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# **PRECAUTION**

### **PRECAUTIONS**

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

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

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

#### **WARNING:**

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

Precaution for Servicing Doors and Locks

INFOID:0000000011218553

#### **WARNING:**

Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use.

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.
- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

### **PRECAUTIONS**

#### [WITH INTELLIGENT KEY SYSTEM]

< PRECAUTION > Precaution for Work INFOID:0000000011892240 Α When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth. When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it. Protect the removed parts with a shop cloth and prevent them from being dropped. Replace a deformed or damaged clip. • If a part is specified as a non-reusable part, always replace it with a new one. • Be sure to tighten bolts and nuts securely to the specified torque. After installation is complete, be sure to check that each part works properly. Follow the steps below to clean components: D - Water soluble dirt: Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area. Then rub with a soft, dry cloth. Е Oilv dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area. Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off. F Then rub with a soft, dry cloth. - Do not use organic solvent such as thinner, benzene, alcohol or gasoline. - For genuine leather seats, use a genuine leather seat cleaner. Н DLK

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# **PREPARATION**

# **PREPARATION**

Special Service Tool

INFOID:0000000011218554

Tool number (TechMate No.) Tool name		Description
 (J-39570) Chassis Ear	SIIAO993E	Locating the noise
 (J-50397) NISSAN Squeak and Rattle Kit	ALJIA12322Z	Repairing the cause of noise
— (J-43241) Remote Keyless Entry Tester		Used to test keyfobs
— (J-50190) Signal Tech II	ALEIA01312Z	Activate and display TPMS transmitter IDs     Display tire pressure reported by the TPMS transmitter     Read TPMS DTCs     Register TPMS transmitter IDs     Check Intelligent Key relative signal strength     Confirm vehicle Intelligent Key antenna signal strength     Compatible with future sensors     Equipped with a display

# **PREPARATION**

#### < PREPARATION >

### [WITH INTELLIGENT KEY SYSTEM]

PREPARATION >		[WITH INTELLIGENT KEY SYSTEM]
Tool number (TechMate No.) Tool name		Description
KV48105501 (J-45295-A) Transmitter Activation Tool		Activate TPMS transmitter IDs     Compatible with future sensors     Equipped with a display (KV48105501 only)
	ALEIA0183ZZ	
(J-46534) Trim Tool Set		Removing trim components
Commercial Service To	AWJIA04832Z	INFOID:0000000011218555  Description
Tool name		Becompani
(J-39565) Engine Ear	SIIA0995E	Locating the noise
( — ) Power Tool		Loosening nuts, screws and bolts
rowel lool		

PIIB1407E

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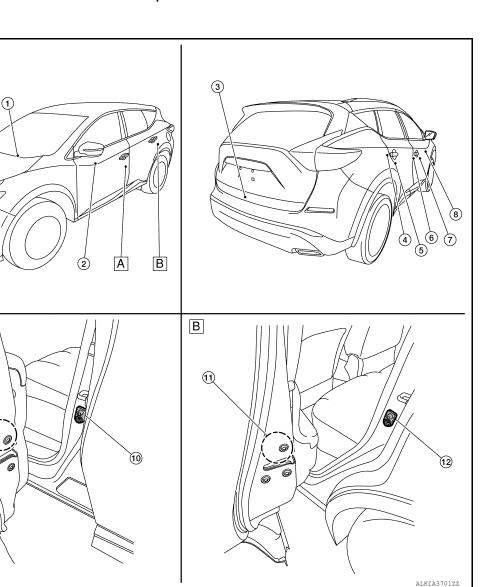
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INFOID:0000000011218556

# SYSTEM DESCRIPTION

COMPONENT PARTS
POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM: Component Parts Location



A. View of left front door

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B. View of left rear door

No.	Component	Function
1.	всм	BCM controls the door lock system.  Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
2.	Main power window and door lock/unlock switch	DLK-19, "Door Lock and Unlock Switch (Driver Side)"
3.	Back door lock assembly (door ajar switch)	DLK-18, "Back Door Lock Assembly"
4.	Rear door switch RH	DLK-22, "Rear Door Switch"
5.	Rear door lock actuator RH	Rear door lock actuator locks/unlocks the rear door latch assembly.
6.	Front door switch RH	DLK-22, "Front Door Switch"

### **COMPONENT PARTS**

### < SYSTEM DESCRIPTION >

# [WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
7.	Front door lock actuator RH	Front door lock actuator locks/unlocks the front door latch assembly.
8.	Power window and door lock/unlock switch RH	DLK-19, "Door Lock and Unlock Switch (Passenger Side)"
9.	Front door lock assembly LH	DLK-22, "Front Door Lock Assembly (LH)"
10.	Front door switch LH	DLK-22, "Front Door Switch"
11.	Rear door lock actuator LH	Rear door lock actuator locks/unlocks the rear door latch assembly.
12.	Rear door switch LH	DLK-22, "Rear Door Switch"

# INTELLIGENT KEY SYSTEM

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### DLK

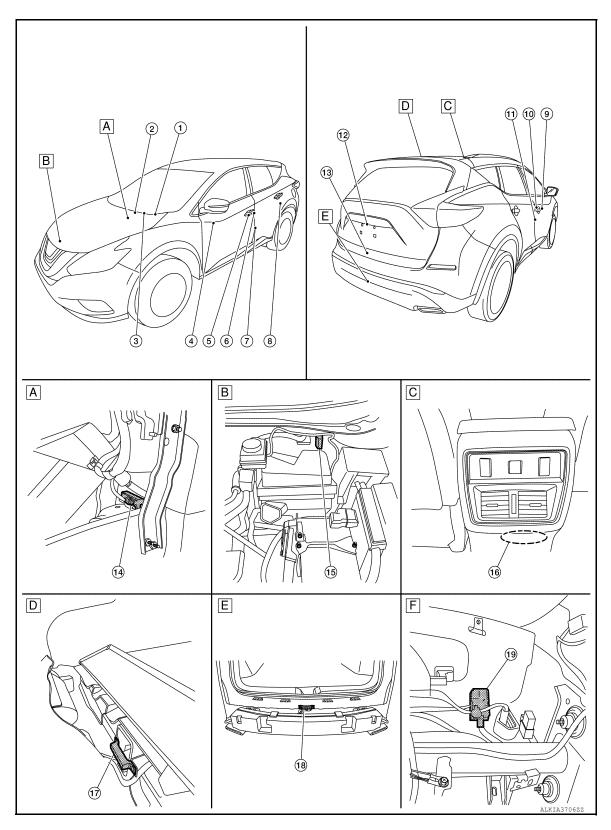
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# **INTELLIGENT KEY SYSTEM: Component Parts Location**

INFOID:0000000011218557



- A. View in front area of the console with B. the console assembly removed
- D. View of rear floor behind rear seats
- View of left side of engine compartment
- E. View with rear bumper fascia removed
- C. View of rear center console
- F. View with instrument panel removed

# [WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
1.	Combination meter	Combination meter transmits the vehicle speed signal to BCM via CAN communication.  BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed.  Security indicator lamp is located on combination meter.  Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board.  Refer to MWI-5, "METER SYSTEM: Component Parts Location".
2.	Push-button ignition switch	Push-button ignition switch has a push switch inside which detects that push-button ignition switch is pressed and then transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of push-button ignition switch. BCM maintains the ignition switch position status while push-button ignition switch is not operated.
3.	ВСМ	BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM.  BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna and pushbutton ignition switch is pressed. If the ID verification result is OK, ignition switch operation is available.  Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
4.	Main power window and door lock/unlock switch	Door lock and unlock switch is integrated into the power window main switch.  Door lock and unlock switch transmits door lock/unlock operation signal to BCM.  Refer to PWC-7. "Main Power Window and Door Lock/Unlock Switch".
5.	Outside key antenna LH	Outside key antenna (LH) detects whether Intelligent Key is outside the vehicle or not and then transmits the signal to the BCM.  Refer to DLK-20, "Outside Key Antenna (LH)".
6.	Door request switch LH	Door request switch transmits door lock/unlock request signal to the BCM.
7.	Front door lock assembly LH	Door key cylinder switch is integrated into front door lock assembly (driver side). Door key cylinder switch detects door LOCK/UNLOCK operation using mechanical key and then transmits the operation signal to BCM. Refer to DLK-22. "Front Door Lock Assembly (LH)".
8.	Rear door lock actuator LH	Rear door lock actuator locks/unlocks the rear door latch assembly.
9.	Outside key antenna RH	Outside key antenna (RH) detects whether Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM.  Refer to DLK-21, "Outside Key Antenna (RH)".
10.	Door request switch RH	Door request switch transmits door lock/unlock request signal to the BCM.
11.	Door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
12.	Back door opener switch	Back door opener switch transmits door lock/unlock request signal to the BCM
13.	Back door lock assembly	Back door lock actuator locks/unlocks the back door latch assembly.
14.	Inside key antenna (instrument center)	Inside key antenna (instrument center) detects whether Intelligent Key is inside the vehicle or not and then transmits the signal to the BCM.  Refer to DLK-20, "Inside Key Antenna (Instrument Center)".
15.	Intelligent Key warning buzzer	Intelligent Key warning buzzer warns the user, who is outside the vehicle, of operation confirmation according to Intelligent Key operation and door request switch operation or of an inappropriate operation.
16.	Inside key antenna (console)	Inside key antenna (console) detects whether Intelligent Key is inside the vehicle or not and then transmits the signal to the BCM.  Refer to DLK-20, "Inside Key Antenna (Console)".

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### **COMPONENT PARTS**

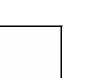
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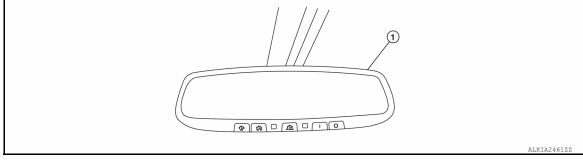
### [WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
17.	Inside key antenna (luggage room)	Inside key antenna (luggage room) detects whether Intelligent Key is inside the vehicle or not and then transmits the signal to the BCM.
18.	Outside key antenna (rear bumper)	Outside key antenna (rear bumper) detects whether Intelligent Key is outside the vehicle or not and then transmits the signal to the BCM.  Refer to DLK-20, "Outside Key Antenna (Rear Bumper)".
19.	Remote keyless entry receiver	Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM.  Refer to DLK-19, "Remote Keyless Entry Receiver".

# INTEGRATED HOMELINK TRANSMITTER

# INTEGRATED HOMELINK TRANSMITTER: Component Parts Location





No.	Component	Function	
1.	Auto anti-dazzling inside mirror	DLK-22, "Integrated Homelink Transmitter"	

# **AUTOMATIC BACK DOOR SYSTEM**

AUTOMATIC BACK DOOR SYSTEM : Component Parts Location

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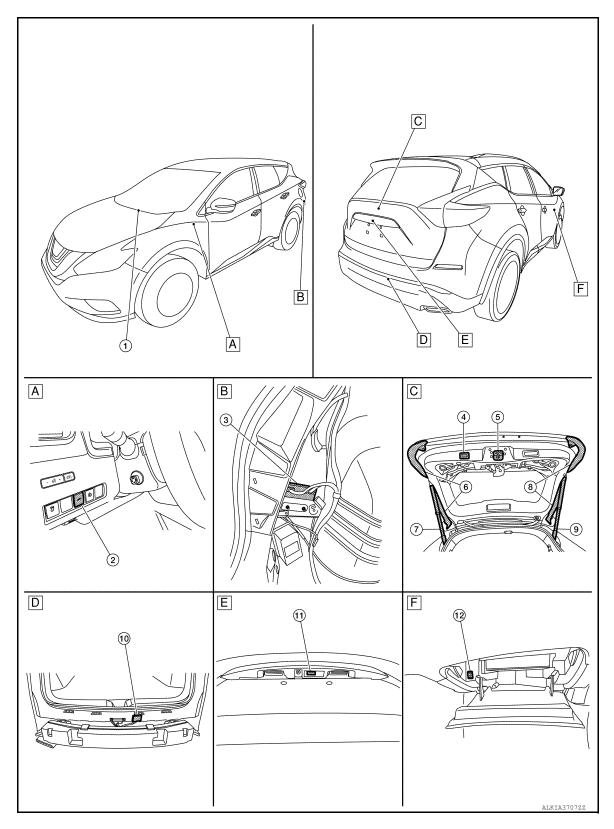
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- View of LH side of instrument panel B.
- View with luggage side lower finisher C. View of back door open removed

View with rear fascia removed D.

**Revision: October 2014** 

- E. View of back door
- E. View inside glove box

2015 Murano

**DLK-17** 

No.	Component	Function
1.	всм	BCM transmits and receives signal to the automatic back door control module.  Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
2.	Automatic back door switch	DLK-18, "Automatic Back Door Switch"
3.	Automatic back door control module	DLK-18, "Automatic Back Door Control Module"
4.	Automatic back door close switch	DLK-18, "Automatic Back Door Close Switch"
5.	Back door lock assembly	DLK-18, "Back Door Lock Assembly"
6.	Touch sensor LH	DLK-18, "Back Door Touch Sensor"
7.	Spindle unit LH	DLK-22, "Spindle Unit"
8.	Touch sensor RH	DLK-18, "Back Door Touch Sensor"
9.	Spindle unit RH	DLK-22, "Spindle Unit"
10.	Automatic back door warning buzzer	DLK-18, "Automatic Back Door Warning Buzzer"
11.	Back door opener switch	DLK-18, "Automatic Back Door Opener Switch"
12.	Automatic back door main switch	DLK-18, "Automatic Door Main Switch"

#### **Automatic Back Door Control Module**

INFOID:0000000011218560

Controls the automatic back door system.

#### Automatic Back Door Switch

INFOID:0000000011218561

Detects open/close operation of automatic back door.

### Automatic Door Main Switch

INFOID:0000000011218562

- Controls automatic open/close operation of each switch.
- Transmits automatic door main switch signal to automatic back door control module.

# Automatic Back Door Warning Buzzer

INFOID:0000000011218563

Warns the user of the automatic back door condition and inappropriate operations with the buzzer sounds.

#### Automatic Back Door Close Switch

INFOID:0000000011218564

- Detects close operation of automatic back door.
- Transmits automatic back door close switch signal to automatic back door control module.

### **Back Door Lock Assembly**

INFOID:0000000011218565

Back door closure motor, half latch switch, open switch, close switch and back door switch are installed.

- Closure motor: Inputs open/close signal from automatic back door control module and activates the back door auto closure operation.
- Half latch switch: Starts the closure motor close operation.
- Open switch: Stops the closure motor open operation.
- Close switch: Stops the closure motor close operation.
- Back door switch: Inputs back door open/close condition to BCM.

# Automatic Back Door Opener Switch

INFOID:0000000011218566

- Detects open operation of automatic back door.
- Transmits automatic back door opener switch signal to automatic back door control module.

### **Back Door Touch Sensor**

INFOID:0000000011218567

During back door close operation, the touch sensor detects any trapped foreign material.

#### [WITH INTELLIGENT KEY SYSTEM]

# **Back Door Opener Switch**

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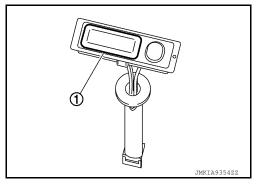
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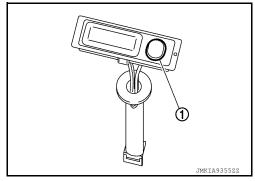
- Back door opener switch (1) transmits back door opener switch signal to BCM.
- Back door opener switch (1) is integrated in outside handle (back door).



# **Back Door Request Switch**

INFOID:0000000011218569

- Back door request switch (1) transmits back door request switch signal to BCM.
- Back door request switch (1) is integrated in outside handle (back door).



# Door Lock and Unlock Switch (Driver Side)

INFOID:0000000011218570

- Door lock and unlock switch transmits door lock/unlock signal operation to BCM.
- Door lock and unlock switch is integrated into the power window main switch.

# Door Lock and Unlock Switch (Passenger Side)

INFOID:0000000011218571

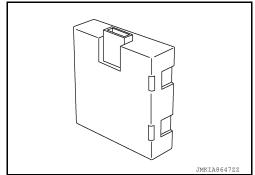
Door lock and unlock switch transmits door lock/unlock signal operation to BCM.

• Door lock and unlock switch is integrated into the front power window switch (passenger side).

# Remote Keyless Entry Receiver

INFOID:0000000011559086

- Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM.
- Remote keyless entry receiver is installed behind the glove box.



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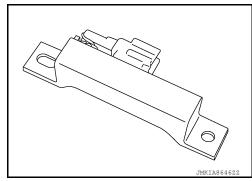
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# Inside Key Antenna (Instrument Center)

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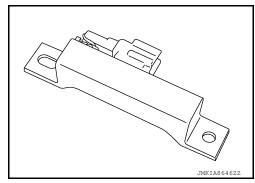
 Inside key antenna (instrument center) detects that Intelligent Key is within the inside detection area and then transmits detection status to BCM.



