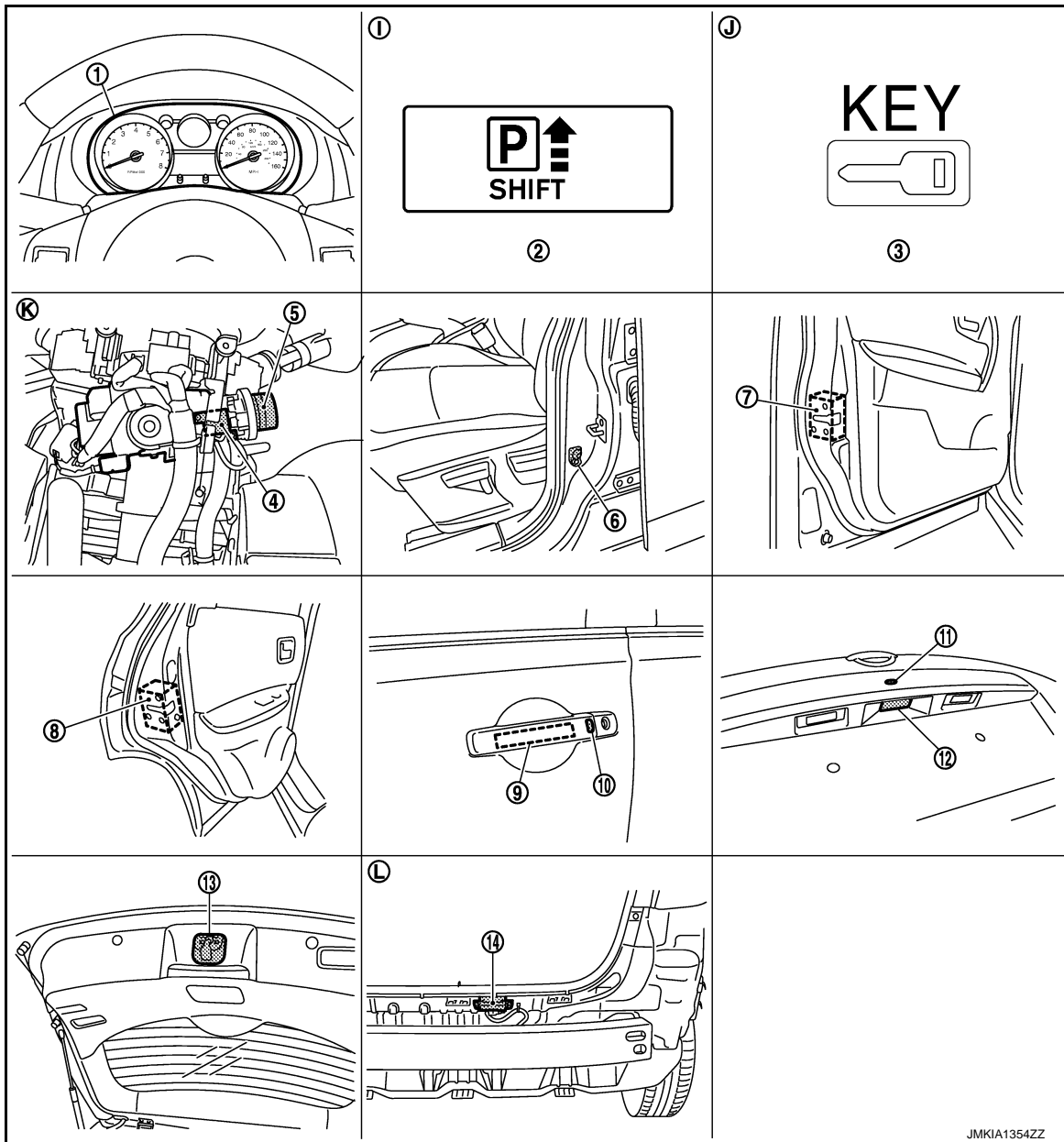
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           | C. Over the instrument lower panel (driver side) |
| A. Over the glove box                                     | B. Engine room LH                   | F. View with luggage floor spacer (LH) removed   |
| D. View with lower instrument cover remove                | E. View with center console removed |  |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

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# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

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# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY FUNCTION : Component Description

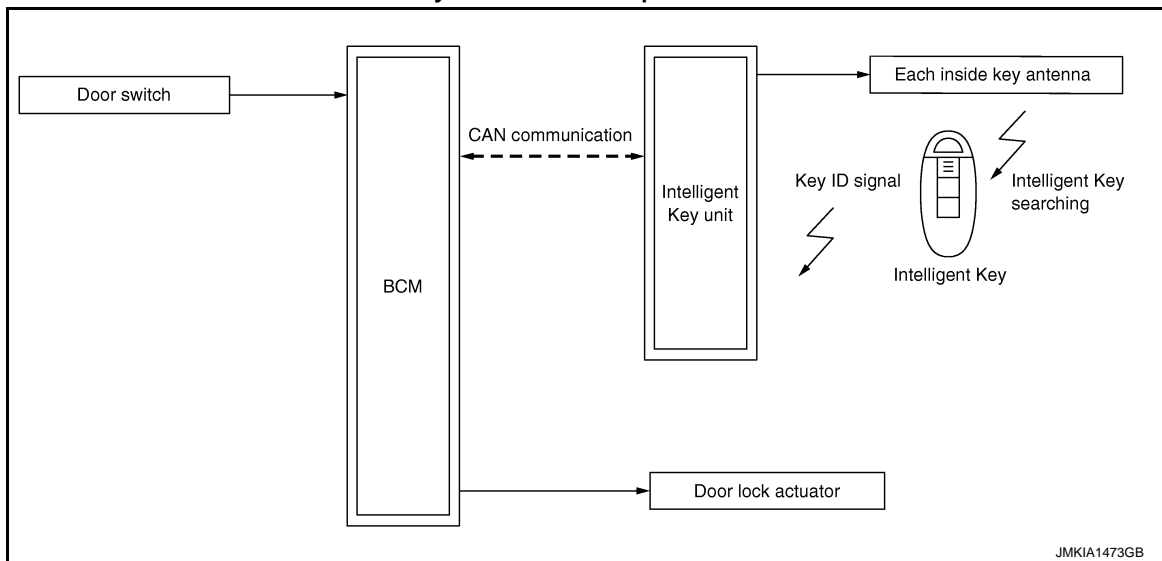
INFOID:000000008281716

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 (press 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 select unlock 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

## KEY REMINDER FUNCTION

### KEY REMINDER FUNCTION : System Description

INFOID:000000008281717



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

Key remainder function	Operation condition	Operation
Driver door closed*	Right after driver side door is closed under the following conditions <ul style="list-style-type: none"> <li>• Door lock operation is performed</li> <li>• Driver side door is opened</li> <li>• Driver side door is in lock state</li> </ul>	All doors unlock
Door is open or closed	Right after all doors are closed under the following conditions <ul style="list-style-type: none"> <li>• Intelligent Key is inside the vehicle</li> <li>• Any door is opened</li> <li>• All doors are locked by door lock and unlock switch or door lock knob</li> </ul>	<ul style="list-style-type: none"> <li>• All doors unlock</li> <li>• Sound Intelligent Key warning buzzer</li> </ul>

\*:If the door closing impact shocks the door lock knob or makes contact with baggage comma the door lock knob might activate the door locks accidentally comma but unlock operation will be perform in these cases.

### CAUTION:

- The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function will not operate when the Intelligent Key is on the instrument panel, 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 function is operated when the trunk lid is open/closed and the buzzers sound. If the following operations are performed, the key reminder function is cleared and buzzer sounds are stopped.



# INTELLIGENT KEY SYSTEM

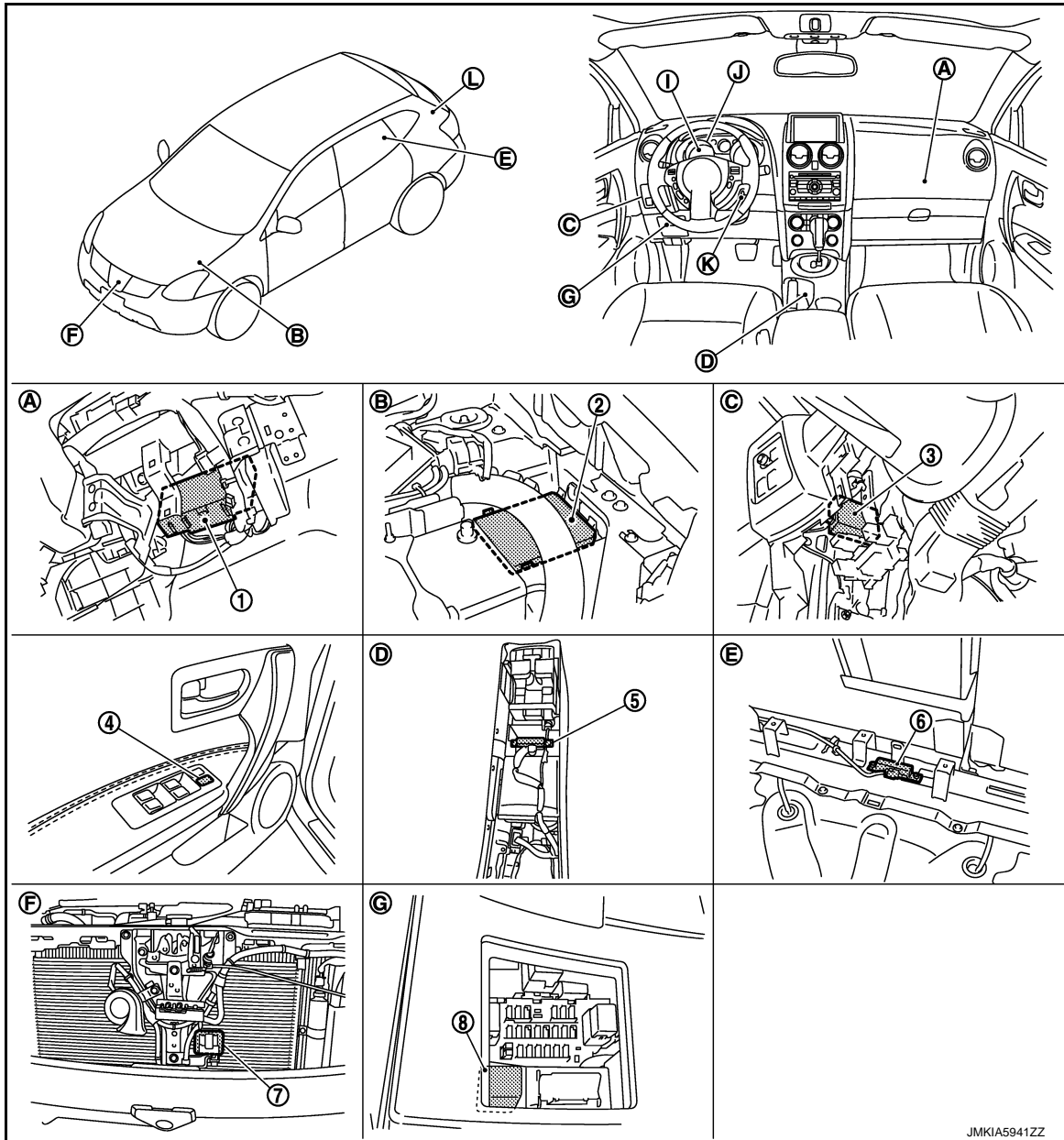
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

- Remote controller door lock button operation of Intelligent Key
- Remote controller door unlock button operation of Intelligent Key
- When the trunk lid is closed, the Intelligent Key is not inside the vehicle
- When any door is open

## KEY REMINDER FUNCTION : Component Parts Location

INFOID:000000008281718



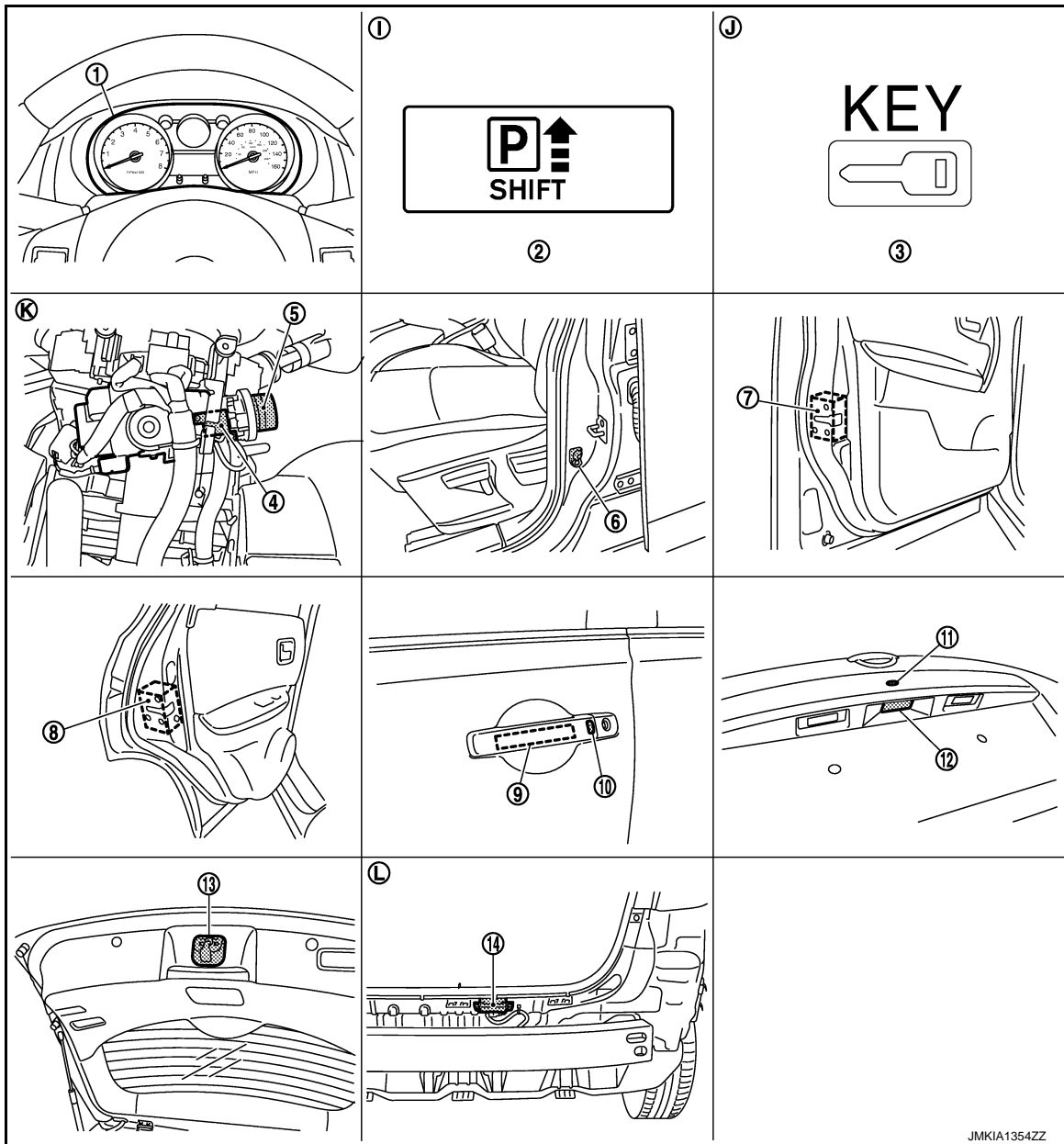
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

JMKIA5941ZZ

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



JMKIA1354ZZ

- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

## WARNING FUNCTION

### WARNING FUNCTION : System Description

INFOID:000000008281719

### DESCRIPTION

# INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >




The warning function are as per the following items and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, information display 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.

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Warning/Information functions	Operation conditions	Information display (combination meter)	Warning chime	
			Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key system malfunction	When a malfunction is detected on Intelligent key control unit	 <small>JMKIA5196ZZ</small>	—	—
Key ID warning	When all the conditions below are met <ul style="list-style-type: none"> <li>Registered Intelligent key is not in the passenger room.</li> <li>Stop lamp switch: ON</li> <li>Ignition knob switch: From OFF to ON (knob is pressed)</li> </ul>	 <small>JMKIA5192ZZ</small>	—	—
Ignition knob return forgotten warning	When all the conditions below are met <ul style="list-style-type: none"> <li>Ignition knob: OFF or LOCK (knob is pressed)</li> <li>Door switch (driver side): ON (Door is open)</li> </ul>	—	Activate	—
Ignition key warning (when mechanical key is used)	When all the conditions below are met <ul style="list-style-type: none"> <li>Ignition switch: OFF position</li> <li>Key switch: ON (inserted)</li> <li>Door switch (driver side): ON (Door is open)</li> </ul>	—	Activate	—
Forgetting P return warning	For internal	 <small>JMKIA5868ZZ</small>	Activate	—
	For external		—	Activate
OFF position warning	When all the conditions below are met. <ul style="list-style-type: none"> <li>Ignition switch is between ACC and OFF position or ignition knob is pressed in while ignition switch is in LOCK position</li> <li>1 seconds in the above state have pressed</li> </ul>	—	Activate	—

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >



[WITH INTELLIGENT KEY SYSTEM]

Warning/Information functions		Operation conditions	Information display (combination meter)	Warning chime	
				Combination meter buzzer	Intelligent Key warning buzzer
Take away warning	Any door open to all doors closed	When all the conditions below are met <ul style="list-style-type: none"> <li>Ignition switch: Except LOCK position.</li> <li>Door switch: ON to OFF (Door is open to closed)</li> <li>Intelligent Key cannot be detected inside the vehicle</li> </ul>	 <p style="text-align: center; font-size: small;">JMKIA519ZZZ</p>	—	Activate
	Door is open	When all the conditions below are met <ul style="list-style-type: none"> <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>		—	—
	Take away through window	When all the conditions below are met <ul style="list-style-type: none"> <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>		Activate	—
Door lock operation warning	When request switch is pressed (lock operation) under the following conditions <ul style="list-style-type: none"> <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>	—	—	Activate	

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Warning/Information functions	Operation conditions	Information display (combination meter)	Warning chime	
			Combination meter buzzer	Intelligent Key warning buzzer
Steering lock information	When all the conditions below are met <ul style="list-style-type: none"> <li>Ignition switch: LOCK position.</li> <li>When steering lock cannot be released 1 second.</li> </ul>	 <p style="text-align: center; font-size: small;">JMKIA5195ZZ</p>	—	—
Intelligent Key low battery warning	When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON	 <p style="text-align: center; font-size: small;">JMKIA3049ZZ</p>	—	—

## 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.

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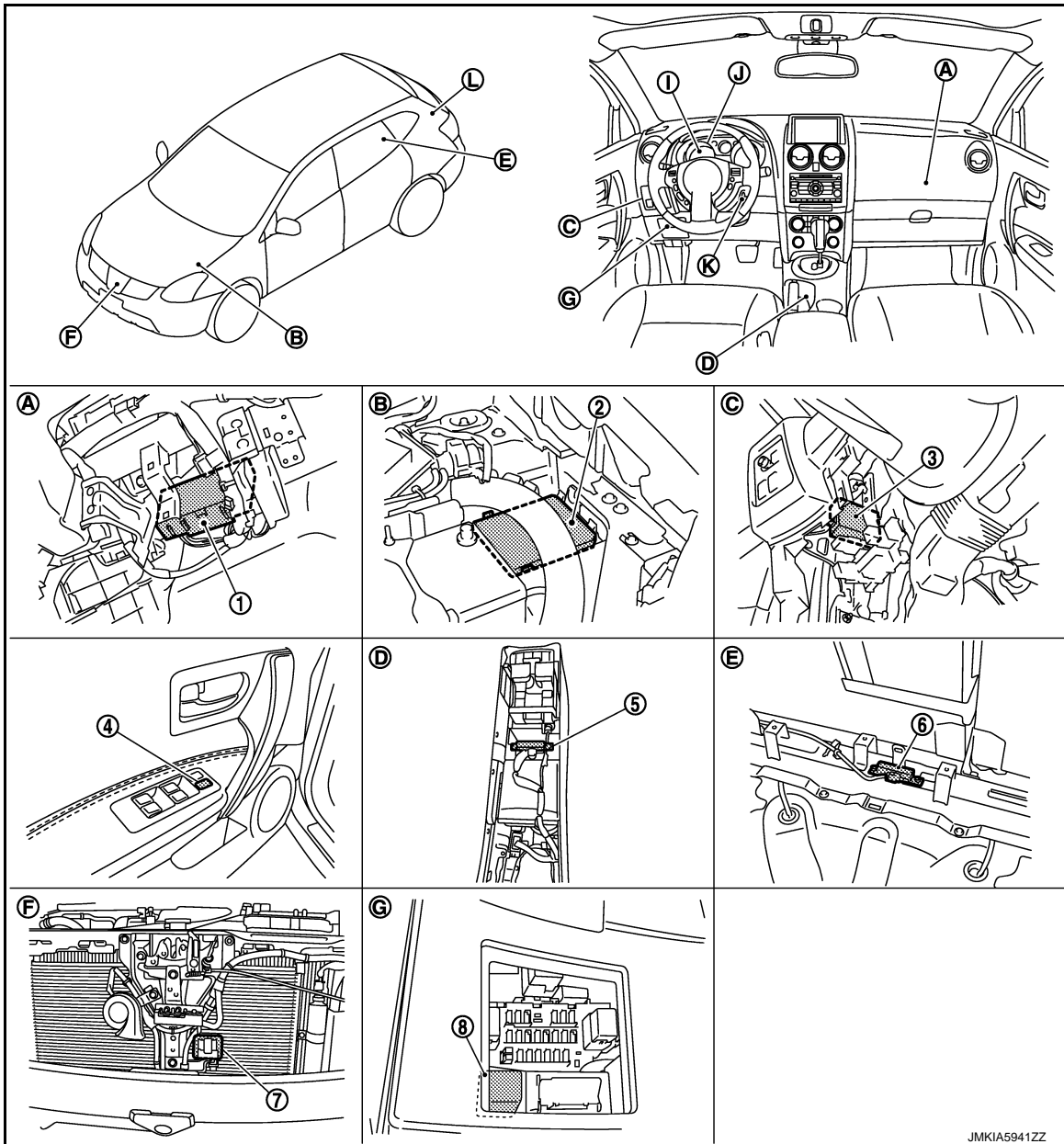
# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## WARNING FUNCTION : Component Parts Location

INFOID:000000008281720



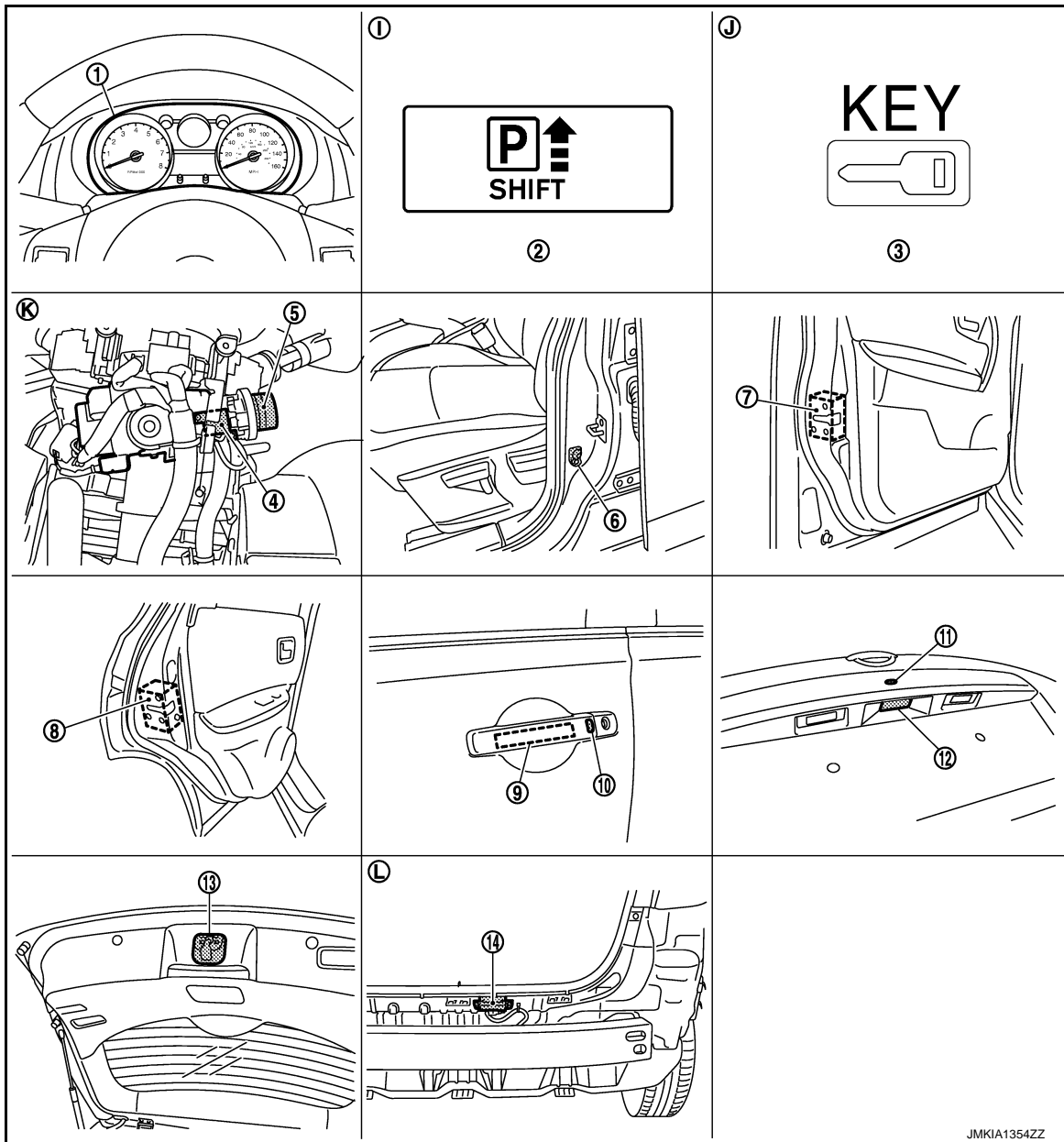
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           | C. Over the instrument lower panel (driver side) |
| A. Over the glove box                                     | B. Engine room LH                   | F. View with luggage floor spacer (LH) removed   |
| D. View with lower instrument cover remove                | E. View with center console removed |  |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

JMKIA5941ZZ

# INTELLIGENT KEY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

JMKIA1354ZZ

# BACK DOOR OPEN FUNCTION

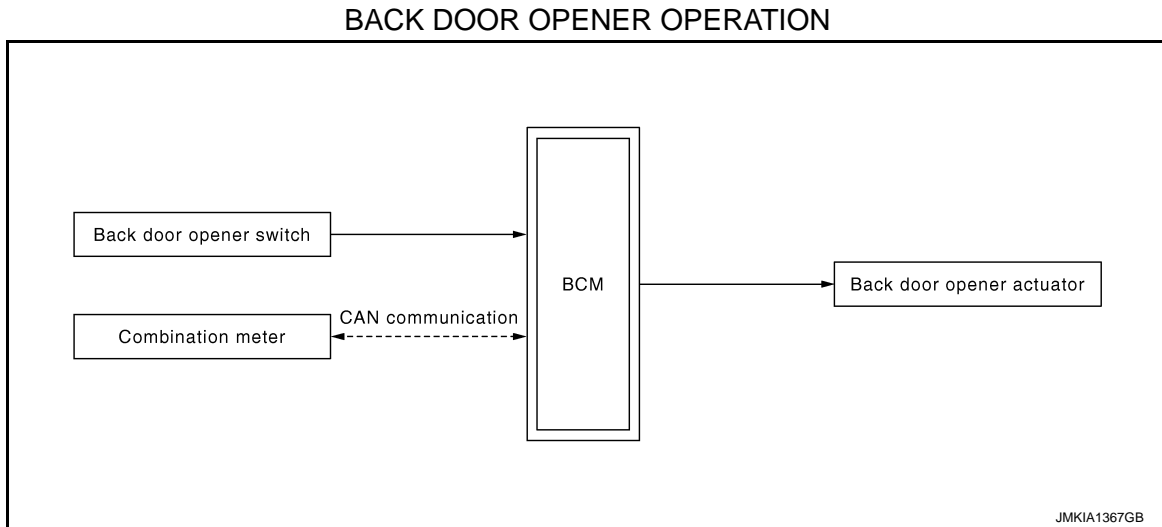
[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## BACK DOOR OPEN FUNCTION

### System Diagram

INFOID:000000008281721



### System Description

INFOID:000000008281722

#### 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 style="list-style-type: none"> <li>Vehicle speed is less than 5 km/h (3 MPH).</li> </ul>



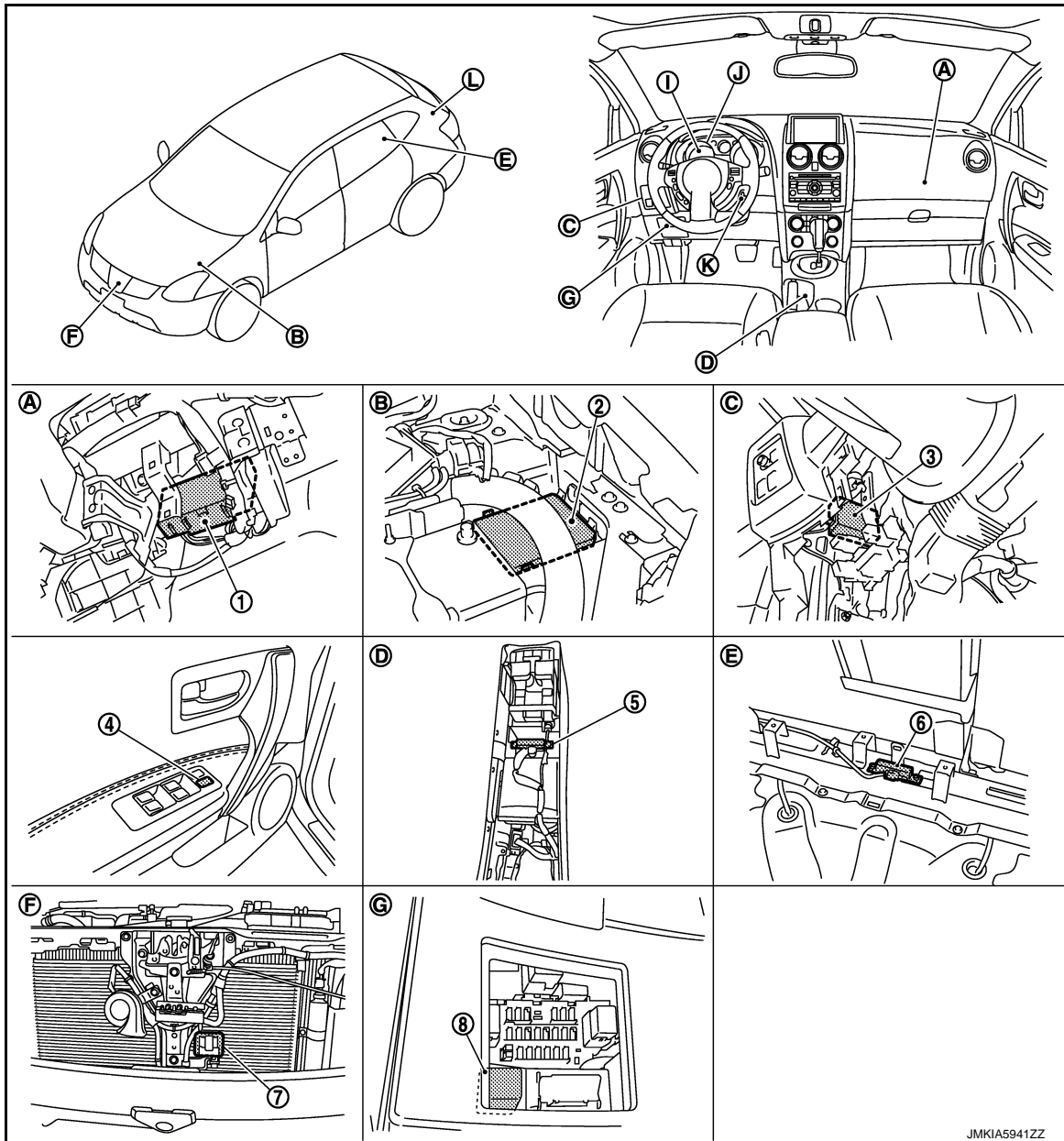
# BACK DOOR OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## Component Parts Location

INFOID:000000008281723



- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

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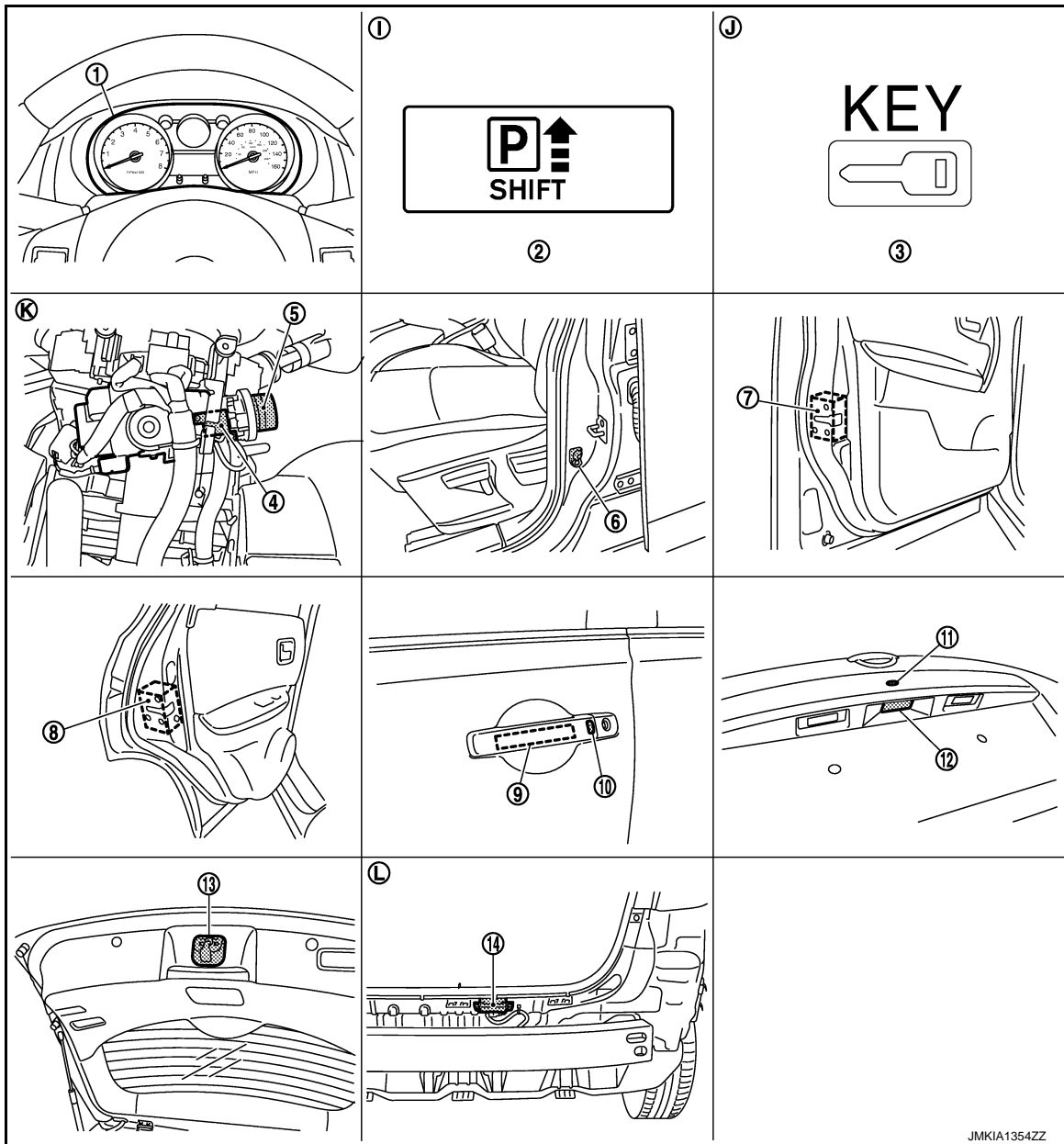
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# BACK DOOR OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

# BACK DOOR OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## Component Description

INFOID:0000000008281724

Item	Function
BCM	Controls the back door opener function
Back door opener switch	Transmits back door opener switch operation signal to BCM
Back door lock assembly (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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# INTEGRATED HOMELINK TRANSMITTER

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER

### Component Description

INFOID:000000008281725

Item	Function
Homelink universal transceiver	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

# DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000008741705

#### APPLICATION ITEM

CONSULT 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 Result	Displays the diagnosis results judged by BCM. Refer to <a href="#">DLK-331, "DTC Index"</a> .
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 style="list-style-type: none"> <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 sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp 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		×	×
<ul style="list-style-type: none"> <li>Auto air conditioning system</li> <li>Manual air conditioning system</li> </ul>	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Body control system	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
—	FUEL LID*			
TPMS	AIR PRESSURE MONITOR	×	×	×
Panic alarm system	PANIC ALARM			×

\*: This item is displayed, but is not function.

## DOOR LOCK

# DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000008281727

### BCM CONSULT FUNCTION

CONSULT 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
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 <sup>*2</sup>	Indicates [ON/OFF] condition of lock signal from key fob
KEYLESS UNLOCK <sup>*2</sup>	Indicates [ON/OFF] condition of unlock signal from key fob
I-KEY LOCK <sup>*1</sup>	Indicates [ON/OFF] condition of lock signal from Intelligent Key
I-KEY UNLOCK <sup>*1</sup>	Indicates [ON/OFF] condition of unlock signal from Intelligent Key
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from key cylinder
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from key cylinder

\*1: For the Intelligent Key equipped vehicle.

\*2: For the multi remote control system equipped vehicle.

### ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LCK/ALL ULK/DR UNLK/OTR ULK]

### WORK SUPPORT

Test item	Description
DOOR LOCK-UNLOCK SET	Select unlock mode can be changed in this mode. Selects ON-OFF of select unlock mode
ANTI-LOCK OUT SET	Key reminder door mode can be changed in this mode. Selects ON-OFF of Key reminder door mode
AUTOMATIC DOOR LOCK SELECT	The automatic door lock function mode can be selected as per the following item in this Mode. <ul style="list-style-type: none"><li>VH SPD: All doors are locked when vehicle speed is more than 5 MPH (10km/h)</li><li>P RANGE: All doors are locked when shifting the selector lever from the P position to other than the P position</li></ul>

# DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
AUTOMATIC DOOR UNLOCK SELECT	The automatic door unlock function mode can be selected as per the following item in this Mode. <ul style="list-style-type: none"><li>• MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF</li><li>• MODE 2: All doors are unlocked when shifting the selector lever from any position to other than the P to P positions</li><li>• MODE 4: Driver side door is unlocked when the power supply position is changed from ON to OFF</li><li>• MODE 5: Driver side door is unlocked when shifting the selector lever from any position to other than the P to P positions</li></ul>
AUTOMATIC DOOR LOCK/UNLOCK SET	The automatic door lock/unlock function can be changed to operate (ON) or not operate (OFF) in this mode.

## INTELLIGENT KEY

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

INFOID:0000000008281728

#### BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed

#### DATA MONITOR

Monitor Item	Condition
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
I-KEY TRUNK	This item is indicated, but not monitored
I-KEY PW DWN	This item is indicated, but not monitored
I-KEY PANIC	Indicates [ON/OFF] condition of panic alarm

## TRUNK

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

INFOID:0000000008281729

#### APPLICATION ITEM

CONSULT 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
I-KEY TRUNK	This item is indicated, but not monitored
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]

#### ACTIVE TEST

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# DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
TRUNK/BACK DOOR	This test is able to check back door opener operation [ON/OFF]

## PANIC ALARM

### PANIC ALARM : CONSULT Function (BCM - PANIC ALARM)

INFOID:000000008281730

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM

#### ACTIVE TEST

Test item	Description
HEAD LAMP (HI)	This test is able to check head lamp (hi) operation [ON/OFF]
PANIC ALARM	This test is able to check panic alarm operation [ON/OFF]



# DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

### CONSULT Function (INTELLIGENT KEY)

INFOID:000000008741764

#### APPLICATION ITEM

CONSULT 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
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) mode can be changed
LOW BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed
SELECTIVE UNLOCK FUNCTION	Selective unlock mode can be changed
ANTI KEY LOCK IN FUNCTION	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode
HAZARD ANSWER BACK	Hazard reminder operation mode can be changed
ANSWER BACK WITH I-KEY LOCK	Buzzer reminder operation (lock operation) mode by each door request switch can be changed
ANSWER BACK WITH I-KEY UNLOCK	Buzzer reminder operation (unlock operation) mode by each door request switch can be changed
AUTO RELOCK TIMER	Auto door lock operation mode can be changed
PANIC ALARM DELAY	Panic alarm button pressing time on Intelligent Key remote control button can be changed
P/W DOWN DELAY	This item is indicated, but not possible to use it
ENGINE START BY I-KEY	Engine start function (by Intelligent Key) mode can be changed
LOCK/UNLOCK BY I-KEY	Door lock function by door request switch can be changed

#### SELF-DIAG RESULT

Refer to [DLK-124, "DTC Index"](#).

#### DATA MONITOR

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)

# DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
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
P RANGE SW	Indicates [ON/OFF] condition shift lever park position
BD OPEN SW	This item is indicated, but not monitored
TR CANCEL SW	This item is indicated, but not monitored
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
KEYLESS TRUNK	This item is indicated, but not monitored
KEYLESS PANIC	Indicates [ON/OFF] condition PANIC button of Intelligent key
KEYLS PSD LH	This item is indicated, but not monitored
KEYLS PSD RH	This item is indicated, but not monitored
KEYLS PBD SIG	This item is indicated, but not monitored
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
TRUNK SW	This item is indicated, but not monitored
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h]

## ACTIVE TEST

Test item	Description
DOOR LOCK/UNLOCK	<p>This test is able to check door lock/unlock operation</p> <ul style="list-style-type: none"> <li>• ALL UNLK: All door lock actuators are unlocked</li> <li>• DR UNLK: Door lock actuator (driver side) is unlocked</li> <li>• AS UNLK: Door lock actuator (passenger side) is unlocked</li> <li>• BK UNLK: This item is indicated, but inactive</li> <li>• LOCK: All door lock actuator is locked</li> </ul>
ANTENNA	<p>This test is able to check Intelligent Key antenna operation. When the following condition are met, hazard warning lamp blinks</p> <ul style="list-style-type: none"> <li>• ROOM ANT1: Inside key antenna (console) transmissions can be detected by Intelligent Key, when "ROOM ANT1" is selected</li> <li>• ROOM ANT2: This item is displayed, but cannot be used</li> <li>• LUG ANT: Inside key antenna (rear seat) transmissions can be detected by Intelligent Key, when "LUG ANT" is selected</li> <li>• DR ANT: Outside key antenna (driver side) transmissions can be detected by Intelligent Key, when "DR ANT" is selected</li> <li>• AS ANT: Outside key antenna (passenger side) transmissions can be detected by Intelligent Key, when "AS ANT" is selected</li> <li>• BK ANT: Outside key antenna (rear bumper) transmissions can be detected by Intelligent Key, when "BK ANT" is selected</li> </ul>
OUTSIDE BUZZER	<p>This test is able to check Intelligent Key warning buzzer operation</p> <ul style="list-style-type: none"> <li>• ON</li> <li>• OFF</li> </ul>

# DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Description
INSIDE BUZZER	This test is able to check warning chime in combination meter operation <ul style="list-style-type: none"> <li>• take out: Take away warning chime sounds</li> <li>• knob: Ignition knob switch warning chime sounds</li> <li>• key: Key warning chime sounds</li> <li>• off</li> </ul>
INDICATOR	This test is able to check warning lamp operation <ul style="list-style-type: none"> <li>• BLUE ON: Key warning lamp (green) illuminates</li> <li>• RED ON: Key warning lamp (red) illuminates</li> <li>• KNOB ON: Lock warning lamp illuminates</li> <li>• BLUE IND: Key warning lamp (green) flashes</li> <li>• RED IND: Key warning lamp (red) flashes</li> <li>• KNOB IND: Lock warning lamp flashes</li> <li>• OFF</li> </ul>

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DLK

# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### BCM

#### BCM : Description

INFOID:000000008281732

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

CAN Communication Signal Chart. Refer to [LAN-26, "CAN Communication Signal Chart"](#).

#### BCM : DTC Logic

INFOID:000000008281733

#### DTC DETECTION LOGIC

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

#### BCM : Diagnosis Procedure

INFOID:000000008281734

#### 1.PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

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

NO >> Refer to [GI-46, "Intermittent Incident"](#).

#### INTELLIGENT KEY UNIT

#### INTELLIGENT KEY UNIT : Description

INFOID:000000008281735

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 detectability. Modern vehicles are equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-26, "CAN Communication Signal Chart"](#).

#### INTELLIGENT KEY UNIT : DTC Logic

INFOID:000000008281736

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
U1000	CAN COMM CIRCUIT	When Intelligent Key unit cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

#### INTELLIGENT KEY UNIT : Diagnosis Procedure

INFOID:000000008281737

#### 1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 3 seconds or more.

# U1000 CAN COMM CIRCUIT

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

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

NO >> Refer to [GI-46. "Intermittent Incident"](#).

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# U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## U1010 CONTROL UNIT (CAN)

### INTELLIGENT KEY UNIT

#### INTELLIGENT KEY UNIT : DTC Logic

INFOID:000000008281738

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
U1010	CONTROL UNIT (CAN)	Intelligent Key unit detected internal CAN communication circuit malfunction.	Intelligent key unit

#### INTELLIGENT KEY UNIT : Diagnosis Procedure

INFOID:000000008281739

#### 1. REPLACE INTELLIGENT KEY UNIT

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

>> Refer to [DLK-249. "Removal and Installation"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## POWER SUPPLY AND GROUND CIRCUIT INTELLIGENT KEY UNIT

### INTELLIGENT KEY UNIT : Diagnosis Procedure

INFOID:000000008281740

#### 1. CHECK FUSE AND FUSIBLE LINK

1. Turn ignition switch OFF.
2. 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.

(+)		(-)	Voltage (V) (Approx.)
Intelligent Key unit			
Connector	Terminal	Ground	Battery voltage
M40	11		
	6		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### 3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between Intelligent Key unit harness connector and ground.

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	12		Exists

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

## BCM

### BCM : Diagnosis Procedure

INFOID:000000008281741

#### 1. CHECK FUSES AND FUSIBLE LINK

1. Turn ignition switch OFF.
2. Check that the following fuses and fusible link are not fusing.

Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	10 (10A)
70		J (50A)

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No.	Signal name	Fuses and fusible link No.
11	ACC power supply	20 (10A)
38	Ignition power supply	1 (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. Disconnect BCM connectors.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Ignition switch position		
BCM			OFF	ACC	ON
Connector	Terminal	Ground			
M67	57		Battery voltage	Battery voltage	Battery voltage
	70		Approx. 0 V	Battery voltage	Battery voltage
M65	11		Approx. 0 V	Approx. 0 V	Battery voltage
	38				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	67		Exists

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.



# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR SWITCH

### Description

INFOID:000000008281742

Detects door open/closed condition.

### Component Function Check

INFOID:000000008281743

### 1.CHECK FUNCTION

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

Monitor item	Door condition	Display
DOOR SW-DR	CLOSE → OPEN	OFF → ON
DOOR SW-AS		
DOOR SW-RL		
DOOR SW-RR		
BACK DOOR		

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [DLK-57. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281744

### 1.CHECK DOOR SWITCH INPUT SIGNAL

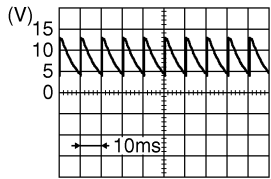
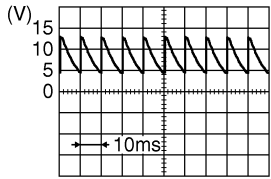
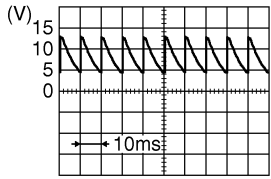
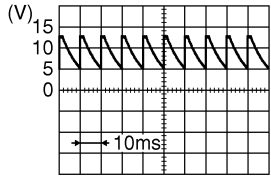
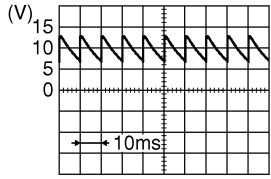
1. Turn ignition switch OFF.
2. Disconnect malfunctioning door switch connectors.
3. Check signal between malfunctioning door switch harness connector and ground with oscilloscope.

DLK

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)		Terminal	(-)	Signal (Reference value)
Door switch				
Connector				
Front door switch (passenger side)	B93	3	Ground	 <p style="text-align: right; font-size: small;">JPMAI0586GB</p>
Front door switch (driver side)	B92			 <p style="text-align: right; font-size: small;">JPMAI0587GB</p>
Rear door switch RH	B95			 <p style="text-align: right; font-size: small;">JPMAI0587GB</p>
Rear door switch LH	B94			 <p style="text-align: right; font-size: small;">JPMAI0594GB</p>
Back door lock assembly (back door switch)	D190			 <p style="text-align: right; font-size: small;">JPMAI0593GB</p>

**Is the inspection result normal?**

YES-1 >> Back door switch: GO TO 3.

YES-2 >> Door switch: GO TO 4.

NO >> GO TO 2.

## 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connectors.
2. Check continuity between BCM harness connector and door switch harness connector.

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM		Door switch		Continuity
Connector	Terminal	Connector	Terminal	
M65	12	B93	3	Exists
	13	B95		
M66	43	D190		
	47	B92		
	48	B94		

3. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M65	12		Ground
	13		
M66	43		
	47		
	48		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## 3.CHECK BACK DOOR GROUND CIRCUIT

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

Back door lock assembly		Ground	Continuity
Connector	Terminal		
D190	4	Ground	Exist

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-59, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door switch. Refer to [DLK-241, "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281745

### 1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

Back door switch		Condition		Continuity
Terminal				
3	4	Back door	Open	Exists
			Close	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door switch. Refer to [DLK-241, "Removal and Installation"](#).

# DOOR LOCK AND UNLOCK SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## DOOR LOCK AND UNLOCK SWITCH DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008281746

Transmits door lock/unlock operation to BCM.

### DRIVER SIDE : Component Function Check

INFOID:000000008281747

## 1. CHECK FUNCTION

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

Monitor item	Condition
CDL LOCK SW	LOCK : ON
	UNLOCK : OFF
CDL UNLOCK SW	LOCK : OFF
	UNLOCK : ON

Is the inspection result normal?

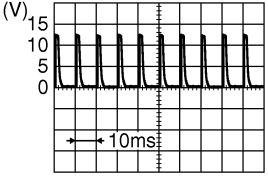
- YES >> Door lock and unlock switch is OK.  
 NO >> Refer to [DLK-61, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281748

## 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

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

(+)		(-)	Signal (Reference value)
Power window main switch			
Connector	Terminal	Ground	
D5	6		
D6	18		

Is the inspection result normal?

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

## 2. CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and power window main switch harness connector.

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M65	46	D5	6	Exists
	45	D6	18	

- Check continuity between BCM harness connector and ground.

# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M65	46		Not existed
	45		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D6	17		Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK DOOR LOCK AND UNLOCK SWITCH

Check power window main switch.

Refer to [DLK-62, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power window main switch. Refer to [PWC-63, "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## DRIVER SIDE : Component Inspection

INFOID:000000008281749

### 1.CHECK DOOR LOCK AND UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check power window main switch.

Power window main switch		Condition		Continuity
Terminal				
6	17	Door	LOCK	Exists
18			UNLOCK	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch. Refer to [PWC-63, "Removal and Installation"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281750

Transmits door lock/unlock operation to BCM.

### PASSENGER SIDE : Component Function Check

INFOID:000000008281751

### 1.CHECK FUNCTION

# DOOR LOCK AND UNLOCK SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

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

Monitor item	Condition	
CDL LOCK SW	LOCK	: ON
	UNLOCK	: OFF
CDL UNLOCK SW	LOCK	: OFF
	UNLOCK	: ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

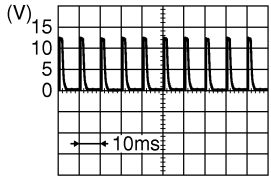
NO >> Refer to [DLK-63, "PASSENGER SIDE : Diagnosis Procedure"](#).

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281752

### 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope.

(+)		(-)	Signal (Reference value)
Connector	Terminal		
D45	1	Ground	
	2		

JPMIA0591GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

### 2. CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

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

BCM		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M65	46	D45	2	Exists
	45		1	

- Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	46		Not existed
	45		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

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DLK

# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## 3. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D45	3		Exists

Is the inspection result normal?

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

## 4. CHECK DOOR LOCK AND UNLOCK SWITCH

Check front power window switch (passenger side).

Refer to [DLK-64, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace front power window switch (passenger side). Refer to [PWC-63, "Removal and Installation"](#).

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## PASSENGER SIDE : Component Inspection

INFOID:000000008281753

## 1. CHECK DOOR LOCK AND UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check front power window switch (passenger side).

Front power window switch		Condition	Continuity
Terminal			
2	3	LOCK	Exists
1		UNLOCK	

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace front power window switch (passenger side). Refer to [PWC-63, "Removal and Installation"](#).



# DOOR REQUEST SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## DOOR REQUEST SWITCH

### DRIVER SIDE

#### DRIVER SIDE : Description

INFOID:000000008281754

Transmits lock/unlock operation to Intelligent Key unit.

#### DRIVER SIDE : Component Function Check

INFOID:000000008281755

### 1.CHECK FUNCTION

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

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 [DLK-65, "DRIVER SIDE : Diagnosis Procedure"](#).

#### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281756

### 1.CHECK DOOR REQUEST SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (driver side) connector.
3. Check voltage between outside handle assembly (driver side) harness connector and ground.

Outside handle assembly (driver side)		Ground	Voltage (V) (Approx.)
Connector	Terminal		
D13	3		5

Is the inspection result normal?

YES >> GO TO 3.

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 handle assembly (driver side) harness connector.

Intelligent Key unit		Outside handle assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M40	5	D13	3	Exists

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	5		Not existed

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 3.CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

Check continuity between outside handle assembly (driver side) harness connector and ground.

# DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Outside handle assembly (driver side)		Ground	Continuity
Connector	Terminal		Exists
D13	4		

Is the inspection result normal?

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

## 4.CHECK DOOR REQUEST SWITCH

Check outside handle assembly (driver side).  
Refer to [DLK-66, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace outside handle (driver side). Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## DRIVER SIDE : Component Inspection

INFOID:000000008281757

### 1.CHECK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (driver side) connector.
3. Check outside handle assembly (driver side).

Outside handle assembly (driver side)		Condition	Continuity
Terminal			Door request switch
3	4	Pressed	
		Released	Not existed

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace front outside handle (driver side). Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281758

Transmits lock/unlock operation to Intelligent Key unit.

### PASSENGER SIDE : Component Function Check

INFOID:000000008281759

#### 1.CHECK FUNCTION

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

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-67, "PASSENGER SIDE : Diagnosis Procedure"](#).

# DOOR REQUEST SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

INFOID:00000000281760

## PASSENGER SIDE : Diagnosis Procedure

### 1. CHECK DOOR REQUEST SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (passenger side) connector.
3. Check voltage between outside handle assembly (passenger side) harness connector and ground.

Outside handle assembly (passenger side)		Ground	Voltage (V) (Approx.)
Connector	Terminal		
D33	3		5

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

### 2. CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

Check continuity between outside handle assembly (passenger side) harness connector and ground.

Outside handle assembly (passenger side)		Ground	Continuity
Connector	Terminal		
D33	4		Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 3. CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between Intelligent Key unit harness connector and outside handle assembly (passenger side) harness connector.

Intelligent Key unit		Outside handle assembly (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M40	25	D33	3	Exists

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	25		Not existed

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).

NO >> Repair or replace harness.

### 4. CHECK DOOR REQUEST SWITCH

Check outside handle assembly (passenger side).

Refer to [DLK-68, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace outside handle (passenger side). Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

### 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

# DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## PASSENGER SIDE : Component Inspection

INFOID:000000008281761

### 1.CHECK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (passenger side) connector.
3. Check outside handle assembly (passenger side).

Outside handle assembly (passenger side)		Condition	Continuity	
Terminal				
3	4	Door request switch	Pressed	Exists
			Released	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front outside handle (passenger side). Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

## BACK DOOR

### BACK DOOR : Description

INFOID:000000008281762

Transmits lock/unlock operation to Intelligent Key unit.

### BACK DOOR : Component Function Check

INFOID:000000008281763

### 1.CHECK FUNCTION

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

Monitor item	Condition
BD/TR REQ SW	Door request switch is pressed :ON
	Door request switch is released :OFF

Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Refer to [DLK-68, "BACK DOOR : Diagnosis Procedure"](#).

## BACK DOOR : Diagnosis Procedure

INFOID:000000008281764

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

1. Turn ignition switch OFF.
2. Disconnect back door opener switch assembly (request switch) connector.
3. Check voltage between back door opener switch assembly (request switch) harness connector and ground.

Back door opener switch assembly (request switch)		Ground	Voltage (V) (Approx.)
Connector	Terminal		
D197	4		5

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

### 2.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)		Ground	Continuity
Connector	Terminal		
D197	3		Exists

# DOOR REQUEST SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 3.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		Back door opener switch (request switch)		Continuity
Connector	Terminal	Connector	Terminal	
M40	29	D197	4	Exists

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	29		Not existed

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 4.CHECK DOOR REQUEST SWITCH

Check back door opener switch assembly (request switch).

Refer to [DLK-69, "BACK DOOR : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch assembly (request switch). Refer to [DLK-246, "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## BACK DOOR : Component Inspection

INFOID:000000008281765

### 1.CHECK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.
2. Disconnect back door opener switch assembly (request switch) connector.
3. Check back door opener switch assembly (request switch).

Back door opener switch assembly (request switch)		Condition	Continuity	
Terminal				
3	4	Door request switch	Pressed	Exists
			Released	Not existed

Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Replace back door opener switch assembly (request switch). Refer to [DLK-246, "Removal and Installation"](#).

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# KEY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## KEY SWITCH

### Description

INFOID:000000008281766

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

### Component Function Check

INFOID:000000008281767

## 1.CHECK KEY SWITCH INPUT SIGNAL

Check key switch ("KEY ON SW") in "Data Monitor" mode with CONSULT. Refer to [DLK-46, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

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 [DLK-70, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:000000008281768

## 1.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

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

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M25	2	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace harness.

## 2.CHECK KEY SWITCH SIGNAL CIRCUIT

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

BCM		Ignition knob switch, key switch and key lock solenoid		Continuity
Connector	Terminal	Connector	Terminal	
M65	37	M25	1	Exists

2. Check continuity between key switch and ground.

Ignition knob switch, key switch and key lock solenoid		Ground	Continuity
Connector	Terminal		
M25	1		Not existed

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Repair or replace harness.

## 3.CHECK KEY SWITCH

# KEY SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Check key switch function.

Refer to [DLK-71, "Component Inspection"](#).

Is the inspection result normal?

yes >> GO TO 4.

NO >> Replace ignition knob switch, key switch and key lock solenoid.

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281769

## COMPONENT INSPECTION

### 1.CHECK KEY SWITCH

1. Turn ignition switch OFF.
2. Disconnect key switch connector.
3. Check continuity between ignition knob switch, key switch and key lock solenoid terminals.

Ignition knob switch, key switch and key lock solenoid		Condition	Continuity
Terminal			
1	2	Insert mechanical key into key cylinder	Exists
		Remove mechanical key from key cylinder	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace ignition knob switch, key switch and key lock solenoid.

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# KEY CYLINDER SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## KEY CYLINDER SWITCH

### Description

INFOID:000000008281770

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

### Component Function Check

INFOID:000000008281771

#### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [DLK-46. "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Monitor item	Condition
KEY CYL LK-SW	Lock : ON
	Neutral / Unlock : OFF
KEY CYL UN-SW	Unlock : ON
	Neutral / Lock : OFF

Is the inspection result normal?

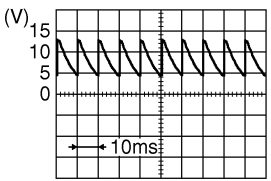
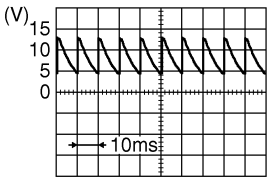
- YES >> Key cylinder switch is OK.  
 NO >> Refer to [DLK-72. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281772

#### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

(+) Front door lock assembly (driver side)		(-)	Key position	Voltage (V) (Approx.)
Connector	Terminal			
D9	5	Ground	Unlock	0
			Neutral / Unlock	 <p style="text-align: right;">JPMA0587GB</p>
	Lock		0	
	Neutral / Lock		 <p style="text-align: right;">JPMA0587GB</p>	

Is the inspection result normal?

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



# KEY CYLINDER SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## 2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M65	7	D9	5	Existed
	8		6	

4. Check continuity between BCM connector and ground.

BCM		Ground	Continuity
connector	Terminal		
M65	7		Not existed
	8		

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).  
 NO >> Repair or replace harness.

## 3. CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

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

## 4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.  
 Refer to [DLK-73, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.  
 NO >> Replace front door lock assembly (driver side). Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281773

### COMPONENT INSPECTION

#### 1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly (driver side).

Front door lock assembly (driver side) connector	Key position	Continuity
Terminal		

## KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

5	4	Unlock	Existed
		Neutral / Lock	Not existed
6		Lock	Existed
		Neutral / Unlock	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

# IGNITION KNOB SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## IGNITION KNOB SWITCH

### Description

INFOID:000000008281774

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

### Component Function Check

INFOID:000000008281775

### 1. CHECK IGNITION KNOB SWITCH INPUT SIGNAL

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

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 [DLK-75. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281776

### 1. CHECK IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 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 2.  
NO >> Repair or replace harness.

### 2. CHECK IGNITION KNOB SWITCH SIGNAL CIRCUIT

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

Intelligent Key unit		Ignition knob switch, key switch and key lock solenoid		Continuity
Connector	Terminal	Connector	Terminal	
M40	27	M25	3	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		Ground	Continuity
Connector	Terminal		
M25	3		Not existed

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Repair or replace harness.

### 3. CHECK IGNITION KNOB SWITCH

Check ignition knob switch.

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# IGNITION KNOB SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Refer to [DLK-76. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace ignition knob switch, key switch and key lock solenoid.

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-46. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281777

## 1.CHECK IGNITION KNOB SWITCH

1. Turn ignition switch OFF.
2. Disconnect ignition knob switch. Key switch and key lock solenoid connector.
3. Check continuity between ignition knob switch, key switch and key lock solenoid terminals under the following conditions.

Ignition knob switch, key switch and key lock solenoid		Condition		Continuity
Terminal				
3	4	Ignition knob switch	Pressed	Exists
			Released	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace ignition knob switch, key switch and key lock solenoid.

# DOOR LOCK ACTUATOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## DOOR LOCK ACTUATOR DRIVER SIDE

### DRIVER SIDE : Description

INFOID:0000000008281778

Locks/unlocks the door with the signal from BCM.

### DRIVER SIDE : Component Function Check

INFOID:0000000008281779

#### 1.CHECK FUNCTION

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

Test item		Condition
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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 [DLK-77, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008281780

#### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+) Front door lock assembly (driver side)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D9	1	Ground	Lock	0 → Battery voltage → 0
	2		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D9	1	Exists
	59		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Not existed
	59		

# DOOR LOCK ACTUATOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Repair or replace harness.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281781

Locks/unlocks the door with the signal from BCM.

### PASSENGER SIDE : Component Function Check

INFOID:000000008281782

#### 1.CHECK FUNCTION

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

Test item		Condition
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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 [DLK-78, "PASSENGER SIDE : Diagnosis Procedure"](#).

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281783

#### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock actuator (passenger side) connector.
3. Check voltage between front door lock actuator (passenger side) harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D48	2	Ground	Lock	0 → Battery voltage → 0
	1		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace front door lock actuator (passenger side). Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Front door lock actuator (passenger side) connector		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D48	2	Exists
	66		1	

3. Check continuity between BCM harness connector and ground.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Not existed
	66		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Repair or replace harness.

## REAR LH

### REAR LH : Description

INFOID:000000008281784

Locks/unlocks the door with the signal from BCM.

### REAR LH : Component Function Check

INFOID:000000008281785

#### 1.CHECK FUNCTION

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

Test item	Condition	
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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-79, "REAR LH : Diagnosis Procedure"](#).

## REAR LH : Diagnosis Procedure

INFOID:000000008281786

#### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

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(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D85	1	Ground	Rear door LH Lock	0 → Battery voltage → 0
	2		Rear door LH Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace rear door lock actuator LH. Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1

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

BCM		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M67	66	D85	2	Exists

3. Check continuity between BCM harness connector and ground.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M67	66		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3. CHECK DOOR LOCK ACTUATOR CIRCUIT 2

1. Disconnect passenger side selective unlock relay connector.
2. Check continuity between passenger side selective unlock relay harness connector and rear door lock actuator LH harness connector.

Passenger side selective unlock relay		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M90	4	D85	1	Exists

3. Check continuity between passenger side selective unlock relay harness connector and ground.

Passenger side selective unlock relay		Ground	Continuity
Connector	Terminal		
M90	4		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side selective unlock relay.

Passenger side selective unlock relay connector	Terminal		Continuity
M90	3	4	Exists

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace passenger side selective unlock relay.

## 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

1. Check continuity between BCM harness connector and passenger side selective unlock relay harness connector.

BCM		Passenger side selective unlock relay		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	M90	3	Exists

2. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65. "Removal and Installation"](#).

NO >> Repair or replace harness.

REAR RH



# DOOR LOCK ACTUATOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## REAR RH : Description

INFOID:000000008281787

Locks/unlocks the door with the signal from BCM.

## REAR RH : Component Function Check

INFOID:000000008281788

### 1.CHECK FUNCTION

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

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

Is the inspection result normal?

- YES >> Rear door lock actuator RH is OK.  
 NO >> Refer to [DLK-81, "REAR RH : Diagnosis Procedure"](#).

## REAR RH : Diagnosis Procedure

INFOID:000000008281789

### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D105	2	Ground	Rear door RH Lock	0 → Battery voltage → 0
	1		Rear door RH Unlock	0 → Battery voltage → 0

Is the inspection result normal?

- YES >> Replace rear door lock actuator RH. Refer to [DLK-235, "DOOR LOCK : Removal and Installation"](#).  
 NO >> GO TO 2.

### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT 1

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

BCM		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M67	66	D105	1	Exists

- Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	66		Not existed

Is the inspection result normal?

- YES >> GO TO 3.  
 NO >> Repair or replace harness.

### 3.CHECK DOOR LOCK ACTUATOR CIRCUIT 2

- Disconnect passenger side selective unlock relay connector.
- Check continuity between passenger side selective unlock relay harness connector and rear door lock actuator RH harness connector.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Passenger side selective unlock relay		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M90	4	D105	2	Exists

3. Check continuity between passenger side selective unlock relay harness connector and ground.

Passenger side selective unlock relay		Ground	Continuity
Connector	Terminal		
M90	4		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR LOCK ACTUATOR CIRCUIT 3

Check passenger side selective unlock relay.

Selective unlock relay connector	Terminal		Continuity
	3	4	
M90	3	4	Exists

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace passenger side selective unlock relay.

## 5. CHECK DOOR LOCK ACTUATOR CIRCUIT 4

1. Check continuity between BCM harness connector and passenger side selective unlock relay harness connector.

BCM		Selective unlock relay		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	M90	3	Exists

2. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

NO >> Repair or replace harness.

# BACK DOOR OPENER ACTUATOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## BACK DOOR OPENER ACTUATOR

### Description

INFOID:000000008281790

Opens the back door with the signal from BCM.

### Component Function Check

INFOID:000000008281791

#### 1.CHECK FUNCTION

Check "TRUNK/BACK DOOR" in "Active Test" mode with CONSULT.

Test item		Condition
TRUNK/BACK DOOR	:OPEN	Back door opener actuator operation

Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to [DLK-83, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281792

#### 1.CHECK BACK DOOR OPENER ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D190	1	Ground	Back door opener switch is Pressed	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

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

BCM		Back door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	
M66	53	D190	1	Exists

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	53		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

#### 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

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

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# BACK DOOR OPENER ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Back door lock assembly		Ground	Continuity
Connector	Terminal		Exists
D190	2		

Is the inspection result normal?

- YES >> Replace back door lock assembly. Refer to [DLK-240, "DOOR LOCK : Removal and Installation"](#).
- NO >> Repair or replace harness.

# BACK DOOR OPENER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR OPENER SWITCH

### Description

INFOID:000000008281793

Output back door open signal to BCM.

### Component Function Check

INFOID:000000008281794

#### 1.CHECK FUNCTION

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

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-85, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281795

#### 1.CHECK BACK DOOR OPENER SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect back door opener switch assembly (opener switch) connector.
3. Check voltage between back door opener switch assembly (opener switch) harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D197	1	Ground	Back door opener switch Not pressed	0
			Back door opener switch Pressed	Battery voltage

Is the inspection result normal?

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

#### 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM		Back door opener switch assembly (opener switch)		Continuity
Connector	Terminal	Connector	Terminal	
M65	30	D197	1	Exists

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	30		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).
- NO >> Repair or replace harness.

# BACK DOOR OPENER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## 3. 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)		Ground	Continuity
Connector	Terminal		Exists
D197	2		Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to [DLK-86, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch assembly. Refer to [DLK-247, "Removal and Installation"](#).

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281796

## 1. CHECK BACK DOOR OPENER SWITCH

1. Turn ignition OFF.
2. Disconnect back door opener switch assembly (opener switch).
3. Check back door opener switch assembly (opener switch).

Back door opener switch assembly (opener switch)		Condition	Continuity	
Terminal			Exists	
1	2	Back door opener switch	Pressed	Exists
			Released	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door opener switch assembly. Refer to [DLK-247, "Removal and Installation"](#).

# OUTSIDE KEY ANTENNA

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## OUTSIDE KEY ANTENNA DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008281797

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

### DRIVER SIDE : Component Function Check

INFOID:000000008281798

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

1. Check "ANTENNA" in "Active Test" mode with CONSULT.
2. Touch "DRIVER ANT".
3. When Intelligent Key is in outside key antenna (driver side) detection area, hazard warning lamp blinks.

Test 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-87, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281799

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

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (driver side) connector.
3. Check signal between outside handle assembly (driver side) harness connector and ground with oscilloscope.

(+)		(-)	Condition	Signal (Reference value)
Intelligent unit				
Connector	Terminal			
D13	1	Ground	Request switch is pressed	
	2			

Is the inspection result normal?

- YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).  
NO >> GO TO 2.

#### 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect Intelligent Key unit connector.

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# OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Check continuity between Intelligent Key unit harness connector and outside handle assembly (driver side) harness connector.

Intelligent Key unit		Outside handle assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M40	19	D13	1	Exists
	20		2	

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	19		Not existed
	20		

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).

NO >> Repair or replace harness.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281800

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

### PASSENGER SIDE : Component Function Check

INFOID:000000008281801

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

1. Check "ANTENNA" in "Active Test" mode with CONSULT.
2. Touch "ASSIST ANT".
3. When Intelligent Key is in outside key antenna (passenger side) detection area, hazard warning lamp 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 [DLK-88, "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281802

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

1. Turn ignition switch OFF.
2. Disconnect outside handle assembly (passenger side) connector.
3. Check signal between outside handle assembly (passenger side) harness connector and ground with oscilloscope.



# OUTSIDE KEY ANTENNA

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[WITH INTELLIGENT KEY SYSTEM]

(+)		(-)	Condition	Signal (Reference value)
Outside handle assembly (passenger side)				
Connector	Terminal			
D33	1	Ground	Request switch is pressed	
	2			

Is the inspection result normal?

- YES >> Replace outside handle assembly (passenger side). Refer to [DLK-244, "PASSENGER SIDE : Removal and Installation"](#).  
 NO >> GO TO 2.

## 2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key unit harness connector and outside handle assembly (passenger side) harness connector.

Intelligent Key unit		Outside handle assembly (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M40	37	D33	1	Exists
	38		2	

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	37		Not existed
	38		

Is the inspection result normal?

- YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

## REAR BUMPER

### REAR BUMPER : Description

INFOID:000000008281803

Detects whether Intelligent Key is outside the vehicle.  
 Installed in rear bumper.

# OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## REAR BUMPER : Component Function Check

INFOID:000000008281804

### 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

1. Check "ANTENNA" in "Active Test" mode with CONSULT.
2. Touch "BK DOOR ANT".
3. When Intelligent Key is in outside key antenna (rear bumper) detection area, hazard warning lamp blinks.

Test Item		Outside Antenna
ANTENNA	:BK DOOR ANT	Outside key antenna (rear bumper)

Is the inspection result normal?

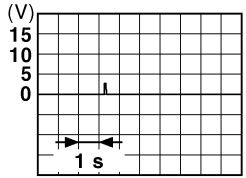
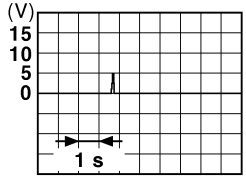
- YES >> Outside key antenna (rear bumper) is OK.  
 NO >> Refer to [DLK-90. "REAR BUMPER : Diagnosis Procedure"](#).

## REAR BUMPER : Diagnosis Procedure

INFOID:000000008281805

### 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect outside key antenna (rear bumper) connector.
3. Check signal between outside key antenna (rear bumper) harness connector and ground with oscilloscope.

(+)		(-)	Condition	Signal (Reference value)
Outside key antenna (rear bumper)				
Connector	Terminal			
B83	1	Ground	Request switch is pressed	
	2			

Is the inspection result normal?

- YES >> Replace outside key antenna (rear bumper). Refer to [DLK-244. "REAR BUMPER : Removal and Installation"](#).  
 NO >> GO TO 2.

### 2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between Intelligent Key unit harness connector and outside key antenna (rear bumper) harness connector.

Intelligent Key unit		Outside key antenna (rear bumper)		Continuity
Connector	Terminal	Connector	Terminal	
M40	17	B83	1	Exists
	18		2	

# OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	17		Not existed
	18		

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249. "Removal and Installation"](#).

NO >> Repair or replace harness.

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# INSIDE KEY ANTENNA

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## INSIDE KEY ANTENNA CONSOLE

### CONSOLE : Description

INFOID:000000008281806

Detects whether Intelligent Key is inside the vehicle.

### CONSOLE : Component Function Check

INFOID:000000008281807

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

1. Check "ANTENNA" in "Active Test" mode with CONSULT.
2. Touch "ROOM ANT 1".
3. When Intelligent Key is in inside key antenna (console) detection area, hazard warning lamp 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 [DLK-92. "CONSOLE : Diagnosis Procedure"](#).

### CONSOLE : Diagnosis Procedure

INFOID:000000008281808

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

1. Turn ignition switch OFF.
2. Disconnect inside key antenna (console) connector.
3. Check signal between inside key antenna (console) harness connector and ground with oscilloscope.

(+)		(-)	Condition	Signal (Reference value)
Connector	Terminal			
M252	1	Ground	Ignition knob switch is pressed	
	2			

#### Is the inspection result normal?

- YES >> Replace inside key antenna (console). Refer to [DLK-242. "CONSOLE : Removal and Installation"](#).  
 NO >> GO TO 2.

#### 2. CHECK INSIDE KEY ANTENNA CIRCUIT

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

# INSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	15		Not existed
	16		

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to [DLK-249. "Removal and Installation"](#).

NO >> Repair or replace harness.

## REAR SEAT

### REAR SEAT : Description

INFOID:000000008281809

Detects whether Intelligent Key is inside the vehicle.

### REAR SEAT : Component Function Check

INFOID:000000008281810

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

1. Check "ANTENNA" in "Active Test" mode with CONSULT.
2. Touch "ROOM ANT 2".
3. When Intelligent Key is in inside key antenna (rear seat) detection area, hazard warning lamp blinks.

Test Item	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 [DLK-93. "REAR SEAT : Diagnosis Procedure"](#).

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### REAR SEAT : Diagnosis Procedure

INFOID:000000008281811

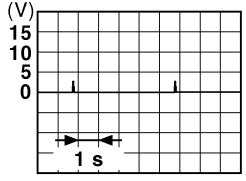
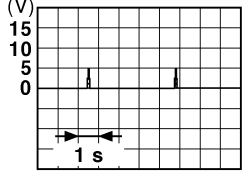
#### 1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect inside key antenna (rear seat) connector.
3. Check signal between inside key antenna (rear seat) harness connector and ground with oscilloscope.

# INSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)		(-)	Condition	Signal (Reference value)
Intelligent Key unit				
Connector	Terminal			
B45	1	Ground	Ignition knob switch is pressed	 <p style="text-align: right; font-size: small;">JMKIA0393ZZ</p>
	2			 <p style="text-align: right; font-size: small;">JMKIA0392ZZ</p>

Is the inspection result normal?

- YES >> Replace inside key antenna (rear seat). Refer to [DLK-242, "REAR : Removal and Installation"](#).  
 NO >> GO TO 2.

## 2. CHECK INSIDE KEY ANTENNA CIRCUIT

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

Intelligent Key unit		Inside key antenna (rear seat)		Continuity
Connector	Terminal	Connector	Terminal	
M40	13	B45	1	Exists
	14		2	

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

Intelligent Key unit		Ground	Continuity
Connector	Terminal		
M40	13		
	14		

Is the inspection result normal?

- YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).  
 NO >> Repair or replace harness.

# INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY WARNING BUZZER

### Description

INFOID:000000008281812

Answers back and warns about an inappropriate operation.

### Component Function Check

INFOID:000000008281813

#### 1.CHECK FUNCTION

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

Is the inspection result normal?

- YES >> Intelligent Key warning buzzer is OK.
- NO >> Refer to [DLK-95, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281814

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

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

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
E25	1	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace harness.

#### 2.CHECK HARNESS CONTINUITY

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

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

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

Intelligent Key warning buzzer		Ground	Continuity
Connector	Terminal		
E25	3		Not existed

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair or replace harness.

#### 3.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.  
Refer to [DLK-96, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Replace Intelligent Key warning buzzer. Refer to [DLK-245, "Removal and Installation"](#).

#### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

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# INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

>> INSPECTION END

## Component Inspection

INFOID:000000008281815

### 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 connector	Terminal		Operation
	(+)	(-)	Buzzer sounds
E25	1	3	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Intelligent Key warning buzzer. Refer to [DLK-245, "Removal and Installation"](#).



# BUZZER (COMBINATION METER)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## BUZZER (COMBINATION METER)

### Description

INFOID:000000008281816

Performs operation method guide and warning with buzzer.

### Component Function Check

INFOID:000000008281817

#### 1.CHECK FUNCTION

Check the operation with "INSIDE BUZZER" in "Active Test" with CONSULT.

Test item	Condition	
INSIDE BUZZER	TAKE OUT	Take away warning chime sounds
	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 [DLK-97, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281818

#### 1.CHECK BUZZER (COMBINATION METER) CIRCUIT

Refer to [WCS-22, "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-46, "Intermittent Incident"](#).

>> INSPECTION END

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# KEY WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## KEY WARNING LAMP

### Description

INFOID:000000008281819

Performs operation method guide and warning together with buzzer.

### Component Function Check

INFOID:000000008281820

#### 1.CHECK FUNCTION

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

Test item	Condition	
INDICATOR	BLUE ON	Key warning lamp (green) illuminates
	RED ON	Key warning lamp (red) illuminates
	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 [DLK-98. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281821

#### 1.CHECK KEY WARNING LAMP CIRCUIT

Refer to [MWI-46. "Work flow"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace key warning lamp circuit.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-46. "Intermittent Incident"](#).

>> INSPECTION END

# UNLOCK SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## UNLOCK SENSOR

### Description

INFOID:000000008281822

Detects door lock condition of driver door.

### Diagnosis Procedure

INFOID:000000008281823

#### 1. CHECK UNLOCK SENSOR POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
D9	3	Ground	5

Is the inspection result normal?

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

#### 2. CHECK UNLOCK SENSOR GROUND CIRCUIT

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

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

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Repair or replace harness.

#### 3. CHECK UNLOCK SENSOR

Check unlock sensor.

Refer to [DLK-100, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.  
NO >> Replace front door lock assembly (driver side). Refer to [DLK-228, "DOOR LOCK : Removal and Installation"](#).

#### 4. CHECK UNLOCK SENSOR CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between front door lock assembly (driver side) harness connector and Intelligent Key unit harness connector.

Front door lock assembly (driver side)		Intelligent Key unit		Continuity
Connector	Terminal	Connector	Terminal	
D9	3	M40	28	Exists

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

Front door lock assembly (driver side)		Ground	Continuity
Connector	Terminal		
D9	3		Not existed

Is the inspection result normal?

- YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).

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# UNLOCK SENSOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281824

## 1.CHECK UNLOCK SENSOR

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly (driver side) connector.
3. Check unlock sensor terminal.

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to [DLK-210, "DOOR ASSEMBLY : Removal and Installation"](#).

# TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## TRANSMISSION RANGE SWITCH

### Description

INFOID:000000008281825

Detects park position condition.

### Diagnosis Procedure

INFOID:000000008281826

#### 1. CHECK PARK POSITION SWITCH POWER SUPPLY

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

CVT shift selector		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M57	16	Ground	Battery voltage

Is the inspection result normal?

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

#### 2. CHECK PARK POSITION SWITCH GROUND CIRCUIT

Check continuity between control device connector and ground.

CVT shift selector		Ground	Continuity
Connector	Terminal		
M57	4		Exist

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Repair or replace harness.

#### 3. CHECK PARK POSITION SWITCH

Check park position switch.

Refer to [DLK-102, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.  
NO >> Replace park position switch.

#### 4. CHECK PARK POSITION SWITCH CIRCUIT

1. Disconnect Intelligent Key unit connector.
2. Check continuity between CVT shift selector harness connector and Intelligent Key unit harness connector.

CVT shift selector		Intelligent Key unit		Continuity
Connector	Terminal	Connector	Terminal	
M57	16	M40	10	Exists

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

CVT shift selector		Ground	Continuity
Connector	Terminal		
M57	16		Not existed

Is the inspection result normal?

- YES >> Replace Intelligent Key unit. Refer to [DLK-249, "Removal and Installation"](#).  
NO >> Repair or replace harness.

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# TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008281827

### 1. CHECK PARK POSITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check park position switch.

Terminal		Condition	Continuity
CVT shift selector			
4	16	Selector lever is in "P" position	Existed
		Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace park position switch.

# SELECTIVE UNLOCK RELAY

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## SELECTIVE UNLOCK RELAY PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281828

Receives selective unlock signal from Intelligent Key unit.

### PASSENGER SIDE : Component Function Check

INFOID:000000008281829

#### 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 >> Selective unlock relay is OK.  
NO >> Refer to [DLK-103. "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281830

#### 1.CHECK FUSE

Check that the following fuse are not fusing.

Signal name	Fuse No.
Battery power supply	8 (10A)

Is the inspection result normal?

- YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse is blown.  
NO >> GO TO 2.

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

Check voltage between Intelligent Key unit harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Intelligent Key unit Connector	Terminal			
M40	40	Ground	Press front door request switch (passenger side)	Battery voltage → 0 → Battery voltage
			Selective unlock operation	Battery voltage
			Other than above	Battery voltage

Is the inspection result normal?

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

#### 3.CHECK PASSENGER SIDE SELECTIVE UNLOCK RELAY

Check passenger side selective unlock relay.

Refer to [DLK-104. "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 6.  
NO >> Replace passenger side selective unlock relay.

#### 4.CHECK PASSENGER SIDE SELECTIVE RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect passenger side selective unlock relay connector and Intelligent Key unit connector.
3. Check continuity between passenger side selective unlock relay harness connector and Intelligent Key unit connector.

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# SELECTIVE UNLOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Passenger side selective unlock relay		Intelligent Key unit		Continuity
Connector	Terminal	Connector	Terminal	
M90	1	M40	40	Exists

4. Check continuity between passenger side selective unlock relay harness connector and ground.

Passenger side selective unlock relay		Ground	Continuity
Connector	Terminal		
M90	1		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## 5.CHECK PASSENGER SIDE SELECTIVE RELAY INPUT SIGNAL

Check voltage between passenger side selective unlock relay harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Passenger side selective unlock relay				
Connector	Terminal	Ground	Ignition switch OFF	Battery voltage
M90	2			

Is the inspection result normal?