INFOID:0000000011218573

# Inside Key Antenna (Console)

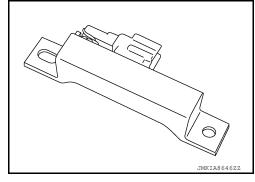
 Inside key antenna (console) detects that Intelligent Key is within the inside detection area and then transmits detection status to BCM.



INFOID:0000000011218574

# Outside Key Antenna (Rear Bumper)

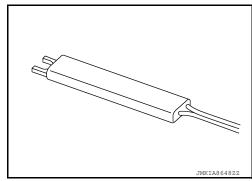
- Outside key antenna (rear bumper) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (rear bumper) is installed in the rear of rear bumper.



INFOID:0000000011218575

# Outside Key Antenna (LH)

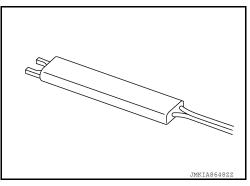
- Outside key antenna (LH) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM.
   Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (LH) is installed in driver side outside handle.



#### [WITH INTELLIGENT KEY SYSTEM]

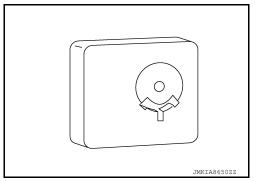
# Outside Key Antenna (RH)

- Outside key antenna (RH) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (RH) is installed in passenger side outside handle.



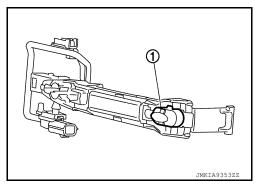
# Intelligent Key Warning Buzzer

- · Intelligent Key warning buzzer warns the user, who is outside the vehicle, of operation confirmation according to Intelligent Key operation and door request switch operation or of an inappropriate operation.
- · Intelligent Key warning buzzer is installed in the rear of the front bumper and behind RH headlight.



### Front Door Request Switch (LH)

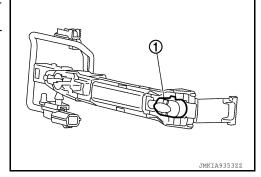
- · Front door request switch (LH) transmits door request switch sig-
- Front door request switch (LH) (1) is integrated into driver side outside handle.



# Front Door Request Switch (RH)

- · Front door request switch (RH) transmits door request switch signal to BCM.
- Front door request switch (RH) (1) is integrated into passenger side outside handle.

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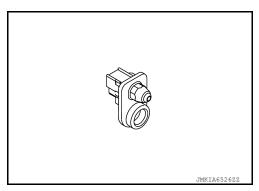
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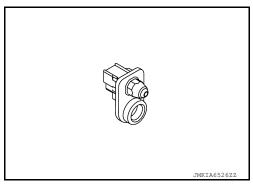
Front Door Switch

Door switch detects open/close status of door and transmits door switch signal to BCM.



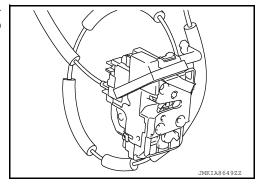
Rear Door Switch

Door switch detects open/close status of door and transmits door switch signal to BCM.



# Front Door Lock Assembly (LH)

- Door lock actuator and unlock sensor are integrated into driver door lock assembly.
- · Door lock actuator receives lock/unlock signal from BCM and then locks/unlocks driver door.
- Only front door lock assembly (driver side) integrates unlock sensor. Unlock sensor transmits lock/unlock status of driver seat to BCM.



Spindle Unit

Encoder and spindle motor are installed:

- Encoder: Automatic back door control module receives the pulse signals from encoders A and B that occurred due to synchronization with the back door operation. The automatic back door control module calculates the back door position, operation direction, and operation speed according to the received pulse signals.
- Spindle motor: Inputs open/close signal from automatic back door control module and activates the automatic back door open/close operation.

# Integrated Homelink Transmitter

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INFOID:0000000011218582

Within the Homelink transmitter, a maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

# SYSTEM (POWER DOOR LOCK SYSTEM)

# System Description

#### INFOID:0000000011218586

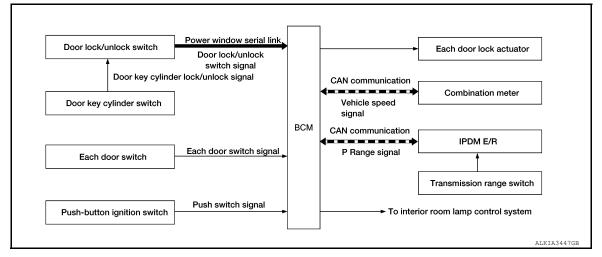
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#### SYSTEM DIAGRAM



#### DOOR LOCK FUNCTION

Door Lock and Unlock Switch

- The door lock and unlock switch (driver side) is built into main power window and door lock/unlock switch.
- The door lock and unlock switch (passenger side) is built into power window and door lock/unlock switch
- 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 are unlocked.

Door Key Cylinder Switch

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

Selective unlock operation mode can be changed using CONSULT.

Refer to BCS-16, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### IGNITION POSITION WARNING FUNCTION

When door lock and unlock switch is operated while driver side door is open and ignition position is in ACC or ON, door locks once but immediately unlocks.

#### INTERIOR ROOM LAMP CONTROL FUNCTION

Interior room lamp is controlled according to door lock/unlock state. Refer to INL-7, "INTERIOR ROOM LAMP. CONTROL SYSTEM: System Description".

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

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

#### Vehicle Speed Sensing Auto Door Lock

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

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

#### P Range Interlock Door Lock

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

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### SYSTEM (POWER DOOR LOCK SYSTEM)

### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is in the ON position, all doors are closed and the shift signal received from the park position switch when shifted from the P (Park) position to any position other than P (Park).

Setting Change of Automatic Door Lock/Unlock Function

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

#### (P)With CONSULT

The ON/OFF switching of the automatic door lock function and the type selection of the automatic door lock/unlock function can be performed in the "Work support" mode.

#### **®Without CONSULT**

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

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

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

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

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

#### IGN OFF Interlock Door Unlock

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 P to the P position.

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

Setting Change of Automatic Door Lock/Unlock Function

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

#### (P)With CONSULT

The ON/OFF switching of the automatic door lock/unlock function and the type selection of the automatic door lock/unlock function can be performed in the "Work support" mode.

#### **Without CONSULT**

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

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

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

# SYSTEM (INTELLIGENT KEY SYSTEM) INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM: System Description

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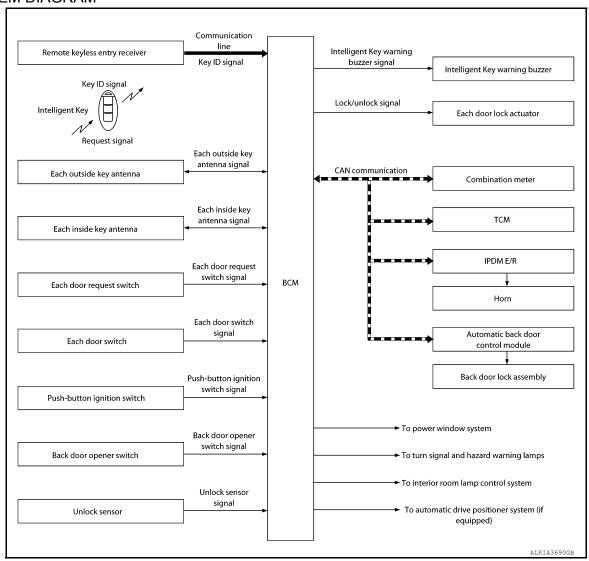
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#### SYSTEM DIAGRAM



### SYSTEM DESCRIPTION

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

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

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

Function	Description	Reference
Door lock	Lock/unlock can be performed by pressing the request switch.	DLK-25
Back door opener	The back door can be opened by carrying the Intelligent Key and pressing the back door opener switch.	DLK-28

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#### [WITH INTELLIGENT KEY SYSTEM]

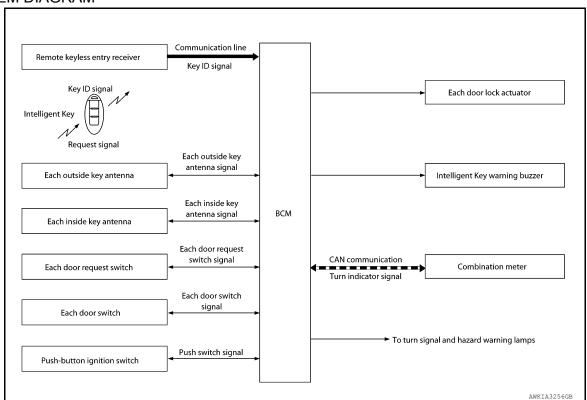
Function	Description	Reference	
Remote keyless entry	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	DLK-26	
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	DLK-32	
Warning	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver.	DLK-32	
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state.	DLK-25	
Panic alarm	When Intelligent Key panic alarm button is pressed, horn sounds.	DLK-32	

### DOOR LOCK FUNCTION

# DOOR LOCK FUNCTION: System Description

INFOID:0000000011218590

#### SYSTEM DIAGRAM



Only when pressing the door 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.
- 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 locks/unlocks each door (except back door).
- BCM sounds Intelligent Key warning buzzer (lock: 2 times, unlock: 1 time) and blinks hazard warning lamps (lock: 2 times, unlock: 1 time) at the same time as a reminder.

#### OPERATION CONDITION

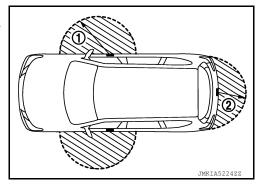
If the following conditions are satisfied, door lock/unlock operation is performed if the door request switch is operated:

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

<sup>\*:</sup> Even with a registered Intelligent Key remaining inside the vehicle, door locks can be locked/unlocked from outside 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) and back door handle (2). However, this operating range depends on the ambient conditions.



#### SELECTIVE UNLOCK FUNCTION

#### **Lock Operation**

When a LOCK signal is sent from door request switch (driver side, passenger side, back door), all doors are locked.

#### Unlock Operation

- When an UNLOCK signal from driver side door request switch is transmitted, driver side door is unlocked.
   When another UNLOCK signal is transmitted within 60 seconds, all other doors (except back door) are unlocked.
- When an UNLOCK signal from passenger side door request switch is transmitted, passenger side door is unlocked. When another UNLOCK signal is transmitted within 60 seconds, all other doors (except back door) are unlocked.
- When an UNLOCK signal from back door request switch is transmitted, back door open permission is set. When another UNLOCK signal is transmitted within 60 seconds, all doors (except back door) are unlocked.

#### **How To Change Selective Unlock Operation Mode**

Selective unlock operation mode can be changed using CONSULT.

Refer to BCS-22, "INTELLIGENT KEY): CONSULT Function (BCM - INTELLIGENT KEY)".

#### HAZARD AND BUZZER REMINDER FUNCTION

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

Operating Function of Hazard and Buzzer Reminder

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

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

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

#### **How To Change Hazard And Buzzer Reminder Mode**

Hazard and buzzer reminder mode can be changed using CONSULT.

Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

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[WITH INTELLIGENT KEY SYSTEM]

#### AUTO DOOR LOCK FUNCTION

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

Operating condition	<ul><li>Door switch is ON (door is open).</li><li>Door is locked.</li><li>Push switch is pressed.</li></ul>
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#### **How To Change Auto Door Lock Operation Mode**

Auto door lock operation mode can be changed using CONSULT.

Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### LIST OF OPERATION RELATED PARTS

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

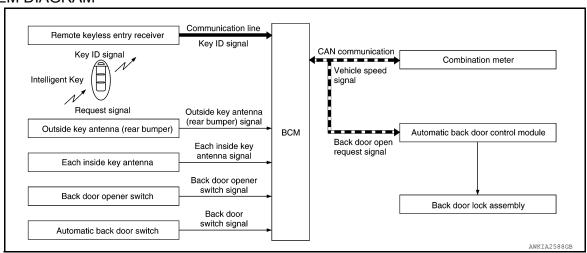
Function	Intelligent Key	Door switch	Door request switch	Door lock actuator	Inside key antenna	Outside key antenna	CAN communication system	ВСМ	Hazard warning lamp	Intelligent Key warning buzzer	Push-button ignition switch
Door lock/unlock function	×	×	×	×	×	×		×			
Hazard reminder function							×	×	×	×	
Selective unlock function	×		×	×	×	×		×			
Auto door lock function	×			×				×			×

### BACK DOOR OPEN FUNCTION

# BACK DOOR OPEN FUNCTION: System Description

INFOID:0000000011218592

#### SYSTEM DIAGRAM



#### SYSTEM DESCRIPTION

This section describes the operation of the back door opener switch.

- The back door open function can open the back door by pressing the back door opener switch while carrying the Intelligent Key and all doors (except back door) are locked.
- The back door open function enables the back door to be opened by pressing back door opener switch after BCM transmits UNLOCK signal to each door.

#### BACK DOOR OPEN

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

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While back door open is in the permitted state, back door opens when back door opener switch is pressed after back door request switch is operated. Back door open also can be operated according to the following procedure:

- When the BCM detects that back door opener switch is pressed, it activates the outside key antenna (rear bumper) and inside key antenna and transmits the request signal to the Intelligent Key and then checks that the Intelligent Key is near the back 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 the remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- If the verification result is OK, BCM transmits the back door open request signal to automatic back door control module via CAN communication.
- Automatic back door control module transmits back door open request signal to back door lock assembly and back door is open.
- When the back door is open, automatic back door system performs waiting operation for next back door close operation.

The operation of the back door open is the same as the automatic back door system. Refer to <u>DLK-39</u>, <u>"System Description"</u>.

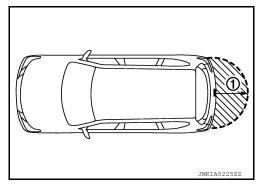
#### OPERATION CONDITION

If the following conditions are not satisfied, back door open operation is not performed even if the back door opener switch is operated:

Back door opener switch operation	Operation condition
Back door open	<ul> <li>Vehicle speed is less than 5 km/h (3 MPH).</li> <li>Intelligent Key is within outside key antenna (rear bumper) detection area.</li> <li>Back door is closed.</li> <li>Panic alarm is not activated.</li> </ul>

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

The outside key antenna detection area of back door open function is in the range of approximately 80 cm (31.50 in) surrounding the outside key antenna (rear bumper) (1). However, this operating range depends on the ambient conditions.



#### LIST OF OPERATION RELATED PARTS

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

Function	Intelligent Key	Back door opener switch	Back door lock assembly	Inside key antenna	Outside key antenna (rear bumper)	CAN communication system	BCM	Automatic back door control module
Back door open function	×	×	×	×	×	×	×	×

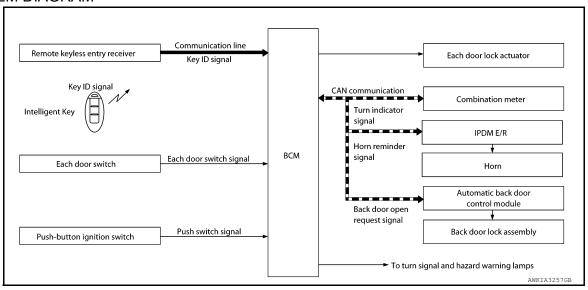
### REMOTE KEYLESS ENTRY FUNCTION

Revision: October 2014 DLK-29 2015 Murano

# REMOTE KEYLESS ENTRY FUNCTION: System Description

INFOID:0000000011218594

#### SYSTEM DIAGRAM



#### SYSTEM DESCRIPTION

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 function
- Selective unlock function
- · Auto door lock function
- · Hazard and horn reminder function
- Automatic back door open/close function
- Remote engine start

#### **OPERATION AREA**

The remote keyless entry operating range is approximately 60 m (197 ft) from the vehicle.

#### DOOR LOCK/UNLOCK FUNCTION

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

#### OPERATION CONDITION

If the following conditions are satisfied, remote keyless entry operation is performed when the Intelligent Key is operated:

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

#### SELECTIVE UNLOCK FUNCTION

- When a LOCK signal is transmitted from Intelligent Key, all doors are locked.
- When an UNLOCK signal is transmitted from Intelligent Key once, driver side door is unlocked.
- Then, if an UNLOCK signal is transmitted from Intelligent Key again within 60 seconds, all other doors (except for back door) are unlocked.

#### How To Change Selective Unlock Operation Mode.

Selective unlock operation mode can be changed using CONSULT.

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

Refer to BCS-16, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

#### AUTO DOOR LOCK FUNCTION

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

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

### How To Change Auto Door Lock Operation Mode.

Auto door lock mode can be changed using CONSULT.

Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

#### HAZARD AND HORN REMINDER FUNCTION

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

Operating Function of Hazard and Horn Reminder

	C n	node	Sm	node
Intelligent Key operation	Lock	Unlock	Lock	Unlock
Hazard warning lamps blink	Twice	Once	Twice	_
Horn sounds	Once	_	_	_

Hazard and horn reminder does not operate in the following conditions:

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

### How to Change Hazard and Horn Reminder Mode

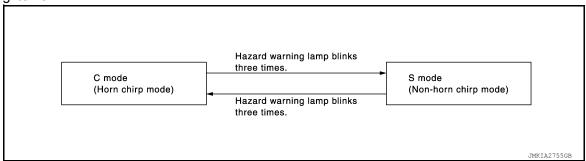
#### (II) With CONSULT

Hazard and horn reminder operation mode can be changed using CONSULT.

Refer to BCS-22. "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

### **W** Without CONSULT

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



#### AUTOMATIC BACK DOOR OPEN/CLOSE FUNCTION

When back door button of Intelligent Key is pressed for 0.4 seconds or more, back door opens automatically. For detailed description, refer to <u>DLK-39</u>, "System Description".

#### LIST OF OPERATION RELATED PARTS

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

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### [WITH INTELLIGENT KEY SYSTEM]

Function	Intelligent Key	Door switch	Door lock actuator	Push-button ignition switch	CAN communication system	BCM	IPDM E/R	Horn	Combination meter	Hazard warning lamp	Automatic back door control module	Back door lock assembly
Door lock/unlock function	×	×	×			×						
Selective unlock function	×	×	×			×						
Auto door lock function	×	×	×	×		×						
Hazard and horn reminder function					×	×	×	×	×	×		
Automatic back door open/close function	×				×	×					×	×

# WARNING FUNCTION

# WARNING FUNCTION: System Description

INFOID:0000000011218595

#### **OPERATION DESCRIPTION**

The warning functions are as per the following items and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, combination meter buzzer, KEY warning lamp and information display in combination meter:

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

#### **OPERATION CONDITION**

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

Warning/Inform	mation functions	Operation procedure
Intelligent Key system m	alfunction	When a malfunction is detected on BCM, "KEY" warning lamp illuminates.
OFF position warning	For internal	When condition A, B or C is satisfied:  Condition A Ignition switch: ACC position Door switch (driver side): ON (Door is open.) Condition B Turn ignition switch from ON to OFF while door is open. Condition C Intelligent Key backside is contacted to ignition switch while brake pedal is depressed and ignition switch is in LOCK or OFF (when the Intelligent Key battery is discharged.) Door switch (driver side): ON (Door is open.)
	For external	OFF position warning (for internal) is in active mode and driver side door is closed.  NOTE:  OFF position (for external) active only when each of the sequence occurs as below: P position warning → ACC warning → OFF position warning (for internal) → OFF position warning (for internal)

# < SYSTEM DESCRIPTION >

# [WITH INTELLIGENT KEY SYSTEM]

Warning/Inforr	nation functions	Operation procedure					
D position warning	For internal	Shift position: Except P (Park) position     Engine is running to stopped (ignition switch is ON to OFF.)					
P position warning	For external	Warning is activated when driver door is closed from the open position while the P (Park) position warning (for inside vehicle) is ON.					
ACC warning		<ul> <li>When P (Park) position warning is in active mode, shift position changes P (Park) position.</li> <li>Ignition switch: ACC position</li> </ul>					
	Door is open to closed	<ul> <li>Ignition switch: Except Lock position</li> <li>Door switch: ON to OFF (Door is open to close.)</li> <li>Intelligent Key cannot be detected inside the vehicle.</li> </ul>					
Take away warning	Door is open.	<ul> <li>Ignition switch: Except Lock position</li> <li>Door switch: ON (Door is open.)</li> <li>Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> </ul>					
	Push-button ignition switch operation	<ul> <li>Ignition switch: Except Lock position</li> <li>Press push-button ignition switch.</li> <li>Intelligent Key cannot be detected inside the vehicle.</li> </ul>					
Door lock operation warn	ing	When door lock operation is requested while door lock operating conditions of door request switch or Intelligent Key are not satisfied.					
	Ignition switch is in ON position.	<ul><li>Ignition switch: ON position</li><li>Shift position: P (Park) position</li><li>Engine is stopped.</li></ul>					
Engine start information	Ignition switch is in except ON position.	<ul> <li>Ignition switch: Except ON position</li> <li>Shift position: P (Park) position</li> <li>Intelligent Key is inserted in key slot or Intelligent Key can be detected inside the vehicle.</li> </ul>					
Intelligent Key low battery warning		When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON.					
Key ID warning		When registered Intelligent Key cannot be detected inside the vehicle affignition switch is turned ON.					
Key ID verification inform	ation	<ul> <li>When registered Intelligent Key cannot be detected inside the vehi</li> <li>Intelligent Key battery is discharged</li> <li>When NATS antenna amp. cannot detect NATS ID.</li> </ul>					

### WARNING METHOD

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

		"KEY"	Information display	Warning chime			
Warning/Info	ormation functions	warning lamp	(combination meter)	Combination meter buzzer	Intelligent Key warning buzzer		
Intelligent Key	system malfunction	Indicate	_	_	_		
OFF position	For internal	_	_	Activate	_		
warning	For external	_	_	_	Activate		
	For internal			Activate	_		
P position warning	For external	_	Shift to Park  ALKIA2515GB	_	Active		

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# [WITH INTELLIGENT KEY SYSTEM]

		"KEY"	Information display	Warnii	ng chime
Warning/Info	ormation functions	warning lamp	Information display (combination meter)	Combination meter buzzer	Intelligent Key warning buzzer
	Door is open to closed.			Activate	Activate
Take away	Door is open.			_	_
warning	Push-button ignition switch operation	_	No Key Detected  ALKIA2517GB	Activate	_
Door lock op- eration warn-	Request switch operation	_	_	_	Activate
ing	Intelligent Key	_	_	_	Activate
Key ID warninç	9	_	- Key ID Incorrect		_
Intelligent Key	Intelligent Key low battery warning		Key low battery  ALKIA2520GB	_	
Key ID verifica	tion information	_	(S)   ) (   (D)   ) ALKIA25212Z	_	_

### LIST OF OPERATION RELATED PARTS

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

Warning function		Intelligent Key	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter buzzer	CAN communication system	BCM	Information display	"KEY" waming lamp
Intelligent Key system malful	nction									×	×		×
OFF position warning For internal For external				×					×	×	×		
				×				×			×		
P (Park) position warning			×						×	×	×	×	×

#### < SYSTEM DESCRIPTION >

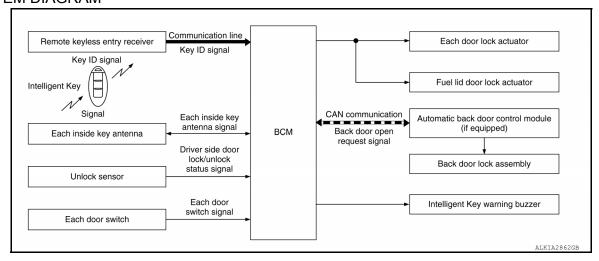
### [WITH INTELLIGENT KEY SYSTEM]

Warning function		Intelligent Key	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter buzzer	CAN communication system	BCM	Information display	"KEY" waming lamp
	Door is open or closed.	×		×		×		×	×	×	×	×	×
Take away warning	Door is open.	×		×		×				×	×	×	×
	Push-button ignition switch operation	×	×			×			×	×	×	×	×
Door lock operation warning		×		×	×	×	×	×			×		
Key ID warning			×			×				×	×	×	×
Engine start information	Ignition switch is in ON position.	×	×			×				×	×	×	
Engine start information	Ignition switch is in except ON position.	×	×			×				×	×	×	
Intelligent Key low battery warning		×				×				×	×	×	×
Key ID verification information	n	×				×				×	×	×	

# **KEY REMINDER FUNCTION**

# KEY REMINDER FUNCTION: System Description

### SYSTEM DIAGRAM



### SYSTEM DESCRIPTION

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

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#### [WITH INTELLIGENT KEY SYSTEM]

Key reminder function	Operation condition	Operation
Driver door is closed*.	Right after driver door is closed under the following conditions:  Door lock operation is performed.  Driver side door is open.  Driver side door is in lock state.	All doors (except back door) and fuel filler lid unlock.
Door is open or closed.	Right after all doors are closed under the following conditions:  Intelligent Key is inside the vehicle.  Any door is open.  All doors (except for back door) are locked by door lock and unlock switch or door lock knob.	<ul> <li>All doors (except back door) and fuel filler lid unlock.</li> <li>Honk Intelligent Key warning buzzer.</li> </ul>
Back door is closed.	Right after back door is closed under the following conditions:  Intelligent Key is inside vehicle.  All doors (except for back door) are closed.  All doors (except for back door) are locked.	<ul> <li>All doors (except for back door) and fuel filler lid unlock.</li> <li>Back door can open with back door opener switch.</li> <li>Honk Intelligent Key warning buzzer.</li> </ul>

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

#### **CAUTION:**

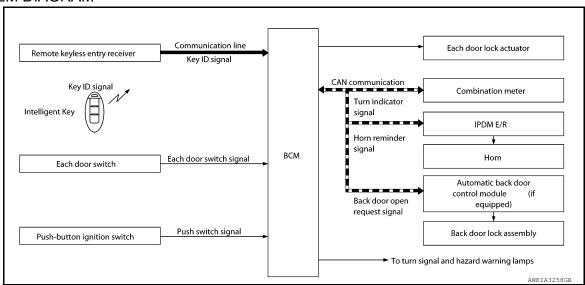
The above function operates when the Intelligent Key is inside the vehicle. However, there may be
times when the Intelligent Key cannot be detected. This function does not operate when the Intelligent Key is on the instrument panel, rear parcel shelf or in the glove box. Also, this system sometimes does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

#### REMOTE ENGINE START FUNCTION

### REMOTE ENGINE START FUNCTION: System Description

INFOID:0000000011545351

### SYSTEM DIAGRAM



#### **OPERATION**

Remote keyless entry system controls operation of the following items:

- Door lock/unlock function
- Selective unlock function
- · Auto door lock function
- · Hazard and horn reminder function
- Automatic back door open/close function
- Remote engine start

#### **OPERATION AREA**

The remote engine start operating range is approximately 60 m (197 ft) from the vehicle but not inside the vehicle.

### SYSTEM (INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

#### REMOTE ENGINE START FUNCTION

- The remote engine start function is activated when the lock button of the Intelligent Key is pressed and released, and then within 5 seconds, the remote engine start button is pressed and held for at least 2 seconds. At this time, a start signal is transmitted from the Intelligent Key to the BCM via the remote keyless entry receiver.
- When the BCM receives the lock signal, it locks all doors and the fuel lid, flashes the hazard lamps and chirps the horn (the horn will chirp only if the answer back horn feature is activated).
- When the BCM receives a successful remote engine start signal, the turn signals will flash once and the parking/tail lamps will come on.
- To enter normal engine run mode from inside the vehicle, depress and hold the brake pedal then press the push-button ignition switch.
- To cancel the remote engine start mode away from the vehicle, press the remote engine start button on the Intelligent Key.
- Once the vehicle has been started using the remote engine start feature, it will remain running for 10 minutes. Extended run time can be added to the initial 10 minute running time by first pressing and releasing the lock button and then within 5 seconds, pressing and holding the remote engine start button for at least 2 seconds. The turn signals will flash once and an additional 10 minutes of running time will be added. The additional 10 minutes start when the extended run time is activated. Extended time can only be added once for a maximum run time of up to 20 minutes.

Additional remote engine start cancel operations	<ul> <li>Anti-theft alarm is activated - unauthorized entry.</li> <li>Maximum time for engine to run by remote start has been exceeded.</li> <li>Hazard lamps are turned on.</li> <li>Push-button ignition switch is pressed without the Intelligent Key in the vehicle.</li> <li>Push-button ignition switch is pressed without depressing the brake pedal first.</li> <li>The hood is opened while the remote engine start is engaged.</li> <li>The vehicle has been moved out of park before "brake and push" action is completed.</li> </ul>
Limitations/Restrictions	<ul> <li>Remote engine start must be set to ON within Vehicle Settings in the combination meter.</li> <li>Engine must be stopped (0 rpm) before engine can be remotely started.</li> <li>Must wait for 6 seconds or more after IGN RUN → OFF.</li> <li>Remote engine start can only be activated up to 2 times.</li> <li>Remote engine start extended time counts as 1 remote engine start activation.</li> <li>Cycling IGN via push-button ignition switch resets this counter.</li> <li>User has 5 seconds to press and hold remote engine start button after lock button is pressed.</li> <li>Remote engine start must be pressed and held for 2 seconds or more after lock button is pressed.</li> <li>Maximum remote start time is 20 minutes (this includes remote engine start extended time).</li> <li>Operation area is approximately 60 m (197 ft) from the vehicle but not inside the vehicle.</li> <li>The push-button ignition switch must not be in the ACC or ON position.</li> <li>The vehicle must be in Park.</li> <li>Hazard flashers must not be on.</li> <li>There must not be any registered Intelligent Keys inside the vehicle.</li> <li>Brakes must not be pressed when attempting to activate remote engine start.</li> <li>Improper remote engine start operation can occur when stop lamp switch is misadjusted or inoperative.</li> <li>The doors must be closed.</li> <li>The back door must be closed.</li> <li>The hood must be closed.</li> <li>The hood must be closed.</li> <li>No current DTCs in the BCM can be present.</li> </ul>

#### HAZARD AND HORN REMINDER FUNCTION

When remote engine start is initiated 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

	C n	node	S mode			
Intelligent Key operation	Lock	Unlock	Lock	Unlock		
Hazard warning lamps blink	Twice	Once	Twice	_		
Horn sounds	Once	_	_	_		

Hazard and horn reminder does not operate in the following conditions:

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

Revision: October 2014 DLK-37 2015 Murano

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### SYSTEM (INTELLIGENT KEY SYSTEM)

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[WITH INTELLIGENT KEY SYSTEM]

### How to Change Hazard and Horn Reminder Mode

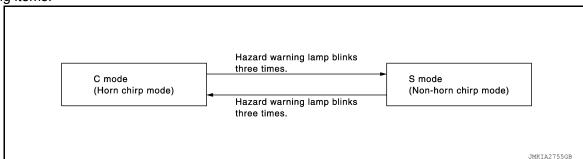
#### (II) With CONSULT

Hazard and horn reminder operation mode can be changed using CONSULT.

Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

### **W** Without CONSULT

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



#### LIST OF OPERATION RELATED PARTS

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

Function	Intelligent Key	Door switch	Door lock actuator	Fuel lid lock actuator	Push-button ignition switch	CAN communication system	BCM	IPDM E/R	Horn	Combination meter	Hazard warning lamp	Automatic back door control module	Back door lock assembly
Door lock/unlock function	×	×	×	×			×						
Selective unlock function	×	×	×	×			×						
Auto door lock function	×	×	×	×	×		×						
Hazard and horn reminder function						×	×	×	×	×	×		
Automatic back door open/close function	×					×	×					×	×
Remote engine start function	×			×	×	×	×	×	×		×	×	×

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

# SYSTEM (AUTOMATIC BACK DOOR SYSTEM)

System Description

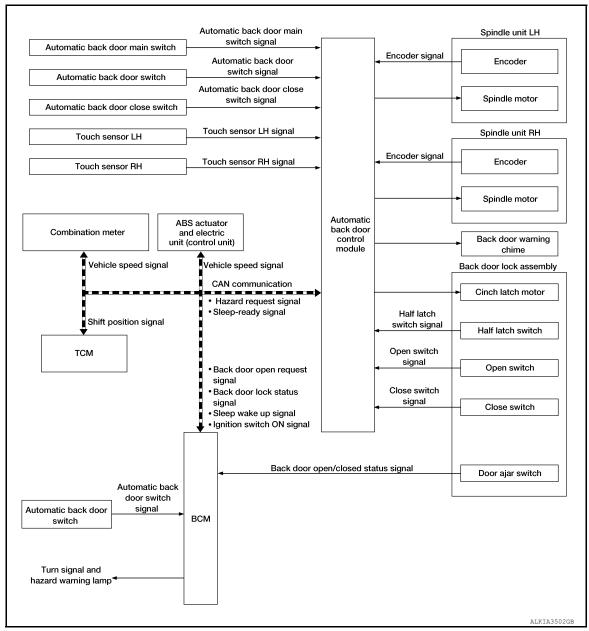
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#### SYSTEM DIAGRAM



### SYSTEM DESCRIPTION

The automatic back door system performs the automatic open/close operation of the back door by operating the automatic back door switch, the automatic back door close switch, the back door opener switch, and the Intelligent Key.