YES >> Replace passenger side selective unlock relay.

NO >> Repair or replace harness.

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## PASSENGER SIDE : Component Inspection

INFOID:000000008281831

### 1.CHECK SELECTIVE UNLOCK RELAY

1. Turn ignition switch OFF.
2. Disconnect passenger side selective unlock relay.
3. Check continuity passenger side selective unlock relay terminals.

Passenger side selective unlock relay		Condition	Continuity
Terminal			
4	3	Battery voltage direct current supply between terminals 1 and 2	Not existed
		Other than above	Exists

Is the inspection result normal?

YES >> Passenger side selective unlock relay is OK.

NO >> Replace passenger side selective unlock relay.



# HAZARD FUNCTION

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## HAZARD FUNCTION

### Description

INFOID:000000008281832

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

### Component Function Check

INFOID:000000008281833

#### 1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to [DLK-105, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281834

#### 1.CHECK HAZARD SWITCH CIRCUIT

Refer to [EXL-45, "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-46, "Intermittent Incident"](#).

>> INSPECTION END

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# HORN FUNCTION

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## HORN FUNCTION EXCEPT FOR MEXICO

### EXCEPT FOR MEXICO : Description

INFOID:0000000008281835

Horn (high/low) is located inside of front bumper and operates when vehicle security system is in alarm phase.

### EXCEPT FOR MEXICO : Component Function Check

INFOID:0000000008281836

#### 1.CHECK FUNCTION

1. Select "HORN" in "Active Test" mode with CONSULT.
2. Check the horn (high/low) operation.

Test item		Description	
HORN	ON	Horn (high/low)	ON (for 20 ms)

Is the operation normal?

YES >> INSPECTION END

NO >> Refer to [DLK-106, "EXCEPT FOR MEXICO : Diagnosis Procedure"](#).

### EXCEPT FOR MEXICO : Diagnosis Procedure

INFOID:0000000008281837

#### 1.CHECK HORN FUNCTION

Check horn function with horn switch

Do the horns sound?

YES >> GO TO 2.

NO >> Refer to [HRN-2, "EXCEPT FOR MEXICO : Wiring Diagram - HORN -"](#).

#### 2.CHECK HORN RELAY CIRCUIT

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

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E15	57	E5	1	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E15	57		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-28, "Removal and Installation"](#).

NO >> Repair or replace harness.

### FOR MEXICO

### FOR MEXICO : Description

INFOID:0000000008281838

Horn (high/low) is located inside of front bumper and operates when vehicle security system is in alarm phase.

### FOR MEXICO : Component Function Check

INFOID:0000000008281839

#### 1.CHECK FUNCTION

1. Select "HORN" in "Active Test" mode with CONSULT.
2. Check the horn (high/low) operation.

# HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Test item		Description	
HORN	ON	Horn (high/low)	ON (for 20 ms)

Is the operation normal?

YES >> INSPECTION END

NO >> Refer to [DLK-107. "FOR MEXICO : Diagnosis Procedure"](#).

## FOR MEXICO : Diagnosis Procedure

INFOID:000000008281840

### 1. CHECK HORN FUNCTION

Check horn function with horn switch

Do the horns sound?

YES >> GO TO 2.

NO >> Refer to [HRN-2. "EXCEPT FOR MEXICO : Wiring Diagram - HORN -"](#).

### 2. CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector, horn relay connector and theft warning horn relay connector.
3. Check continuity between IPDM E/R harness connector and horn relay harness connector.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E15	57	E5	1	Existed

4. Check continuity between IPDM E/R harness connector and theft warning horn relay harness connector.

IPDM E/R		Theft warning horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E15	57	E70	1	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E15	57		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-28. "Removal and Installation"](#).

NO >> Repair or replace harness.

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# INTELLIGENT KEY BATTERY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY BATTERY

### Description

INFOID:000000008281841

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:000000008281842

#### 1. CHECK INTELLIGENT KEY FUNCTION

Check door lock and unlock operation with Intelligent Key switch.

Is the inspection result normal?

- YES >> Intelligent Key is OK.  
NO >> Refer to [DLK-108, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008281843

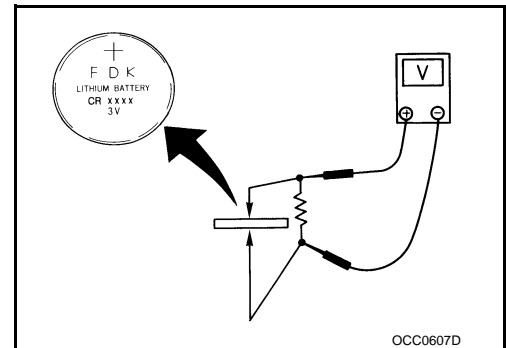
#### 1. CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately 300Ω) 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 [DLK-108, "Component Function Check"](#).



# INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER

### Description

INFOID:000000008281844

Integrated Homelink Transmitter can store and transmit a maximum of 3 radio signals. Allows operation of garage doors, gates, home and office lighting, entry door locks and security system, etc. Integrated Homelink Transmitter power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

### Component Function Check

INFOID:000000008281845

#### 1. CHECK FUNCTION

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

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Receiver or hand-held transmitter is malfunctioning.

#### 2. CHECK ILLUMINATE

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

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Refer to [DLK-109. "Diagnosis Procedure"](#).

#### 3. CHECK TRANSMITTER

Check transmitter with Tool\*.

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

Is the inspection result normal?

- YES >> Receiver or hand-held transmitter malfunction, not vehicle related.
- NO >> Replace auto anti-dazzling inside mirror (homelink universal transceiver). Refer to [MIR-16. "Removal and Installation"](#).

### Diagnosis Procedure

INFOID:000000008281846

#### 1. CHECK POWER SUPPLY

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Auto anti-dazzling inside mirror (Homelink universal transceiver)	Connector				
	Terminal	Ground	Ignition switch	LOCK	Battery voltage
R9	10			ON	
	6				

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Check the following.
  - 10A fuse [No. 1 located in the fuse block (J/B)]
  - 10A fuse [No. 8 located in the fuse block (J/B)]
  - Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

#### 2. CHECK GROUND CIRCUIT

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

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# INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R9	8		Existed

Is the inspection result normal?

- YES >> Replace auto anti-dazzling inside mirror.
- NO >> Repair or replace harness.

# POWER DOOR LOCK SYSTEM


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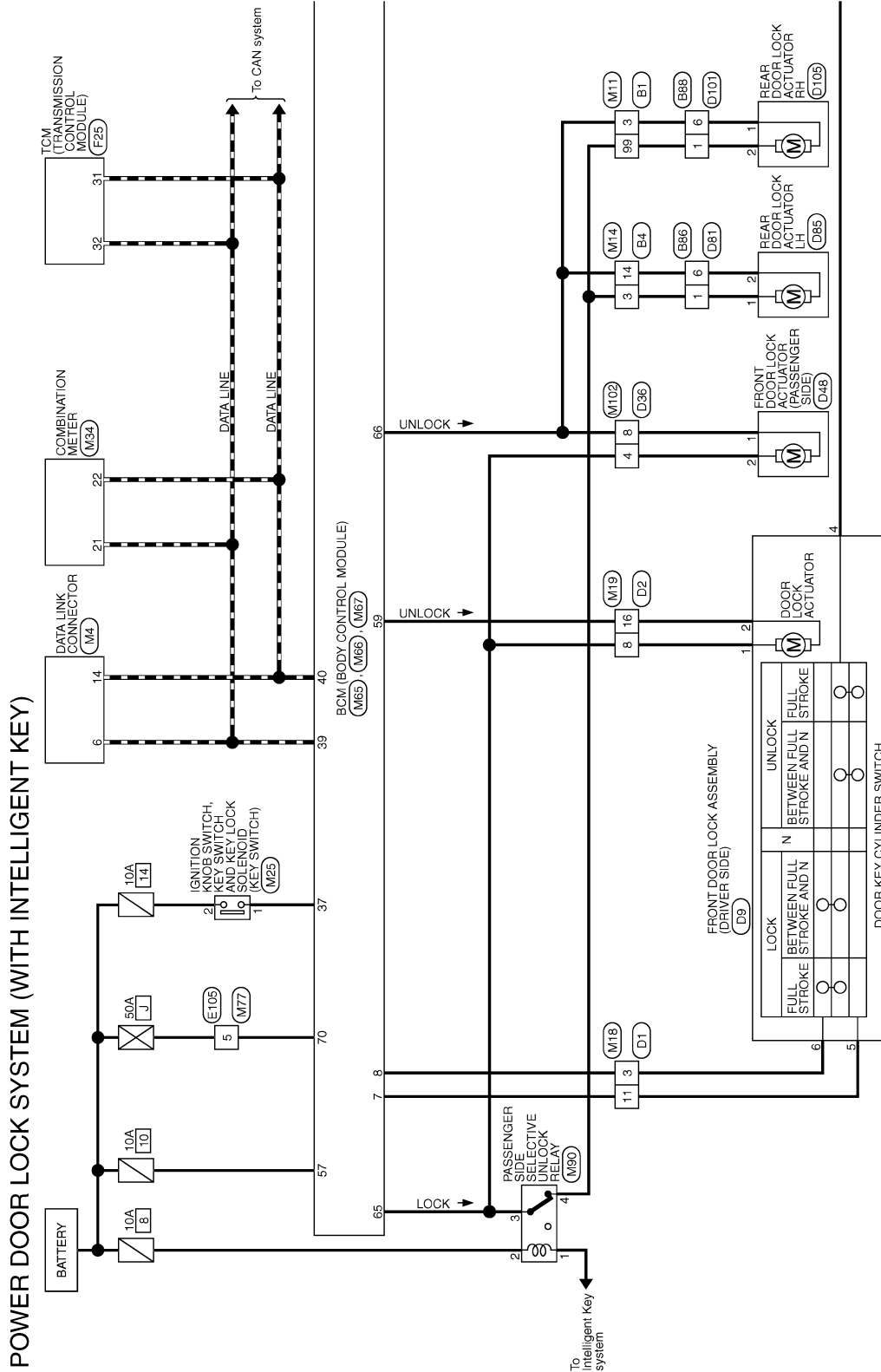
[WITH INTELLIGENT KEY SYSTEM]

## POWER DOOR LOCK SYSTEM

### Wiring Diagram - POWER DOOR LOCK SYSTEM (WITH INTELLIGENT KEY) -

INFOID:000000008281847

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



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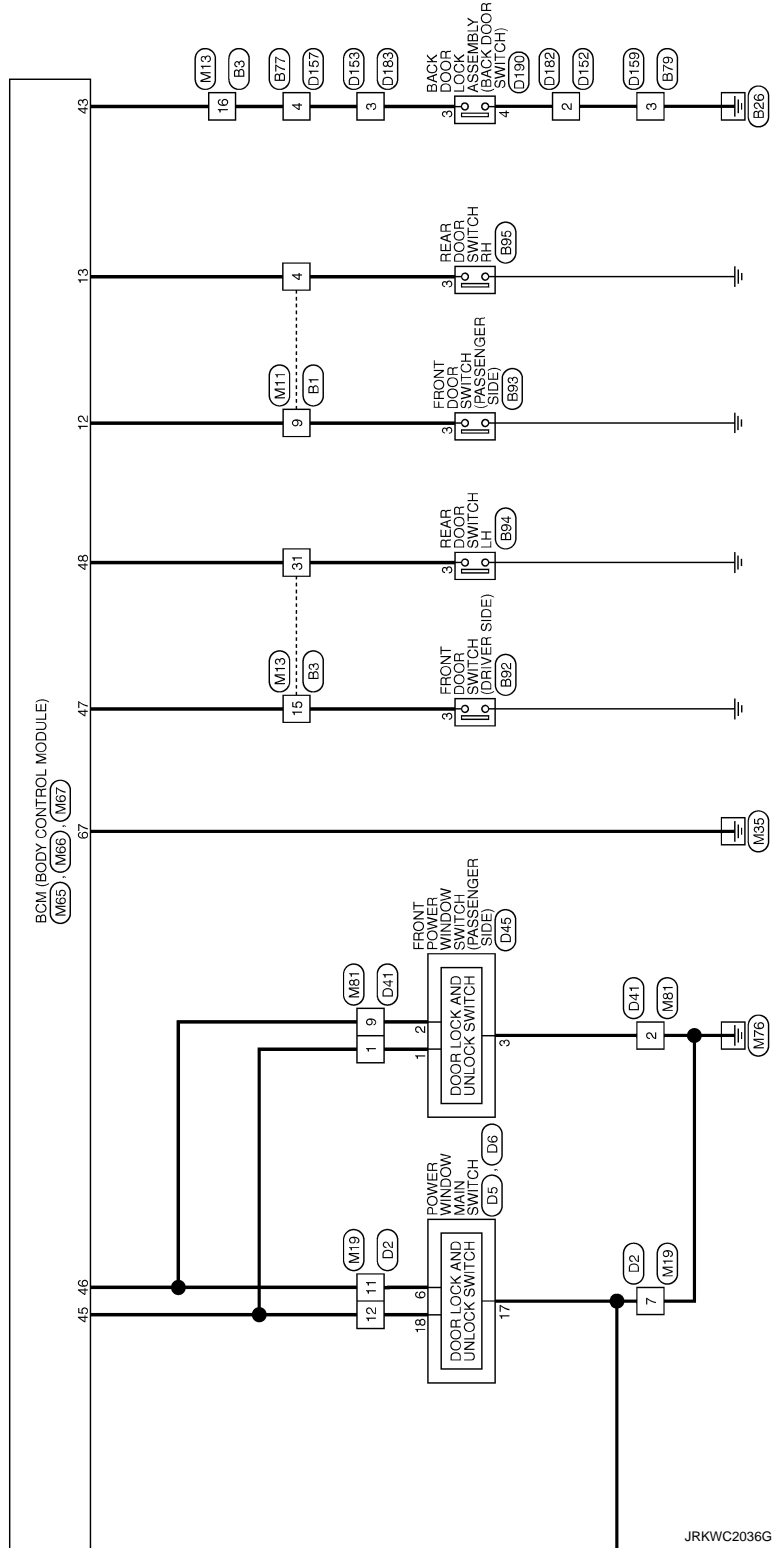
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# POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >





# BACK DOOR OPENER SYSTEM


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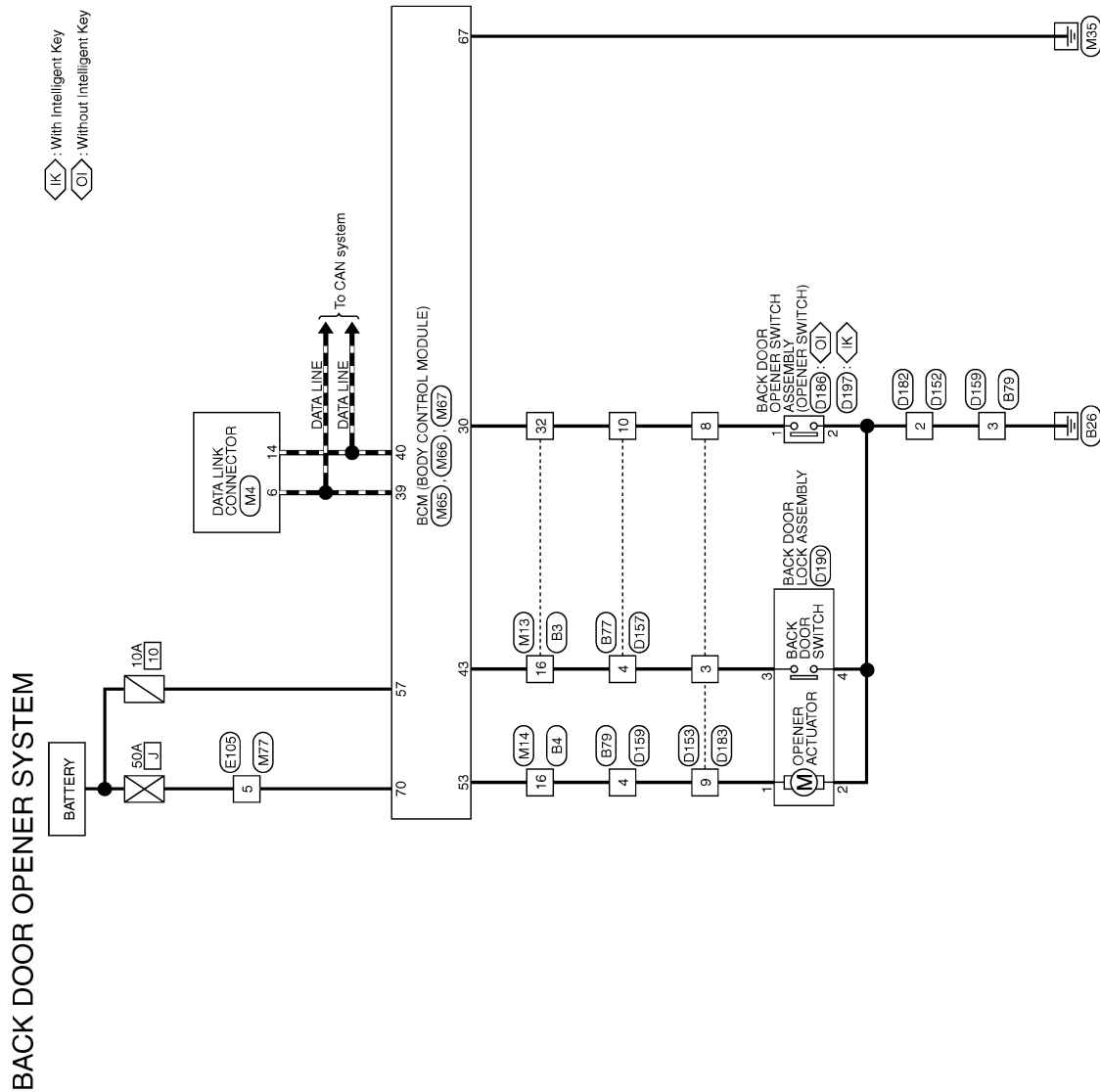
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## BACK DOOR OPENER SYSTEM

### Wiring Diagram - BACK DOOR OPENER SYSTEM -

INFOID:000000008281848

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



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# INTEGRATED HOMELINK TRANSMITTER SYSTEM


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[WITH INTELLIGENT KEY SYSTEM]

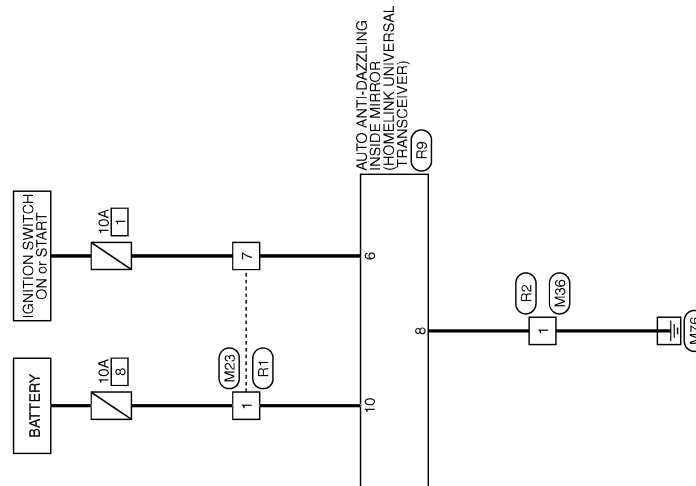
## INTEGRATED HOMELINK TRANSMITTER SYSTEM

### Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM -

INFOID:000000008281849

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

INTEGRATED HOMELINK TRANSMITTER



2012/05/23

JRKWC2045GB

# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## ECU DIAGNOSIS INFORMATION

### INTELLIGENT KEY UNIT

Reference Value

INFOID:0000000008281850

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status	
PUSH SW	Ignition knob	Release	OFF
		Press	ON
KEY SW	Mechanical key	Removed	OFF
		Inserted	ON
DR REQ SW	Door request switch (driver)	Release	OFF
		Press	ON
AS REQ SW	Door request switch (passenger)	Release	OFF
		Press	ON
BD/TR REQ SW	Door request switch (back door)	Release	OFF
		Press	ON
IGN SW	Ignition switch	Other than ON position	OFF
		ON position	ON
ACC SW	Ignition switch	Other than ACC or ON position	OFF
		ACC or ON position	ON
STOP LAMP SW	Brake pedal	Press	OFF
		Release	ON
P RANGE SW	Shift position	P position	ON
		Other than P position	OFF
BD OPEN SW	The item is indicated, but not monitored.		
TR CANCEL SW	The item is indicated, but not monitored.		
DOOR LOCK SIG	Lock button of Intelligent Key	Release	OFF
		Press	ON
DOOR UNLOCK SIG	Unlock button of Intelligent Key	Release	OFF
		Press	ON
KEYLESS TRUNK	The item is indicated, but not monitored.		
KEYLESS PANIC	PANIC button of key fob	Release	OFF
		Press	ON
KEYLESS PSD LH	The item is indicated, but not monitored.		
KEYLESS PSD RH	The item is indicated, but not monitored.		
KEYLESS PBD SIG	The item is indicated, but not monitored.		
DOOR SW DR	Door (driver side)	Close	OFF
		Open	ON
DOOR SW AS	Door (passenger side)	Close	OFF
		Open	ON
DOOR SW RR	Door (rear RH)	Close	OFF
		Open	ON
DOOR SW RL	Door (rear LH)	Close	OFF
		Open	ON

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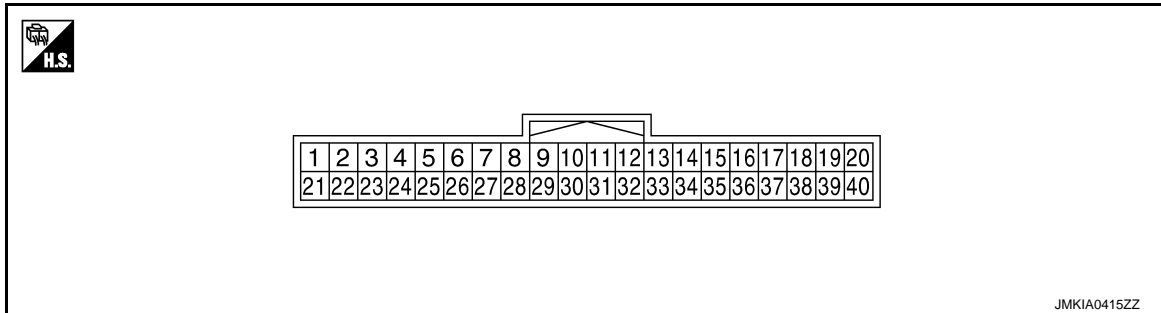
# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
DOOR BK SW	Back door	Close	OFF
		Open	ON
TRUNK SW	The item is indicated, but not monitored.		
VEHICLE SPEED	While driving	Equivalent to speedometer reading	

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition	Value [V] (Approx.)
		Signal name	Input/ Output		
+	-				
1 (GR)	Ground	Steering lock unit power supply	Output	—	5
2 (L)	Ground	CAN - H	Input/ Output	—	—
3 (P)	Ground	CAN - L	Input/ Output	—	—
4 (V)	Ground	Intelligent Key warning buzzer	Output	Intelligent Key warning buzzer	0
				Not sounding	Battery voltage
5 (Y)	Ground	Front door request switch (driver side)	Input	Front door request switch (driver side)	0
				OFF (Released)	5
6 (W)	Ground	Ignition switch power supply	Input	Ignition switch	0
				ON	Battery voltage
7 (LG)	Ground	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
10 (SB)	Ground	Park position switch	Input	Shift lever in park position	0
				Other than above	Battery voltage
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
12 (B)	Ground	Ground	—	—	0

# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (wire color)		Description		Condition	Value [V] (Approx.)
+	-	Signal name	Input/ Output		
13 (Y)	Ground	Inside key antenna (+) (rear seat)	Output	Ignition knob is pressed.	<p style="text-align: right; font-size: small;">JMKIA0393ZZ</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0391ZZ</p>
14 (BR)	Ground	Inside key antenna (-) (rear seat)	Output	Ignition knob is pressed.	<p style="text-align: right; font-size: small;">JMKIA0392ZZ</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0390ZZ</p>
15 (R)	Ground	Inside key antenna (+) (console)	Output	Ignition knob is pressed.	<p style="text-align: right; font-size: small;">JMKIA0393ZZ</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0391ZZ</p>

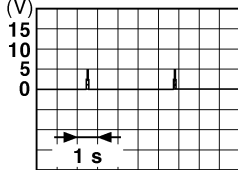
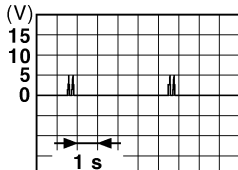
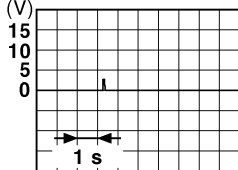
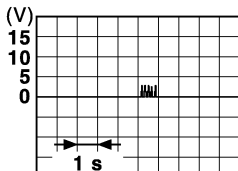
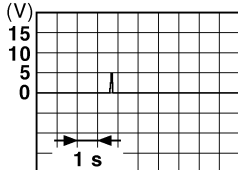
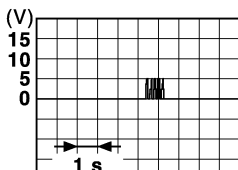
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# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

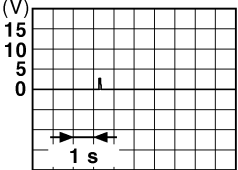
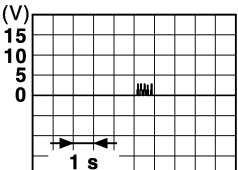
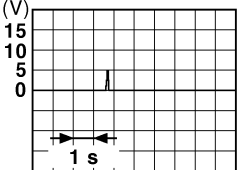
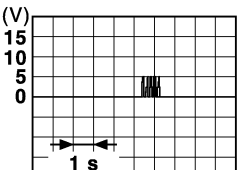
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (wire color)		Description		Condition	Value [V] (Approx.)
+	-	Signal name	Input/ Output		
16 (G)	Ground	Inside key antenna (-) (console)	Output	Ignition knob is pressed.	When Intelligent Key is in the antenna de- tection area  <small>JMKIA0392ZZ</small>
				When Intelligent Key is not in the antenna detection area	 <small>JMKIA0390ZZ</small>
17 (W)	Ground	Outside key antenna (+) (rear bumper)	Output	When the back door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna de- tection area  <small>JMKIA0397ZZ</small>
				When Intelligent Key is not in the antenna detection area	 <small>JMKIA0514ZZ</small>
18 (R)	Ground	Outside key antenna (-) (rear bumper)	Output	When the back door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna de- tection area  <small>JMKIA0395ZZ</small>
				When Intelligent Key is not in the antenna detection area	 <small>JMKIA0515ZZ</small>

# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (wire color)		Description		Condition		Value [V] (Approx.)
		Signal name	Input/ Output			
+	-					
19 (BR)	Ground	Outside key antenna (+) (driver side)	Output	When the front door re- quest switch (driver side) is operated with ignition switch OFF	When Intelligent Key is in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMkia0397ZZ</p>
					When Intelligent Key is not in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMkia0514ZZ</p>
20 (B)	Ground	Outside key antenna (-) (driver side)	Output	When the front door re- quest switch (driver side) is operated with ignition switch OFF	When Intelligent Key is in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMkia0395ZZ</p>
					When Intelligent Key is not in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMkia0515ZZ</p>
25 (BR)	Ground	Front door request switch (passenger side)	Input	Front door re- quest switch (passenger side)	ON (Pressed)	0
					OFF (Released)	5
26 (B)	Ground	Stop lamp switch	Input	Depress the brake pedal	Battery voltage	
				Release the brake pedal	0	
27 (G)	Ground	Ignition knob switch	Input	Ignition switch OFF	When ignition knob switch is pressed	Battery voltage
					When ignition knob switch is released	0
28 (W)	Ground	Unlock sensor	Input	Lock (ON)	5	
				Unlock (OFF)	0	
29 (SB)	Ground	Back door request switch	Input	Back door re- quest switch	ON (Pressed)	0
					OFF (Released)	5
31 (L)	Ground	Steering lock unit ground	—	—	—	0

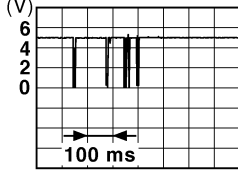
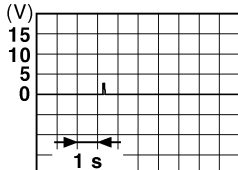
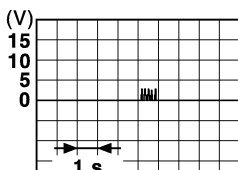
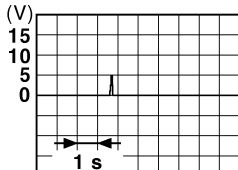
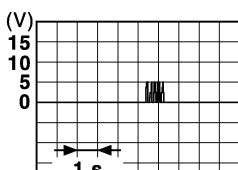
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# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (wire color)		Description		Condition		Value [V] (Approx.)
+	-	Signal name	Input/ Output			
32 (P)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	5
					LOCK or UNLOCK	 <p style="text-align: right; font-size: small;">JMKIA0433ZZ</p>
37 (V)	Ground	Outside key antenna (+) (passenger side)	Output	When the front door re- quest switch (passenger side) is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMKIA0397ZZ</p>
					When Intelligent Key is in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMKIA0514ZZ</p>
38 (P)	Ground	Outside key antenna (-) (passenger side)	Output	When the front door re- quest switch (passenger side) is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna de- tection area	 <p style="text-align: right; font-size: small;">JMKIA0395ZZ</p>
					When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0515ZZ</p>
40 (V)	Ground	Passenger side se- lective unlock relay	Input	Press front door request switch (pas- senger side)	Anti-hijack operation	Battery voltage → 0 → Battery voltage
					Other than above	Battery voltage



# INTELLIGENT KEY UNIT

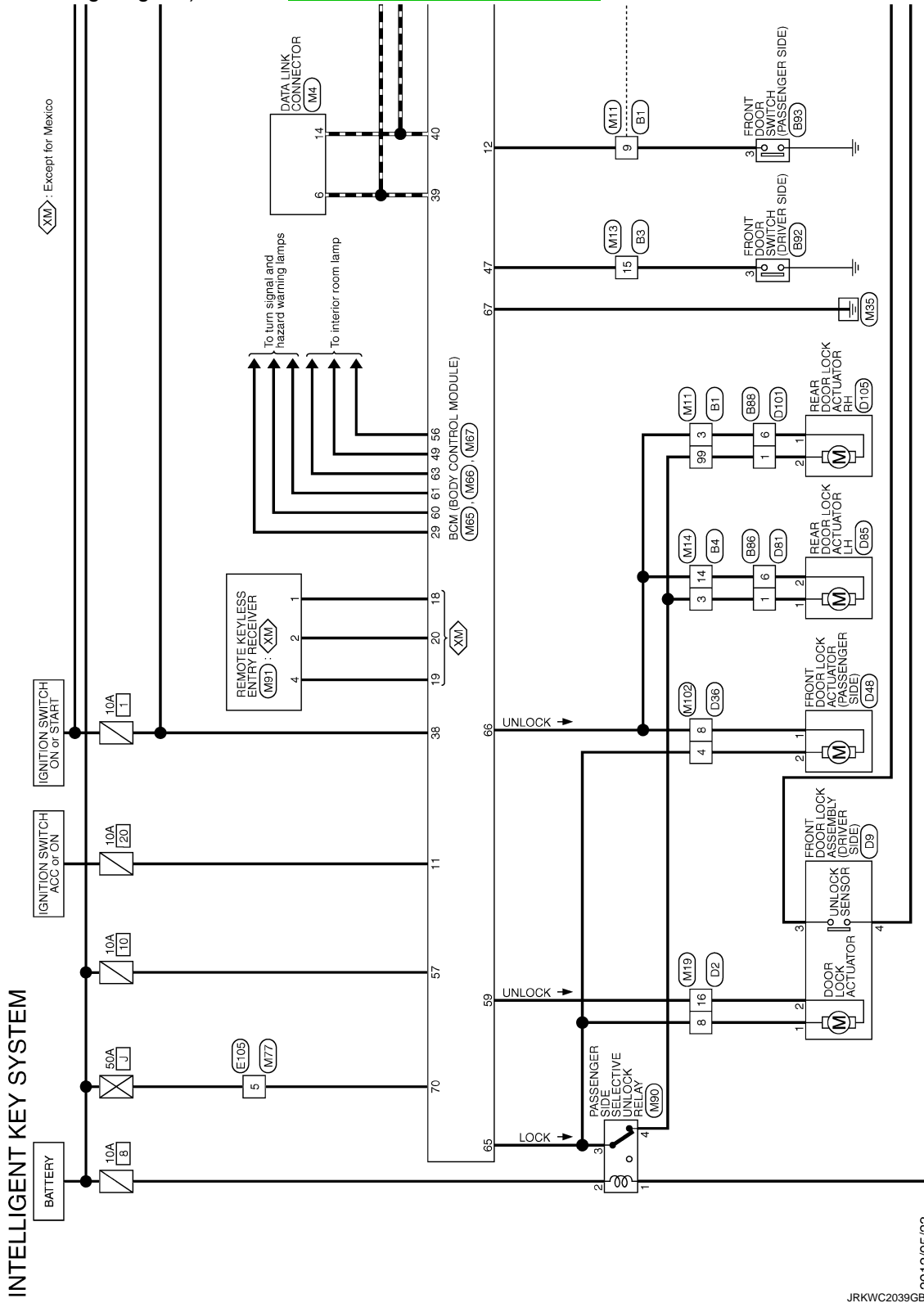
< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## Wiring Diagram - INTELLIGENT KEY SYSTEM -

INFOID:000000008281851

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



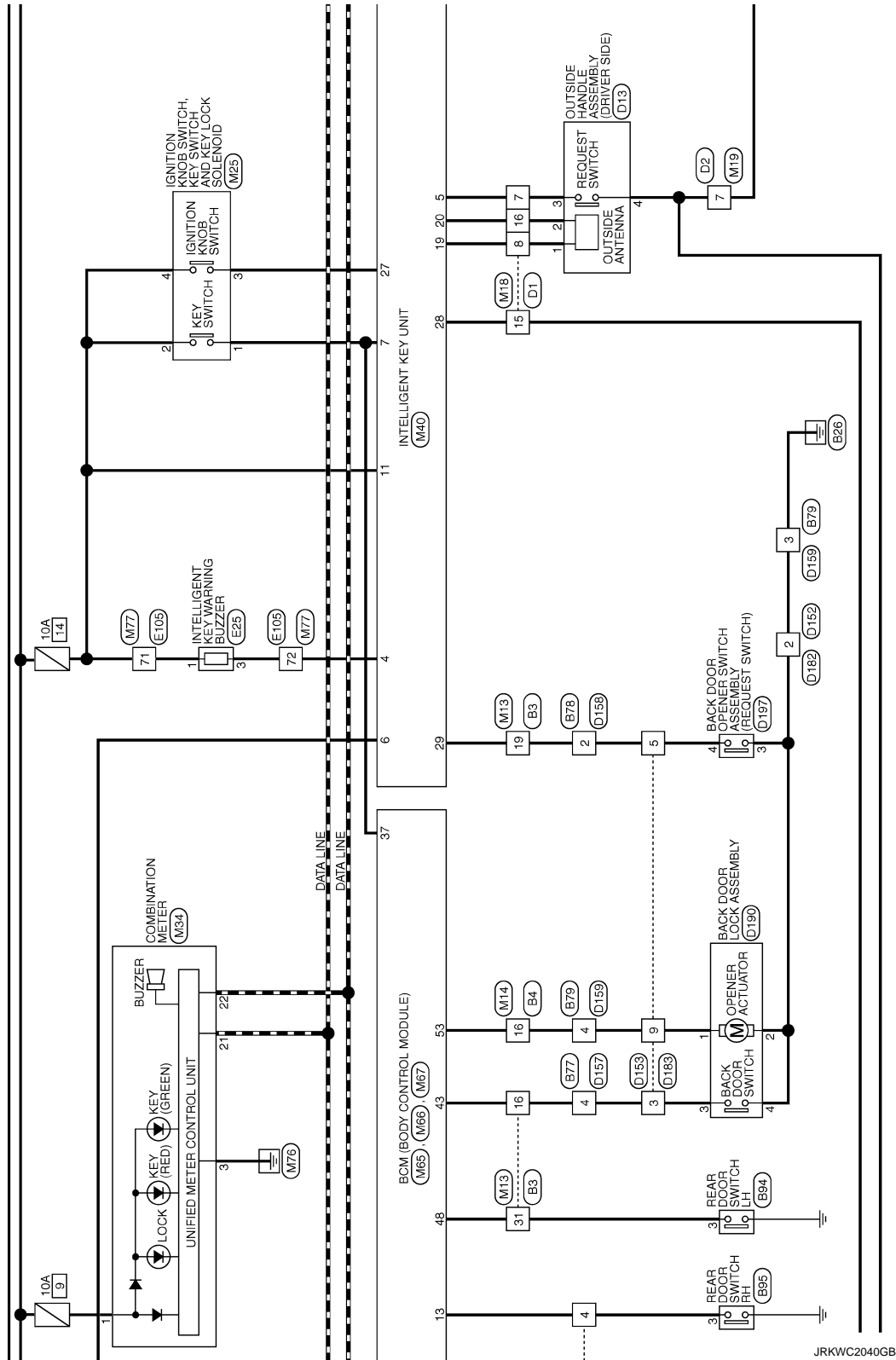
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# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



JRKWC2040GB



# INTELLIGENT KEY UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## Fail Safe

INFOID:000000008281852

Display contents of CONSULT	Fail-safe	Cancellation
B2013: STRG COMM 1	<ul style="list-style-type: none"> <li>Inhibits steering lock unlocking</li> </ul>	Erase DTC
B2552: INTELLIGENT KEY	<ul style="list-style-type: none"> <li>Inhibits steering lock unlocking</li> <li>Inhibits engine cranking (BCM)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2590: NATS MALFUNCTION	<ul style="list-style-type: none"> <li>Inhibits steering lock unlocking</li> <li>Inhibits engine cranking (BCM)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC

## DTC Inspection Priority Chart

INFOID:000000008281853

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

Priority	DTC
1	<ul style="list-style-type: none"> <li>U1000: CAN COMM CIRCUIT</li> <li>U1010: CONTROL UNIT (CAN)</li> <li>B2552: INTELLIGENT KEY</li> </ul>
2	<ul style="list-style-type: none"> <li>B2013: STRG COMM 1</li> <li>B2590: NATS MALFUNCTION</li> </ul>

## DTC Index

INFOID:000000008281854

### 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 <a href="#">DLK-52</a>
U1010: CONTROL UNIT (CAN)	Intelligent Key unit detects internal CAN communication circuit malfunction	—	Replace Intelligent Key unit. Refer to <a href="#">DLK-54</a> .
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. Refer to <a href="#">SEC-41</a> .
B2552: INTELLIGENT KEY	Intelligent Key unit internal malfunction	×	Replace Intelligent Key unit. Refer to <a href="#">SEC-43</a> .
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 <a href="#">SEC-44</a> .

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## BCM (BODY CONTROL MODULE)

### Reference Value

INFOID:000000008741706

### VALUES ON THE DIAGNOSIS TOOL

**NOTE:**

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

Monitor Item	Condition	Value/Status
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	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-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On

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## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
LIGHT SW 1ST	Lighting switch OFF	Off
	Lighting switch 1ST	On
BUCKLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	Off
	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	On
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
	PANIC button of key fob is pressed	On
KEYLESS TRUNK	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TRNK OPN MNTR	<b>NOTE:</b> The item is indicated, but not monitored.	Off
RKE LCK-UNLCK	LOCK/UNLOCK button of key fob is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of key fob is pressed and held simultaneously	On
RKE KEEP UNLK	UNLOCK button of key fob is not pressed	Off
	UNLOCK button of key fob is pressed and held	On
HI BEAM SW	Lighting switch OFF	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Lighting switch OFF	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
	Lighting switch 2ND	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
ENGINE RUN	Engine stopped	Off
	Engine running	On
PKB SW	Parking brake switch is OFF	Off
	Parking brake switch is ON	On
CARGO LAMP SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
IGN SW CAN	Ignition switch OFF or ACC	Off
	Ignition switch ON	On

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
FR WIPER HI	Front wiper switch OFF	Off	A
	Front wiper switch HI	On	
FR WIPER LOW	Front wiper switch OFF	Off	B
	Front wiper switch LO	On	
FR WIPER INT	Front wiper switch OFF	Off	C
	Front wiper switch INT	On	
FR WASHER SW	Front washer switch OFF	Off	
	Front washer switch ON	On	D
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	
	Front wiper stop position	On	E
VEHICLE SPEED	While driving	Equivalent to speedometer reading	
RR WIPER ON	Rear wiper switch OFF	Off	F
	Rear wiper switch ON	On	
RR WIPER INT	Rear wiper switch OFF	Off	
	Rear wiper switch INT	On	G
RR WASHER SW	Rear washer switch OFF	Off	
	Rear washer switch ON	On	H
RR WIPER STOP	Rear wiper stop position	Off	
	Other than rear wiper stop position	On	I
RR WIPER STP2	<b>NOTE:</b> The item is indicated, but not monitored.	Off	
H/L WASH SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off	J
HAZARD SW	Hazard switch OFF	Off	
	Hazard switch ON	On	
BRAKE SW	Brake pedal is not depressed	Off	DLK
	Brake pedal is depressed	On	
FAN ON SIG	Blower fan motor switch OFF	Off	L
	Blower fan motor switch ON (other than OFF)	On	
AIR COND SW	<ul style="list-style-type: none"> <li>• A/C conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner)</li> <li>• A/C switch OFF (Manual air conditioner)</li> </ul>	Off	M
	<ul style="list-style-type: none"> <li>• A/C conditioner ON (A/C switch indicator ON) (Automatic air conditioner)</li> <li>• A/C switch ON (Manual air conditioner)</li> </ul>	On	N
I-KEY TRUNK	<b>NOTE:</b> The item is indicated, but not monitored.	Off	
I-KEY PW DWN	UNLOCK button of Intelligent Key is not pressed	Off	O
	UNLOCK button of Intelligent Key is pressed and held	On	
I-KEY PANIC	PANIC button of Intelligent Key is not pressed	Off	P
	PANIC button of Intelligent Key is pressed	On	
PUSH SW	Return to ignition switch to "LOCK" position	Off	
	Press ignition switch	On	
TRNK OPNR SW	When back door opener switch is not pressed	Off	
	When back door opener switch is pressed	On	

## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
TRUNK CYL SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
HOOD SW	Close the hood <b>NOTE:</b> Vehicles of except for Mexico are OFF-fixed	Off
	Open the hood	On
OIL PRESS SW	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• Engine running</li> </ul>	Off
	Ignition switch ON	On
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

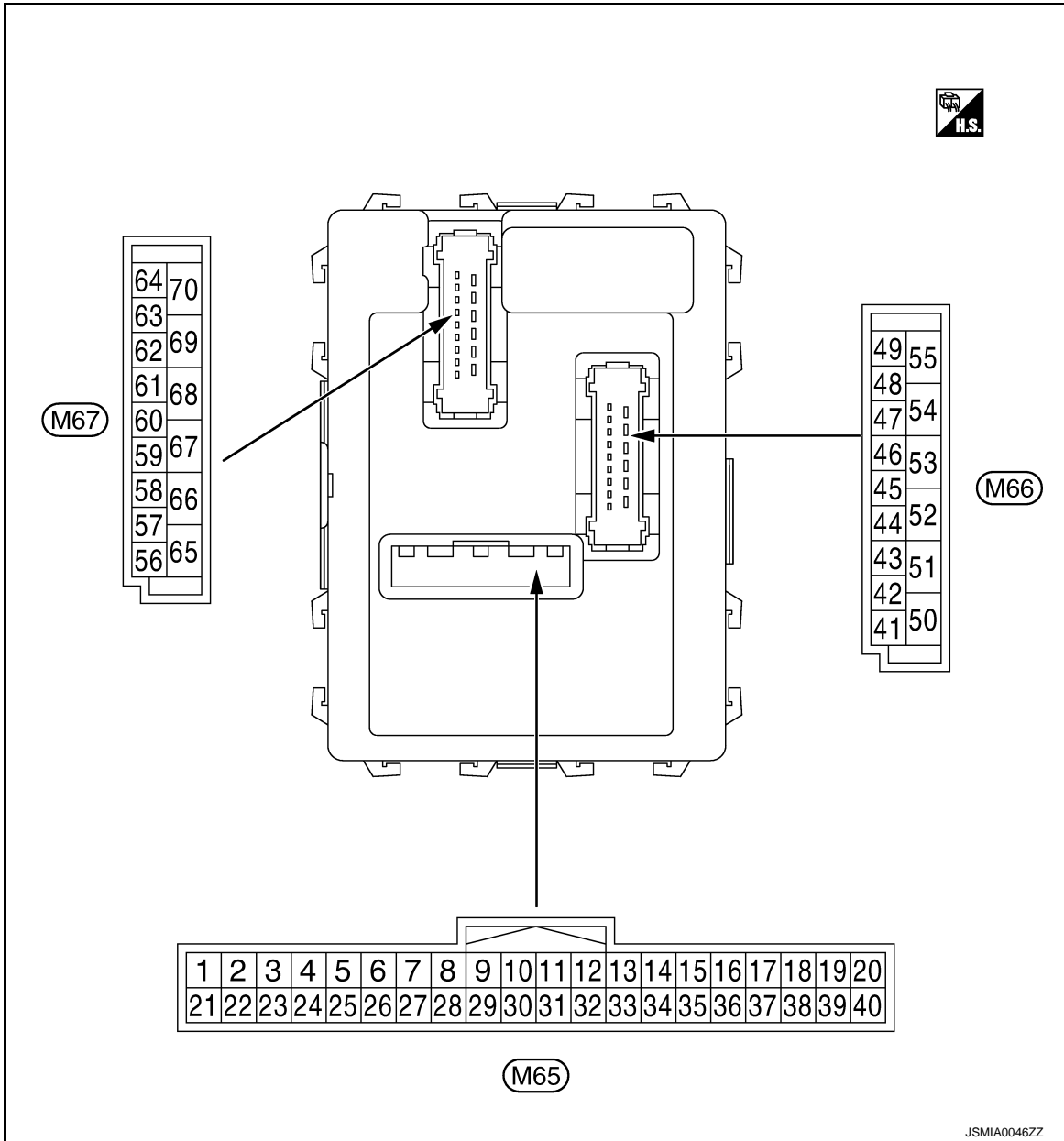


# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## TERMINAL LAYOUT



### PHYSICAL VALUES

#### CAUTION:

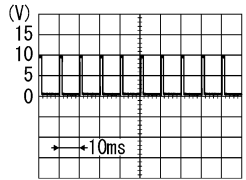
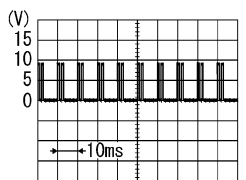
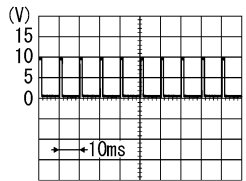
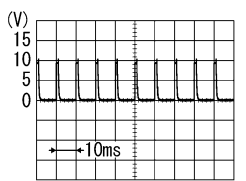
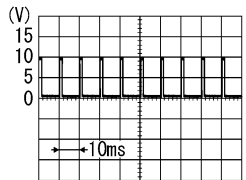
- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT. Refer to [BCS-26, "COMB SW : CONSULT Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-9, "System Diagram"](#).

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output	Ignition key hole illumination	OFF ON	Battery voltage 0 V
1 (V)	Ground	Ignition key hole illumination control	Output	Ignition key hole illumination	OFF ON	Battery voltage 0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
2 (G)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch RH	
					Lighting switch HI	
					Lighting switch 1ST	
				Lighting switch 2ND		2.0 V
3 (Y)	Ground	Combination switch INPUT 4	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch LH	
					Lighting switch PASS	
					Lighting switch 2ND	
				Front fog lamp switch ON		0.8 V
4 (W)	Ground	Combination switch INPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	
					Front wiper switch LO	
					Front wiper switch MIST	
				Front wiper switch INT		

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
+	-	Signal name	Input/ Output				
5 (R)	Ground	Combination switch INPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch (Wiper intermittent dial 4)		
					Rear washer ON (Wiper intermittent dial 4)		
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>		1.0 V
					Rear wiper switch ON (Wiper intermittent dial 4)		0.8 V
6 (BG)	Ground	Combination switch INPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)		
					Rear wiper switch INT (Wiper intermittent dial 4)		
					Wiper intermittent dial 3 (All switch OFF)		1.0 V
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> </ul>		1.7 V
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>		0.8 V

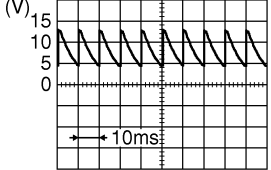
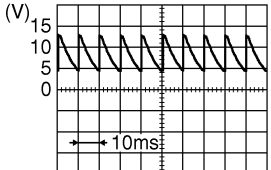
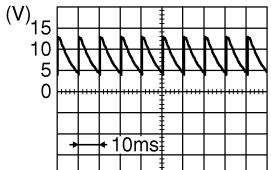
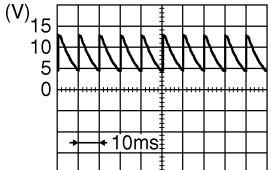
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# BCM (BODY CONTROL MODULE)

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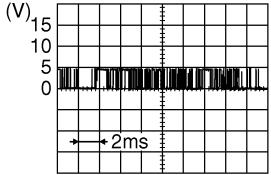
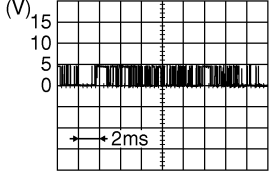
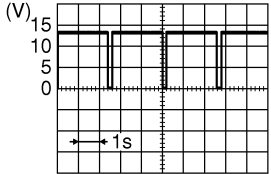
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
7 (V)	Ground	Door key cylinder switch UNLOCK signal	Input	Door key cylinder switch	NEUTRAL position	 <small>JPMIA0587GB</small> 8.0 - 8.5 V
					UNLOCK position	0 V
8 (R)	Ground	Door key cylinder switch LOCK signal	Input	Door key cylinder switch	NEUTRAL position	 <small>JPMIA0587GB</small> 8.0 - 8.5 V
					LOCK position	0 V
9 (R)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
10 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	Battery voltage
					Pressed	0 V
11 (SB)	Ground	Ignition switch ACC	Input	Ignition switch OFF	0 V	
				Ignition switch ACC or ON	Battery voltage	
12 (BG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 <small>JPMIA0586GB</small> 7.5 - 8.0 V
					ON (When passenger door opened)	0 V
13 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 <small>JPMIA0587GB</small> 8.0 - 8.5 V
					ON (When rear door RH opened)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
14 (G)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
17 (W)	Ground	Optical sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18* (R)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
19* (V)	Ground	Remote keyless entry receiver power supply	Input	Without Intelligent Key system	At any condition	5 V
				With Intelligent Key system	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• For 3 seconds after ignition switch OFF to ON</li> </ul>	0 V
					3 seconds or later after ignition switch OFF to ON	5 V
20* (GR)	Ground	Remote keyless entry receiver signal	Input	Without Intelligent Key system	At any condition	 <p style="text-align: right; font-size: small;">JPMIA0589GB</p>
						NOTE: The wave form changes according to signal-receiving condition.
				With Intelligent Key system	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• For 3 seconds after ignition switch OFF to ON</li> </ul>	0 V
					3 seconds or later after ignition switch OFF to ON	 <p style="text-align: right; font-size: small;">JPMIA0589GB</p>
NOTE: The wave form changes according to signal-receiving condition.						
21 (G)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder		Pointer of tester should move
23 (B)	Ground	Security indicator signal	Input	Security indicator	ON	0 V
					Blinking (Ignition switch OFF)	 <p style="text-align: right; font-size: small;">JPMIA0590GB</p>
					OFF	Battery voltage

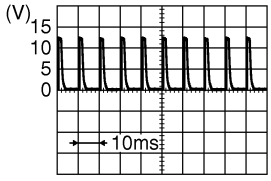
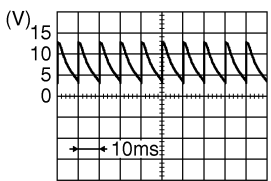
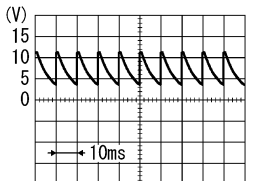
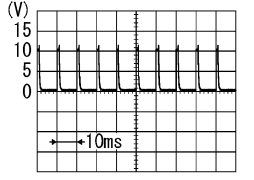
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

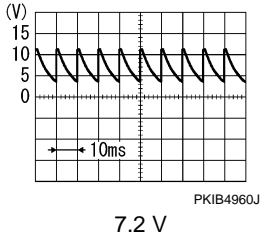
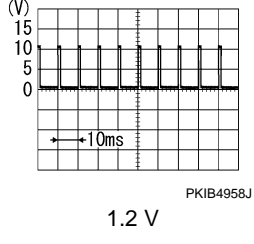
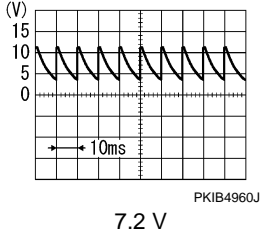
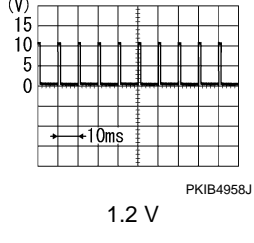
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
		Signal name	Input/ Output				
+	-						
25 (BR)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder	Pointer of tester should move		
27 (Y)	Ground	A/C switch	Input	Ignition switch OFF		 <p style="text-align: center;">1.6 V</p>	
				Ignition switch ON	A/C switch OFF		0 V
				A/C switch ON			0 V
28 (LG)	Ground	Blower fan switch	Input	Ignition switch OFF		 <p style="text-align: center;">7.0 - 7.5 V</p>	
				Ignition switch ON	Blower fan switch OFF		0 V
				Blower fan switch ON			0 V
29 (W)	Ground	Hazard switch	Input	Hazard switch	OFF	Battery voltage	
					ON	0 V	
30 (G)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	Battery voltage	
					Pressed	0 V	
32 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: center;">7.2 V</p>	
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: center;">1.0 V</p>	
					Rear wiper switch ON (Wiper intermittent dial 4)		
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>		

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
33 (GR)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: center;">7.2 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: center;">1.2 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF						
<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>						
34 (SB)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: center;">7.2 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: center;">1.2 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF						
<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> </ul>						

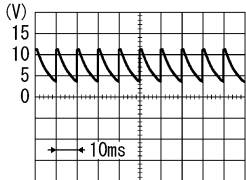
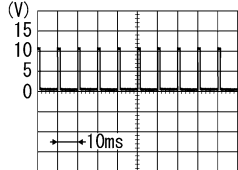
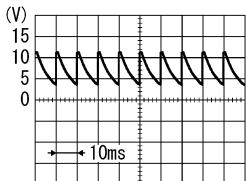
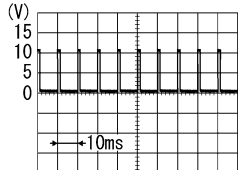
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

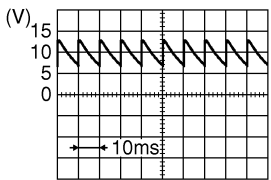
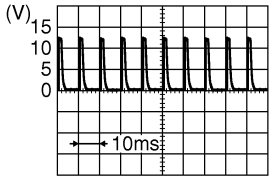
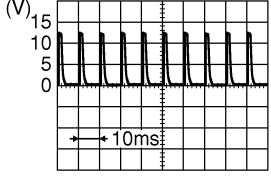
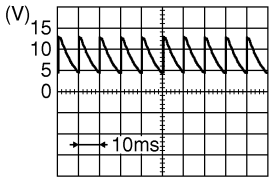
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
35 (B)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.2 V</p>
					Lighting switch 2ND	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch PASS	
					Front wiper switch INT	
Front wiper switch HI						
36 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.2 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Turn signal switch LH	
					Front wiper switch LO (Front wiper switch MIST)	
Front washer switch ON						
37 (LG)	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage	
				Remove mechanical key from ignition key cylinder	0 V	
38 (G)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON or START	Battery voltage	
39 (L)	Ground	CAN-H	Input/ Output	—	—	
40 (P)	Ground	CAN-L	Input/ Output	—	—	



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
43 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 9.5 - 10.0 V
				Back door switch	ON (When back door opened)	0 V
44 (B)	Ground	Rear wiper auto stop position	Input	Ignition switch ON	Rear wiper stop position	0 V
				Ignition switch ON	Any position other than rear wiper stop position	Battery voltage
45 (P)	Ground	Door lock and unlock switch LOCK signal	Input	Door lock and unlock switch	NEUTRAL position	 1.6 V
				Door lock and unlock switch	LOCK position	0 V
46 (BR)	Ground	Door lock and unlock switch UNLOCK signal	Input	Door lock and unlock switch	NEUTRAL position	 1.6 V
				Door lock and unlock switch	UNLOCK position	0 V
47 (W)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 8.0 - 8.5 V
				Driver door switch	ON (When driver door opened)	0 V

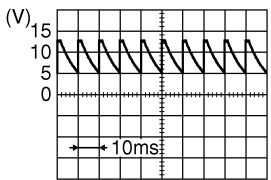
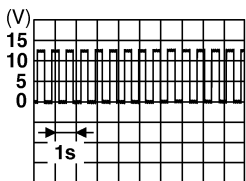
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# BCM (BODY CONTROL MODULE)

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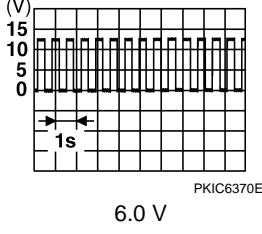
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
48 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 <p style="text-align: right; font-size: small;">JPMIA0594GB</p> <p style="text-align: center;">8.5 - 9.0 V</p>
				ON (When rear door LH opened)	0 V	
49 (L)	Ground	Luggage room lamp control	Output	Luggage room lamp switch	Back door is closed (Luggage room lamp turns OFF)	Battery voltage
				DOOR position	Back door is opened (Luggage room lamp turns ON)	0 V
53 (V)	Ground	Back door open	Output	Back door opener switch	Not pressed (Back door actuator is activated)	0 V
				Back door opener switch	Pressed (Back door actuator is activated)	Battery voltage
55 (SB)	Ground	Rear wiper motor	Output	Ignition switch ON	Rear wiper switch OFF	0 V
				Ignition switch ON	Rear wiper switch ON	Battery voltage
56 (Y)	Ground	Interior room lamp power supply	Output	Ignition switch ON	After passing the interior room lamp battery saver operation time	0 V
				Ignition switch ON	Any other time after passing the interior room lamp battery saver operation time	Battery voltage
57 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Ignition switch OFF	Battery voltage
59 (L)	Ground	Driver door UN-LOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
				Driver door	Other than UNLOCK (Actuator is not activated)	0 V
60 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Ignition switch ON	Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKIC6370E</p> <p style="text-align: center;">6.0 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
61 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF 0 V
				Turn signal switch RH	
63 (R)	Ground	Interior room lamp timer control	Output	Interior room lamp	OFF Battery voltage
				ON	0 V
65 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activat- ed) Battery voltage
				Other then LOCK (Actua- tor is not activated)	0 V
66 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is acti- vated) Battery voltage
				Other then UNLOCK (Ac- tuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON	0 V
68 (L)	Ground	P/W power supply (RAP)	Output	Ignition switch ON	Battery voltage
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF	Battery voltage
70 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF	Battery voltage

\*: Except for Mexico with Intelligent Key

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
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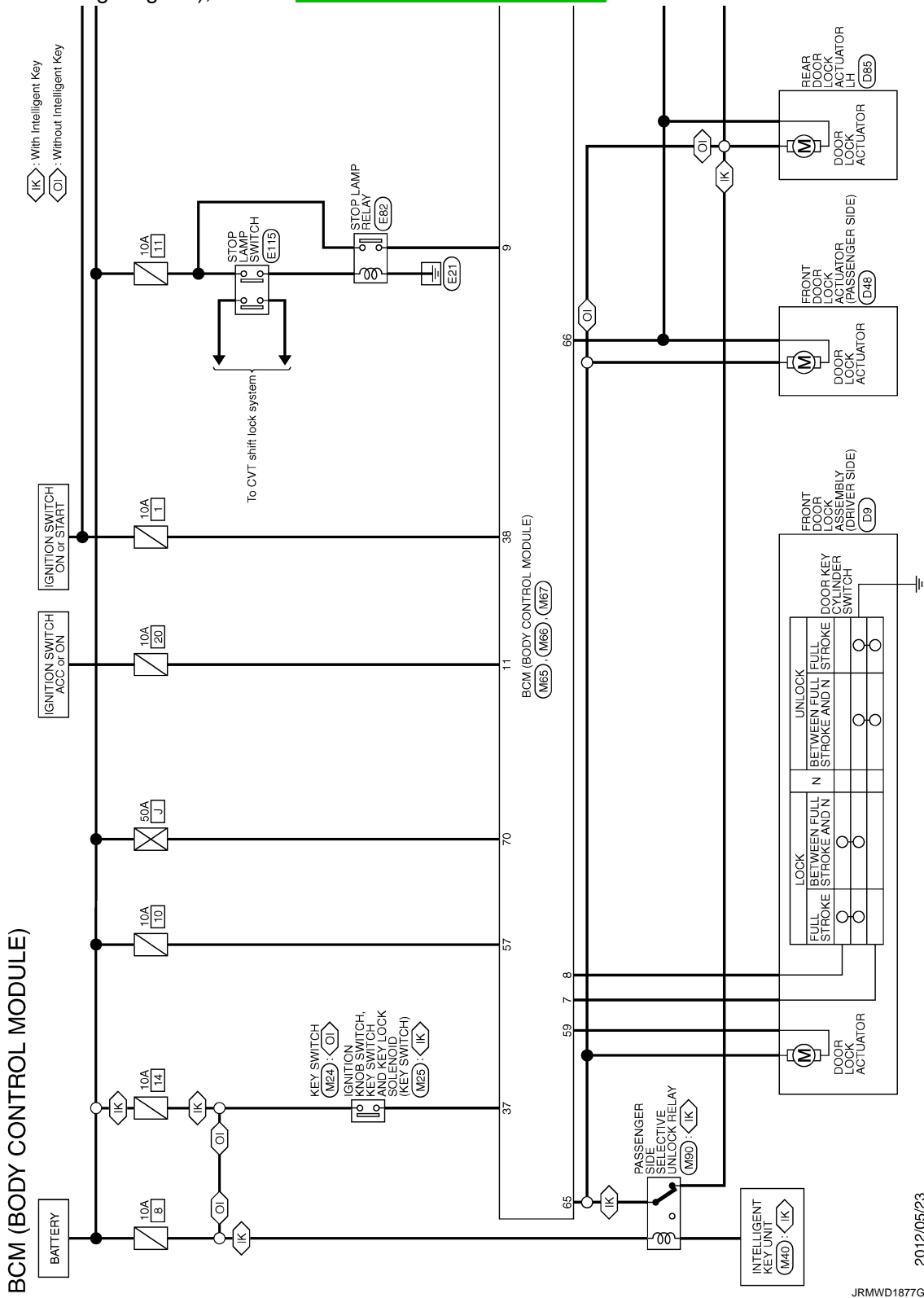
< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## Wiring Diagram - BCM -

INFOID:000000008741707

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



2012/05/23

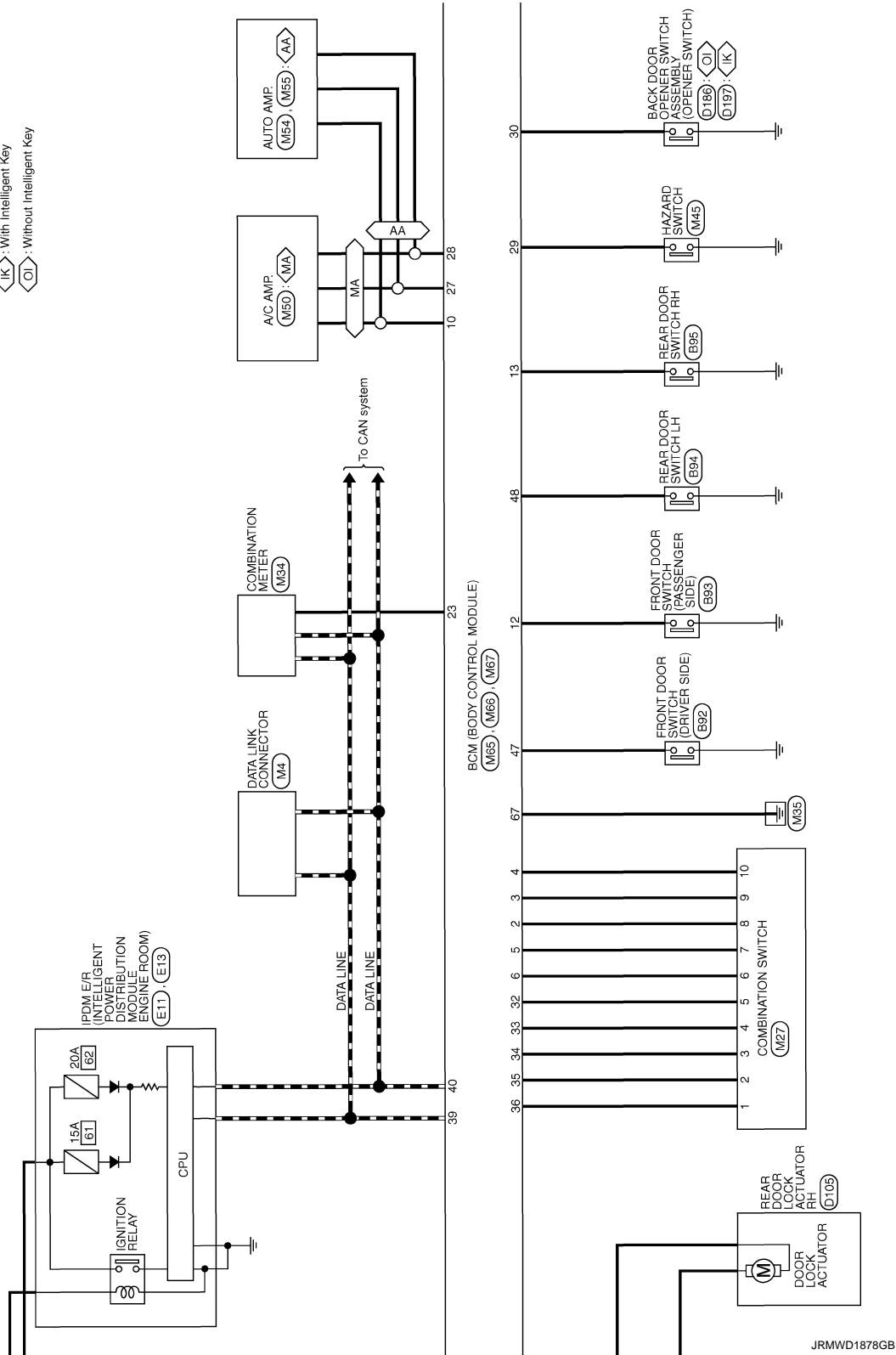
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

- AA : With auto A/C
- MA : With manual A/C
- IK : With Intelligent Key
- OI : Without Intelligent Key

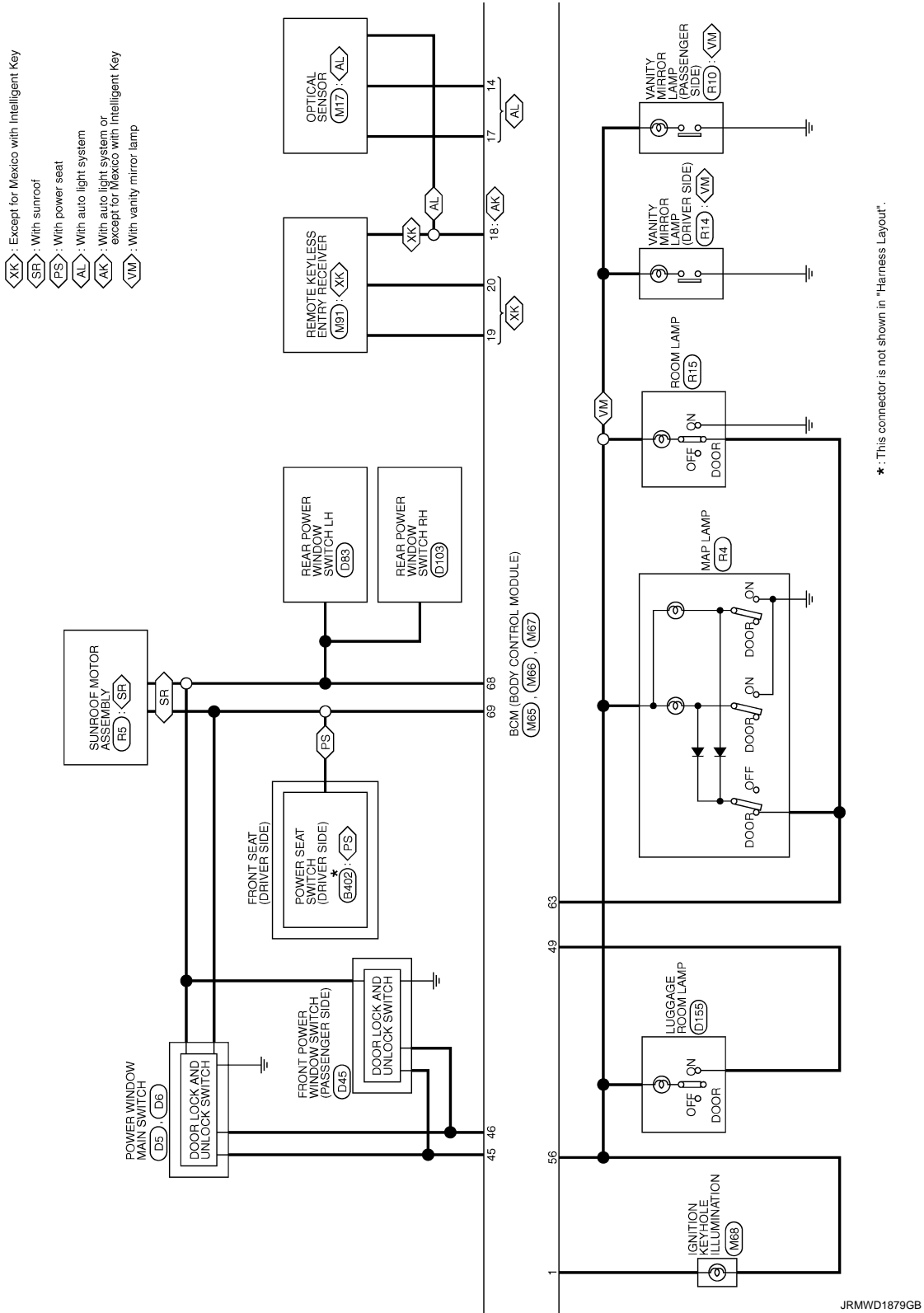


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# BCM (BODY CONTROL MODULE)

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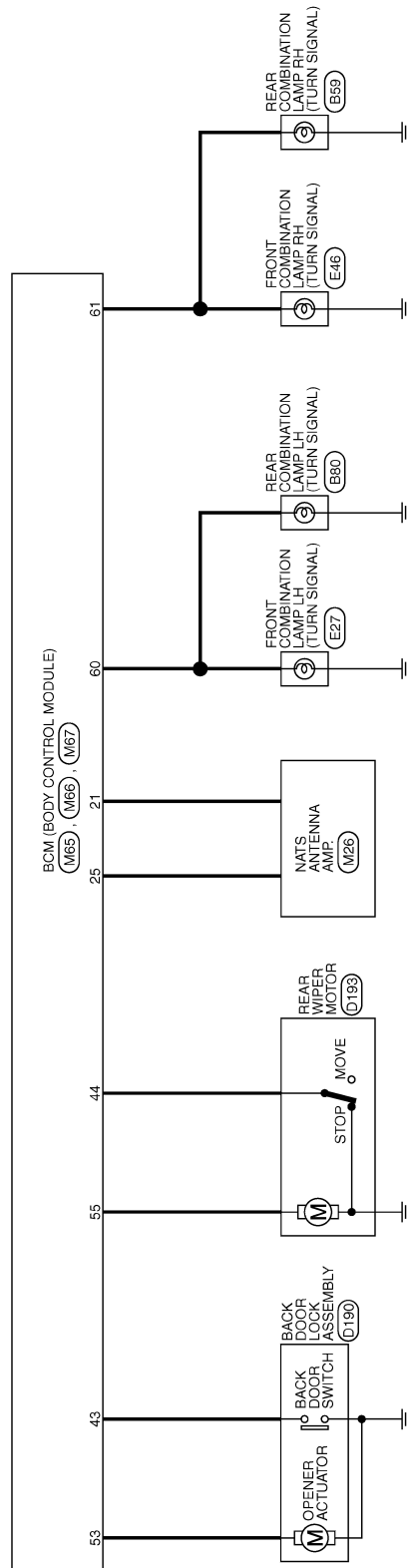
[WITH INTELLIGENT KEY SYSTEM]



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



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## Fail-safe

### REAR WIPER MOTOR PROTECTION

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

Condition of cancellation

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

1. Pass more than 1 minute after the rear wiper stop.
2. Turn the rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

INFOID:000000008741709

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
2	C1735: IGN CIRCUIT OPEN
3	<ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1716: [PRESS DATA ERR] FL</li> <li>• C1717: [PRESS DATA ERR] FR</li> <li>• C1718: [PRESS DATA ERR] RR</li> <li>• C1719: [PRESS DATA ERR] RL</li> <li>• C1729: VHCL SPEED SIG ERR</li> </ul>

## DTC Index

INFOID:000000008741710

### 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	Tire pressure monitor warning lamp ON	Reference
U1000: CAN COMM CIRCUIT	—	<a href="#">BCS-34</a>
C1704: LOW PRESSURE FL	×	<a href="#">WT-14</a>
C1705: LOW PRESSURE FR	×	
C1706: LOW PRESSURE RR	×	
C1707: LOW PRESSURE RL	×	
C1708: [NO DATA] FL	×	<a href="#">WT-16</a>
C1709: [NO DATA] FR	×	
C1710: [NO DATA] RR	×	
C1711: [NO DATA] RL	×	
C1716: [PRESS DATA ERR] FL	×	<a href="#">WT-19</a>
C1717: [PRESS DATA ERR] FR	×	
C1718: [PRESS DATA ERR] RR	×	
C1719: [PRESS DATA ERR] RL	×	
C1729: VHCL SPEED SIG ERR	×	<a href="#">WT-21</a>
C1735: IGN CIRCUIT OPEN	—	<a href="#">BCS-35</a>



# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000008741711

### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 4
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST or 2ND		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ <b>NOTE:</b> This item is monitored only on the vehicle with front fog lamp.	Lighting switch 2ND	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	Stop
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
ST RLY REQ <b>NOTE:</b> Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
DTRL REQ <b>NOTE:</b> This item is monitored only on the vehicle with the daytime running light system.	Daytime running light system is not operated.		Off
	Daytime running light system is operated.		On

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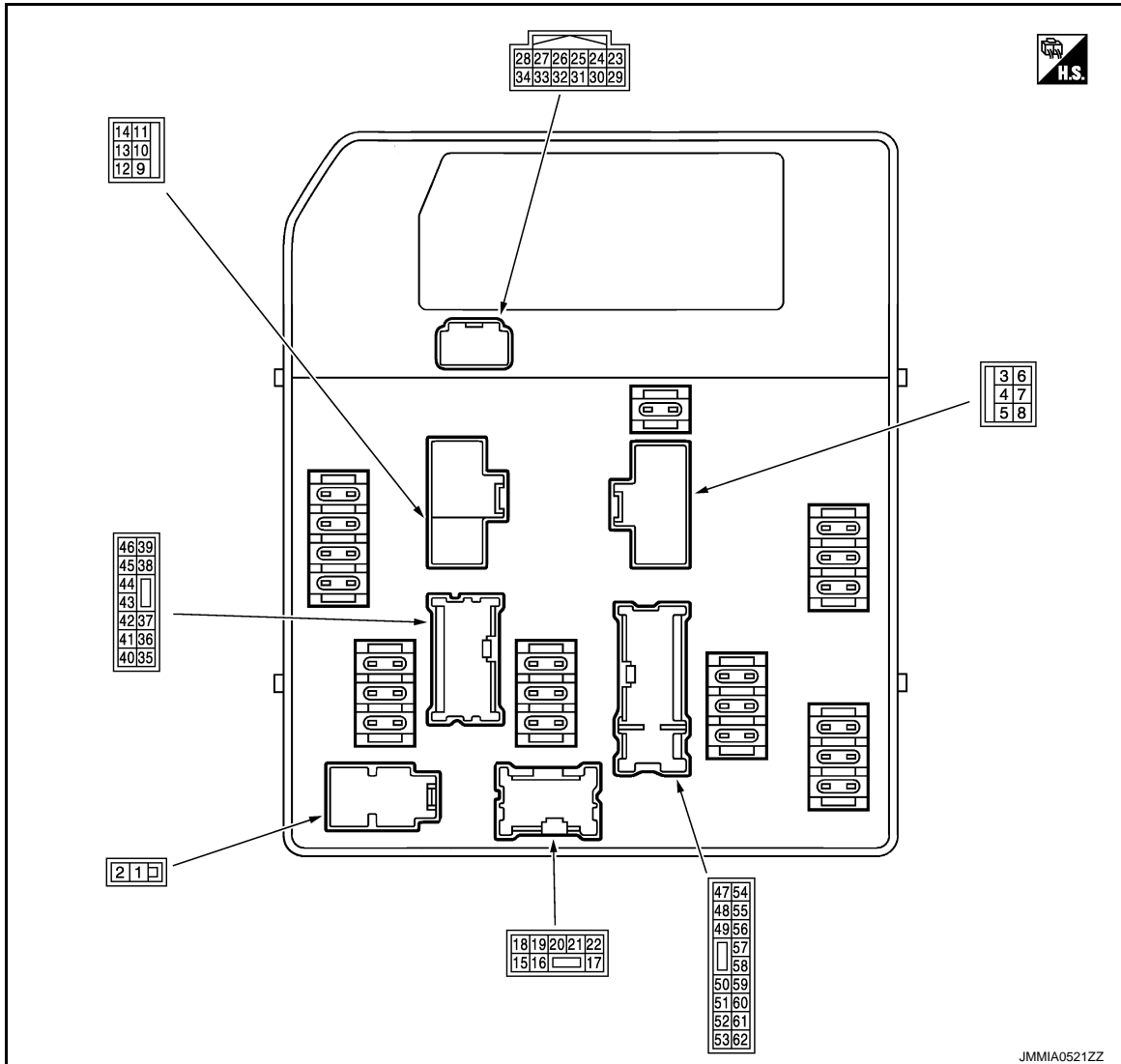
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
HOOD SW <b>NOTE:</b> This item is monitored only the vehicle for Mexico.	Close the hood	Off
	Open the hood	On
THFT HRN REQ	Not operation	Off
	Horn is activated with vehicle security system or panic alarm system.	On
HORN CHIRP	Not operation	Off
	Horn is activated with key fob LOCK operation.	On

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
2 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
3 (L)	Ground	Starter relay power supply	Output	When engine is clanking		Battery voltage
				When engine is not clanking		0 V
4 (W)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan operation	OFF	0 V
					MID or HI	Battery voltage
5 (R)	Ground	Ignition switch START	Input	Ignition switch OFF, ACC or ON		0 V
				Ignition switch START		Battery voltage
6 (BR)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF		Battery voltage
7 (P)	Ground	Cooling fan motor-2 (HI) ground	—	Cooling fan operation	OFF	Battery voltage
					HI	0 V
8 (G)	Ground	Cooling fan relay-2 power supply	Output	Cooling fan operation	OFF	0 V
					HI	Battery voltage
11 (B)	Ground	Ground	—	Ignition switch ON		0 V
12 (G)	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch OFF	0 V
					Rear window defogger switch ON	Battery voltage
15 <sup>*1</sup> (SB)	Ground	Daytime running light relay control	Output	Daytime running light system	Not operated	Battery voltage
					Operated	0 V
16 <sup>*2</sup> (Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
17 <sup>*2</sup> (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
18 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
20 (SB)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
21 (G)	Ground	Headlamp HI (LH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• Lighting switch PASS</li> </ul>		Battery voltage
				Daytime running light system Operated <sup>*1</sup>		7.0 V
22 (LG)	Ground	Headlamp HI (RH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• Lighting switch PASS</li> </ul>		Battery voltage
				Daytime running light system Operated <sup>*1</sup>		7.0 V
23 (W)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage
24 (Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
25 (B)	Ground	Ground	—	Ignition switch ON		0 V
26 (P)	—	CAN-L	Input/ Output	—		—

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# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
27 (L)	—	CAN-H	Input/ Output	—		—
31 (LG)	Ground	Cooling fan relay-4 control	Output	Cooling fan operation	OFF	Battery voltage
					LO	0 - 1.0 V
32 (V)	Ground	Throttle control motor relay control	Input	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>		0 - 1.0 V
33 (GR)	Ground	Fuel pump relay control	Input	Ignition switch OFF		0 V
				Ignition switch ON	Engine stopped	Battery voltage
					Engine running	0.8 V
34*3 (W)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V
37 (R)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
38 (R)	Ground	Parking lamp (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
39 (GR)	Ground	Parking lamp (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
40 (BR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
42 (L)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
43 (G)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
45 (Y)	Ground	Starter relay power supply	Input	Ignition switch ON	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
46 (W)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• After passing approximately 1 second or more after turning the ignition switch ON</li> </ul>		0 V
				<ul style="list-style-type: none"> <li>• For approximately 1 second after turning the ignition switch ON</li> <li>• Engine running</li> </ul>		Battery voltage
47 (BR)	Ground	ECM relay power supply	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		0 V
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>		Battery voltage
48 (R)	Ground	ECM relay power supply	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		0 V
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>		Battery voltage

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
50 (G)	Ground	Cooling fan relay-5 control	Output	Cooling fan operation	OFF	Battery voltage
					MID or HI	0 - 1.0 V
51 (L)	Ground	ECM relay control	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>		0 - 1.0 V
52 (P)	Ground	Throttle control motor relay power supply	Output	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		0 V
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>		Battery voltage
55 (BG)	Ground	A/C relay power supply	Output	Engine stopped		0 V
				Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
56 (SB)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
57 (V)	Ground	Horn relay control	Output	The horn is not activated		Battery voltage
				The horn is activated		0 V
58 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
59 (BR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
60 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
61 (R)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage

\*1: With daytime running light system

\*2: With front fog lamp system

\*3: For Mexico

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
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

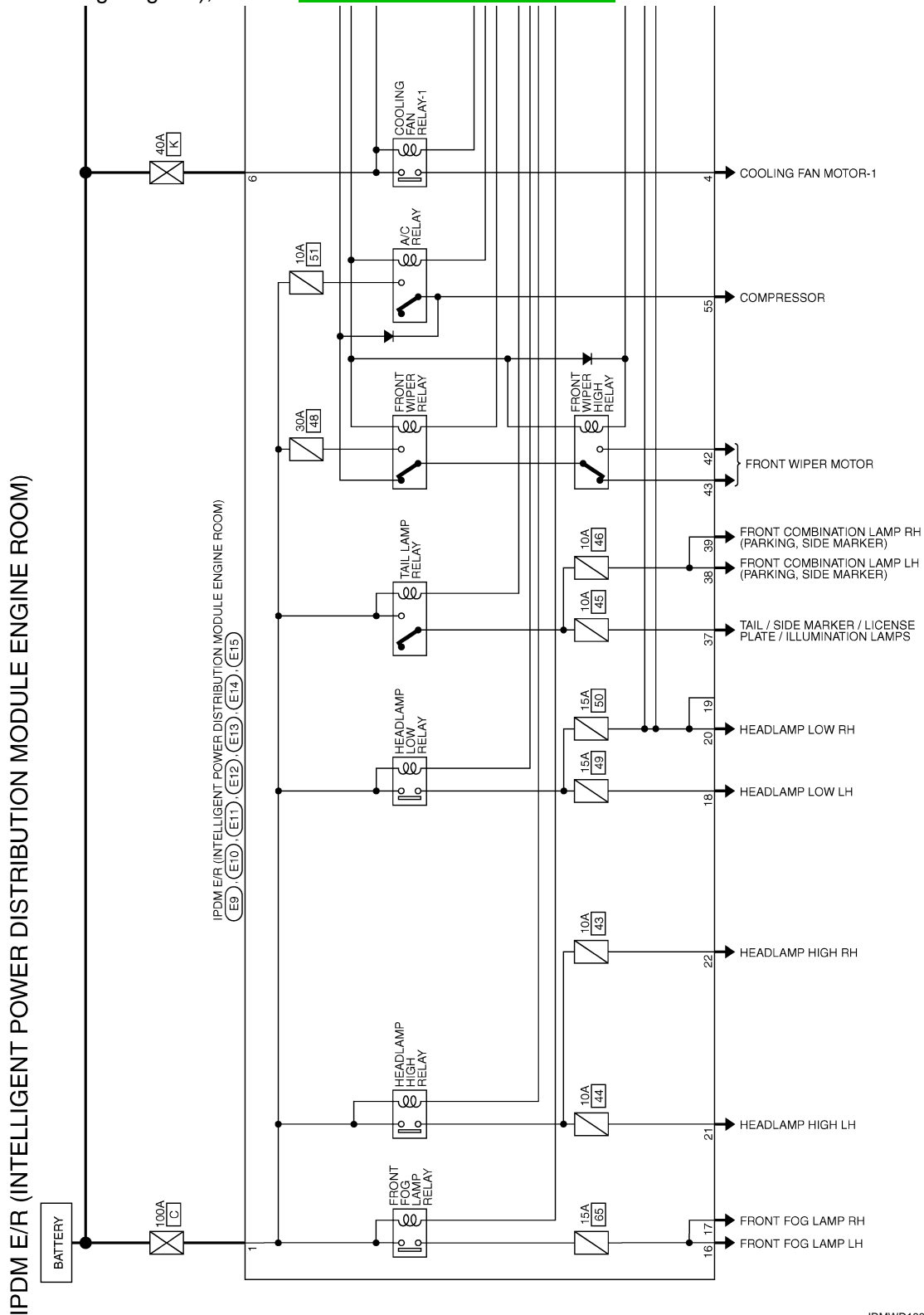
< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## Wiring Diagram - IPDM E/R -

INFOID:000000008741712

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



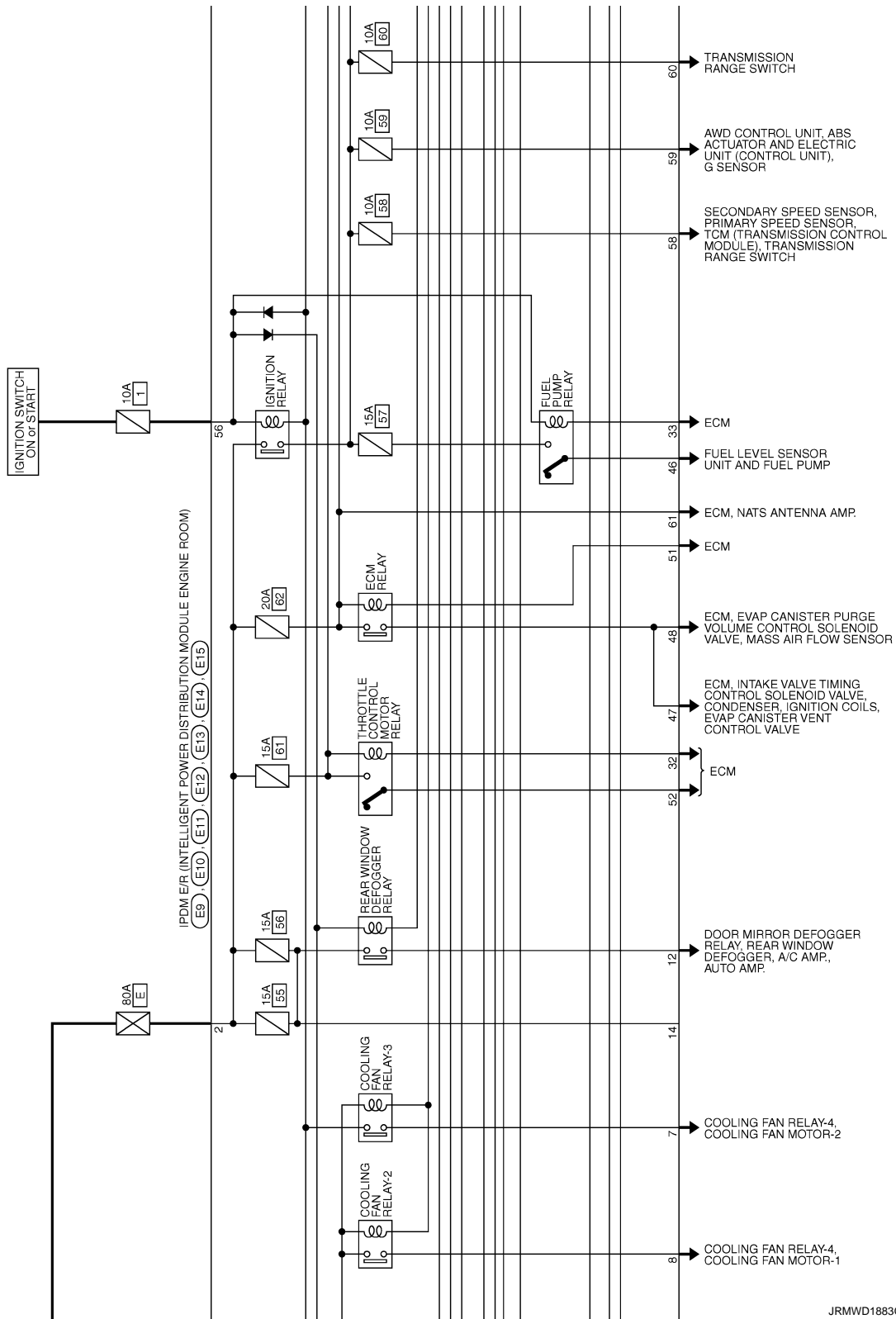
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# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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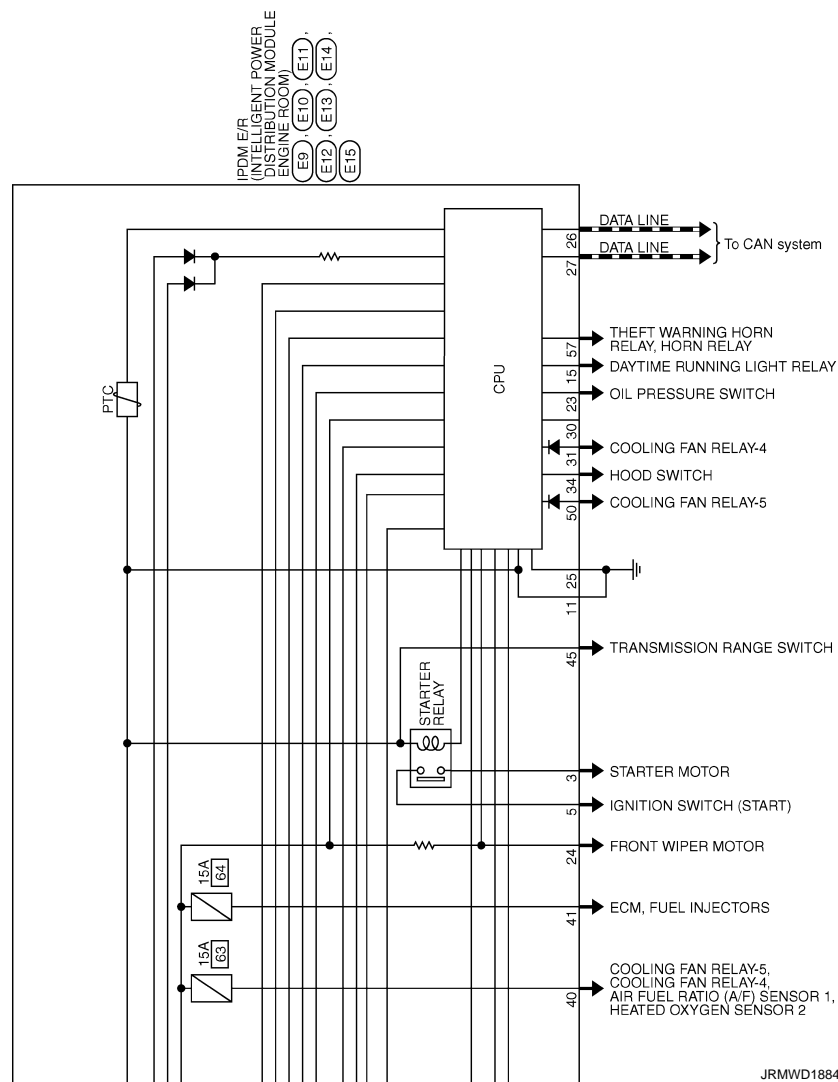
[WITH INTELLIGENT KEY SYSTEM]



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### Fail-safe

INFOID:000000008741713

### CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If no CAN communication is available with ECM



# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn ON when the ignition switch is turned ON</li> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn OFF when the ignition switch is turned OFF</li> <li>Cooling fan relay-4 OFF</li> </ul>
A/C compressor	A/C relay OFF

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>The headlamp low relay turns ON when the ignition switch is turned ON</li> <li>The headlamp low relay turns OFF when the ignition switch is turned OFF</li> <li>Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>Parking lamps</li> <li>License plate lamps</li> <li>Tail lamps</li> <li>Illuminations</li> </ul>	<ul style="list-style-type: none"> <li>The tail lamp relay and the daytime running light relay* turn ON when the ignition switch is turned ON</li> <li>The tail lamp relay and the daytime running light relay* turn OFF when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.</li> <li>The front wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.</li> </ul>
Front fog lamps	Front fog lamp relay OFF
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Horn	Horn relay OFF

**NOTE:**

\*: With daytime running light system

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors status of ignition relay by the voltage at ignition relay contact circuit inside it.
- IPDM E/R judges that the ignition relay is error, if status of the ignition relay and ignition switch ON signal (CAN).
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay and daytime running light relay\* for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

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Detection		IPDM E/R judgment	Operation
Ignition switch ON signal	Ignition relay		
ON	ON	Ignition relay normal	—
OFF	OFF	Ignition relay normal	—
OFF	ON	Ignition relay ON stuck	Turn on the tail lamp relay and daytime running light relay* for 10 minutes
ON	OFF	Ignition relay OFF stuck	Detect DTC "B2099: IGN RELAY OFF"

**NOTE:**

\*: With daytime running light system

## FRONT WIPER CONTROL

IPDM E/R detects the front wiper stop position with the front wiper stop position signal.