#### AUTOMATIC BACK DOOR OPEN/CLOSE FUNCTION

- In the case of the back door fully closed, operate the automatic back door switch, Intelligent Key or back door opener switch with the back door unlocked. The back door closure motor releases the latch then the spindle motor opens the back door to the fully open position. The closure motor reverses to the neutral position simultaneously.
- In the case of the back door fully open, operate the automatic back door switch, Intelligent Key or automatic back door close switch. The spindle motor closes the back door to the half-latch position then the back door closure motor closes it to the full latch position. Then, the closure motor reverses to the neutral position.

#### AUTOMATIC OPEN/CLOSE TEMPORARY STOP FUNCTION

Revision: October 2014 DLK-39 2015 Murano

#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Automatic open/close temporary stop function temporarily stops the open/close operation by operating back door opener switch during automatic open/close operation or by turning automatic back door main switch OFF.

#### Back Door Opener Switch Operation

- Automatic open/close operation stops when back door opener switch is operated during automatic open/close operation.
- Back door performs automatic open operation in an open direction when back door opener switch is operated again during automatic open/close temporary stop function operation.
- Back door performs automatic close operation in a close direction when automatic back door close switch is
  operated during automatic open/close temporary stop function operation.
- Automatic operation is performed again in the direction that automatic back door switch operated before stopping when automatic back door switch or Intelligent Key button is operated during automatic open/close temporary stop function operation.

#### Automatic Back Door Main Switch Operation

- While automatic back door main switch is ON, automatic open/close operation stops when automatic back door main switch is turned OFF during automatic open/close operation.
- While automatic back door main switch is OFF, automatic open/close operation stops when automatic back door main switch is turned ON then turned OFF during automatic open/close operation.
- Back door performs automatic open operation in an open direction when back door opener switch is operated again during auto open/close temporary stop function operation.
- Back door performs automatic close operation in a close direction when automatic back door close switch is operated during automatic open/close temporary stop function operation.
- Automatic operation is performed again in the direction that automatic back door switch operated before stopping when automatic back door switch or Intelligent Key button is operated during automatic open/close temporary stop function operation.

#### POWER SAVING MODE

When the automatic back door is left open for a long period of time (approx. 12 hours), the automatic back door will enter power saving mode. While in power saving mode the battery power supply to the automatic back door is turned off to prevent battery discharge. Once the automatic back door is in the power saving mode, all automatic functions are disabled. The automatic back door must be closed manually in order to reset the power saving mode timer and restore automatic back door operation.

#### NOTE:

The battery voltage must be above 11 volts for the automatic back door functions to be reset after the power saving mode has been activated.

#### BACK DOOR OPEN POSITION SETTING FUNCTION

Back door open position setting function enables a user to set stop position for automatic open operation.

#### Setting Procedure

Stop position for back door open position setting function can be set by the following procedure:

- 1. Manually move the back door to a stop setting position.
- Press and hold the automatic back door close switch for 3 seconds while maintaining the back door position.
- 3. The switching is complete when the buzzer sounds (pattern E).
- 4. Fully close the back door.

#### Cancellation Procedure

Setting of back door open position setting function can be canceled by the following procedure:

- 1. Manually move the back door to a fully open position.
- Press and hold the automatic back door close switch for 3 seconds.
- The switching is complete when the buzzer sounds (pattern E).
- 4. Fully close the back door.

#### BACK DOOR AUTO CLOSURE FUNCTION

#### Open Function

When back door opener switch is pressed and automatic back door main switch is in the OFF position, BCM transmits the back door open request signal to automatic back door control module via CAN communication, and automatic back door control module opens back door lock assembly.

Closure Function

#### < SYSTEM DESCRIPTION >

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When the back door is closed to the half-latch position, the motor drives to rotate the latch lever and pulls it in from half latched to fully latched and automatically closes the door. Then, the closure motor reverses to the neutral position.

#### WARNING FUNCTION

The warning function is as follows and gives the user warning information using automatic back door warning chime and hazard warning lamps:

Chime Operation Condition

	Pattern	Time	Description
Α	ON 200ms OFF	0.75 sec.	Operation start announcement  Anti-pinch operation start announcement
В	Pi	2.0 sec.	<ul> <li>Closure function operates when automatic back door main switch is in OFF position.</li> <li>During the closure operation when touch sensor detects any trapped foreign material, the back door stops halfway.</li> </ul>
С	Pi	Back door is fully closed or vehicle is stopped.	The conditions are not satisfied in the fully open position or during the operation, and then the operation continues.
D	250ms ON OFF JMKIA1863ZZ	During open/close operation	During operation announcement
E	ON 500ms OFF	2.5 sec.	<ul> <li>Calibration of automatic back door position information is complete.</li> <li>Back door open position setting procedure is complete.</li> </ul>

#### **ANTI-PINCH FUNCTION**

During auto open operation if an object is detected by encoder pulse in the door's path, a warning chime sounds and the back door operates in the reverse direction to prevent pinching.

During auto close operation if an object is detected by the touch sensors and encoder pulse in the door's path, a warning chime sounds and the back door operates in the open direction until it is fully open.

#### **Operation Condition**

Detection method	Encoder pulse	Touch sensor
Applicable operation	Open/close operation	Close operation

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Detection method		Encoder pulse	Touch sensor			
Operation when any trapped for-	Stop the vehicle  Chime sounds (pattern A and reverse operation  Running the vehicle  No reverse operation (chi sounds, pattern C)  • Just after starting the nator operation • Full range of closure opation • Driving		<ul> <li>Buzzer sounds (pattern A) and the back door stops in the fully-open position after reverse operation.</li> <li>During closure (close) operation (at main switch OFF): Closure [open (neutral position return)] operation</li> </ul>			
eign material is de- tected		No reverse operation (chime sounds, pattern C)	<ul> <li>The back door reverses a certain amount, and then it reverses automatically to perform the auto close operation.</li> <li>During closure (close) operation (at main switch ON): Closure (open) operation</li> </ul>			
Non-reverse area	tor operation  verse area  • Full range of closure operation		Back door open operation     Closure [open (return the latch to the neutral position)]			
Switch operation during reverse operation		Receive				
Number of allowable reverse operations		Perform the automatic open/close temporary stop function after 2 reverse operations regardless of the operation direction.				

#### AUTOMATIC BACK DOOR OPEN/CLOSE OPERATION CONDITION

	Automa	atic back doo	or switch	Intellig	ent Key	Automat- ic back door close switch	Back door opener switch		
Operating direction	Fully close	$\operatorname{ed}  o \operatorname{Open}$	Fully open →Closed	Fully closed → Open	Fully open → Closed	Fully open → Closed	Fully closed $\rightarrow$ Open		
Main switch	_	_	_	_	_	ON	ON		
Ignition position	ON/ACC/ LOCK	OFF	_	_	_	_	ON/ACC/ LOCK	OFF	
Shift selector lever	P position	_	_	_	_	_	P position	_	
Vehicle speed	-			0 k	m/h	1	1		
Back door lock condition	=	_	_	— — Unlock*					
Touch sensor	Normal								
Power supply (Automatic power back door control module)		Approx. 11 V or more							

<sup>\*:</sup> If the registered Intelligent Key is used, the operation can be performed even if the back door is in the LOCK position.

### CONTROL IF NOT WITHIN THE OPERATION CONDITIONS DURING THE OPERATION

If the back door is not within the operation conditions during the operation, the automatic back door control module performs the control as follows:

Item (Condition)	Back door condition					
Vehicle stop condition (open operation)  • IGN ON and shift P (Park) position→IGN ON and other than P (Park) position	The operation is continued.					
Operation condition release during the operation start announcement condition	Automatic back door function does not operate.					
Vehicle speed	Open operation	Operation stop [Back door is fully closed or chime sounds until the vehicle stops (pattern C)].				
(0 km/h → More than 0 km/h)	Close operation	The operation is continued [chime sounds (pattern C) until back door is fully closed].				

## < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Item (Condition)		Back door condition				
	Open operation	The operation is continued. (If the pinch is detected after that, the system switches to the automatic open/close temporary stop function).				
Touch concer	Close operation	Automatic open/close temporary stop function				
Touch sensor (Normal → Open)	Closure (close) operation	Closure (open) operation and chime sounds (pattern B)				
	Closure [open (return the latch to the neutral position)]	The operation is continued.				
Operation time (More than approx. 180 sec.)	Inhibit automatic back d	loor operation				
Dook door opener quiteb	Closure (close) operation	Closure (open) operation and back door open				
Back door opener switch (OFF $\rightarrow$ ON)	Closure [open (return the latch to the neutral position)]	Back door open				
Malfunction detected	IGN circuit	Automatic open/close temporary stop function				
Manufiction detected	Half latch switch	Operation is possible up to 3 times.				

#### TIME CHART FOR AUTOMATIC BACK DOOR SYSTEM

Fully Closed to Fully Open Operation

When operating the automatic back door switch, automatic back door opener switch and Intelligent Key in the fully closed position, the system operates as follows:

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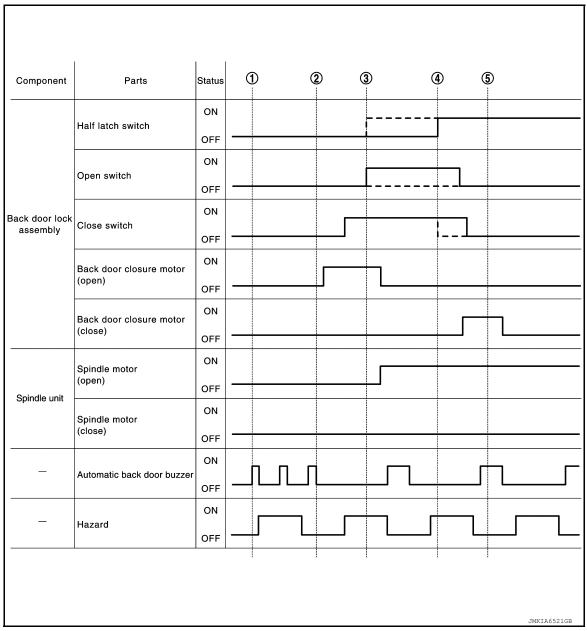
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- Operates the chime and hazard warning after the operation enabled conditions are established.
- 2. The back door closure motor performs the open operation after the chime (pattern A) stops sounding.
- 3. Stops the back door closure motor open operation after turning the open switch to ON. Then, operates the spindle motor to perform the back door open operation.
- 4. The back door closure motor performs the close operation after turning the half latch switch to ON.
- Stops the back door closure motor close operation and returns the latch to the neutral position after turning the close switch to OFF.

#### NOTE:

In the operation of steps 3 and 4, the inputs of half latch switch, open switch, and close switch may be different according to the reaction force of the back door weatherstrip. Refer to the area encircled by a broken line in the Time Chart (fully closed to fully open operation).

Fully Open to Fully Closed Operation

When operating the automatic back door switch, automatic back door close switch and Intelligent Key, the automatic back door system operates as follows:

### [WITH INTELLIGENT KEY SYSTEM]

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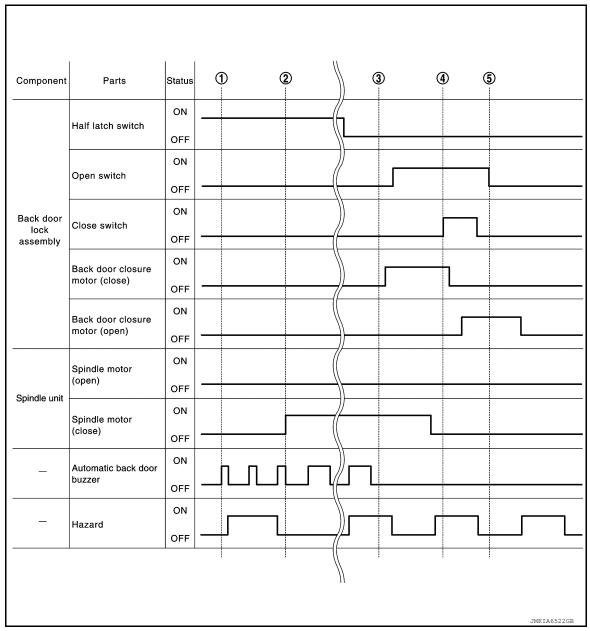
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- Operates the chime and hazard warning after the operation enabled conditions are established.
- 2. After the chime (pattern A) stops sounding, it operates the spindle motor to perform the back door close operation.
- 3. The back door closure motor performs the close operation in 300 msec. or more after turning the half latch switch to OFF.
- 4. The back door closure motor performs the open operation after turning the close switch to ON.
- 5. Stops the back door closure motor open operation and returns the latch to the neutral position after turning the close switch to OFF.

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Revision: October 2014 DLK-45 2015 Murano

# SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

# SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

**System Description** 

INFOID:0000000011218598

Item	Function
Integrated Homelink <sup>®</sup> transmitter	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

# **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011559074

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#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul>
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions:

				Direct D	Diagnosti	c Mode		
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	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			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

### [WITH INTELLIGENT KEY SYSTEM]

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

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed at the mo	ment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected		
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*).	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK"*to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopped and selector lever is in P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
V 1 : 1 O 1"	OFF>LOCK	Power position status at	While turning power supply position from "OFF" to "LOCK"*	
Vehicle Condition	OFF>ACC	the moment a particular DTC is detected*	While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF)*	
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition is switched OFF → ON.</li> <li>The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>		

#### NOTE

- \*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:
- · Closing door
- · Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

DOOR LOCK

DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000011559075

SELF DIAGNOSTIC RESULT Refer to <u>BCS-52</u>, "<u>DTC Index</u>".

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

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### **DATA MONITOR**

Monitor Item [Unit]	Description
REQ SW-DR [On/Off]	Indicates condition of door request switch LH.
REQ SW-AS [On/Off]	Indicates condition of door request switch RH.
REQ SW-BD/TR [On/Off]	Indicates condition of back door request switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.

#### **ACTIVE TEST**

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLK].

#### **WORK SUPPORT**

Support Item	Setting	Description	
DOOD LOOK INLOOK OFT	On*	Automatic door locks function ON.	
DOOR LOCK-UNLOCK SET	Off	Automatic door locks function OFF.	<del></del>
AUTO UNLOCK TYPE	MODE2	Driver door only unlocks automatically.	
AUTO UNLOCK TIPE	MODE1*	All doors unlock automatically.	
	MODE3	This mode is not used.	
AUTO LOCK FUNCTION	MODE2	Doors lock automatically when shifted out of P (park).	DLK
AUTO LOCK FUNCTION	MODE1*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).	
	Off	_	
	MODE3	This mode is not used.	
ALITO LINII OCK FLINCTION	MODE2	Doors unlock automatically when shifted into P (park).	<del></del>
AUTO UNLOCK FUNCTION	MODE1*	Doors unlock automatically when ignition is switched from ON to OFF.	M
	Off	_	<del></del>
CICNITUDE LIGHT CETTING	On*	Signature light setting ON.	_
SIGNITURE LIGHT SETTING	Off	Signature light setting OFF.	— N

<sup>\* :</sup> Initial setting

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY) INFOID:0000000011559076

SELF DIAGNOSTIC RESULT Refer to BCS-52, "DTC Index".

**DATA MONITOR** 

**DLK-49 Revision: October 2014** 2015 Murano

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH.
REQ SW -BD/TR [On/Off]	×	Indicates condition of back door request switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
SHIFTLOCK SOLENOID PWR SUPPLY [On/Off]	×	Indicates condition of power supply to shiftlock solenoid.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch.
BRAKE SW 2 [On/Off]		Indicates condition of brake switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of P (park) position.
SFT PN/N SW [On/Off]	×	Indicates condition of P (park) or N (neutral) position.
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor.
PUSH SW -IPDM [On/Off]		Indicates condition of push-button ignition switch received from IPDM E/R on CAN communication line.
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line.
DETE SW -IPDM [On/Off]		Indicates condition of park position switch received from TCM on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
SFT P -MET [On/Off]		Indicates condition of P (park) position from TCM on CAN communication line.
SFT N -MET [On/Off]		Indicates condition of N (neutral) position from IPDM E/R on CAN communication line.
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line.
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line.
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line.
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
BK DOOR STATE [LOCK/READY/UNLK]	×	Indicates condition of back door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
I-KEY OK FLAG [Key ON/Key OFF]	×	Indicates condition of Intelligent Key OK flag.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start prohibit.
ID AUTHENTICATION CANCEL TIMER [under a stop]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [under a stop]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.
ST RLY -REQ		Indicates condition of starter relay.
IGN RLY 1 -REQ		Indicates condition of ignition 1 relay.
IGN RLY 2 -REQ		Indicates condition of ignition 2 relay.
DETE SW PWR [On/Off]		Indicates condition of park position switch voltage.

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

SYSTEM DESCRIPTION >					
Monitor Item [Unit]	Main	Description			
ACC RLY -REQ [On/Off]		Indicates condition of accessory relay control request.			
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.			
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.			
TRNK/HAT MNTR [On/Off]		Indicates condition of luggage room lamp switch.			
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.			
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.			
RKE-TR/BD [On/Off]		Indicates condition of back door open signal from Intelligent Key.			
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.			
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.			
RKE PBD		Indicates condition of power back door signal from Intelligent Key.			
ACTIVE TEST  Test Item		Description			
INTELLIGENT KEY LINK (CAN)	This test is	able to check Intelligent Key identification number [Off/ID No1/ID No2/ID No3/ID 5].			
INT LAMP	This test is	This test is able to check interior room lamp operation [On/Off].			
FLASHER	This test is	This test is able to check hazard lamp operation [LH/RH/Off].			
HORN	This test is	This test is able to check horn operation [On].			
BATTERY SAVER	This test is	This test is able to check battery saver operation [On/Off].			
TRUNK/BACK DOOR	This test is	This test is able to check back door actuator operation [Open].			
OUTSIDE BUZZER	This test is	This test is able to check Intelligent Key warning buzzer operation [On/Off].			
INSIDE BUZZER	This test is Off].	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].			
INDICATOR	This test is	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].			
IGN CONT2	This test is	able to check ignition relay-2 control operation [On/Off].			
ENGINE SW ILLUMI	This test is	This test is able to check push-button ignition switch START indicator operation [On/Off].			
PUSH SWITCH INDICATOR	This test is	able to check push-button ignition switch indicator operation [On/Off].			
ACC CONT	This test is	able to check accessory relay control operation [On/Off].			
IGN CONT1	This test is	able to check ignition relay-1 control operation [On/Off].			
ST CONT LOW	This test is	able to check starter control relay operation [On/Off].			
IGNITION RELAY	This test is	This test is able to check ignition relay operation [On/Off].			
REVERSE LAMP TEST	This test is	This test is able to check reverse lamp illumination operation [On/Off].			
DOOR HANDLE LAMP TEST	This test is	This test is able to check door handle lamp illumination operation [On/Off].			
TRUNK/LUGGAGE LAMP TEST	This test is	able to check cargo lamp illumination operation [On/Off].			
KEYFOB PW TEST		This test is able to check power window operation using the Intelligent Key [P/W up/down OFF/Send P/W down ON/Send P/W up ON].			
		This test is able to check shift lock solenoid operation [On/Off].			
SHIFTLOCK SOLENOID TEST	This test is	able to check shift lock solenoid operation [On/Off].			
SHIFTLOCK SOLENOID TEST DR SEAT LAMP TEST		able to check shift lock solenoid operation [On/Off].  able to check driver seat lamp illumination operation [On/Off].			

**WORK SUPPORT** 

SHIFT SPOT LAMP TEST

This test is able to check shift spot lamp illumination operation [On/Off].

### [WITH INTELLIGENT KEY SYSTEM]

Support Item	Setting		Description	
ICALIACO DATTEDVICAVED	On*		Battery saver function ON.	
IGN/ACC BATTERY SAVER	Off		Battery saver function OFF.	
DEMOTE ENGINE CTARTER	On*		Remote engine start function ON.	
REMOTE ENGINE STARTER	Off		Remote engine start function OFF.	
	BUZZER*		Buzzer reminder function by door lock/unlock request switch ON.	
ANOWEDDACK LIKEV LOCK LINILOCK	HORN		Horn chirp reminder function by door lock request switch ON.	
ANSWERBACK I-KEY LOCK UNLOCK	Off		No reminder function by door lock/unlock request switch.	
	INVALID		This mode is not used.	
ANSWERBACK KEYLESS LOCK UN-	On*		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.	
LOCK	Off		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.	
ANSWER BACK	On*		Horn chirp reminder when doors are locked with Intelligent Key.	
ANSWER BACK	Off		No horn chirp reminder when doors are locked with Intelligent Key.	
RETRACTABLE MIRROR SET	On		Retractable mirror set ON.	
NETWOTABLE WINNOW SET	Off*		Retractable mirror set OFF.	
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.	
EGGIVONEGGIV BY I-RET	Off		Door lock/unlock function from Intelligent Key OFF.	
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.	
ENGINE START BY I-RET	Off		Engine start function from Intelligent Key OFF.	
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function by back door request switch ON.	
TRUNIVOLAGO HATOH OF EN	Off		Buzzer reminder function by back door request switch OFF.	
CONFIRM KEY FOB ID	_		Intelligent Key ID code can be checked.	
	Start	70 msec		
SHORT CRANKING OUTPUT		100 msec	Starter motor operation duration times.	
		200 msec		
	End		<del>-</del>	
INSIDE ANT DIAGNOSIS	_		This function allows inside key antenna self-diagnosis.	
	MODE7	5 min		
	MODE6	4 min		
	MODE5	3 min		
AUTO LOCK SET	MODE4	2 min	Auto door lock time can be set in this mode.	
	MODE3*	1 min		
	MODE2	30 sec		
	MODE1 Off			

\*: Initial Setting

**TRUNK** 

TRUNK: CONSULT Function (BCM - TRUNK)

INFOID:0000000011559077

### **DATA MONITOR**

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.

### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
TR CANCEL SW [On/Off]	Indicates condition of trunk cancel switch.
TR/BD OPEN SW [On/Off]	Indicates condition of back door opener switch.
RKE-TR/BD [On/Off]	Indicates condition of back door open signal from Intelligent Key.
TRNK/HAT MNTR [On/Off]	Indicates condition of luggage room lamp switch.

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### **DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT)** [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

# DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT)

#### **CONSULT Function** INFOID:0000000011218603

### **APPLICATION ITEMS**

CONSULT performs the following functions via CAN communication with automatic back door control module:

Diagnosis Mode	Function Description
Self Diagnostic Result	Displays the diagnosis results judged by automatic back door control module.
Data Monitor	The automatic back door control module input/output signals are displayed.
Work support	Changes the setting for each setting function.
ECU Identification	The automatic back door control module part number is displayed.

### SELF DIAGNOSTIC RESULTS

Refer to <u>DLK-60</u>, "<u>DTC Index</u>".

#### DATA MONITOR

Monitor Item	Unit	Description
SPINDLE SENSOR LH	[Pulse]	Displays the condition of the LH encoder.
SPINDLE LH SPEED	[mm/s]	Displays the LH spindle operation speed.
SPINDLE MOTOR LH DUTY	[%]	Displays the condition of the spindle motor LH duty.
VHCL SPEED MTR	[km/h]	Displays the vehicle speed signal received from combination meter as a numerical value.
VHCL SPEED ABS	[km/h]	Displays the vehicle speed signal received from ABS actuator and electrical unit as a numerical value.
MAIN SW	[ON/OFF]	Indicates condition of automatic back door main switch.
AUTO BD SW	[ON/OFF]	Indicates condition of automatic back door switch.
BK DOOR CL SW	[ON/OFF]	Indicates condition of automatic back door close switch.
BACK DOOR LOCK STATUS	[ON/OFF]	Indicates condition of back door lock status.
PKB SW	[ON/OFF]	Indicates condition of parking brake switch.
OPEN SW	[ON/OFF]	Indicates condition of open switch.
CLOSE SW	[ON/OFF]	Indicates condition of close switch.
HALF LATCH SW	[ON/OFF]	Indicates condition of half latch switch.
TOUCH SEN RH	[ON/OFF/OPEN]	Indicates condition of touch sensor RH.
TOUCH SEN LH	[ON/OFF/OPEN]	Indicates condition of touch sensor LH.
P RANGE IND	[ON/OFF]	Indicates condition of P range signal from combination meter.
RKE REQ	[OFF/MOVE/ REV]	Indicates condition of remote keyless entry signal from BCM.
IGN SW	[ON/OFF]	Indicates condition of IGN power supply.
SPINDLE LH ENCODER A	[LO/HI]	Indicates condition of encoder signal from encoder A.
SPINDLE LH ENCODER B	[LO/HI]	Indicates condition of encoder signal from encoder B.
UNLOCK SEN BD	[LOCK/UNLK]	Indicates condition of back door unlock sensor.
DESTINATION	[JPN/NAM]	Indicates specification of destination of the automatic back door system.
AUTO BCK DR POS INITIAL	[YET/DONE]	Indicates condition of calibration of automatic back door position information.
AUTO BCK DR POS LEARN	[YET/DONE]	Indicates condition of additional service when removing battery negative cable.
SPINDLE SENSOR RH	[Pulse]	Displays the condition of the RH encoder.
SPINDLE RH SPEED	[mm/s]	Displays the RH spindle operation speed.

### **DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT)** [WITH INTELLIGENT KEY SYSTEM]

### < SYSTEM DESCRIPTION >

Monitor Item	Unit	Description
SPINDLE MOTOR RH DUTY	[%]	Displays the condition of the spindle motor RH duty.
SPINDLE RH ENCODER A	[LO/HI]	Indicates condition of encoder signal from encoder A.
SPINDLE RH ENCODER B	[LO/HI]	Indicates condition of encoder signal from encoder B.
TRANSMISSION TYPE	[AT/CVT]	Indicates type of transmission the vehicle is equipped with.

### **WORK SUPPORT**

Work Item	Description	Refer to
RESET AUTO BACK DOOR STATUS	This item is for calibration of automatic back door position information.	DLK-116, "Work Procedure"

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

# **ECU DIAGNOSIS INFORMATION**

## AUTOMATIC BACK DOOR CONTROL UNIT

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

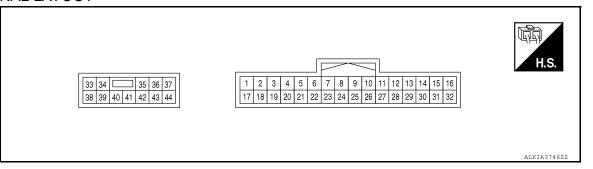
Monitor Item	Conditio	n	Value/Status			
SPINDLE SENSOR LH	Back door: Moving	0 – 65535				
SPINDLE LH SPEED	Back door: Moving		0 - 6553.5			
SPINDLE MOTOR LH DUTY	Back door: Moving	0 – 255				
VHCL SPEED MTR	While driving	Equivalent to speedometer reading				
VHCL SPEED ABS	While driving	While driving				
MAIN SW	Automatic back door main switch	OFF	OFF			
IVIAIN SVV	Automatic back door main switch	ON	ON			
AUTO BD SW	Automatic back door switch	Release	OFF			
AUTO BD 3W	Automatic back door switch	Press	ON			
BK DOOR CL SW	Automatic back door close switch	Release	OFF			
BR DOOR GL SW	Automatic back door close switch	Press	ON			
BACK DOOR LOCK STATUS	Back door lock	Lock	OFF			
BACK DOOK LOCK STATUS	Back door lock	Unlock	ON			
DIAD CIM	Dorling broke	Not applied	OFF			
PKB SW	Parking brake	Applied	ON			
OPEN SW	Back door	Half latch/fully closed	OFF			
OPEN SW	Dack door	Applied	ON			
CLOSE SW	Dook door	Open/half latch	OFF			
CLOSE SW	Back door	Fully closed	ON			
HALF LATCH SW	Back door	Half latch/fully closed	OFF			
HALF LATOR SW	Back door	Open	ON			
TOUCH SEN RH	Touch sensor RH	Other than below	OFF			
TOUCH SEN KH	TOUCH SENSOF KH	Detect obstruction	ON			
TOUCH SEN LH	Touch sensor LH	Other than below	OFF			
TOOCH SEN EN	TOUCH SENSOI ETT	Detect obstruction	ON			
P RANGE IND	Selector lever	Other than P position	OFF			
F RANGE IND	Selector level	P position	ON			
		Release	OFF			
RKE REQ	Intelligent Key button (back door)	Press (more than 0.5 seconds)	MOVE			
		Press (just after)	REV			
IGN SW	Ignition switch	Other than ON position	OFF			
ION OVV	Igilition Switch	ON position	ON			
SPINDLE LH ENCODER A	Automatic back door	Not operate	No change HI or LO			
OF INDEL LE ENCODER A	Automatic back door	Operated	Change HI or LO			
SDINDI E I H ENCODED D	Automatic back door	Not operate	No change HI or LO			
SPINDLE LH ENCODER B	Automatic back door	Operated	Change HI or LO			

#### < ECU DIAGNOSIS INFORMATION >

### [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Condition						
UNLOCK SEN BD	Back door lock	Lock	LOCK					
UNLOCK SEN BD	Back door lock	Unlock	UNLK					
DESTINATION	_		OTHER					
AUTO BCK DR POS INITIAL	Calibration of automatic back door	Not complete	YET					
TO TO BOILDING OF INTIME	position information	Complete	DONE					
AUTO BCK DR POS LEARN	Additional service when removing	Not complete	YET					
AUTO BOK DR POS LEARN	battery negative terminal	Complete	DONE					
SPINDLE SENSOR RH	Back door: Moving		0 - 65535					
SPINDLE RH SPEED	Back door: Moving	Back door: Moving						
SPINDLE MOTOR RH DUTY	Back door: Moving		0 – 255					
SPINDLE RH ENCODER A	Automatic back door	Not operated	No change HI or LC					
SFINDLE REINCODER A	Automatic back door	Operate	Change HI or LO					
SPINDLE RH ENCODER B	Automatic back door	Not operated	No change HI or LO					
OF INDLE REI ENCODER B	Automatic back door	Operate	Change HI or LO					
TRANSMISSION TYPE	_		AT/CVT					

### **TERMINAL LAYOUT**



### PHYSICAL VALUES

	inal No. e color)	Description		Con	dition	Voltage
(+)	(-)	Signal name	Input/ Output	Con	ultion	(Approx.)
1 (L)	Ground	CAN high	Input/ Output	-	_	_
2		Back door warning		Automatic back	Sounding	Battery voltage
(B)	Ground	chime	Output	door warning chime	Not sounding	0 V
3 (V)	Ground	Touch sensor ground	Input	-	_	0.01 – 0 V
4	3	Touch sensor RH sig-	Input	Touch sensor RH	Detect obstruc- tion	1.8 – 5 V
(BR)	(V)	паі	-		Other than above	2.72 – 7.27 V
5 (G/W)	3 (V)	Touch sensor LH sig-	Input	Touch sensor LH	Detect obstruc- tion	1.8 – 2.72 V
(G/VV)	(V)	IIdi			Other than above	5.0 – 7.27 V
6					Open	0 V
(BR/ Y)	Ground Open switch signal Input Back door		Half latch/fully closed	Battery voltage		

Revision: October 2014 DLK-57 2015 Murano

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### [WITH INTELLIGENT KEY SYSTEM]

	inal No. e color)	Description		Con	dition	Voltage			
(+)	(–)	Signal name	Input/ Output	Con	dition	(Approx.)			
					Open	0 V			
7 (L/G)	Ground	Half latch switch signal	Input	Back door	Fully closed/half latch	Battery voltage			
8					Fully closed	0 V			
(BR/ W)	Ground	Close switch signal	Input	Back door	Open/half latch	Battery voltage			
11 (B/W)	Ground	Ground	_	-	_	0 V			
13	Ground	Automatic back door	Input	Automatic back	Pressed	Battery voltage			
(L)	Oround	switch	mpat	door switch	Released	0 V			
14		Automatic back door		Automatic back	Pressed	Battery voltage			
(Y/ GR)	Ground	close switch	Input	door close switch	Released	0 V			
17 (P)	Ground	CAN low	Input/ Output	-	_	_			
18 (Y/O)	Ground	Encoder RH power supply	Output	-	_	Battery voltage			
19 (W/V)	Ground	Encoder RH A signal	Input	Back door	Moving (automatic or manual)	NOTE: Waveform width changes according to back door open/close speed.			
					When stopped	0 V or 12 V			
20 (G/ BR)	Ground	Encoder RH B signal	Input	Back door	Moving (automatic or manual)	(V) 15 10 20ms  JMKIA1864ZZ  NOTE: Waveform width changes according to back door open/close speed.			
					When stopped	0 V or 12 V			
21 (G/W)	Ground	Encoder ground	_	-		0 V			
22 (B/W)	Ground	Encoder LH power supply	Output	-	_	Battery voltage			

< ECU DIAGNOSIS INFORMATION >

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	inal No. e color)	Description		0	alisi a la	Voltage
(+)	(-)	Signal name	Input/ Output	Con	dition	(Approx.)
23 (V/W)	Ground	Encoder LH A signal	Input	Back door	Moving (automatic or manual)	NOTE: Waveform width changes according to back door open/close speed.
					When stopped	0 V or Battery voltage
24 (Y)	Ground	Encoder LH B signal	Input	Back door	Moving (automatic or manual)	NOTE: Waveform width changes according to back door open/close speed.
					When stopped	0 V or 12 V
25 (Shiel d)	Ground	Ground (noise shield spindle)	_	-	_	0.01 – 0 V
29 (BR/ Y)	Ground	Automatic back door main switch	Input	Automatic back door main switch	ON OFF	Battery voltage 0 V
33 (P)	Ground	Power supply (BAT)	Input	-	_	Battery voltage
34	01	Back door warning	0.1-1	Automatic back	Sounding	0 V
(P)	Ground	chime	Output	door warning chime	Not sounding	Battery voltage
35 (B)	Ground	Spindle motor RH (open)	Output	Back door	Auto open operation	Battery voltage
36 (W)	Ground	Spindle motor RH (close)	Output	Back door	Auto close operation	Battery voltage
37 (B)	Ground	Spindle motor LH (open)	Output	Back door	Auto open operation	Battery voltage
38 (W)	Ground	Spindle motor LH (close)	Output	Back door	Auto close operation	Battery voltage
39 (B)	Ground	Back door closure motor (open)	Output	Back door	Open operation Other than above	Battery voltage 0 V
40 (W)	Ground	Back door closure motor (close)	Output	Back door	Close operation Other than above	Battery voltage
41 (B)	Ground	Ground	_	-		0 V
42 (B/L)	Ground	Ground		-	_	0 V

Fail Safe INFOID:0000000011218605

Display contents of CONSULT	Fail-safe	Cancellation
U1000 CAN COMM	Inhibit automatic back door operation	Return to normal status.
U1010 CONTROL UNIT (CAN)	Inhibit automatic back door operation	Return to normal status.
B2401 IGN OPEN	Inhibit automatic back door operation	Automatic back door control module detects ignition switch ON signal via CAN communication.
B2409 HALF LATCH SW	Inhibit automatic back door operation	Automatic back door control module detects that half latch switch changes from ON to OFF when back door fully closes.
B2416 TOUCH SEN R OPEN	Inhibit automatic back door operation	Return to normal status.
B2417 TOUCH SEN L OPEN	Inhibit automatic back door operation	Return to normal status.
B2419 OPEN SW	Inhibit automatic back door operation	Reconnect battery.
B2420 CLOSE SW	Inhibit automatic back door operation	Reconnect battery.
B2422 BACK DOOR STATE	Inhibit automatic back door operation	Half latch switch is ON from OFF.
B2423 ABD MTR TIME OUT	Inhibit automatic back door operation	At least 180 seconds are passed after automatic back door operation is inhibited.
B2426 SPINDLE SENSOR LH	Inhibit automatic back door operation	Return to normal status.
B2427 SPINDLE SENSOR RH	Inhibit automatic back door operation	Return to normal status.
B2428 AUTO BACK DR CNT MODULE	Inhibit automatic back door operation	Return to normal status.
B242A CLSR CONDITION	Inhibit automatic back door operation	Reconnect battery.