When the front wiper stop position signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop five times.

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**IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)**  
**< ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]**

Ignition switch	Front wiper switch	Front wiper stop position signal
ON	OFF	The front wiper stop position signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper stop position signal does not change for 10 seconds.

**NOTE:**

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

**DTC Index**

INFOID:000000008741714

CONSULT display	Fail-safe	Timing <sup>NOTE</sup>		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	<a href="#">PCS-13</a>
B2099: IGN RELAY OFF	—	CRNT	PAST	<a href="#">PCS-14</a>

**NOTE:**

The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.

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

## SYMPTOM DIAGNOSIS

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

#### ALL DOOR

##### ALL DOOR : Description

INFOID:000000008281864

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

##### ALL DOOR : Diagnosis Procedure

INFOID:000000008281865

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

Check BCM power supply and ground circuit.  
Refer to [DLK-55, "BCM : Diagnosis Procedure"](#) (BCM).

Is the inspection result normal?

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

#### 2.CHECK DRIVER SIDE DOOR LOCK AND UNLOCK SWITCH

Check driver side door lock and unlock switch.  
Refer to [DLK-61, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

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

#### 3.CHECK PASSENGER SIDE DOOR LOCK AND UNLOCK SWITCH

Check passenger side door lock and unlock switch.  
Refer to [DLK-62, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning.

#### 4.CHECK DOOR LOCK ACTUATOR

Check door lock actuator.  
Refer to [DLK-77, "DRIVER SIDE : 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-46, "Intermittent Incident"](#).
- NO >> GO TO 1.

#### DRIVER SIDE

##### DRIVER SIDE : Description

INFOID:000000008281866

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

##### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281867

#### 1.CHECK DRIVER SIDE DOOR LOCK ACTUATOR

Check driver side door lock actuator.  
Refer to [DLK-77, "DRIVER SIDE : Component Function Check"](#).

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

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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-46. "Intermittent Incident"](#).

NO >> GO TO 1.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281868

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

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281869

#### 1.CHECK PASSENGER SIDE DOOR LOCK ACTUATOR

Check passenger side door lock actuator.

Refer to [DLK-78. "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-46. "Intermittent Incident"](#).

NO >> GO TO 1.

## REAR LH

### REAR LH : Diagnosis Procedure

INFOID:000000008281870

#### 1.CHECK DOOR LOCK ACTUATOR

Check door lock actuator LH.

Refer to [DLK-79. "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-46. "Intermittent Incident"](#).

NO >> GO TO 1.

## REAR RH

### REAR RH : Diagnosis Procedure

INFOID:000000008281871

#### 1.CHECK DOOR LOCK ACTUATOR

Check door lock actuator RH.

Refer to [DLK-81. "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

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**2.CONFIRM THE OPERATION**

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Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-46. "Intermittent Incident"](#).
- NO >> GO TO 1.

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# DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

### Description

INFOID:000000008281872

All doors do not lock/unlock using Intelligent Key.

#### NOTE:

Check Intelligent Key remote operation in the door lock condition. Refer to [DLK-23, "DOOR LOCK FUNCTION : System Description"](#).

### Diagnosis Procedure

INFOID:000000008281873

#### 1.CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Go to [DLK-155, "ALL DOOR : Diagnosis Procedure"](#).

#### 2.CHECK INTELLIGENT KEY UNIT

Check Intelligent Key unit.

Refer to [DLK-55, "INTELLIGENT KEY UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3.CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to [DLK-108, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-57, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### 5.CHECK IGNITION KNOB SWITCH

Check ignition knob switch.

Refer to [DLK-75, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

### ALL DOOR

#### ALL DOOR : Description

INFOID:000000008281874

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

#### NOTE:

Check door request switch operation in the door lock condition. Refer to [DLK-23, "DOOR LOCK FUNCTION : System Description"](#).

#### ALL DOOR : Diagnosis Procedure

INFOID:000000008281875

### 1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Refer to [DLK-158, "Description"](#).

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

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

Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

### 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.

### DRIVER SIDE

#### DRIVER SIDE : Description

INFOID:000000008281876

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

#### NOTE:

Check door request switch operation in the door lock condition. Refer to [DLK-23, "DOOR LOCK FUNCTION : System Description"](#).

#### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281877

### 1.CHECK DRIVER SIDE DOOR REQUEST SWITCH

Check driver side door request switch.

Refer to [DLK-65, "DRIVER 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 handle LH (outside key antenna).

Refer to [DLK-87, "DRIVER 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.

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

Is the result normal?

YES >> Check Intermittent Incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008281878

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

#### NOTE:

Check door request switch operation in the door lock condition. Refer to [DLK-23, "DOOR LOCK FUNCTION : System Description"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281879

#### 1.CHECK PASSENGER SIDE DOOR REQUEST SWITCH

Check passenger side door request switch.

Refer to [DLK-66, "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 handle RH (outside key antenna).

Refer to [DLK-88, "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-43, "How to Check Terminal"](#).

NO >> GO TO 1.

## BACK DOOR

### BACK DOOR : Diagnosis Procedure

INFOID:000000008281880

#### 1.CHECK DOOR REQUEST SWITCH

Check back door request switch.

Refer to [DLK-68, "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-90, "REAR BUMPER : 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-46, "Intermittent Incident"](#).

NO >> GO TO 1.



# DOOR DOES NOT LOCK/UNLOCK WITH MECHANICAL KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH MECHANICAL KEY

### Diagnosis Procedure

INFOID:000000008281881

#### 1. CHECK KEY CYLINDER SWITCH

Check key cylinder switch.

Refer to [DLK-72, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

### Diagnosis Procedure

INFOID:000000008281882

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

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

Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Set "SELECTIVE UNLOCK FUNCTION" of "Work Support". Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH DRIVER SIDE

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008281883

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

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

Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Set "SELECTIVE UNLOCK FUNCTION" of "Work Support". Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008281884

#### 1. CHECK PASSENGER SIDE SELECTIVE UNLOCK RELAY

Check passenger side selective unlock relay.

Refer to [DLK-103, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY CYLINDER SWITCH

### Diagnosis Procedure

INFOID:000000008281885

#### 1. CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT"

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

Refer to [DLK-46, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT". Refer to [DLK-46, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

**VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE**  
< SYMPTOM DIAGNOSIS > **[WITH INTELLIGENT KEY SYSTEM]**

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

**Diagnosis Procedure**

INFOID:000000008281886

**1.CHECK POWER DOOR LOCK OPERATION**

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Go to [DLK-155, "ALL DOOR : Diagnosis Procedure"](#).

**2.CHECK AUTOMATIC DOOR LOCK FUNCTION SETTING**

Check vehicle speed sensing auto lock function setting.

Refer to [DLK-15, "System Description"](#).

Is the function active?

YES >> GO TO 3.

NO >> Change the setting.

**3.CHECK VEHICLE SPEED SIGNAL**

Check unified meter and A/C amp.

Refer to [MWI-40, "DTC Index"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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**DLK**

# IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281887

#### 1. CHECK POWER DOOR LOCK OPERATION

---

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Go to [DLK-155, "ALL DOOR : Diagnosis Procedure"](#).

#### 2. CHECK AUTOMATIC DOOR UNLOCK FUNCTION SETTING

---

Check IGN OFF interlock door unlock function setting.

Refer to [DLK-15, "System Description"](#).

Is the function active?

YES >> GO TO 3.

NO >> Change the setting.

#### 3. CHECK BCM

---

Check BCM for DTC?

Refer to [DLK-144, "DTC Index"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

### Diagnosis Procedure

INFOID:000000008281888

#### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Go to [DLK-155, "ALL DOOR : Diagnosis Procedure"](#).

#### 2. CHECK P RANGE INTERLOCK FUNCTION SETTING

Check P range interlock function setting.

Is the function active?

YES >> GO TO 3.

NO >> Change the setting.

#### 3. CHECK TCM

Check TCM for DTC?

Refer to [TM-136, "DTC Index"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

## PANIC ALARM FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281889

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

---

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

Refer to [DLK-47, "INTELLIGENT KEY : CONSULT Function \(BCM - INTELLIGENT KEY\)"](#).

Is the inspection result normal?

YES >> GO TO 2.

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

#### 2. CONFIRM THE OPERATION

---

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.



# KEY REMINDER FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## KEY REMINDER FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281890

#### 1.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

Refer to [DLK-92. "CONSOLE : Component Function Check"](#). (Console)

Refer to [DLK-93. "REAR SEAT : Component Function Check"](#). (Rear seat)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2.CHECK UNLOCK SENSOR

Check unlock sensor.

Refer to [DLK-99. "Diagnosis Procedure"](#).

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-46. "Intermittent Incident"](#).

NO >> GO TO 1.

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DLK

# AUTO DOOR LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

## AUTO DOOR LOCK OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281891

#### 1. CHECK "AUTO RELOCK TIMER" SETTING IN "WORK SUPPORT"

---

Check "AUTO RELOCK TIMER" setting in "Work Support".  
Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# BACK DOOR DOES NOT OPENED

[WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

## BACK DOOR DOES NOT OPENED

### Diagnosis Procedure

INFOID:000000008281892

#### 1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to [DLK-85, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK BACK DOOR OPENER ACTUATOR

Check back door opener actuator.

Refer to [DLK-83, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## IGNITION KNOB RETURN FORGOTTEN WARNING DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281893

#### 1. CHECK BUZZER (COMBINATION METER)

---

Check buzzer (combination meter).

Refer to [DLK-97, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# IGNITION KEY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## IGNITION KEY WARNING DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281894

#### 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to [DLK-97, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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## OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### OFF POSITION WARNING DOES NOT OPERATE BUZZER (COMBINATION METER)

BUZZER (COMBINATION METER) : Diagnosis Procedure

INFOID:000000008281895

#### 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to [DLK-97, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

### INTELLIGENT KEY WARNING BUZZER

INTELLIGENT KEY WARNING BUZZER : Diagnosis Procedure

INFOID:000000008281896

#### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to [DLK-95, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## P POSITION WARNING DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281897

#### 1. CHECK TRANSMISSION RANGE SWITCH

Check transmission range switch.  
Refer to [DLK-101, "Diagnosis Procedure"](#).

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-46, "Intermittent Incident"](#).
- NO >> GO TO 1.

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DLK

# TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

## TAKE AWAY WARNING DOES NOT OPERATE (DOOR IS OPENED)

### Diagnosis Procedure

INFOID:000000008281898

#### 1. CHECK INFORMATION DISPLAY

---

Check information display.

Refer to [MWI-25, "On Board Diagnosis Function"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.



# TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## TAKE AWAY WARNING DOES NOT OPERATE (ANY DOOR OPEN TO ALL DOORS CLOSE) INFORMATION DISPLAY

INFORMATION DISPLAY : Diagnosis Procedure

INFOID:000000008281899

### 1.CHECK INFORMATION DISPLAY

Check information display.

Refer to [MWI-25, "On Board Diagnosis Function"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

## INTELLIGENT KEY WARNING BUZZER

INTELLIGENT KEY WARNING BUZZER : Diagnosis Procedure

INFOID:000000008281900

### 1.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to [DLK-95, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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DLK

# TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WINDOW)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## TAKE AWAY WARNING DOES NOT OPERATE (TAKE AWAY THROUGH WINDOW)

### INFORMATION DISPLAY

#### INFORMATION DISPLAY : Diagnosis Procedure

INFOID:000000008281901

#### 1.CHECK INFORMATION DISPLAY

---

Check information display.

Refer to [MWI-25, "On Board Diagnosis Function"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

### BUZZER (COMBINATION METER)

#### BUZZER (COMBINATION METER) : Diagnosis Procedure

INFOID:000000008281902

#### 1.CHECK BUZZER (COMBINATION METER)

---

Check buzzer (combination meter).

Refer to [DLK-97, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281903

#### 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 [DLK-49, "CONSULT 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 [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

#### 2. CHECK INTELLIGENT KEY

Check Intelligent Key.  
Refer to [DLK-108, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CHECK INFORMATION DISPLAY

Check information display.  
Refer to [MWI-25, "On Board Diagnosis Function"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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DLK

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH DOOR REQUEST SWITCH

### Diagnosis Procedure

INFOID:000000008281904

#### 1. CHECK INTELLIGENT KEY WARNING BUZZER

---

Check Intelligent Key warning buzzer.

Refer to [DLK-95, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR LOCK OPERATION WARNING CHIME DOES NOT OPERATE WITH INTELLIGENT KEY

### Diagnosis Procedure

INFOID:000000008281905

#### 1. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to [DLK-95, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# BUZZER REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

## BUZZER REMINDER OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281906

#### 1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT

---

Check "ANSWER BACK WITH I-KEY LOCK" and "ANSWER BACK WITH I-KEY UNLOCK" setting in "Work Support".

Refer to [DLK-49, "CONSULT 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 [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

#### 2. CONFIRM THE OPERATION

---

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## HAZARD REMINDER OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281907

#### 1.CHECK SETTING OF HAZARD REMINDER WITH CONSULT

Check "HAZARD ANSWER BACK" setting in "Work Support".  
Refer to [DLK-49. "CONSULT Function \(INTELLIGENT KEY\)".](#)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "Work Support". Refer to [DLK-49. "CONSULT Function \(INTELLIGENT KEY\)".](#)

#### 2.CHECK HAZARD FUNCTION

Check "Hazard function".  
Refer to [DLK-105. "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-46. "Intermittent Incident".](#)

NO >> GO TO 1.

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DLK

# HORN REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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## HORN REMINDER OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281908

#### 1. CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT"

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

Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT". Refer to [DLK-49, "CONSULT Function \(INTELLIGENT KEY\)"](#).

#### 2. CHECK HORN FUNCTION

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Check horn function.

Refer to [DLK-301, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

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Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

NO >> GO TO 1.



# INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281909

#### 1. CHECK INTEGRATED HOMELINK TRANSMITTER

Check integrated homelink transmitter.

Refer to [DLK-108, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# STEERING LOCK INFORMATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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## STEERING LOCK INFORMATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281910

#### 1. CHECK DTC WITH BCM

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Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

#### 2. CHECK DTC WITH COMBINATION METER

---

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

#### 3. CHECK INFORMATION DISPLAY

---

Check information display

Refer to [MWI-25. "On Board Diagnosis Function"](#).

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-46. "Intermittent Incident"](#).

NO >> GO TO 1.

# KEY ID WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## KEY ID WARNING DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008281911

#### 1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

#### 2.CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

#### 3.CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to [DLK-108, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CHECK INFORMATION DISPLAY

Check information display

Refer to [MWI-25, "On Board Diagnosis Function"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

#### 5.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Console: Refer to [DLK-92, "CONSOLE : Component Function Check"](#).
- Rear seat: Refer to [DLK-93, "REAR SEAT : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.REPLACE BCM

- Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-46, "Intermittent Incident"](#).

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

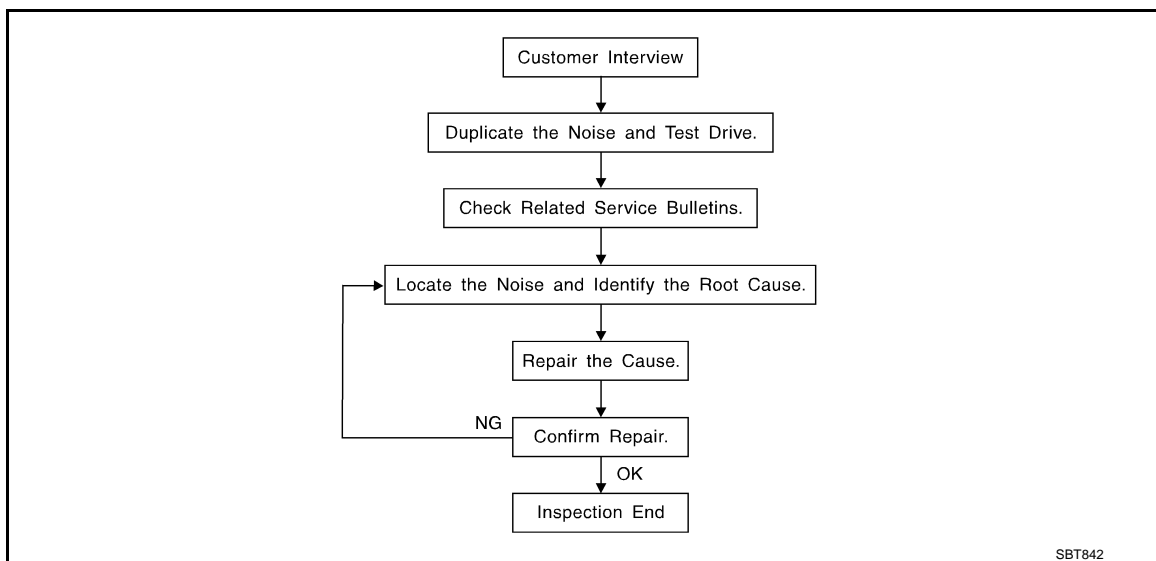
< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

### Work Flow

INFOID:000000008281912



### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to [DLK-192, "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

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

### DUPLICATE THE NOISE AND TEST DRIVE

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

[WITH INTELLIGENT KEY SYSTEM]

## < SYMPTOM DIAGNOSIS >

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

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

## CHECK RELATED SERVICE BULLETINS

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

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

## LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - Removing the components in the area that is are suspected to be the cause of the noise.  
Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
  - Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.  
Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.
  - Placing a piece of paper between components that are suspected to be the cause of the noise.
  - Looking for loose components and contact marks.  
Refer to [DLK-190. "Inspection Procedure"](#).

## REPAIR THE CAUSE

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

### **CAUTION:**

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

### **NOTE:**

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

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

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100 × 135 mm (3.94 × 5.31 in)/76884-71L01: 60 × 85 mm (2.36 × 3.35 in)/76884-71L02: 15 × 25 mm (0.59 × 0.98 in)

INSULATOR (Foam blocks)

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

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

50Y00: 10 mm (0.39 in) thick, 50 × 50 mm (1.97 × 1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30 × 50 mm (1.18 × 1.97in)

FELT CLOTHTAPE

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

68370-4B000: 15 × 25 mm (0.59 × 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

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

UHMW (TEFLON) TAPE

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

[WITH INTELLIGENT KEY SYSTEM]

## < SYMPTOM DIAGNOSIS >

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

### SILICONE GREASE

Used in place of UHMW tape that is be visible or does not fit. Will only last a few months.

### SILICONE SPRAY

Used when grease cannot be applied.

### DUCT TAPE

Used to eliminate movement.

## CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

## Inspection Procedure

INFOID:000000008281913

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

## INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. The cluster lid A and instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar garnish
4. Instrument panel to windshield
5. Instrument panel mounting pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

### **CAUTION:**

**Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.**

## CENTER CONSOLE

Components to pay attention to include:

1. Shifter assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

## DOORS

Pay attention to the following:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

## TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer.

In addition look for the following:

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

## SUNROOF/HEADLINING

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

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

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

## SEATS

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

Cause of seat noise include:

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

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

## UNDERHOOD

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

Causes of transmitted underhood noise include:

1. Any component mounted to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. 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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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## Diagnostic Worksheet

INFOID:000000008281914



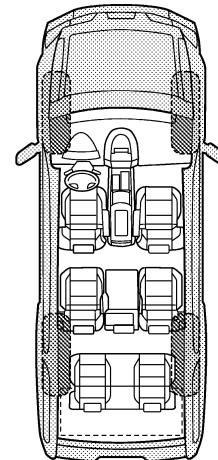
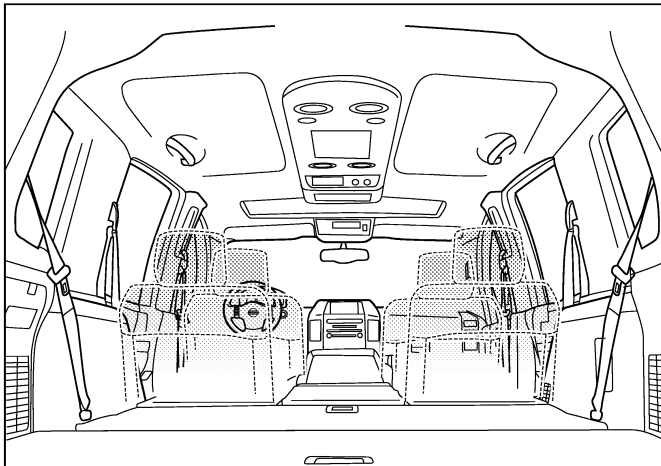
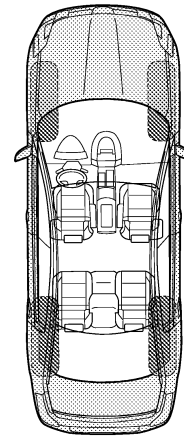
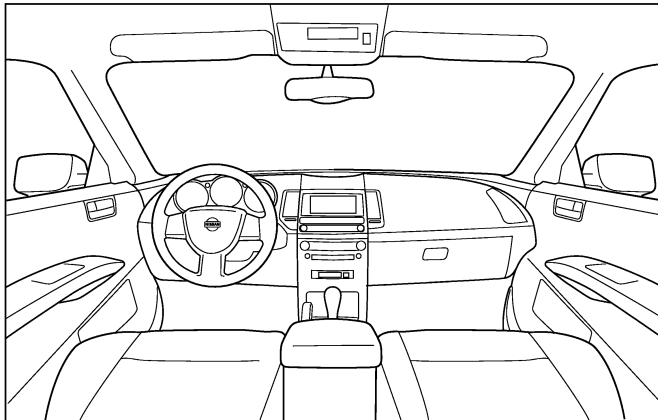
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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.

PIIB8740E



# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

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### II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> anytime                      | <input type="checkbox"/> after sitting out in the rain |
| <input type="checkbox"/> 1st time in the morning      | <input type="checkbox"/> when it is raining or wet     |
| <input type="checkbox"/> only when it is cold outside | <input type="checkbox"/> dry or dusty conditions       |
| <input type="checkbox"/> only when it is hot outside  | <input type="checkbox"/> other:                        |

### III. WHEN DRIVING:

- through driveways
- over rough roads
- over speed bumps
- only about \_\_\_\_ mph
- on acceleration
- coming to a stop
- on turns: left, right or either (circle)
- with passengers or cargo
- other: \_\_\_\_\_
- after driving \_\_\_\_ miles or \_\_\_\_ minutes

### IV. WHAT TYPE OF NOISE

- squeak (like tennis shoes on a clean floor)
- creak (like walking on an old wooden floor)
- rattle (like shaking a baby rattle)
- knock (like a knock at the door)
- tick (like a clock second hand)
- thump (heavy, muffled knock noise)
- buzz (like a bumble bee)

### TO BE COMPLETED BY DEALERSHIP PERSONNEL

#### Test Drive Notes:

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	YES	NO	Initials of person performing
Vehicle test driven with customer	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise verified on test drive	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise source located and repaired	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Follow up test drive performed to confirm repair	<input type="checkbox"/>	<input type="checkbox"/>	_____

VIN: \_\_\_\_\_ Customer Name: \_\_\_\_\_  
W.O.# \_\_\_\_\_ Date: \_\_\_\_\_

This form must be attached to Work Order

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**PRECAUTION**

PRECAUTIONS  
FOR MEXICO

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

INFOID:000000008281915

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 AIR BAG" and "SEAT BELT" of this Service Manual.

**WARNING:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

**WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

FOR MEXICO : Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000008281916

**CAUTION:**

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

- This Procedure is applied only to models with Intelligent Key system and NVIS/IVIS (NISSAN/INFINITI VEHICLE IMMOBILIZER SYSTEM - NATS).
- Remove and install all control units after disconnecting both battery cables with the ignition switch in the LOCK position.
- Always use CONSULT 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 NVIS/IVIS, 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.

# PRECAUTIONS

[WITH INTELLIGENT KEY SYSTEM]

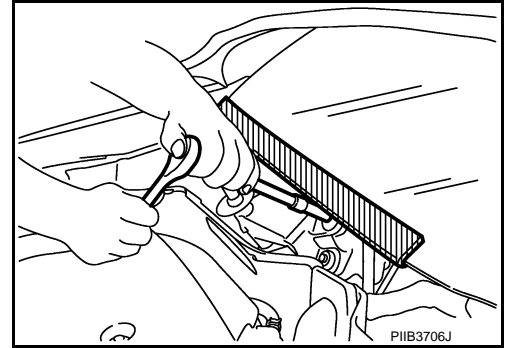
## < PRECAUTION >

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.)
6. Perform a self-diagnosis check of all control units using CONSULT.

## FOR MEXICO : Precaution for Procedure without Cowl Top Cover

INFOID:000000008281917

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



## FOR MEXICO : Precautions For Xenon Headlamp Service

INFOID:000000008281918

### **WARNING:**

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

### **CAUTION:**

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

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

## FOR MEXICO : Work

INFOID:000000008281919

- 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.

## FOR USA AND CANADA

## FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000008281920

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

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# PRECAUTIONS

< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

## FOR USA AND CANADA : Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000008281921

### **CAUTION:**

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

- This Procedure is applied only to models with Intelligent Key system and NVIS/IVIS (NISSAN/INFINITI VEHICLE IMMOBILIZER SYSTEM - NATS).
- Remove and install all control units after disconnecting both battery cables with the ignition switch in the LOCK position.
- Always use CONSULT 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 NVIS/IVIS, 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.)
6. Perform a self-diagnosis check of all control units using CONSULT.

# PRECAUTIONS

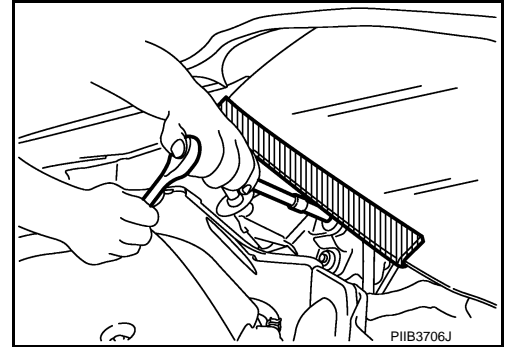
< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

## FOR USA AND CANADA : Precaution for Procedure without Cowl Top Cover

INFOID:000000008281922

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



## FOR USA AND CANADA : Precautions For Xenon Headlamp Service

INFOID:000000008281923

### WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

### CAUTION:

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

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

## FOR USA AND CANADA : Work

INFOID:000000008281924

- 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 >

[WITH INTELLIGENT KEY SYSTEM]

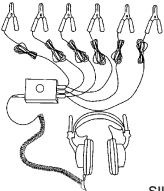
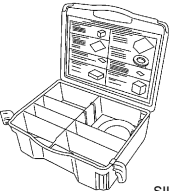
## PREPARATION

### PREPARATION

#### Special Service Tools

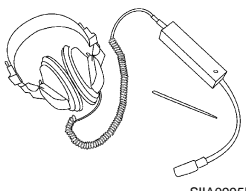
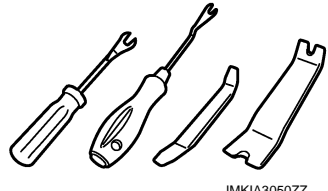
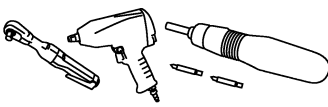
INFOID:000000008281925

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

Tool number (Kent-Moore No.) Tool name	Description
<p>(J-39570) Chassis ear</p>  <p>SIIA0993E</p>	<p>Locates the noise</p>
<p>(J-43980) NISSAN Squeak and Rattle Kit</p>  <p>SIIA0994E</p>	<p>Repairs the cause of noise</p>

#### Commercial Service Tools

INFOID:000000008281926

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

# HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

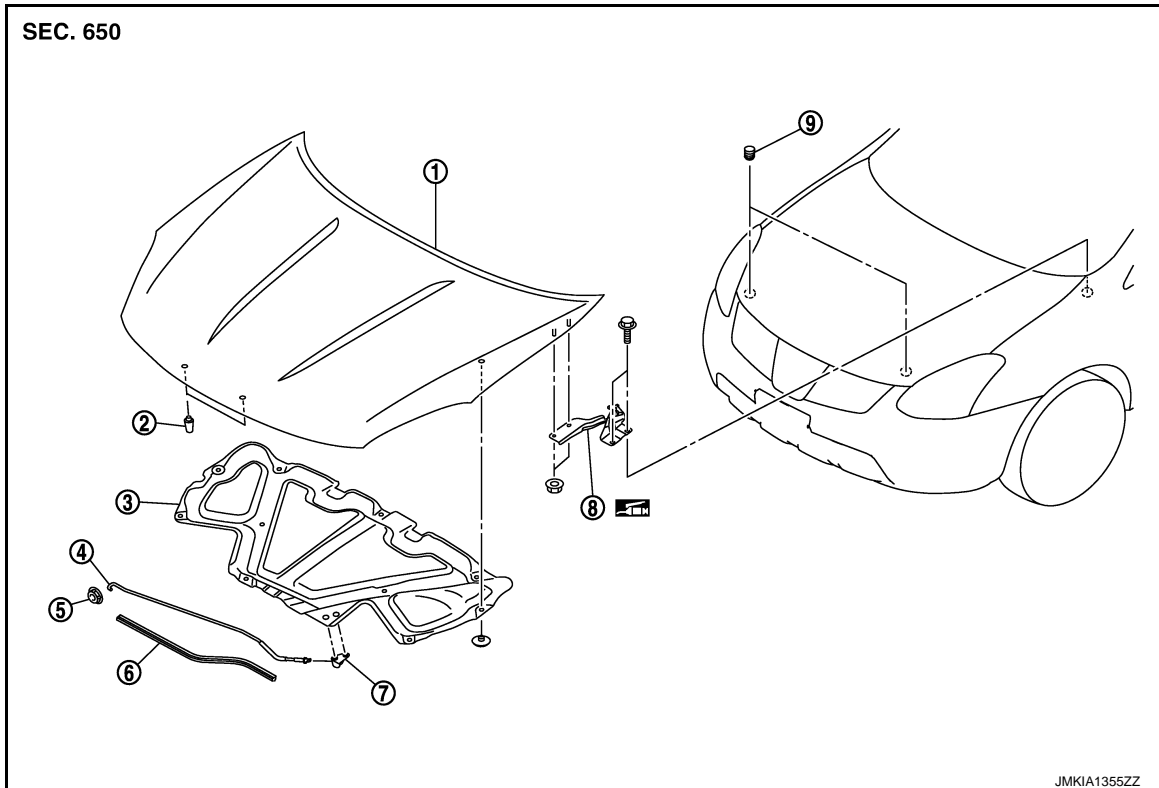
## REMOVAL AND INSTALLATION

### HOOD

### HOOD ASSEMBLY

### HOOD ASSEMBLY : Exploded View

INFOID:000000008281927



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4, "Components"](#) for symbols in the figure.

### HOOD ASSEMBLY : Removal and Installation

INFOID:000000008281928

#### REMOVAL

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

**WARNING:**

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

2. Remove hood hinge mounting nuts on the hood to remove the hood assembly.

**CAUTION:**

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

#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to [DLK-200, "HOOD ASSEMBLY : Adjustment"](#).

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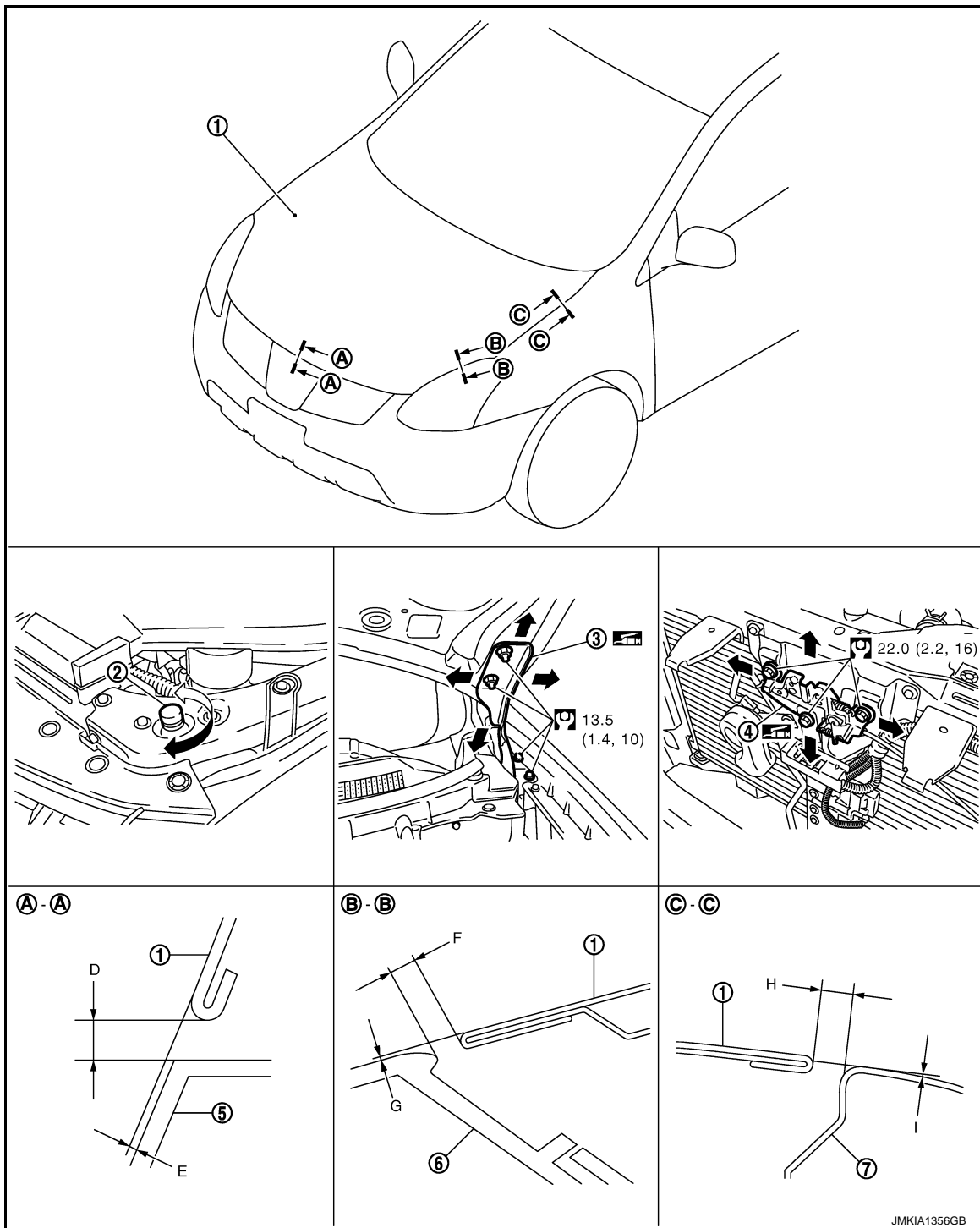
# HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## HOOD ASSEMBLY : Adjustment

INFOID:000000008281929



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|-----------------------|----------------------------|---------------------------|
| 1. Hood assembly      | 2. Hood bumper rubber side | 3. Hood hinge             |
| 4. Hood lock assembly | 5. Front bumper fascia     | 6. Front combination lamp |
| 7. Front fender       |                            |                           |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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



# HOOD

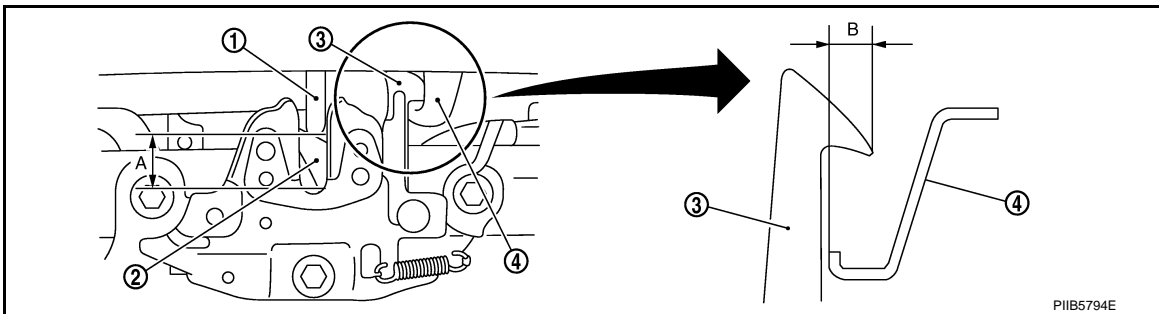
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

unit : mm(in)

Portion			Standard	Difference (LH/RH)
Hood – Front bumper	A – A	D	Clearance	4.0 – 8.0 (0.157 – 0.315)
		E	Surface height	-0.4 – 4.0 (- 0.016 – 0.157)
Hood – Front combination lamp	B – B	F	Clearance	2.0 – 6.0 (0.079 – 0.236)
		G	Surface height	-2.0 – 2.0 (- 0.079 – 0.079)
Hood – Front fender	C – C	H	Clearance	2.6 – 4.6 (0.102 – 0.181)
		I	Surface height	-1.0 – 1.0 (- 0.039 – 0.039)

1. Remove hood lock and adjust the height by rotating hood bumper rubber side until hood becomes 1 to 1.5 mm (0.039 to 0.059 in) lower than fender.
2. Temporarily tighten hood lock, and position by engaging it with hood striker. Check hood lock and striker for looseness and adjust the clearance and evenness with striker to satisfy the specification.
3. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately 200 mm (7.874 in) height or by pressing hood lightly [approximately 29 N (3.0 kg, 6.5lb)].



- 1. Hood striker
- 2. Primary latch
- 3. Secondary striker
- 4. Secondary latch

**A : 20.0 mm (0.787 in)**

**B : 6.8 mm (0.268 in)**

4. After adjustment tighten lock bolts to the specified torque.

## HOOD HINGE

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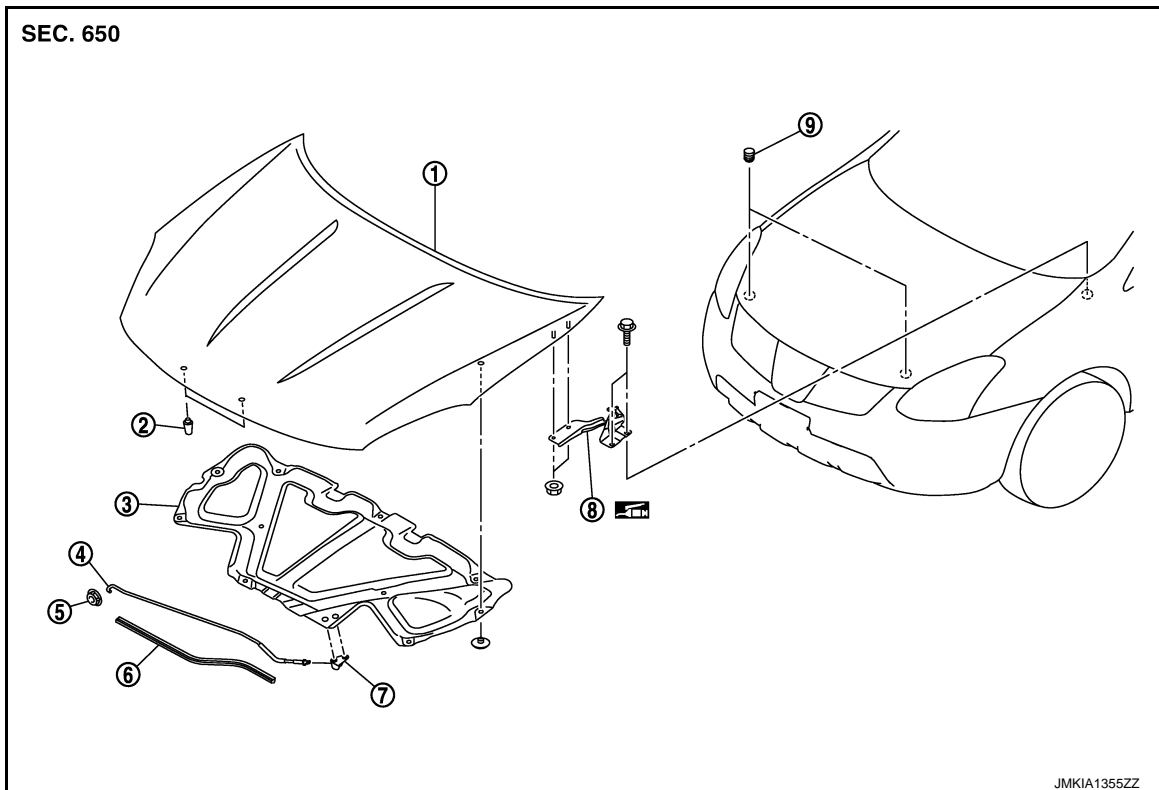
# HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## HOOD HINGE : Exploded View

INFOID:000000008281930



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD HINGE : Removal and Installation

INFOID:000000008281931

### REMOVAL

1. Remove hood assembly. Refer to [DLK-199. "HOOD ASSEMBLY : Removal and Installation"](#).
2. Remove front fender. Refer to [DLK-209. "Removal and Installation"](#).
3. Remove hood hinge mounting bolts, and then remove 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 [DLK-200. "HOOD ASSEMBLY : Adjustment"](#).

## HOOD SUPPORT ROD

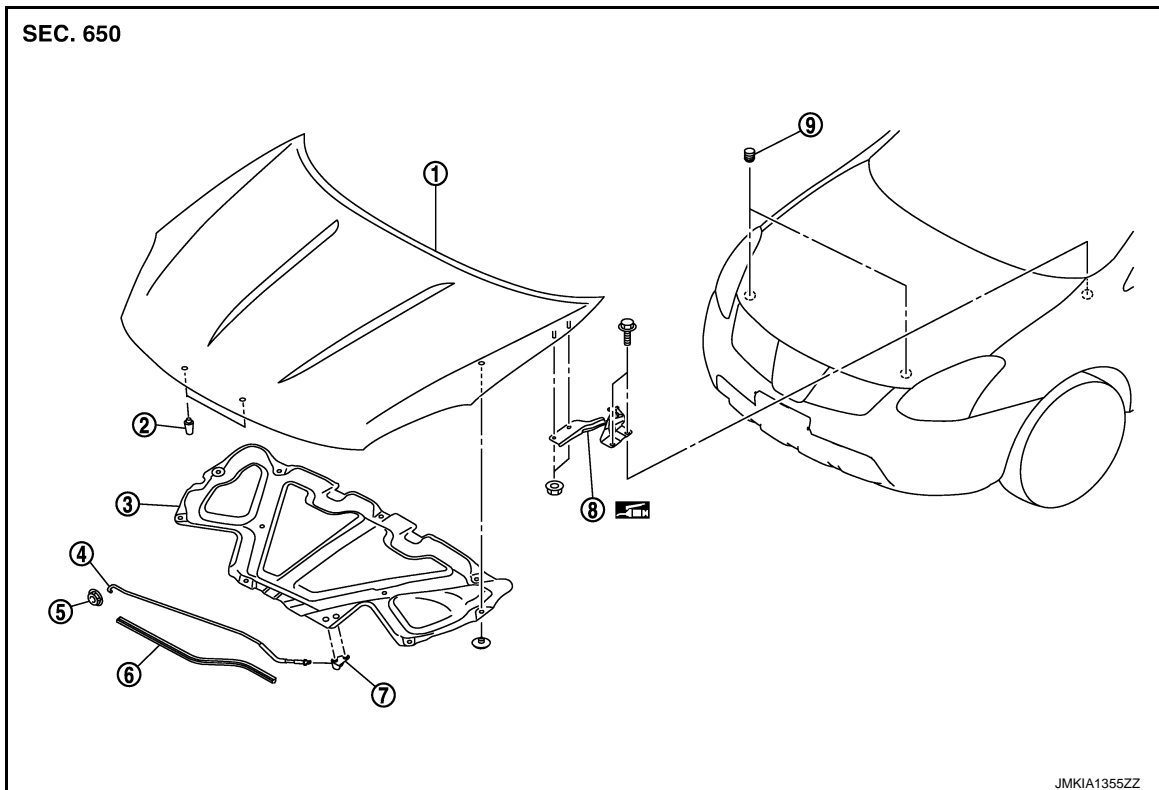
# HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## HOOD SUPPORT ROD : Exploded View

INFOID:000000008281932



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD SUPPORT ROD : Removal and Installation

INFOID:000000008281932

DLK

### REMOVAL

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

**WARNING:**

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

2. Remove hood support rod from grommet.

### INSTALLATION

Install in the reverse order of removal.

### HOOD LOCK CONTROL

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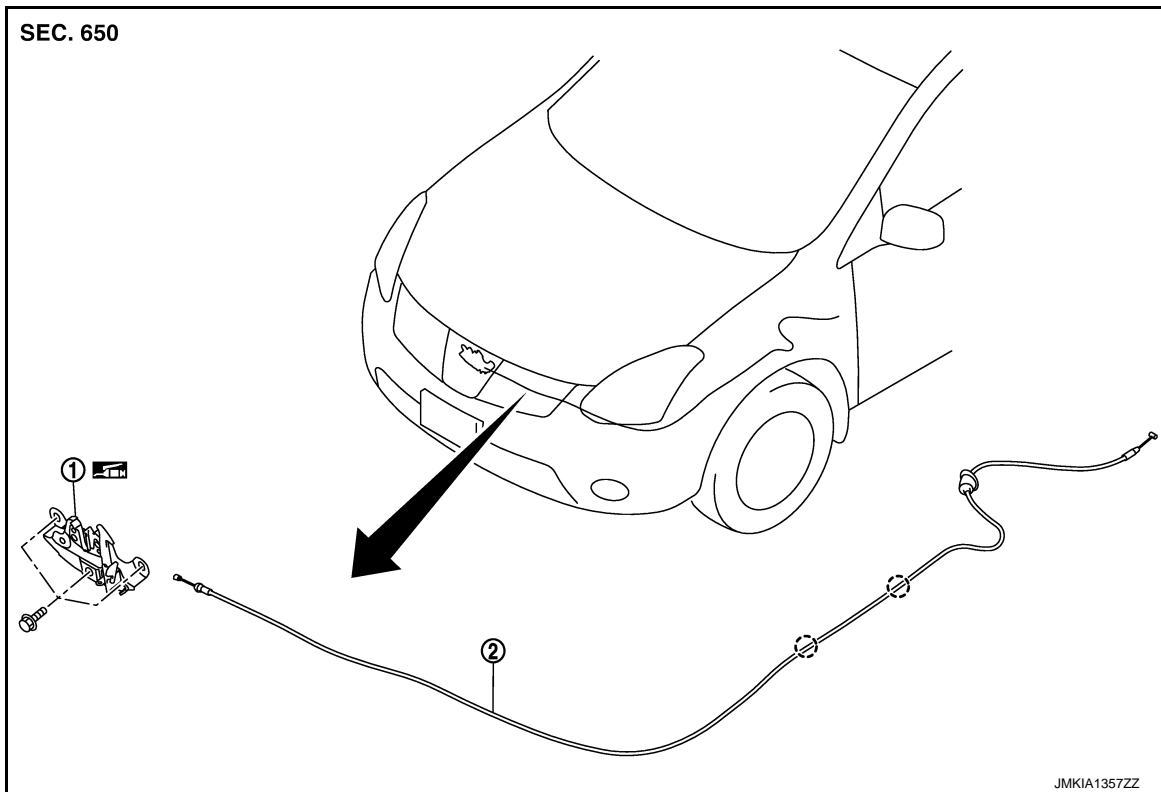
# HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## HOOD LOCK CONTROL : Exploded View

INFOID:000000008281934



1. Hood lock assembly

2. Hood lock control cable

○ : Clip

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD LOCK CONTROL : Removal and Installation

INFOID:000000008281935

### REMOVAL

#### **CAUTION:**

**Check how hood lock control cable has been wiring situation, before it is removed.**

1. Remove clips at the upper side of front bumper. Refer to [EXT-13. "Exploded View"](#).
2. Remove mounting bolts, and then remove hood lock assembly.
3. Disconnect hood lock cable from hood lock assembly.
4. Remove instrument driver lower cover. Refer to [IP-13. "Exploded View"](#).
5. Disconnect hood lock cable from instrument driver lower cover.
6. Remove fender protector (LH). Refer to [EXT-22. "Removal and Installation"](#).
7. Remove hood lock cable clamp.
8. Remove grommet on the dashbord, and pull the hood lock control cable toward the passenger compartment.

#### **CAUTION:**

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

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

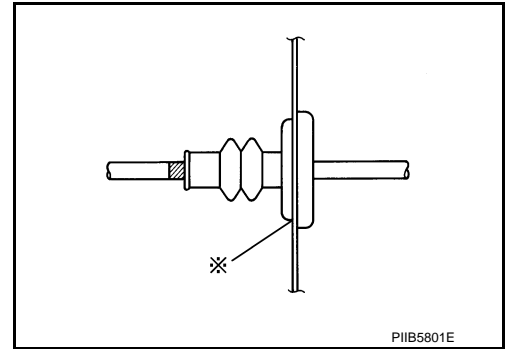
- **Never to bend cable too much, keeping the radius 100 mm (3.937 in) or more.**

# HOOD

## < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \* mark) properly.



- Check that hood lock control cable is properly engaged with hood lock.
- After installation, perform hood fitting adjustment. Refer to [DLK-200, "HOOD ASSEMBLY : Adjustment"](#).
- After installation, perform hood lock control inspection. Refer to [DLK-205, "HOOD LOCK CONTROL : Inspection"](#).

## HOOD LOCK CONTROL : Inspection

INFOID:000000008281936

### NOTE:

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

1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20.0 mm (0.787 in). Also check that hood opener returns to the original position.
3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or below.
4. Install so that static closing face of hood is 94 – 490 N·m (9.6 – 50.0 kg·m, 69 – 361 ft – lb).

### NOTE:

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

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# RADIATOR CORE SUPPORT

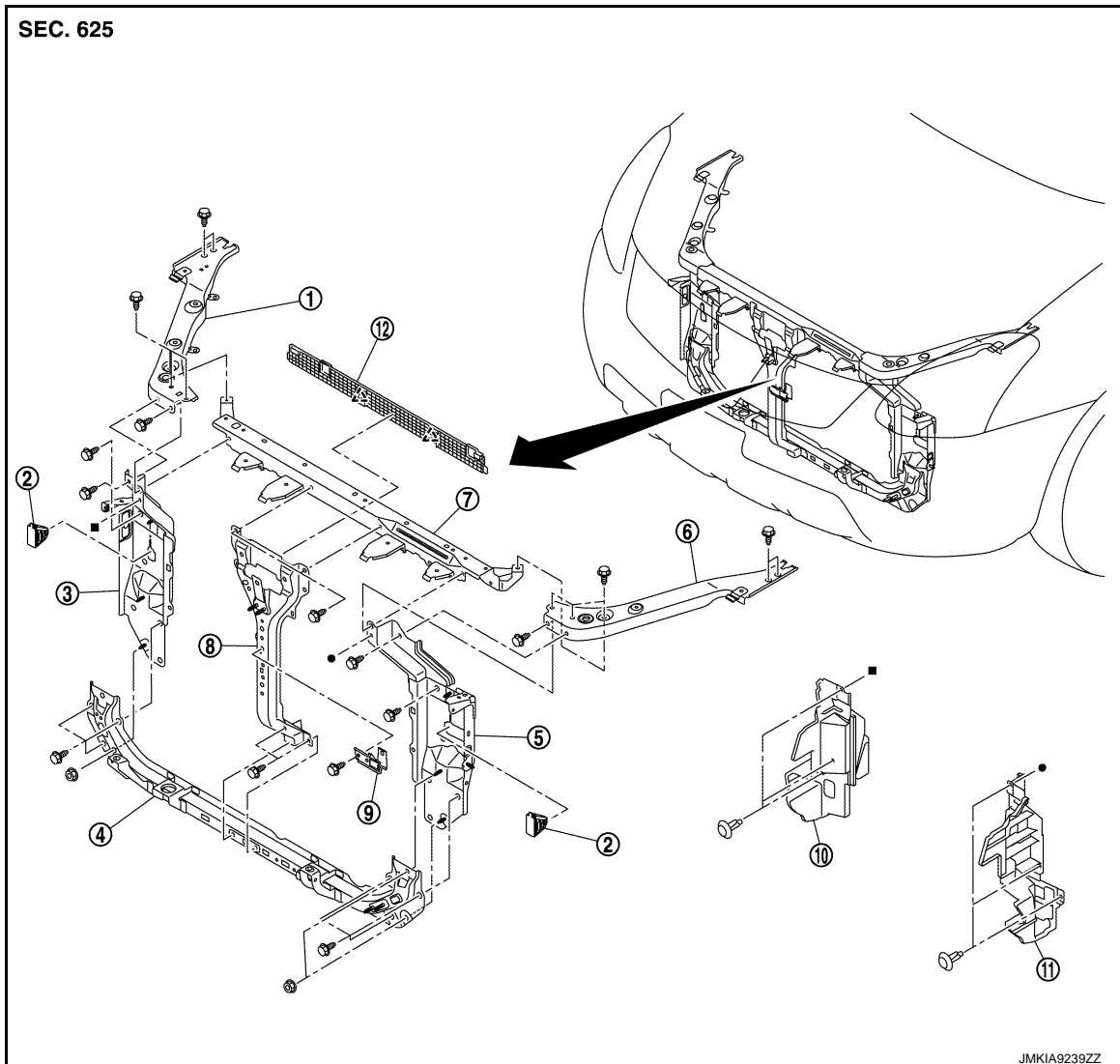
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## RADIATOR CORE SUPPORT

Exploded View

INFOID:000000008281937



- |                                       |                                    |                                   |
|---------------------------------------|------------------------------------|-----------------------------------|
| 1. Radiator core support upper RH     | 2. Locator (LH/RH)                 | 3. Radiator core support side RH  |
| 4. Radiator core support lower        | 5. Radiator core support side LH   | 6. Radiator core support upper LH |
| 7. Radiator core support upper center | 8. Hood lock support stay assembly | 9. Sensor bracket                 |
| 10. Air guide RH                      | 11. Air guide LH                   | 12. Radiator seal upper           |

△ : Pawl

●, ■: Indicates that the part is connected at points with same symbol in actual vehicle.

## Removal and Installation

INFOID:000000008281938

### REMOVAL

1. Remove front bumper fascia, front bumper reinforcement. Refer to [EXT-13. "Removal and Installation"](#).
2. Remove air intake duct. Refer to [EM-29. "Exploded View"](#).
3. Remove front combination lamp (LH/RH). Refer to [EXL-109. "Removal and Installation"](#) (XENON TYPE), [EXL-228. "Removal and Installation"](#) (HALOGEN TYPE).
4. Remove air guide mounting clips, and remove air guide (LH/RH).
5. Remove CVT fluid cooler. Refer to [TM-209. "FLUID COOLER : Removal and Installation"](#).

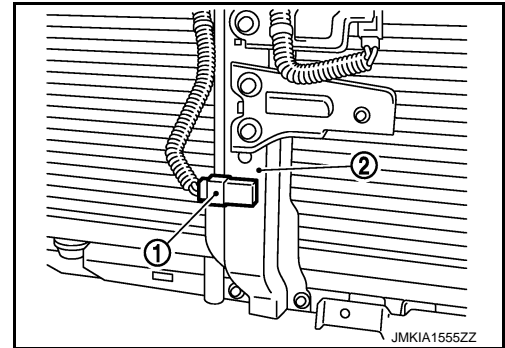
# RADIATOR CORE SUPPORT

[WITH INTELLIGENT KEY SYSTEM]

## < REMOVAL AND INSTALLATION >

6. Remove CVT fluid cooler stay lower. Refer to [TM-209, "FLUID COOLER : Exploded view"](#).
7. Remove seal radiator lower.
8. Remove horn (HI/LO). Refer to [HRN-6, "Removal and Installation"](#).
9. Remove ambient sensor.

- (1): Ambient sensor
- (2): Hood lock support stay assembly



10. Remove Intelligent Key warning buzzer (with Intelligent Key systems). Refer to [DLK-245, "Removal and Installation"](#).
11. Remove crash zone sensor. Refer to [SR-20, "Removal and Installation"](#) (FOR USA and CANADA) or [SR-45, "Removal and Installation"](#) (FOR MEXICO).
12. Disconnect refrigerant pressure sensor connector. Refer to [HAC-118, "Removal and Installation"](#) (AUTOMATIC AIR CONDITIONING) or [HAC-209, "Removal and Installation"](#) (MANUAL AIR CONDITIONING).
13. Remove hood lock assembly. Refer to [DLK-204, "HOOD LOCK CONTROL : Removal and Installation"](#).
14. Disconnect harness clips from radiator core support assembly.
15. Remove mounting bolts, and then remove hood lock support stay assembly.
16. Remove washer tank. Refer to [WW-42, "Removal and Installation"](#).
17. Place securely the hood support rod inside the engine mounting bracket hole.

**CAUTION:**

**Check that the hood is securely fix.**

18. Remove mounting bolts, and then remove radiator core support upper assembly (radiator core support upper center and radiator core support upper side).
19. Remove radiator core support lower assembly (radiator core support side and radiator core support lower) mounting bolts.
20. Remove radiator core support lower assembly (radiator core support side and radiator core support lower) while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.

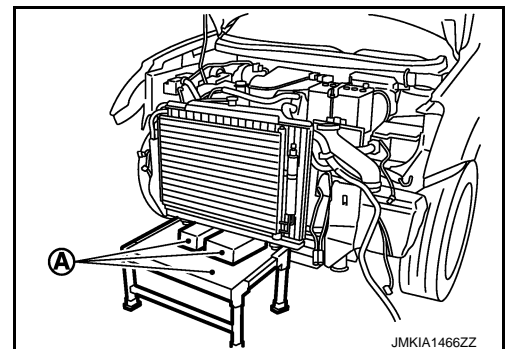
**CAUTION:**

**Operate with two workers, because of its heavy weight.**

21. Put some wooden blocks etc.(A) under radiator and condenser, and use a rope to suspend it to prevent it from falling.

**CAUTION:**

**Operate with two workers, because of its heavy weight.**



22. Disassembly radiator core support upper side from radiator core support upper center.
23. Disassembly radiator core support side from radiator core support lower.

## INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

- After installation, replenish the following parts.

## RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

---

- CVT fluid: Refer to [TM-161, "Changing"](#).
- After installation, adjust the following parts.
- Front combination lamp: Refer to [EXL-104, "Aiming Adjustment Procedure"](#) (XENON TYPE) or [EXL-224, "Aiming Adjustment Procedure"](#) (HALOGEN TYPE).



# FRONT FENDER

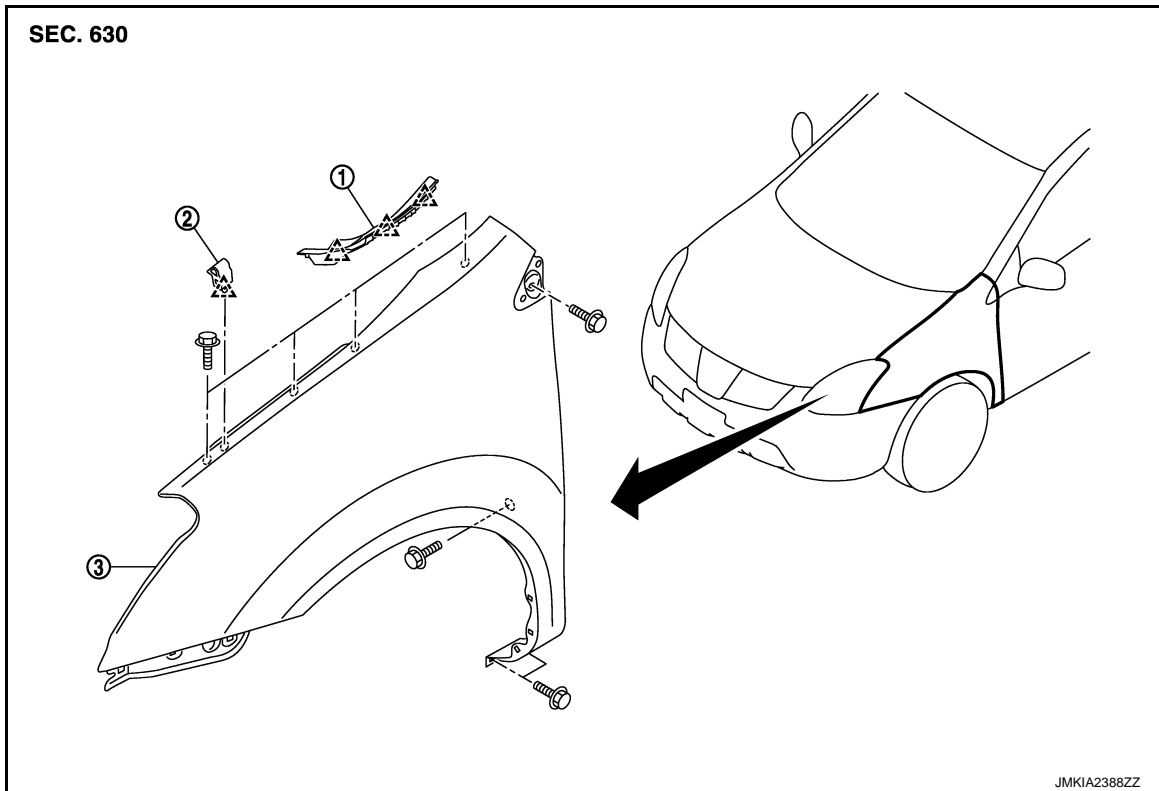
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## FRONT FENDER

Exploded View


INFOID:000000008281939



1. Front fender finisher

2. Bumper rubber

3. Front fender

 : Pawl

## Removal and Installation

INFOID:000000008281940

DLK

### CAUTION:

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

### REMOVAL

1. Remove front bumper facia. Refer to [EXT-13, "Removal and Installation"](#).
2. Remove front combination lamp. Refer to [EXL-109, "Removal and Installation"](#) (XENON TYPE), [EXL-228, "Removal and Installation"](#) (HALOGEN TYPE).
3. Remove fender protector. Refer to [EXT-22, "Removal and Installation"](#).
4. Remove front fender finisher.
5. Remove mounting bolts and remove front fender.

### CAUTION:

An viscous urethane foam is installed on the back surface of front fender. When removing the front fender, peel of the urethane foam bit at a time, and carefully to remove it.

### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

- After installation, check front fender adjustment. Refer to [DLK-200, "HOOD ASSEMBLY : Adjustment"](#) and [DLK-211, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.

# FRONT DOOR

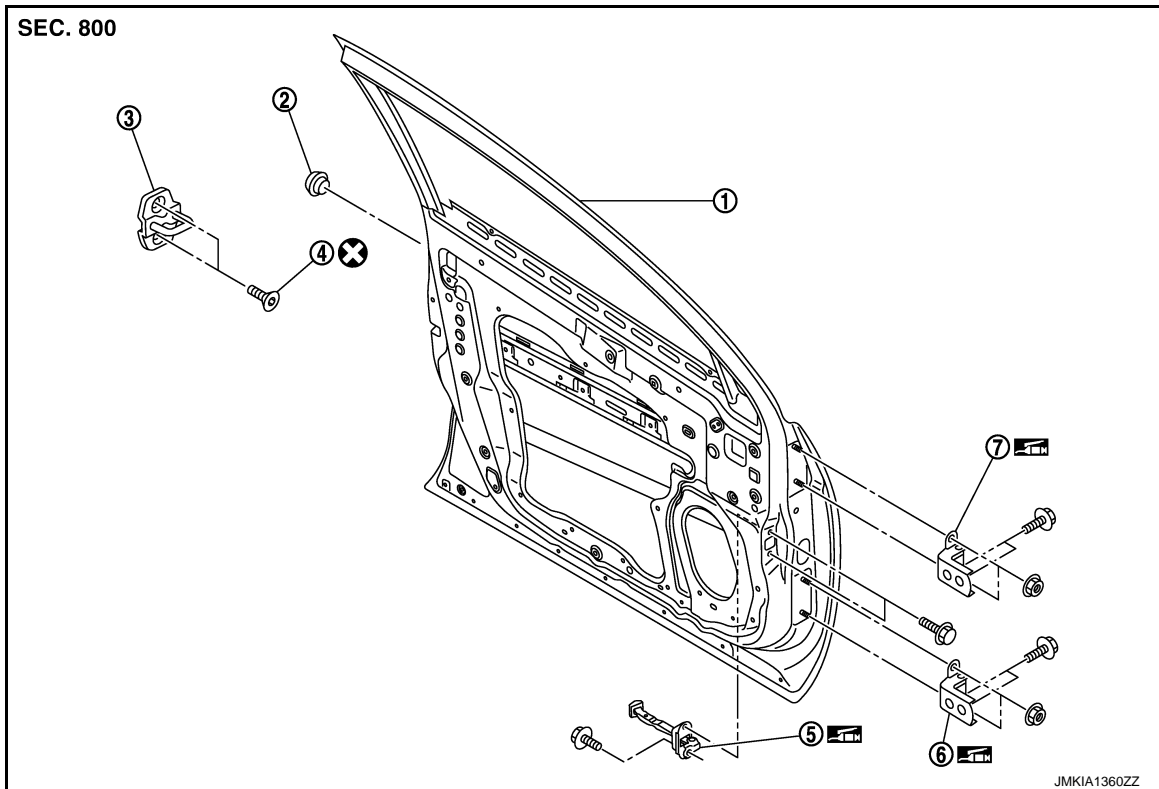
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## FRONT DOOR DOOR ASSEMBLY

### DOOR ASSEMBLY : Exploded View

INFOID:000000008281941



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR ASSEMBLY : Removal and Installation

INFOID:000000008281942

#### CAUTION:

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

#### REMOVAL

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

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to [DLK-211, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

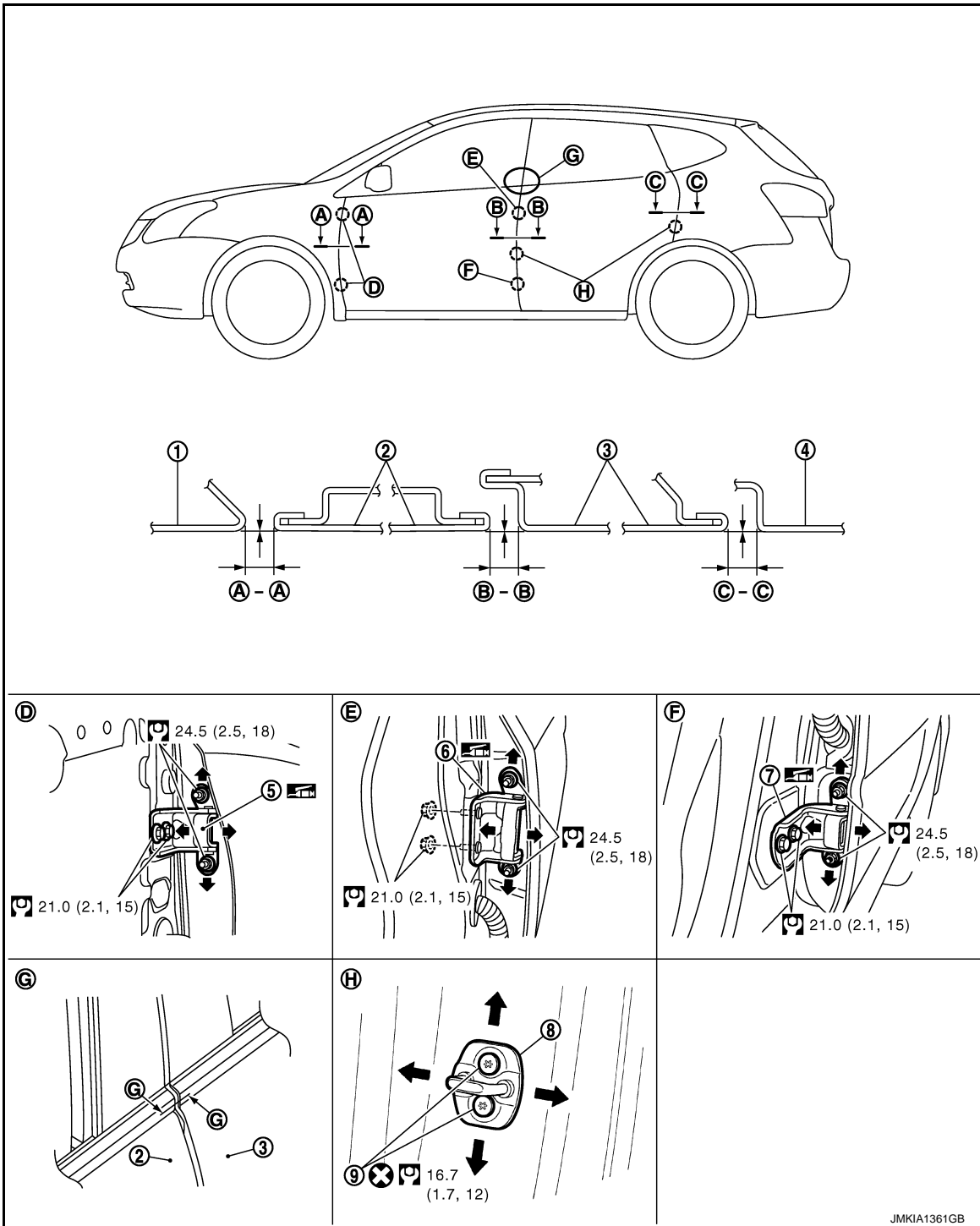
# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR ASSEMBLY : Adjustment

INFOID:000000008281943



- |                            |                     |                            |
|----------------------------|---------------------|----------------------------|
| 1. Front fender            | 2. Front door       | 3. Rear door               |
| 4. Body side outer         | 5. Front door hinge | 6. Rear door hinge (upper) |
| 7. Rear door hinge (lower) | 8. Door striker     | 9. TORX bolt               |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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

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JMKIA1361GB

# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

Unit: mm (in)

Portion		Clearance	Surface height
Front fender – Front door	A – A	3.5 – 5.5 (0.138 – 0.217)	- 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)	- 1.5 – 1.5 (- 0.059 – 0.059)

1. Remove front fender. Refer to [DLK-209, "Removal and Installation"](#).
2. Loosen door hinge mounting nuts on door side.
3. Adjust the surface height of front door according to the fitting standard dimension.
4. Temporarily tighten door hinge mounting nuts on door side.
5. Loosen door hinge mounting bolts on body side.
6. Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
7. After adjustment tighten bolts and nuts to the specified torque.
8. Install front fender. Refer to refer to [DLK-209, "Removal and Installation"](#).

**CAUTION:**

After door adjustment, perform the camera image calibration.

- **DISPLAY AUDIO:** Refer to [AV-108, "Work Procedure"](#).
- **BOSE AUDIO WITH NAVIGATION:** [AV-270, "Work Procedure"](#).

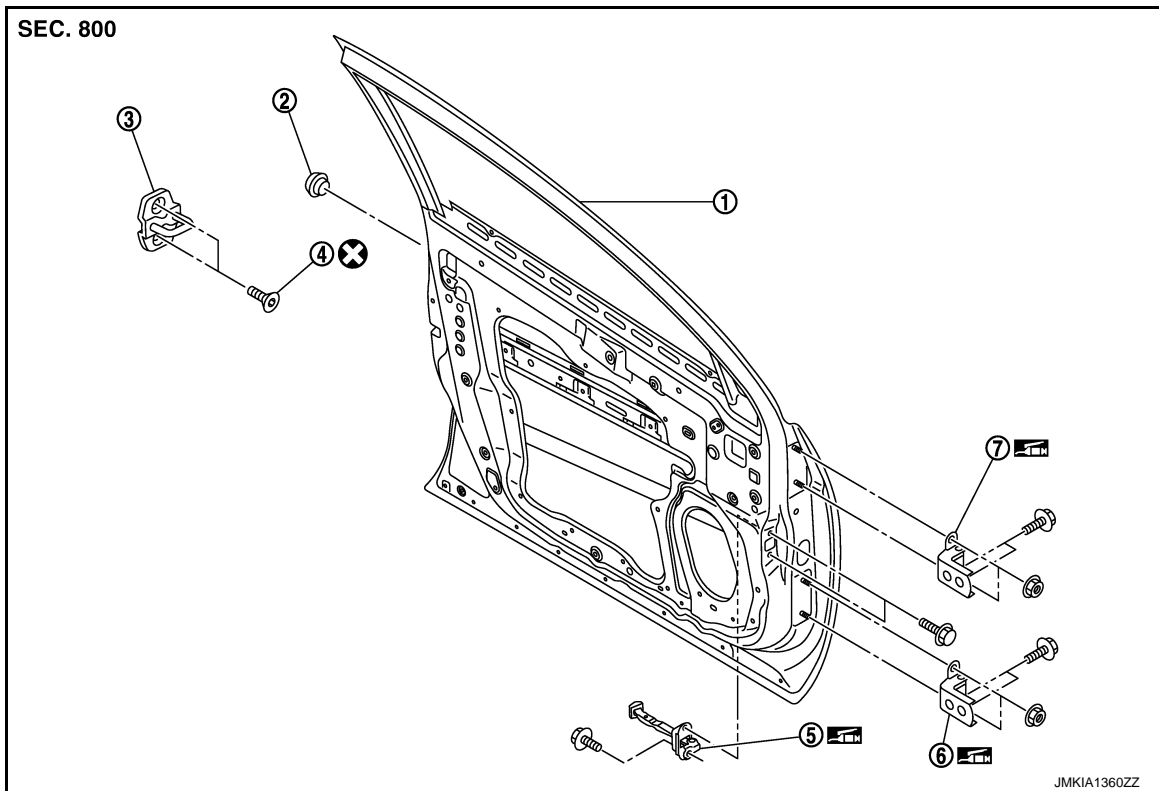
**DOOR STRIKER ADJUSTMENT**

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

**DOOR STRIKER**

**DOOR STRIKER : Exploded View**

INFOID:000000008281944



- |                     |                    |                       |
|---------------------|--------------------|-----------------------|
| 1. Front door panel | 2. Grommet         | 3. Door striker       |
| 4. TORX bolt        | 5. Door check link | 6. Door hinge (lower) |

# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## 7. Door hinge (upper)

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR STRIKER : Removal and Installation

INFOID:000000008281945

### REMOVAL

Remove TORX bolts, and then remove door striker.