## DTC Inspection Priority Chart

< ECU DIAGNOSIS INFORMATION >

INFOID:0000000011218606

[WITH INTELLIGENT KEY SYSTEM]

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

Priority	DTC
1	B2428 AUTO BK DR CNT UNIT U1000 CAN COMM U1010 CONTROL UNIT (CAN) B2401 IGN OPEN
2	B2409 HALF LATCH SW B2416 TOUCH SEN R OPEN B2417 TOUCH SEN L OPEN B2419 OPEN SW B2420 CLOSE SW B2422 BACK DOOR STATE B2423 ABD MTR TIME OUT B2426 SPINDLE SENSOR LH B2427 SPINDLE SENSOR RH B242A CLSR CONDITION

DTC Index INFOID:0000000011218607

#### NOTE:

Details of time display

• 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases  $1 \rightarrow 2$  $\rightarrow$  3...38  $\rightarrow$  39 after returning to the normal condition whenever ignition is switched OFF  $\rightarrow$  ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch  $\mathsf{OFF} \to \mathsf{ON}$  after returning to the normal condition if the malfunction is detected again.

< ECU DIAGNOSIS INFORMATION >

### [WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Reference page
U1000: CAN COMM	×	BCS-69, "DTC Description"
U1010: CONTROL UNIT (CAN)	×	BCS-70, "DTC Description"
B2401: IGN OPEN	×	DLK-121, "DTC Description"
B2409: HALF LATCH SW	×	DLK-122, "DTC Description"
B2416: TOUCH SEN R OPEN	×	DLK-125, "DTC Description"
B2417: TOUCH SEN L OPEN	×	DLK-128, "DTC Description"
B2419: OPEN SW	×	DLK-131, "DTC Description"
B2420: CLOSE SW	×	DLK-134, "DTC Description"
B2422: BACK DOOR STATE	×	DLK-137, "DTC Description"
B2423: ABD MTR TIME OUT	×	DLK-140, "DTC Description"
B2426: SPINDLE SENSOR LH	×	DLK-142, "DTC Description"
B2427: SPINDLE SENSOR RH	×	DLK-145, "DTC Description"
B2428: AUTO BACK DR CNT UNIT	×	DLK-148, "DTC Description"
B242A: CLSR CONDITION	×	DLK-149, "DTC Description"

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### **BCM**

### [WITH INTELLIGENT KEY SYSTEM]

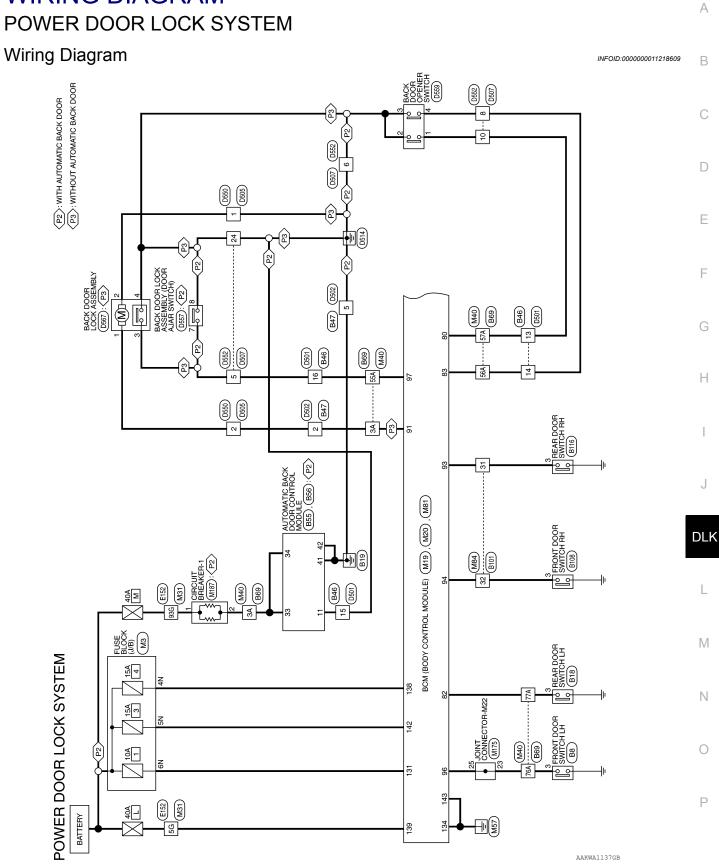
## **BCM**

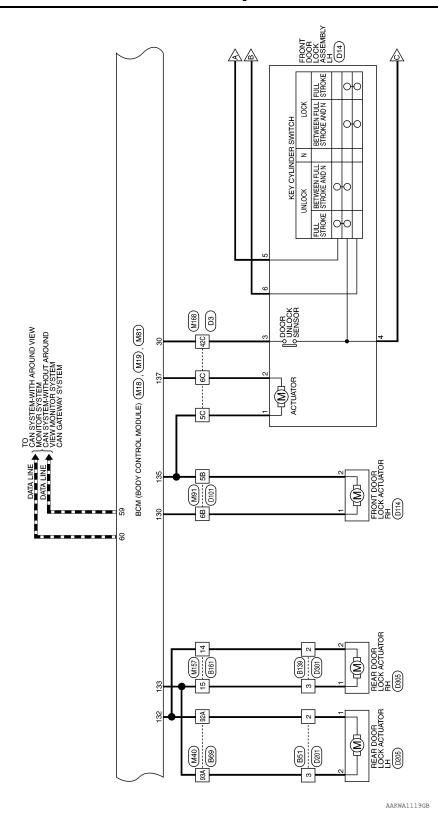
# List of ECU Reference

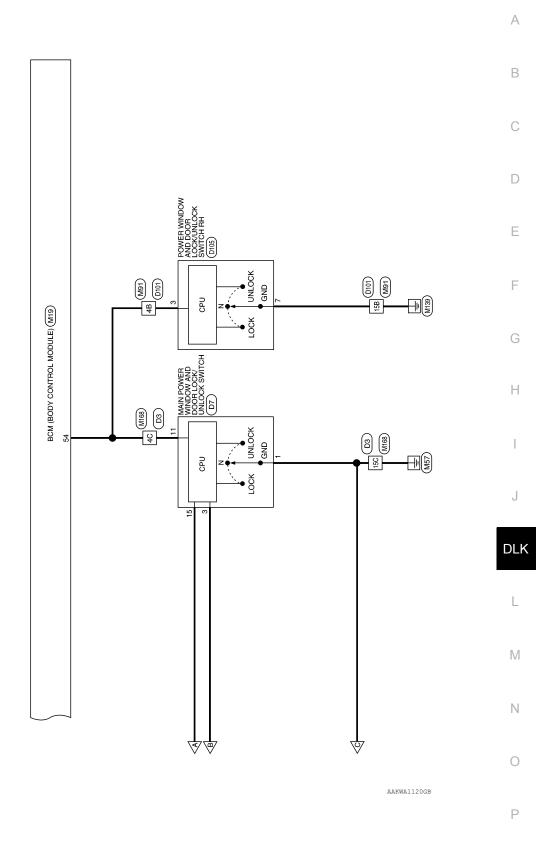
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ECU	Reference
	BCS-30, "Reference Value"
BCM	BCS-50, "Fail Safe"
BOIVI	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

# WIRING DIAGRAM







					45 44 43 42 41 65 64 63 62 61																					
		BCM (BODY CONTROL MODULE)	X		60 59 58 57 56 55 54 53 62 15 70 69 68 67 66 65 64 63 22 61 61 70 70 70 70 70 70 70 70 70 70 70 70 70	Signal Name	PW LIN	CAN-L	CAN-H	BACK DOOR OPEN SW		Signal Name	1	1												
	M19		lor BLACK		59 58 57 56 57 76 50 50 50 50 50 50 50 50 50 50 50 50 50	Color of Wire	8	۵	_	œ		Color of Wire	_	В												
	Connector No.	Connector Name	Connector Color		S	Terminal No.	54	59	09	80		Terminal No.	5G	93G												
ONNECTORS	Connector No. M18	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GREEN		H.S. (20 19 18 17 16 15 14 13 12 11 10 9 8 7 8 6 5 4 3 2 21 1	Terminal No. Color of Wire Signal Name	30 P DR DOOR LOCK					Connector No. M31	Connector Color WHITE	_		16 26 36 46 56 66 76 86 99 106	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	226/236/256/256/256/296/30G	316 320 330 340 350 360 370 380 396 400 416	42G43G44G45G48G43G48G43G5CG	51.0   \$2.0   \$2.0   \$5.0	716726736776776786786886816	82G 83G 84G 85G 86G 87G 88G 89G 90G		916 926 936 946 956	
POWER DOOR LOCK SYSTEM CONNECTORS		FUSE BLOCK (J/B)	<u></u>	N1 N2	7N 6N 5N 4N	Signal Name	ı	ı	I			(A (BODY CONTROL	MODULE)	47		89 88 87 86 85 84 83 82 81 101 100 99 98 97 96 95 94 93		Signal Name	RL DOOR SW	BACK DOOR REQUEST SW	BACK DOOR OPEN OUT	WS HOOD HH	AS DOOR SW	DR DOOR SW	BACK DOOR SW	
OR L(	o. M3		III NA JOIC	NS 3N	8N Z	Color of Wire	>	<b>\</b>	W			4	WO	olor GRAY	_	92 91 90 89 88 104 103 102 101 100		Color of Wire	Μ	BG	BR	В	დ	BG	W	
WER DO	Connector No.	Connector Name	Connector Color	E	H.S.	Terminal No.	N4	2N	N9			Connector No.		Connector Color		ν.		Terminal No.	85	83	91	93	94	96	26	
PC											l													Ai	AKIA2	2660GB

- (WITH AUTOMATIC BACK DOOR)

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Signal Name

– (WITHOUT AUTOMATIC BACK DOOR)

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			6 5 4 3 2 1 22 21 20 19 18 17	<u>ө</u>		
	E TO WIRE	<u> </u>	10 9 8 7 26 25 24 23	Signal Name	1	1
. M84	me WIF	lor WH	15 14 13 12 11 31 30 29 28 27	Color of Wire	Œ	9
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S. 32 3	Terminal No.	31	32

								_
 Signal Name	DOOR UNLOCK AS/RR/RL	GND2	DOOR LOCK DR/AS/FL	DOOR UNLOCK DR/AS/FL	BAT REAR DOOR	BAT POWER F/L	BAT FRONT DOOR	GND1
Color of Wire	<b>\</b>	GR	٦	>	>	7	>	GR
Terminal No.	133	134	135	137	138	139	142	143

Connector No.	). M81		
Connector Na	ime BCN MOI	Connector Name BCM (BODY CONTROL MODULE)	
Connector Color WHITE	lor WH	TE	
原 H.S.	143	142   142   141   140   138   138	
Terminal No.	Color of Wire	Signal Name	
130	ГG	SUPER LOCK/DOOR UNLOCK AS	
131	Μ	BAT BCM FUSE	
132	BB	DOOR LOCK AS/BB/BI	

Terminal No.	3A	3A	55A	56A	57A	76A	77A	92A	93A					
					DA 21A		0A 41A	0.04	04 61A		DA 81A			
	WIRE 10 WIRE	44 A A A A A A A A A A A A A A A A A A	7A 8A 9A 1		11A 12A 13A 14A 15A 16A 17A 18A 19A 20A 21A	22A 23A 24A 25A 26A 27A 28A 29A 30A	31A 32A 33A 34A 35A 36A 37A 38A 39A 40A 41A	42A 43A 44A 45A 46A 47A 48A 49A 50A	51A 52A 53A 54A 55A 56A 57A 58A 59A 60A 61A	62A 63A 64A 65A 66A 67A 68A 69A 70A	71A 72A 73A 74A 75A 76A 77A 78A 79A 80A 81A	828 838 848 858 868 878 888 898 908	91A 92A 93A 94A 95A 96A 97A 98A 99A 100A	
Connector No.	Connector Name		T.S.				31							

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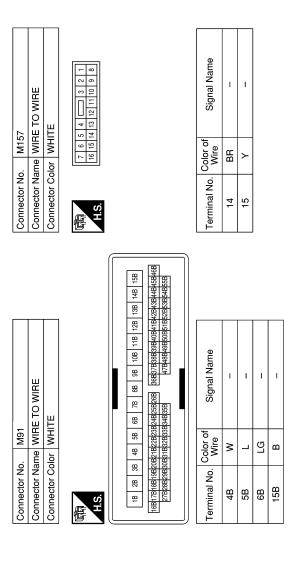
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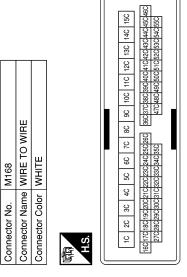
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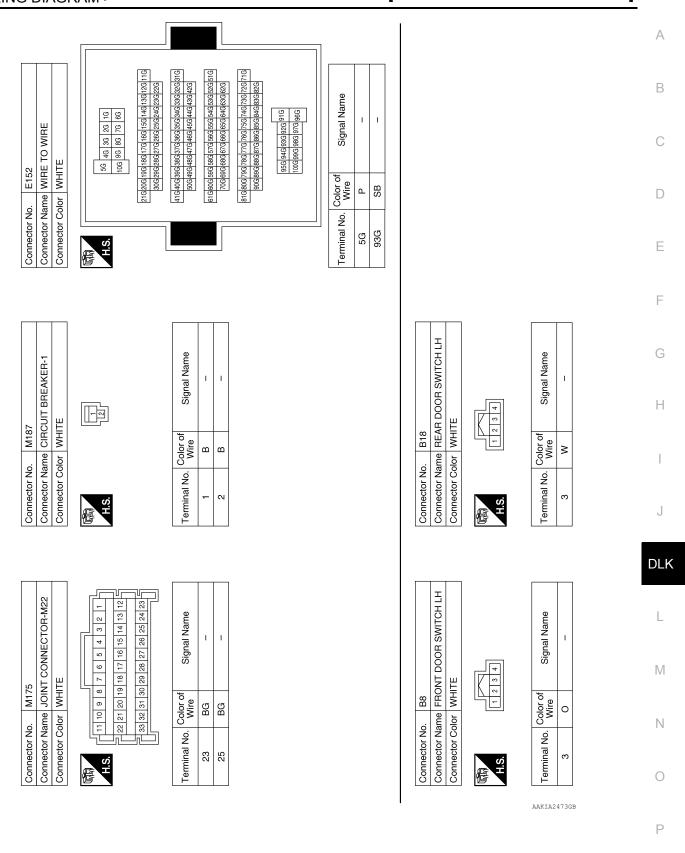


Signal Name	-	ı	1	1	ı	
Color of Wire	Μ	Г	۸	В	Ь	
Terminal No.	7F	29	29	15C	42C	



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### POWER DOOR LOCK SYSTEM



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Connector No.

Connector Name WIRE TO WIRE

Connector No.

	Connector No.	, B51	
	Connector Name WIRE TO WIRE	me WIR	E TO WIRE
	Connector Color WHITE	lor WHI	TE
	H.S.	12 1-1	5 4 3 2 1
ame	Terminal No. Wire	Color of Wire	Signal Name
OUT	2	<b>\</b>	ı
ATIC	æ	GR/RR	ı

E TO WIRE	4Y	2 3 4	Signal Name	– (WITHOUT AUTOMATIC BACK DOOR)	=
me WIF	lor GR,	<u> </u>	Color of Wire	BB	В
Connector Name WIRE TO WIRE	Connector Color GRAY	டி H.S.	Terminal No. Wire	2	2
		( <u>8</u> 8			

Terminal No. Color of Signal Name  13		ſ	Γω	اما	1					
Signal Name										
Signal Nar			7	က						
Signal Nar			4							
Signal Nar			33	53						
Signal Nar				28		_ e				
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Terminal No. Wire 13 W Wire 14 R R 15 BW 16 WOOD 16 WWW.	₽Ι		5	21		<u></u>				
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Terminal No. 13 15 15 16	일		2	18		0				
Terminal N 13 14 15 16	ک		-	17		<u>ة</u> ا				
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B56	Connector Name AUTOMATIC BACK DOOR CONTROL MODULE	ИНТЕ	33 34 ( 35 35 37 38 37 38 37 44 4 42 43 44 4	of Signal Name	PBD POWER1	PBD POWER2	GND1
	Name A	Color	[6]6]	o. Wire	۵	۵	Δ
Connector No.	Connector	Connector Color WHITE	雨 H.S.	Terminal No. Wire	33	34	41
Connector No. B55	Connector Name AUTOMATIC BACK DOOR CONTROL MODULE	Connector Color WHITE	H.S.   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24   25   28   27   28   29   30   31   32	Terminal No. Color of Signal Name	11 B/W CL SW GND		

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### **POWER DOOR LOCK SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

### < WIRING DIAGRAM >

						_											_
L	Connector Name WIRE IO WIRE  Connector Color WHITE		Ī	10 11 12 13 14 15 16	17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32		Signal Name	1	1		WIRE TO WIRE WHITE	5 4 6 7 2 1 1 10 9 8 7 6	Signal Name	ı	1		E
B101	or WHITE			6 7 8 9	2 23 24 25		Color of	G/W	>	B139	ne WIRE T	5 4 11 11	Color of Wire	9	>		,
Connector No.	Connector Name Connector Color		<b>5</b>	3 4 5 6	19 20 21 2		Terminal No.	31	32	Connector No.	Connector Name	, co	Terminal No.	2	е		
Conn	Con	E	Ġ Z	1 2	17 18		Term			Conn	Conn	语 S.H	Term				E
Signal Name	(WITH AUTOMATIC BACK DOOR)	- (WITHOUT AUTOMATIC BACK DOOR)	1	1 1	1	1	1	ı			Connector Name REAR DOOR SWITCH RH Connector Color WHITE	<b>—</b>	Signal Name	1			(
r of	1							38		B116	REAR DC	C   C   C   C   C   C   C   C   C   C	r of	>			
No. Color of Wire	<u> </u>	BR	8 6	<b>x</b>   ≥	0	>	<b>&gt;</b>	GR/BR		No.	Color V		do. Color of Wire	G/W			
Terminal No.	3A	3A	55A	57A	76A	77A	92A	93A		Connector No.	Connector Name REAR C	哥 H.S.	Terminal No.	က			
				'	•				<b>□</b>					•	1		,
									_						1		DI
	: IO WIRE	:	10A 9A 8A 7A 6A	218/208/198/178/168/158/148/138/128/148	30A 29A 28A 27A 26A 25A 24A 23A 22A	8A 37A 36A 35A 34A 33A 32A 31A	50A 49A 48A 47A 46A 45A 44A 43A 42A	61A 60A 59A 58A 57A 56A 55A 54A 53A 52A 51A	704   684   684   684   684   684   684   684   684   684   684   884		Connector Name FRONT DOOR SWITCH RH Connector Color WHITE	4	Signal Name	1			
. B69	me WIRE	<b>∀</b>	401	21A 20A 19A 1	30A 29A 2	41A 40A 39A 3	50A 49A 4	61A60A59A5	70A 69A [70]	. B108	me FROI	-	Color of Wire	>	_		1
Connector No.	Connector Name WIRE TO WIRE  Connector Color GRAY		Ų.							Connector No.	Connector Name FRONT Connector Color WHITE	E.S.	Terminal No.	ဇ			(
													А	AKIA	2475GB		

Revision: October 2014 DLK-71 2015 Murano

Connector No. D7  MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH Connector Color WHITE  T 6 5 4 1 3 2 1 8 9 10 11 12 13 14 15 16		Terminal No. Color of Signal Name		BR DLOC	11 Y/L COM	15 L/W D LOCK ACTR DR			Terminal No. Color of Signal Name	4B Y/L –	5B Y/GR –	- GB GB	15B B -								
	7c   6c   sc   4c   3c   2c   1c     pedesopadeadeadeadeadeadeadeadeadeadeadeadeadea														48 38 28 18	26B25B24B23B22B21B20B19B18B17B16B 35B24B23B22B31B30B29B28B27B					
WIRE -	8	Signal Name	I	1	I	1	1			E TO WIRE	_				1 22 1			-			
nme WIRE T	15C   14C   13C   12C   11C   10C   9C   9C   9C   9C   9C   9C   9C	Color of Wire	Y/L	0//	Y/GR	В	GR		). D101	Ime WIRE T					B 12B 11B	2B41B40B39B 2B51B50B49B					
Connector No. Connector Color Connector Color H.S.	15C   14C   13C   11C   10C   9C     16C   9C   9C   9C   9C   9C   9C   9C	Terminal No.	4C	2C	သွ	15C	42C		Connector No.	Connector Name WIRE TO WIRE			H.S.		15B 14B 13B	46B45B44B43B42B41B40B39B38B37B36B 55B54B53B51B50B49B48B47B					
											T	1									
E TO WIRE  TE  3		Signal Name	1	ı						FRONT DOOR LOCK ASSEMBLY LH					Signal Name	I	ı	1	-	-	1
B161   MRE 1   MR   MRE 2   MR   MRE 2   MR   MR   MR   MR   MR   MR   MR	-	Color of Wire	9	>						me FRON ASSE	lor GRAY		-	<b>⊣</b> I	Color of Wire	0//	Y/GR	GR	В	ΓW	BR
Connector No. B161  Connector Name WIRE TO WIRE  Connector Color WHITE		Terminal No.	14	15					Connector No.	Connector Name	Connector Color		E SI		Terminal No.	-	2	က	4	5	9
								l											AAKI	A266	3GB

### **POWER DOOR LOCK SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

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< WIRING DIAGRAM >

. D201 me WIRE TO WIRE lor WHITE	1 2 3	Color of Signal Name Wire	GR/R –						. D305	Connector Name REAR DOOR LOCK	lor GRAY		6 5 4 3 2 1	Color of Signal Name	- rg	GR/R –	1	1	1	1
Connector Name Connector Color	展.S.	Terminal No.	2	ဇ					Connector No.	Connector Nar	Connector Color	<b>1</b>	H.S.	Terminal No.	-	2	ဇ	4	2	9
D114 FRONT DOOR LOCK ACTUATOR RH	3 2 1	Signal Name	1	ı	1	ı	ı	1		TO WIRE		4	8   9   10   11   12	Signal Name	1	ı				
	Connector Color GHAY  H.S. 6 5 4	nal No. Color of Wire	1 GR	2 Y/GR	3 –		1	1	Connector No. D301	Connector Name WIRE TO WIRE	Connector Color WHITE	2	6 7	al No. Color of Wire	2 GR/R	3 LG				
Connector No.	Connec	Terminal No.		8	8	4	5	9	Connec	Connec	Connec		H.S.	Terminal No.	2	8				
D105 POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	7E 2 3 4 5 7 8 9 10 11 12	Signal Name	COM	GND						REAR DOOR LOCK			3 4 4 5 6	Signal Name	1	ı	1	1	ı	1
		Color of Wire	Y/L	В					o. D205				<u>-</u>	Color of Wire	GR/R	_	ı	ı	ı	ı
Connector No.	Connector Color	Terminal No.	8	7					Connector No.	Connector Name	Connector Color		H.S.	Terminal No.		8	ဗ	4	5	9

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Revision: October 2014 DLK-73 2015 Murano

### **POWER DOOR LOCK SYSTEM**

### < WIRING DIAGRAM >

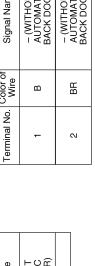
Connector No. D502	D502	Connector No. D505	D505
Connector Name	Connector Name WIRE TO WIRE	Connector Name	Connector Name WIRE TO WIRE
Connector Color GRAY	GRAY	Connector Color GRAY	GRAY

Connector Name | WIRE TO WIRE

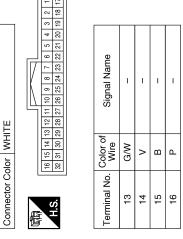
D501

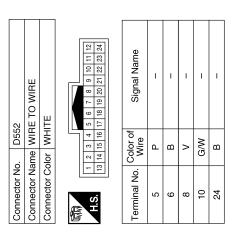
Connector No.

Signal Name	– (WITHOUT AUTOMATIC BACK DOOR)	– (WITHOUT AUTOMATIC BACK DOOR)
Color of Wire	В	BR
Terminal No.	-	2



		_
Signal Name	– (WITHOUT AUTOMATIC BACK DOOR)	_
Color of Wire	BR	В
Terminal No. Color of Wire	2	5





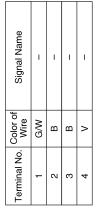
0	IE TO WIRE	λŧ	1 5 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Signal Name	– (WITHOUT AUTOMATIC BACK DOOR)	– (WITHOUT AUTOMATIC BACK DOOR)
. D550	me WIF	lor GR/		Color of Wire	ω	BB
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY	原 H.S.	Terminal No.	-	2

Connector No.	). D507	
Connector Name	ame WIR	WIRE TO WIRE
Connector Color WHITE	olor WHI	TE
H.S.	12 11 10 9 24 23 22 21	8 7 6 5 4 3 2 1 1 20 19 18 17 16 15 14 13
J		
Terminal No.	Color of Wire	Signal Name
5	Д	ı
9	В	ı
8	۸	1
10	M/5	1
24	В	ı

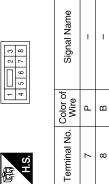
AAKIA2478GB

Connector No.	). D567	67
Connector Name		BACK DOOR LOCK ASSEMBLY (WITHOUT AUTOMATIC BACK DOOR)
Connector Color		WHITE
H.S.		4 9 2 1
Terminal No.	Color of Wire	f Signal Name
-	BR	ı
2	В	ı
3	Ь	-
4	В	ı

Connector No.	D259
Connector Name	Connector Name BACK DOOR OPENER SWITCH
Connector Color WHITE	WHITE







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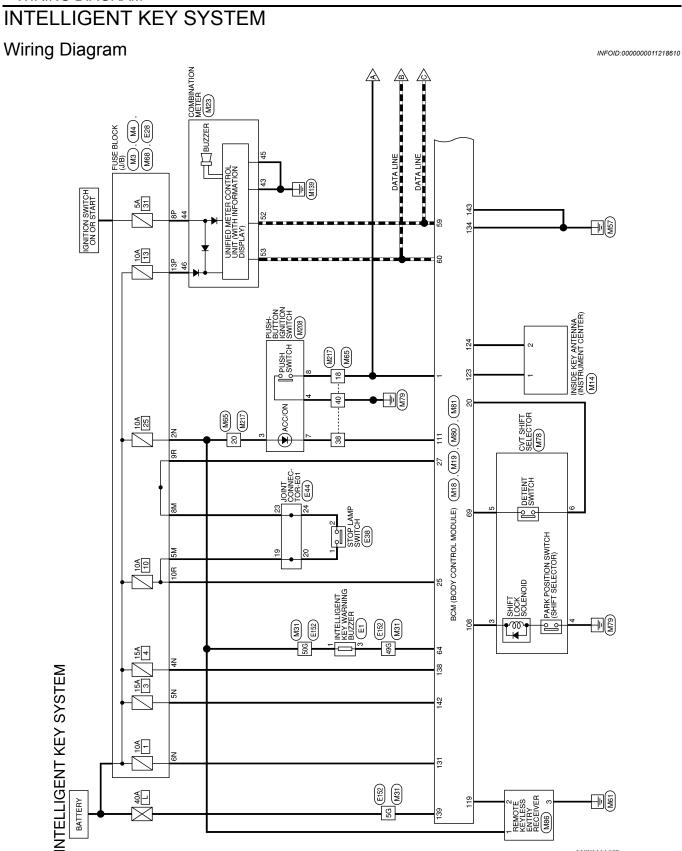
AAKIA2479GB

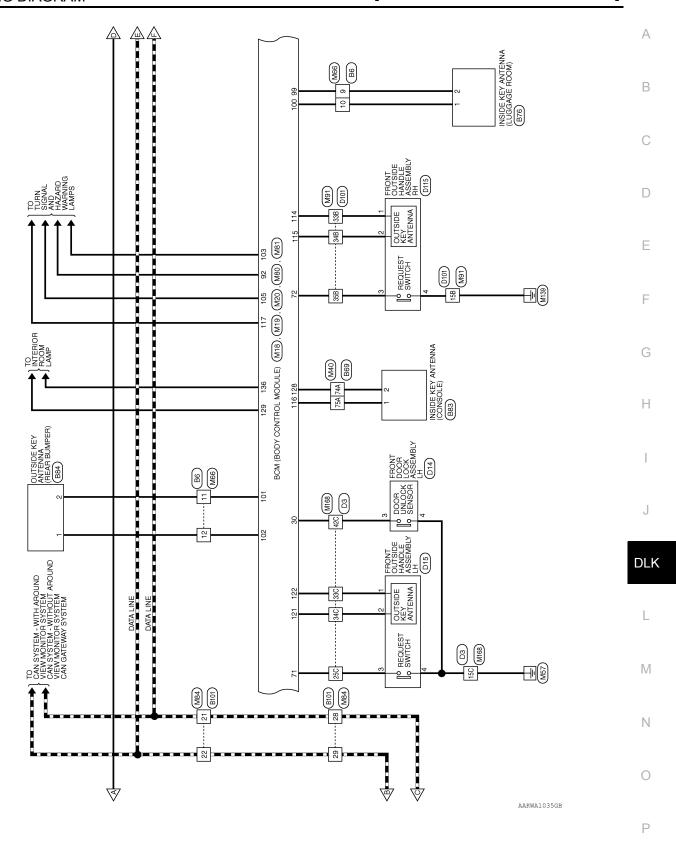
REMOTE KEYLESS ENTRY RECEIVER (M86) 3

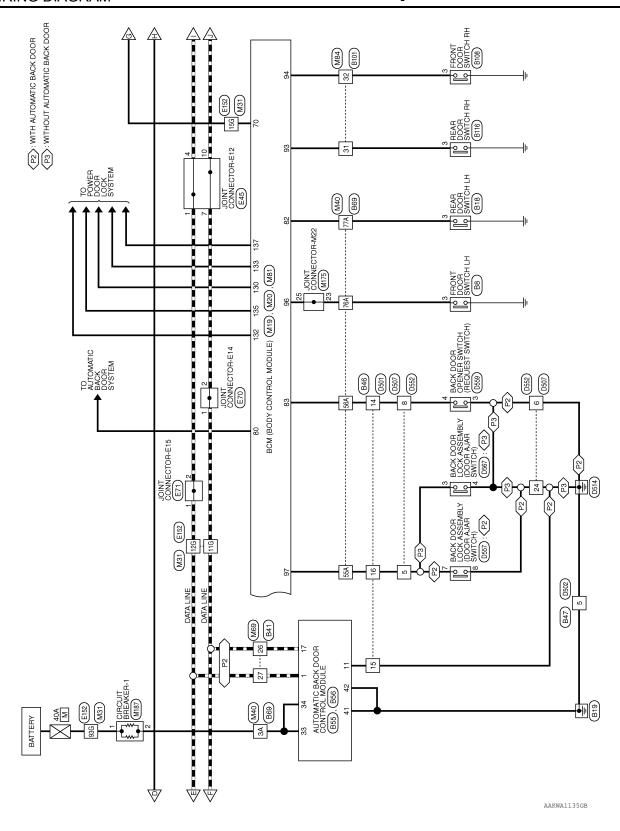
AAKWA1116GB

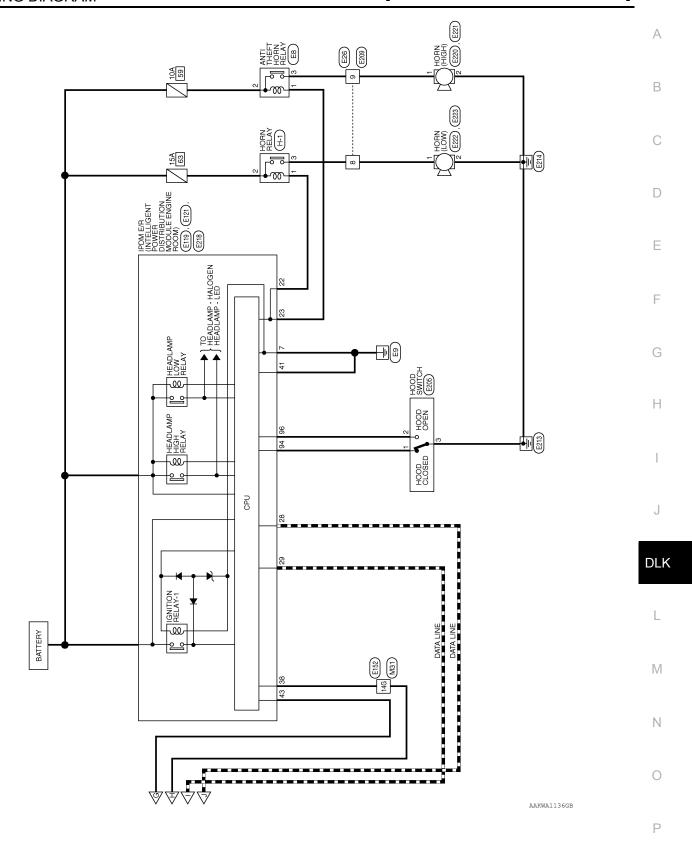
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BATTERY









Connector Name INSIDE KEY ANTENNA (INSTRUMENT CENTER) GRAY

Connector Color

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M14

Connector No.