### INSTALLATION

Install in the reverse order of removal.

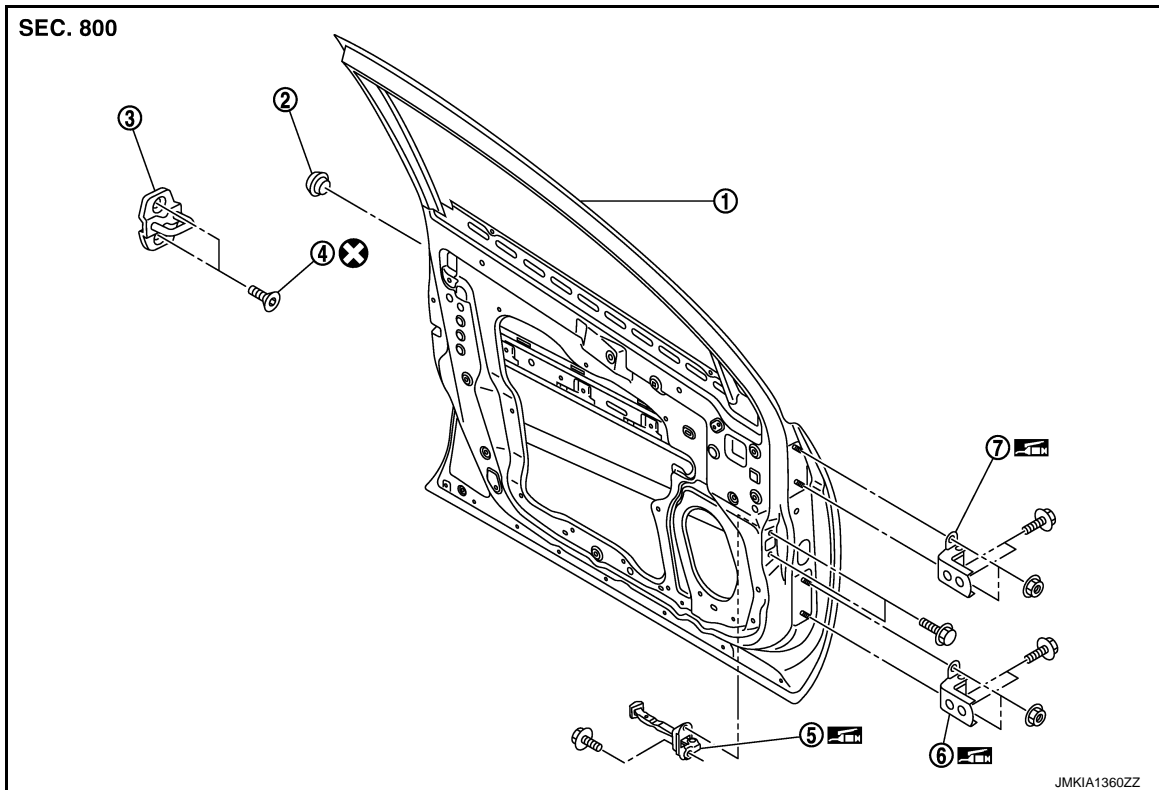
#### CAUTION:

- Check front door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to [DLK-211, "DOOR ASSEMBLY : Adjustment"](#).

## DOOR HINGE

## DOOR HINGE : Exploded View

INFOID:000000008281946



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR HINGE : Removal and Installation

INFOID:000000008281947

### REMOVAL

1. Remove front door assembly. Refer to [DLK-210, "DOOR ASSEMBLY : Removal and Installation"](#).
2. Remove front door hinge mounting bolts, and then remove front door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

DLK

# FRONT DOOR

< REMOVAL AND INSTALLATION >

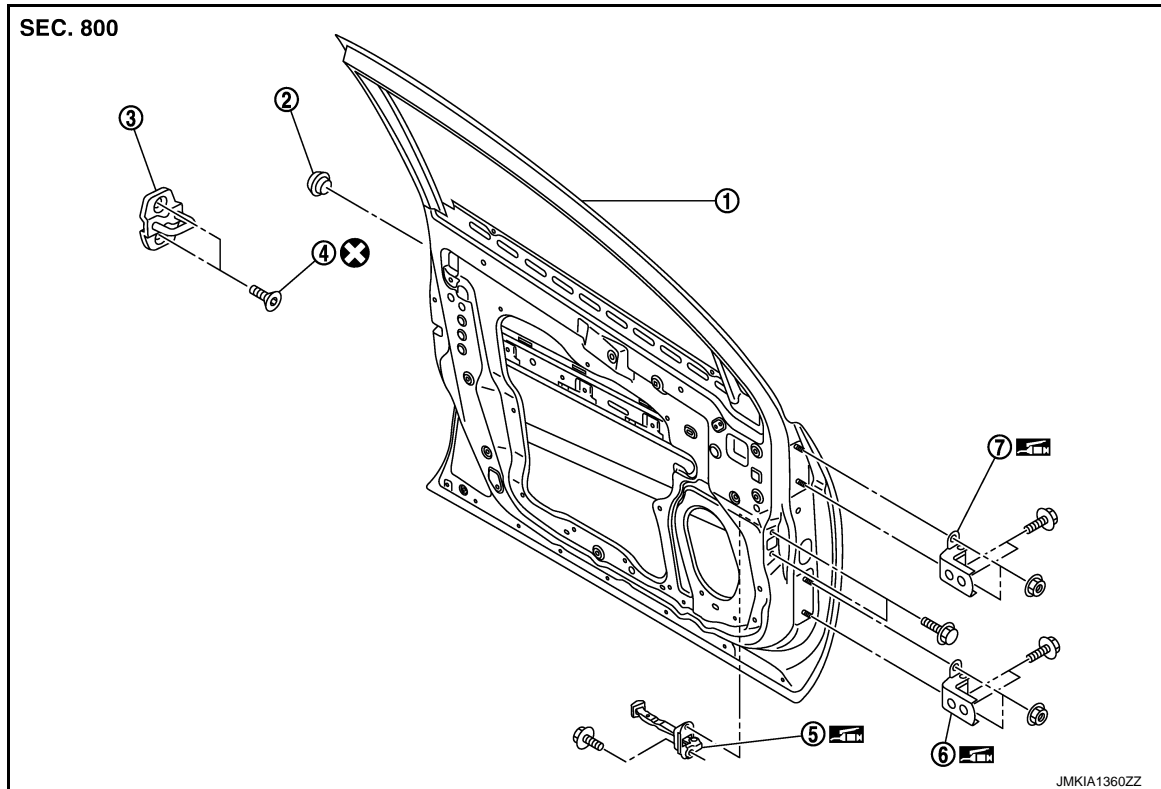
[WITH INTELLIGENT KEY SYSTEM]

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to [DLK-211, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

## DOOR CHECK LINK

### DOOR CHECK LINK : Exploded View

INFOID:000000008281948



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR CHECK LINK : Removal and Installation

INFOID:000000008281949

### REMOVAL

1. Fully close the front door window.
2. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
3. Remove front door speaker.
4. Remove mounting bolts of door check link on the vehicle.
5. Remove mounting bolts of door check link on door panel.
6. Take door check link out from the hole of door panel.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Check front door open/close operation after installation.**

# REAR DOOR

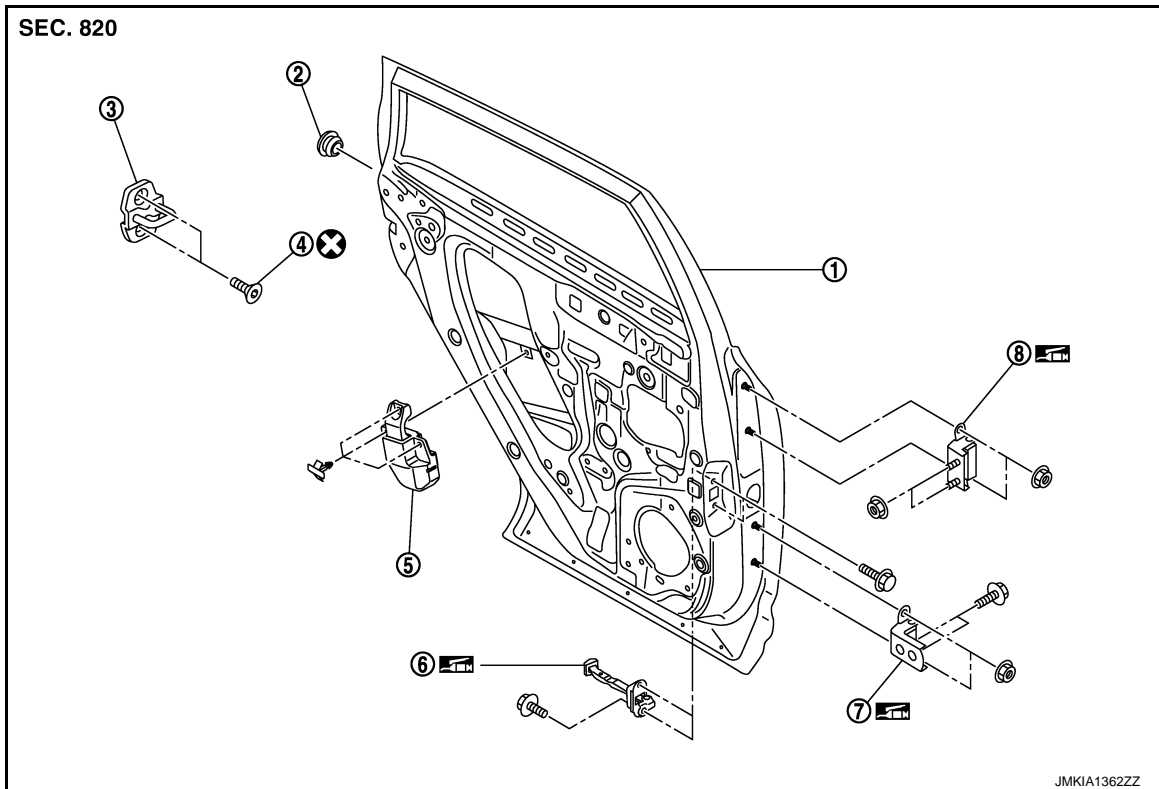
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## REAR DOOR DOOR ASSEMBLY

### DOOR ASSEMBLY : Exploded View

INFOID:000000008281950



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR ASSEMBLY : Removal and Installation

INFOID:000000008281951

#### CAUTION:

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

#### REMOVAL

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

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check rear door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to [DLK-216, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

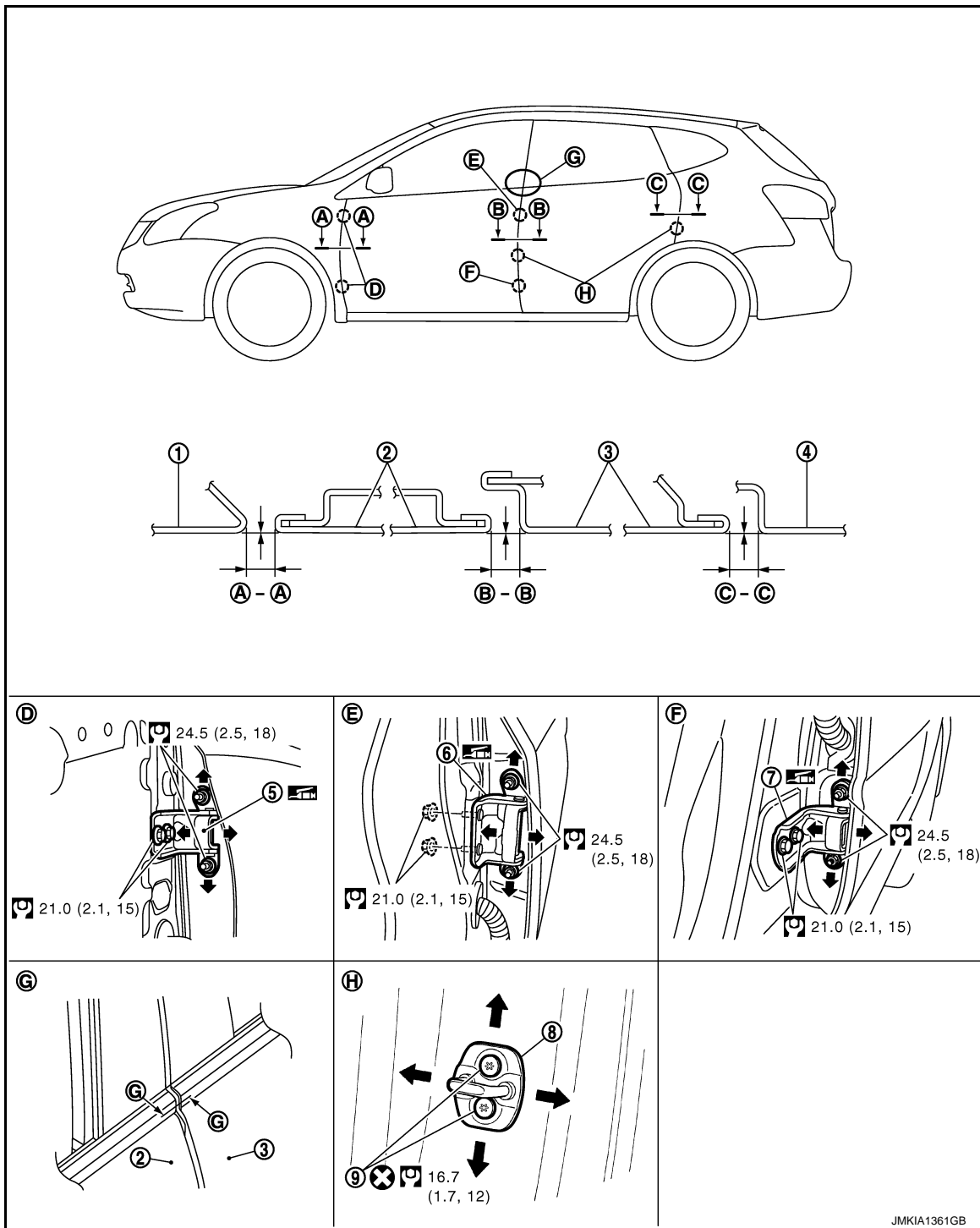
# REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR ASSEMBLY : Adjustment

INFOID:000000008281952



- |                            |                     |                            |
|----------------------------|---------------------|----------------------------|
| 1. Front fender            | 2. Front door       | 3. Rear door               |
| 4. Body side outer         | 5. Front door hinge | 6. Rear door hinge (upper) |
| 7. Rear door hinge (lower) | 8. Door striker     | 9. TORX bolt               |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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



# REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

Unit : 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. Remove center pillar lower garnish. Refer to [INT-18. "Removal and Installation"](#).
2. Loosen door hinge mounting nuts on door side.
3. Adjust the surface height of rear door according to the fitting standard dimension.
4. Temporarily tighten door hinge mounting nuts on door side.
5. Loosen door hinge mounting nuts and bolts on body side.
6. Raise rear door at rear end to adjust clearance of rear door according to the fitting standard dimension.
7. After adjustment tighten bolts and nuts to the specified torque.
8. Install center pillar lower garnish. Refer to [INT-18. "Removal and Installation"](#).

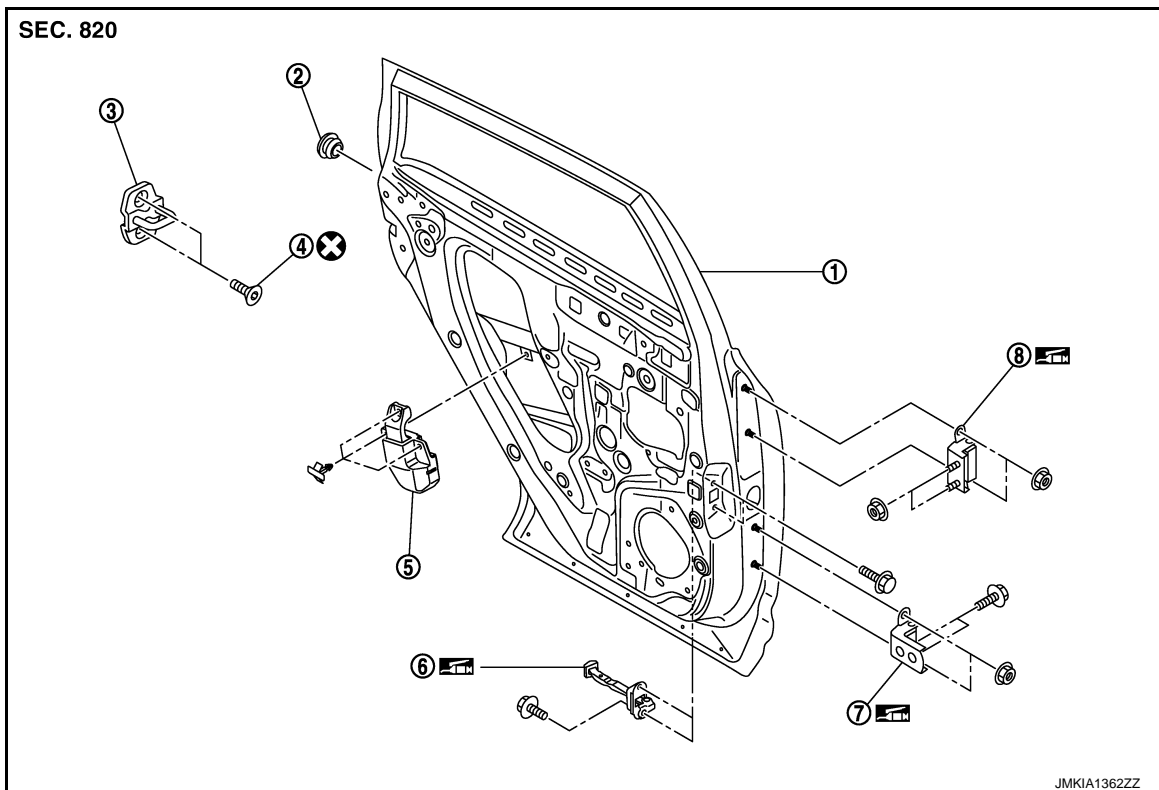
## DOOR STRIKER ADJUSTMENT

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

## DOOR STRIKER

### DOOR STRIKER : Exploded View

INFOID:000000008281953



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

Refer to [GI-4. "Components"](#) for symbols in the figure.

### DOOR STRIKER : Removal and Installation

INFOID:000000008281954

#### REMOVAL

# REAR DOOR

[WITH INTELLIGENT KEY SYSTEM]

## < REMOVAL AND INSTALLATION >

Remove TORX bolts, and then remove door striker.

### INSTALLATION

Install in the reverse order of removal.

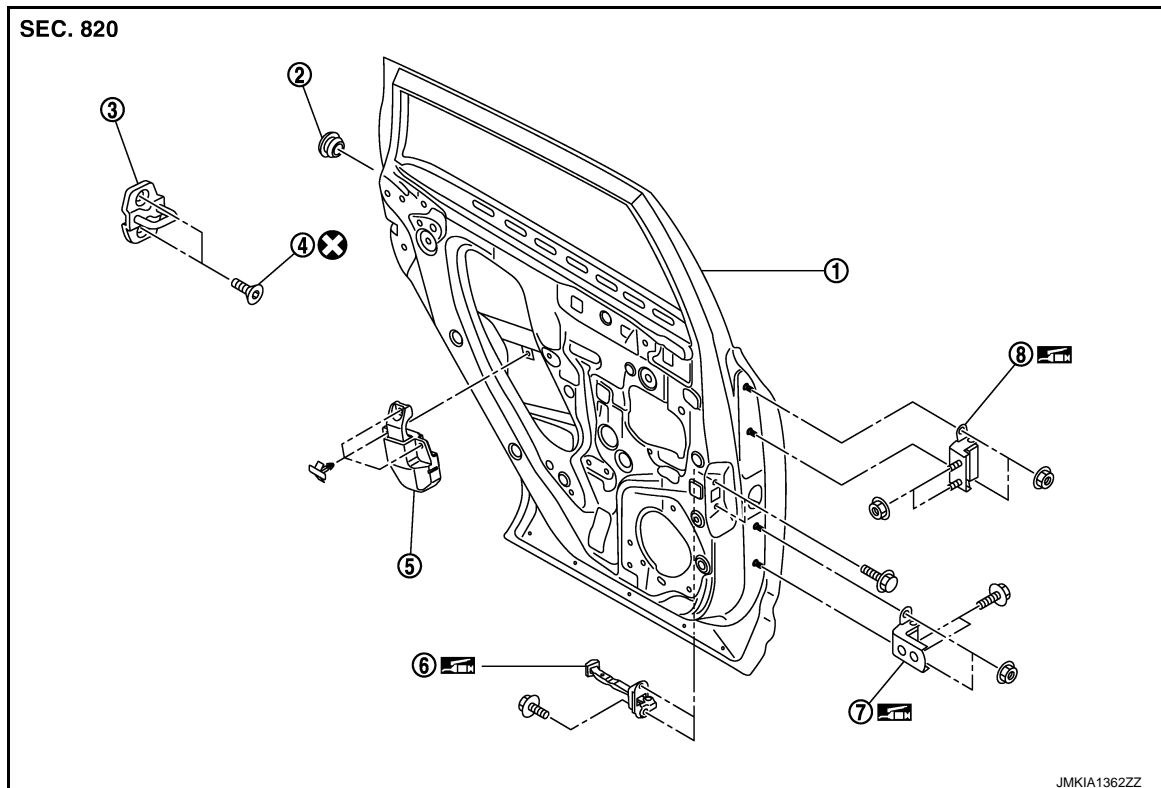
#### CAUTION:

- Check rear door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to [DLK-216, "DOOR ASSEMBLY : Adjustment"](#).

### DOOR HINGE

#### DOOR HINGE : Exploded View

INFOID:000000008281955



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### DOOR HINGE : Removal and Installation

INFOID:000000008281956

### REMOVAL

1. Remove center pillar lower garnish. Refer to [INT-18, "Removal and Installation"](#).
2. Remove rear door assembly. Refer to [DLK-215, "DOOR ASSEMBLY : Removal and Installation"](#).
3. Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check rear door open/close operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing rear door assembly, perform the fitting adjustment. Refer to [DLK-216, "DOOR ASSEMBLY : Adjustment"](#).
- After installing, apply the touch-up paint (the body color) onto the head of door hinge mounting nuts.

# REAR DOOR

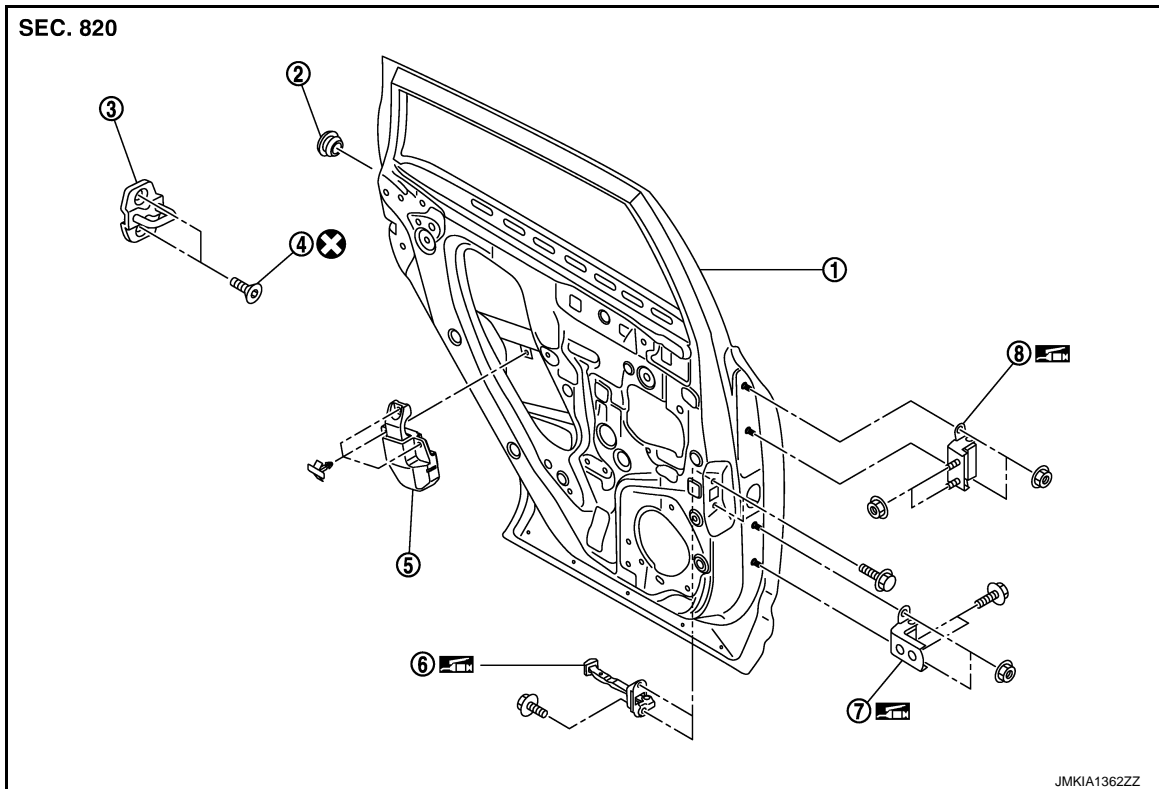
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR CHECK LINK

### DOOR CHECK LINK : Exploded View

INFOID:000000008281957



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR CHECK LINK : Removal and Installation

INFOID:000000008281958

#### REMOVAL

1. Remove rear door finisher. Refer to [INT-15, "REAR DOOR FINISHER : Removal and Installation"](#).
2. Remove rear door speaker.
3. Remove mounting bolts of the check link on the vehicle.
4. Remove mounting bolts of the check link on door panel.
5. Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Check rear door open/close operation after installation.**

# BACK DOOR

< REMOVAL AND INSTALLATION >

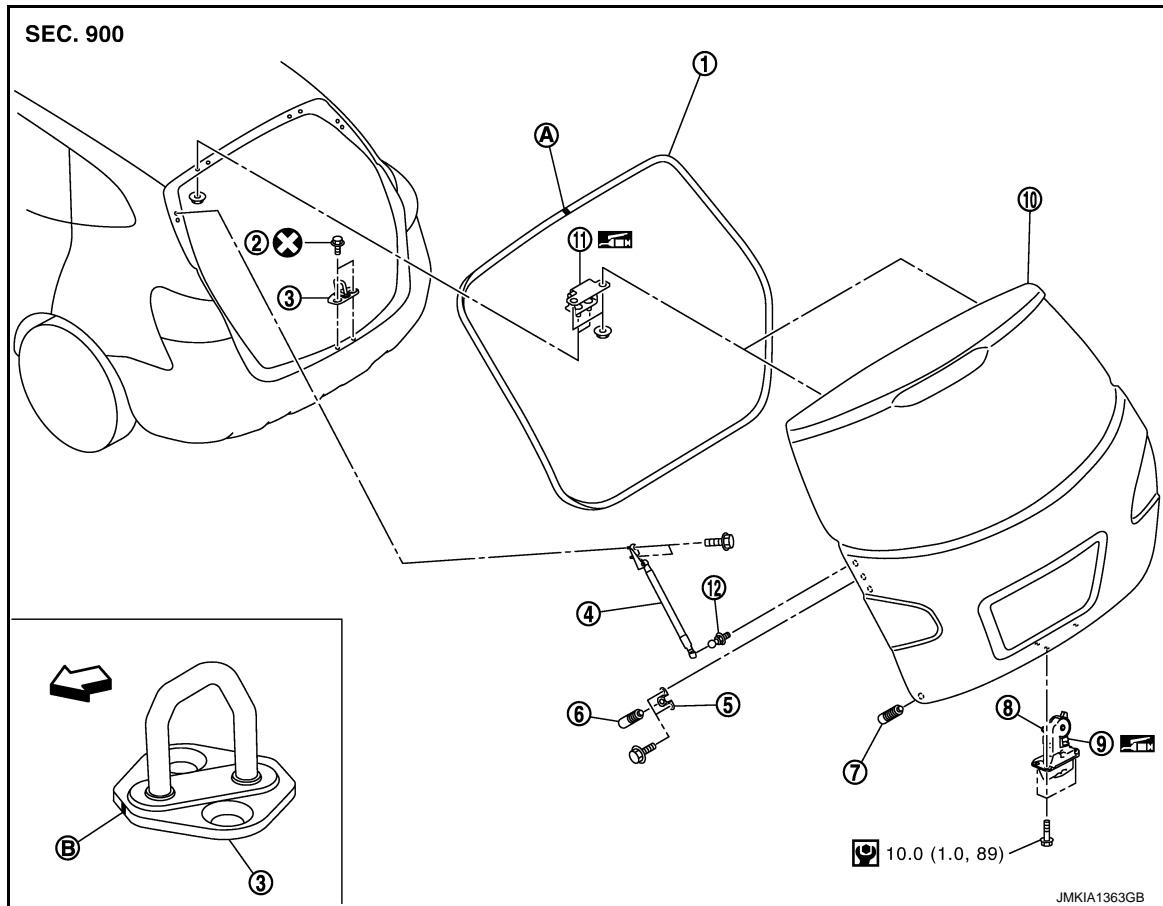
[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR

### BACK DOOR ASSEMBLY

### BACK DOOR ASSEMBLY : Exploded View

INFOID:000000008281959



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark

↔ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR ASSEMBLY : Removal and Installation

INFOID:000000008281960

### REMOVAL

1. Remove back door lower finisher inner, back door upper finisher inner, back door side finisher inner. Refer to [INT-34, "Removal and Installation"](#).
  2. Disconnect connectors in back door, and then remove grommet, and pull out harness.
  3. Remove grommet, and then disconnect connectors, and washer tube.
  4. Pull harness and washer tube out of back door.
  5. Support back door lock with the proper material to prevent it from falling.
  6. Remove back door stay. Refer to [DLK-225, "BACK DOOR STAY : Removal and Installation"](#).
- CAUTION:**  
**Perform work with 2 workers, because of its heavy weight.**
7. Remove back door hinge mounting nuts on back door and remove back door assembly.

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INSTALLATION

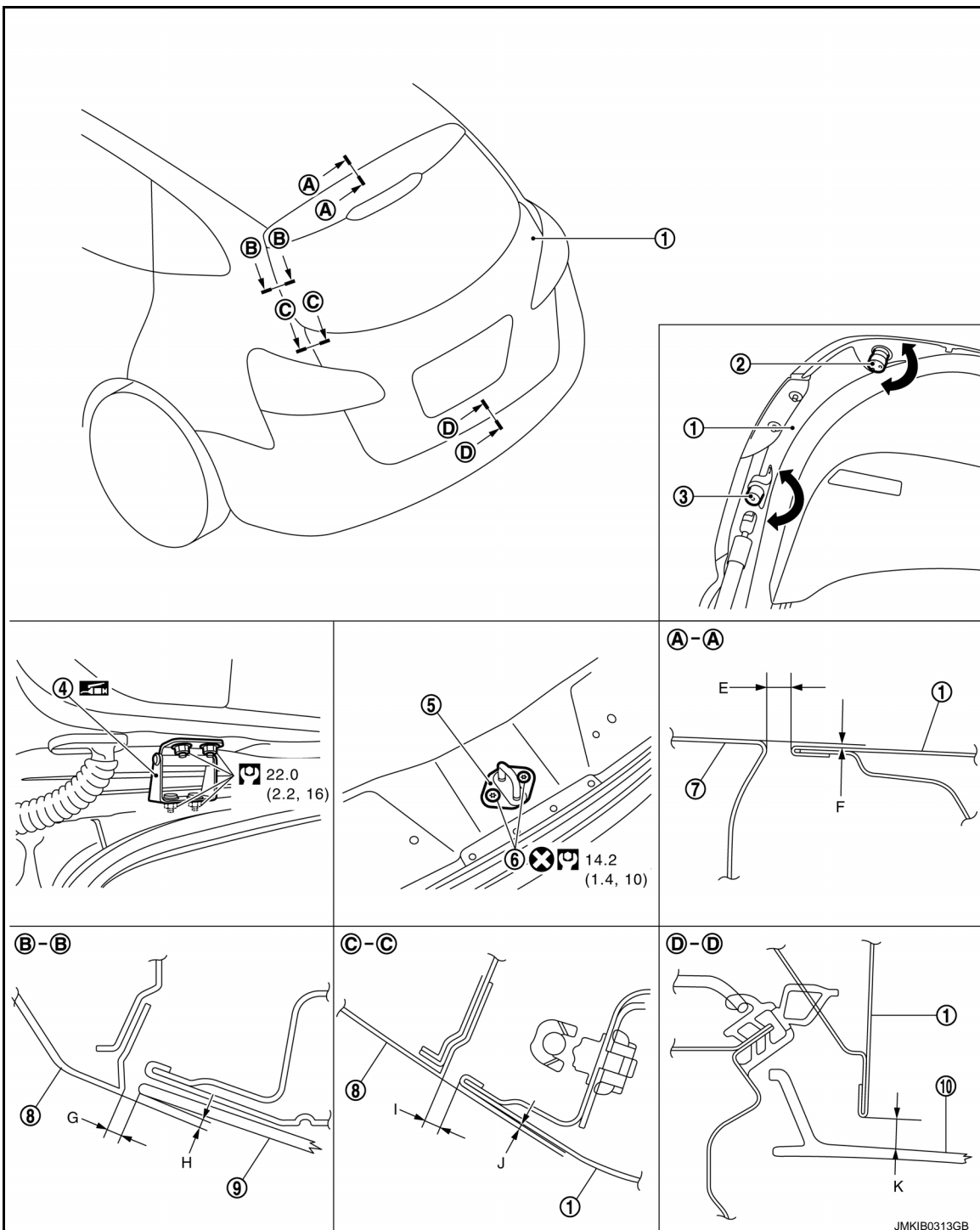
Install in the reverse order of removal.

### CAUTION:

- Check back door open/close, lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to [DLK-221, "BACK DOOR ASSEMBLY : Adjustment"](#).

## BACK DOOR ASSEMBLY : Adjustment

INFOID:000000008281961



1. Back door assembly
4. Back door hinge

2. Bumper rubber lower
5. Back door striker

3. Bumper rubber side
6. TORX bolt

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
DLK  
L  
M  
N  
O  
P

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- 7. Roof
- 8. Body side outer
- 9. Back door glass
- 10. Rear bumper

Refer to [GI-4. "Components"](#) for symbols in the figure.

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

Unit: mm (in)

Portion			Standard	
Back door – Roof	A – A	E	Clearance	4.3 – 6.8 (0.169 – 0.268)
		F	Surface height	-2.0 – 0.5 (-0.079 – 0.020)
Back door glass – Body side outer	B – B	G	Clearance	2.7 – 7.3 (0.106 – 0.287)
		H	Surface height	0.4 – 4.1 (0.016 – 0.161)
Back door – Body side outer	C – C	I	Clearance	4.1 – 6.1 (0.161 – 0.240)
		J	Surface height	-0.2 – 1.8 (-0.008 – 0.071)
Back door – Rear bumper	D – D	K	Clearance	5.9 – 9.9 (0.232 – 0.390)

1. Loosen bumper rubber.
2. Loosen back door striker mounting bolts.
3. Lift up back door approximately 100 – 150 mm (3.937 – 5.906 in) height then close it lightly and check that it is engaged firmly with back door closed.
4. Check the clearance and surface height.
5. Finally tighten back door striker.

**CAUTION:**

After door adjustment, perform the camera image calibration.

- **DISPLAY AUDIO:** Refer to [AV-160. "Adjustment"](#).
- **BOSE AUDIO WITH NAVIGATION:** Refer to [AV-270. "Work Procedure"](#).

**BACK DOOR STRIKER ADJUSTMENT**

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

**BACK DOOR STRIKER**

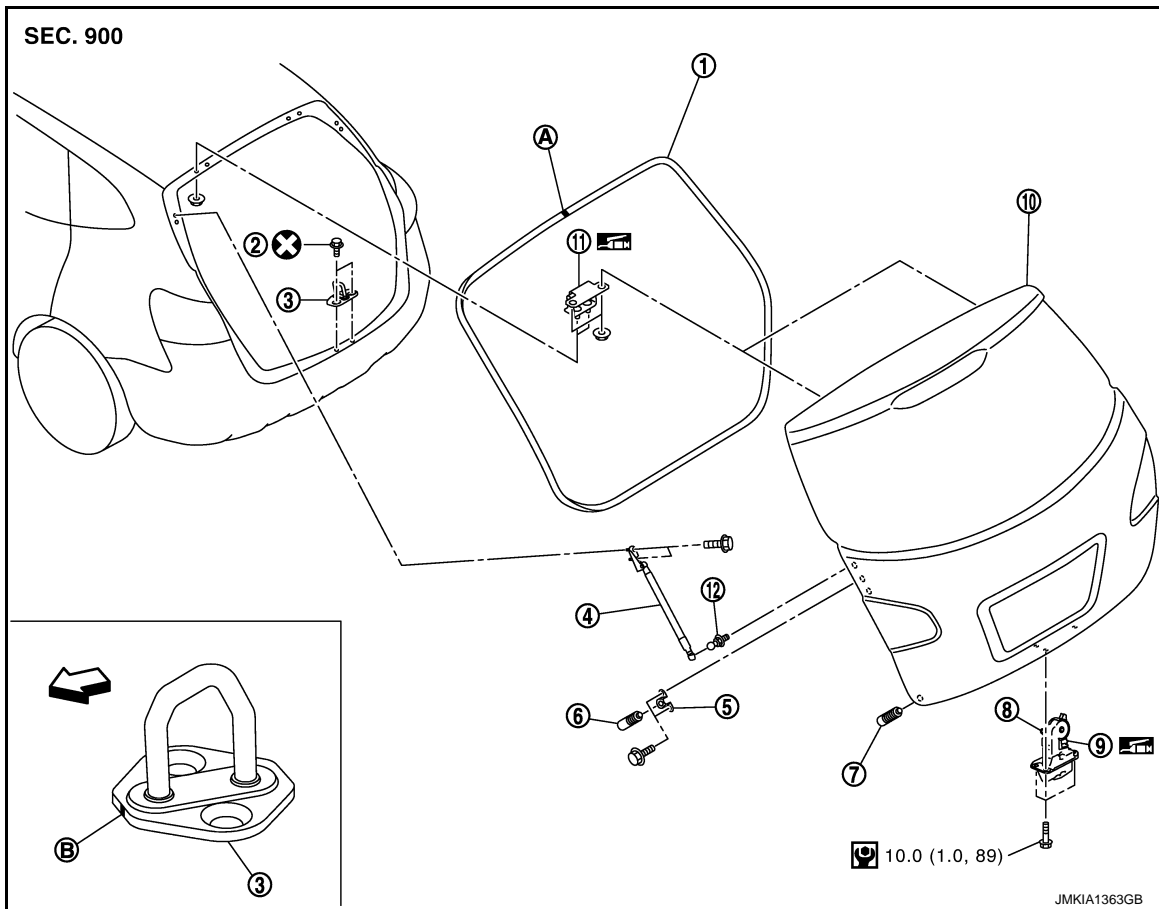
# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR STRIKER : Exploded View

INFOID:000000008281962



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark

← : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR STRIKER : Removal and Installation

INFOID:000000008281963

### REMOVAL

Remove TORX bolts, and then remove back door striker.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check back door open/close operation after installation.
- When removing and installing back door striker, be sure to perform the fitting adjustment. Refer to [DLK-221, "BACK DOOR ASSEMBLY : Adjustment"](#).

## BACK DOOR HINGE

A  
B  
C  
D  
E  
F  
G  
H  
I  
J

DLK

L

M

N

O

P

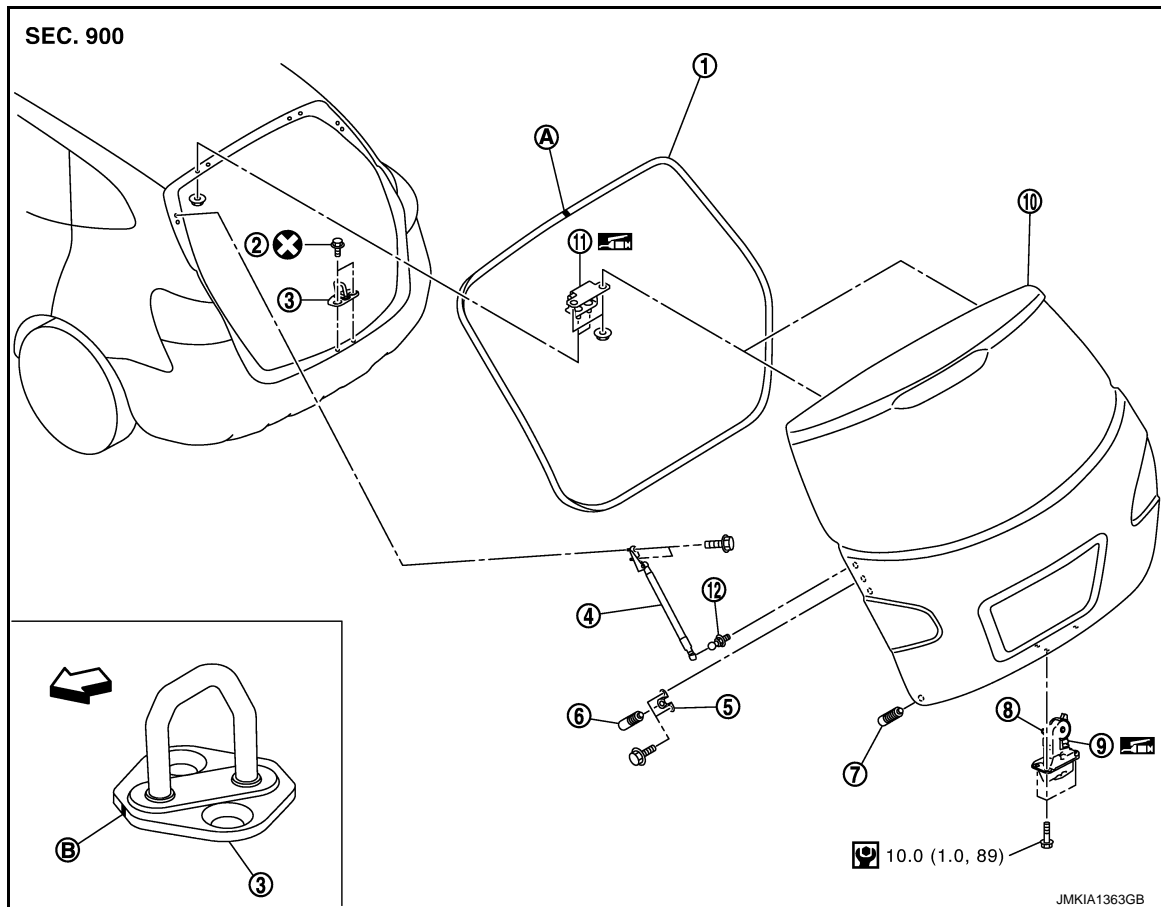
# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR HINGE : Exploded View

INFOID:000000008281964



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark  
↶ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR HINGE : Removal and Installation

INFOID:000000008281965

### REMOVAL

1. Remove back door assembly. Refer to [DLK-220, "BACK DOOR ASSEMBLY : Removal and Installation"](#).
2. Remove back door weather-strip. Refer to [DLK-227, "BACK DOOR WEATHER-STRIP : Removal and Installation"](#).
3. Remove luggage side lower finisher and luggage side upper finisher. Refer to [INT-32, "Removal and Installation"](#).
4. Using remover tool, remove headlining clip at the rear side of headlining and then remove rear side of headlining.. Refer to [INT-24, "NORMAL ROOF : Removal and Installation"](#) (NORMAL ROOF), [INT-27, "SUNROOF : Removal and Installation"](#) (SUNROOF).
5. Remove back door hinge mounting nuts (body side), and then remove back door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check back door open/close operation after installation.



# BACK DOOR

< REMOVAL AND INSTALLATION >

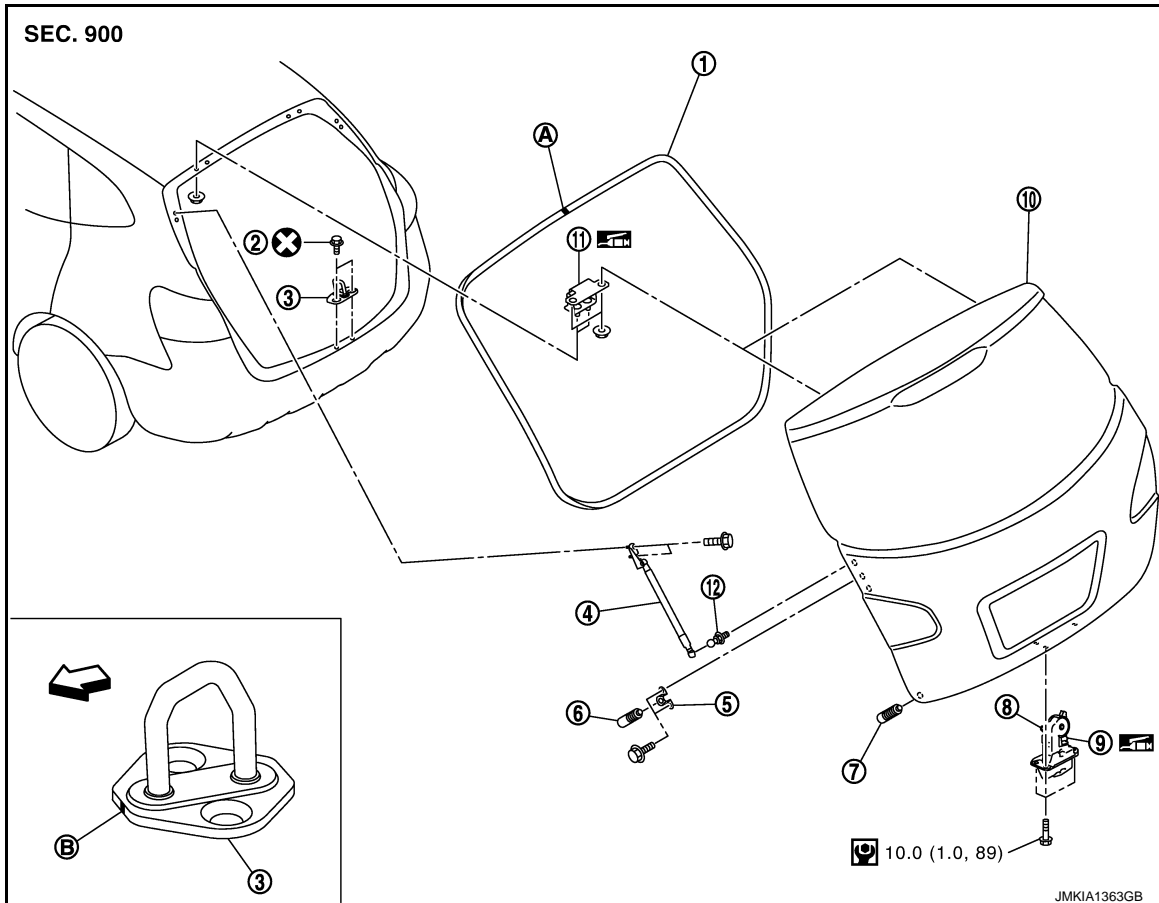
[WITH INTELLIGENT KEY SYSTEM]

- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing back door assembly, perform the fitting adjustment. Refer to [DLK-221, "BACK DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

## BACK DOOR STAY

### BACK DOOR STAY : Exploded View

INFOID:000000008281966



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
| A : Center mark            | B : Front mark           |                              |

↔ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

### BACK DOOR STAY : Removal and Installation

INFOID:000000008281967

#### REMOVAL

1. Remove mounting bolts (body side), and then remove back door stay bracket.
2. Remove stud ball (back door side), and then remove back door stay.

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

Check back door open/close operation after installation.

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

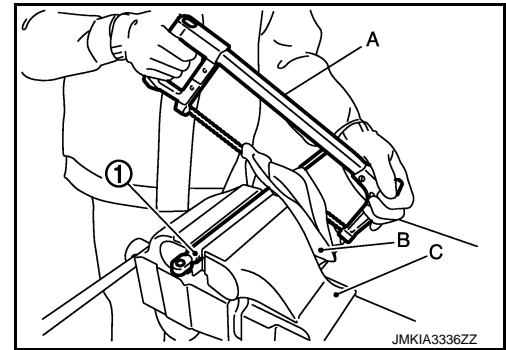
## BACK DOOR STAY : Disposal

INFOID:000000008281968

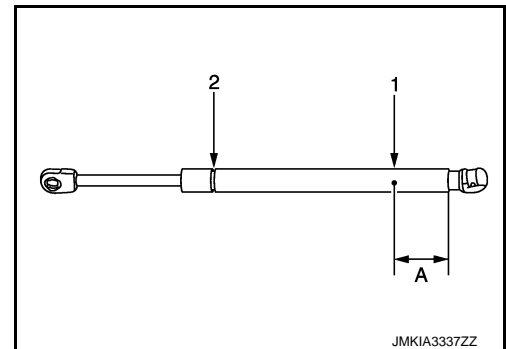
1. Fix gas stay (1) using a vise (C).
2. Slowly make 2 holes, in numerical order as shown in the figure, on gas stay using a hacksaw (A).

### CAUTION:

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



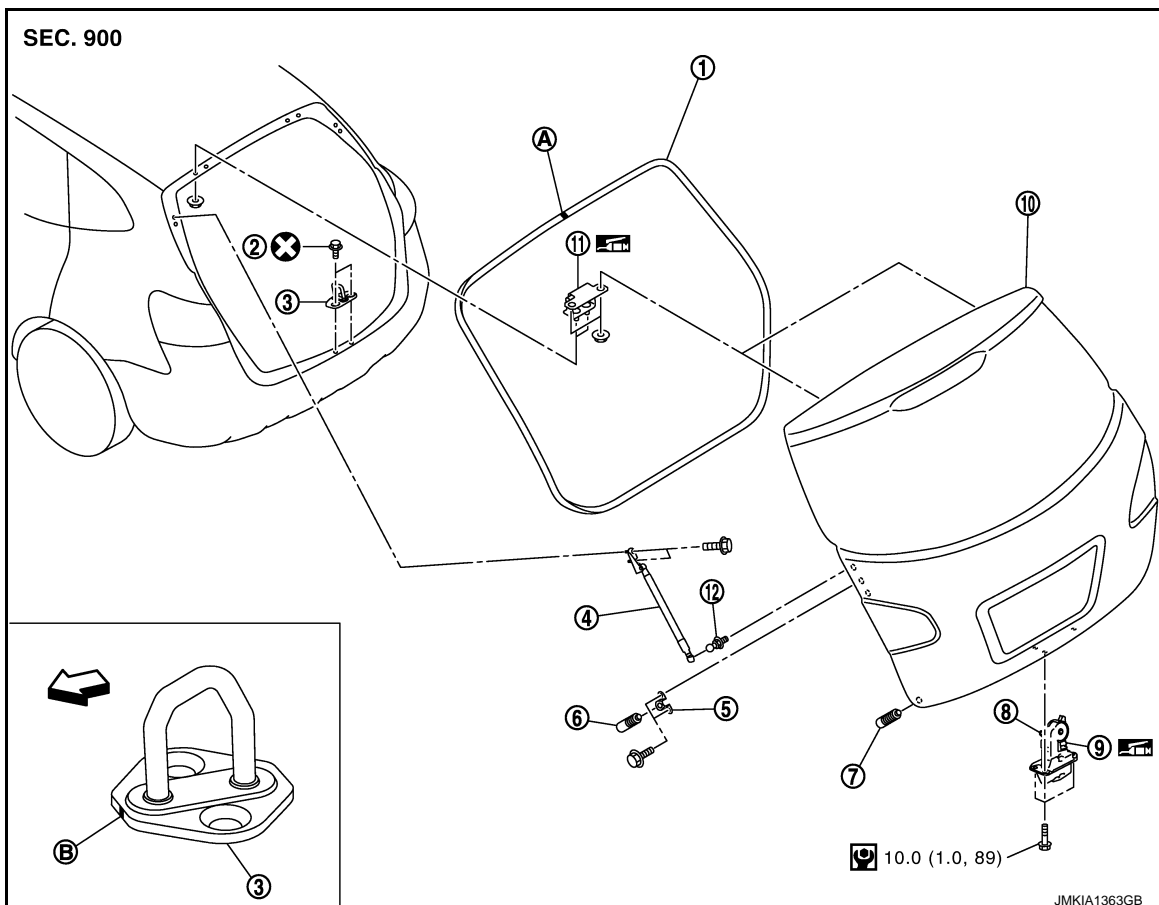
A : 20 mm (0.787 in)



## BACK DOOR WEATHER-STRIP

### BACK DOOR WEATHER-STRIP : Exploded View

INFOID:000000008281969



# BACK DOOR

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

- |                            |                          |                              |   |
|----------------------------|--------------------------|------------------------------|---|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         | A |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |   |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball | B |
| A : Center mark            | B : Front mark           |                              |   |

↶ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR WEATHER-STRIP : Removal and Installation

INFOID:000000008281970

### REMOVAL

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

#### **CAUTION:**

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

### INSTALLATION

1. Working from the upper section, align weather-strip mark with vehicle center position mark and install weather-strip onto the vehicle.
2. For the lower section, align weather-strip seam with center of back door striker.
3. After installation, pull weather-strip gently to ensure that there is no loose section.

#### **NOTE:**

Make sure that weather-strip is fit tightly at each corner and luggage rear plate.

DLK

# FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

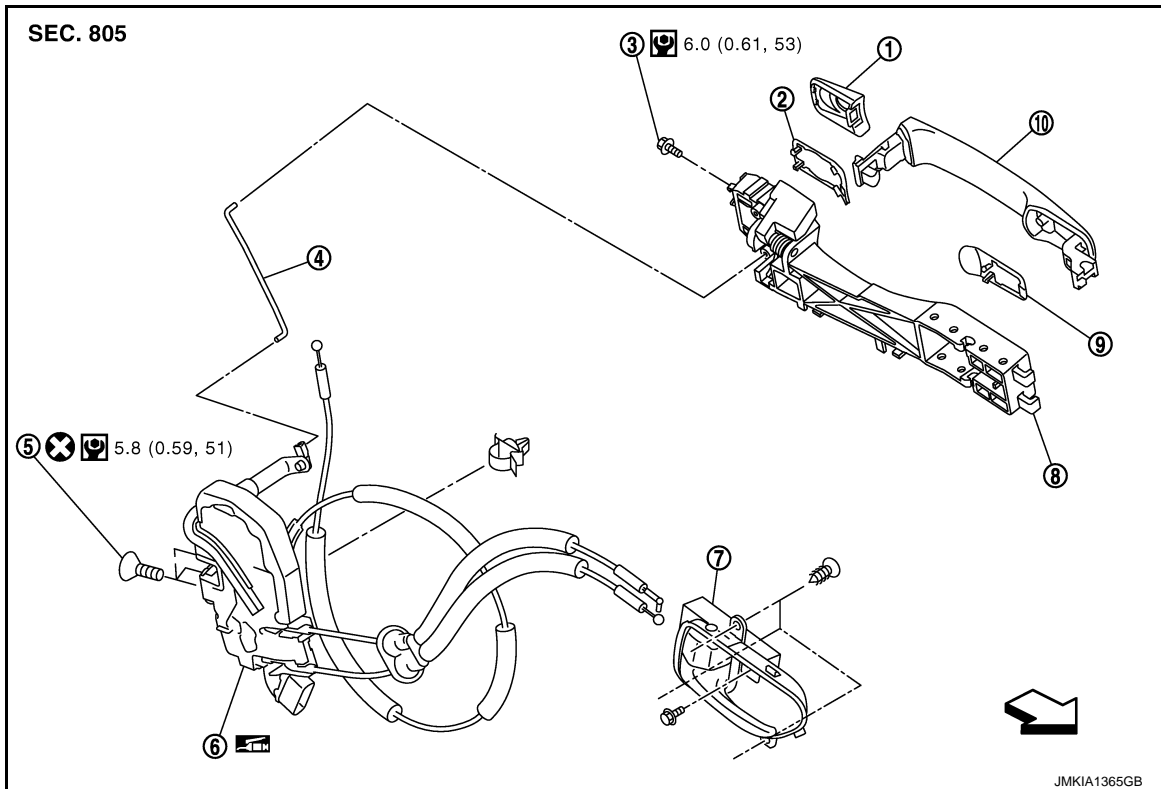
[WITH INTELLIGENT KEY SYSTEM]

## FRONT DOOR LOCK

### DOOR LOCK

### DOOR LOCK : Exploded View

INFOID:000000008281971



- |   |                           |                       |
|---|---------------------------|-----------------------|
| 1. Door key cylinder assembly (driver side) | 2. Rear gasket            | 3. TORX bolt          |
| Outside handle escutcheon (passenger side)  |                           |                       |
| 4. Key rod (driver side only)               | 5. TORX bolt              | 6. Door lock assembly |
| 7. Inside handle                            | 8. Outside handle bracket | 9. Front gasket       |
| 10. Outside handle assembly                 |                           |                       |

↔ : Vehicle front

Refer to [GI-4. "Components"](#) for symbols in the figure.

## DOOR LOCK : Removal and Installation

INFOID:000000008281972

### REMOVAL

1. Remove front door finisher. Refer to [INT-12. "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove front door glass. Refer to [GW-20. "Removal and Installation"](#).
4. Remove front door module assembly. Refer to [GW-23. "Removal and Installation"](#).
5. Disconnect door antenna and door request switch connector and remove harness clamp (models with Intelligent Key system) on outside handle bracket.

# FRONT DOOR LOCK

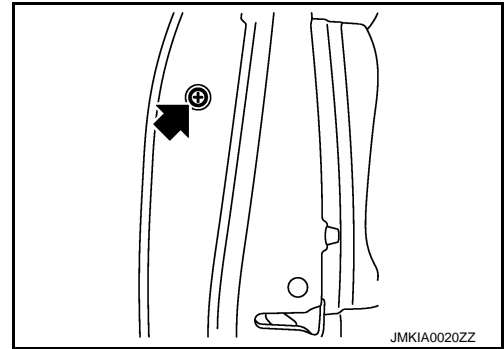
## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

6. Remove door side grommet, and loosen TORX bolt from grommet hole.

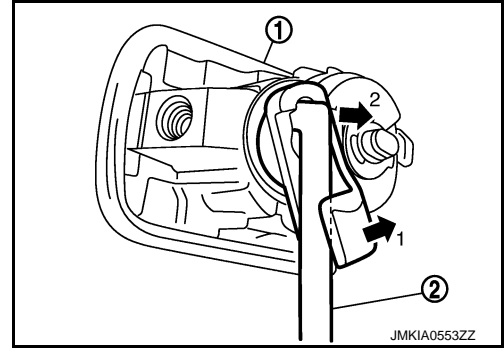
**CAUTION:**

**Never forcibly remove TORX bolt.**

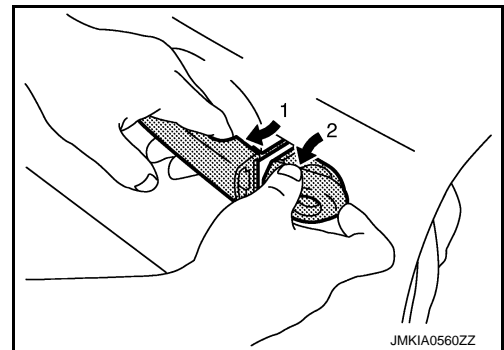


7. Reach in to separate door key cylinder rod connection (on the handle) (driver side).

1. Door key cylinder assembly
2. Key rod

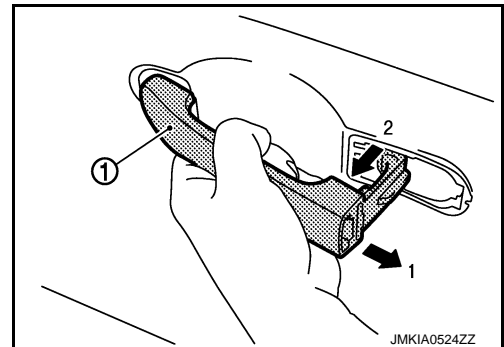


8. While pulling outside handle, remove door key cylinder assembly.



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.



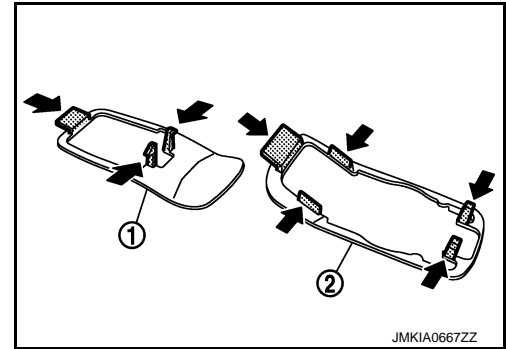
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## FRONT DOOR LOCK

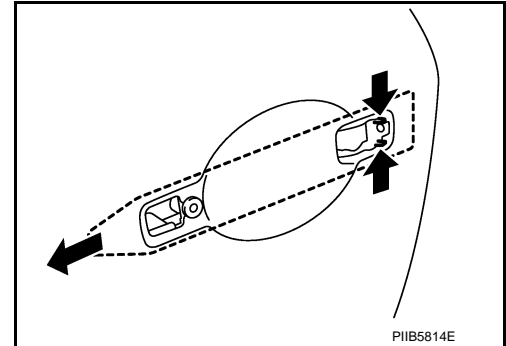
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

11. Remove front gasket (1) and rear gasket (2).



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



13. Reach in to separate outside handle cable connection on outside handle bracket.

14. Remove door lock assembly TORX bolts.

15. Disconnect door lock actuator connector, and then remove door lock assembly.

16. Remove key rod from door lock assembly.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

### INSIDE HANDLE

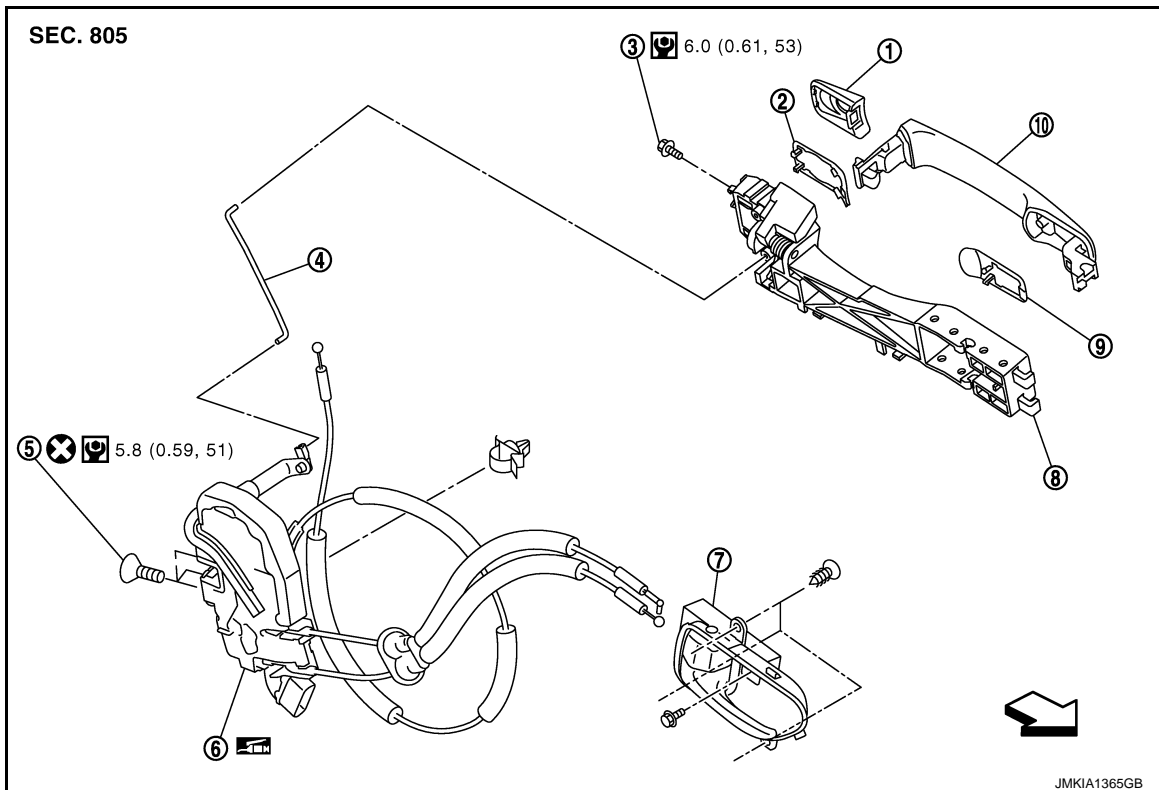
# FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INSIDE HANDLE : Exploded View

INFOID:000000008281973



- |   |                           |                       |
|---|---------------------------|-----------------------|
| 1. Door key cylinder assembly (driver side)<br>Outside handle escutcheon (passenger side) | 2. Rear gasket            | 3. TORX bolt          |
| 4. Key rod (driver side only)   | 5. TORX bolt              | 6. Door lock assembly |
| 7. Inside handle  | 8. Outside handle bracket | 9. Front gasket       |
| 10. Outside handle assembly   |                           |                       |

← : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## INSIDE HANDLE : Removal and Installation

INFOID:000000008281974

### REMOVAL

1. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Remove inside handle mounting screws.
3. Disconnect inside handle cable, and then remove the inside handle.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

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

## OUTSIDE HANDLE

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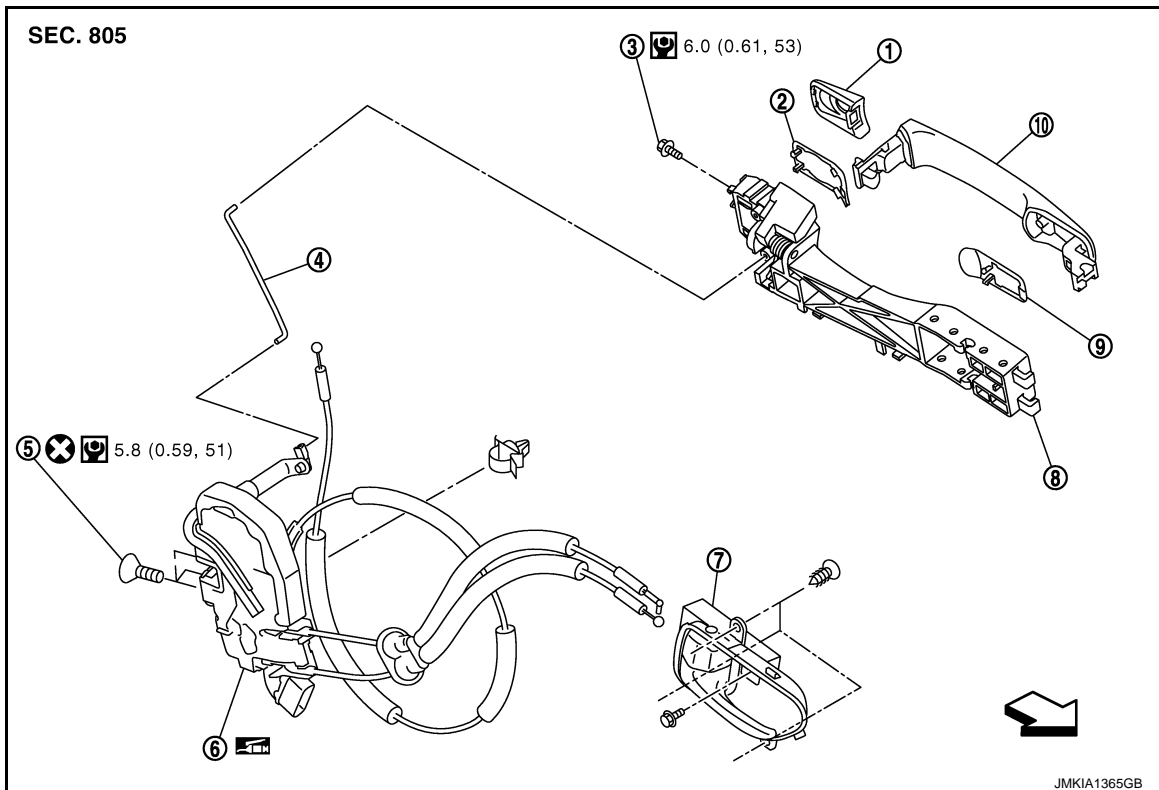
# FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## OUTSIDE HANDLE : Exploded View

INFOID:000000008281975



- |   |                           |                       |
|---|---------------------------|-----------------------|
| 1. Door key cylinder assembly (driver side)<br>Outside handle escutcheon (passenger side) | 2. Rear gasket            | 3. TORX bolt          |
| 4. Key rod (driver side only)   | 5. TORX bolt              | 6. Door lock assembly |
| 7. Inside handle  | 8. Outside handle bracket | 9. Front gasket       |
| 10. Outside handle assembly   |                           |                       |

↔ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## OUTSIDE HANDLE : Removal and Installation

INFOID:000000008281976

### REMOVAL

1. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove front door glass. Refer to [GW-20, "Removal and Installation"](#).
4. Remove front door module assembly. Refer to [GW-23, "Removal and Installation"](#).
5. Disconnect door antenna and door request switch connector and remove harness clamp (models with Intelligent Key system) on outside handle bracket.



# FRONT DOOR LOCK

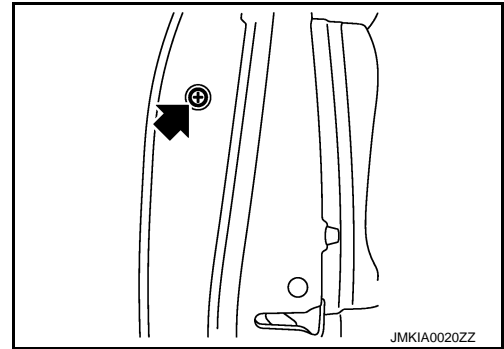
## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

6. Remove door side grommet, and loosen TORX bolt from grommet hole.

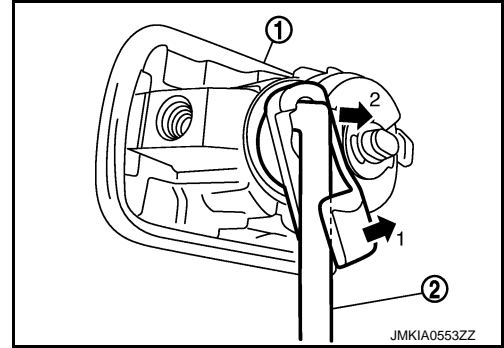
**CAUTION:**

**Never forcibly remove TORX bolt.**

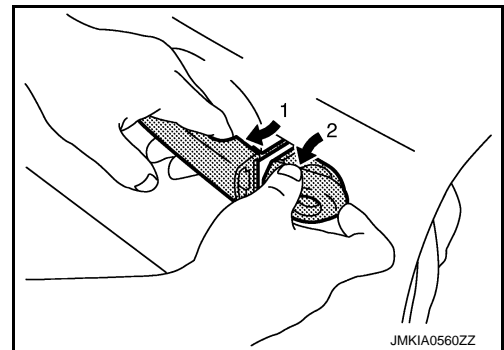


7. Reach in to separate door key cylinder rod connection (on the handle) (driver side).

1. Door key cylinder assembly
2. Key rod

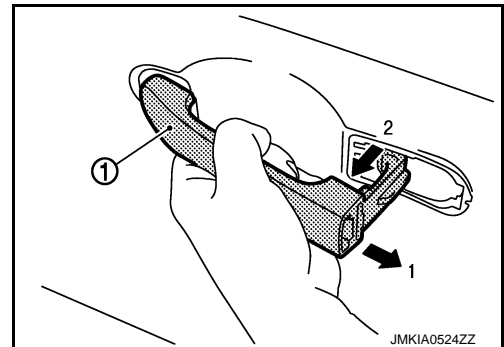


8. While pulling outside handle, remove door key cylinder assembly.



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.



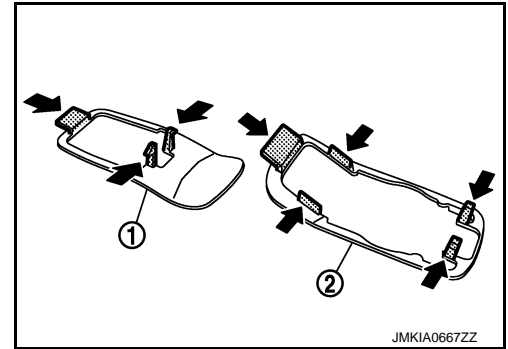
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## FRONT DOOR LOCK

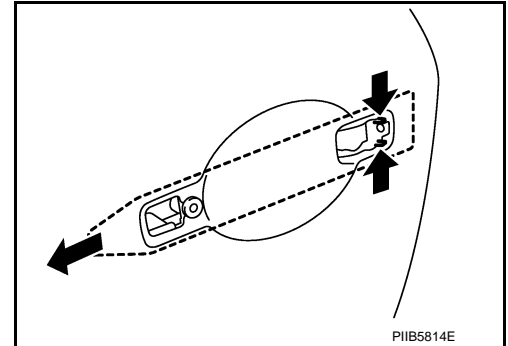
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

11. Remove front gasket (1) and rear gasket (2).



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



13. Reach in to separate outside handle cable connection on outside handle bracket.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

# REAR DOOR LOCK

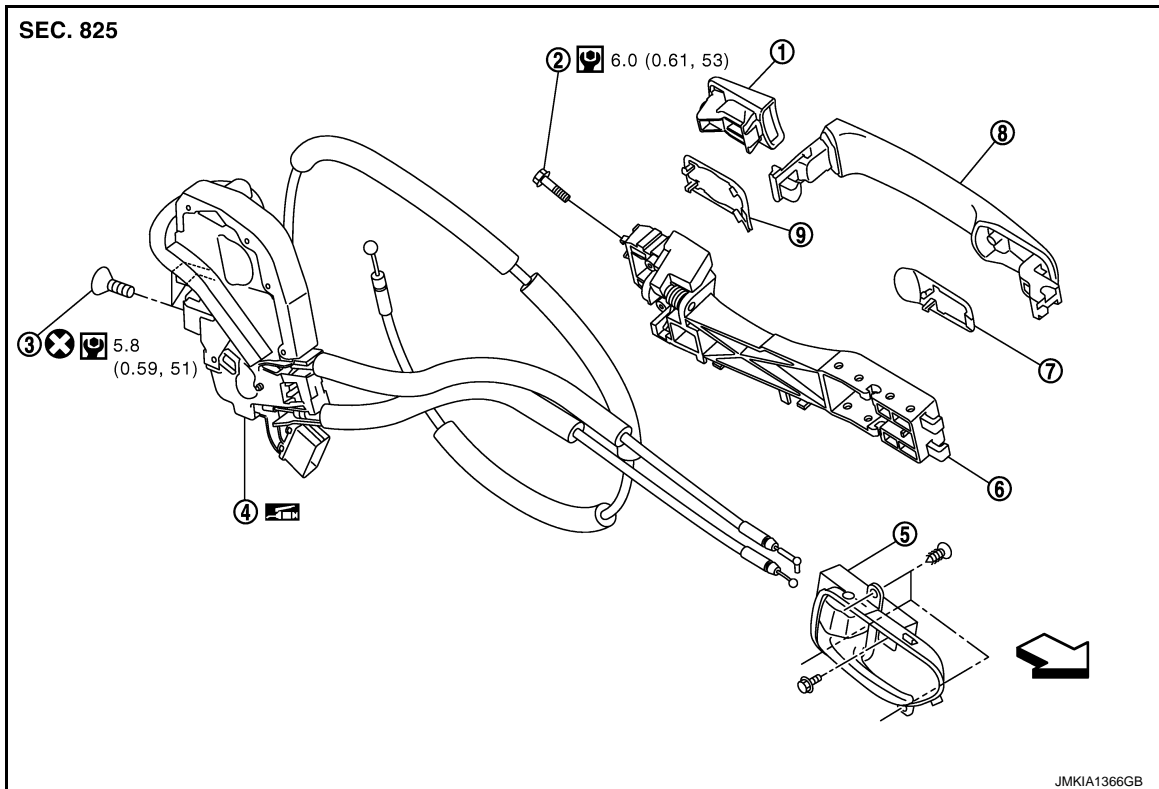
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## REAR DOOR LOCK DOOR LOCK

### DOOR LOCK : Exploded View

INFOID:000000008281977



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

← : Vehicle front

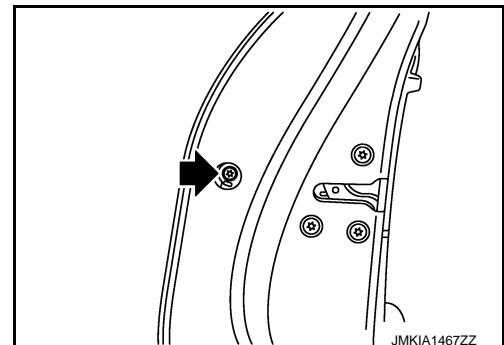
Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR LOCK : Removal and Installation

INFOID:000000008281978

#### REMOVAL

1. Remove rear door finisher. Refer to [INT-15, "REAR DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove rear door glass. Refer to [GW-26, "Removal and Installation"](#).
4. Remove door side grommet, and loosen TORX bolt from grommet hole.

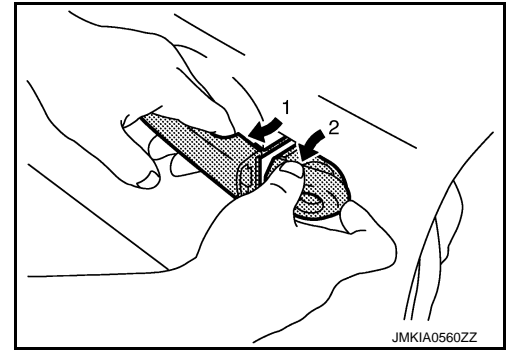


# REAR DOOR LOCK

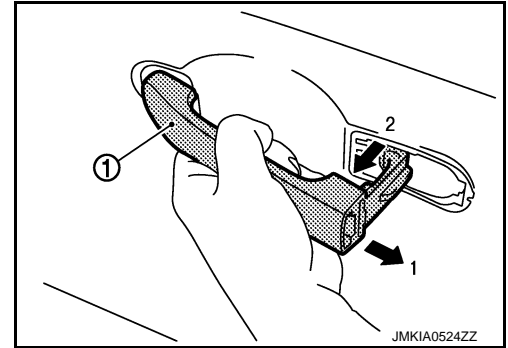
## < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

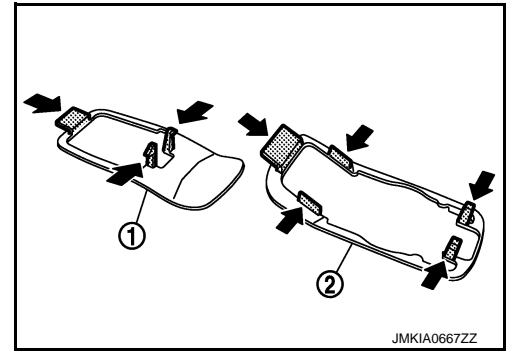
5. While pulling outside handle, remove outside handle escutcheon.



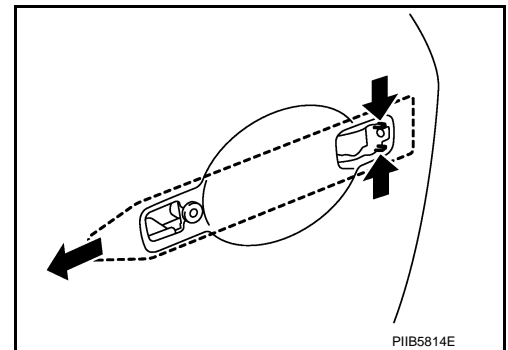
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



7. Remove front gasket (1) and rear gasket (2).



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



9. Reach in to separate outside handle cable connection on outside handle bracket.  
10. Disconnect harness connector on door lock actuator.  
11. Remove door lock mounting bolts.  
12. Remove door lock assembly.

## INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

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

## INSIDE HANDLE

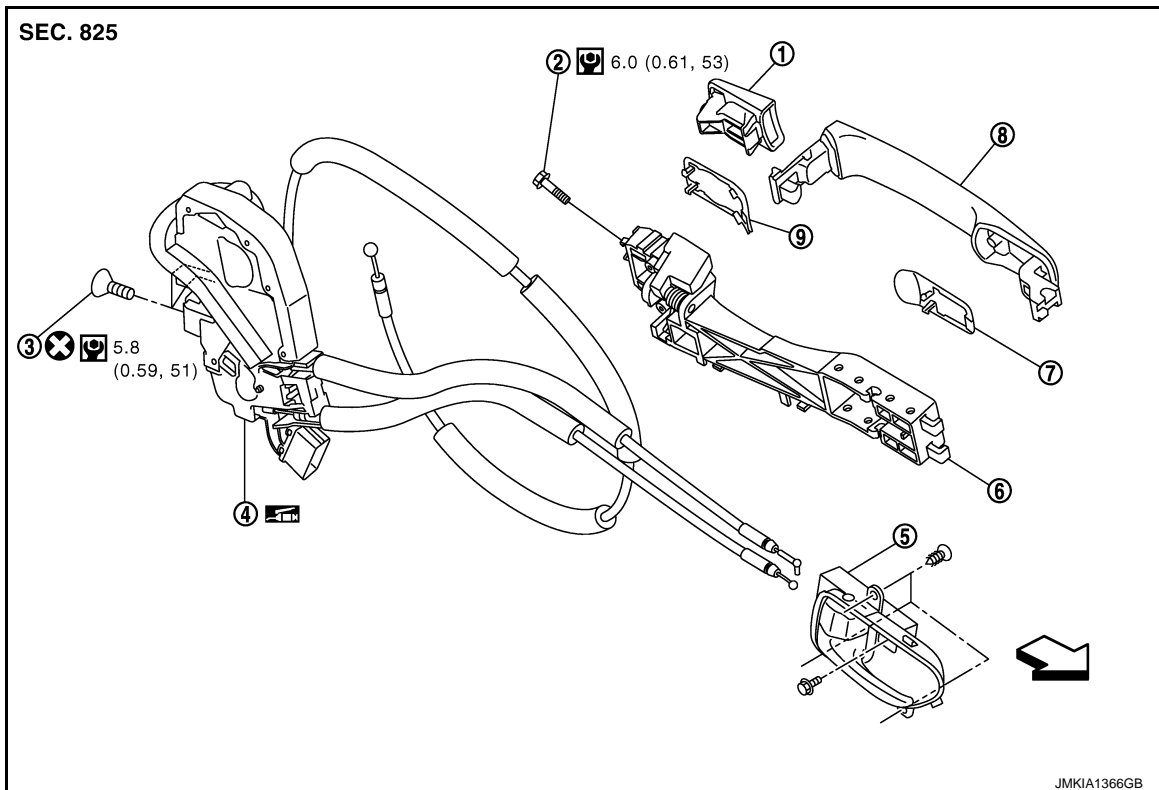
# REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INSIDE HANDLE : Exploded View

INFOID:000000008281979



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

← : Vehicle front

Refer to [GI-4. "Components"](#) for symbols in the figure.

## INSIDE HANDLE : Removal and Installation

INFOID:000000008281980

### REMOVAL

1. Remove rear door finisher. Refer to [INT-15. "REAR DOOR FINISHER : Removal and Installation"](#).
2. Remove inside handle mounting screws.
3. Disconnect inside handle cable, and then remove inside handle.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

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

## OUTSIDE HANDLE

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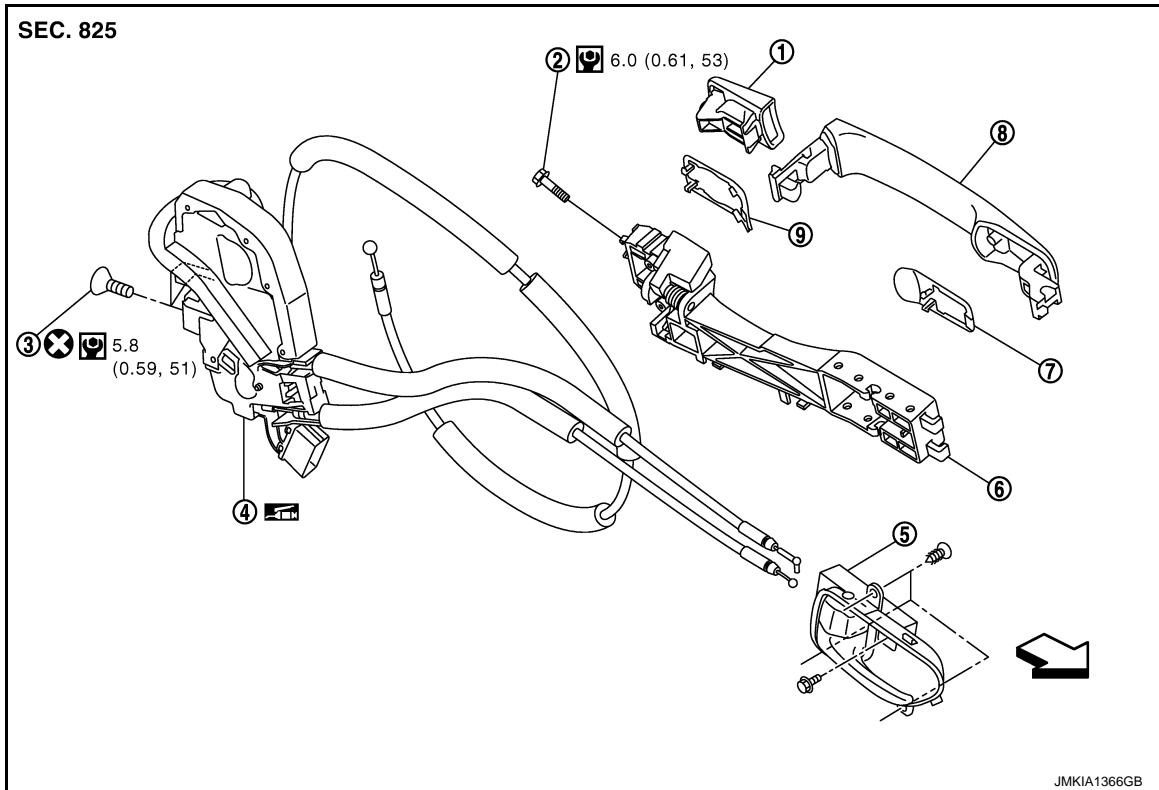
# REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## OUTSIDE HANDLE : Exploded View

INFOID:000000008281981



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

↔ : Vehicle front

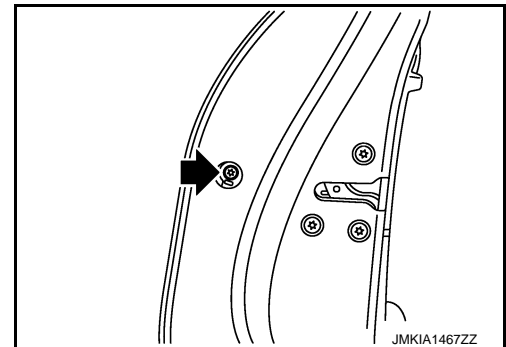
Refer to [GI-4. "Components"](#) for symbols in the figure.

## OUTSIDE HANDLE : Removal and Installation

INFOID:000000008281982

### REMOVAL

1. Remove rear door finisher. Refer to [INT-15. "REAR DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove rear door glass. Refer to [GW-26. "Removal and Installation"](#).
4. Remove door side grommet, and loosen TORX bolt from grommet hole.

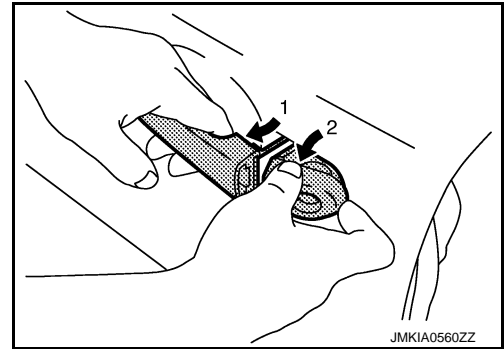


# REAR DOOR LOCK

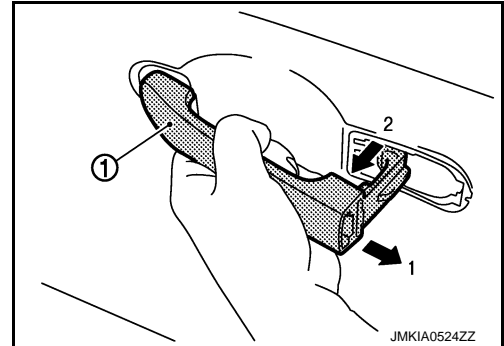
## < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

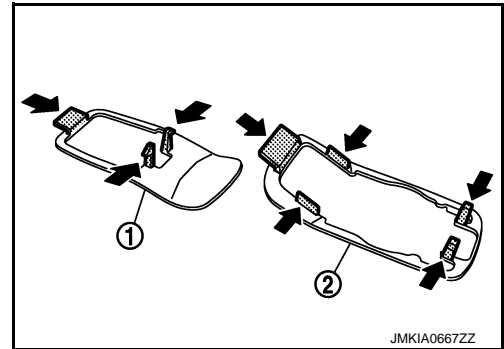
5. While pulling outside handle, remove outside handle escutcheon.



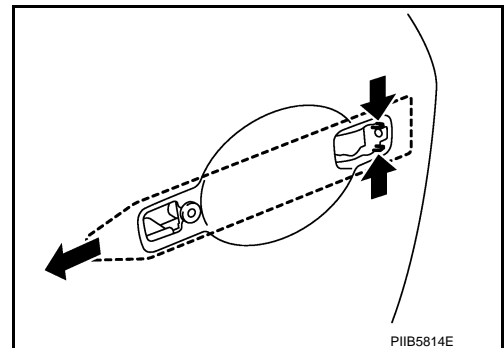
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



7. Remove front gasket (1) and rear gasket (2).



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



9. Reach in to separate outside handle cable connection on outside handle bracket.

## INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

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

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# BACK DOOR LOCK

< REMOVAL AND INSTALLATION >

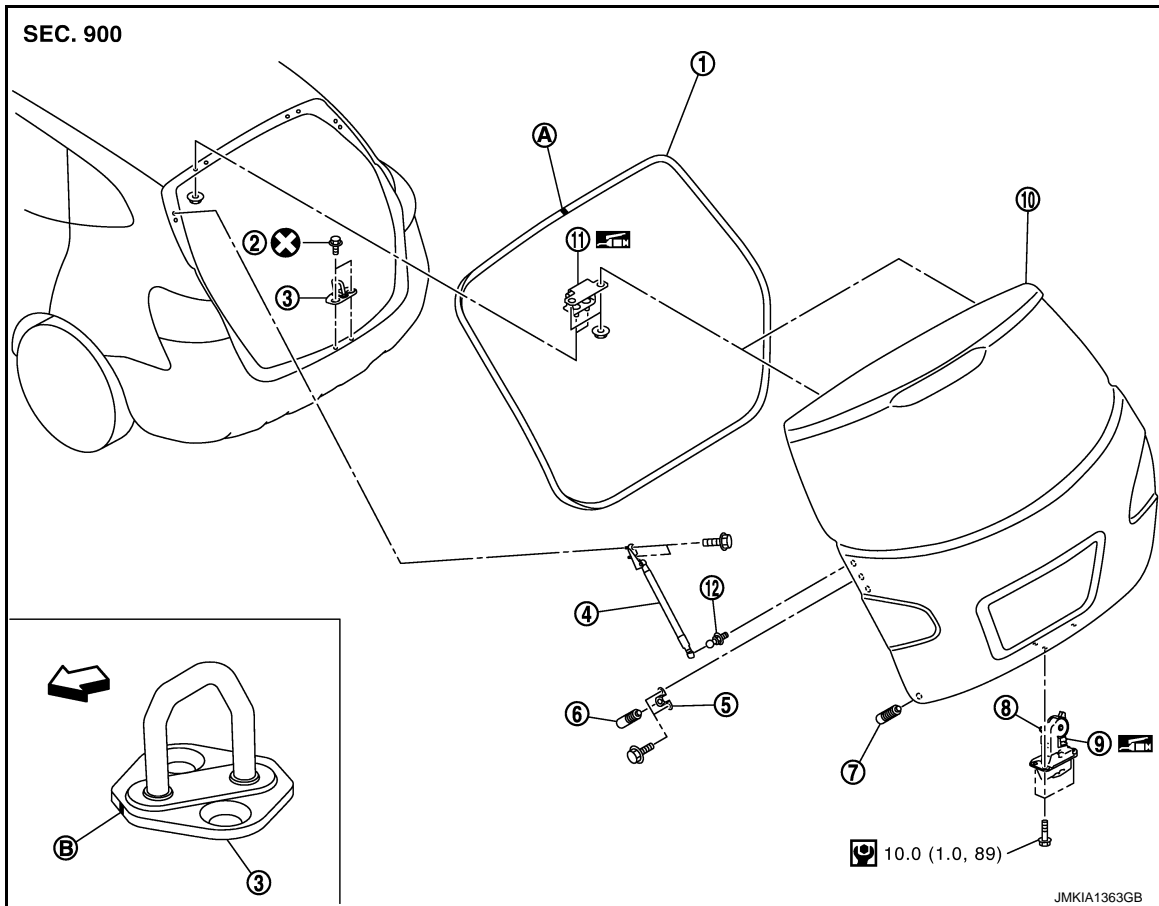
[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR LOCK

### DOOR LOCK

### DOOR LOCK : Exploded View

INFOID:000000008281983



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
| A : Center mark            | B : Front mark           |                              |

↔ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR LOCK : Removal and Installation

INFOID:000000008281984

### REMOVAL

1. Remove back door lower finisher inner. Refer to [INT-34, "Removal and Installation"](#).
2. Disconnect back door lock assembly and back door opener switch connectors.
3. Remove back door lock mounting bolts, and then remove back door lock assembly.

### INSTALLTION

Install in the reverse order of removal.

### CAUTION:

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



# DOOR SWITCH

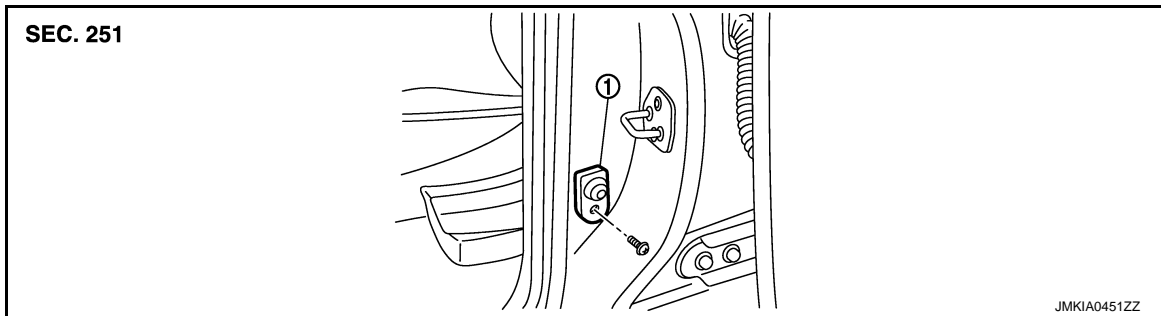
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR SWITCH

Exploded View

INFOID:000000008281985



1. Door switch (driver side)

## Removal and Installation

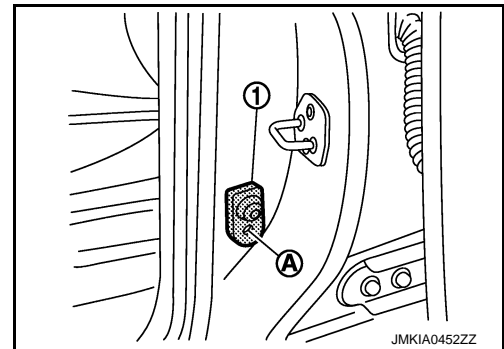
INFOID:000000008281986

### 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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# INSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INSIDE KEY ANTENNA CONSOLE

CONSOLE : Exploded View

INFOID:000000008281987

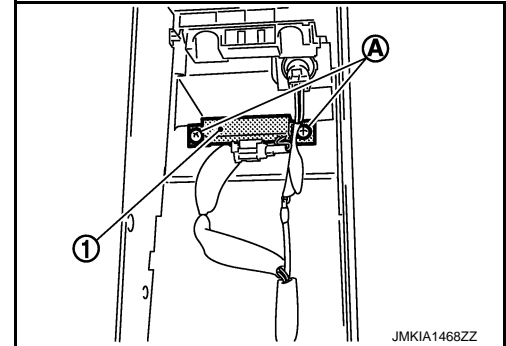
Refer to [IP-22. "Exploded View"](#)

CONSOLE : Removal and Installation

INFOID:000000008281988

### REMOVAL

1. Remove the center console. Refer to [IP-23. "Removal and Installation"](#).
2. Remove the inside key antenna mounting screws (A), and then remove inside key antenna (console) (1).



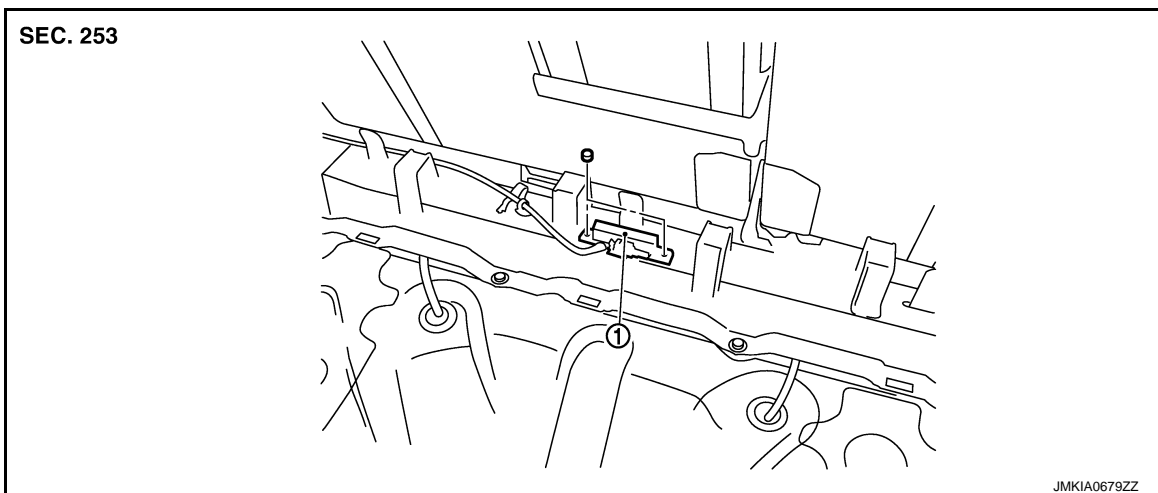
### INSTALLATION

Install in the reverse order of removal.

## REAR

REAR : Exploded View

INFOID:000000008281989



1. Inside key antenna (rear seat)

REAR : Removal and Installation

INFOID:000000008281990

### REMOVAL

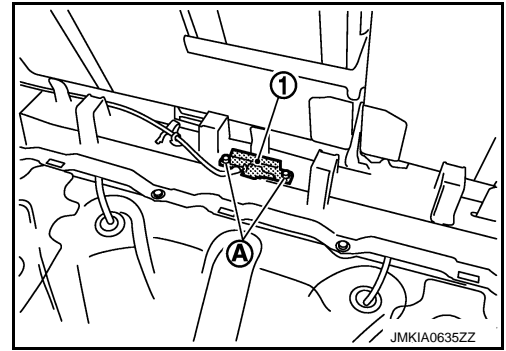
1. Remove the luggage floor spacer. Refer to [INT-32. "Removal and Installation"](#) .

# INSIDE KEY ANTENNA

## < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

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

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## OUTSIDE KEY ANTENNA DRIVER SIDE

DRIVER SIDE : Exploded View

INFOID:0000000008281991

Refer to [DLK-232, "OUTSIDE HANDLE : Exploded View"](#).

DRIVER SIDE : Removal and Installation

INFOID:0000000008281992

### REMOVAL

Remove the front outside handle LH. Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

### INSTALLATION

Install in the reverse order of removal.

## PASSENGER SIDE

PASSENGER SIDE : Exploded View

INFOID:0000000008281993

Refer to [DLK-232, "OUTSIDE HANDLE : Exploded View"](#).

PASSENGER SIDE : Removal and Installation

INFOID:0000000008281994

### REMOVAL

Remove the front outside handle RH. Refer to [DLK-232, "OUTSIDE HANDLE : Removal and Installation"](#).

### INSTALLATION

Install in the reverse order of removal.

## REAR BUMPER

REAR BUMPER : Exploded View

INFOID:0000000008281995

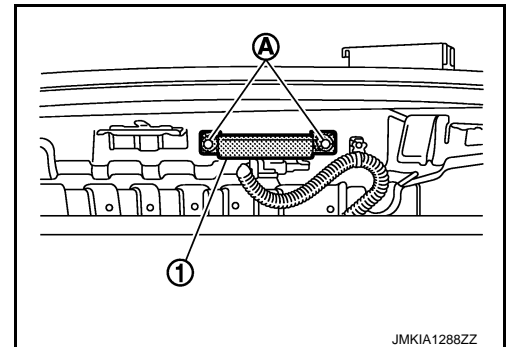
Refer to [EXT-16, "Exploded View"](#).

REAR BUMPER : Removal and Installation

INFOID:0000000008281996

### REMOVAL

1. Remove the rear bumper. Refer to [EXT-16, "Removal and Installation"](#).
2. Remove the outside key antenna (rear bumper) mounting bolts (A) ,and then remove outside key antenna (rear bumper)(1).



### INSTALLATION

Install in the reverse order of removal.

# INTELLIGENT KEY WARNING BUZZER

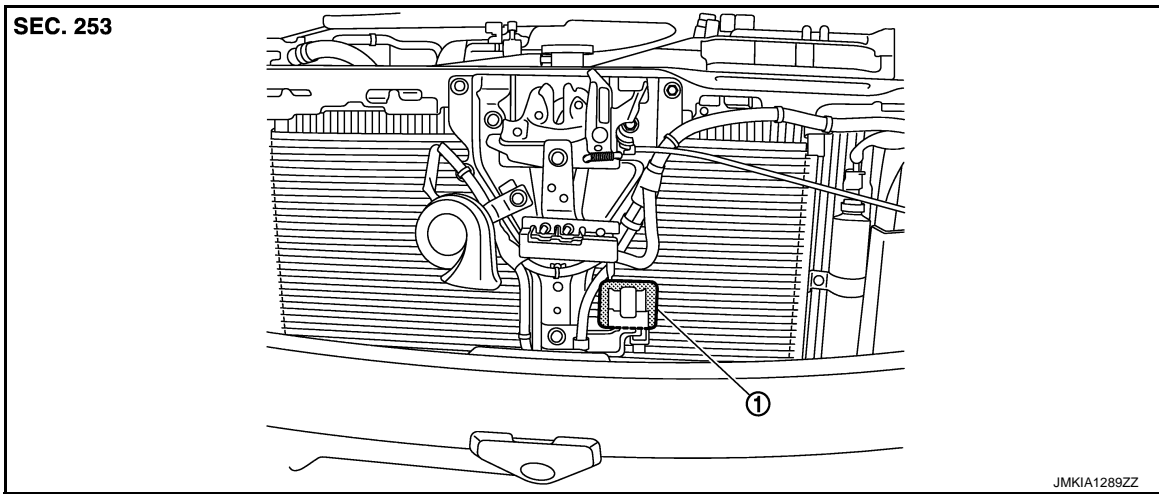
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY WARNING BUZZER

Exploded View

INFOID:000000008281997



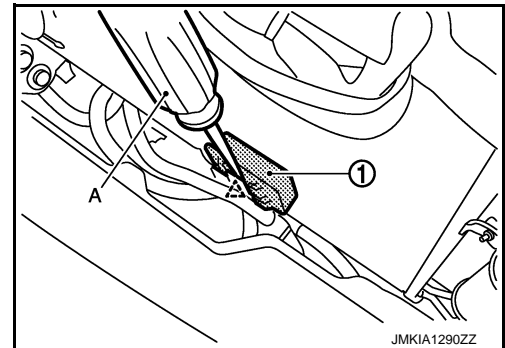
1. Intelligent Key warning buzzer

### Removal and Installation

INFOID:000000008281998

#### REMOVAL

1. Remove the front grille. Refer to [EXT-19. "Removal and Installation"](#).
2. Remove the Intelligent Key warning buzzer(1) using remover tool (A).



#### INSTALLATION

Install in the reverse order of removal.

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# BACK DOOR REQUEST SWITCH

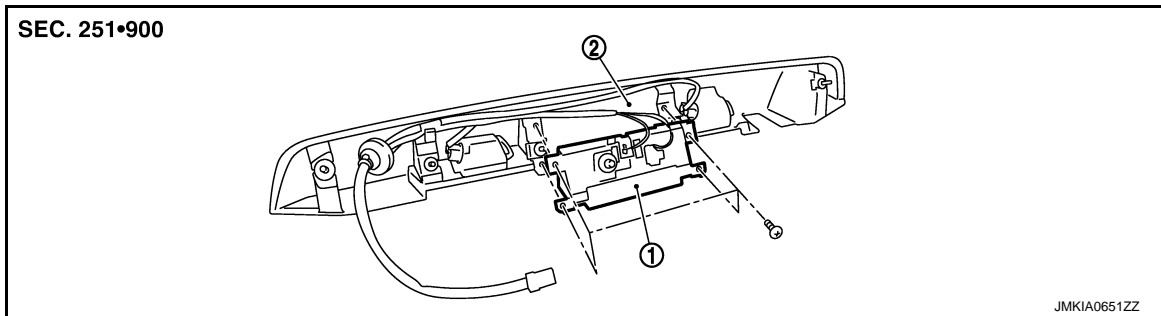
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR REQUEST SWITCH

Exploded View

INFOID:000000008281999



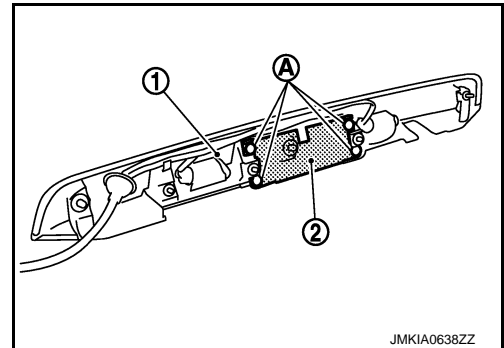
1. Back door opener switch assembly 2. Back door finisher

## Removal and Installation

INFOID:000000008282000

### REMOVAL

1. Remove the back door finisher. Refer to [EXT-34. "Removal and Installation"](#).
2. Remove the back door opener switch assembly mounting screws (A).
3. Remove the back door opener switch assembly (2) from back door finisher (1).



### INSTALLATION

Install in the reverse order of removal.

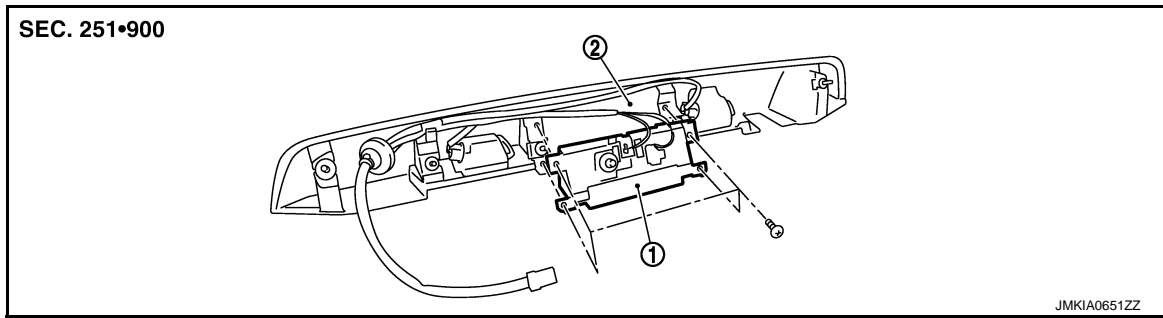
# BACK DOOR OPENER SWITCH

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## BACK DOOR OPENER SWITCH

### Exploded View



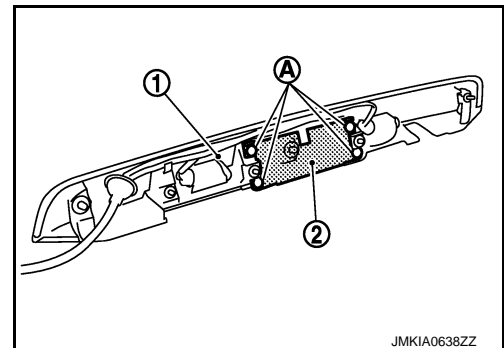
1. Back door opener switch assembly
2. Back door finisher

### Removal and Installation

INFOID:000000008282002

#### REMOVAL

1. Remove the back door finisher. Refer to [EXT-34, "Removal and Installation"](#).
2. Remove the back door opener switch assembly mounting screws (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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# INTELLIGENT KEY BATTERY

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY BATTERY

### Removal and Installation

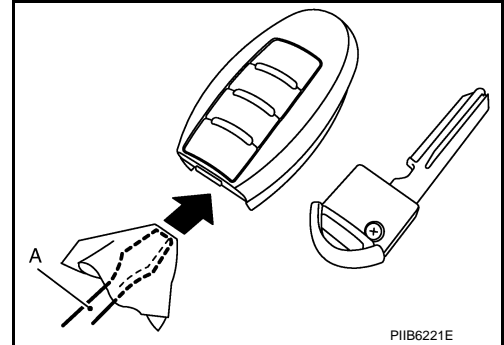
INFOID:000000008282003

1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

2. Insert a remover tool (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part.

**CAUTION:**

- Do not touch the circuit board or battery terminal.
- The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



3. Replace the battery with new one.

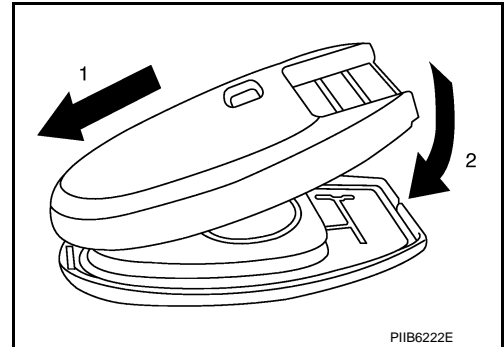
**Battery replacement**

**:Coin-type lithium battery (CR2025)**

4. Align the tips of the upper and lower parts, and then push them together until it is securely closed.

**CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- After replacing the battery, check that all Intelligent Key functions work normally.





# INTELLIGENT KEY UNIT

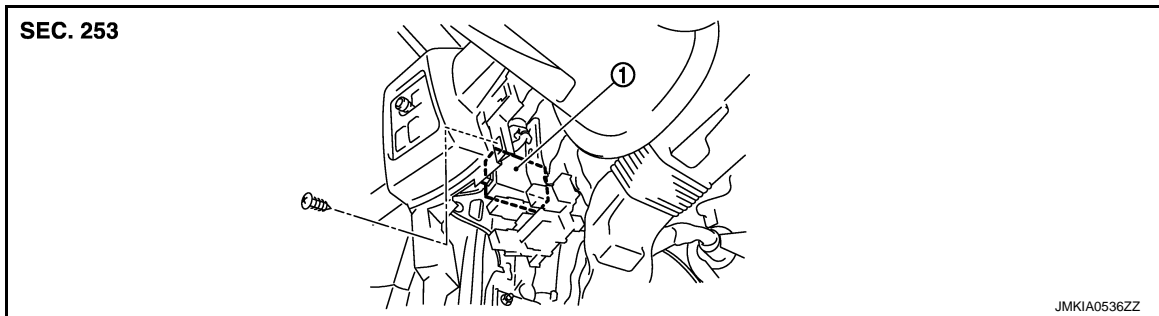
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY UNIT

### Exploded View

INFOID:000000008282004



1. Intelligent Key unit M40

### Removal and Installation

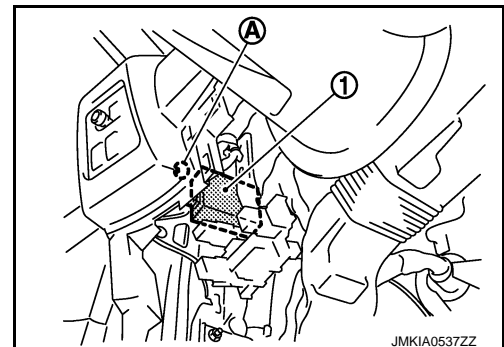
INFOID:000000008282005

#### REMOVAL

1. Remove lower instrument panel (driver side) and mirror switch finisher. Refer to [IP-13. "Exploded View"](#) and [IP-14. "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 [SEC-9. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).



#### INSTALLATION

Install in the reverse order of removal.

A  
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# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

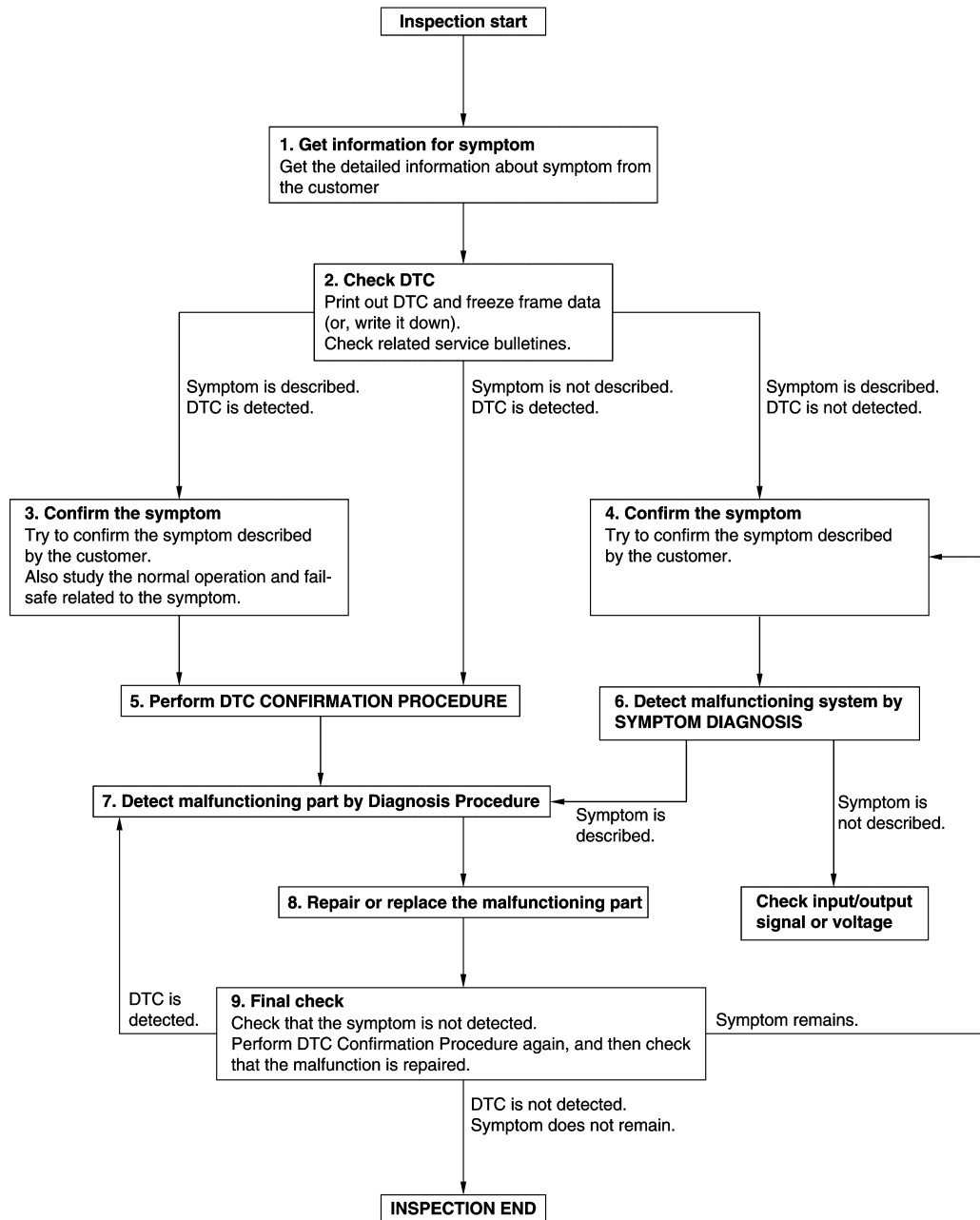
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000008282006

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

[WITHOUT INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

## 1. GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

## 2. CHECK DTC

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

Are any symptoms described and any DTC detected?

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

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

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

## 3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

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

>> GO TO 5.

## 4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

## 5. PERFORM DTC CONFIRMATION PROCEDURE

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

If two or more DTCs are detected, refer to [DLK-331, "DTC Inspection Priority Chart"](#) (BCM), and determine trouble diagnosis order.

**NOTE:**

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-46, "Intermittent Incident"](#).

## 6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

Is the symptom described?

YES >> GO TO 7.

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

## 7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

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## DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-46. "Intermittent Incident"](#).

### 8. REPAIR OR REPLACE THE MALFUNCTIONING PART

---

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

>> GO TO 9.

### 9. FINAL CHECK

---

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

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

Is DTC detected and does symptom remain?

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

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

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

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

A

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000008282007

B

Perform the system initialization when replacing or registering keyfob and ignition key.

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# POWER DOOR LOCK SYSTEM

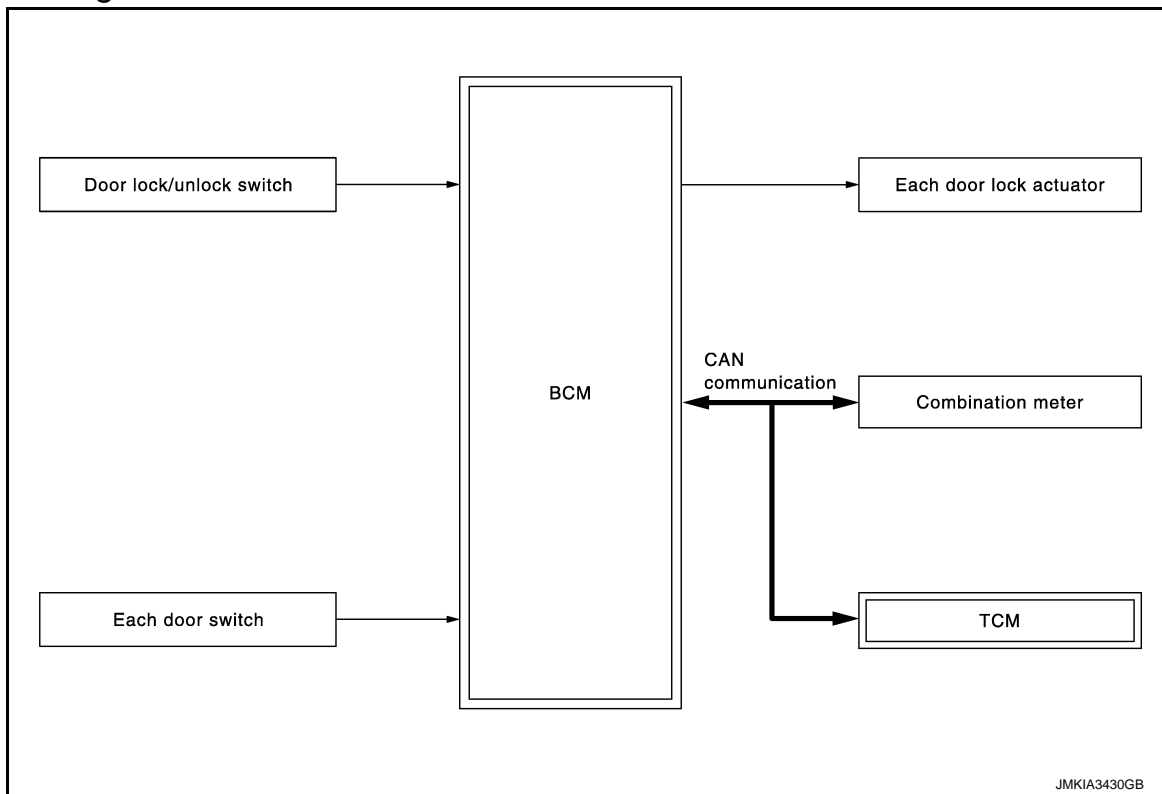
< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SYSTEM DESCRIPTION

### POWER DOOR LOCK SYSTEM

#### System Diagram



#### System Description

INFOID:000000008282009

##### DOOR LOCK FUNCTION

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

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

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

###### Vehicle Speed Sensing Auto Door Lock\*1

All doors are locked when the vehicle speed reaches 10 km/h (6 MPH) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the unified meter and A/C amp. via CAN communication becomes 10 km/h (6 MPH) or more.

###### P Range Interlock Door Lock

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

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

###### Setting change of Automatic Door Lock/Unlock Function

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

# POWER DOOR LOCK SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

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

OFF → ON : 2 blinks

ON → OFF : 1 blink

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

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

### IGN OFF Interlock Door Unlock\*1

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

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

### P Range Interlock Door Unlock

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

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

### Key out Interlock Door Unlock

When mechanical key is removed from ignition knob switch, all doors unlock. J

When BCM detects that mechanical key is removed from ignition knob switch, BCM transmits unlock signal to all door lock actuators. K

### Setting change of Automatic Door Lock/Unlock Function

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

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

OFF → ON : 2 blinks

ON → OFF : 1 blink

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

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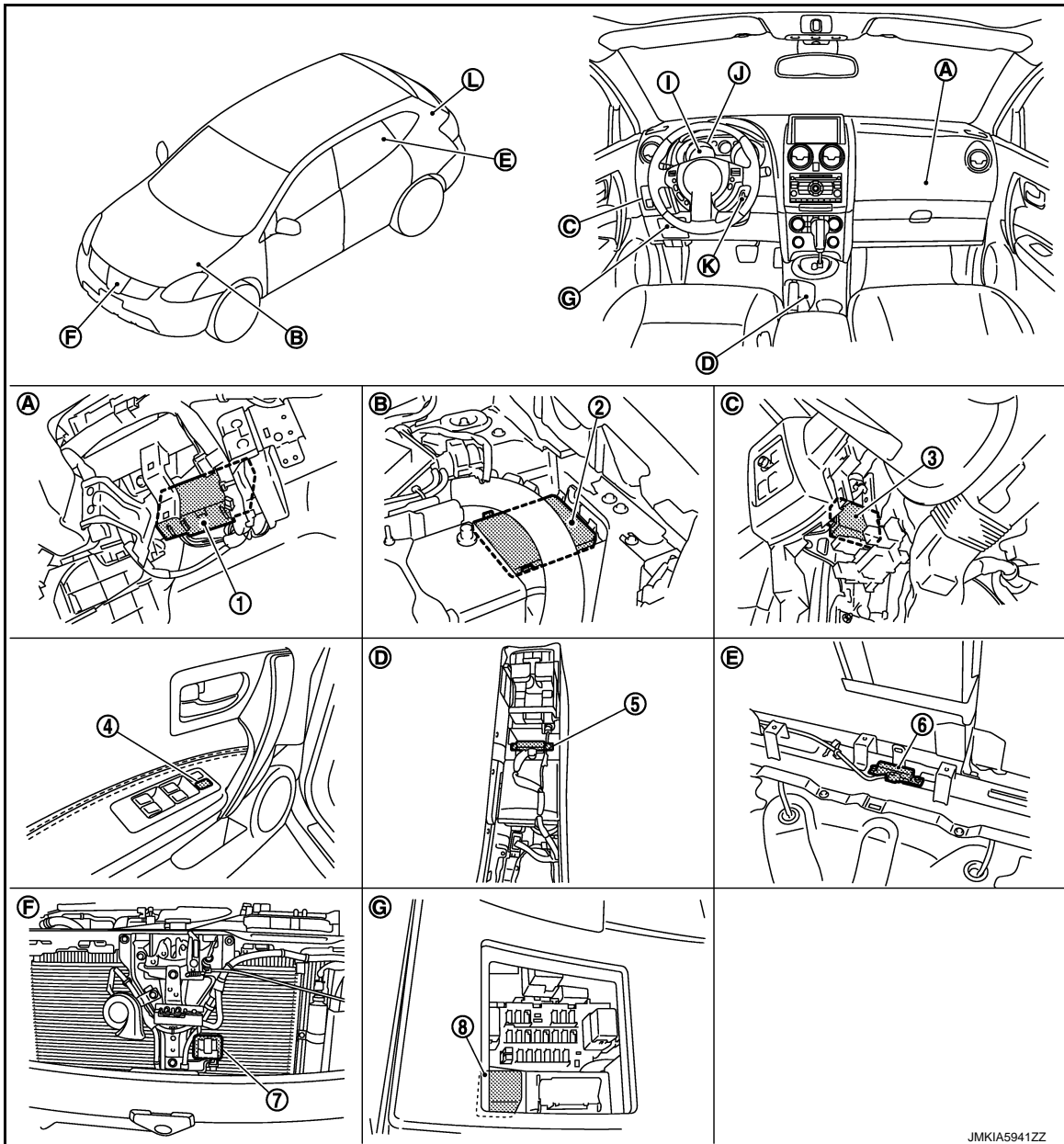
# POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## Component Parts Location

INFOID:000000008282010



- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

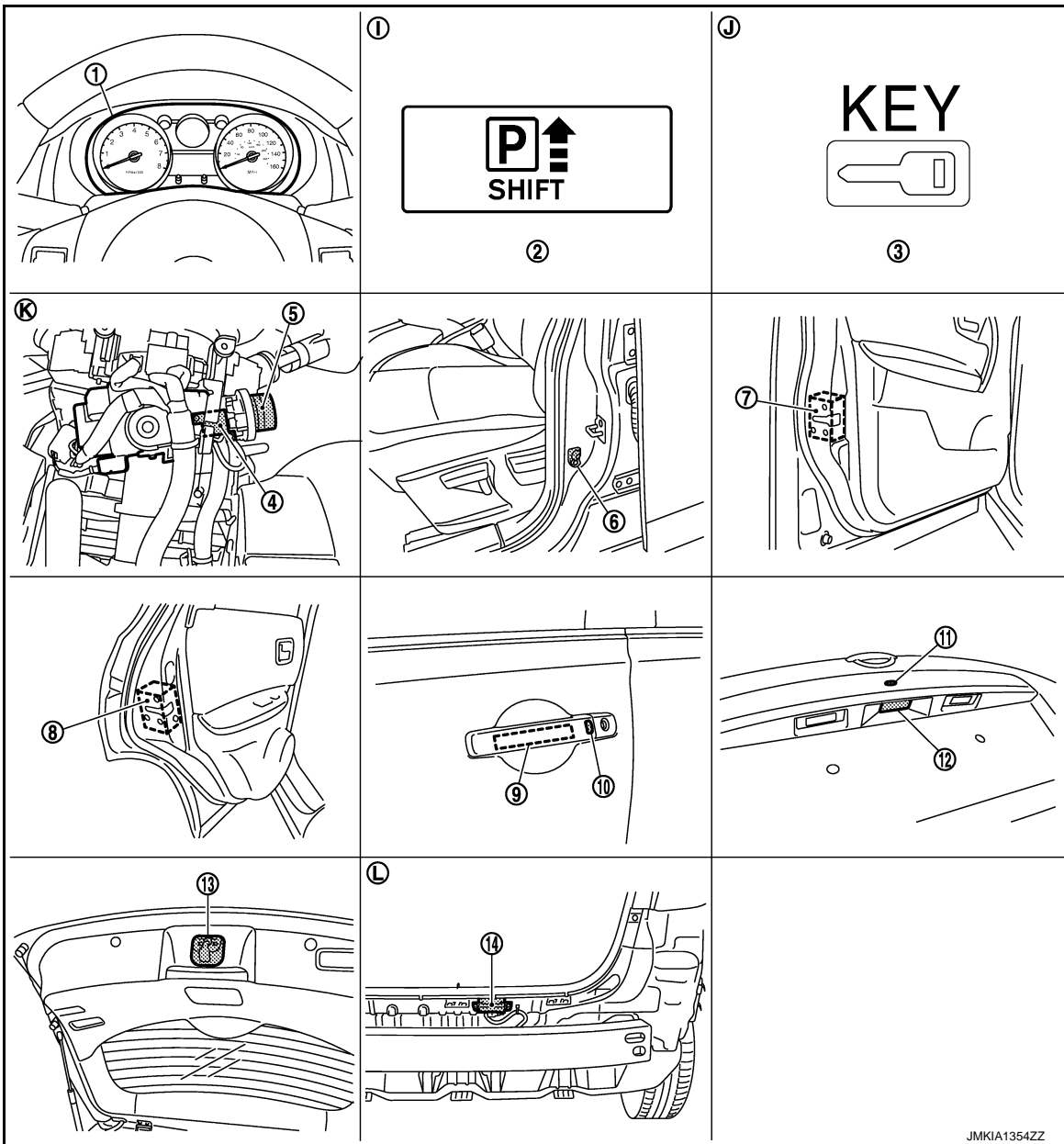
JMKIA5941ZZ



# POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]



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|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

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# POWER DOOR LOCK SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## Component Description

INFOID:000000008282011

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Inputs lock or unlock signal to BCM.
Front door lock assembly (door lock actuator)	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Inputs door open/close condition to BCM.
TCM	Transmits shift position signal to BCM via CAN communication line.

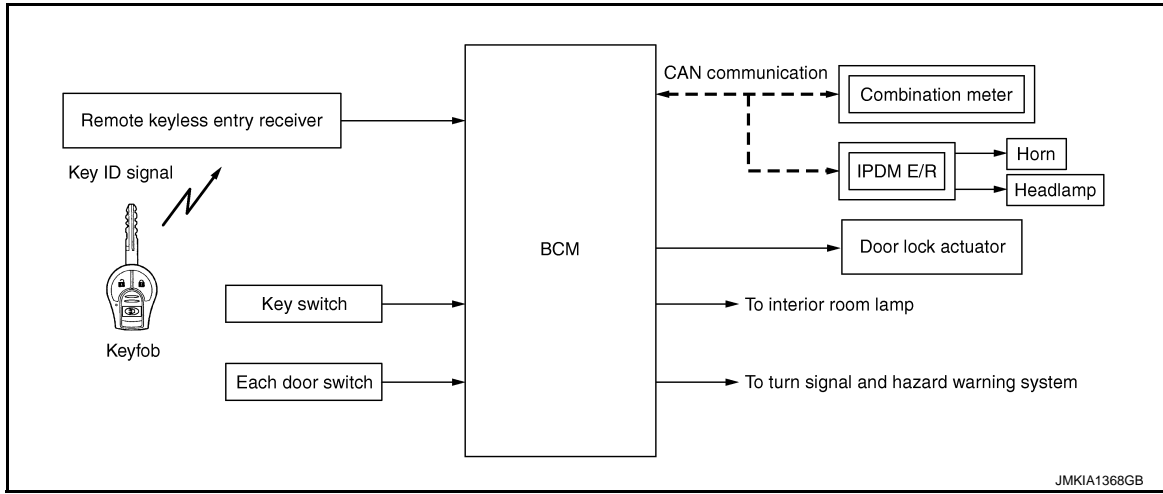
# REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY SYSTEM

### System Diagram



### System Description

INFOID:000000008282013

The remote keyless entry 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 via remote keyless entry receiver.
- When BCM receives the door lock and unlock signal, it operates door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 1 time) as a reminder.

#### OPERATION CONDITION

Remote controller operation	Operation condition
Lock/unlock	Key switch is OFF (keyfob is removed from key slot).

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#### OPERATION AREA

To ensure that the keyfob works effectively, use within 1 m (3ft) range of each door, however the operable range may differ according to surroundings.

#### SELECTIVE UNLOCK OPERATION

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

#### Hazard and Horn Reminder

When the doors are locked or unlocked by key fob, power is supplied to sound horn and flash hazard warning lamps as follows

- LOCK operation: 3 or 4 mode (lamps flash twice)
- UNLOCK operation: 2 or 4 mode (lamps flash once)
- Horns sound once with LOCK function when this feature is set ON

The hazard reminder has modes 1, 2, 3 or 4. The horn reminder can be turned ON/OFF with any LOCK mode.

Operating function of hazard reminder

	Mode 1		Mode 2		Mode 3		Mode 4	
	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Key fob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	—	—	—	Once	Twice	—	Twice	Once
Horns sound (ON/OFF)	ON: once	—	ON: once	—	ON: once	—	ON: once	—

# REMOTE KEYLESS ENTRY SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN).

## How to change hazard and horn reminder modes

### 📄 With CONSULT

Hazard reminder can be changed using "HAZARD LAMP SET" mode in "WORK SUPPORT".

Horn reminder can be changed using "HORN CHIRP SET" mode in "WORK SUPPORT".

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

### ⊗ Without CONSULT

Refer to Owner's Manual for instructions.

## AUTO DOOR LOCK OPERATION

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

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

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

## 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.

## PANIC ALARM OPERATION

When key switch is OFF (when keyfob is not inserted in key slot), BCM turns on and off horn intermittently with input of panic alarm signal from keyfob.

BCM outputs to IPDM E/R for panic alarm signal (horn signal) via CAN communication line.

The alarm automatically turns off after 25 seconds or when BCM receives any signal from keyfob.

Panic alarm operation mode can be changed using "PANIC ALARM SET" mode in "WORK SUPPORT".

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

## Interior Lamp Operation

When the following conditions occur, remote keyless entry system turns on interior lamp with input of UNLOCK signal from key fob. For detailed description, refer to [INL-6, "System Description"](#).

- Interior room lamp switch is in the DOOR position
- Door switch OFF (when all the doors are closed)

## ID CODE ENTRY PROCEDURE

### Key fob ID setup WITH CONSULT

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

### NOTE:

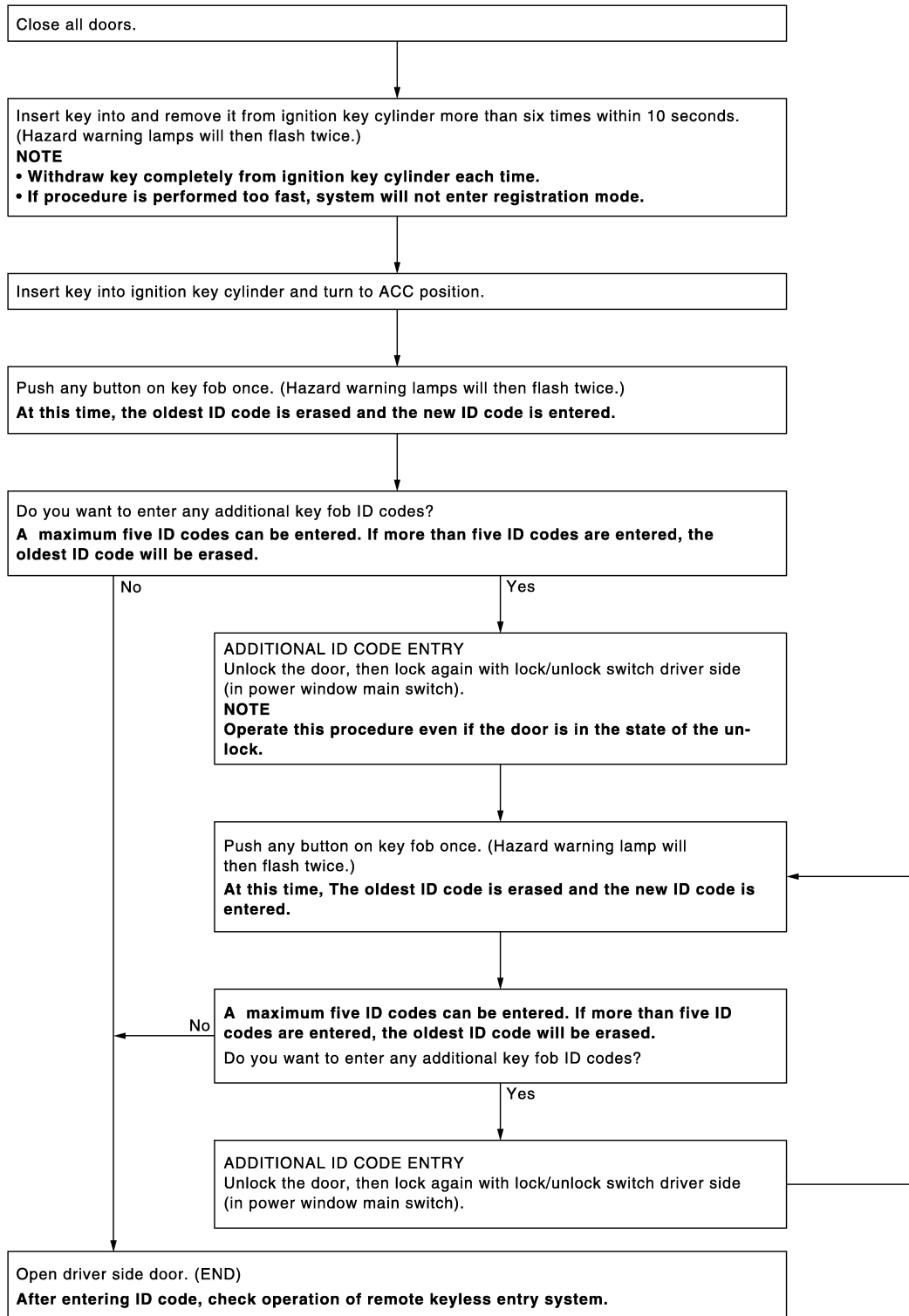
If a key fob is lost, the ID code of the lost key fob must be erased to prevent unauthorized use. When the ID code of a lost key fob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new key fobs must be re-registered.

# REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## KEY FOB ID SETUP WITHOUT CONSULT



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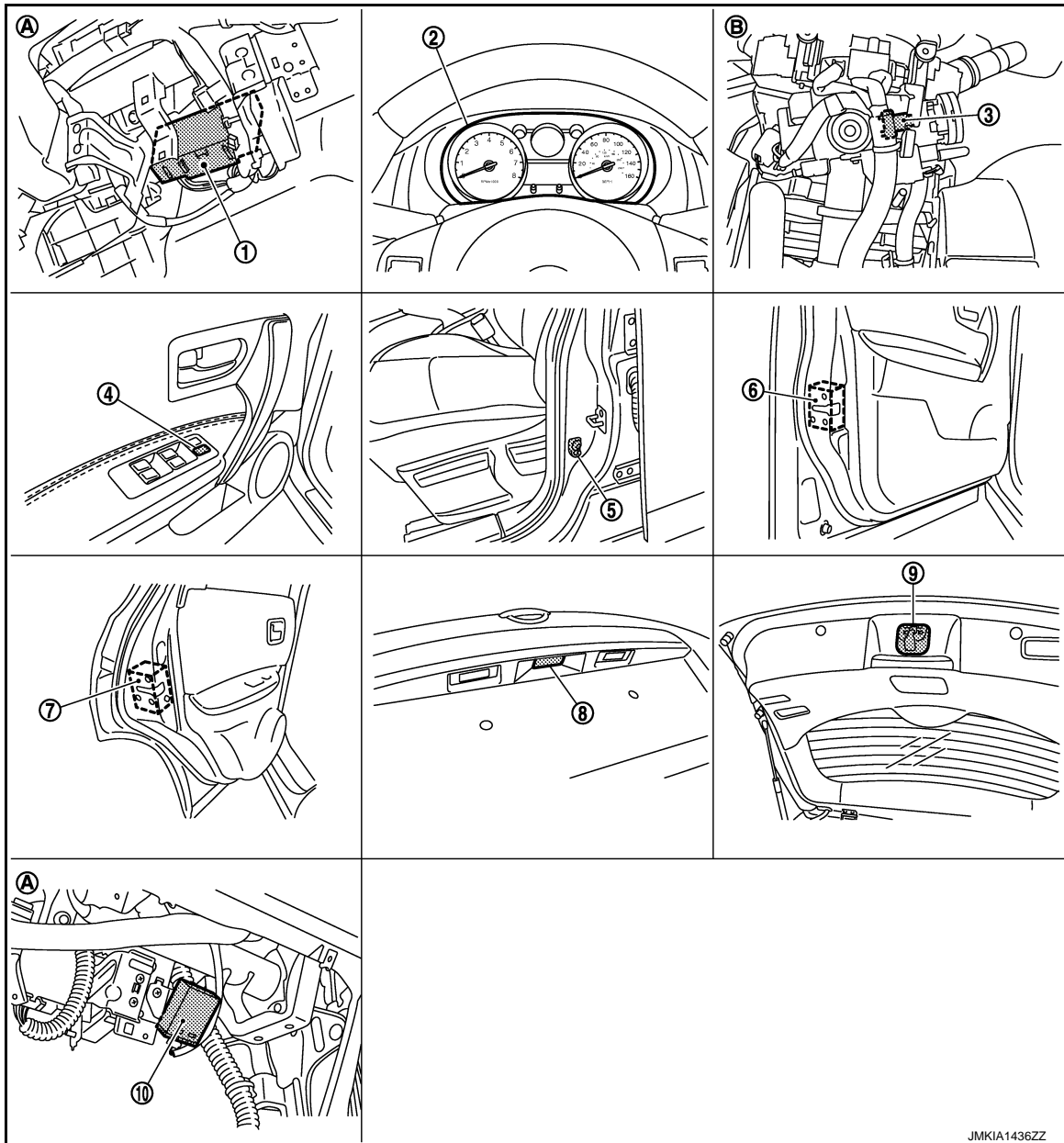
# REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## Component Parts Location

INFOID:000000008282014



JMKIA1436ZZ

- |  |   |   |
|--|---|---|
| <p>1. BCM<br/>M65, M66, M67</p> <p>4. Power window main switch (Door lock and unlock switch) D5 ,D6</p> <p>7. Rear door lock actuator LH<br/>D85</p> <p>10. Remote keyless entry receiver M91</p> <p>A. Over the glove box</p> | <p>2. Combination meter<br/>M34</p> <p>5. Front door switch (driver side)<br/>B34</p> <p>8. Back door opener switch assembly (opener switch) D186</p> <p>B. View with steering column cover removed</p> | <p>3. Key switch<br/>M24</p> <p>6. Front door lock assembly (driver side) D9</p> <p>9. Back door lock assembly D190</p> |
|--|---|---|

## Component Description

INFOID:000000008282015

Item	Function
BCM	Controls the door lock and unlock function.
Key switch	Detects that ignition key is inserted into ignition key cylinder.

# REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Item	Function
Door lock actuator	Receives lock / unlock signal from BCM and locks and unlocks each door.
Remote keyless entry receiver	Receives lock/unlock signal from the key fob, and then transmits to BCM.
Key fob	Transmits button operation to remote keyless entry receiver.

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# BACK DOOR OPEN FUNCTION

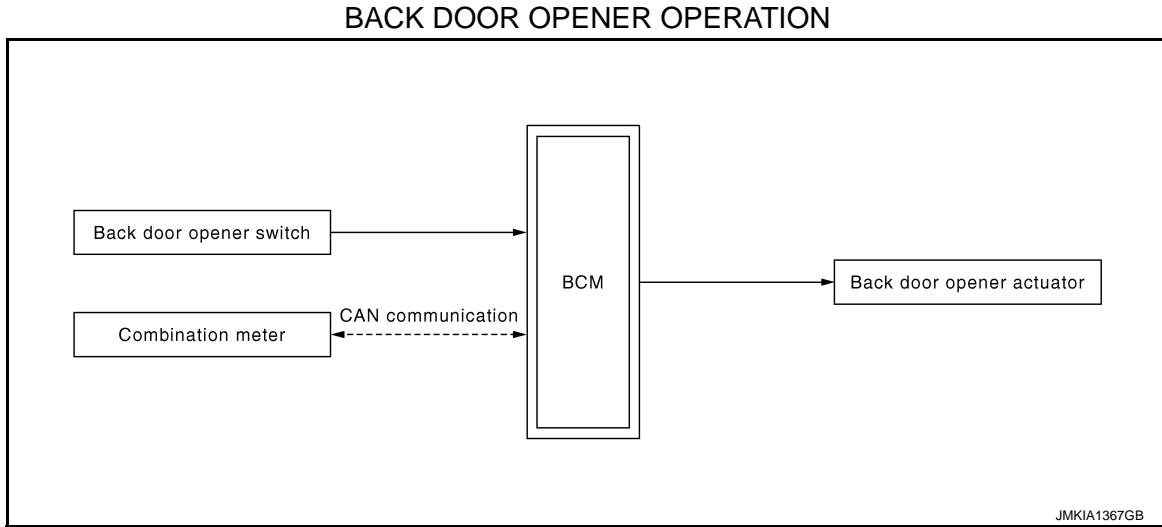
[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## BACK DOOR OPEN FUNCTION

### System Diagram

INFOID:000000008282016



### System Description

INFOID:000000008282017

#### 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 style="list-style-type: none"><li>Vehicle speed is less than 5 km/h (3 MPH).</li></ul>



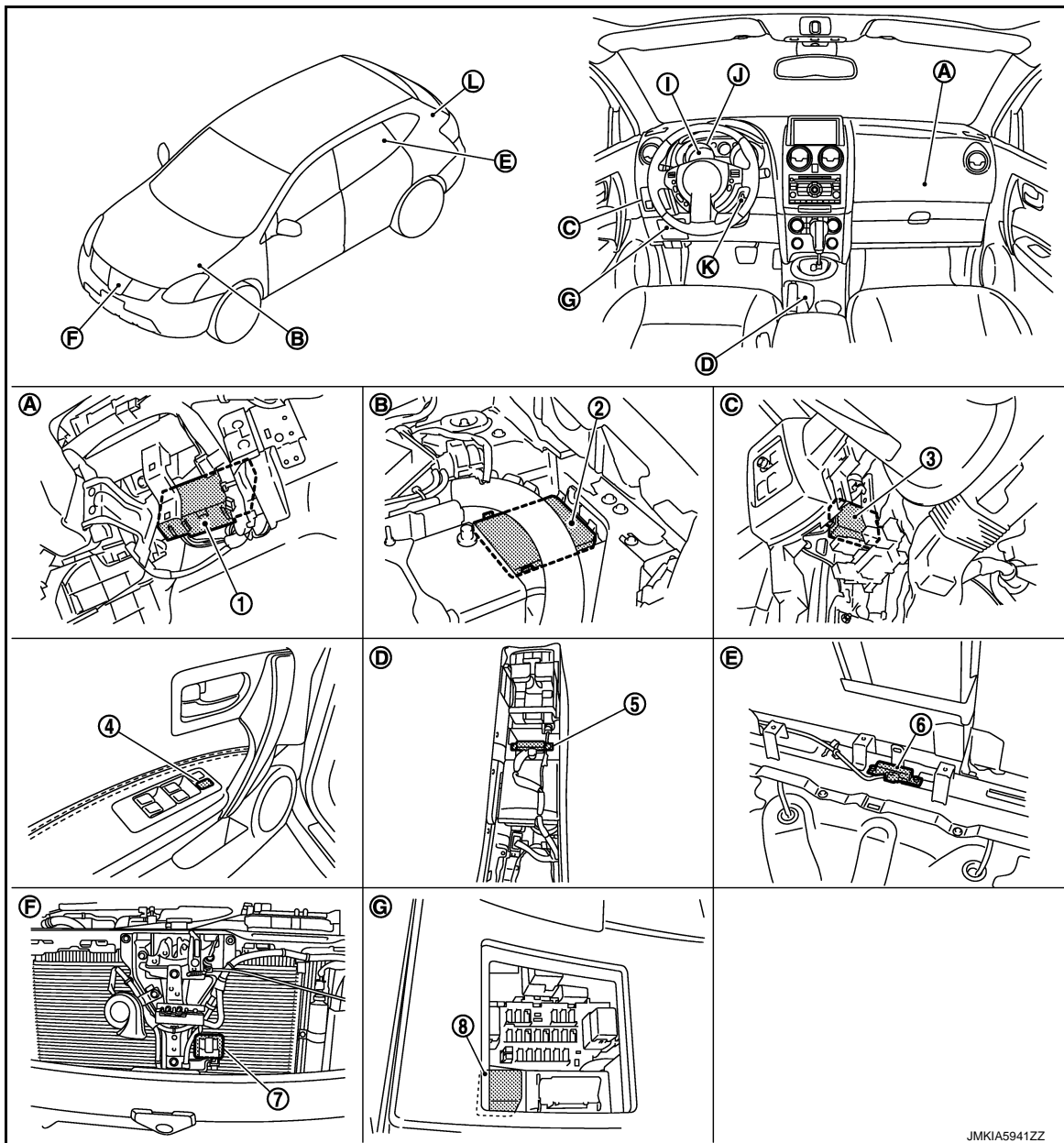
# BACK DOOR OPEN FUNCTION

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008282018



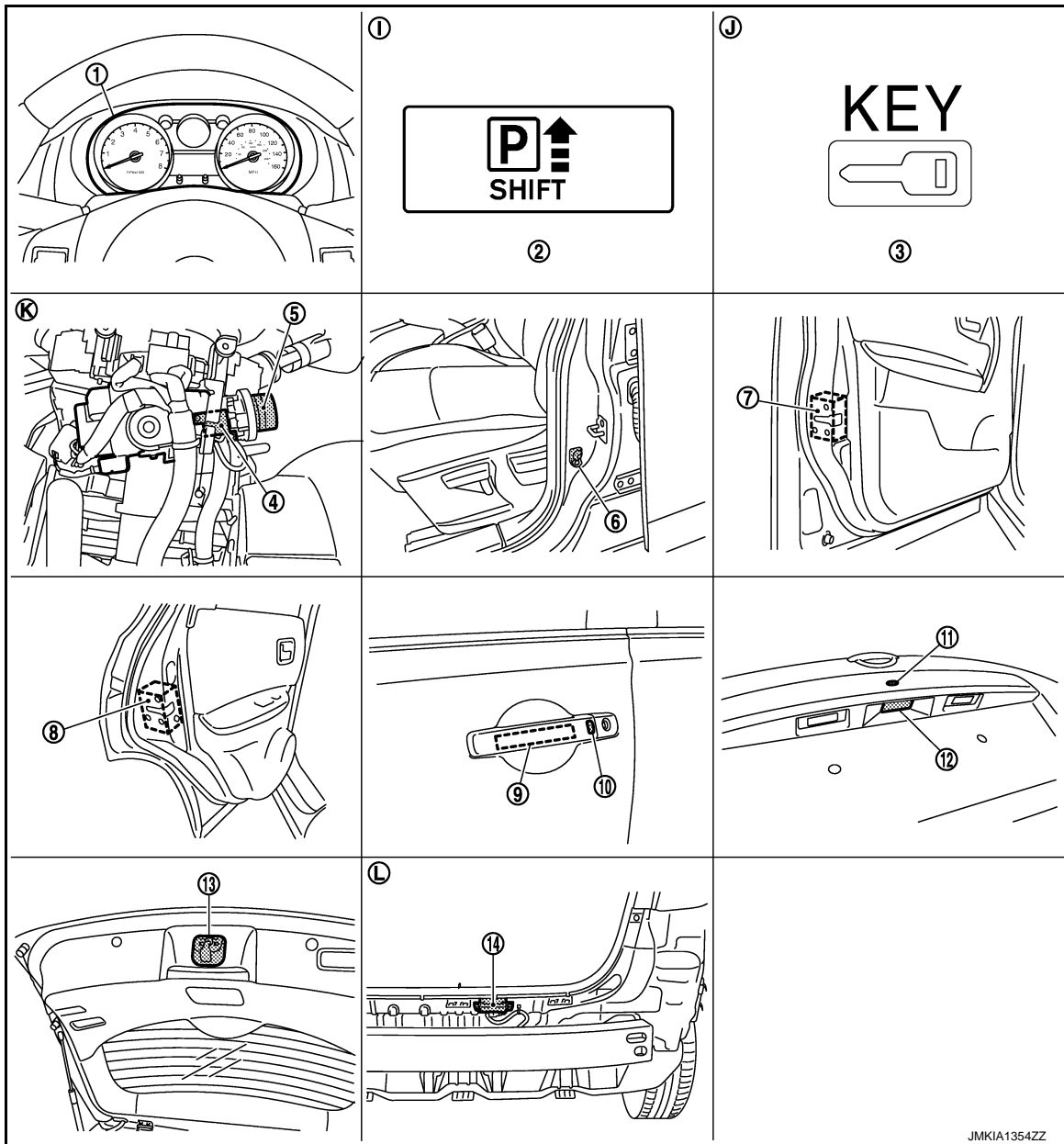
- |   |                                     |  |
|---|-------------------------------------|--|
| 1. BCM  | 2. IPDM E/R                         | 3. Intelligent key unit                          |
| 4. Power window main switch (door lock and unlock switch) | 5. Inside key antenna (console)     | 6. Inside key antenna (rear seat)                |
| 7. Intelligent key warning buzzer                         | 8. Selective unlock relay           |  |
| A. Over the glove box                                     | B. Engine room LH                   | C. Over the instrument lower panel (driver side) |
| D. View with lower instrument cover remove                | E. View with center console removed | F. View with luggage floor spacer (LH) removed   |
| G. View with front bumper removed                         | H. View with fuse box lid removed   |  |

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# BACK DOOR OPEN FUNCTION

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]



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- |  |  |  |
|--|--|--|
| 1. Combination meter   | 2. P-SHIFT warning lamp  | 3. Key warning lamp  |
| 4. Ignition knob switch, key switch and key lock solenoid (key switch) | 5. Ignition knob switch, key switch and key lock solenoid (ignition knob switch) | 6. Front door switch (driver side)                             |
| 7. Front door lock assembly (driver side)                              | 8. Rear door lock actuator LH  | 9. Outside handle assembly (outside key antenna) (driver side) |
| 10. Outside handle assembly (front door request switch) (driver side)  | 11. Back door opener switch assembly (request switch)                            | 12. Back door opener switch assembly (opener switch)           |
| 13. Back door lock assembly  | 14. Out side key antenna (back door)   |  |
| I. Inside the combination meter  | J. Inside the combination meter  | K. view with steering column cover removed                     |
| L. View with rear bumper fascia removed                                |  |  |

# BACK DOOR OPEN FUNCTION

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## Component Description

INFOID:000000008282019

Item	Function
BCM	Controls the back door opener function
Back door opener switch	Transmits back door opener switch operation signal to BCM
Back door lock assembly (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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# INTEGRATED HOMELINK TRANSMITTER

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER

### Component Description

INFOID:000000008282020

Item	Function
Homelink universal transceiver	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

# DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000008741724

#### APPLICATION ITEM

CONSULT 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 Result	Displays the diagnosis results judged by BCM. Refer to <a href="#">DLK-331, "DTC Index"</a> .
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 style="list-style-type: none"> <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 sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp 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		×	×
<ul style="list-style-type: none"> <li>Auto air conditioning system</li> <li>Manual air conditioning system</li> </ul>	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Body control system	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
—	FUEL LID*			
TPMS	AIR PRESSURE MONITOR	×	×	×
Panic alarm system	PANIC ALARM			×

\*: This item is displayed, but is not function.

## DOOR LOCK

# DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

INFOID:000000008282022

### BCM CONSULT FUNCTION

CONSULT 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
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 <sup>*2</sup>	Indicates [ON/OFF] condition of lock signal from key fob
KEYLESS UNLOCK <sup>*2</sup>	Indicates [ON/OFF] condition of unlock signal from key fob
I-KEY LOCK <sup>*1</sup>	Indicates [ON/OFF] condition of lock signal from Intelligent Key
I-KEY UNLOCK <sup>*1</sup>	Indicates [ON/OFF] condition of unlock signal from Intelligent Key
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from key cylinder
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from key cylinder

\*1: For the Intelligent Key equipped vehicle.

\*2: For the multi remote control system equipped vehicle.

### ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LCK/ALL ULK/DR UNLK/OTR ULK]

### WORK SUPPORT

Test item	Description
DOOR LOCK-UNLOCK SET	Select unlock mode can be changed in this mode. Selects ON-OFF of select unlock mode
ANTI-LOCK OUT SET	Key reminder door mode can be changed in this mode. Selects ON-OFF of Key reminder door mode
AUTOMATIC DOOR LOCK SELECT	The automatic door lock function mode can be selected as per the following item in this Mode. <ul style="list-style-type: none"><li>VH SPD: All doors are locked when vehicle speed is more than 5 MPH (10km/h)</li><li>P RANGE: All doors are locked when shifting the selector lever from the P position to other than the P position</li></ul>

# DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
AUTOMATIC DOOR UNLOCK SELECT	The automatic door unlock function mode can be selected as per the following item in this Mode. <ul style="list-style-type: none"> <li>• MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF</li> <li>• MODE 2: All doors are unlocked when shifting the selector lever from any position to other than the P to P positions</li> <li>• MODE 4: Driver side door is unlocked when the power supply position is changed from ON to OFF</li> <li>• MODE 5: Driver side door is unlocked when shifting the selector lever from any position to other than the P to P positions</li> </ul>
AUTOMATIC DOOR LOCK/UNLOCK SET	The automatic door lock/unlock function can be changed to operate (ON) or not operate (OFF) in this mode.

## MULTIREMOTE ENT

MULTIREMOTE ENT : CONSULT Function (BCM - MULTIREMOTE ENT) INFOID:000000008282023

### BCM CONSULT FUNCTION

CONSULT 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.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEYKESS LOCK	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from key fob.
KEYLESS PANIC	Indicates [ON/OFF] condition of panic alarm 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	Indicates [ON/OFF] condition of lock and unlock signal from keyfob.
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

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# DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK OTHER UNLOCK].
FLASHER	This test is able to check flasher operation [LH/RH/OFF].
HORN	This test is able to check horn operation [ON/OFF].

## WORK SUPPORT

Test item	Description
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. For the detail of the setting.
HORN CHIRP SET	Answer back function (horn) mode can be changed in this mode. For the detail of the setting.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"><li>• MODE 1: 1 minute</li><li>• MODE 2: 2 minutes</li><li>• MODE 3: 3 minutes</li><li>• MODE 4: 4 minutes</li><li>• MODE 5: 5 minutes</li></ul>
PANIC ALARM SET	Panic alarm operation mode can be changed in this mode.

## TRUNK

### TRUNK : CONSULT Function (BCM - TRUNK) (WITHOUT INTELLIGENT KEY)

INFOID:000000008282024

#### APPLICATION ITEM

CONSULT 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
KEYLESS TRUNK	This item is indicated, but not monitored
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]

#### ACTIVE TEST

Test item	Description
TRUNK/BACK DOOR	This test is able to check back door opener operation [ON/OFF]

## PANIC ALARM

### PANIC ALARM : CONSULT Function (BCM - PANIC ALARM)

INFOID:000000008282025

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.



# DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Diagnosis mode	Function Description
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM

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## ACTIVE TEST

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Test item	Description
HEAD LAMP (HI)	This test is able to check head lamp (hi) operation [ON/OFF]
PANIC ALARM	This test is able to check panic alarm operation [ON/OFF]

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# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### Description

INFOID:000000008282026

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

CAN Communication Signal Chart. Refer to [LAN-26, "CAN Communication Signal Chart"](#).

#### DTC Logic

INFOID:000000008282027

#### DTC DETECTION LOGIC

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

#### Diagnosis Procedure

INFOID:000000008282028

#### 1. PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-16, "Trouble Diagnosis Flow Chart"](#).  
NO >> Refer to [GI-46, "Intermittent Incident"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## POWER SUPPLY AND GROUND CIRCUIT

### BCM

#### BCM : Diagnosis Procedure

INFOID:000000008282029

### 1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	10 (10A)
70		J (50A)
11	ACC power supply	20 (10A)
38	Ignition power supply	1 (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.
3. Check voltage between BCM harness connector and ground.

(+)		(-)	Ignition switch position		
BCM			OFF	ACC	ON
Connector	Terminal				
M67	70	Ground	Battery voltage	Battery voltage	Battery voltage
	57				
M65	11		Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	67		Exists

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR SWITCH

### Description

INFOID:000000008282030

Detects door open/closed condition.

### Component Function Check

INFOID:000000008282031

### 1. CHECK FUNCTION

#### With CONSULT

Check door switches (“DOOR SW-DR”, “DOOR SW-AS”, “DOOR SW-RL”, “DOOR SW-RR”, “BACK DOOR SW”) in “Data Monitor” mode with CONSULT.

Monitor item	Door condition	Display
DOOR SW-DR	CLOSE → OPEN	OFF → ON
DOOR SW-AS		
DOOR SW-RL		
DOOR SW-RR		
BACK DOOR		

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [DLK-276, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282032

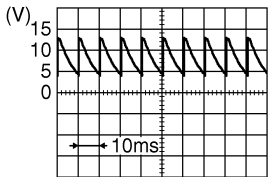
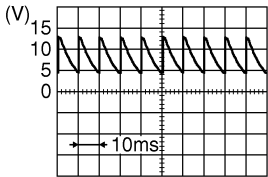
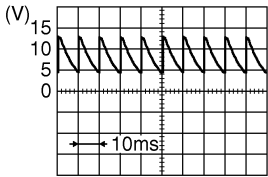
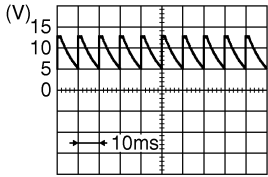
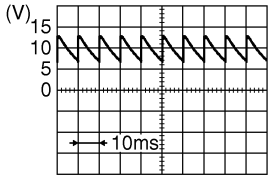
### 1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect door switch connectors.
3. Check signal between door switch harness connector and ground with oscilloscope.

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

(+)		(-)	Voltage (V) (Approx.)
Door switch			
Connector	Terminal		
Front door switch (passenger side)	B93	Ground	 <p style="text-align: right; font-size: small;">JPMIA0586GB</p>
Front door switch (driver side)	B92		 <p style="text-align: right; font-size: small;">JPMIA0587GB</p>
Rear door switch RH	B95		 <p style="text-align: right; font-size: small;">JPMIA0587GB</p>
Rear door switch LH	B94		 <p style="text-align: right; font-size: small;">JPMIA0594GB</p>
Back door lock assembly (back door switch)	D190		 <p style="text-align: right; font-size: small;">JPMIA0593GB</p>

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Is the inspection result normal?

YES >> • Back door switch : GO TO 3.  
• Door switch : GO TO 4.

NO >> GO TO 2.

## 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connectors.
2. Check continuity between BCM harness connector and door switch harness connector.

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Door switch		Continuity
Connector	Terminal	Connector	Terminal	
M65	12	B93	3	Exists
	13	B95		
M66	43	D190		
	47	B92		
	48	B94		

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	12	Ground	Does not exist
	13		
M66	43		
	47		
	48		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## 3.CHECK BACK DOOR GROUND CIRCUIT

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

Back door lock assembly		Ground	Continuity
Connector	Terminal		
D190	4	Ground	Exist

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-278, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace door switch. Refer to [DLK-409, "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008282033

### 1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch terminal .

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Door switch		Condition		Continuity
Terminal				
3	Ground part of door switch	Door switch	Pressed	Exists
			Released	Does not exist

Back door switch		Condition		Continuity
Terminal				
3	4	Back door	open	Exists
			close	Does not exist

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Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace door switch . Refer to [DLK-409, "Removal and Installation"](#).

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# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR LOCK AND UNLOCK SWITCH DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008282034

Transmits door lock/unlock operation to BCM.

### DRIVER SIDE : Component Function Check

INFOID:000000008282035

## 1.CHECK FUNCTION

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

Monitor item	Condition
CDL LOCK SW	LOCK : ON
	UNLOCK : OFF
CDL UNLOCK SW	LOCK : OFF
	UNLOCK : ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to [DLK-280, "DRIVER SIDE : Diagnosis Procedure"](#).

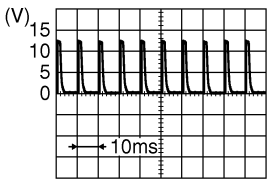
### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008282036

## 1.CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power window main switch connectors.
3. Check signal between power window main switch harness connector and ground with oscilloscope.

(+)		(-)	Signal (Reference value)
Power window main switch			
Connector	Terminal	Ground	
D5	6		
D6	18		



JPMIA0591GB

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.
2. Check continuity between BCM harness connector and power window main switch harness connector.

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M65	46	D5	6	Exists
	45	D6	18	

3. Check continuity between BCM harness connector and ground.



# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M65	46		Does not exist
	45		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D6	17		Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK DOOR LOCK AND UNLOCK SWITCH

Check power window main switch.

Refer to [DLK-281, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace power window main switch. Refer to [PWC-63, "Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## DRIVER SIDE : Component Inspection

INFOID:000000008282037

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### 1.CHECK DOOR LOCK AND UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check power window main switch terminal.

Power window main switch		Condition		Continuity
Terminal				
6	17	Door lock	LOCK	Exists
18			UNLOCK	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window main switch. Refer to [PWC-63, "Removal and Installation"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008282038

Transmits door lock/unlock operation to BCM.

### PASSENGER SIDE : Component Function Check

INFOID:000000008282039

### 1.CHECK FUNCTION

# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

Monitor item	Condition
CDL LOCK SW	LOCK : ON
	UNLOCK : OFF
CDL UNLOCK SW	LOCK : OFF
	UNLOCK : ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

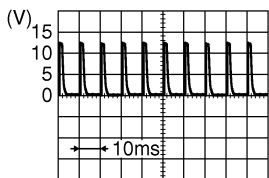
NO >> Refer to [DLK-282. "PASSENGER SIDE : Diagnosis Procedure"](#).

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008282040

### 1. CHECK DOOR LOCK AND UNLOCK SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope.

(+)		(-)	Signal (Reference value)
Connector	Terminal		
Front power window switch (passenger side)	1	Ground	
D45	2		

JPMIA0591GB

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

BCM		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M65	46	D45	2	Exists
	45		1	

3. Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	46		Does not exist
	45		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

NO >> Repair or replace harness.

# DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## 3. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D45	3		Exists

Is the inspection result normal?

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

## 4. CHECK DOOR LOCK AND UNLOCK SWITCH

Check front power window switch (passenger side).  
Refer to [DLK-283, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace front power window switch (passenger side). Refer to [PWC-63, "Removal and Installation"](#).

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## PASSENGER SIDE : Component Inspection

INFOID:000000008282041

## 1. CHECK DOOR LOCK AND UNLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check front power window switch (passenger side) terminal.

Front power window switch (passenger side)		Condition	Continuity
Terminal			
2	3	Door lock	Exists
1		LOCK UNLOCK	

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace front power window switch (passenger side). Refer to [PWC-63, "Removal and Installation"](#).

# KEY SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## KEY SWITCH

### Description

INFOID:000000008282042

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

### Component Function Check

INFOID:000000008282043

### 1.CHECK KEY SWITCH INPUT SIGNAL

Check key switch "KEY ON SW" in "Data Monitor" mode with CONSULT. Refer to [DLK-270, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

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 [DLK-284, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282044

### 1.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.

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M24	2	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

### 2.CHECK KEY SWITCH SIGNAL CIRCUIT

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

BCM		Key switch		Continuity
Connector	Terminal	Connector	Terminal	
M65	37	M24	1	Exists

3. Check continuity between key switch and ground.

Key switch		Ground	Continuity
Connector	Terminal		
M24	1		Does not exist

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK KEY SWITCH

Check key switch function.

Refer to [DLK-285, "Component Inspection"](#).

# KEY SWITCH

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- yes >> GO TO 4.
- NO >> Replace key cylinder assembly.

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-46. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008282045

## COMPONENT INSPECTION

### 1.CHECK KEY SWITCH

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

Key switch		Condition	Continuity
Terminal			
1	2	Insert mechanical key into key cylinder	Exists
		Remove mechanical key from key cylinder	Does not exist

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace key cylinder assembly.

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# KEY CYLINDER SWITCH

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## KEY CYLINDER SWITCH

### Description

INFOID:000000008282046

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

### Component Function Check

INFOID:000000008282047

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [DLK-270. "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Monitor item	Condition
KEY CYL LK-SW	Lock : ON
	Neutral / Unlock : OFF
KEY CYL UN-SW	Unlock : ON
	Neutral / Lock : OFF

Is the inspection result normal?

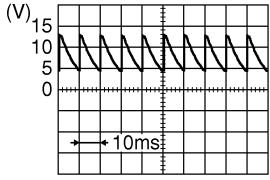
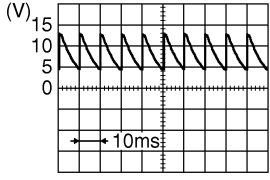
- YES >> Key cylinder switch is OK.  
 NO >> Refer to [DLK-286. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282048

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

(+) Front door lock assembly (driver side)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D9	5	Ground	Unlock	0
			Neutral / Unlock	 <p>JPMIA0587GB</p>
	Lock		0	
	Neutral / Lock		 <p>JPMIA0587GB</p>	

Is the inspection result normal?

- YES >> GO TO 3.

# KEY CYLINDER SWITCH

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 2.

## 2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M65	7	D9	5	Existed
	8		6	

3. Check continuity between BCM connector and ground.

BCM		Ground	Continuity
connector	Terminal		
M65	7		Not existed
	8		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [DLK-287, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to [DLK-378, "DOOR ASSEMBLY : Removal and Installation"](#).

## 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008282049

### COMPONENT INSPECTION

#### 1.CHECK DOOR KEY CYLINDER SWITCH

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly (driver side) connector
3. Check front door lock assembly (driver side) terminal.

# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Front door lock assembly (driver side)		Condition	Continuity
Terminal			
5	4	Unlock	Existed
6		Neutral / Lock	Not existed
		Lock	Existed
		Neutral / Unlock	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to [DLK-378. "DOOR ASSEMBLY : Removal and Installation"](#).



# REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY RECEIVER

### Description

INFOID:000000008282050

Receives key fob switch operation and transmits to BCM.

### Component Function Check

INFOID:000000008282051

#### 1.CHECK FUNCTION

Check door lock and unlock operation with keyfob switch.

Is the inspection result normal?

- YES >> Remote keyless entry receiver is OK.
- NO >> Refer to [DLK-289, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282052

#### 1.CHECK BCM SIGNAL 1

1. Turn ignition switch OFF.
2. Disconnect remote keyless entry receiver connector.
3. Check voltage between remote keyless entry receiver harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Remote keyless entry receiver			
Connector	Terminal		
M91	4	Ground	5

Is the inspection result normal?

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

#### 2.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLYCIRCUIT

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

BCM		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M65	19	M91	4	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	19		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).
- NO >> Repair or replace harness.

#### 3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

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

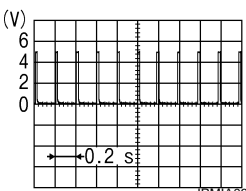
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# REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

(+)		(-)	Signal (Reference value)	
Remote keyless entry receiver				
Connector	Terminal			
M91	4	Ground	Insert mechanical key into ignition key cylinder	0 V
			Remove mechanical key from ignition key cylinder (Any door opened)	5 V
			Remove mechanical key from ignition key cylinder (Any door closed)	

Is the inspection result normal?

- YES >> GO TO 4.  
 NO >> Replace remote keyless entry receiver.

## 4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

BCM		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M65	18	M91	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	18		Not existed

Is the inspection result normal?

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

## 5. CHECK BCM SIGNAL 2

1. Reconnect BCM connector.
2. Check voltage between remote keyless entry receiver harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Remote keyless entry receiver			
Connector	Terminal		
M91	2	Ground	5

Is the inspection result normal?

- YES >> GO TO 7.  
 NO >> GO TO 6.

## 6. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT

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

# REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M65	20	M91	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	20		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 7. CHECK REMOTE KEYLESS ENTRY RECEIVER SIGNAL

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

(+)		(-)	Condition	Signal (Reference value)
Remote keyless entry receiver				
Connector	Terminal			
M91	2	Ground	Waiting	
			Press the keyfob lock or unlock button	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace remote keyless entry receiver.

## 8. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

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# DOOR LOCK ACTUATOR

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## DOOR LOCK ACTUATOR DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008282053

Locks/unlocks the door with the signal from BCM.

### DRIVER SIDE : Component Function Check

INFOID:000000008282054

## 1.CHECK FUNCTION

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

Test item		Condition
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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 [DLK-292, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008282055

## 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Front door lock assembly (driver side)	Connector			
D9	1	Ground	Lock	0 → Battery voltage → 0
	2		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to [DLK-396, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D9	1	Exists
	59		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Does not exist
	59		

# DOOR LOCK ACTUATOR

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008282056

Locks/unlocks the door with the signal from BCM.

### PASSENGER SIDE : Component Function Check

INFOID:000000008282057

#### 1.CHECK FUNCTION

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

Test item		Condition
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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 [DLK-293, "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008282058

#### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock actuator (passenger side) connector.
3. Check voltage between front door lock actuator (passenger side) harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D48	2	Ground	Lock	0 → Battery voltage → 0
	1		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace front door lock actuator (passenger side). Refer to [DLK-396, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Front door lock actuator (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D48	2	Exists
	66		1	

3. Check continuity between BCM harness connector and ground.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Does not exist
	66		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

## REAR LH

### REAR LH : Description

INFOID:000000008282059

Locks/unlocks the door with the signal from BCM.

### REAR LH : Component Function Check

INFOID:000000008282060

## 1.CHECK FUNCTION

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

Test item		Condition
DOOR LOCK/UNLOCK	ALL UNLK	The all door lock actuators are unlocked
	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-294, "REAR LH : Diagnosis Procedure"](#).

## REAR LH : Diagnosis Procedure

INFOID:000000008282061

### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D85	1	Ground	Lock	0 → Battery voltage → 0
	2		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace rear door lock actuator LH. Refer to [DLK-403, "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D85	1	Exists
	66		2	

3. Check continuity between BCM harness connector and ground.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Does not exist
	66		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

NO >> Repair or replace harness.

## REAR RH

### REAR RH : Description

INFOID:000000008282062

Locks/unlocks the door with the signal from BCM.

### REAR RH : Component Function Check

INFOID:000000008282063

#### 1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Rear door lock actuator RH is OK.

NO >> Refer to [DLK-295. "REAR RH : Diagnosis Procedure"](#).

### REAR RH : Diagnosis Procedure

INFOID:000000008282064

#### 1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
D105	2	Ground	Lock	0 → Battery voltage → 0
	1		Unlock	0 → Battery voltage → 0

Is the inspection result normal?

YES >> Replace rear door lock actuator RH. Refer to [DLK-403. "DOOR LOCK : Removal and Installation"](#).

NO >> GO TO 2.

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M67	65	D105	2	Exists
	66		1	

3. Check continuity between BCM harness connector and ground.

# DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M67	65		Does not exist
	66		

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).
- NO >> Repair or replace harness.



# BACK DOOR OPENER ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR OPENER ACTUATOR

### Description

INFOID:000000008282065

Opens the back door with the signal from BCM.

### Component Function Check

INFOID:000000008282066

#### 1.CHECK FUNCTION

Check "TRUNK/BACK DOOR" in "Active Test" mode with CONSULT.

Test item		Condition
TRUNK/BACK DOOR	:OPEN	Back door opener actuator operation

Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to [DLK-297, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282067

#### 1.CHECK BACK DOOR OPENER ACTUATOR INPUT SIGNAL

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Back door lock assembly Connector	Terminal				
D190	1	Ground	Back door opener switch	Pressed	0 → Battery voltage → 0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK BACK DOOR LOCK ASSEMBLY CIRCUIT

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

BCM		Back door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	
M66	53	D190	1	Exists

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	53		Does not exist

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

NO >> Repair or replace harness.

#### 3.CHECK BACK DOOR LOCK ASSEMBLY GROUND CIRCUIT

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

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# BACK DOOR OPENER ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Back door lock assembly		Ground	Continuity
Connector	Terminal		Exists
D190	2		

Is the inspection result normal?

- YES >> Replace back door lock assembly. Refer to [DLK-408, "DOOR LOCK : Removal and Installation"](#).
- NO >> Repair or replace harness.

# BACK DOOR OPENER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR OPENER SWITCH

### Description

INFOID:000000008282068

Sends the back door opening signal to BCM.

### Component Function Check

INFOID:000000008282069

### 1.CHECK FUNCTION

#### With CONSULT

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

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-299, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282070

### 1.CHECK BACK DOOR OPENER SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect back door opener switch assembly (opener switch) connector.
- Check voltage between back door opener switch assembly (opener switch) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
D186	1	Ground	0 Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

### 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between BCM harness connector and back door opener switch assembly (opener switch) harness connector.

BCM		Back door opener switch assembly (opener switch)		Continuity
Connector	Terminal	Connector	Terminal	
M65	30	D186	1	Exists

- Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M65	30		Does not exist

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

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# BACK DOOR OPENER SWITCH

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

## 3. 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)		Ground	Continuity
Connector	Terminal		
D186	2		Exists

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch assembly (opener switch).

Refer to [DLK-300, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch assembly. Refer to [DLK-410, "Removal and Installation"](#).

## 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-46, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:000000008282071

## 1. CHECK BACK DOOR OPENER SWITCH

1. Turn ignition OFF.
2. Disconnect back door opener switch assembly (opener switch).
3. Check back door opener switch assembly (opener switch) terminal.

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door opener switch assembly. Refer to [DLK-410, "Removal and Installation"](#).

# HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HORN FUNCTION

### Description

INFOID:000000008282072

Perform answer-back for each operation with horn.

### Component Function Check

INFOID:000000008282073

#### 1.CHECK FUNCTION

1. Select "HORN" in "Active Test" mode with CONSULT.
2. Check the horn (high/low) operation.

Test item		Description	
HORN	ON	Horn (high/low)	ON (for 20 ms)

Is the operation normal?

- YES >> INSPECTION END  
NO >> Refer to [DLK-301. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282074

#### 1.CHECK HORN FUNCTION

Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2.  
NO >> Refer to [HRN-2. "EXCEPT FOR MEXICO : Wiring Diagram - HORN -"](#).

#### 2.CHECK HORN RELAY CIRCUIT

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

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E15	57	E5	1	Existed

4. Check continuity between driver seat control unit harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E15	57		Not existed

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-28. "Removal and Installation"](#).  
NO >> Repair or replace harness.

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# HAZARD FUNCTION

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## HAZARD FUNCTION

### Description

INFOID:000000008282075

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

### Component Function Check

INFOID:000000008282076

#### 1.CHECK FUNCTION

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

Is the inspection result normal?

- YES >> Hazard warning lamp circuit is OK.
- NO >> Refer to [DLK-302, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282077

#### 1.CHECK HAZARD SWITCH CIRCUIT

Refer to [EXL-45, "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-46, "Intermittent Incident"](#).

>> INSPECTION END

# KEYFOB BATTERY

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## KEYFOB BATTERY

### Description

INFOID:000000008282078

Remote door lock and unlock control entry function available when operating on button.

- Door lock and unlock

### Component Function Check

INFOID:000000008282079

#### 1.CHECK KEYFOB FUNCTION

Check door lock and unlock operation with keyfob switch.

Is the inspection result normal?

YES >> Keyfob is OK.

NO >> Refer to [DLK-303. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008282080

#### 1.CHECK KEYFOB BATTERY

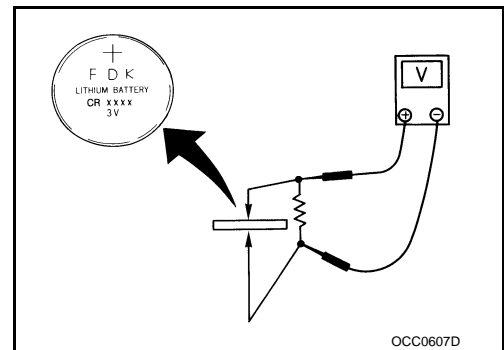
Check by connecting a resistance (approximately 300  $\Omega$ ) so that the current value becomes about 10 mA.

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

Is the measurement value within the specification?

YES >> Replace keyfob.

NO >> Replace keyfob battery. Refer to [DLK-411. "Exploded View"](#).



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# INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER

### Description

INFOID:000000008282081

Integrated Homelink Transmitter can store and transmit a maximum of 3 radio signals. Allows operation of garage doors, gates, home and office lighting, entry door locks and security system, etc. Integrated Homelink Transmitter power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

### Component Function Check

INFOID:000000008282082

#### 1.CHECK FUNCTION

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

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Receiver or hand-held transmitter is malfunctioning.

#### 2.CHECK ILLUMINATE

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

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Refer to [DLK-304, "Diagnosis Procedure"](#).

#### 3.CHECK TRANSMITTER

Check transmitter with Tool\*.

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

Is the inspection result normal?

- YES >> Receiver or hand-held transmitter malfunction, not vehicle related.  
NO >> Replace auto anti-dazzling inside mirror (homelink universal transceiver). Refer to [MIR-16, "Removal and Installation"](#).

### Diagnosis Procedure

INFOID:000000008282083

#### 1.CHECK POWER SUPPLY

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
R9	10	Ground	Ignition switch position: LOCK	Battery voltage
	6		Ignition switch position: ON	

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Check the following.
- 10A fuse [No. 1 located in the fuse block (J/B)]
  - 10A fuse [No. 8 located in the fuse block (J/B)]
  - Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

#### 2.CHECK GROUND CIRCUIT



# INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R9	8		Existed

Is the inspection result normal?

YES >> Replace auto anti-dazzling inside mirror.

NO >> Repair or replace harness.

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# POWER DOOR LOCK SYSTEM


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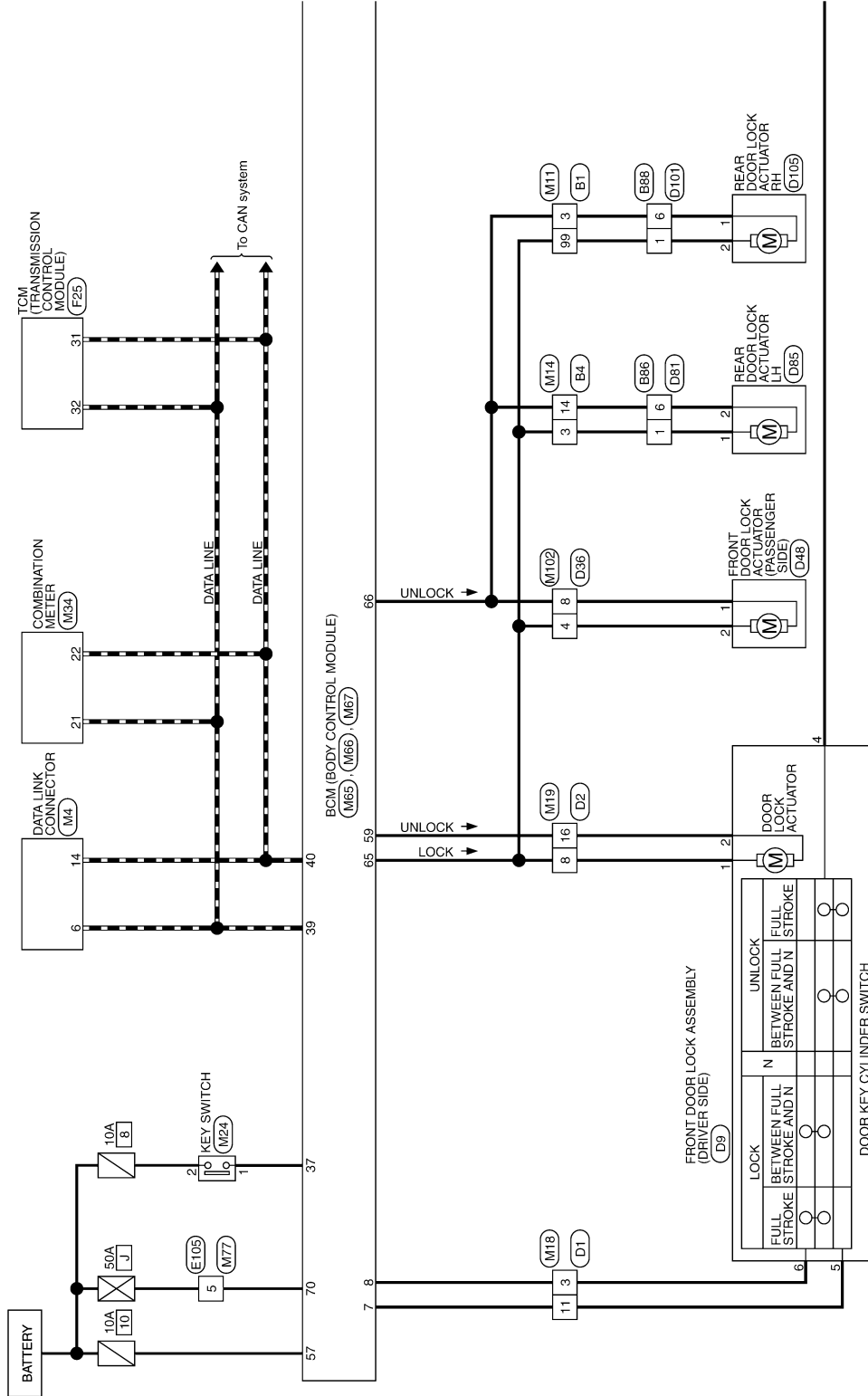
## POWER DOOR LOCK SYSTEM

### Wiring Diagram - POWER DOOR LOCK SYSTEM (WITHOUT INTELLIGENT KEY) -

INFOID:000000008282084

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

#### POWER DOOR LOCK SYSTEM (WITHOUT INTELLIGENT KEY)



2012/05/23

JRKWC2037GB



# REMOTE KEYLESS ENTRY SYSTEM


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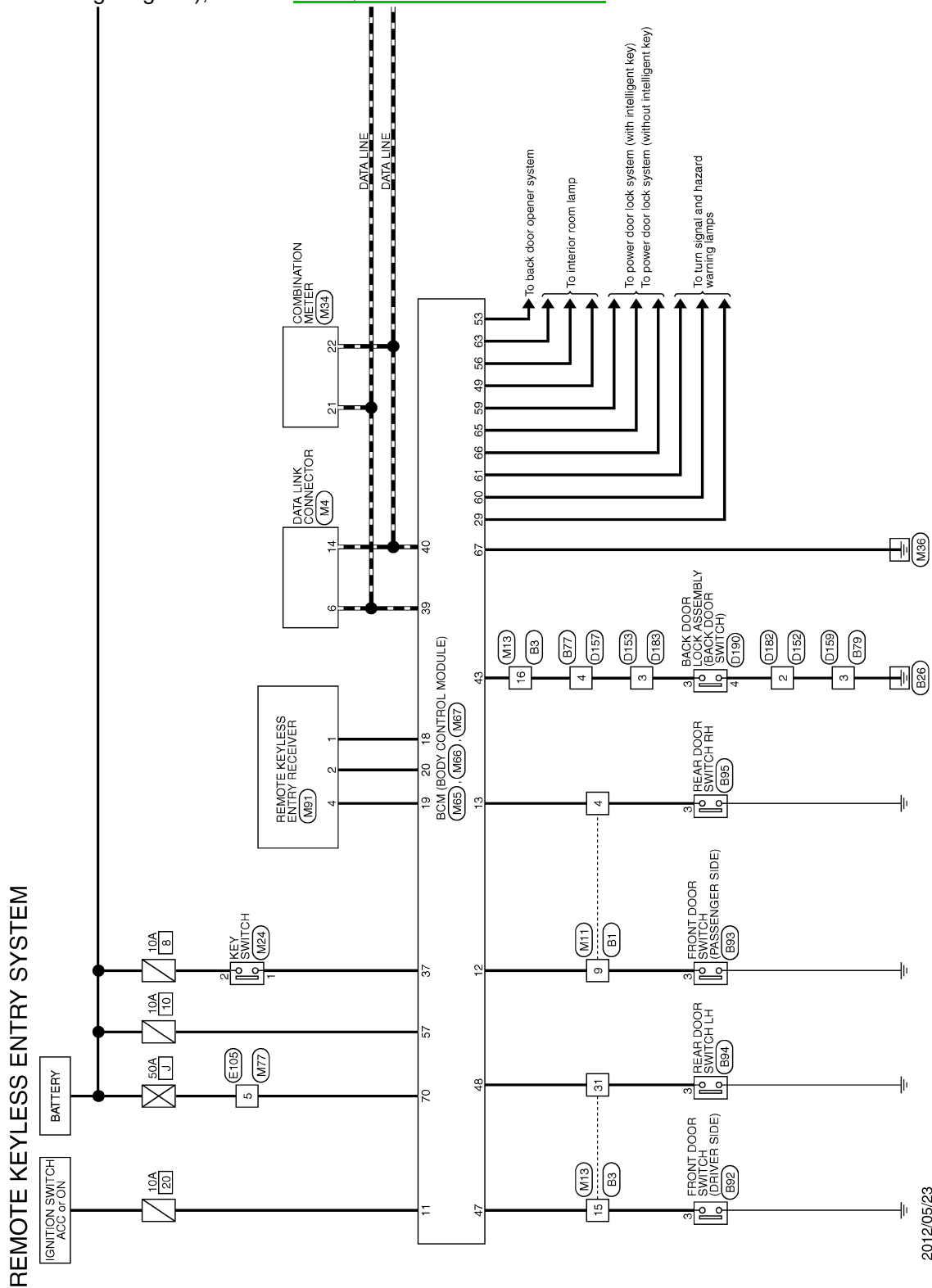
< DTC/CIRCUIT DIAGNOSIS >

## REMOTE KEYLESS ENTRY SYSTEM

### Wiring Diagram - REMOTE KEYLESS ENTRY SYSTEM -

INFOID:000000008282085

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



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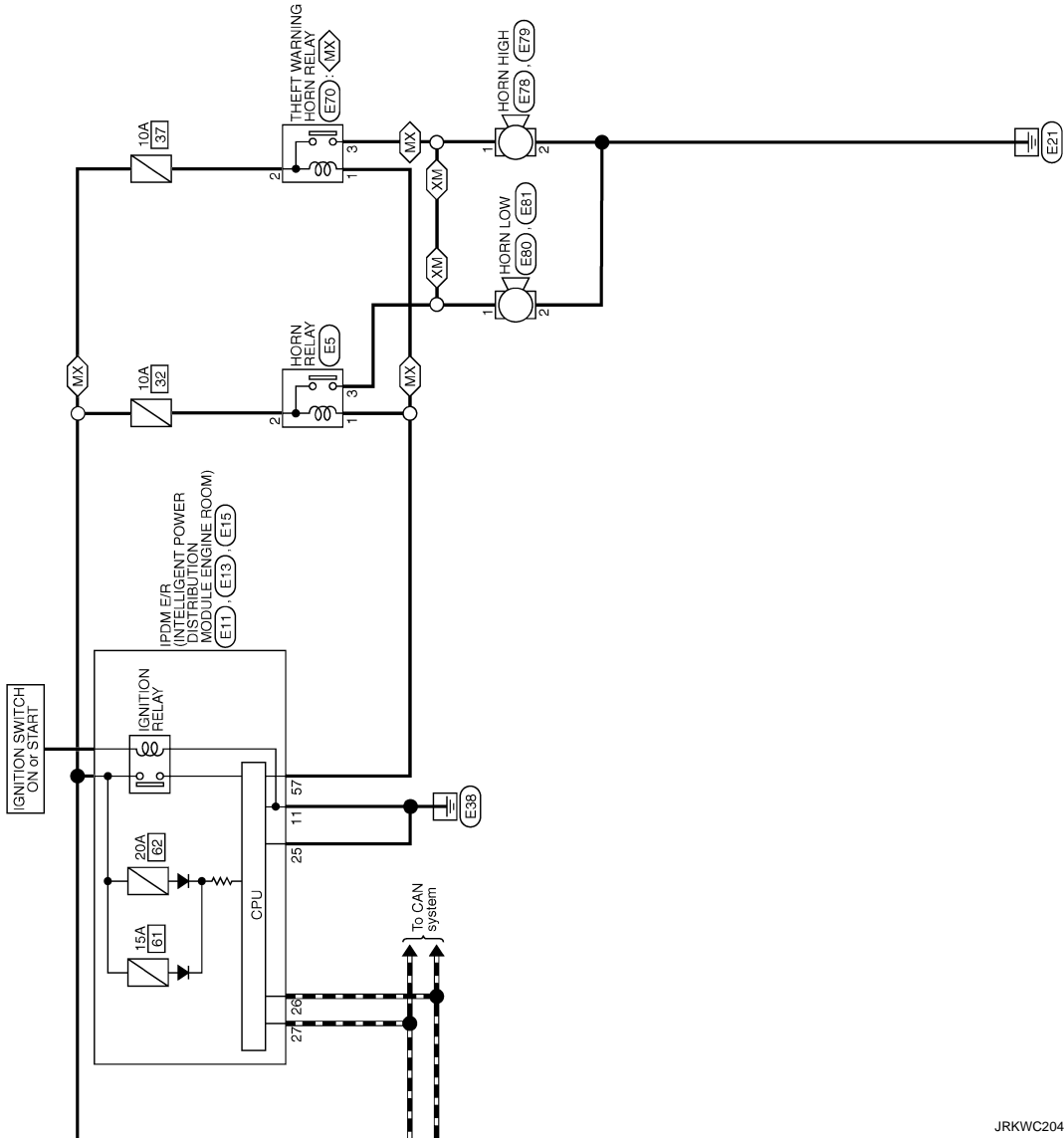
JRKWC2042GB

# REMOTE KEYLESS ENTRY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

MX : For Mexico  
 XM : Except for Mexico



JRKWC2043GB

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# BACK DOOR OPENER SYSTEM


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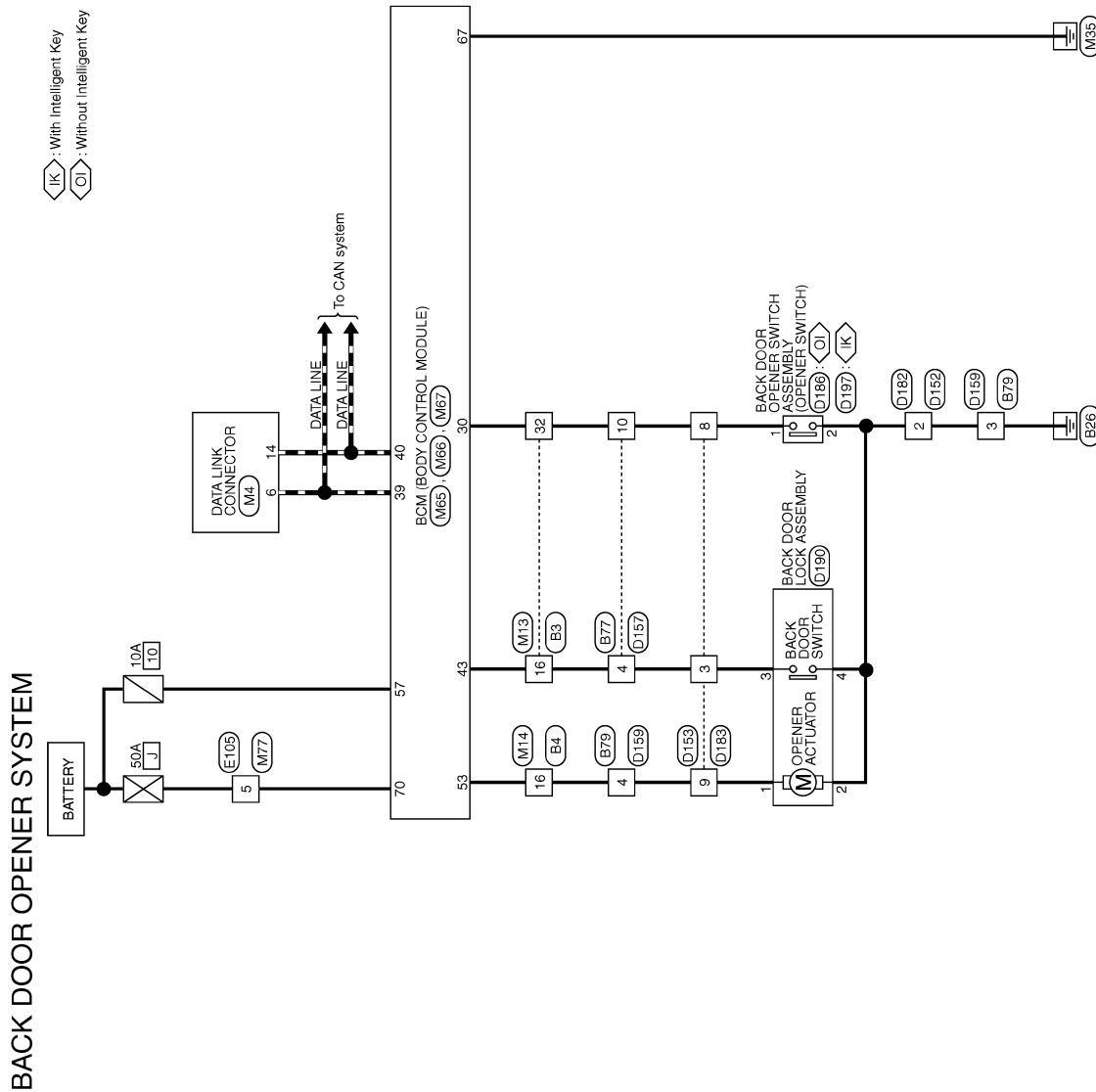
< DTC/CIRCUIT DIAGNOSIS >

## BACK DOOR OPENER SYSTEM

### Wiring Diagram - BACK DOOR OPENER SYSTEM -

INFOID:000000008750381

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



2012/05/23

JRKWC2044GB

# INTEGRATED HOMELINK TRANSMITTER SYSTEM


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[WITHOUT INTELLIGENT KEY SYSTEM]

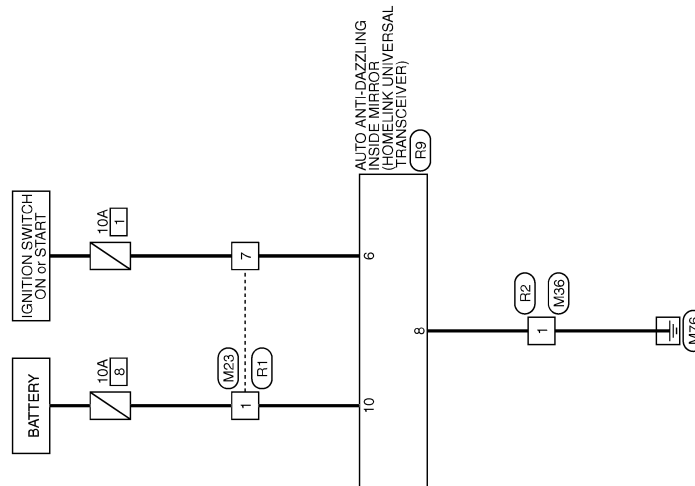
## INTEGRATED HOMELINK TRANSMITTER SYSTEM

### Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM -

INFOID:000000008750382

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

INTEGRATED HOMELINK TRANSMITTER



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JRKWC2045GB

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

#### Reference Value

INFOID:000000008741715

#### VALUES ON THE DIAGNOSIS TOOL

##### NOTE:

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

Monitor Item	Condition	Value/Status
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	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-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
LIGHT SW 1ST	Lighting switch OFF	Off	A
	Lighting switch 1ST	On	
BUCKLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	Off	B
	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	On	
KEYLESS PANIC	PANIC button of key fob is not pressed	Off	C
	PANIC button of key fob is pressed	On	
KEYLESS TRUNK	<b>NOTE:</b> The item is indicated, but not monitored.	Off	D
TRNK OPN MNTR	<b>NOTE:</b> The item is indicated, but not monitored.	Off	E
RKE LCK-UNLCK	LOCK/UNLOCK button of key fob is not pressed and held simultaneously	Off	F
	LOCK/UNLOCK button of key fob is pressed and held simultaneously	On	
RKE KEEP UNLK	UNLOCK button of key fob is not pressed	Off	G
	UNLOCK button of key fob is pressed and held	On	
HI BEAM SW	Lighting switch OFF	Off	H
	Lighting switch HI	On	
HEAD LAMP SW 1	Lighting switch OFF	Off	I
	Lighting switch 2ND	On	
HEAD LAMP SW 2	Lighting switch OFF	Off	I
	Lighting switch 2ND	On	
AUTO LIGHT SW	Other than lighting switch AUTO	Off	J
	Lighting switch AUTO	On	
PASSING SW	Other than lighting switch PASS	Off	DLK
	Lighting switch PASS	On	
FR FOG SW	Front fog lamp switch OFF	Off	L
	Front fog lamp switch ON	On	
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off	L
TURN SIGNAL R	Turn signal switch OFF	Off	M
	Turn signal switch RH	On	
TURN SIGNAL L	Turn signal switch OFF	Off	N
	Turn signal switch LH	On	
ENGINE RUN	Engine stopped	Off	O
	Engine running	On	
PKB SW	Parking brake switch is OFF	Off	O
	Parking brake switch is ON	On	
CARGO LAMP SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off	P
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	
	Dark outside of the vehicle	Close to 0 V	
IGN SW CAN	Ignition switch OFF or ACC	Off	
	Ignition switch ON	On	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WASHER SW	Front washer switch OFF	Off
	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
	Front wiper stop position	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RR WIPER STP2	<b>NOTE:</b> The item is indicated, but not monitored.	Off
H/L WASH SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
FAN ON SIG	Blower fan motor switch OFF	Off
	Blower fan motor switch ON (other than OFF)	On
AIR COND SW	<ul style="list-style-type: none"> <li>• A/C conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner)</li> <li>• A/C switch OFF (Manual air conditioner)</li> </ul>	Off
	<ul style="list-style-type: none"> <li>• A/C conditioner ON (A/C switch indicator ON) (Automatic air conditioner)</li> <li>• A/C switch ON (Manual air conditioner)</li> </ul>	On
I-KEY TRUNK	<b>NOTE:</b> The item is indicated, but not monitored.	Off
I-KEY PW DWN	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed and held	On
I-KEY PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
PUSH SW	Return to ignition switch to "LOCK" position	Off
	Press ignition switch	On
TRNK OPNR SW	When back door opener switch is not pressed	Off
	When back door opener switch is pressed	On

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
TRUNK CYL SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off	A
HOOD SW	Close the hood <b>NOTE:</b> Vehicles of except for Mexico are OFF-fixed	Off	B
	Open the hood	On	
OIL PRESS SW	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• Engine running</li> </ul>	Off	C
	Ignition switch ON	On	
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	D
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	E
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	F
ID REGST FL1	ID of front LH tire transmitter is registered	Done	
	ID of front LH tire transmitter is not registered	Yet	G
ID REGST FR1	ID of front RH tire transmitter is registered	Done	
	ID of front RH tire transmitter is not registered	Yet	H
ID REGST RR1	ID of rear RH tire transmitter is registered	Done	
	ID of rear RH tire transmitter is not registered	Yet	
ID REGST RL1	ID of rear LH tire transmitter is registered	Done	I
	ID of rear LH tire transmitter is not registered	Yet	
WARNING LAMP	Tire pressure indicator OFF	Off	J
	Tire pressure indicator ON	On	
BUZZER	Tire pressure warning alarm is not sounding	Off	
	Tire pressure warning alarm is sounding	On	DLK

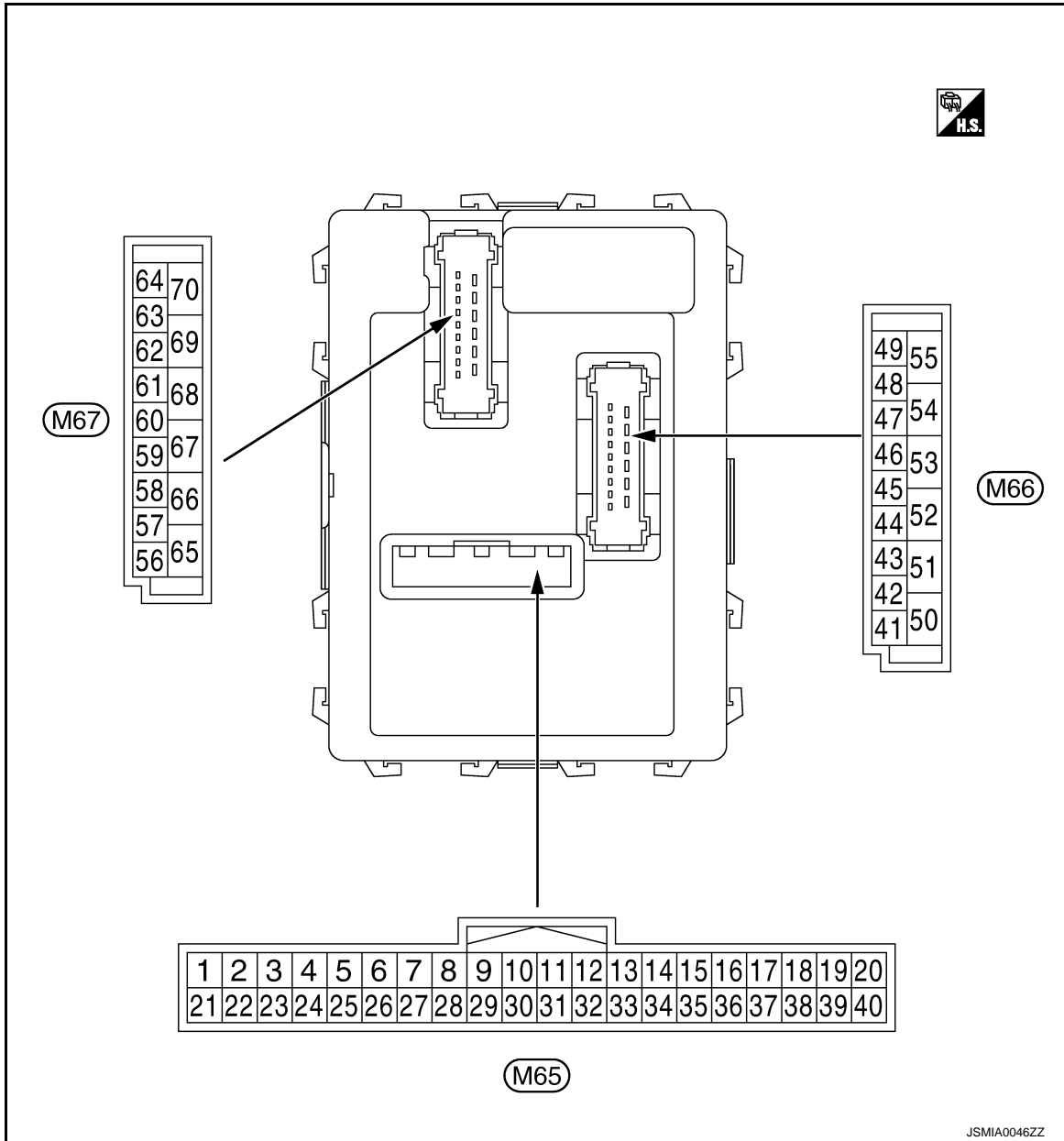
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## TERMINAL LAYOUT



### PHYSICAL VALUES

**CAUTION:**

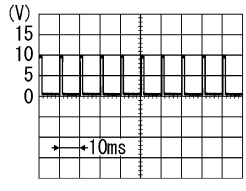
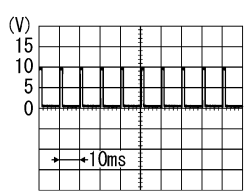
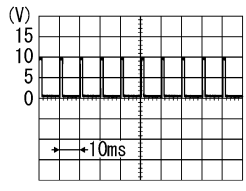
- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT. Refer to [BCS-26. "COMB SW : CONSULT Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-9. "System Diagram"](#).

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output	Ignition key hole illumination	OFF ON	Battery voltage 0 V
1 (V)	Ground	Ignition key hole illumination control	Output	Ignition key hole illumination	OFF ON	Battery voltage 0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
2 (G)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Lighting switch HI	
					Lighting switch 1ST	
					Lighting switch 2ND	
3 (Y)	Ground	Combination switch INPUT 4	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Lighting switch PASS	
					Lighting switch 2ND	
					Front fog lamp switch ON	
4 (W)	Ground	Combination switch INPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	 <p style="text-align: right; font-size: small;">PKIB4959J</p>
					Front wiper switch LO	
					Front wiper switch MIST	
					Front wiper switch INT	

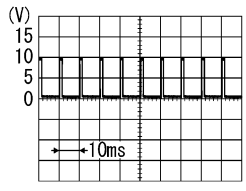
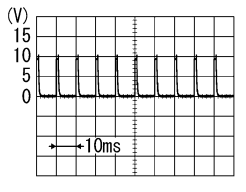
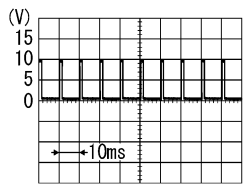
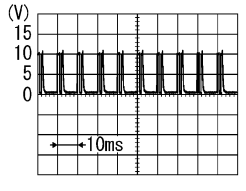
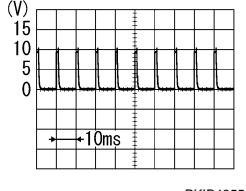
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DLK

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

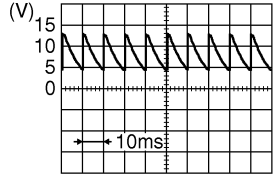
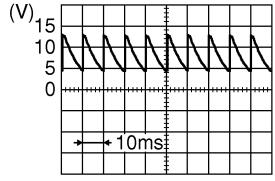
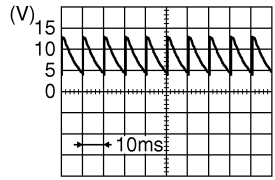
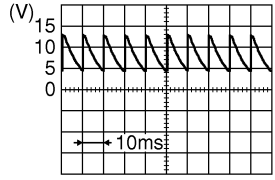
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
+	-	Signal name	Input/ Output				
5 (R)	Ground	Combination switch INPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4959J</p>	
					Rear washer ON (Wiper intermittent dial 4)		
					Any of the condition below with all switch OFF		
					<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>	1.0 V	
					Rear wiper switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4955J</p>	0.8 V
6 (BG)	Ground	Combination switch INPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4959J</p>	
					Rear wiper switch INT (Wiper intermittent dial 4)		
					Wiper intermittent dial 3 (All switch OFF)		
					Any of the condition below with all switch OFF	 <p style="text-align: right; font-size: small;">PKIB4952J</p>	1.7 V
					Any of the condition below with all switch OFF	 <p style="text-align: right; font-size: small;">PKIB4955J</p>	0.8 V
					<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> </ul>		
					<ul style="list-style-type: none"> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>		

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
7 (V)	Ground	Door key cylinder switch UNLOCK signal	Input	Door key cylinder switch	NEUTRAL position  8.0 - 8.5 V
					UNLOCK position 0 V
8 (R)	Ground	Door key cylinder switch LOCK signal	Input	Door key cylinder switch	NEUTRAL position  8.0 - 8.5 V
					LOCK position 0 V
9 (R)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed) 0 V
					ON (Brake pedal is de- pressed) Battery voltage
10 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed Battery voltage
					Pressed 0 V
11 (SB)	Ground	Ignition switch ACC	Input	Ignition switch OFF 0 V	
				Ignition switch ACC or ON Battery voltage	
12 (BG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)  7.5 - 8.0 V
					ON (When passenger door opened) 0 V
13 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)  8.0 - 8.5 V
					ON (When rear door RH opened) 0 V

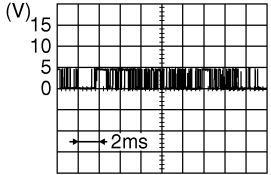
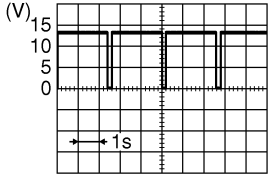
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

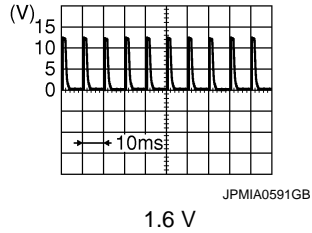
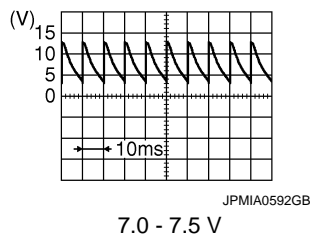
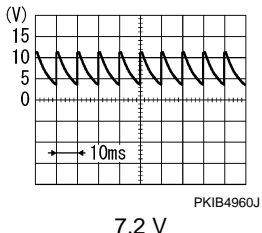
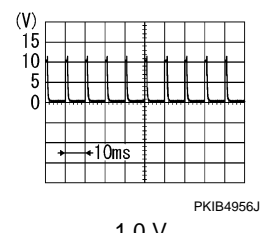
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
14 (G)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
17 (W)	Ground	Optical sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18* (R)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
19* (V)	Ground	Remote keyless entry receiver power supply	Input	Without Intelligent Key system	At any condition	5 V
				With Intelligent Key system	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• For 3 seconds after ignition switch OFF to ON</li> </ul>	0 V
					3 seconds or later after ignition switch OFF to ON	5 V
20* (GR)	Ground	Remote keyless entry receiver signal	Input	Without Intelligent Key system	At any condition	 <p style="text-align: right; font-size: small;">JPMIA0589GB</p> <p><b>NOTE:</b> The wave form changes according to signal-receiving condition.</p>
				With Intelligent Key system	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• For 3 seconds after ignition switch OFF to ON</li> </ul>	0 V
21 (G)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder		Pointer of tester should move
23 (B)	Ground	Security indicator signal	Input	Security indicator	ON	0 V
					Blinking (Ignition switch OFF)	 <p style="text-align: right; font-size: small;">JPMIA0590GB</p>
					OFF	Battery voltage



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)		
		Signal name	Input/ Output				
+	-						
25 (BR)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder	Pointer of tester should move		
27 (Y)	Ground	A/C switch	Input	Ignition switch OFF		 1.6 V	
				Ignition switch ON	A/C switch OFF		0 V
				A/C switch ON			0 V
28 (LG)	Ground	Blower fan switch	Input	Ignition switch OFF		 7.0 - 7.5 V	
				Ignition switch ON	Blower fan switch OFF		0 V
				Blower fan switch ON			0 V
29 (W)	Ground	Hazard switch	Input	Hazard switch	OFF	Battery voltage	
				ON		0 V	
30 (G)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	Battery voltage	
				Pressed		0 V	
32 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 7.2 V	
					Front fog lamp switch ON (Wiper intermittent dial 4)	 1.0 V	
					Rear wiper switch ON (Wiper intermittent dial 4)		
					Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>		

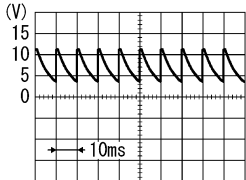
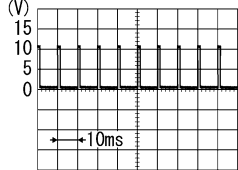
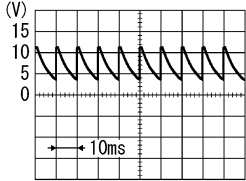
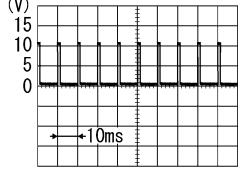
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

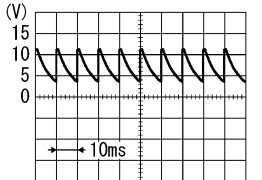
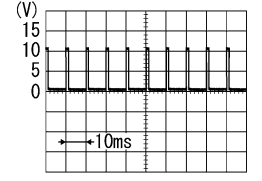
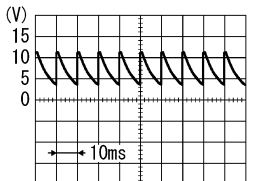
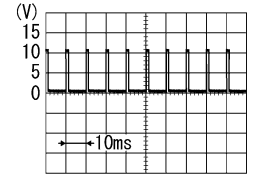
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
33 (GR)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.2 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>Wiper intermittent dial 1</li> <li>Wiper intermittent dial 5</li> <li>Wiper intermittent dial 6</li> </ul>						
34 (SB)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.2 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
Any of the condition below with all switch OFF <ul style="list-style-type: none"> <li>Wiper intermittent dial 1</li> <li>Wiper intermittent dial 2</li> <li>Wiper intermittent dial 3</li> </ul>						

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
35 (B)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 7.2 V
					Lighting switch 2ND	 1.2 V
					Lighting switch PASS	
					Front wiper switch INT	
				Front wiper switch HI		
36 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 7.2 V
					Turn signal switch RH	 1.2 V
					Turn signal switch LH	
					Front wiper switch LO (Front wiper switch MIST)	
				Front washer switch ON		
37 (LG)	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage	
				Remove mechanical key from ignition key cylinder	0 V	
38 (G)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON or START	Battery voltage	
39 (L)	Ground	CAN-H	Input/ Output	—	—	
40 (P)	Ground	CAN-L	Input/ Output	—	—	

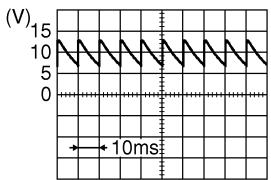
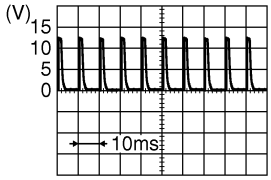
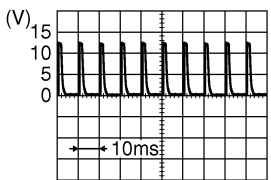
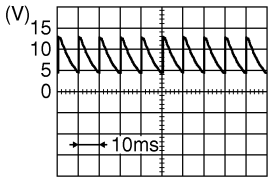
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# BCM (BODY CONTROL MODULE)

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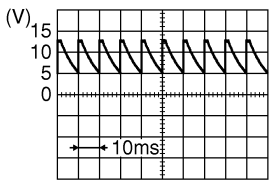
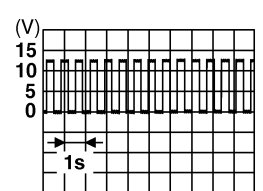
[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
43 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 <p style="text-align: right; font-size: small;">JPMA0593GB</p> <p style="text-align: center;">9.5 - 10.0 V</p>
				Back door switch	ON (When back door opened)	0 V
44 (B)	Ground	Rear wiper auto stop position	Input	Ignition switch ON	Rear wiper stop position	0 V
				Ignition switch ON	Any position other than rear wiper stop position	Battery voltage
45 (P)	Ground	Door lock and unlock switch LOCK signal	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: right; font-size: small;">JPMA0591GB</p> <p style="text-align: center;">1.6 V</p>
				Door lock and unlock switch	LOCK position	0 V
46 (BR)	Ground	Door lock and unlock switch UNLOCK signal	Input	Door lock and unlock switch	NEUTRAL position	 <p style="text-align: right; font-size: small;">JPMA0591GB</p> <p style="text-align: center;">1.6 V</p>
				Door lock and unlock switch	UNLOCK position	0 V
47 (W)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 <p style="text-align: right; font-size: small;">JPMA0587GB</p> <p style="text-align: center;">8.0 - 8.5 V</p>
				Driver door switch	ON (When driver door opened)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
48 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 8.5 - 9.0 V
				Rear door switch LH	ON (When rear door LH opened)	0 V
49 (L)	Ground	Luggage room lamp control	Output	Luggage room lamp switch DOOR position	Back door is closed (Luggage room lamp turns OFF)	Battery voltage
				Luggage room lamp switch DOOR position	Back door is opened (Luggage room lamp turns ON)	0 V
53 (V)	Ground	Back door open	Output	Back door opener switch	Not pressed (Back door actuator is activated)	0 V
				Back door opener switch	Pressed (Back door actuator is activated)	Battery voltage
55 (SB)	Ground	Rear wiper motor	Output	Ignition switch ON	Rear wiper switch OFF	0 V
				Ignition switch ON	Rear wiper switch ON	Battery voltage
56 (Y)	Ground	Interior room lamp power supply	Output	Interior room lamp power supply	After passing the interior room lamp battery saver operation time	0 V
				Interior room lamp power supply	Any other time after passing the interior room lamp battery saver operation time	Battery voltage
57 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Ignition switch OFF	Battery voltage
59 (L)	Ground	Driver door UN-LOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
				Driver door	Other then UNLOCK (Actuator is not activated)	0 V
60 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Ignition switch ON	Turn signal switch LH	 6.0 V

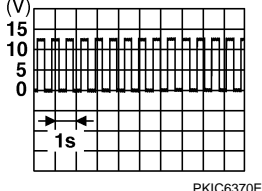
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
61 (R)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKIC6370E</p>	6.0 V
63 (R)	Ground	Interior room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
				ON	ON	0 V
65 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other then LOCK (Actuator is not activated)	0 V
66 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	Battery voltage
					Other then UNLOCK (Actuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON		0 V
68 (L)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
70 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage

\*: Except for Mexico with Intelligent Key


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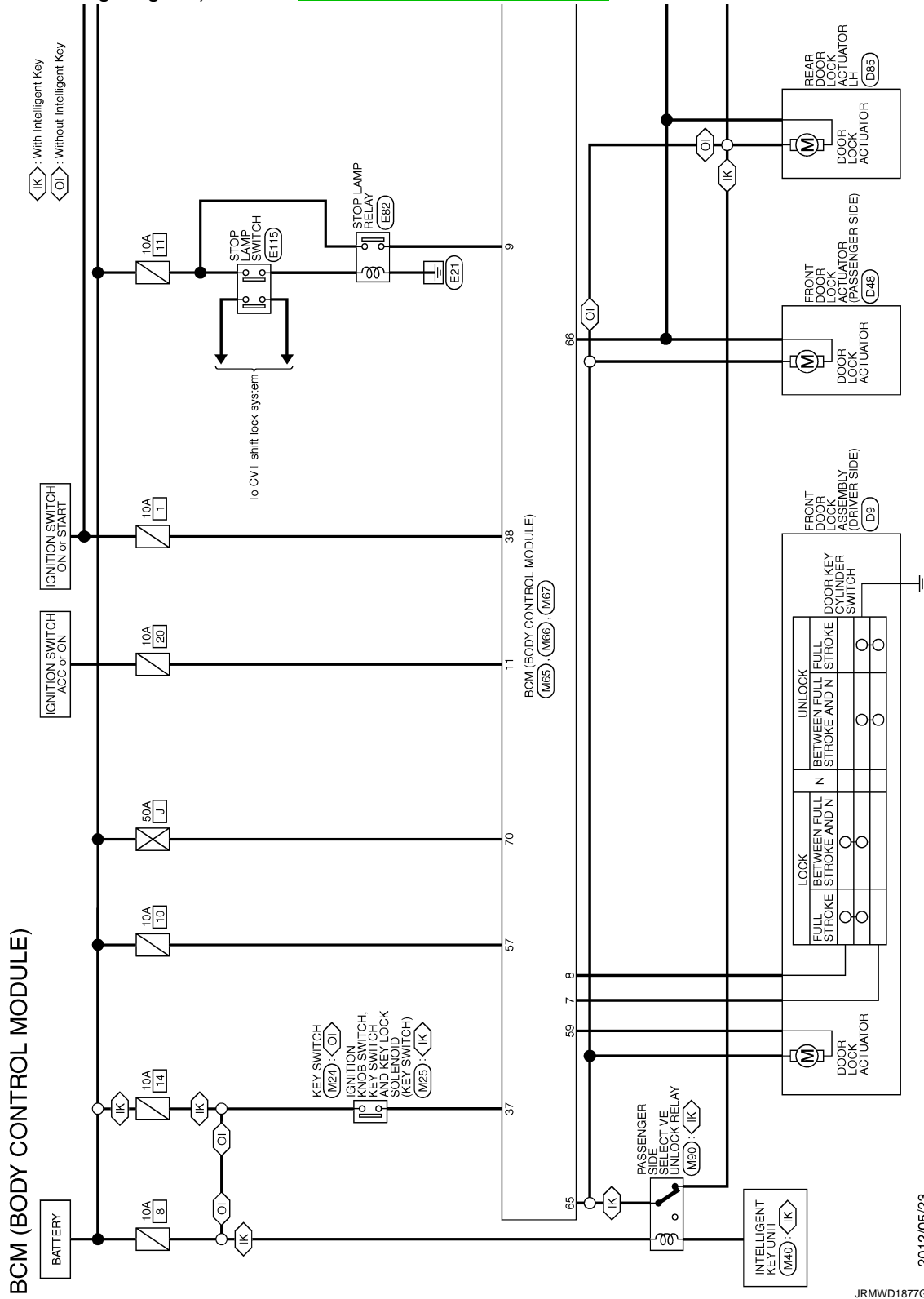
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< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - BCM -

INFOID:000000008741716

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



2012/05/23

JRMWD1877GB

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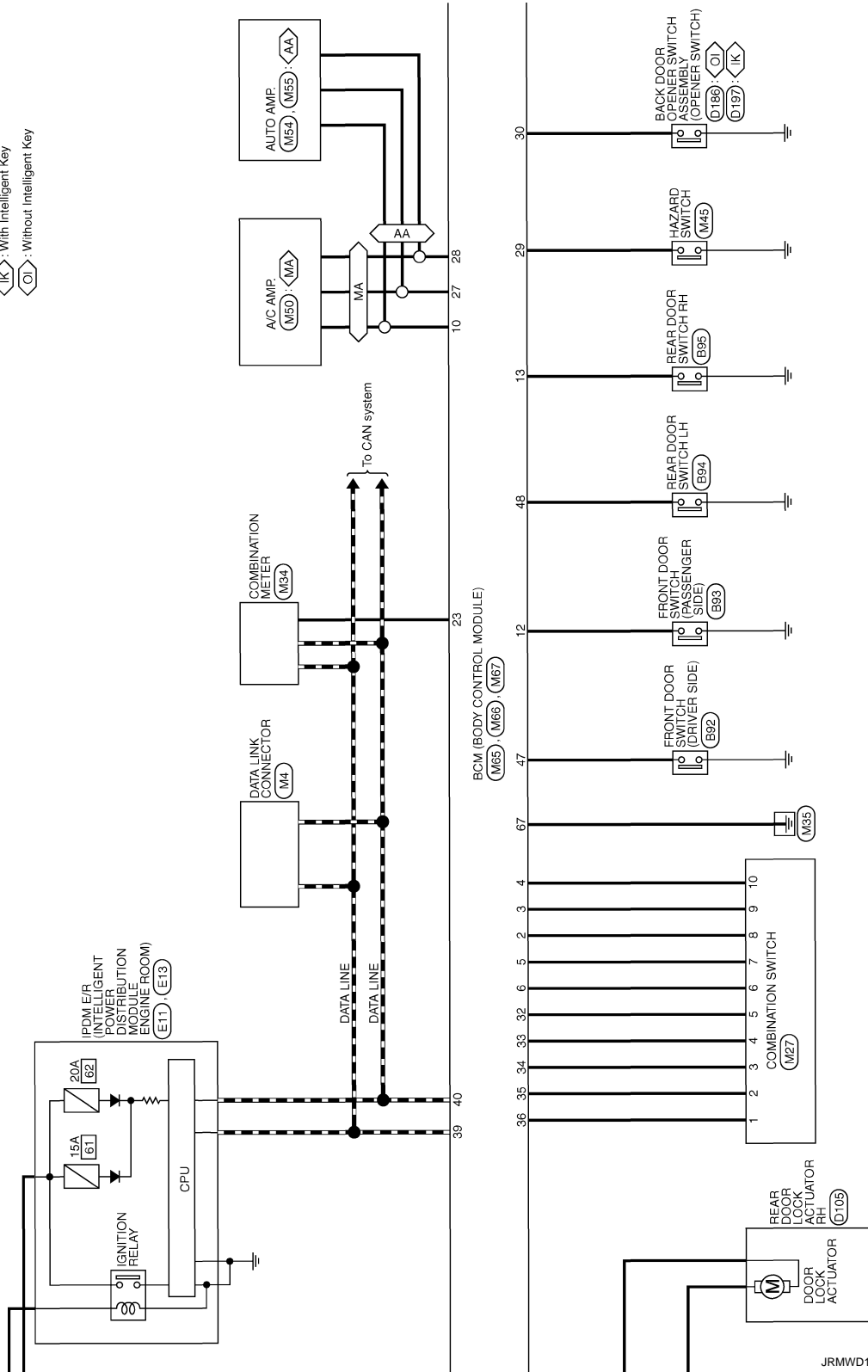
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- AA : With auto A/C
- MA : With manual A/C
- IK : With Intelligent Key
- OI : Without Intelligent Key



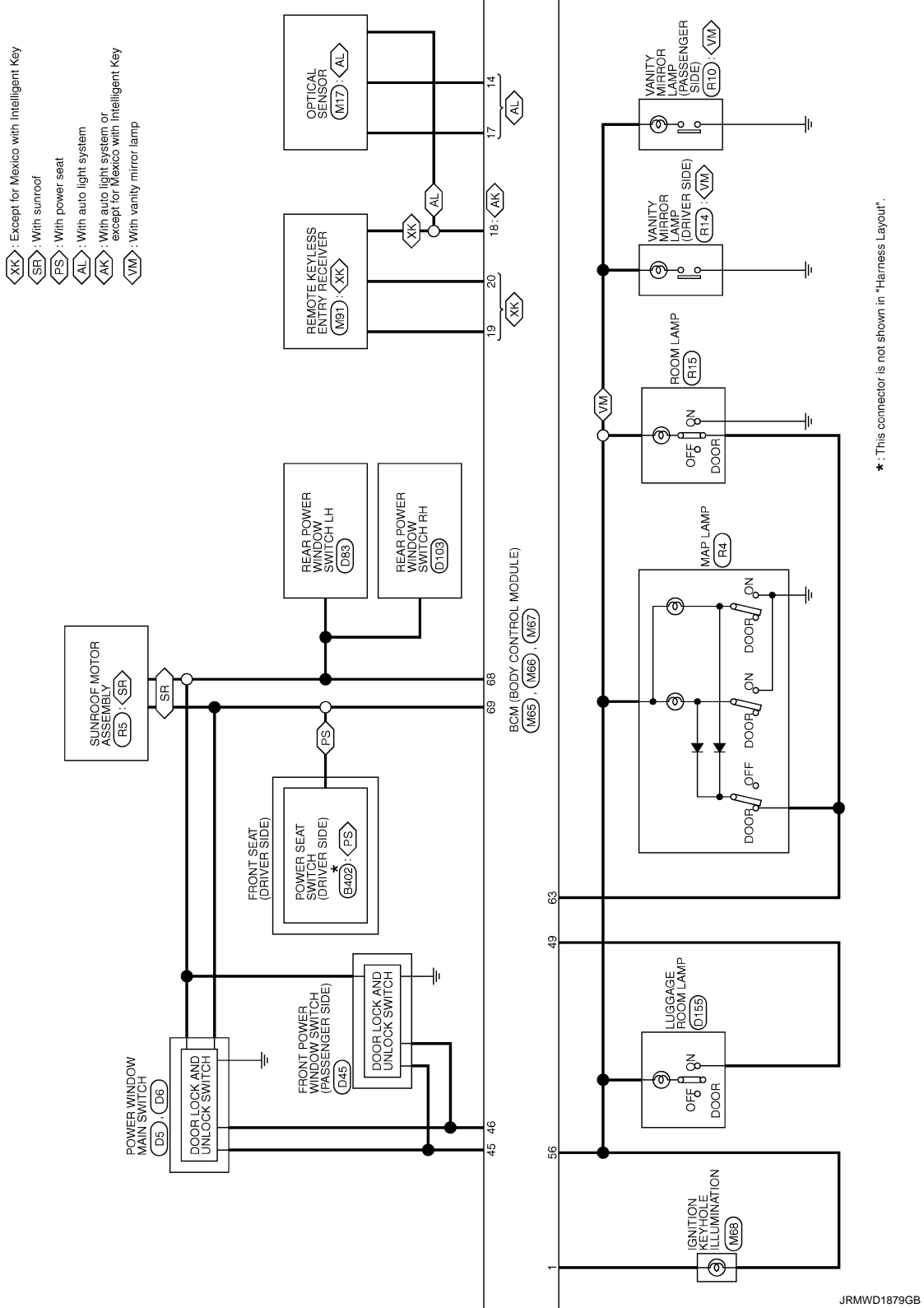
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# BCM (BODY CONTROL MODULE)

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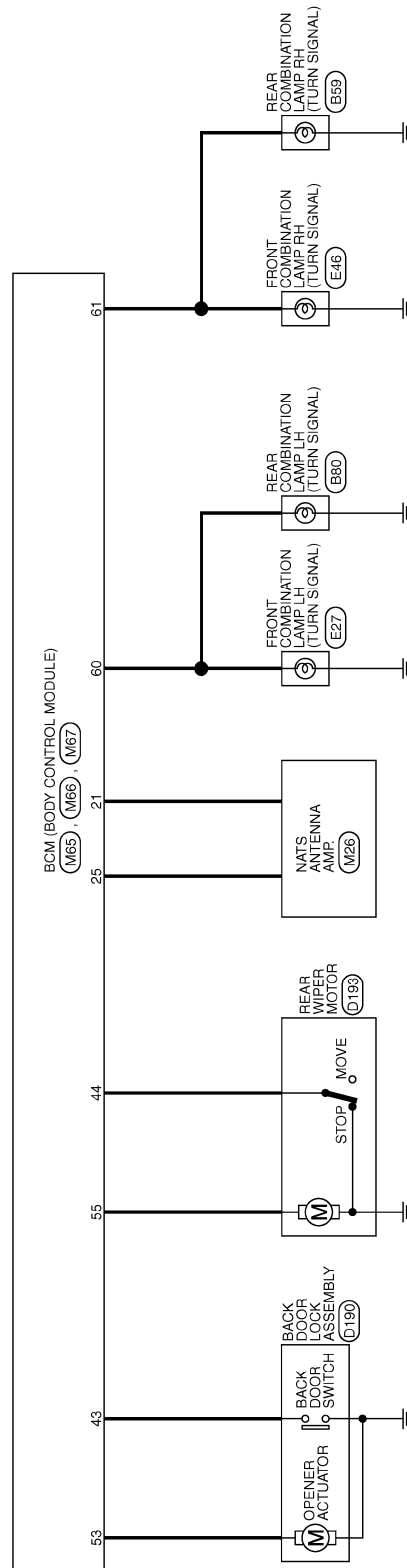


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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]



JRMWD1880GB

INFOID:000000008741717

## Fail-safe

### REAR WIPER MOTOR PROTECTION

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

Condition of cancellation

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

1. Pass more than 1 minute after the rear wiper stop.
2. Turn the rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

INFOID:000000008741718

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
2	C1735: IGN CIRCUIT OPEN
3	<ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1716: [PRESS DATA ERR] FL</li> <li>• C1717: [PRESS DATA ERR] FR</li> <li>• C1718: [PRESS DATA ERR] RR</li> <li>• C1719: [PRESS DATA ERR] RL</li> <li>• C1729: VHCL SPEED SIG ERR</li> </ul>

## DTC Index

INFOID:000000008741719

### 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	Tire pressure monitor warning lamp ON	Reference
U1000: CAN COMM CIRCUIT	—	<a href="#">BCS-34</a>
C1704: LOW PRESSURE FL	×	<a href="#">WT-14</a>
C1705: LOW PRESSURE FR	×	
C1706: LOW PRESSURE RR	×	
C1707: LOW PRESSURE RL	×	<a href="#">WT-16</a>
C1708: [NO DATA] FL	×	
C1709: [NO DATA] FR	×	
C1710: [NO DATA] RR	×	
C1711: [NO DATA] RL	×	<a href="#">WT-19</a>
C1716: [PRESS DATA ERR] FL	×	
C1717: [PRESS DATA ERR] FR	×	
C1718: [PRESS DATA ERR] RR	×	
C1719: [PRESS DATA ERR] RL	×	<a href="#">WT-21</a>
C1729: VHCL SPEED SIG ERR	×	
C1735: IGN CIRCUIT OPEN	—	<a href="#">BCS-35</a>

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000008741720

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 4
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST or 2ND		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ <b>NOTE:</b> This item is monitored only on the vehicle with front fog lamp.	Lighting switch 2ND	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	Stop
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
ST RLY REQ <b>NOTE:</b> Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
DTRL REQ <b>NOTE:</b> This item is monitored only on the vehicle with the daytime running light system.	Daytime running light system is not operated.		Off
	Daytime running light system is operated.		On

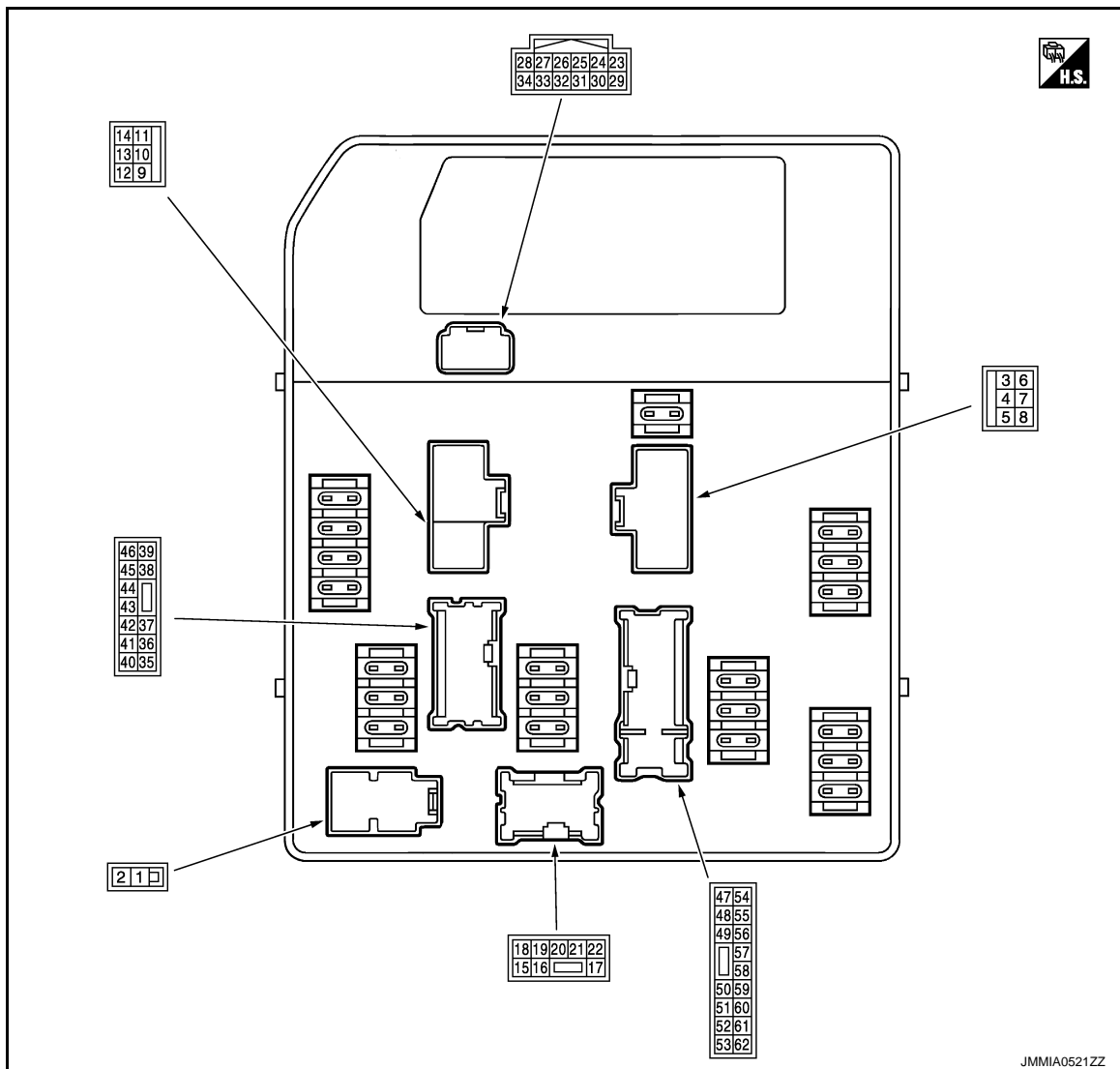
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
HOOD SW <b>NOTE:</b> This item is monitored only the vehicle for Mexico.	Close the hood	Off
	Open the hood	On
THFT HRN REQ	Not operation	Off
	Horn is activated with vehicle security system or panic alarm system.	On
HORN CHIRP	Not operation	Off
	Horn is activated with key fob LOCK operation.	On

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
2 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
3 (L)	Ground	Starter relay power supply	Output	When engine is clanking		Battery voltage
				When engine is not clanking		0 V
4 (W)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan operation	OFF	0 V
					MID or HI	Battery voltage
5 (R)	Ground	Ignition switch START	Input	Ignition switch OFF, ACC or ON		0 V
				Ignition switch START		Battery voltage
6 (BR)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF		Battery voltage
7 (P)	Ground	Cooling fan motor-2 (HI) ground	—	Cooling fan operation	OFF	Battery voltage
					HI	0 V
8 (G)	Ground	Cooling fan relay-2 power supply	Output	Cooling fan operation	OFF	0 V
					HI	Battery voltage
11 (B)	Ground	Ground	—	Ignition switch ON		0 V
12 (G)	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch OFF	0 V
					Rear window defogger switch ON	Battery voltage
15*1 (SB)	Ground	Daytime running light relay control	Output	Daytime running light system	Not operated	Battery voltage
					Operated	0 V
16*2 (Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
17*2 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
18 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
20 (SB)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
21 (G)	Ground	Headlamp HI (LH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• Lighting switch PASS</li> </ul>		Battery voltage
				Daytime running light system Operated*1		7.0 V
22 (LG)	Ground	Headlamp HI (RH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• Lighting switch PASS</li> </ul>		Battery voltage
				Daytime running light system Operated*1		7.0 V
23 (W)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage
24 (Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
25 (B)	Ground	Ground	—	Ignition switch ON		0 V
26 (P)	—	CAN-L	Input/ Output	—		—

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
27 (L)	—	CAN-H	Input/ Output	—		—
31 (LG)	Ground	Cooling fan relay-4 control	Output	Cooling fan operation	OFF	Battery voltage
					LO	0 - 1.0 V
32 (V)	Ground	Throttle control motor relay control	Input	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>		0 - 1.0 V
33 (GR)	Ground	Fuel pump relay control	Input	Ignition switch OFF		0 V
				Ignition switch ON	Engine stopped	Battery voltage
					Engine running	0.8 V
34*3 (W)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V
37 (R)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
38 (R)	Ground	Parking lamp (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
39 (GR)	Ground	Parking lamp (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
40 (BR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
42 (L)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
43 (G)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
45 (Y)	Ground	Starter relay power supply	Input	Ignition switch ON	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
46 (W)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• After passing approximately 1 second or more after turning the ignition switch ON</li> </ul>		0 V
				<ul style="list-style-type: none"> <li>• For approximately 1 second after turning the ignition switch ON</li> <li>• Engine running</li> </ul>		Battery voltage
47 (BR)	Ground	ECM relay power supply	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		0 V
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>		Battery voltage
48 (R)	Ground	ECM relay power supply	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		0 V
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>		Battery voltage

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# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
50 (G)	Ground	Cooling fan relay-5 control	Output	Cooling fan operation	OFF	Battery voltage
					MID or HI	0 - 1.0 V
51 (L)	Ground	ECM relay control	Output	After passing approximately 4 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
					<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 4 seconds after turning ignition switch from ON to OFF</li> </ul>	0 - 1.0 V
52 (P)	Ground	Throttle control motor relay power supply	Output	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		0 V
					<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage
55 (BG)	Ground	A/C relay power supply	Output	Engine stopped		0 V
				Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
56 (SB)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON	Battery voltage	
57 (V)	Ground	Horn relay control	Output	The horn is not activated		Battery voltage
				The horn is activated	0 V	
58 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON	Battery voltage	
59 (BR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON	Battery voltage	
60 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON	Battery voltage	
61 (R)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage

\*1: With daytime running light system

\*2: With front fog lamp system

\*3: For Mexico




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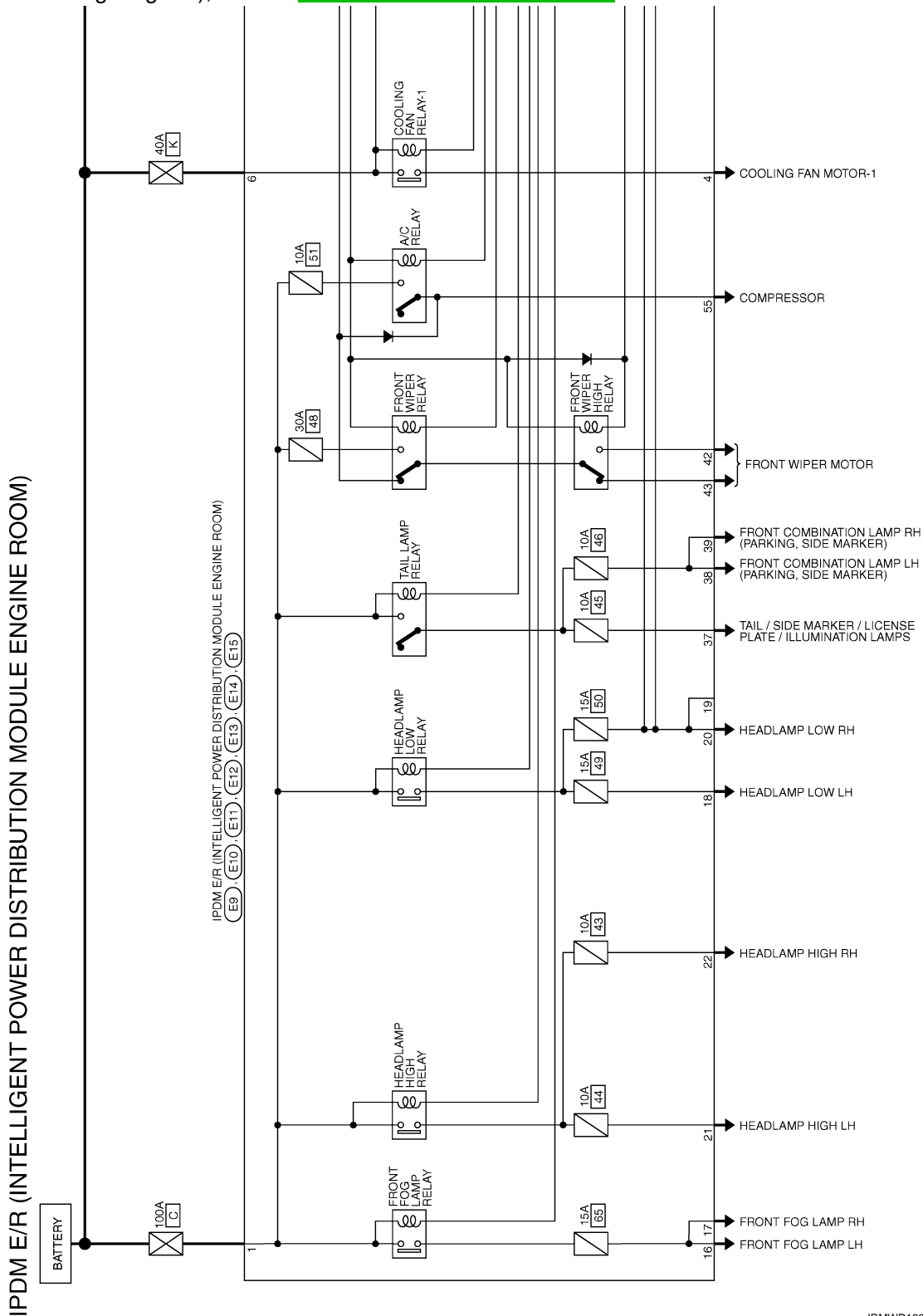
< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## Wiring Diagram - IPDM E/R -

INFOID:000000008741721

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



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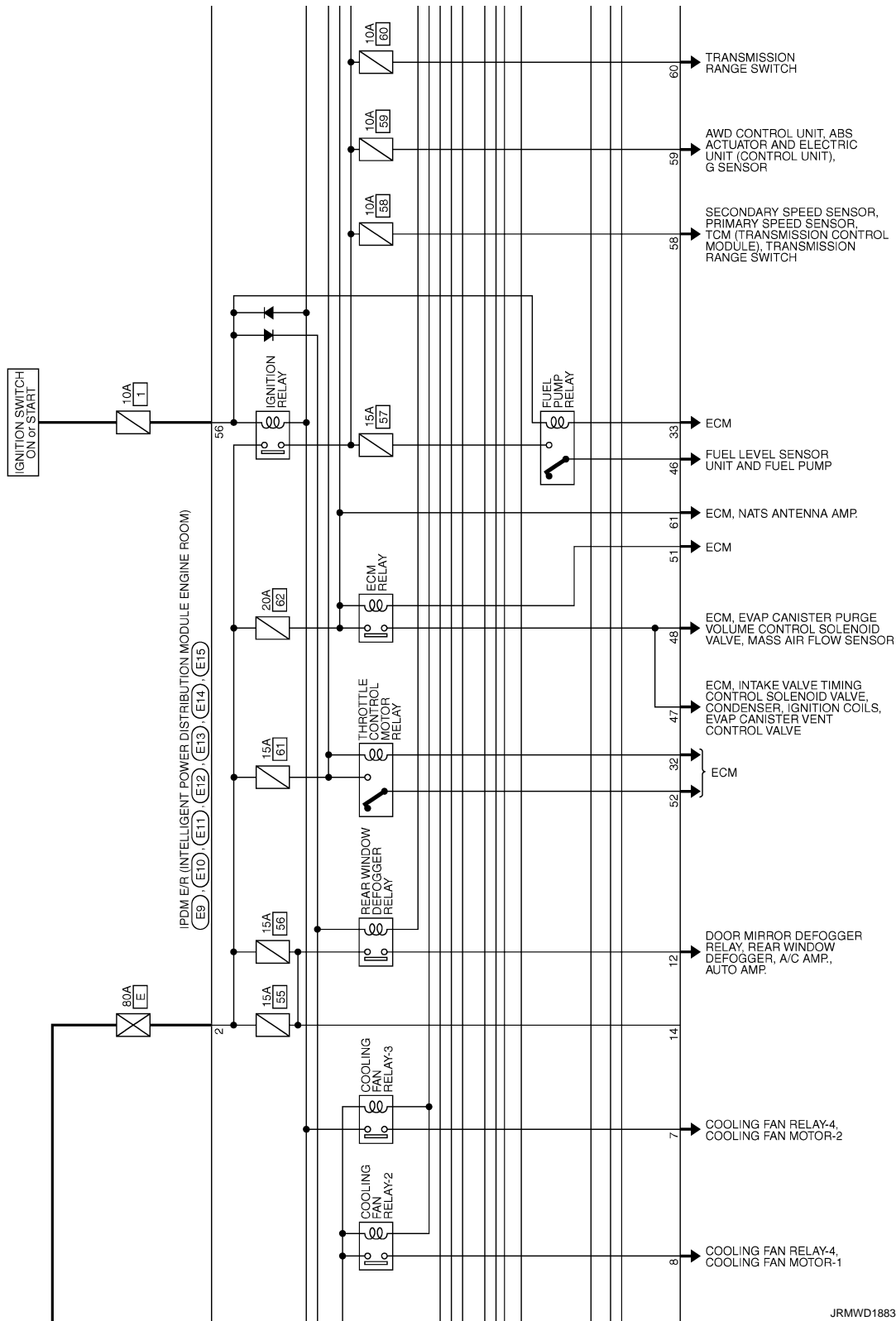
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JRMWD1882GB

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

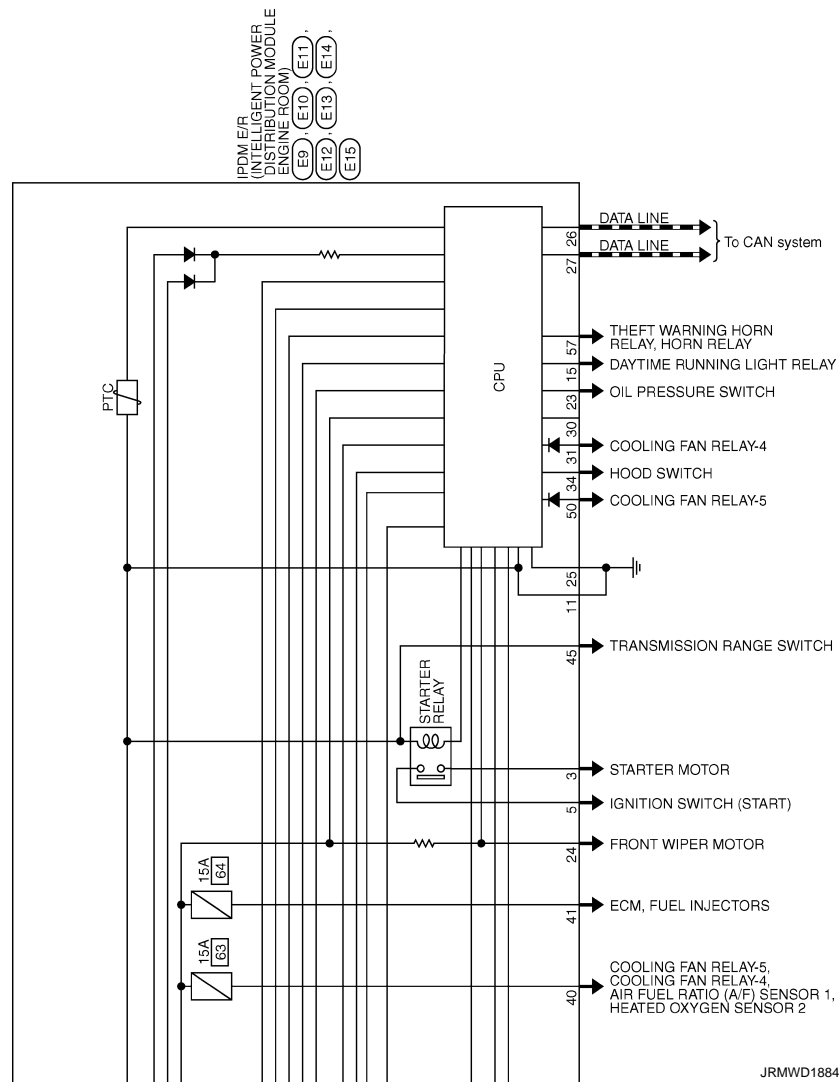
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[WITHOUT INTELLIGENT KEY SYSTEM]



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**Fail-safe**

INFOID:000000008741722

**CAN COMMUNICATION CONTROL**

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If no CAN communication is available with ECM

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn ON when the ignition switch is turned ON</li> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn OFF when the ignition switch is turned OFF</li> <li>Cooling fan relay-4 OFF</li> </ul>
A/C compressor	A/C relay OFF

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>The headlamp low relay turns ON when the ignition switch is turned ON</li> <li>The headlamp low relay turns OFF when the ignition switch is turned OFF</li> <li>Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>Parking lamps</li> <li>License plate lamps</li> <li>Tail lamps</li> <li>Illuminations</li> </ul>	<ul style="list-style-type: none"> <li>The tail lamp relay and the daytime running light relay* turn ON when the ignition switch is turned ON</li> <li>The tail lamp relay and the daytime running light relay* turn OFF when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.</li> <li>The front wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.</li> </ul>
Front fog lamps	Front fog lamp relay OFF
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Horn	Horn relay OFF

**NOTE:**

\*: With daytime running light system

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors status of ignition relay by the voltage at ignition relay contact circuit inside it.
- IPDM E/R judges that the ignition relay is error, if status of the ignition relay and ignition switch ON signal (CAN).
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay and daytime running light relay\* for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

Detection		IPDM E/R judgment	Operation
Ignition switch ON signal	Ignition relay		
ON	ON	Ignition relay normal	—
OFF	OFF	Ignition relay normal	—
OFF	ON	Ignition relay ON stuck	Turn on the tail lamp relay and daytime running light relay* for 10 minutes
ON	OFF	Ignition relay OFF stuck	Detect DTC "B2099: IGN RELAY OFF"

**NOTE:**

\*: With daytime running light system

## FRONT WIPER CONTROL

IPDM E/R detects the front wiper stop position with the front wiper stop position signal.

When the front wiper stop position signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop five times.

**IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)**  
**< ECU DIAGNOSIS INFORMATION > [WITHOUT INTELLIGENT KEY SYSTEM]**

Ignition switch	Front wiper switch	Front wiper stop position signal
ON	OFF	The front wiper stop position signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper stop position signal does not change for 10 seconds.

**NOTE:**  
 This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

**DTC Index**

INFOID:000000008741723

CONSULT display	Fail-safe	Timing <sup>NOTE</sup>		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	<a href="#">PCS-13</a>
B2099: IGN RELAY OFF	—	CRNT	PAST	<a href="#">PCS-14</a>

**NOTE:**  
 The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.

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**DLK**

## SYMPTOM DIAGNOSIS

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

#### ALL DOOR

##### ALL DOOR : Description

INFOID:000000008282097

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

##### ALL DOOR : Diagnosis Procedure

INFOID:000000008282098

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

Check BCM power supply and ground circuit.  
Refer to [DLK-275, "BCM : Diagnosis Procedure"](#) (BCM).

Is the inspection result normal?

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

#### 2.CHECK DRIVER SIDE DOOR LOCK AND UNLOCK SWITCH

Check driver side door lock and unlock switch.  
Refer to [DLK-280, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

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

#### 3.CHECK PASSENGER SIDE DOOR LOCK AND UNLOCK SWITCH

Check passenger side door lock and unlock switch.  
Refer to [DLK-281, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning.

#### 4.CHECK DOOR LOCK ACTUATOR

Check door lock actuator.  
Refer to [DLK-292, "DRIVER SIDE : 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-46, "Intermittent Incident"](#).
- NO >> GO TO 1.

#### DRIVER SIDE

##### DRIVER SIDE : Description

INFOID:000000008282099

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

##### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008282100

#### 1.CHECK DRIVER SIDE DOOR LOCK ACTUATOR

Check driver side door lock actuator.  
Refer to [DLK-292, "DRIVER SIDE : Component Function Check"](#).

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

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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-46. "Intermittent Incident"](#).
- NO >> GO TO 1.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008282101

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

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008282102

#### 1.CHECK PASSENGER SIDE DOOR LOCK ACTUATOR

Check passenger side door lock actuator.

Refer to [DLK-293. "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-46. "Intermittent Incident"](#).
- NO >> GO TO 1.

## REAR LH

### REAR LH : Diagnosis Procedure

INFOID:000000008282103

#### 1.CHECK DOOR LOCK ACTUATOR

Check door lock actuator LH.

Refer to [DLK-79. "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-46. "Intermittent Incident"](#).
- NO >> GO TO 1.

## REAR RH

### REAR RH : Diagnosis Procedure

INFOID:000000008282104

#### 1.CHECK DOOR LOCK ACTUATOR

Check door lock actuator RH.

Refer to [DLK-81. "REAR RH : Component Function Check"](#).

Is the inspection result normal?

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

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

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

---

### 2. CONFIRM THE OPERATION

---

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-46. "Intermittent Incident"](#).
- NO >> GO TO 1.



# KEY REMINDER FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## KEY REMINDER FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282105

#### 1. CHECK KEY SWITCH

Check key switch.

Refer to [DLK-284, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# DOOR DOES NOT LOCK/UNLOCK WITH MECHANICAL KEY

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

---

## DOOR DOES NOT LOCK/UNLOCK WITH MECHANICAL KEY

### Diagnosis Procedure

INFOID:000000008282106

#### 1. CHECK KEY CYLINDER SWITCH

---

Check key cylinder switch

Refer to [DLK-286, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# DOOR DOES NOT LOCK/UNLOCK WITH KEYFOB

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH KEYFOB

### Diagnosis Procedure

INFOID:000000008282107

#### 1.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.

Refer to [DLK-289, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-276, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3.CHECK KEYFOB BATTERY

Check keyfob battery.

Refer to [DLK-303, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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## PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

---

## PANIC ALARM FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282108

#### 1. CHECK PANIC ALARM SET SETTING WITH CONSULT

---

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

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

Is the inspection result normal?

- YES >> Check vehicle security system. Refer to [SEC-134, "System Diagram"](#)
- NO >> Set "PANIC ALARM SET" setting in "WORK SUPPORT".

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY CYLINDER SWITCH

### Diagnosis Procedure

INFOID:000000008282109

#### 1. CHECK "DOOR LOCK-UNLOCK SET" SETTING WITH CONSULT

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".  
Refer to [DLK-270, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).
- NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT".

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# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY FOB

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

---

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH KEY FOB

### Diagnosis Procedure

INFOID:000000008282110

#### 1. CHECK "DOOR LOCK-UNLOCK SET" SETTING WITH CONSULT

---

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".  
Refer to [DLK-270, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-65, "Removal and Installation"](#).
- NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT".

# AUTO DOOR LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## AUTO DOOR LOCK OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282111

#### 1. CHECK "AUTO LOCK SET" SETTING WITH CONSULT

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

Refer to [DLK-270, "DOOR LOCK : CONSULT 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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# BACK DOOR DOES NOT OPENED

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

## BACK DOOR DOES NOT OPENED

### Diagnosis Procedure

INFOID:000000008282112

#### 1.CHECK BACK DOOR OPENER SWITCH

---

Check back door opener switch.

Refer to [DLK-299, "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-297, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3.CHECK VEHICLE SPEED SIGNAL CIRCUIT

---

Check vehicle speed signal "VEHICLE SPEED" in Data monitor.

Refer to [DLK-272, "TRUNK : CONSULT Function \(BCM - TRUNK\) \(WITHOUT INTELLIGENT KEY\)"](#).

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-46, "Intermittent Incident"](#).

NO >> GO TO 1.



# HAZARD REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HAZARD REMINDER OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282113

#### 1. CHECK SETTING OF BUZZER REMINDER WITH CONSULT

Check "HAZARD LAMP SET" setting in "WORK SUPPORT".

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD LAMP SET" setting in "WORK SUPPORT". Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

#### 2. CHECK HAZARD FUNCTION

Check hazard function.

Refer to [DLK-302, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# HORN REMINDER OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

---

## HORN REMINDER OPERATION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282114

#### 1.CHECK "HORN CHIRP SET" SETTING WITH CONSULT

---

Check "HORN CHIRP SET" setting in "WORK SUPPORT".

Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HORN CHIRP SET" setting in "WORK SUPPORT". Refer to [DLK-271, "MULTIREMOTE ENT : CONSULT Function \(BCM - MULTIREMOTE ENT\)"](#).

#### 2.CHECK HORN FUNCTION

---

Check horn function.

Refer to [DLK-301, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

# INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008282115

#### 1. CHECK INTEGRATED HOMELINK TRANSMITTER

Check integrated homelink transmitter.

Refer to [DLK-304, "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-46, "Intermittent Incident"](#).

NO >> GO TO 1.

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

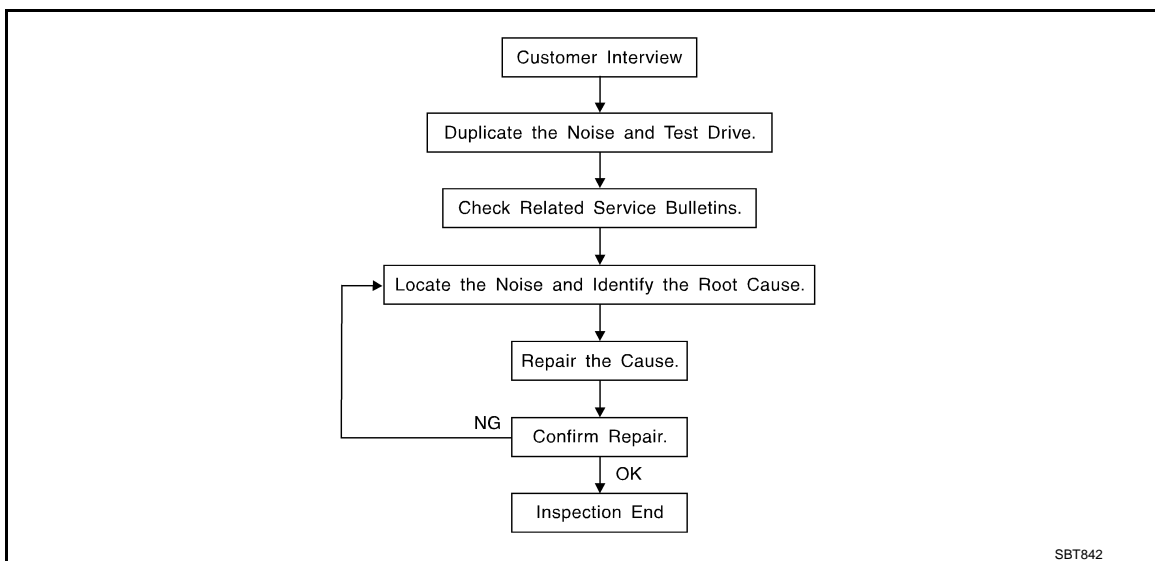
< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

### Work Flow

INFOID:000000008282116



### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to [DLK-360, "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

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

### DUPLICATE THE NOISE AND TEST DRIVE

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## < SYMPTOM DIAGNOSIS >

## [WITHOUT INTELLIGENT KEY SYSTEM]

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

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

## CHECK RELATED SERVICE BULLETINS

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

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

## LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - Removing the components in the area that is are suspected to be the cause of the noise.  
Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
  - Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.  
Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.
  - Placing a piece of paper between components that are suspected to be the cause of the noise.
  - Looking for loose components and contact marks.  
Refer to [DLK-358. "Inspection Procedure"](#).

## REPAIR THE CAUSE

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

### **CAUTION:**

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

### **NOTE:**

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

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

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100 × 135 mm (3.94 × 5.31 in)/76884-71L01: 60 × 85 mm (2.36 × 3.35 in)/76884-71L02: 15 × 25 mm (0.59 × 0.98 in)

INSULATOR (Foam blocks)

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

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

50Y00: 10 mm (0.39 in) thick, 50 × 50 mm (1.97 × 1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30 × 50 mm (1.18 × 1.97in)

FELT CLOTHTAPE

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

68370-4B000: 15 × 25 mm (0.59 × 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

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

UHMW (TEFLON) TAPE

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

## SILICONE GREASE

Used in place of UHMW tape that is be visible or does not fit. Will only last a few months.

## SILICONE SPRAY

Used when grease cannot be applied.

## DUCT TAPE

Used to eliminate movement.

## CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

## Inspection Procedure

INFOID:000000008282117

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

## INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. The cluster lid A and instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar garnish
4. Instrument panel to windshield
5. Instrument panel mounting pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

### **CAUTION:**

**Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.**

## CENTER CONSOLE

Components to pay attention to include:

1. Shifter assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

## DOORS

Pay attention to the following:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

## TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer.

In addition look for the following:

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

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

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## SUNROOF/HEADLINING

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

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

B

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.

C

## SEATS

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

Cause of seat noise include:

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

D

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.

E

F

## 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
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

H

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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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## Diagnostic Worksheet

INFOID:000000008282118



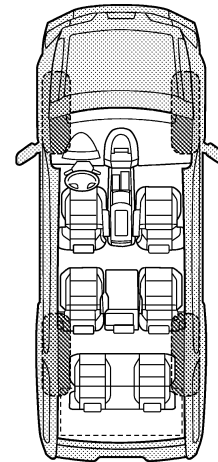
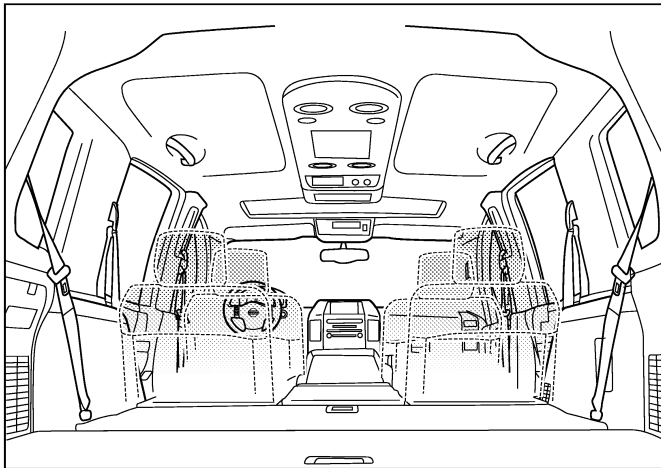
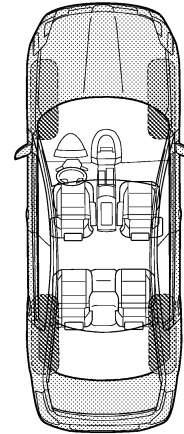
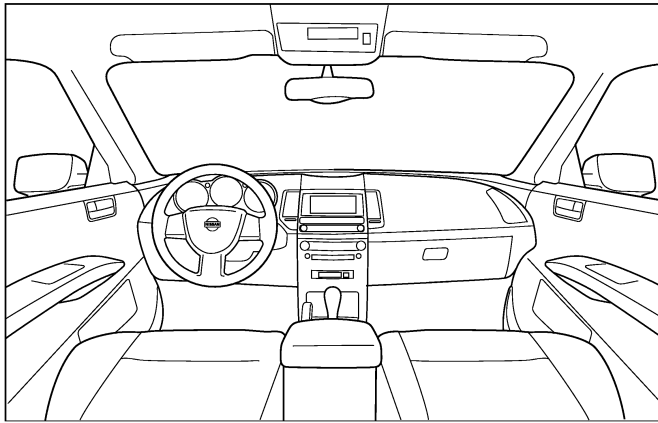
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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.

PIIB8740E



# SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

---

---

### II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> anytime                      | <input type="checkbox"/> after sitting out in the rain |
| <input type="checkbox"/> 1st time in the morning      | <input type="checkbox"/> when it is raining or wet     |
| <input type="checkbox"/> only when it is cold outside | <input type="checkbox"/> dry or dusty conditions       |
| <input type="checkbox"/> only when it is hot outside  | <input type="checkbox"/> other:                        |

### III. WHEN DRIVING:

- through driveways
- over rough roads
- over speed bumps
- only about \_\_\_\_ mph
- on acceleration
- coming to a stop
- on turns: left, right or either (circle)
- with passengers or cargo
- other: \_\_\_\_\_
- after driving \_\_\_\_ miles or \_\_\_\_ minutes

### IV. WHAT TYPE OF NOISE

- squeak (like tennis shoes on a clean floor)
- creak (like walking on an old wooden floor)
- rattle (like shaking a baby rattle)
- knock (like a knock at the door)
- tick (like a clock second hand)
- thump (heavy, muffled knock noise)
- buzz (like a bumble bee)

### TO BE COMPLETED BY DEALERSHIP PERSONNEL

#### Test Drive Notes:

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	YES	NO	Initials of person performing
Vehicle test driven with customer	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise verified on test drive	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Noise source located and repaired	<input type="checkbox"/>	<input type="checkbox"/>	_____
- Follow up test drive performed to confirm repair	<input type="checkbox"/>	<input type="checkbox"/>	_____

VIN: \_\_\_\_\_ Customer Name: \_\_\_\_\_  
W.O.# \_\_\_\_\_ Date: \_\_\_\_\_

This form must be attached to Work Order

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# PRECAUTIONS

< PRECAUTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## PRECAUTION

### PRECAUTIONS FOR MEXICO

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

INFOID:000000008282119

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 AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

#### FOR MEXICO : Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000008282120

#### **CAUTION:**

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

- This Procedure is applied only to models with Intelligent Key system and NVIS/IVIS (NISSAN/INFINITI VEHICLE IMMOBILIZER SYSTEM - NATS).
- Remove and install all control units after disconnecting both battery cables with the ignition switch in the LOCK position.
- Always use CONSULT 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 NVIS/IVIS, 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.

# PRECAUTIONS

< PRECAUTION >

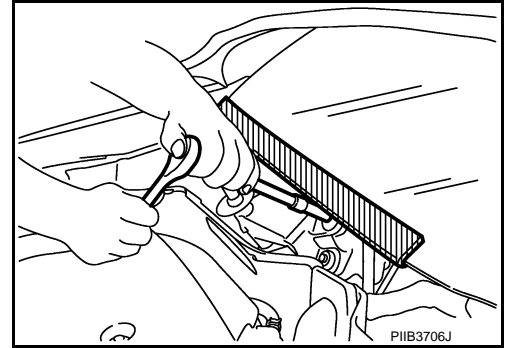
[WITHOUT INTELLIGENT KEY SYSTEM]

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.)
6. Perform a self-diagnosis check of all control units using CONSULT.

## FOR MEXICO : Precaution for Procedure without Cowl Top Cover

INFOID:000000008282121

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



## FOR MEXICO : Precautions For Xenon Headlamp Service

INFOID:000000008282122

### WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

### CAUTION:

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

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

## FOR MEXICO : Work

INFOID:000000008282123

- 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.

## FOR USA AND CANADA

## FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000008282124

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

Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

### WARNING:

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# PRECAUTIONS

< PRECAUTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

### WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

## FOR USA AND CANADA : Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000008282125

### CAUTION:

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

- This Procedure is applied only to models with Intelligent Key system and NVIS/IVIS (NISSAN/INFINITI VEHICLE IMMOBILIZER SYSTEM - NATS).
- Remove and install all control units after disconnecting both battery cables with the ignition switch in the LOCK position.
- Always use CONSULT 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 NVIS/IVIS, 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.)
6. Perform a self-diagnosis check of all control units using CONSULT.

# PRECAUTIONS

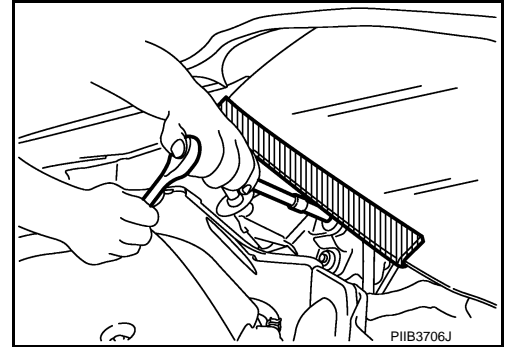
< PRECAUTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## FOR USA AND CANADA : Precaution for Procedure without Cowl Top Cover

INFOID:000000008282126

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



## FOR USA AND CANADA : Precautions For Xenon Headlamp Service

INFOID:000000008282127

### WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

### CAUTION:

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

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

## FOR USA AND CANADA : Work

INFOID:000000008282128

- 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 >

[WITHOUT INTELLIGENT KEY SYSTEM]

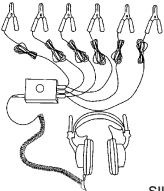
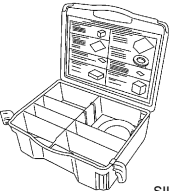
## PREPARATION

### PREPARATION

#### Special Service Tools

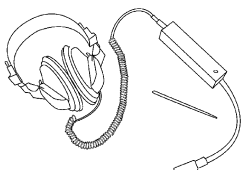
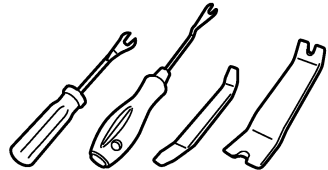
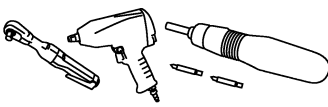
INFOID:000000008282129

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

Tool number (Kent-Moore No.) Tool name	Description
<p>(J-39570) Chassis ear</p>  <p>SIIA0993E</p>	<p>Locates the noise</p>
<p>(J-43980) NISSAN Squeak and Rattle Kit</p>  <p>SIIA0994E</p>	<p>Repairs the cause of noise</p>

#### Commercial Service Tools

INFOID:000000008282130

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

# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

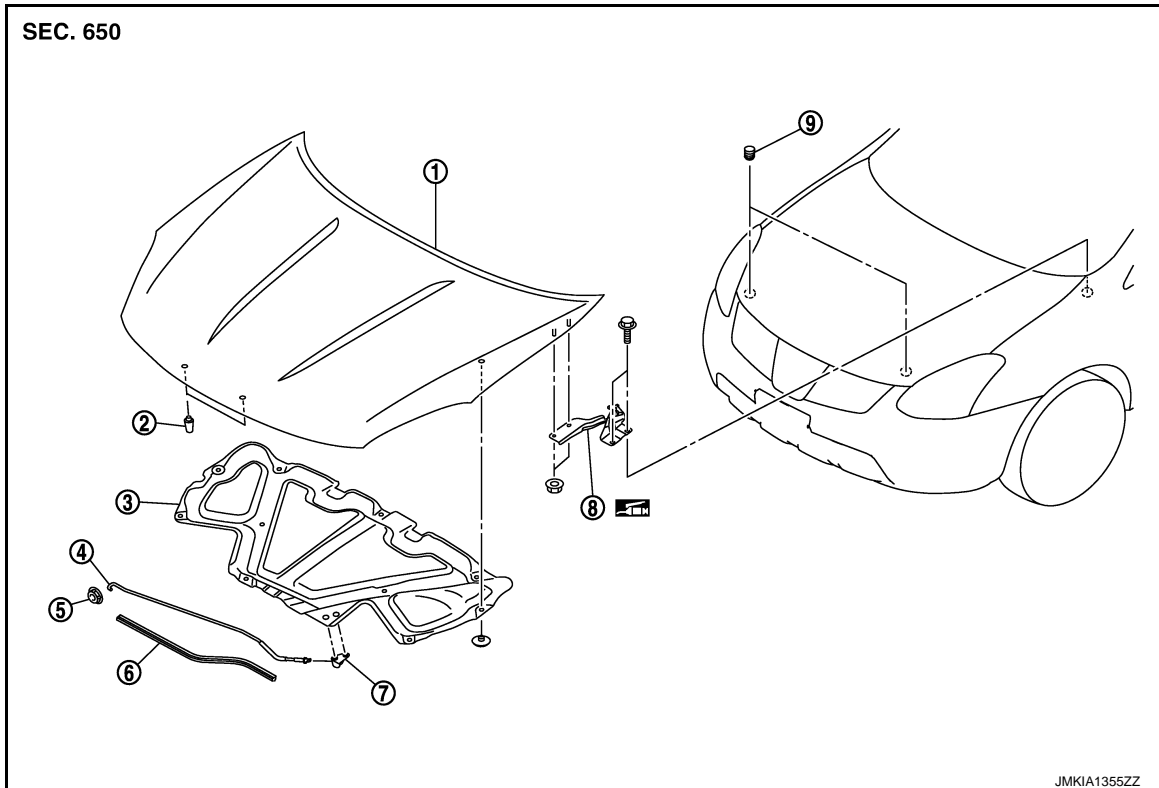
## REMOVAL AND INSTALLATION

### HOOD

### HOOD ASSEMBLY

### HOOD ASSEMBLY : Exploded View

INFOID:000000008282131



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4, "Components"](#) for symbols in the figure.

### HOOD ASSEMBLY : Removal and Installation

INFOID:000000008282132

#### REMOVAL

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

**WARNING:**

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

2. Remove hood hinge mounting nuts on the hood to remove the hood assembly.

**CAUTION:**

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

#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- Before installing the hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to [DLK-368, "HOOD ASSEMBLY : Adjustment"](#).

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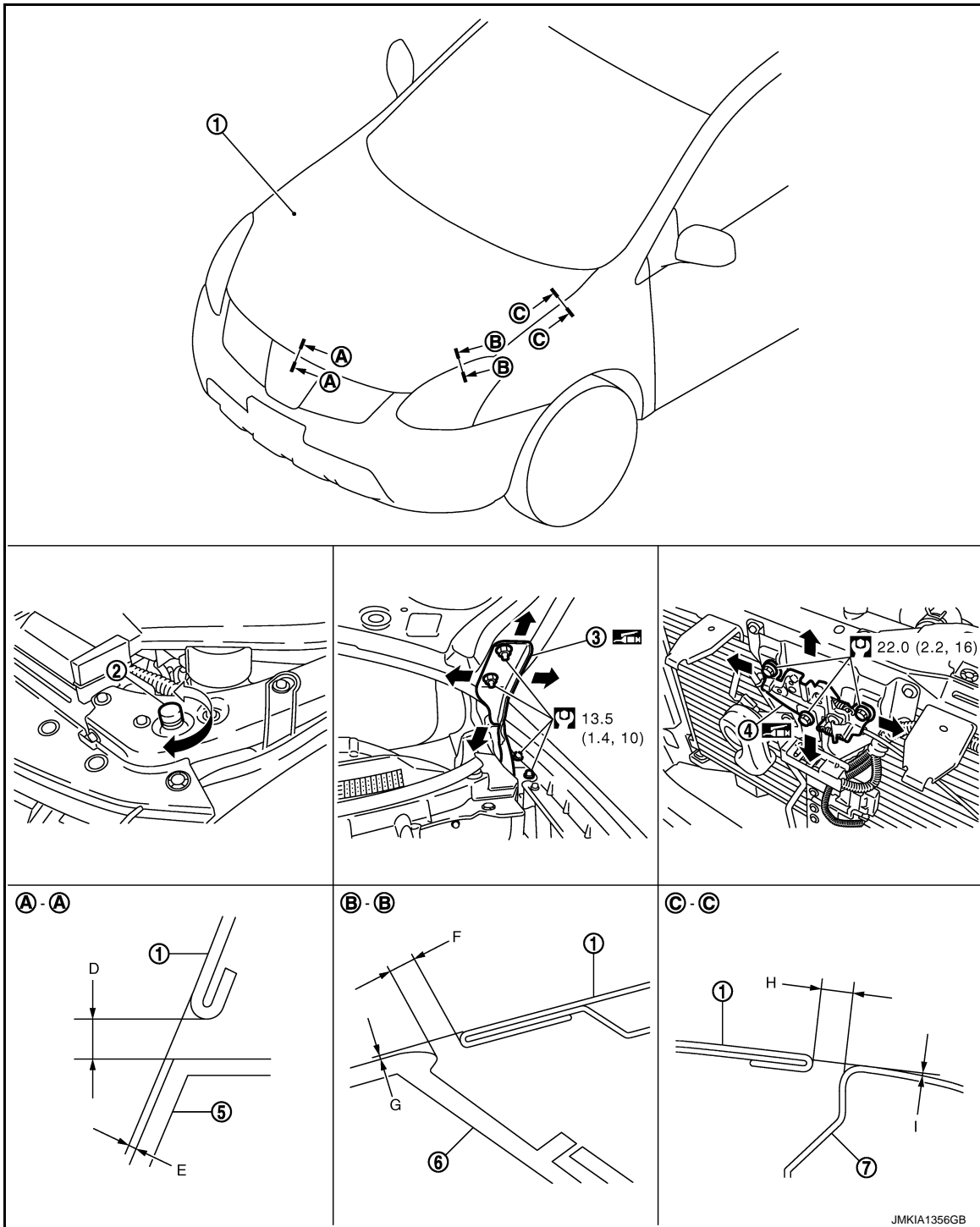
# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HOOD ASSEMBLY : Adjustment

INFOID:000000008282133



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|-----------------------|----------------------------|---------------------------|
| 1. Hood assembly      | 2. Hood bumper rubber side | 3. Hood hinge             |
| 4. Hood lock assembly | 5. Front bumper fascia     | 6. Front combination lamp |
| 7. Front fender       |                            |                           |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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



# HOOD

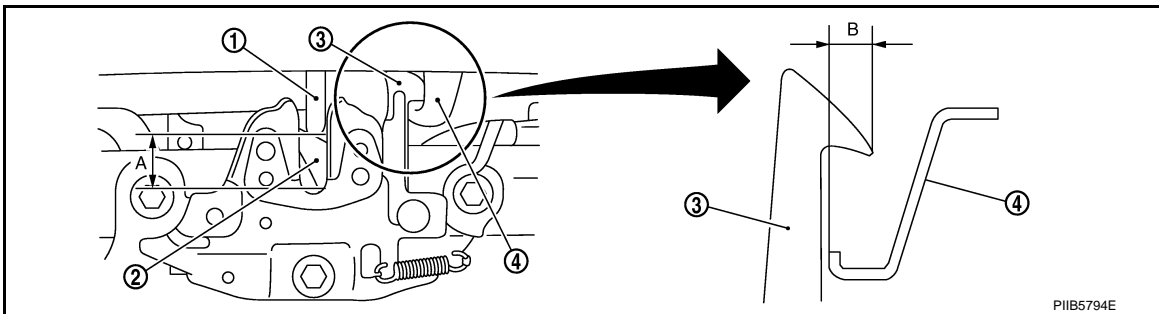
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

unit : mm(in)

Portion			Standard	Difference (LH/RH)
Hood – Front bumper	A – A	D	Clearance	4.0 – 8.0 (0.157 – 0.315)
		E	Surface height	-0.4 – 4.0 (- 0.016 – 0.157)
Hood – Front combination lamp	B – B	F	Clearance	2.0 – 6.0 (0.079 – 0.236)
		G	Surface height	-2.0 – 2.0 (- 0.079 – 0.079)
Hood – Front fender	C – C	H	Clearance	2.6 – 4.6 (0.102 – 0.181)
		I	Surface height	-1.0 – 1.0 (- 0.039 – 0.039)

1. Remove hood lock and adjust the height by rotating hood bumper rubber side until hood becomes 1 to 1.5 mm (0.039 to 0.059 in) lower than fender.
2. Temporarily tighten hood lock, and position by engaging it with hood striker. Check hood lock and striker for looseness and adjust the clearance and evenness with striker to satisfy the specification.
3. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approximately 200 mm (7.874 in) height or by pressing hood lightly [approximately 29 N (3.0 kg, 6.5lb)].



1. Hood striker
2. Primary latch
3. Secondary striker
4. Secondary latch

**A : 20.0 mm (0.787 in)**

**B : 6.8 mm (0.268 in)**

4. After adjustment tighten lock bolts to the specified torque.

## HOOD HINGE

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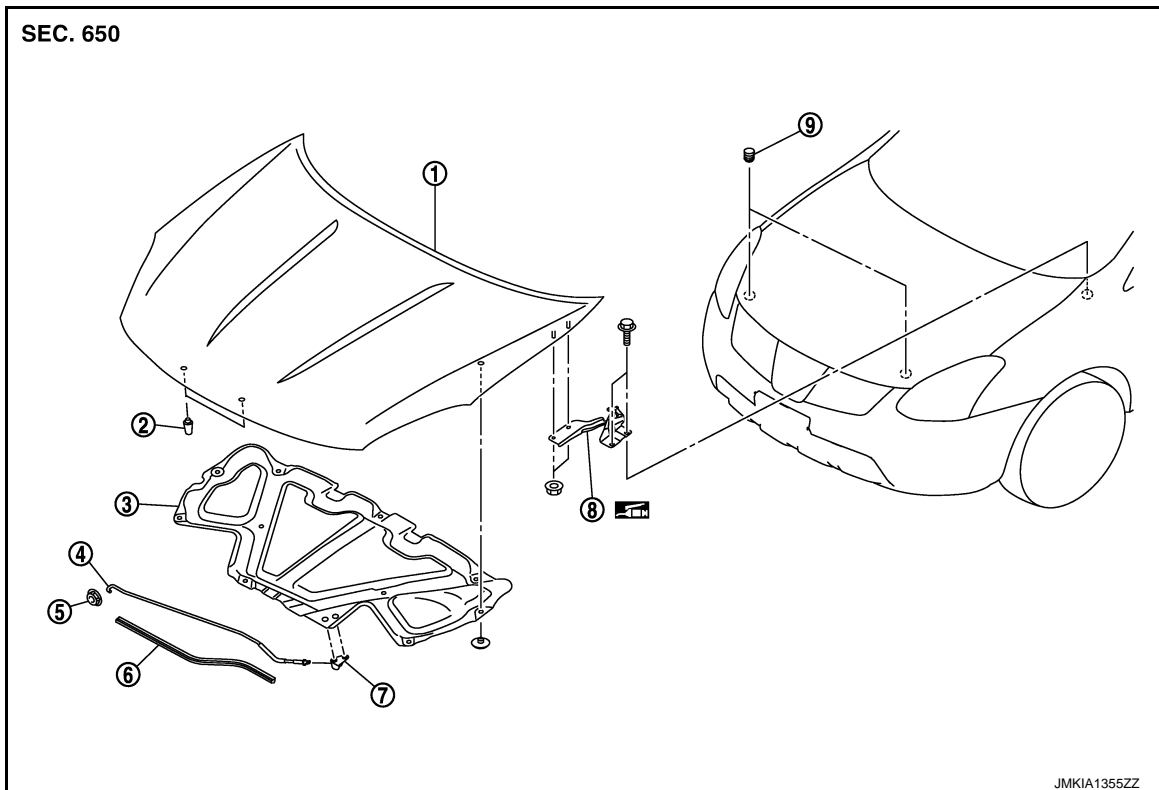
# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HOOD HINGE : Exploded View

INFOID:000000008282134



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD HINGE : Removal and Installation

INFOID:000000008282135

### REMOVAL

1. Remove hood assembly. Refer to [DLK-367. "HOOD ASSEMBLY : Removal and Installation"](#).
2. Remove front fender. Refer to [DLK-377. "Removal and Installation"](#).
3. Remove hood hinge mounting bolts, and then remove 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 [DLK-368. "HOOD ASSEMBLY : Adjustment"](#).

## HOOD SUPPORT ROD

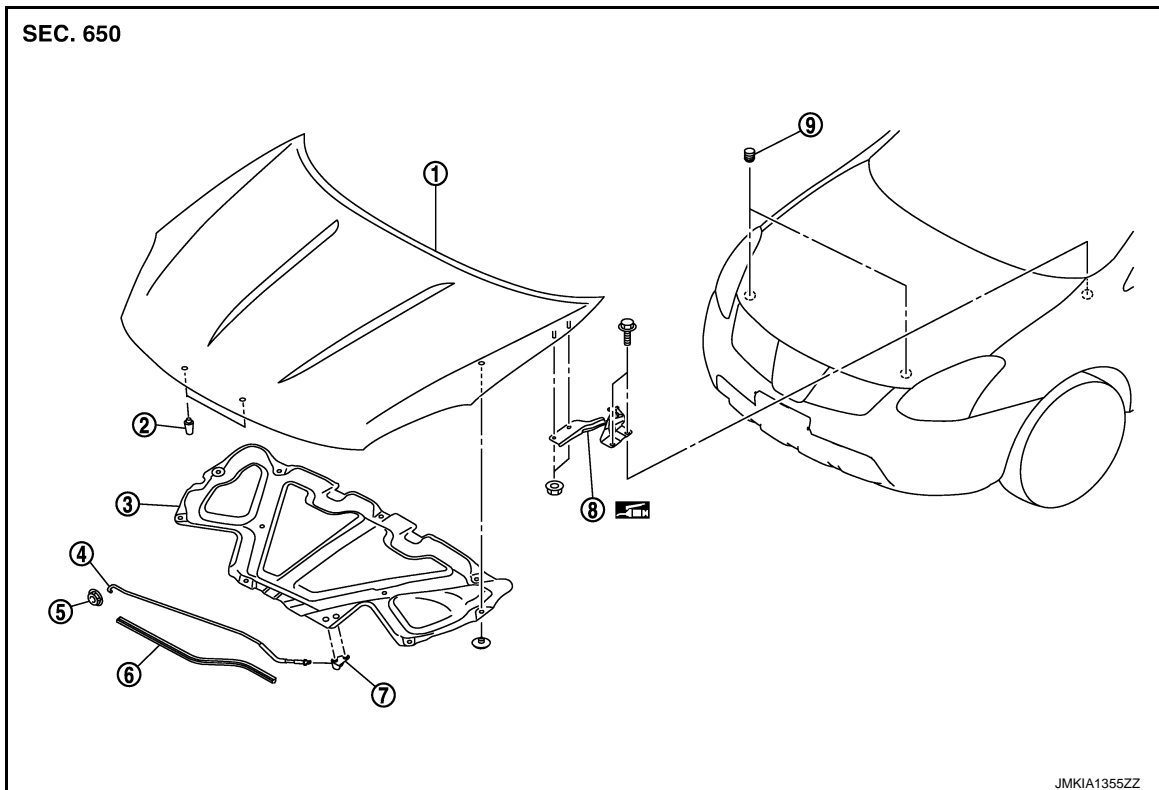
# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HOOD SUPPORT ROD : Exploded View

INFOID:000000008282136



- |                     |                              |                            |
|---------------------|------------------------------|----------------------------|
| 1. Hood assembly    | 2. Hood bumper rubber center | 3. Hood insulator          |
| 4. Hood support rod | 5. Grommet                   | 6. Hood seal rubber        |
| 7. Clamp            | 8. Hood hinge                | 9. Hood bumper rubber side |

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD SUPPORT ROD : Removal and Installation

INFOID:000000008282137

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### REMOVAL

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

**WARNING:**

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

2. Remove hood support rod from grommet.

### INSTALLATION

Install in the reverse order of removal.

## HOOD LOCK CONTROL

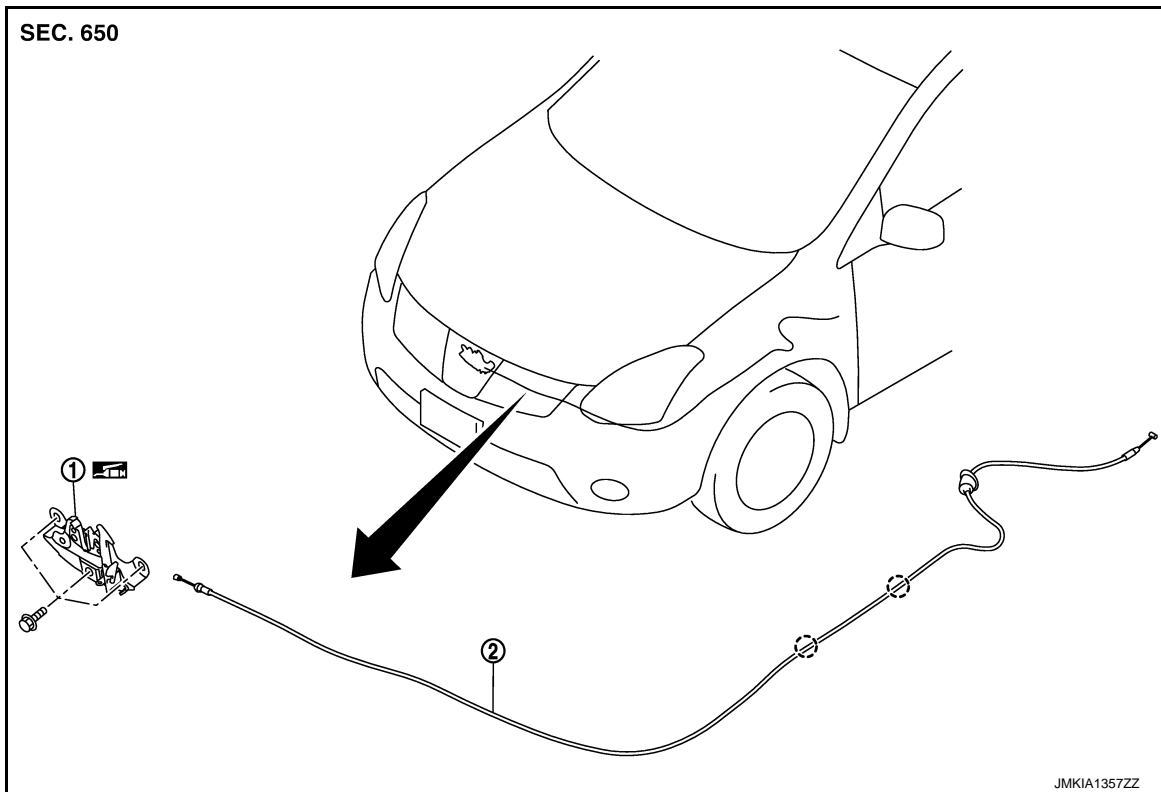
# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HOOD LOCK CONTROL : Exploded View

INFOID:000000008282138



1. Hood lock assembly

2. Hood lock control cable

○ : Clip

Refer to [GI-4. "Components"](#) for symbols in the figure.

## HOOD LOCK CONTROL : Removal and Installation

INFOID:000000008282139

### REMOVAL

#### CAUTION:

**Check how hood lock control cable has been wiring situation, before it is removed.**

1. Remove clips at the upper side of front bumper. Refer to [EXT-13. "Exploded View"](#).
2. Remove mounting bolts, and then remove hood lock assembly.
3. Disconnect hood lock cable from hood lock assembly.
4. Remove instrument driver lower cover. Refer to [IP-13. "Exploded View"](#).
5. Disconnect hood lock cable from instrument driver lower cover.
6. Remove fender protector (LH). Refer to [EXT-22. "Removal and Installation"](#).
7. Remove hood lock cable clamp.
8. Remove grommet on the dashbord, and pull the hood lock control cable toward the passenger compartment.

#### CAUTION:

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

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

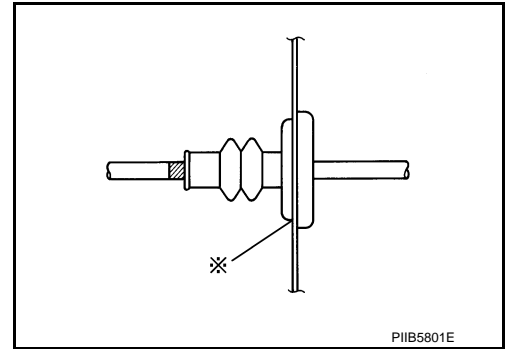
- **Never to bend cable too much, keeping the radius 100 mm (3.937 in) or more.**

# HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \* mark) properly.



- Check that hood lock control cable is properly engaged with hood lock.
- After installation, perform hood fitting adjustment. Refer to [DLK-368, "HOOD ASSEMBLY : Adjustment"](#).
- After installation, perform hood lock control inspection. Refer to [DLK-373, "HOOD LOCK CONTROL : Inspection"](#).

## HOOD LOCK CONTROL : Inspection

INFOID:000000008282140

### NOTE:

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

1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20.0 mm (0.787 in). Also check that hood opener returns to the original position.
3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or below.
4. Install so that static closing face of hood is 94 – 490 N·m (9.6 – 50.0 kg·m, 69 – 361 ft – lb).

### NOTE:

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

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# RADIATOR CORE SUPPORT

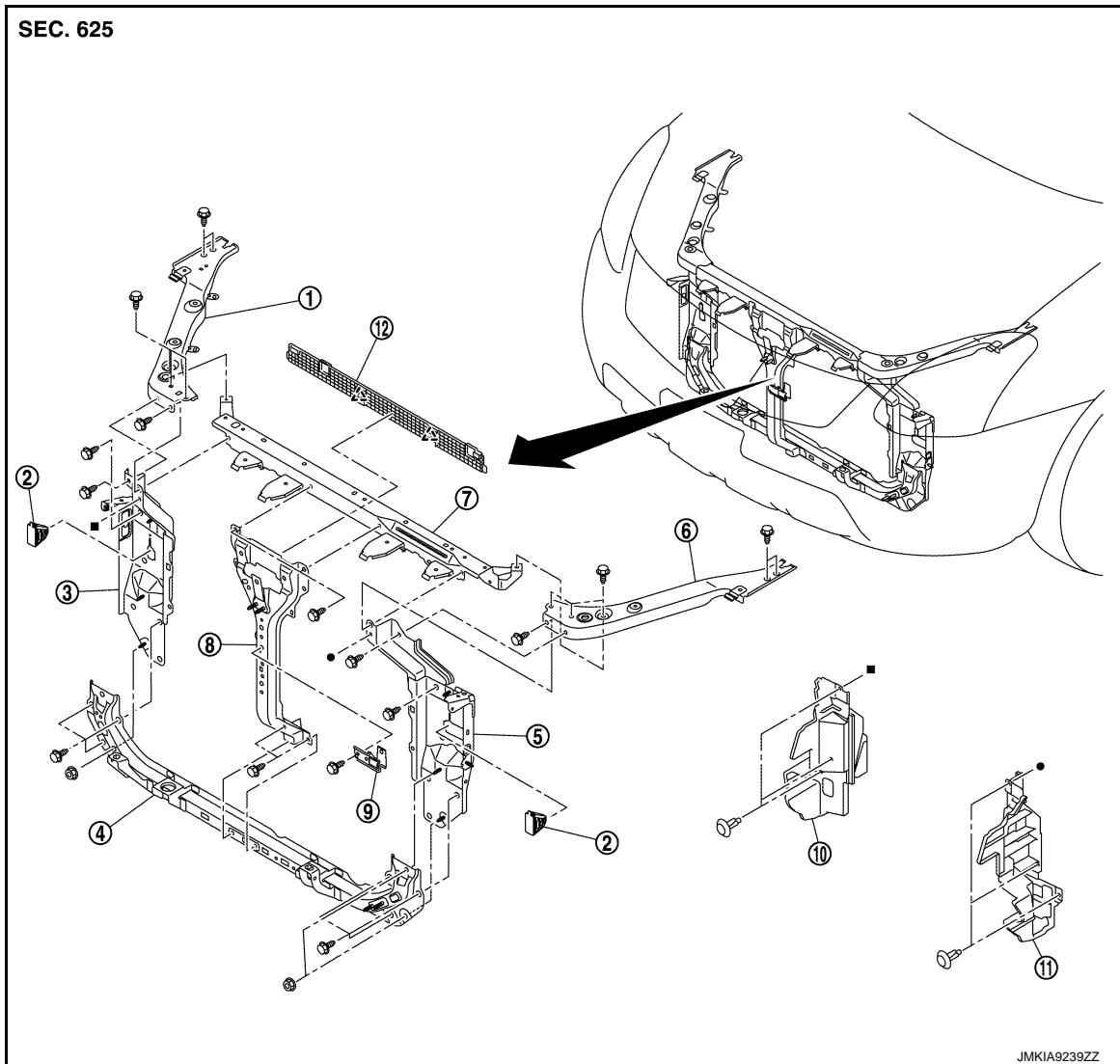
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## RADIATOR CORE SUPPORT

Exploded View

INFOID:000000008282141



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|---------------------------------------|------------------------------------|-----------------------------------|
| 1. Radiator core support upper RH     | 2. Locator (LH/RH)                 | 3. Radiator core support side RH  |
| 4. Radiator core support lower        | 5. Radiator core support side LH   | 6. Radiator core support upper LH |
| 7. Radiator core support upper center | 8. Hood lock support stay assembly | 9. Sensor bracket                 |
| 10. Air guide RH                      | 11. Air guide LH                   | 12. Radiator seal upper           |

△ : Pawl

●, ■: Indicates that the part is connected at points with same symbol in actual vehicle.

## Removal and Installation

INFOID:000000008282142

### REMOVAL

1. Remove front bumper facia, front bumper reinforcement. Refer to [EXT-13. "Removal and Installation"](#).
2. Remove air intake duct. Refer to [EM-29. "Exploded View"](#).
3. Remove front combination lamp (LH/RH). Refer to [EXL-109. "Removal and Installation"](#) (XENON TYPE), [EXL-228. "Removal and Installation"](#) (HALOGEN TYPE).
4. Remove air guide mounting clips, and remove air guide (LH/RH).
5. Remove CVT fluid cooler. Refer to [TM-209. "FLUID COOLER : Removal and Installation"](#).

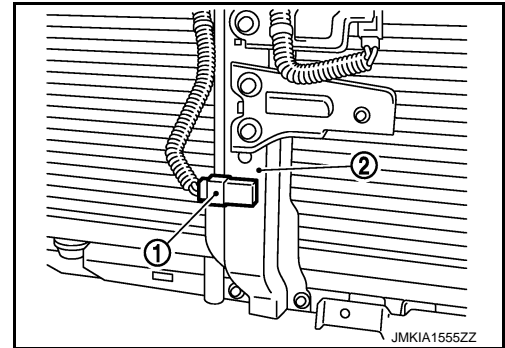
# RADIATOR CORE SUPPORT

[WITHOUT INTELLIGENT KEY SYSTEM]

## < REMOVAL AND INSTALLATION >

6. Remove CVT fluid cooler stay lower. Refer to [TM-209, "FLUID COOLER : Exploded view"](#).
7. Remove seal radiator lower.
8. Remove horn (HI/LO). Refer to [HRN-6, "Removal and Installation"](#).
9. Remove ambient sensor.

- (1): Ambient sensor  
(2): Hood lock support stay assembly



10. Remove crash zone sensor. Refer to [SR-20, "Removal and Installation"](#) (FOR USA and CANADA) or [SR-45, "Removal and Installation"](#) (FOR MEXICO).
11. Disconnect refrigerant pressure sensor connector. Refer to [HAC-118, "Removal and Installation"](#) (AUTOMATIC AIR CONDITIONING) or [HAC-209, "Removal and Installation"](#) (MANUAL AIR CONDITIONING).
12. Remove hood lock assembly. Refer to [DLK-372, "HOOD LOCK CONTROL : Removal and Installation"](#).
13. Disconnect harness clips from radiator core support assembly.
14. Remove mounting bolts, and then remove hood lock support stay assembly.
15. Remove washer tank. Refer to [WW-42, "Removal and Installation"](#).
16. Place securely the hood support rod inside the engine mounting bracket hole.

**CAUTION:**

**Check that the hood is securely fix.**

17. Remove mounting bolts, and then remove radiator core support upper assembly (radiator core support upper center and radiator core support upper side).
18. Remove radiator core support lower assembly (radiator core support side and radiator core support lower) mounting bolts.
19. Remove radiator core support lower assembly (radiator core support side and radiator core support lower) while other worker is holding the radiator and condenser assembly to prevent the radiator and condenser from falling.

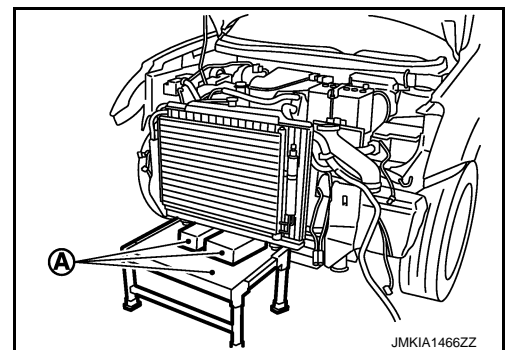
**CAUTION:**

**Operate with two workers, because of its heavy weight.**

20. Put some wooden blocks etc.(A) under radiator and condenser, and use a rope to suspend it to prevent it from falling.

**CAUTION:**

**Operate with two workers, because of its heavy weight.**



21. Disassembly radiator core support upper side from radiator core support upper center.
22. Disassembly radiator core support side from radiator core support lower.

## INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

- After installation, replenish the following parts.
- CVT fluid: Refer to [TM-161, "Changing"](#).
- After installation, adjust the following parts.

## RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 
- Front combination lamp: Refer to [EXL-104, "Aiming Adjustment Procedure"](#) (XENON TYPE) or [EXL-224, "Aiming Adjustment Procedure"](#) (HALOGEN TYPE).



# FRONT FENDER

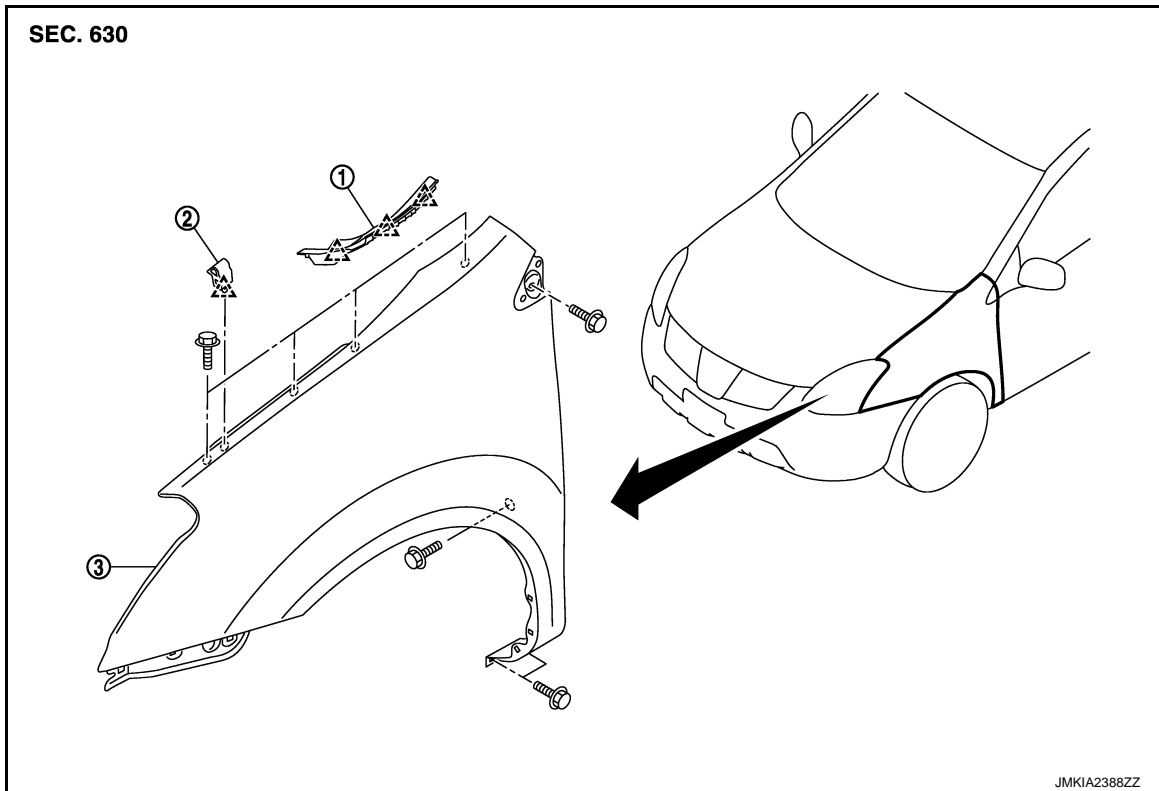
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## FRONT FENDER

Exploded View


INFOID:000000008282143



1. Front fender finisher

2. Bumper rubber

3. Front fender

 : Pawl

### Removal and Installation

INFOID:000000008282144

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#### CAUTION:

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

#### REMOVAL

1. Remove front bumper facia. Refer to [EXT-13, "Removal and Installation"](#).
2. Remove front combination lamp. Refer to [EXL-109, "Removal and Installation"](#) (XENON TYPE), [EXL-228, "Removal and Installation"](#) (HALOGEN TYPE).
3. Remove fender protector. Refer to [EXT-22, "Removal and Installation"](#).
4. Remove front fender finisher.
5. Remove mounting bolts and remove front fender.

#### CAUTION:

An viscous urethane foam is installed on the back surface of front fender. When removing the front fender, peel of the urethane foam bit at a time, and carefully to remove it.

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- After installation, check front fender adjustment. Refer to [DLK-368, "HOOD ASSEMBLY : Adjustment"](#) and [DLK-379, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.

# FRONT DOOR

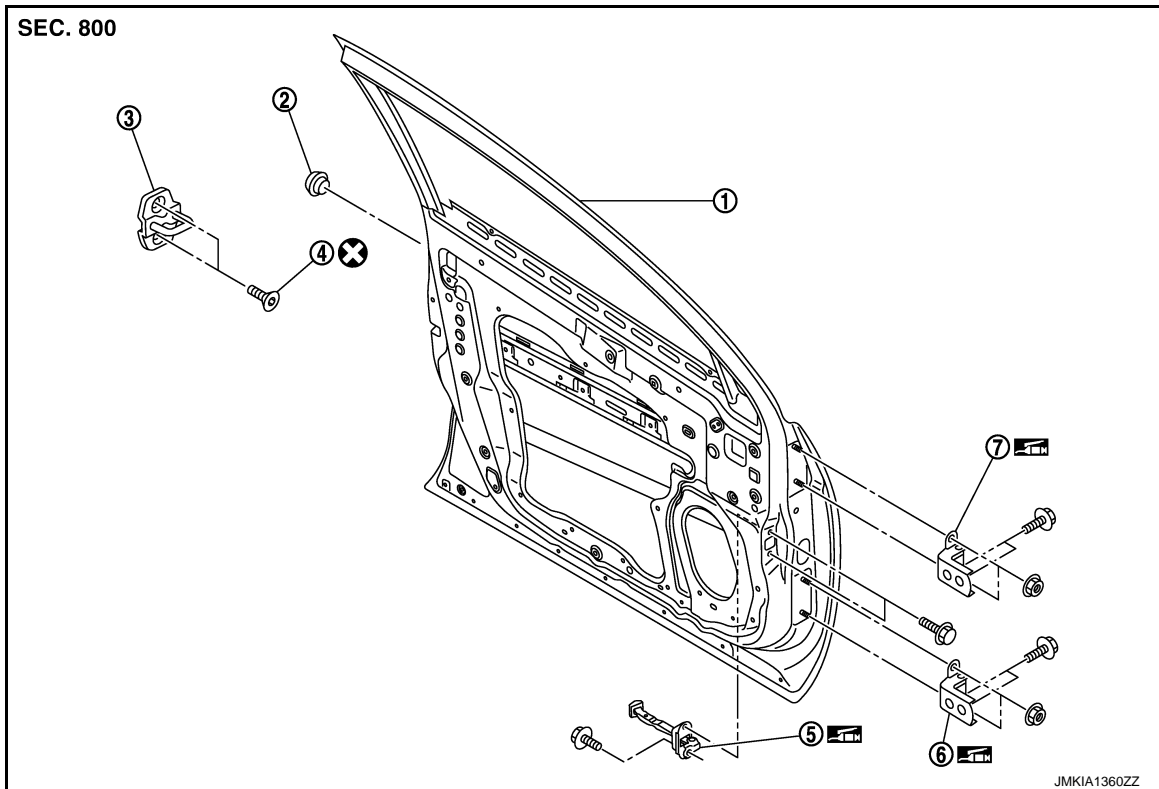
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## FRONT DOOR DOOR ASSEMBLY

### DOOR ASSEMBLY : Exploded View

INFOID:000000008282145



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR ASSEMBLY : Removal and Installation

INFOID:000000008282146

#### CAUTION:

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

#### REMOVAL

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

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to [DLK-379, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

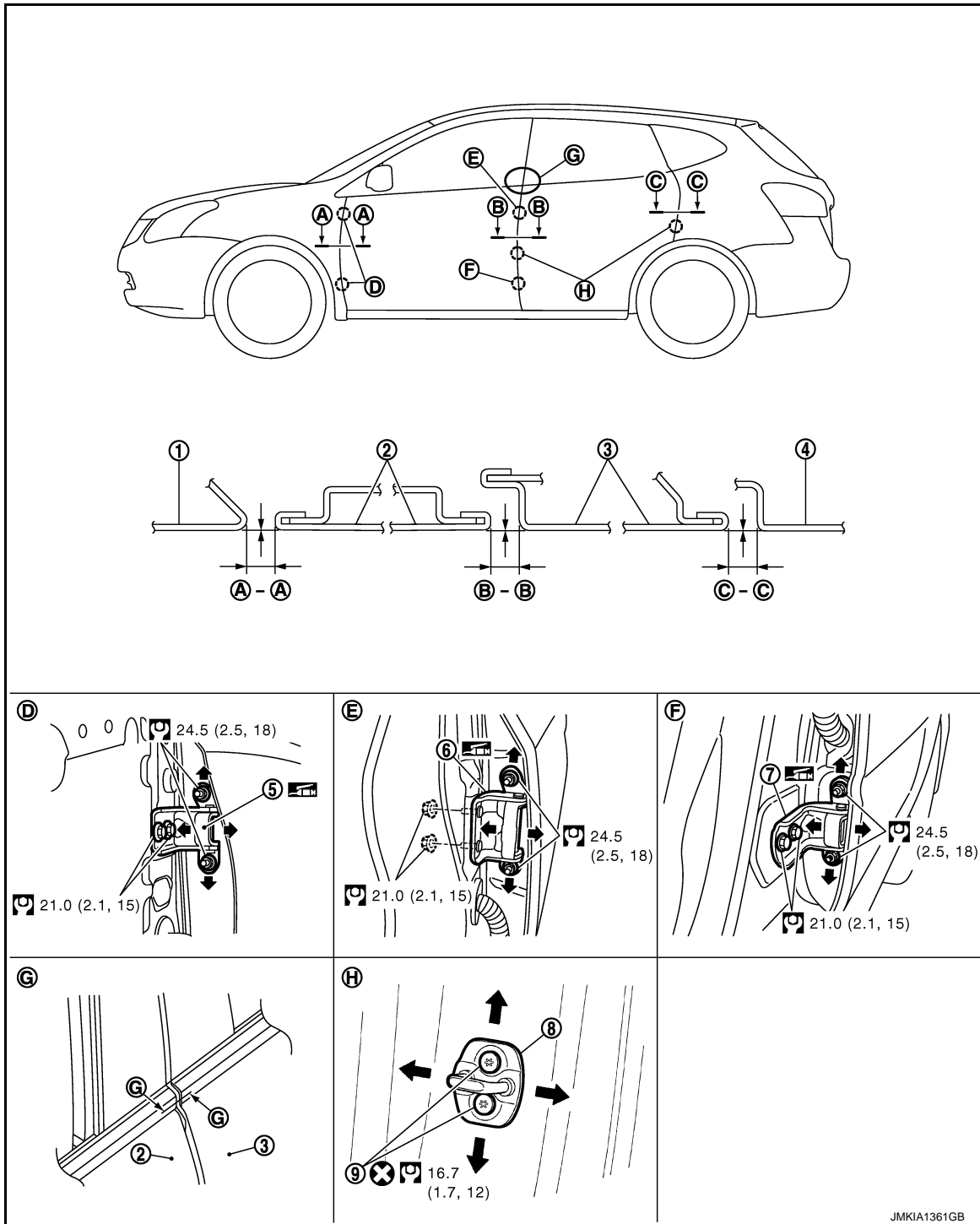
# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR ASSEMBLY : Adjustment

INFOID:000000008282147



- |                            |                     |                            |
|----------------------------|---------------------|----------------------------|
| 1. Front fender            | 2. Front door       | 3. Rear door               |
| 4. Body side outer         | 5. Front door hinge | 6. Rear door hinge (upper) |
| 7. Rear door hinge (lower) | 8. Door striker     | 9. TORX bolt               |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

DLK

JMKIA1361GB

# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Unit: mm (in)

Portion		Clearance	Surface height
Front fender – Front door	A – A	3.5 – 5.5 (0.138 – 0.217)	- 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)	- 1.5 – 1.5 (- 0.059 – 0.059)

1. Remove front fender. Refer to [DLK-377, "Removal and Installation"](#).
2. Loosen door hinge mounting nuts on door side.
3. Adjust the surface height of front door according to the fitting standard dimension.
4. Temporarily tighten door hinge mounting nuts on door side.
5. Loosen door hinge mounting bolts on body side.
6. Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
7. After adjustment tighten bolts and nuts to the specified torque.
8. Install front fender. Refer to refer to [DLK-377, "Removal and Installation"](#).

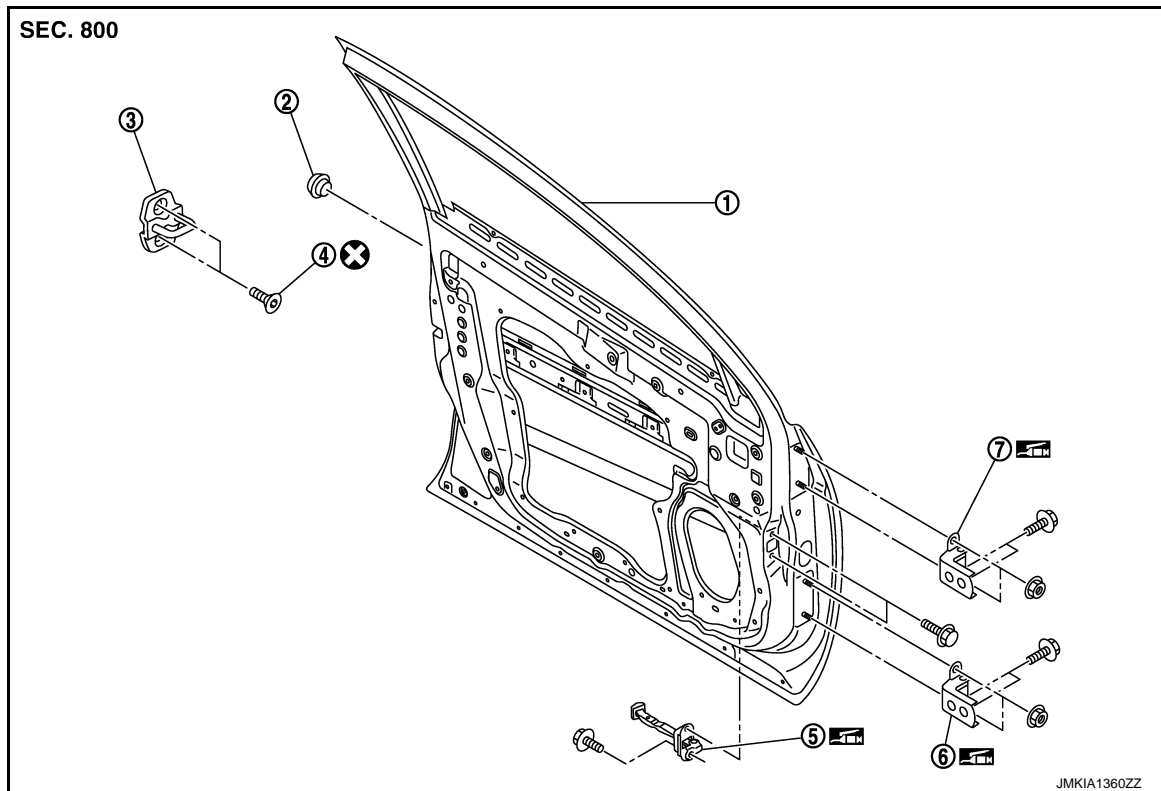
## DOOR STRIKER ADJUSTMENT

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

## DOOR STRIKER

## DOOR STRIKER : Exploded View

INFOID:000000008282148



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

# FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR STRIKER : Removal and Installation

INFOID:000000008282149

### REMOVAL

Remove TORX bolts, and then remove door striker.

### INSTALLATION

Install in the reverse order of removal.

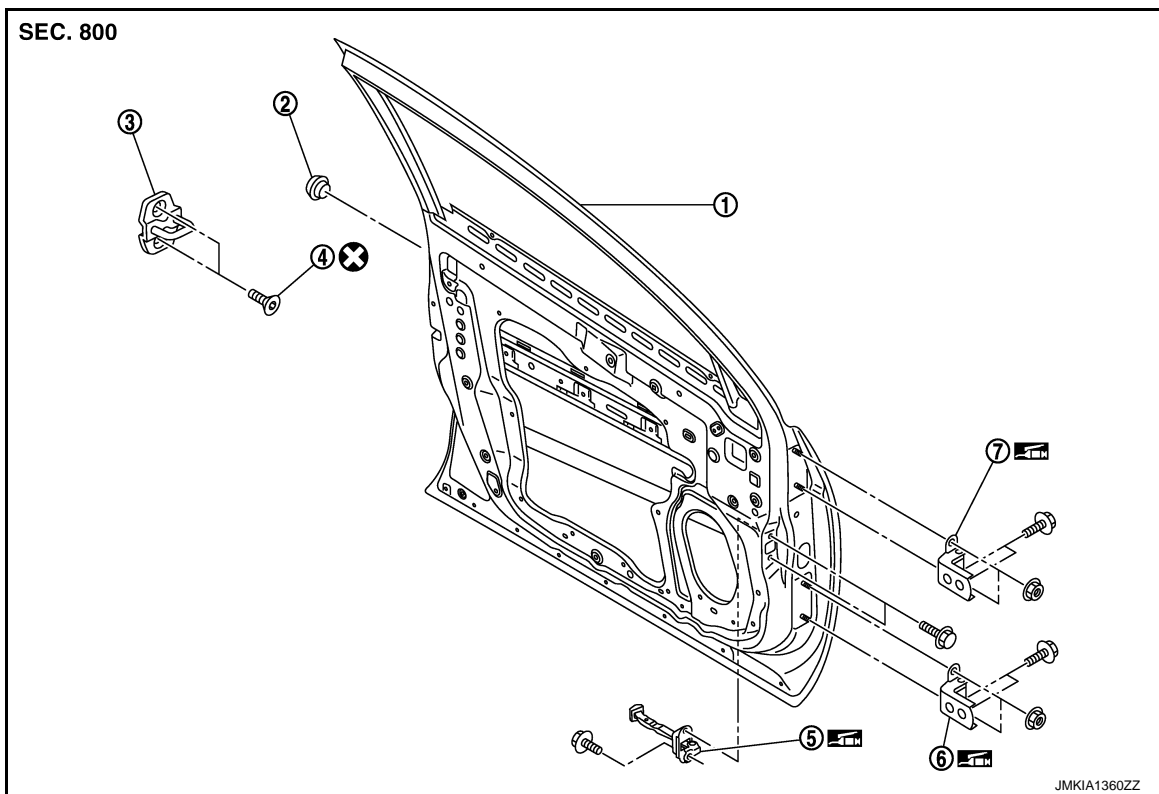
#### CAUTION:

- Check front door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to [DLK-379, "DOOR ASSEMBLY : Adjustment"](#).

## DOOR HINGE

### DOOR HINGE : Exploded View

INFOID:000000008282150



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR HINGE : Removal and Installation

INFOID:000000008282151

### REMOVAL

1. Remove front door assembly. Refer to [DLK-378, "DOOR ASSEMBLY : Removal and Installation"](#).
2. Remove front door hinge mounting bolts, and then remove front door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

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

# FRONT DOOR

< REMOVAL AND INSTALLATION >

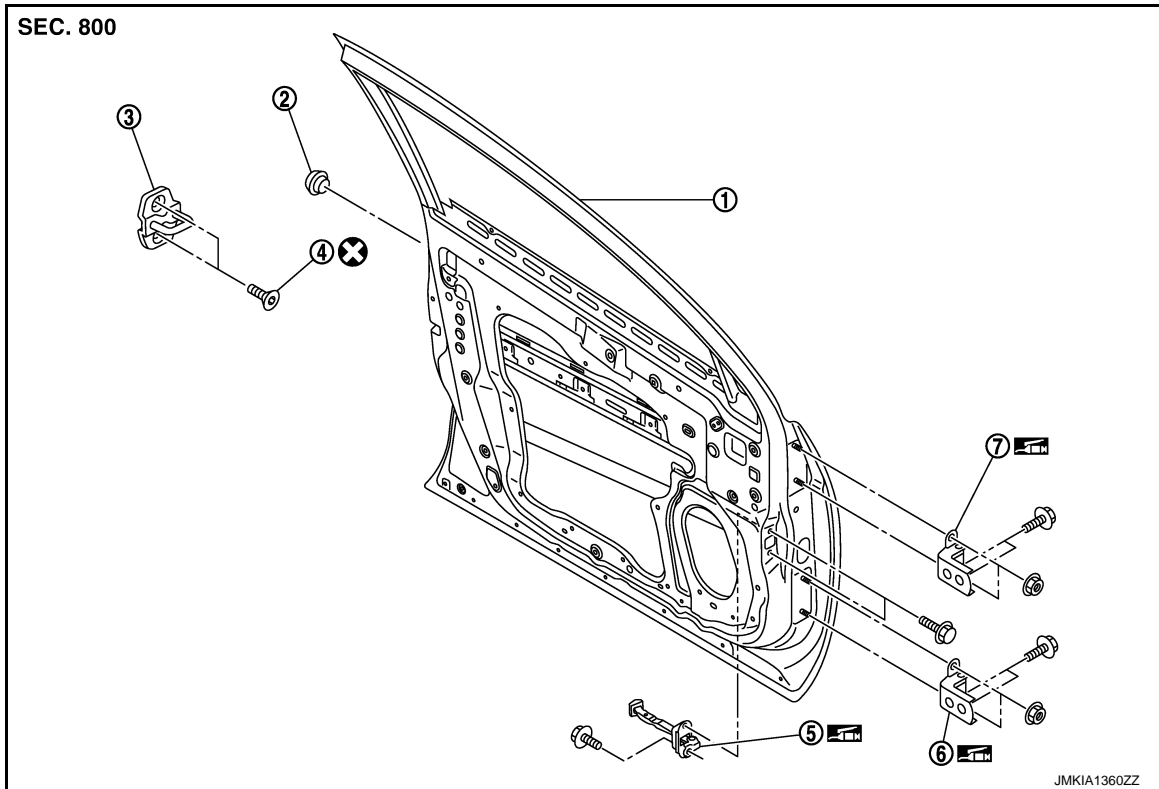
[WITHOUT INTELLIGENT KEY SYSTEM]

- After installation, perform the fitting adjustment. Refer to [DLK-379, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

## DOOR CHECK LINK

### DOOR CHECK LINK : Exploded View

INFOID:000000008282152



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR CHECK LINK : Removal and Installation

INFOID:000000008282153

#### REMOVAL

1. Fully close the front door window.
2. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
3. Remove front door speaker.
4. Remove mounting bolts of door check link on the vehicle.
5. Remove mounting bolts of door check link on door panel.
6. Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Check front door open/close operation after installation.**

# REAR DOOR

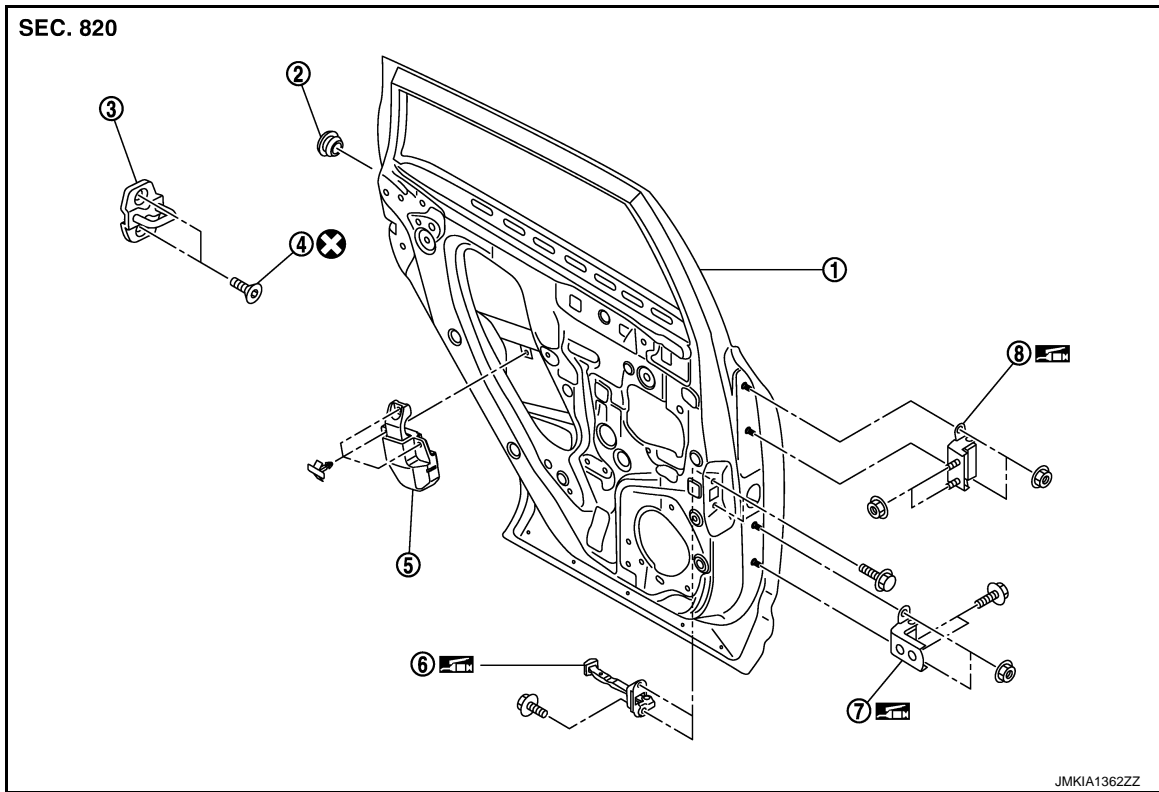
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REAR DOOR DOOR ASSEMBLY

### DOOR ASSEMBLY : Exploded View

INFOID:000000008282154



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR ASSEMBLY : Removal and Installation

INFOID:000000008282155

#### CAUTION:

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

#### REMOVAL

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

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check rear door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to [DLK-384, "DOOR ASSEMBLY : Adjustment"](#).
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

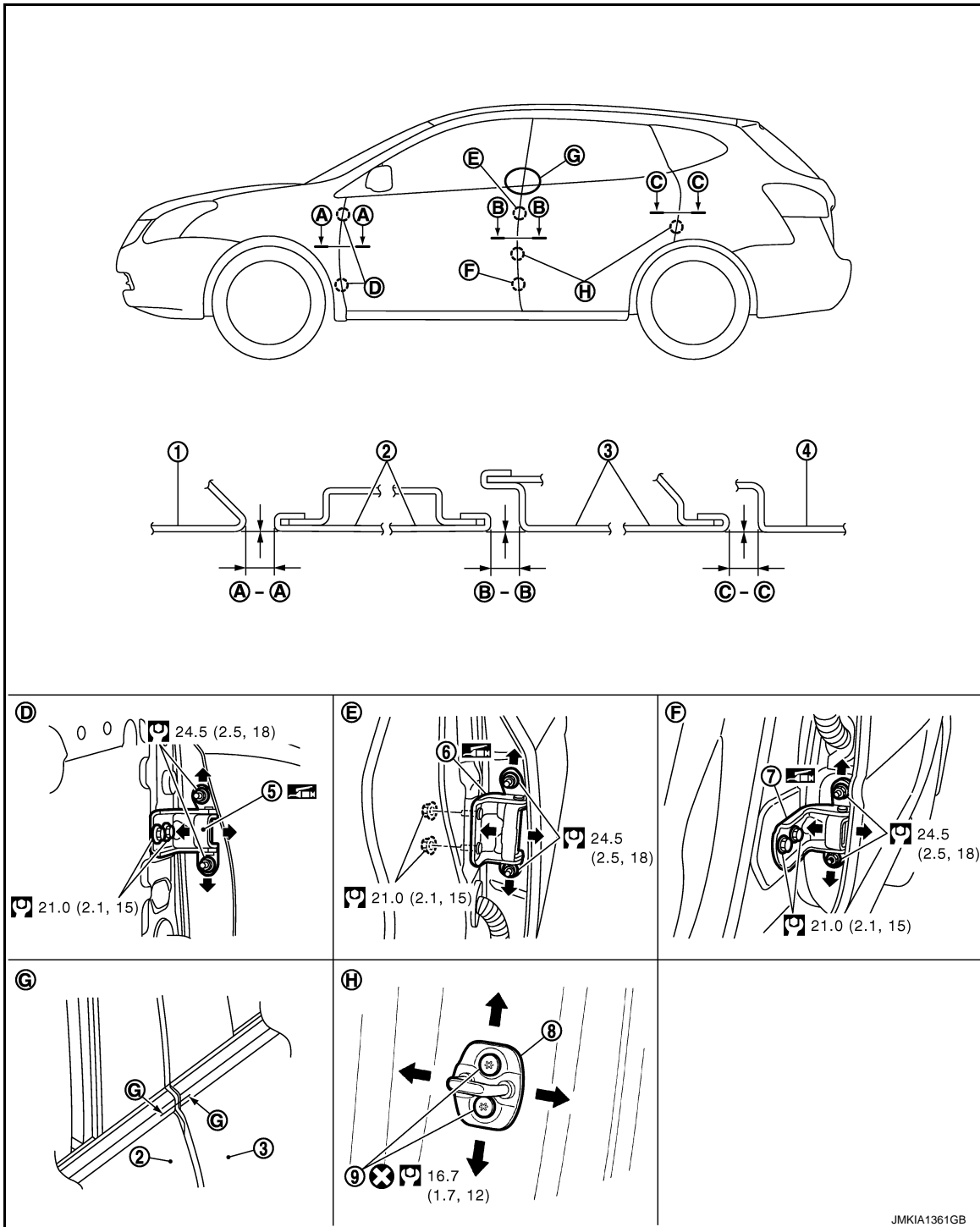
# REAR DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR ASSEMBLY : Adjustment

INFOID:000000008282156



- |                            |                     |                            |
|----------------------------|---------------------|----------------------------|
| 1. Front fender            | 2. Front door       | 3. Rear door               |
| 4. Body side outer         | 5. Front door hinge | 6. Rear door hinge (upper) |
| 7. Rear door hinge (lower) | 8. Door striker     | 9. TORX bolt               |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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



# REAR DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Unit : 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. Remove center pillar lower garnish. Refer to [INT-18. "Removal and Installation"](#).
2. Loosen door hinge mounting nuts on door side.
3. Adjust the surface height of rear door according to the fitting standard dimension.
4. Temporarily tighten door hinge mounting nuts on door side.
5. Loosen door hinge mounting nuts and bolts on body side.
6. Raise rear door at rear end to adjust clearance of rear door according to the fitting standard dimension.
7. After adjustment tighten bolts and nuts to the specified torque.
8. Install center pillar lower garnish. Refer to [INT-18. "Removal and Installation"](#).

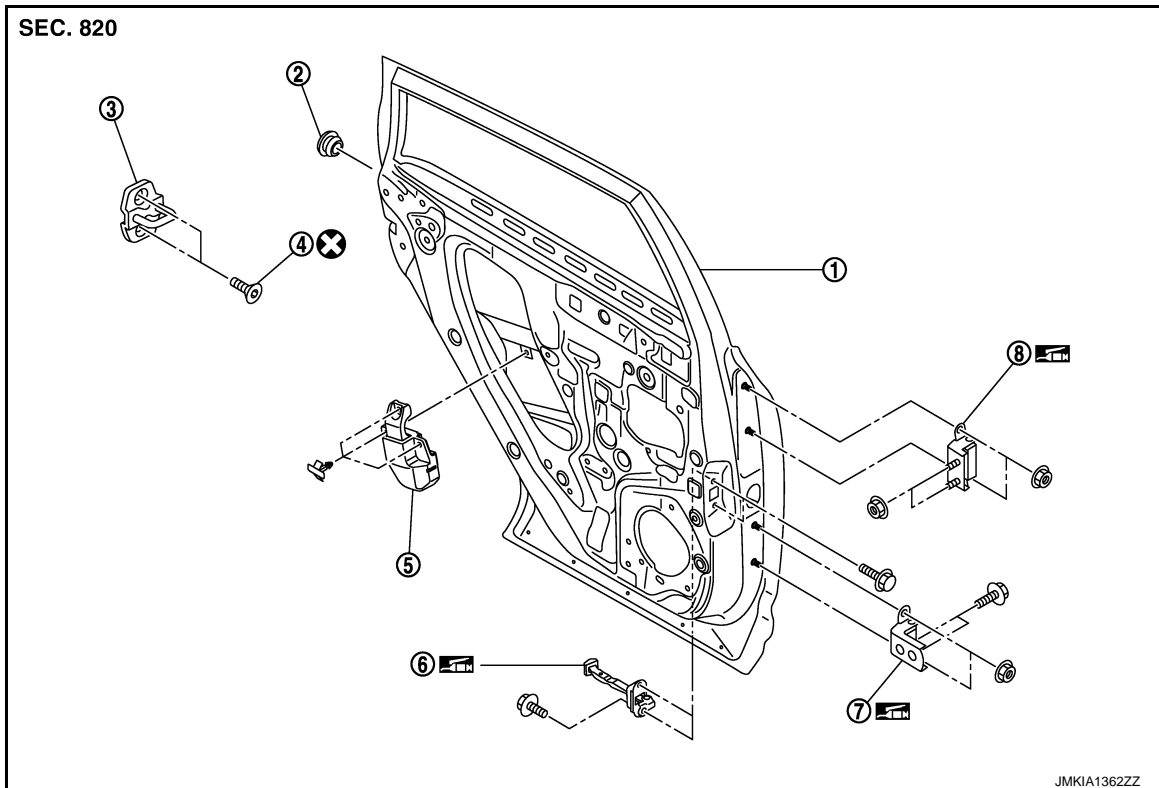
## DOOR STRIKER ADJUSTMENT

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

## DOOR STRIKER

### DOOR STRIKER : Exploded View

INFOID:000000008282157



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

Refer to [GI-4. "Components"](#) for symbols in the figure.

### DOOR STRIKER : Removal and Installation

INFOID:000000008282158

#### REMOVAL

# REAR DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Remove TORX bolts, and then remove door striker.

## INSTALLATION

Install in the reverse order of removal.

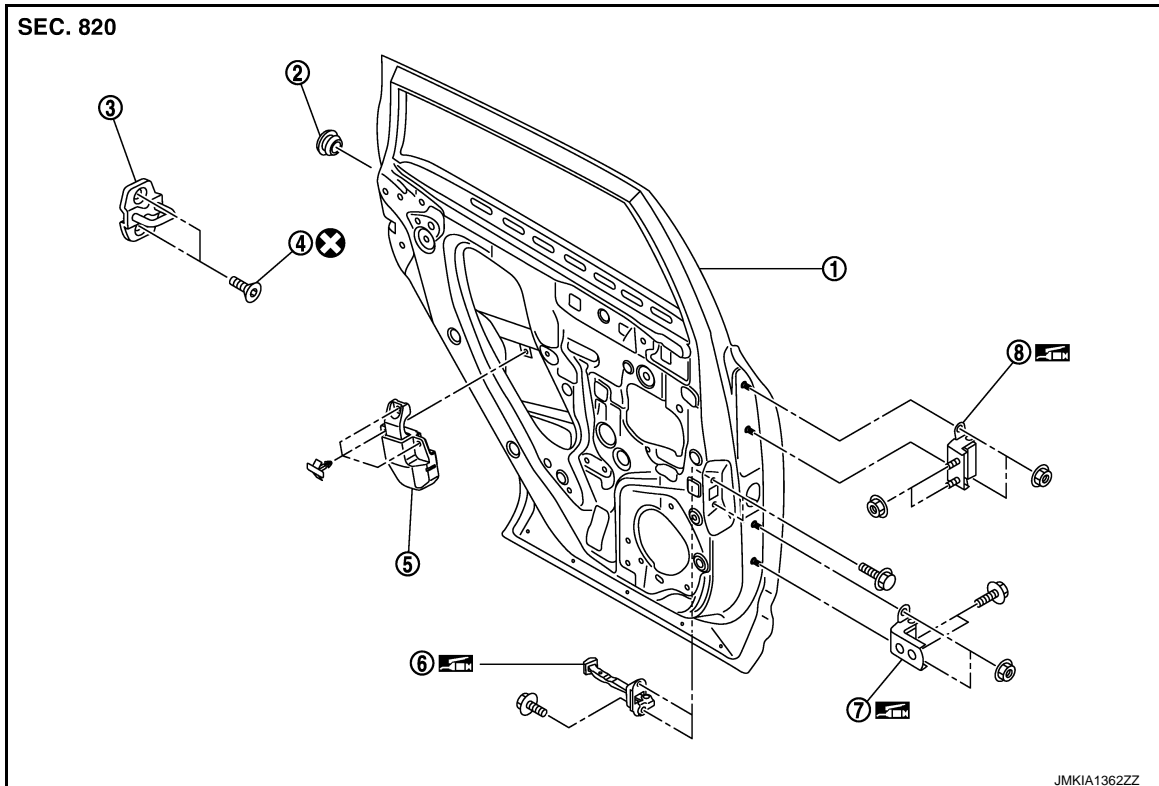
### CAUTION:

- Check rear door open/close, lock/unlock operation after installation.
- After installation, be sure to perform the fitting adjustment. Refer to [DLK-384, "DOOR ASSEMBLY : Adjustment"](#).

## DOOR HINGE

### DOOR HINGE : Exploded View

INFOID:000000008282159



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR HINGE : Removal and Installation

INFOID:000000008282160

#### REMOVAL

1. Remove center pillar lower garnish. Refer to [INT-18, "Removal and Installation"](#).
2. Remove rear door assembly. Refer to [DLK-383, "DOOR ASSEMBLY : Removal and Installation"](#).
3. Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

#### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

- Check rear door open/close operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing rear door assembly, perform the fitting adjustment. Refer to [DLK-384, "DOOR ASSEMBLY : Adjustment"](#).
- After installing, apply the touch-up paint (the body color) onto the head of door hinge mounting nuts.

# REAR DOOR

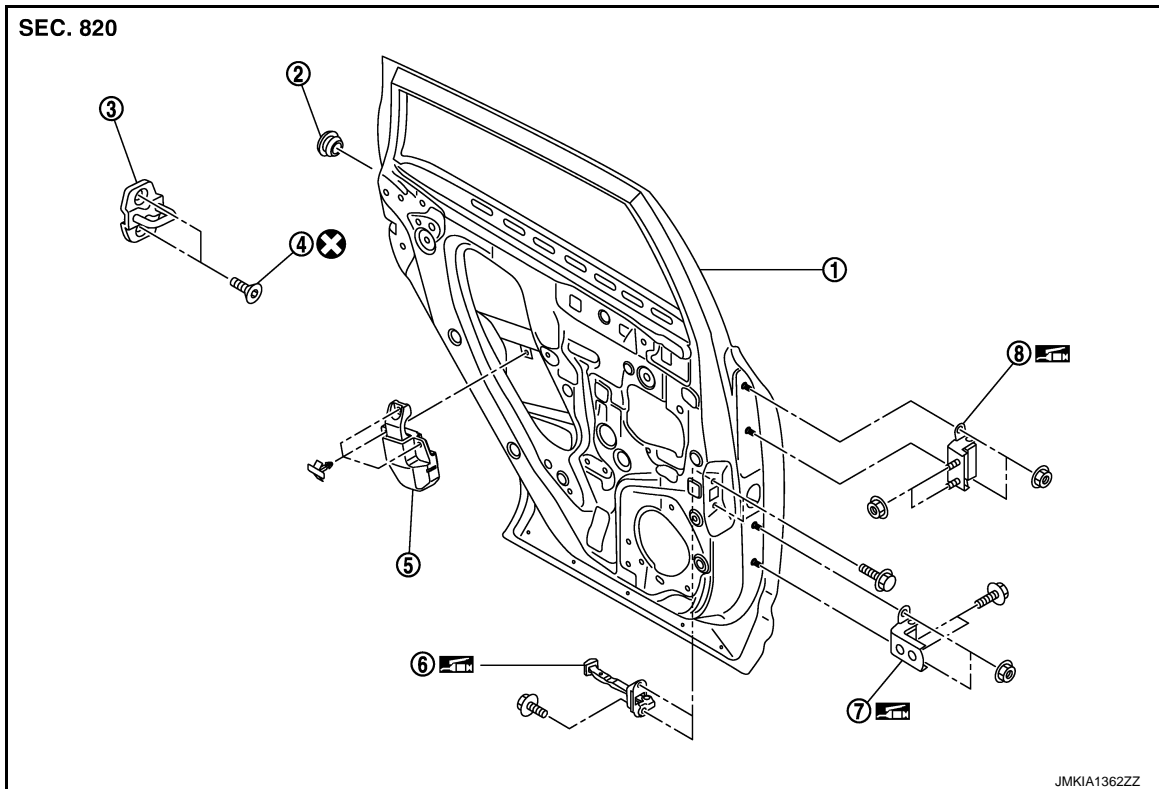
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR CHECK LINK

### DOOR CHECK LINK : Exploded View

INFOID:000000008282161



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

Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR CHECK LINK : Removal and Installation

INFOID:000000008282162

#### REMOVAL

1. Remove rear door finisher. Refer to [INT-15, "REAR DOOR FINISHER : Removal and Installation"](#).
2. Remove rear door speaker.
3. Remove mounting bolts of the check link on the vehicle.
4. Remove mounting bolts of the check link on door panel.
5. Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Check rear door open/close operation after installation.**

# BACK DOOR

< REMOVAL AND INSTALLATION >

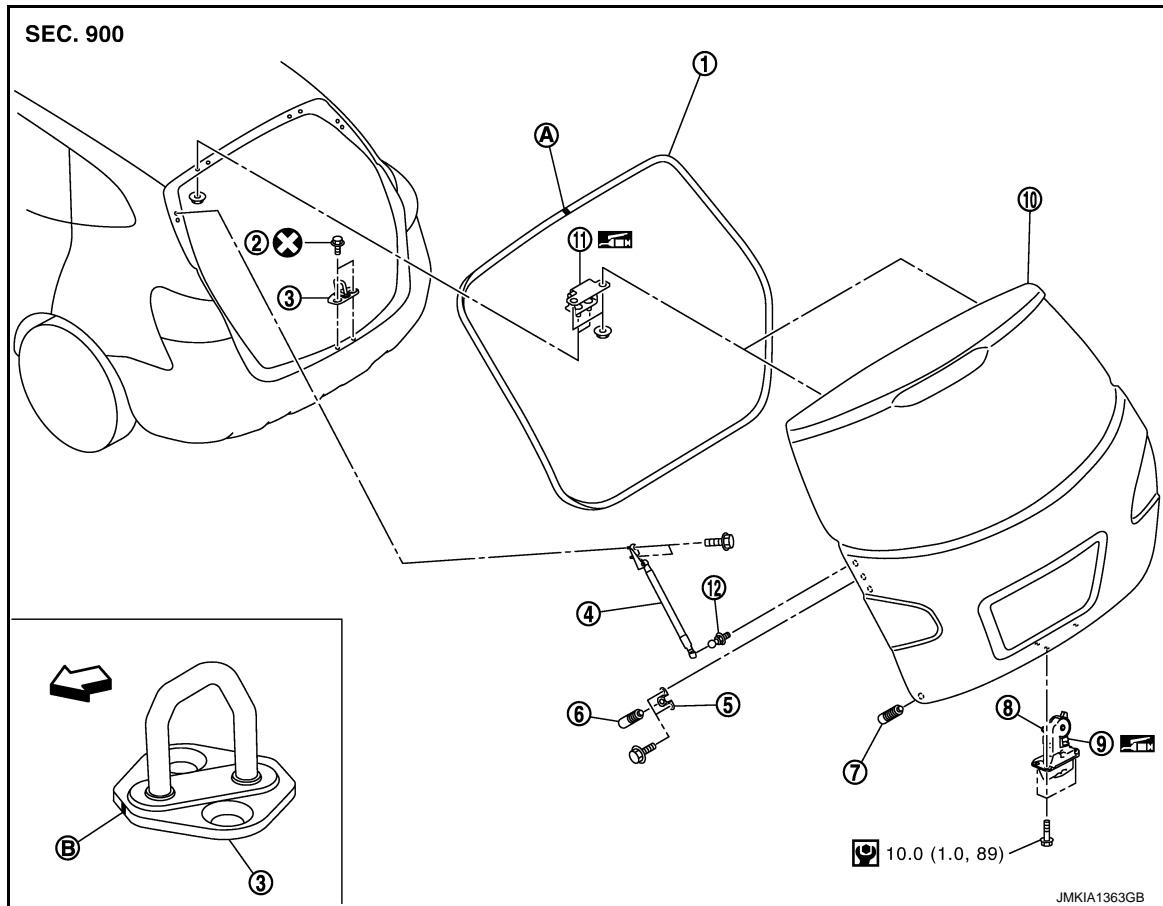
[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR

### BACK DOOR ASSEMBLY

### BACK DOOR ASSEMBLY : Exploded View

INFOID:000000008282163



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark

↶ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR ASSEMBLY : Removal and Installation

INFOID:000000008282164

### REMOVAL

1. Remove back door lower finisher inner, back door upper finisher inner, back door side finisher inner. Refer to [INT-34, "Removal and Installation"](#).
  2. Disconnect connectors in back door, and then remove grommet, and pull out harness.
  3. Remove grommet, and then disconnect connectors, and washer tube.
  4. Pull harness and washer tube out of back door.
  5. Support back door lock with the proper material to prevent it from falling.
  6. Remove back door stay. Refer to [DLK-393, "BACK DOOR STAY : Removal and Installation"](#).
- CAUTION:**  
**Perform work with 2 workers, because of its heavy weight.**
7. Remove back door hinge mounting nuts on back door and remove back door assembly.

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INSTALLATION

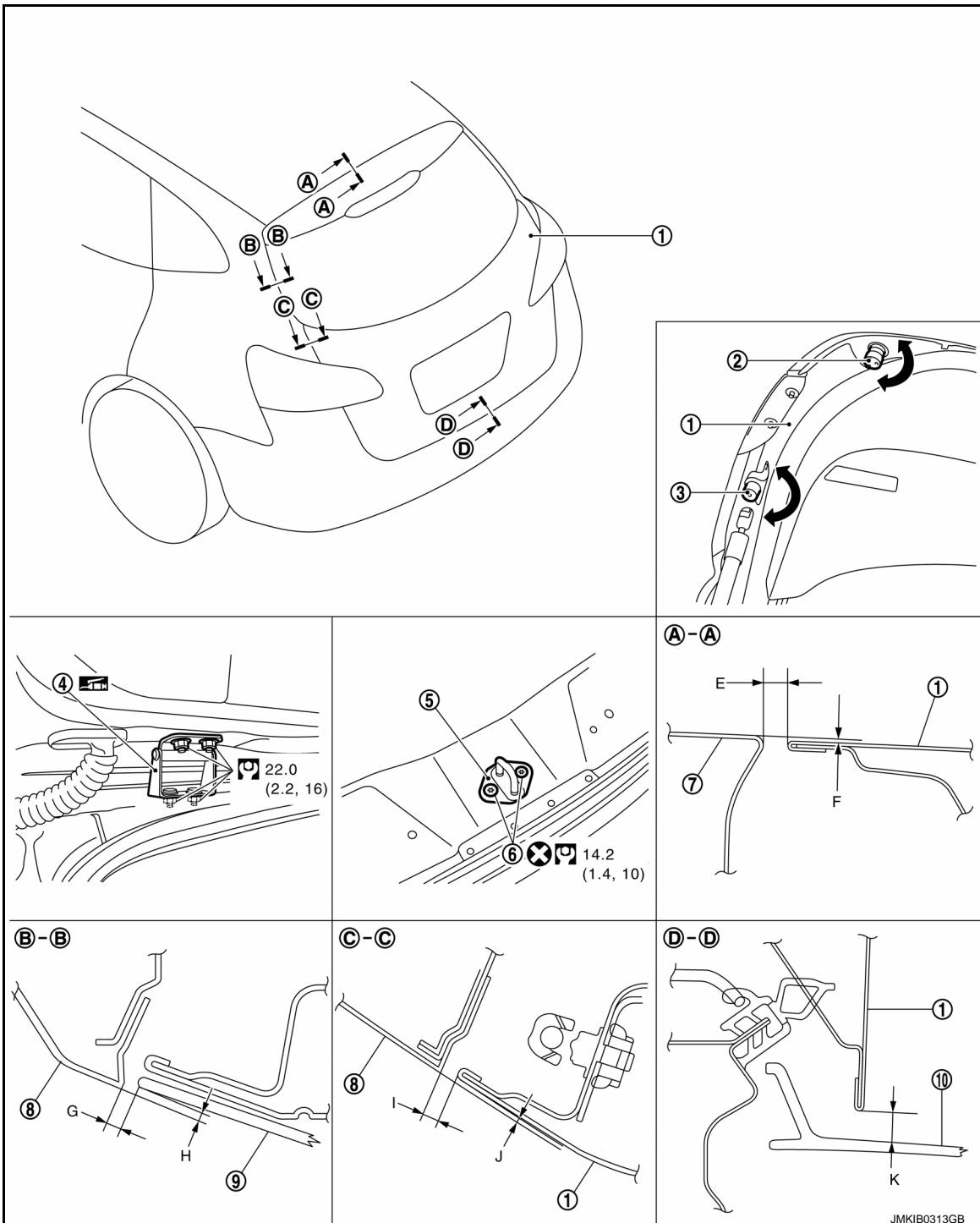
Install in the reverse order of removal.

### CAUTION:

- Check back door open/close, lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to [DLK-389, "BACK DOOR ASSEMBLY : Adjustment"](#).

## BACK DOOR ASSEMBLY : Adjustment

INFOID:000000008705850



1. Back door assembly
4. Back door hinge

2. Bumper rubber lower
5. Back door striker

3. Bumper rubber side
6. TORX bolt

JMKIB0313GB

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

DLK

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 7. Roof
- 8. Body side outer
- 9. Back door glass
- 10. Rear bumper

Refer to [GI-4, "Components"](#) for symbols in the figure.

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

Unit: mm (in)

Portion			Standard	
Back door – Roof	A – A	E	Clearance	4.3 – 6.8 (0.169 – 0.268)
		F	Surface height	-2.0 – 0.5 (-0.079 – 0.020)
Back door glass – Body side outer	B – B	G	Clearance	2.7 – 7.3 (0.106 – 0.287)
		H	Surface height	0.4 – 4.1 (0.016 – 0.161)
Back door – Body side outer	C – C	I	Clearance	4.1 – 6.1 (0.161 – 0.240)
		J	Surface height	-0.2 – 1.8 (-0.008 – 0.071)
Back door – Rear bumper	D – D	K	Clearance	5.9 – 9.9 (0.232 – 0.390)

1. Loosen bumper rubber.
2. Loosen back door striker mounting bolts.
3. Lift up back door approximately 100 – 150 mm (3.937 – 5.906 in) height then close it lightly and check that it is engaged firmly with back door closed.
4. Check the clearance and surface height.
5. Finally tighten back door striker.

**CAUTION:**

After door adjustment, perform the camera image calibration. Refer to [AV-160, "Adjustment"](#) (DISPLAY AUDIO).

**BACK DOOR STRIKER ADJUSTMENT**

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

**BACK DOOR STRIKER**

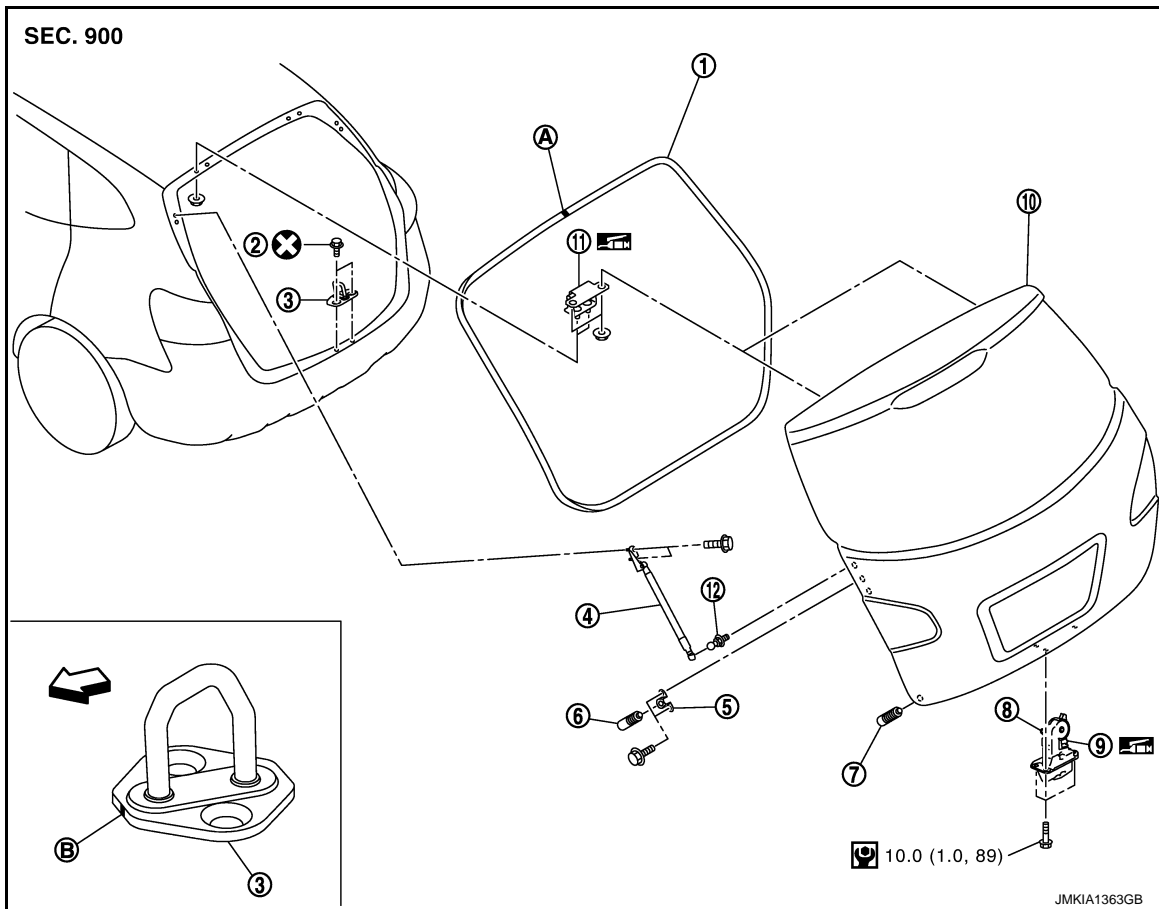
# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR STRIKER : Exploded View

INFOID:000000008282166



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark  
← : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR STRIKER : Removal and Installation

INFOID:000000008282167

### REMOVAL

Remove TORX bolts, and then remove back door striker.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check back door open/close operation after installation.
- When removing and installing back door striker, be sure to perform the fitting adjustment. Refer to [DLK-389, "BACK DOOR ASSEMBLY : Adjustment"](#).

## BACK DOOR HINGE

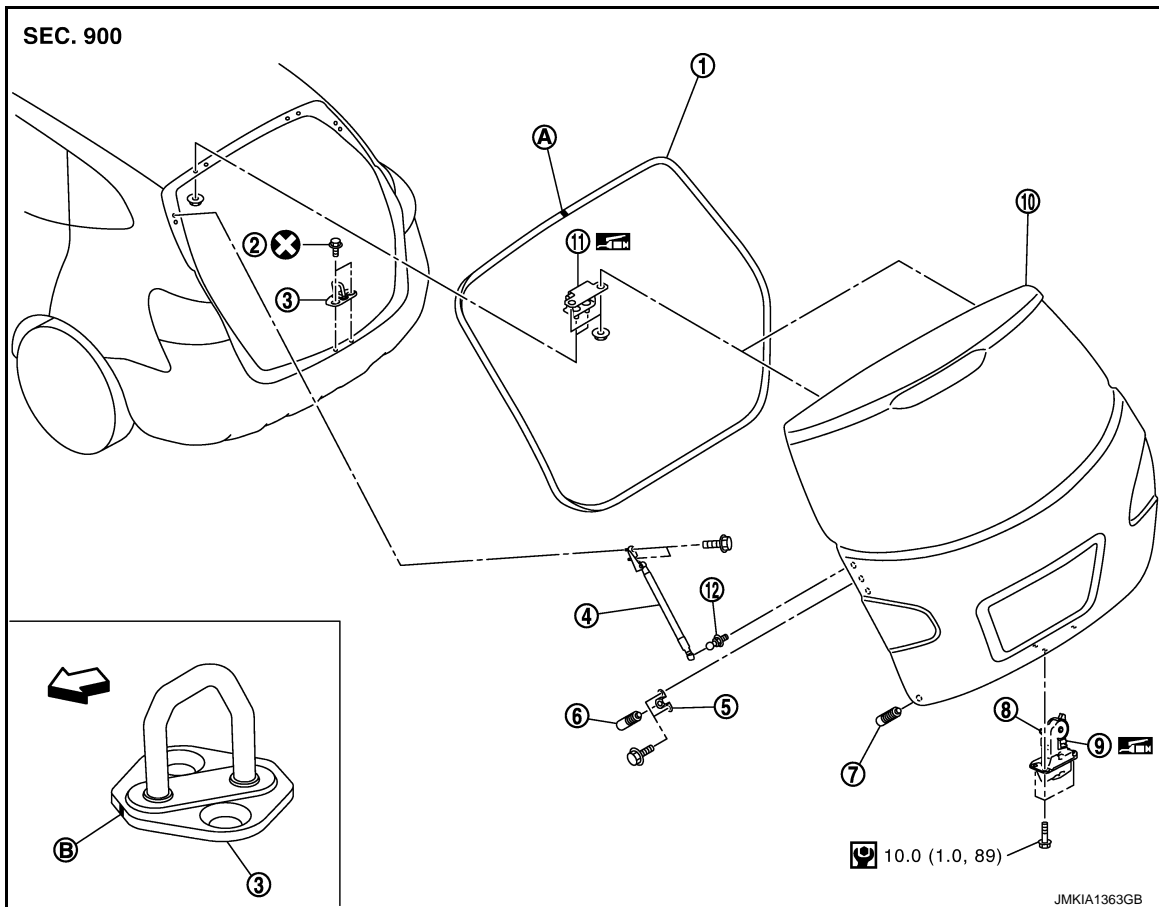
# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR HINGE : Exploded View

INFOID:000000008282168



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark  
↶ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR HINGE : Removal and Installation

INFOID:000000008282169

### REMOVAL

1. Remove back door assembly. Refer to [DLK-388, "BACK DOOR ASSEMBLY : Removal and Installation"](#).
2. Remove back door weather-strip. Refer to [DLK-395, "BACK DOOR WEATHER-STRIP : Removal and Installation"](#).
3. Remove luggage side lower finisher and luggage side upper finisher. Refer to [INT-32, "Removal and Installation"](#).
4. Using remover tool, remove headlining clip at the rear side of headlining and then remove rear side of headlining.. Refer to [INT-24, "NORMAL ROOF : Removal and Installation"](#) (NORMAL ROOF), [INT-27, "SUNROOF : Removal and Installation"](#) (SUNROOF).
5. Remove back door hinge mounting nuts (body side), and then remove back door hinge.

### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

- Check back door open/close operation after installation.



# BACK DOOR

< REMOVAL AND INSTALLATION >

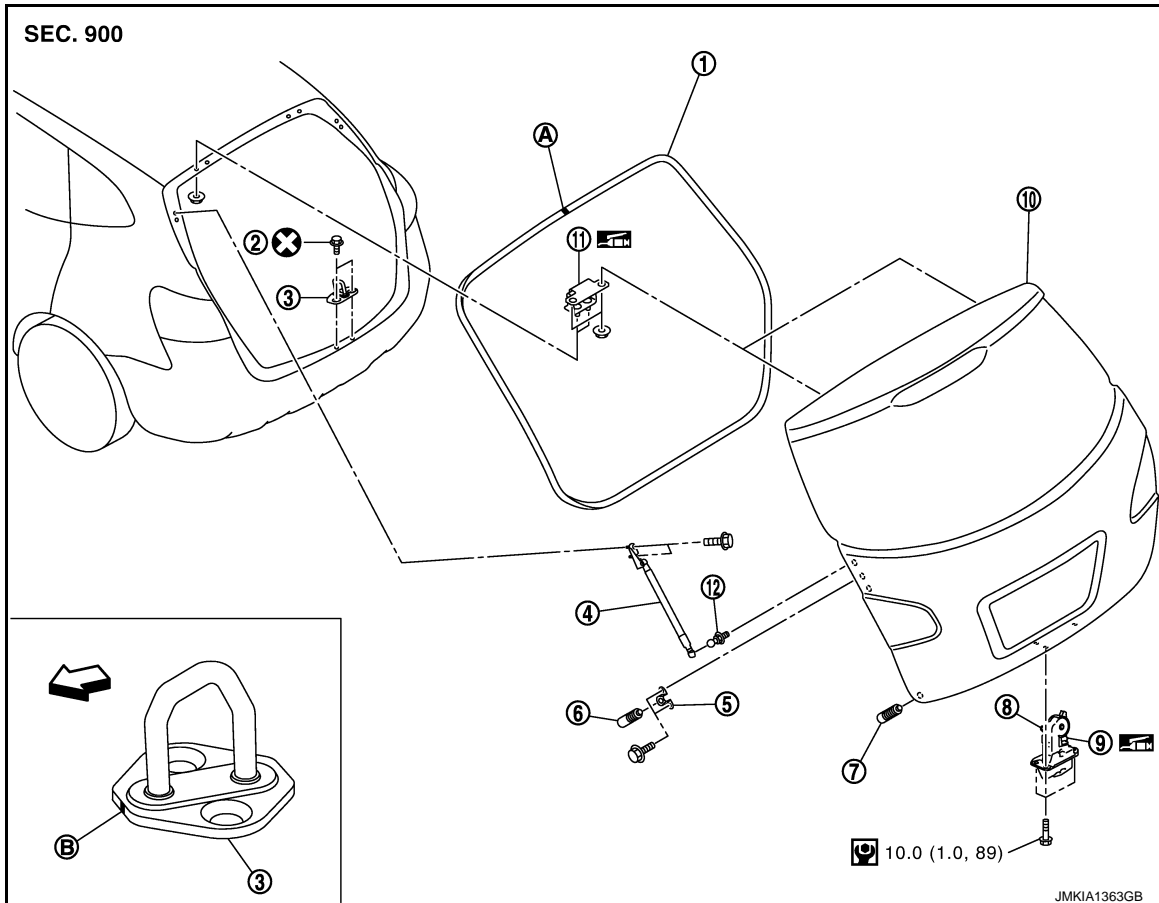
[WITHOUT INTELLIGENT KEY SYSTEM]

- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing back door assembly, perform the fitting adjustment. Refer to [DLK-389](#), "[BACK DOOR ASSEMBLY : Adjustment](#)".
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

## BACK DOOR STAY

### BACK DOOR STAY : Exploded View

INFOID:0000000008282170



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
| A : Center mark            | B : Front mark           |                              |

↔ : Vehicle front

Refer to [GI-4](#), "[Components](#)" for symbols in the figure.

### BACK DOOR STAY : Removal and Installation

INFOID:0000000008282171

#### REMOVAL

1. Remove mounting bolts (body side), and then remove back door stay bracket.
2. Remove stud ball (back door side), and then remove back door stay.

#### INSTALLATION

Install in the reverse order of removal.

#### CAUTION:

**Check back door open/close operation after installation.**

# BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

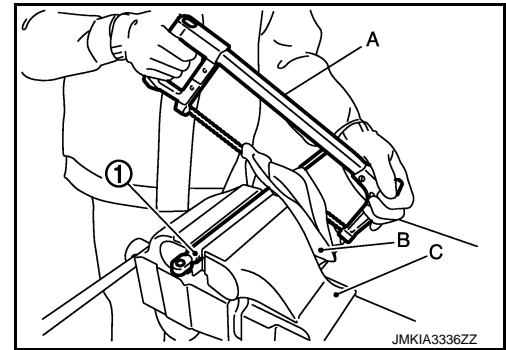
## BACK DOOR STAY : Disposal

INFOID:000000008282172

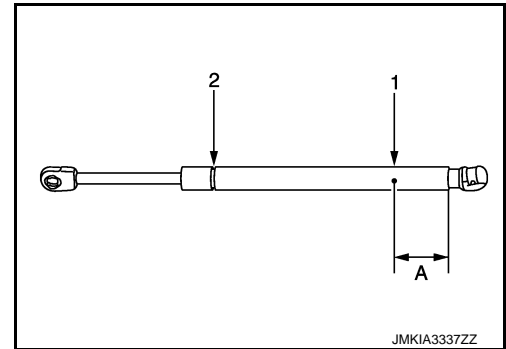
1. Fix gas stay (1) using a vise (C).
2. Slowly make 2 holes, in numerical order as shown in the figure, on gas stay using a hacksaw (A).

**CAUTION:**

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



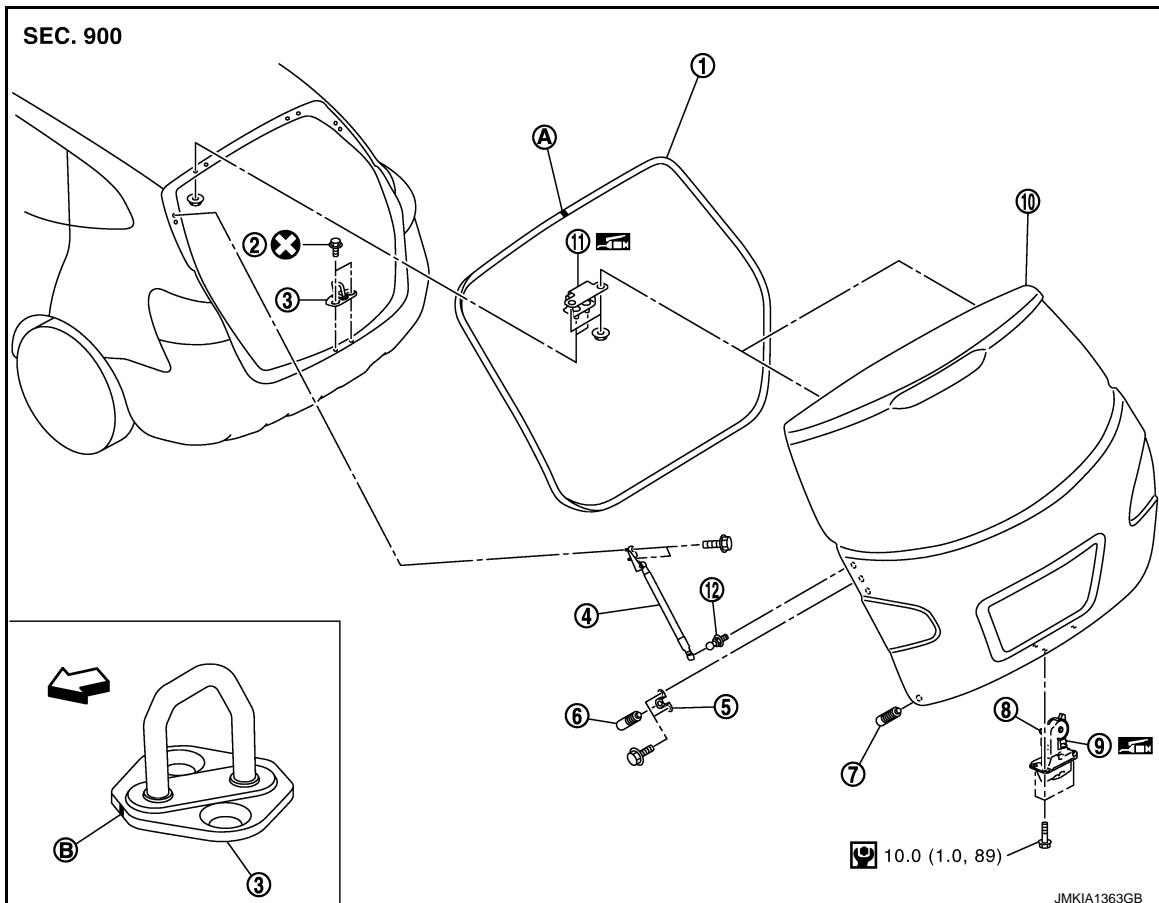
A : 20 mm (0.787 in)



## BACK DOOR WEATHER-STRIP

### BACK DOOR WEATHER-STRIP : Exploded View

INFOID:000000008282173



# BACK DOOR

## < REMOVAL AND INSTALLATION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

- |                            |                          |                              |   |
|----------------------------|--------------------------|------------------------------|---|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         | A |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |   |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball | B |
| A : Center mark            | B : Front mark           |                              |   |

↶ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## BACK DOOR WEATHER-STRIP : Removal and Installation

INFOID:000000008282174

### REMOVAL

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

#### **CAUTION:**

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

### INSTALLATION

1. Working from the upper section, align weather-strip mark with vehicle center position mark and install weather-strip onto the vehicle.
2. For the lower section, align weather-strip seam with center of back door striker.
3. After installation, pull weather-strip gently to ensure that there is no loose section.

#### **NOTE:**

Make sure that weather-strip is fit tightly at each corner and luggage rear plate.

DLK



# FRONT DOOR LOCK

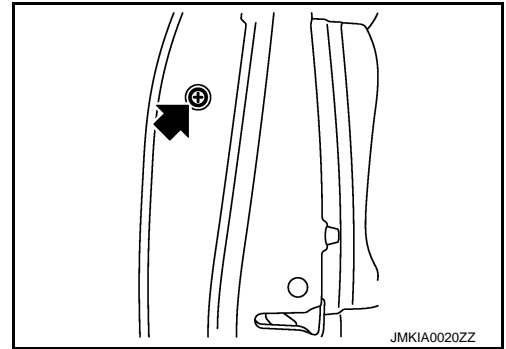
## < REMOVAL AND INSTALLATION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

6. Remove door side grommet, and loosen TORX bolt from grommet hole.

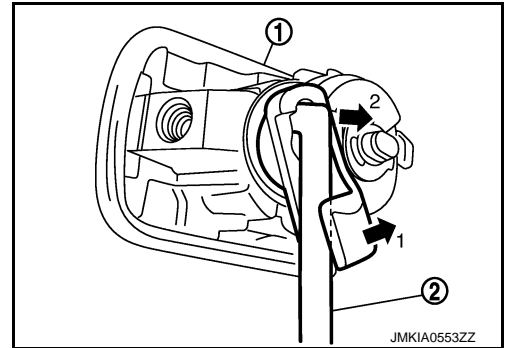
**CAUTION:**

**Never forcibly remove TORX bolt.**

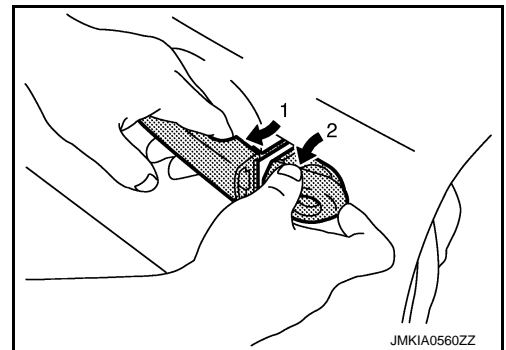


7. Reach in to separate door key cylinder rod connection (on the handle) (driver side).

1. Door key cylinder assembly
2. Key rod

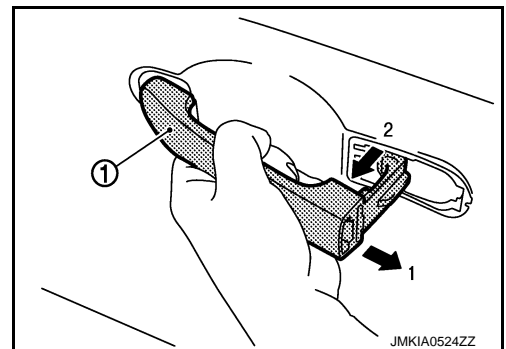


8. While pulling outside handle, remove door key cylinder assembly.



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.



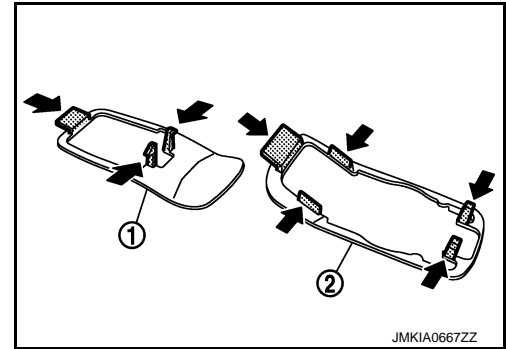
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## FRONT DOOR LOCK

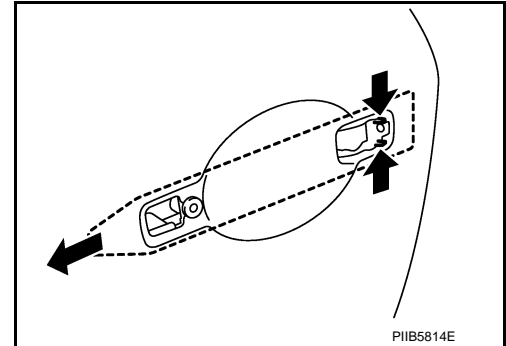
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

11. Remove front gasket (1) and rear gasket (2).



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



13. Reach in to separate outside handle cable connection on outside handle bracket.

14. Remove door lock assembly TORX bolts.

15. Disconnect door lock actuator connector, and then remove door lock assembly.

16. Remove key rod from door lock assembly.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

### INSIDE HANDLE

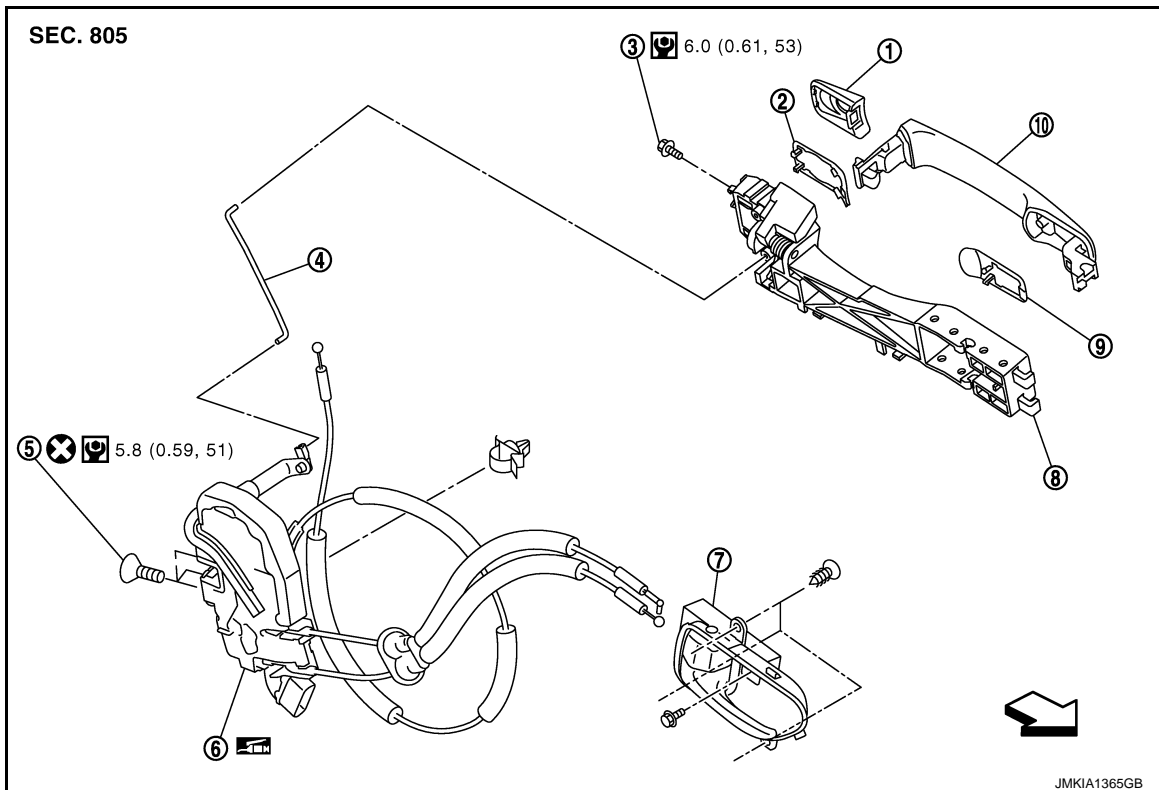
# FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INSIDE HANDLE : Exploded View

INFOID:000000008282177



- |   |                           |                       |
|---|---------------------------|-----------------------|
| 1. Door key cylinder assembly (driver side)<br>Outside handle escutcheon (passenger side) | 2. Rear gasket            | 3. TORX bolt          |
| 4. Key rod (driver side only)   | 5. TORX bolt              | 6. Door lock assembly |
| 7. Inside handle  | 8. Outside handle bracket | 9. Front gasket       |
| 10. Outside handle assembly   |                           |                       |

← : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## INSIDE HANDLE : Removal and Installation

INFOID:000000008282178

### REMOVAL

1. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Remove inside handle mounting screws.
3. Disconnect inside handle cable, and then remove the inside handle.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

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

## OUTSIDE HANDLE

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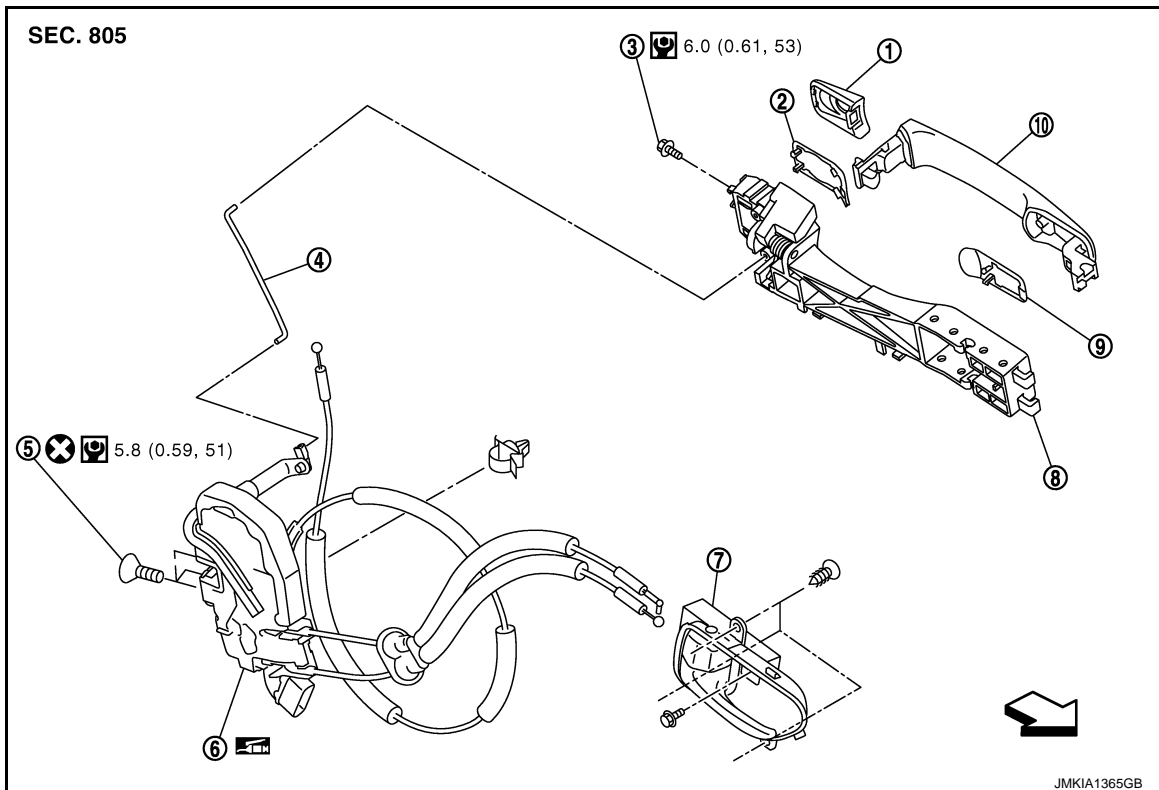
# FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## OUTSIDE HANDLE : Exploded View

INFOID:000000008282179



- |   |                           |                       |
|---|---------------------------|-----------------------|
| 1. Door key cylinder assembly (driver side) | 2. Rear gasket            | 3. TORX bolt          |
| Outside handle escutcheon (passenger side)  |                           |                       |
| 4. Key rod (driver side only)               | 5. TORX bolt              | 6. Door lock assembly |
| 7. Inside handle                            | 8. Outside handle bracket | 9. Front gasket       |
| 10. Outside handle assembly                 |                           |                       |

← : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## OUTSIDE HANDLE : Removal and Installation

INFOID:000000008282180

### REMOVAL

1. Remove front door finisher. Refer to [INT-12, "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove front door glass. Refer to [GW-20, "Removal and Installation"](#).
4. Remove front door module assembly. Refer to [GW-23, "Removal and Installation"](#).
5. Disconnect door antenna and door request switch connector and remove harness clamp (models with Intelligent Key system) on outside handle bracket.



# FRONT DOOR LOCK

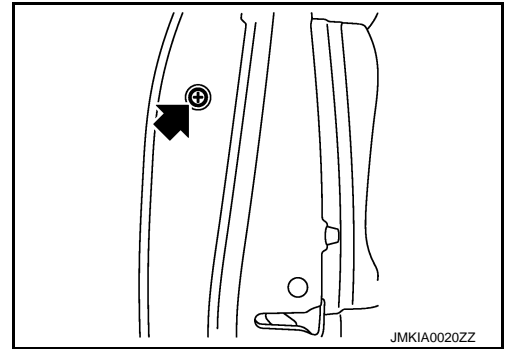
## < REMOVAL AND INSTALLATION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

6. Remove door side grommet, and loosen TORX bolt from grommet hole.

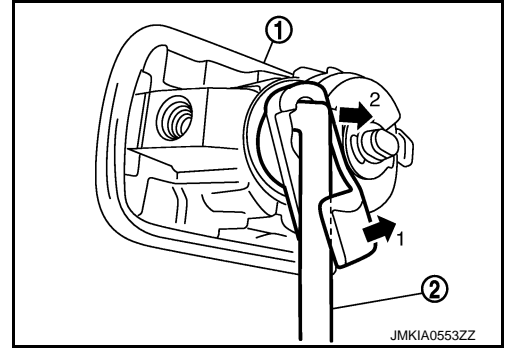
**CAUTION:**

**Never forcibly remove TORX bolt.**

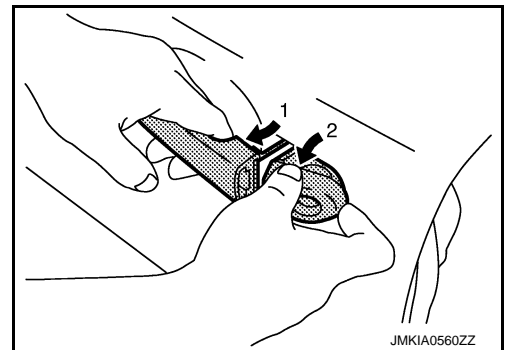


7. Reach in to separate door key cylinder rod connection (on the handle) (driver side).

1. Door key cylinder assembly
2. Key rod

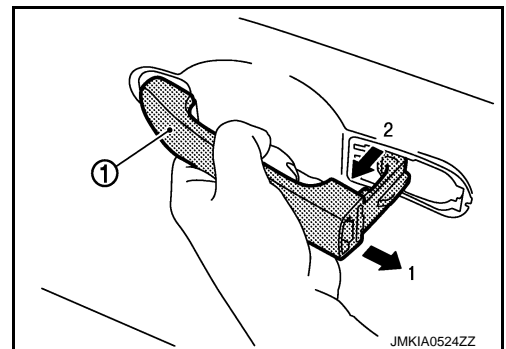


8. While pulling outside handle, remove door key cylinder assembly.



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.



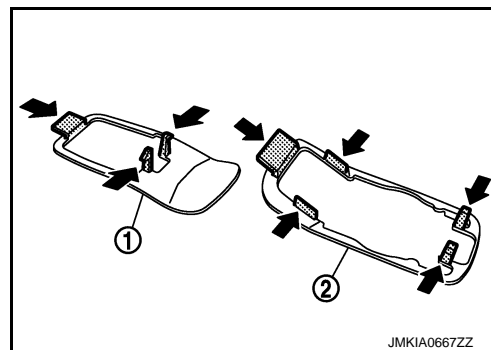
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## FRONT DOOR LOCK

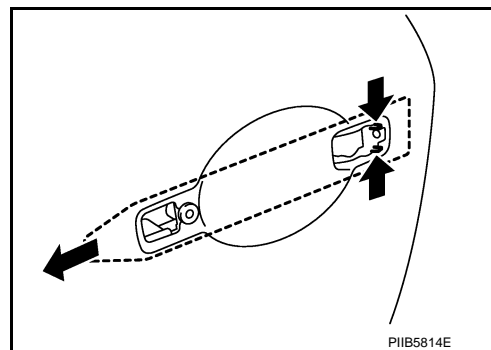
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

11. Remove front gasket (1) and rear gasket (2).



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



13. Reach in to separate outside handle cable connection on outside handle bracket.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- To install each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

# REAR DOOR LOCK

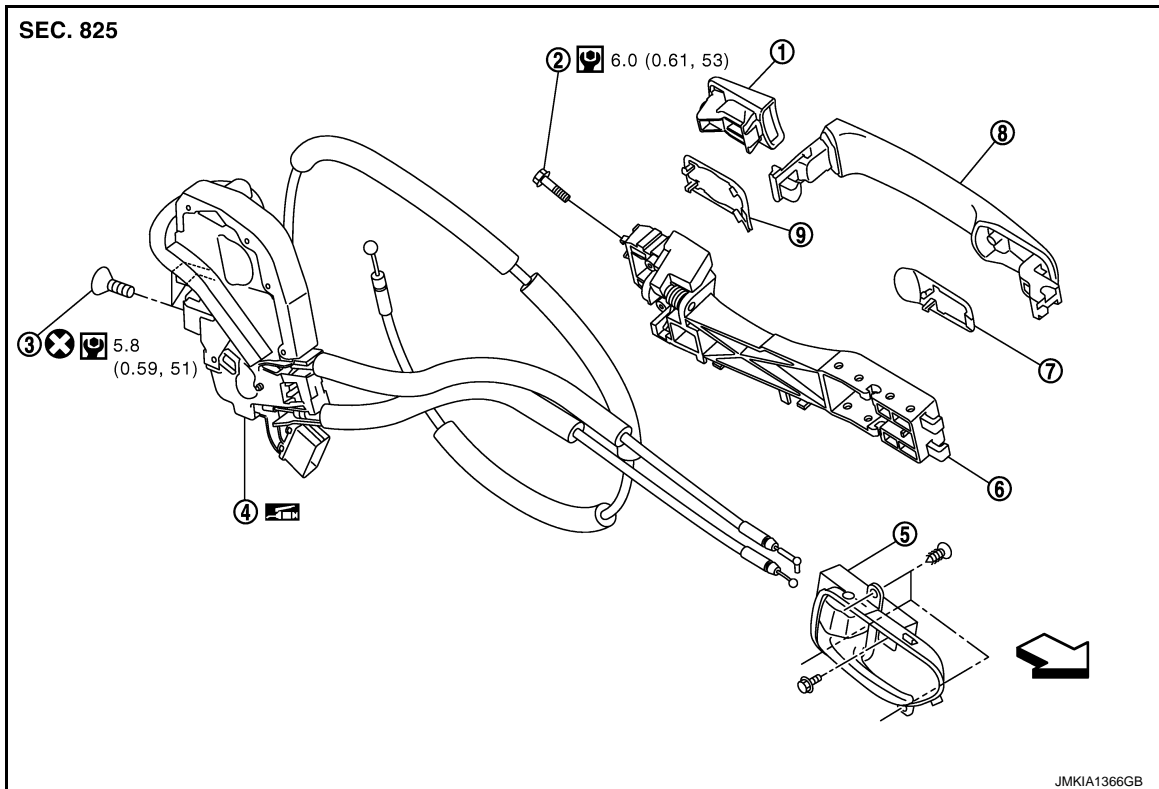
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REAR DOOR LOCK DOOR LOCK

### DOOR LOCK : Exploded View

INFOID:000000008282181



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

← : Vehicle front

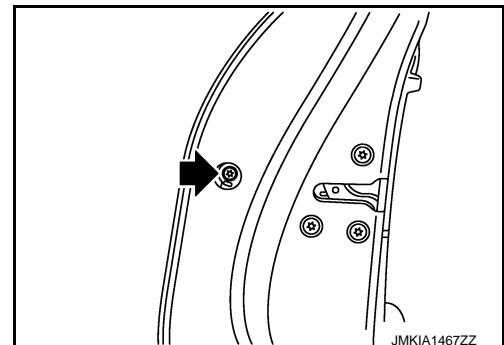
Refer to [GI-4, "Components"](#) for symbols in the figure.

### DOOR LOCK : Removal and Installation

INFOID:000000008282182

#### REMOVAL

1. Remove rear door finisher. Refer to [INT-15, "REAR DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove rear door glass. Refer to [GW-26, "Removal and Installation"](#).
4. Remove door side grommet, and loosen TORX bolt from grommet hole.

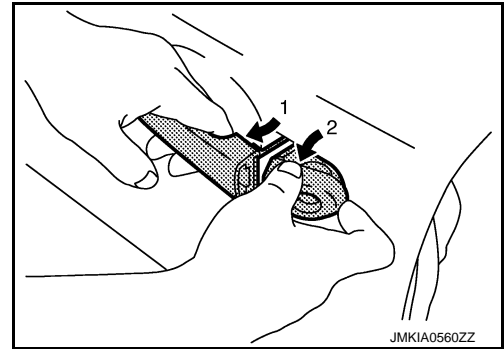


# REAR DOOR LOCK

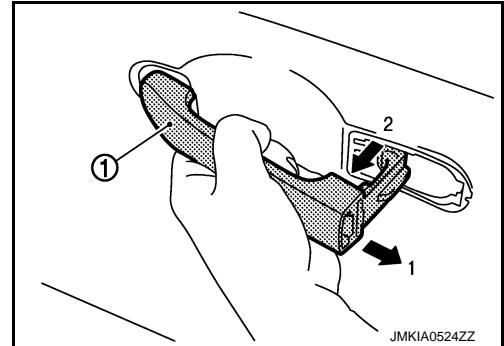
## < REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

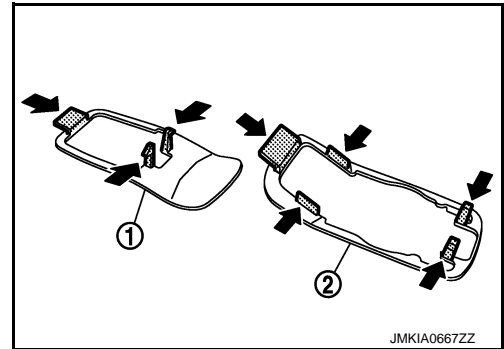
5. While pulling outside handle, remove outside handle escutcheon.



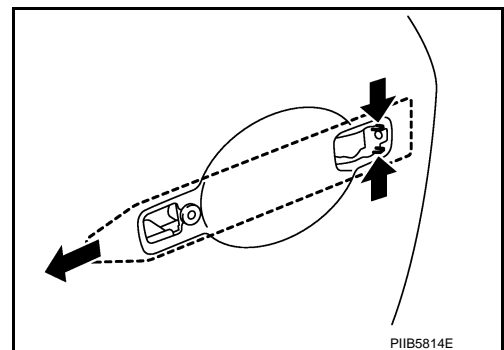
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



7. Remove front gasket (1) and rear gasket (2).



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



9. Reach in to separate outside handle cable connection on outside handle bracket.  
10. Disconnect harness connector on door lock actuator.  
11. Remove door lock mounting bolts.  
12. Remove door lock assembly.

## INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

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

## INSIDE HANDLE

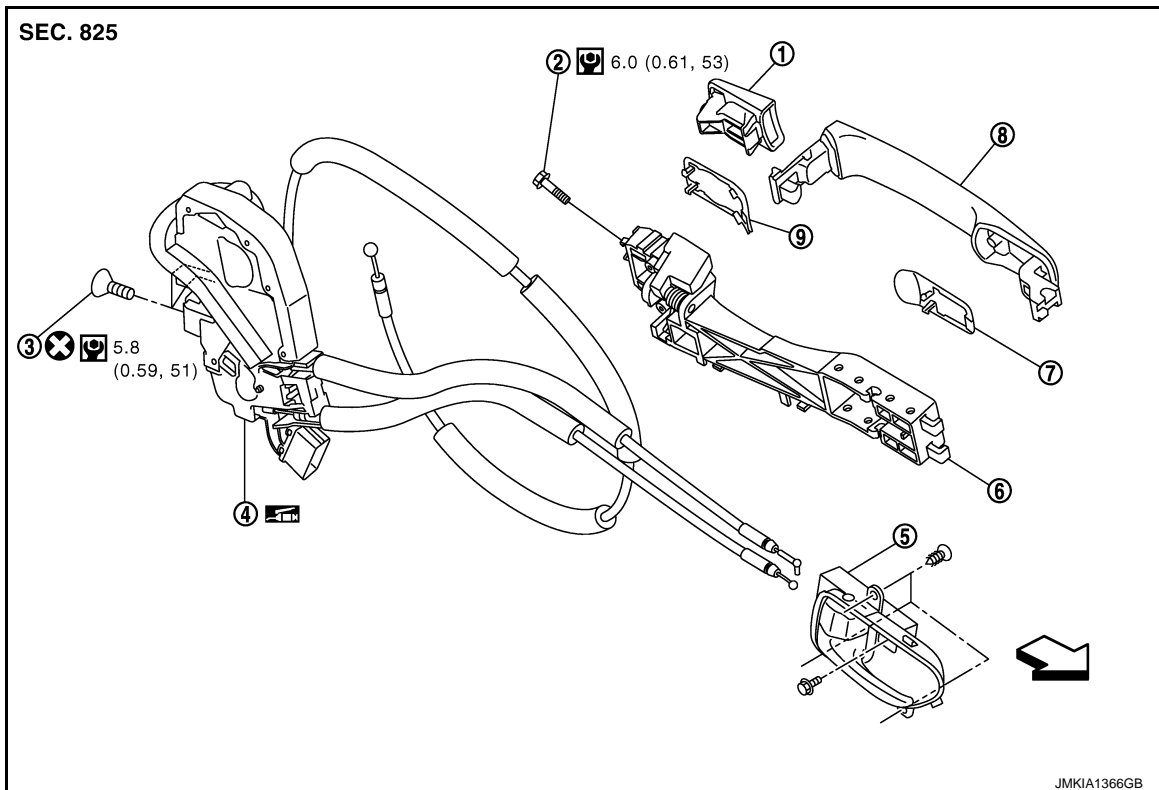
# REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INSIDE HANDLE : Exploded View

INFOID:000000008282183



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

← : Vehicle front

Refer to [GI-4. "Components"](#) for symbols in the figure.

## INSIDE HANDLE : Removal and Installation

INFOID:000000008282184

### REMOVAL

1. Remove rear door finisher. Refer to [INT-15. "REAR DOOR FINISHER : Removal and Installation"](#).
2. Remove inside handle mounting screws.
3. Disconnect inside handle cable, and then remove inside handle.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

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

## OUTSIDE HANDLE

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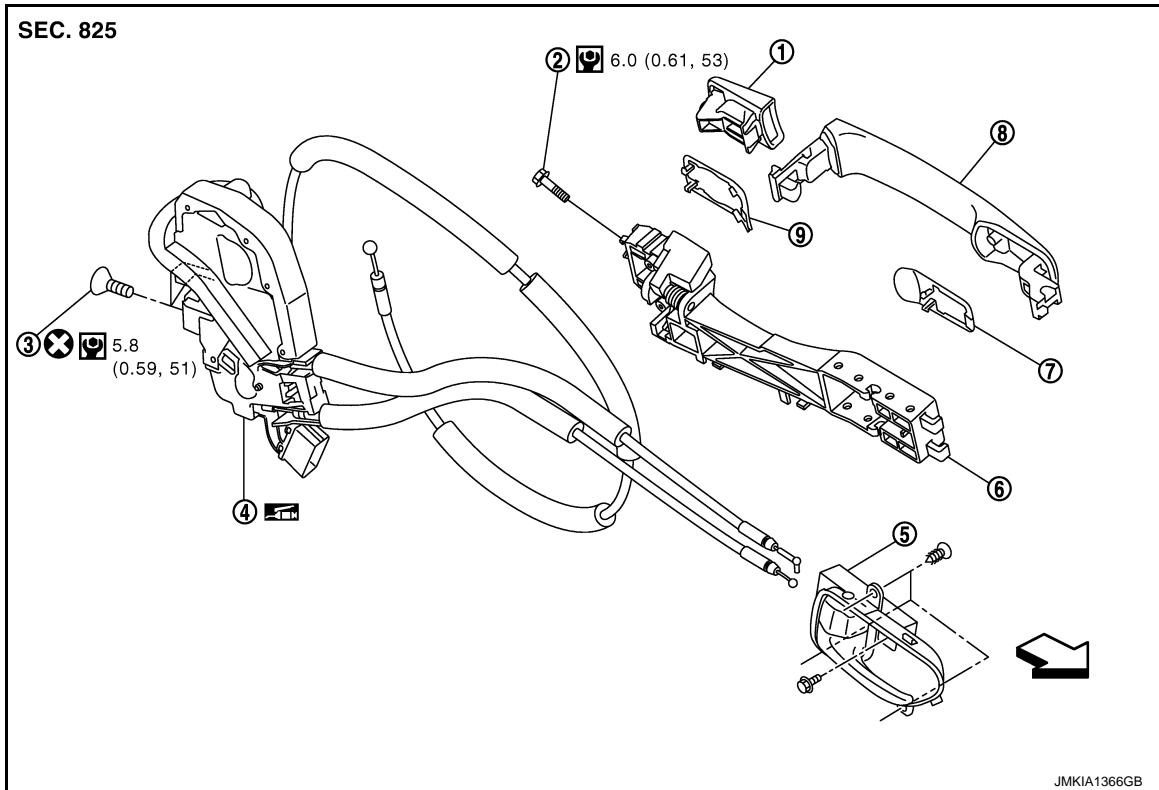
# REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## OUTSIDE HANDLE : Exploded View

INFOID:000000008282185



- |                              |                            |                           |
|------------------------------|----------------------------|---------------------------|
| 1. Outside handle escutcheon | 2. TORX bolt               | 3. TORX bolt              |
| 4. Door lock assembly        | 5. Inside handle           | 6. Outside handle bracket |
| 7. Front gasket              | 8. Outside handle assembly | 9. Rear gasket            |

← : Vehicle front

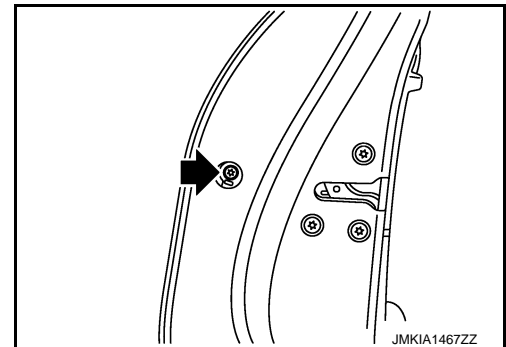
Refer to [GI-4. "Components"](#) for symbols in the figure.

## OUTSIDE HANDLE : Removal and Installation

INFOID:000000008282186

### REMOVAL

1. Remove rear door finisher. Refer to [INT-15. "REAR DOOR FINISHER : Removal and Installation"](#).
2. Disconnect inside handle cable.
3. Remove rear door glass. Refer to [GW-26. "Removal and Installation"](#).
4. Remove door side grommet, and loosen TORX bolt from grommet hole.

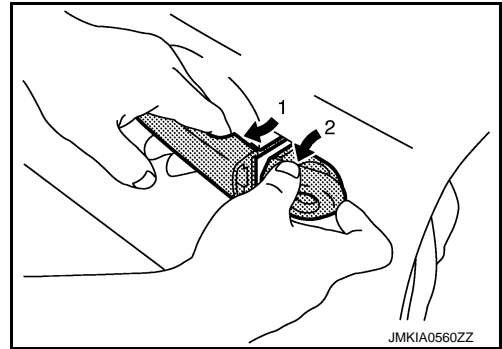


# REAR DOOR LOCK

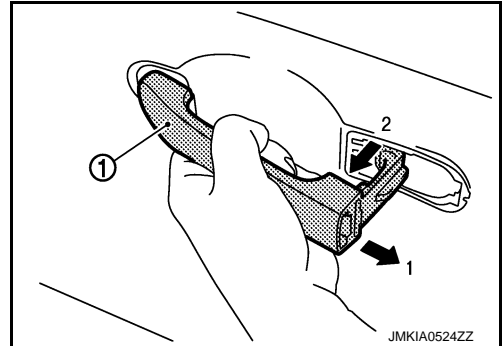
## < REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

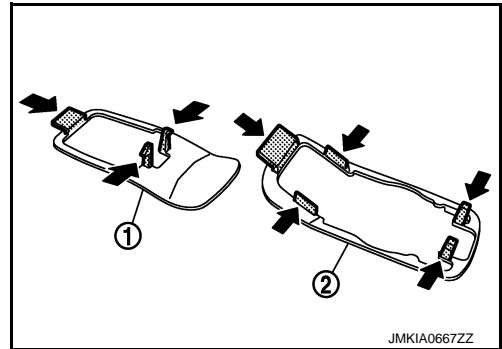
5. While pulling outside handle, remove outside handle escutcheon.



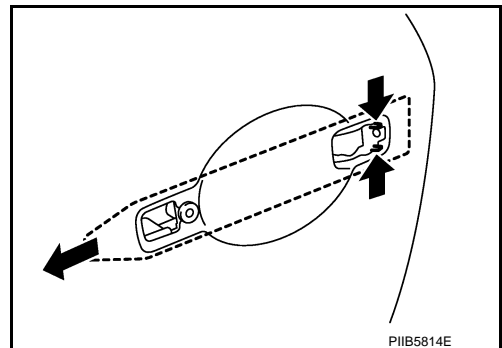
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



7. Remove front gasket (1) and rear gasket (2).



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



9. Reach in to separate outside handle cable connection on outside handle bracket.

## INSTALLATION

Install in the reverse order of removal.

### CAUTION:

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

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# BACK DOOR LOCK

< REMOVAL AND INSTALLATION >

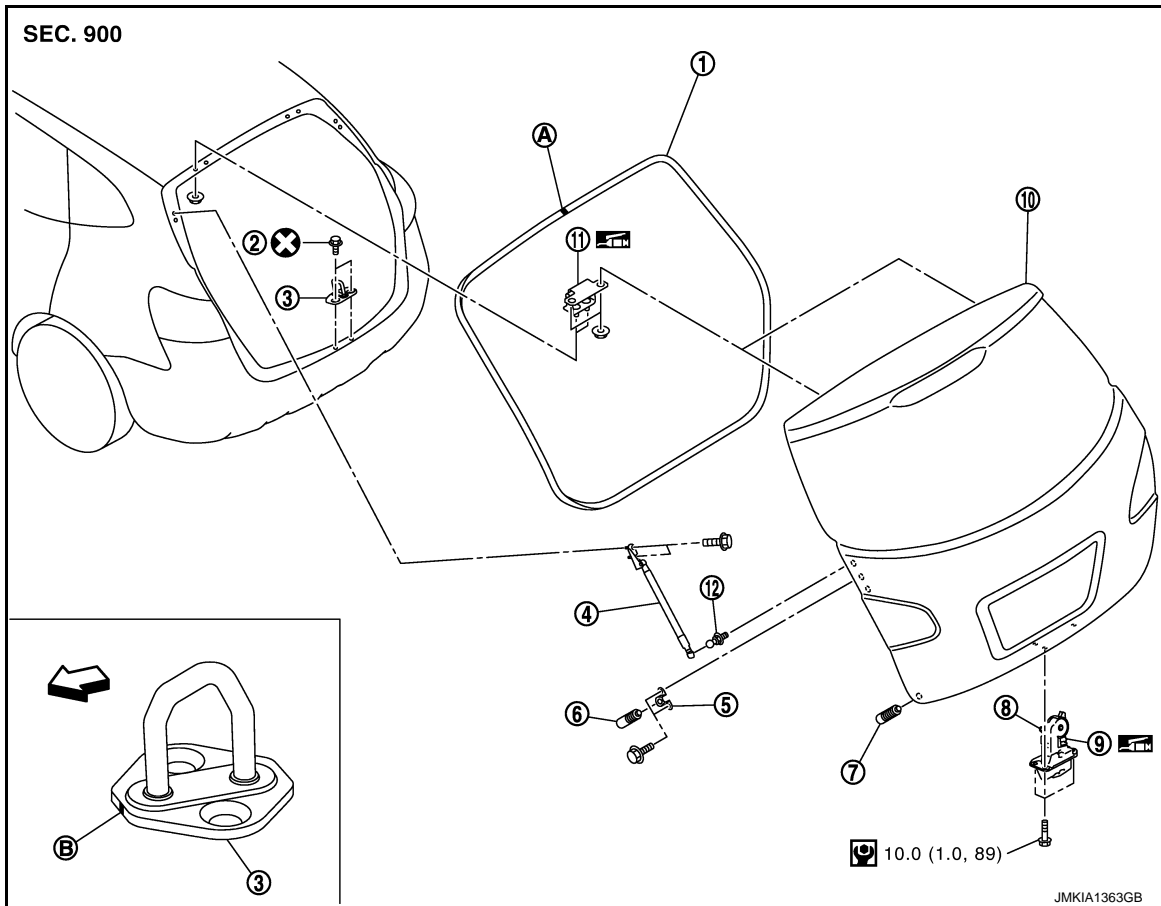
[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR LOCK

### DOOR LOCK

### DOOR LOCK : Exploded View

INFOID:000000008282187



- |                            |                          |                              |
|----------------------------|--------------------------|------------------------------|
| 1. Back door weather-strip | 2. TORX bolt             | 3. Back door striker         |
| 4. Back door stay          | 5. Bumper rubber bracket | 6. Bumper rubber side        |
| 7. Bumper rubber lower     | 8. Emergency lever       | 9. Back door lock assembly   |
| 10. Back door assembly     | 11. Back door hinge      | 12. Back door stay stud ball |
- A : Center mark  
B : Front mark

↔ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

## DOOR LOCK : Removal and Installation

INFOID:000000008282188

### REMOVAL

1. Remove back door lower finisher inner. Refer to [INT-34, "Removal and Installation"](#).
2. Disconnect back door lock assembly and back door opener switch connectors.
3. Remove back door lock mounting bolts, and then remove back door lock assembly.

### INSTALLTION

Install in the reverse order of removal.

#### **CAUTION:**

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



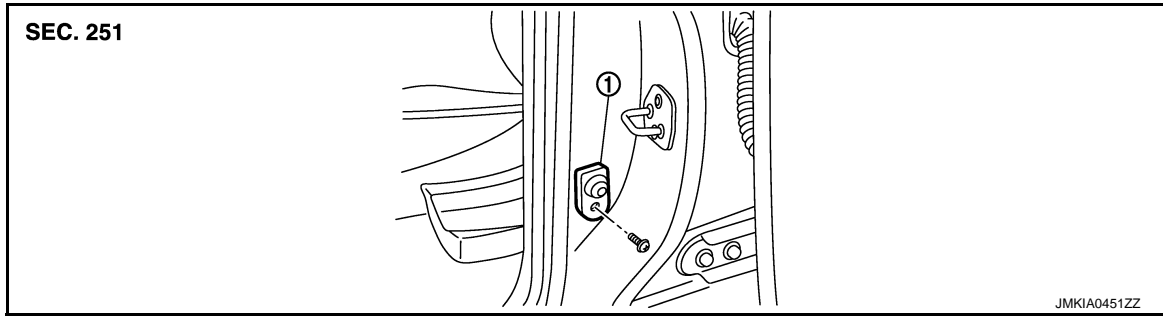
# DOOR SWITCH

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DOOR SWITCH

### Exploded View



1. Door switch (driver side)

### Removal and Installation

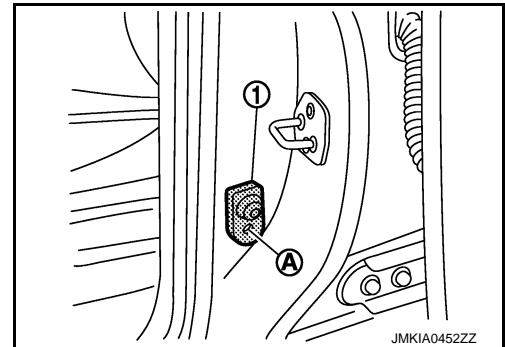
INFOID:000000008282190

#### 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.

A  
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# BACK DOOR OPENER SWITCH

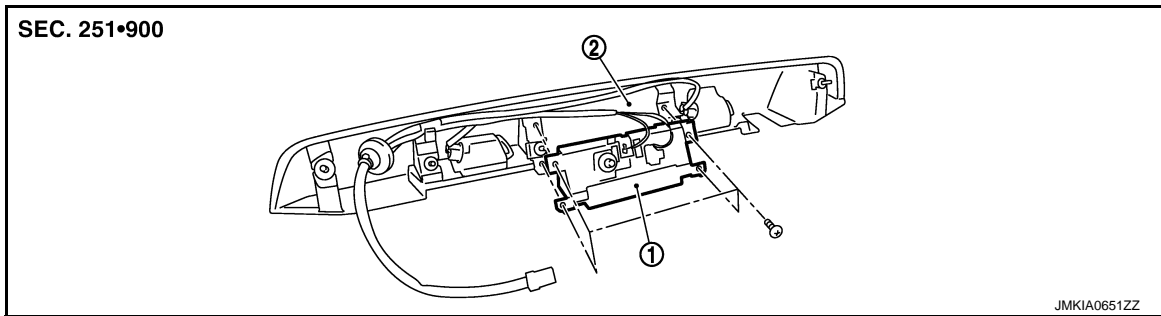
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## BACK DOOR OPENER SWITCH

Exploded View

INFOID:000000008282191



1. Back door opener switch assembly

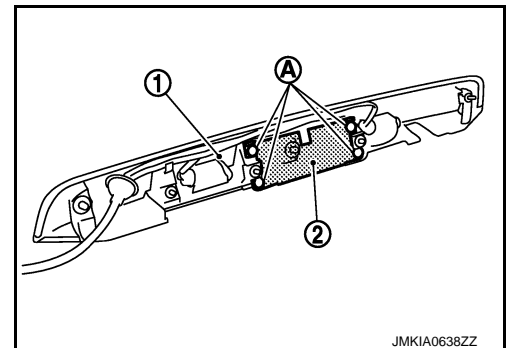
2. Back door finisher

## Removal and Installation

INFOID:000000008282192

### REMOVAL

1. Remove the back door finisher. Refer to [EXT-34, "Removal and Installation"](#).
2. Remove the back door opener switch assembly mounting screws (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

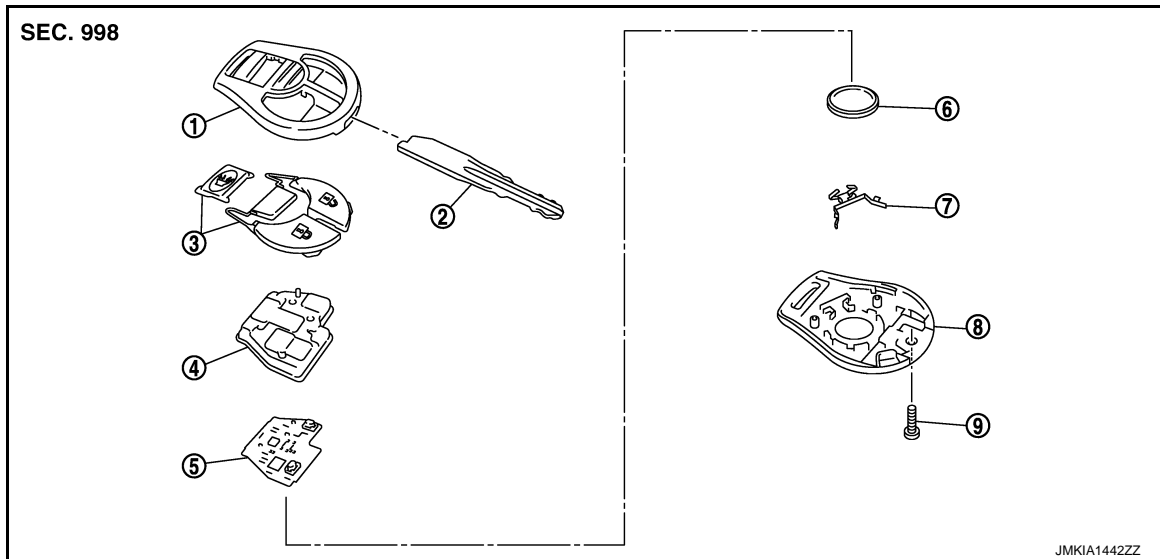
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## KEYFOB BATTERY

### Exploded View

INFOID:000000008282193



- |                  |                  |                 |
|------------------|------------------|-----------------|
| 1. Upper case    | 2. Key           | 3. Switch cover |
| 4. Switch rubber | 5. Board surface | 6. Battery      |
| 7. plate         | 8. Lower case    | 9. Screw        |

### Removal and Installation

INFOID:000000008282194

#### REMOVAL

1. Remove screw (9) on the rear of keyfob.
2. Place the key with the lower case (8) facing up. Set a screw-driver wrapped with tape between upper case (1) and lower case (8) and then separate the lower case (8) from the upper case (1).

#### CAUTION:

- Do not touch the circuit board or battery terminal.
- The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.

3. When replacing the circuit board assembly, remove circuit board assembly from the upper case (1). [Circuit board assembly: Switch rubber (4) + Board surface (5)]

#### CAUTION:

Do not touch the printed circuits directly.

4. Remove the battery (6) from the lower case (8) and replace it.

**Battery replacement : Coin-type lithium battery (CR1620)**

#### 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 (4), (7) and tighten with the screw.

#### CAUTION:

After replacing the battery, Be sure to check that door locking operates normally using the keyfob. Refer to [DLK-303, "Component Function Check"](#).

#### INSTALLATION

Install in the reverse order of removal.

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DLK

# REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY RECEIVER

### Exploded View

INFOID:000000008282195

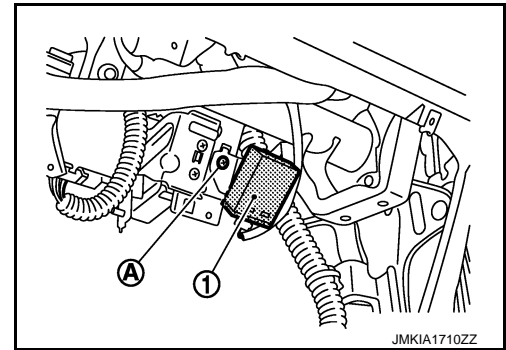
Refer to [IP-13, "Exploded View"](#).

### Removal and Installation

INFOID:000000008282196

#### REMOVAL

1. Remove the glove box. Refer to [IP-14, "Removal And Installation"](#).
2. Remove the remote keyless entry receiver mounting bolt (A), and then remove remote keyless entry receiver (1).



#### INSTALLATION

Install in the reverse order of removal.