### INTELLIGENT KEY SYSTEM CONNECTORS

M3	Connector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	

Connector Name FUSE BLOCK (J/B)

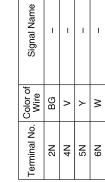
4

Connector No.

Connector Color WHITE







Signal Name	ı	1
Color of Wire	8	В
Ferminal No. Wire	-	2

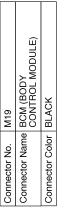
Signal Name	1	ı	
Color of Wire	BG	Μ	

Terminal No.

8P 13P

Signal Name	DR REQUEST SW	AS REQUEST SW	BACK DOOR OPEN SV	
Color of Wire	ш	Э	Œ	
Terminal No.	71	72	80	

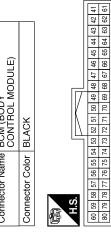
OPEN SW



Connector Name BCM (BODY CONTROL MODULE)

M18

Connector No.



Signal Name	CAN-L	CAN-H	BUZZER OUT	AT DEVICE OUT	IGN USM OUT 1
Color of Wire	Ь	٦	Д	В	Ь
Terminal No.	59	09	64	69	70

		2 1 22 21						
EN		12 11 10 9 8 7 6 5 4 3 2 2 2 3 3 3 2 3 2 3 5 3 5 4 3 3 5 5 4 3 3 5 5 5 5 5 5 5 5	Signal Name	ENG START SW NO ESCL	SHIFT P	BRAKE SW FUSE	BRAKE SW LAMP	DR DOOR LOCK STATUS
olor GRI		15 14 13 1 35 34 33 3	Color of Wire	ŋ	×	>	G	Ь
Connector Color GREEN	၏ H.S.	20 19 18 17 16 15 14 13 12 11 10 9 2 40 39 38 37 36 35 34 33 32 31 30 29	Terminal No.	-	20	25	27	30

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Color of Signal Name Wire	BACK DOOR ANT B	G BACK DOOR ANT A	BG RL FLASHER
Terminal No.	101	102	103

Signal Name	BACK DOOR REQUEST SW	RR FLASHER	WS HOOD RH	AS DOOR SW	DR DOOR SW	BACK DOOR SW	ROOM ANT 3 B	ROOM ANT 3 A
Color of Wire	BG	В	В	В	BG	M	Ь	Μ
Terminal No.	83	95	93	94	96	26	66	100

Signal Name	ı	1	1	ı	_	1	1	1
Color of Wire	7	Ь	٦	g	Ь	Ь	BG	В
Terminal No. Wire	5G	11G	12G	14G	15G	49G	50G	93G

					_			-
WIRE TO WIRE	WHITE	16 26 36 46 56 66 75 86 96 106	11G12G13G14G15G16G17G18G19G20G21G 22G23G24G25G26G27G28G29G30G	31G32G33G34G32G32G32G37G38G39G40G41G 42G43G44G45G46G47G48G49G50G	51G 52G 53G 54G 55G 56G 57G 58G 59G 60G 61G 62G 63G 84G 65G 86G 87G 88G 89G 70G	71G 72G 73G 74G 75G 75G 78G 79G 80G 81G  82G 83G 84G 85G 86G 87G 88G 89G 80G	91G 92C 93G 94G 95G 96G 97G 98G 99G 100G	
Connector Name	Connector Color	H.S.		(m)	in I			

M23	Connector Name COMBINATION METER	VHITE	40 50 51 52 53 54 55 56
Connector No.	Connector Name (	Connector Color WHITE	原场 H.S. 49 5

Signal Name	GND1	IGN	GND2	POWER (BAT)	CAN-L	CAN-H	
Color of Wire	В	BG	В	8	Ь	٦	
Terminal No.	43	44	45	46	52	53	

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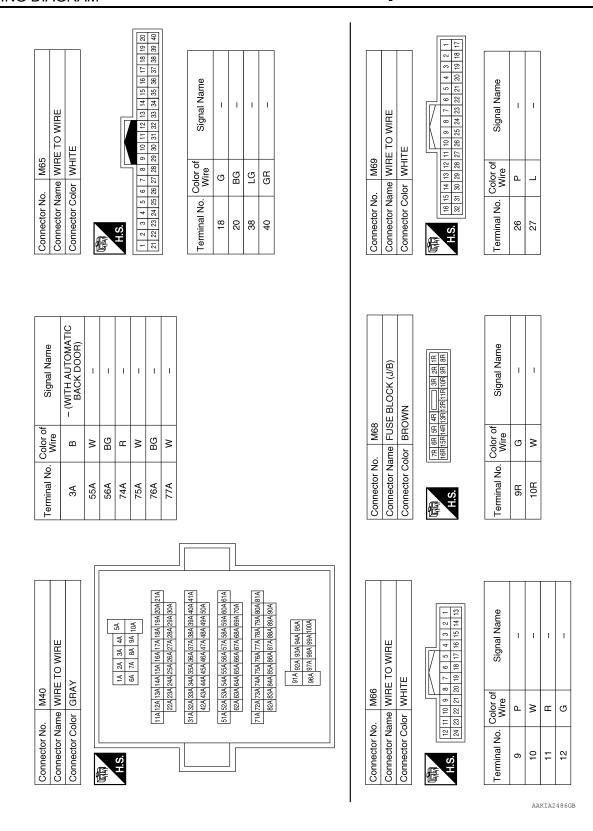
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### **INTELLIGENT KEY SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

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< WIRING DIAGRAM >

Signal Name	AS DOOR ANT A	AS DOOR ANT B	ROOM ANT 2 A	FL SL FLASHER	RF NIMOCO	DR DOOR ANT B	DR DOOR ANT A	ROOM ANT 1 A	ROOM ANT 1 B	ROOM ANT 2 B
Color of Wire	>	BG	Χ	SB	ш	В	GR	8	В	В
Terminal No.	114	115	116	117	119	121	122	123	124	128

Signal Name	AS DOOR ANT A	AS DOOR ANT B	ROOM ANT 2 A	FL SL FLASHER	RF NIMOCO	DR DOOR ANT B	DR DOOR ANT A	ROOM ANT 1 A	ROOM ANT 1 B	ROOM ANT 2 B	
Color of Wire	Μ	BG	Μ	SB	ш	В	GR	Μ	В	В	
Terminal No.	114	115	116	117	119	121	122	123	124	128	

				3 2 1	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17
				4	ಜ
				S	21
				9	22
	ш		117	7	23
	丽		<i>V</i>	8	24
	≥		IN	6	25
	0		\	10	56
	Ш	世		=	27
M84	Ш	三		12	28
Ž	≥	∣≥		13	53
	ЭС	Σ		16 15 14 13 12 11 10 9	8
o.	an	8		15	33
Ž	Γ	õ		16	32
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE			Ċ

					_	
Signal Name	-	ı	I	-	-	_
Color of Wire	Ь	_	۵	٦	ш	G
Terminal No.	21	22	28	58	31	32

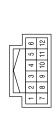
Connector No.	M80
Connector Name BCM (BODY CONTROL M	BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK

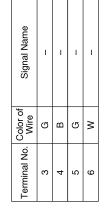
	Signal Name	FR SR FLASHER	SHIFT LOCK SOLENOID OUT	ACC LED
30,00	Wire	LG	9	ГG
	Terminal No. Wire	105	108	111

Signal Name	FR SR FLASHER	SHIFT LOCK SOLENOID OUT	ACC LED		
Color of Wire	LG	G	ГG		
Terminal No.	105	108	111		

Terminal No.	Color of Wire	Signal Name
133	<b>\</b>	DOOR UNLOCK AS/RR/RL
134	GR	GND2
135	Г	DOOR LOCK DR/AS/FL
136	LG	ROOM LAMP CONT
137	^	DOOR UNLOCK DR/AS/FL
138	^	BAT REAR DOOR
139	_	BAT POWER F/L
142	У	BAT FRONT DOOR
143	GR	GND1

Connector No. M78 Connector Name CVT SHIFT SELECTOR Connector Color WHITE	
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	BCM (BODY CONTROL MODULE)	Ш	
M81	BCM CONT	WHIT	
Connector No.	Connector Name BCM (BODY CONTROL M	Connector Color WHITE	



olor of Signal Name Wire	3 BATTERY SAVER OUT	SUPER LOCK/DOOR UNLOCK AS	/ BAT BCM FUSE	POOR LOCK AS/RR/RL
0	SB	ГС	٨	BR
Terminal No.	129	130	131	132

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Connector Name REMOTE KEVI ESS ENTRY	Connector Name WIRE TO WIRE	Terminal No.	No. Color of Wire	Signal Name
RECEIVER	Connector Color WHITE	15B	В	ı
Connector Color BLACK		33B	>	ı
		34B	BG	ı
H.S.	H.S.	35B	9	1
Terminal No. Color of Signal Name	1 22 1	15B		
1 BG –	16817818819820821828248258268 368378388398408418458468 27468 2746468 274	846B		
2 R –				
3 В –				
4				
Connector No. M168	Connector No. M175	Connector No.	r No.   M187	
le l	Je L	Connector Name		CIRCUIT BREAKER-1
Connector Color WHITE	Connector Color WHITE	Connector Color	r Color WHITE	1
国 H.S.	8 6 7 8 8 9 8 7 8 9 8 9 8 9 8 9 8 9 9 9 9 9	顾 H.S.		
10 20 30 40 50 60 70 80 90 100 110 120 130 140	150			
1801/10180  1902kod210 220 230 240 250 280    350 2110 380 390 410 410 420 430 440 450 450    4170 480 490 310 310 220 330 340 350    4170 480 490 310 310 220 330 340 350 310 350 350 350 350 350 350 350 350 350 35	20400			
Terminal No. Color of Wire Signal Name	Terminal No. Color of Signal Name	Terminal No.	No. Color of Wire	Signal Name
15C B –	23 BG -	-	В	1
25C R –	25 BG –	2	В	1
33C GR –				
34C G –				

Connector No. E1 Connector Name INTELLIGENT KEY WARNING BUZZER Connector Color BROWN  H.S.	Terminal No. Color of Signal Name  1 G 3 W	Connector No. E28 Connector Name FUSE BLOCK (J/B) Connector Color WHITE    AM 3M   M 3	Terminal No. Color of Signal Name  5M W -  8M P -	A B C C D
2 5 2 1 1 2 2 5 1 1 1 1 1 1 1 1 1 1 1 1				F
O WIRE	Signal Name	E26 WIRE TO WIRE WHITE 2 3	Signal Name	G H
Connector No. M217  Connector Name WIRE TO WIRE  Connector Color WHITE  H.S.    10   10   10   10   10   10   10   1	Color of Wire BR Y	9 5 - 8	Color of Wire G	
Connector No. Connector Color Connector Color H.S.  20   9   18   17   16   15   14   14   30   38   37   38   38   38   38   38   38	Terminal No. 18 20 38 40	Connector No. Connector Nam Connector Colc	Terminal No. 8 8 9	J
				DL
N SWITCH	Signal Name	Connector No. E8 Connector Name ANTI THEFT HORN RELAY Connector Color WHITE	Signal Name	L
me PUSH-Bi IGNITION Ior WHITE	Color of Wire Y Y B B BB	me ANTI THI	Color of Wire LG	N
Connector No. M208 Connector Name PUSH-BUTTON IGNITION SWITCH Connector Color WHITE	Terminal No. 3 4 7 7 8 8	Connector No. E8 Connector Name ANTI TI Connector Color WHITE	Terminal No.	0
<u> </u>			AAKIA2489GB	

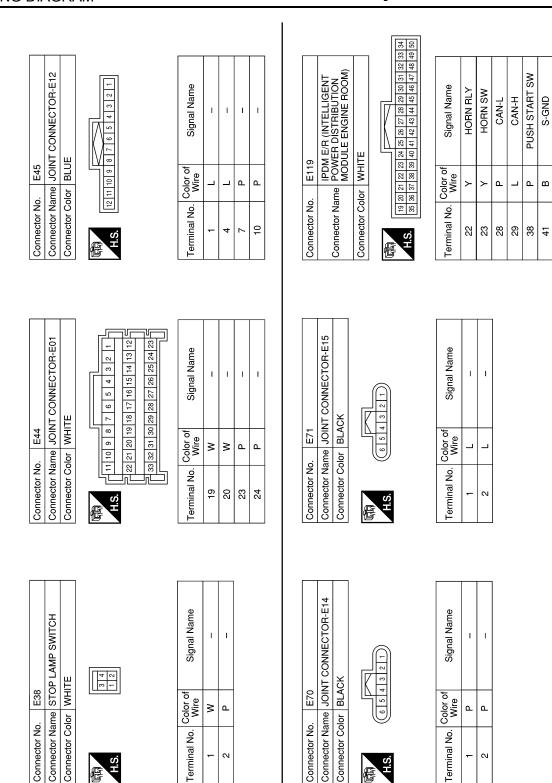
Revision: October 2014 DLK-85 2015 Murano

IGN SIGNAL

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S-GND

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AAKIA2490GB

Connector No. E121	_	Connector No. E152	Terminal No.	Color of	Signal Name
Connector Name POW	IPDM E/R (INTELLIGENT POWER DISTRIBUTION	Connector Name WIRE TO WIRE	5G	<u> </u>	.   1
-	DULE ENGINE ROOM)		11G	Ь	I
Connector Color WHITE			12G	7	ı
<u></u>		56 46 36 96 16	14G	۵	ı
•	7 8 9 10 11	106 96 86	15G		ı
S.			49G	<b>X</b>	1
		216206196186176166156146136126116	50G	В	1
Terminal No. Color of Wire	Signal Name	30048894749789584249239250 30048964589595959595959595959595959595959595959	93G	SB	1
7 B	P-GND	500 490 490 470 440 430 420    610 690  590 580 570 560 550 540 630 520 510    700 690 680 670 660 650 640 630 620			
		906/9806/9806/9806/9806/9806/9806/9806/9			
Consoder No E20E		Connector No   E200	ON rotoendo?	7 E948	
e la	HOOD SWITCH BROWN	e 5	Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
H.S.	1 2 3	(16 15 14   13 12   11 10 9 8   H.S.	Connector Color		HITE 88 84 85 86 87 88 89 91 92 99 94 95 96 97
Terminal No. Wire	Signal Name	Terminal No. Color of Signal Name	Terminal No.	Color of Wire	Signal Name
1 G/W	1	M 8	94	W/S	HOODSW 2
2 G/O	1	- N/N 6	96	0/5	MSGOOH
е В	1				

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Connector No. E220 Connector Name HORN (HIGH) Connector Color BROWN	Connector No. E221 Connector Name HORN (HIGH) Connector Color BLACK	E221 me HORN (H	11GH)	Connector No. Connector Name Connector Color	Connector No. E222 Connector Name HORN (LOW) Connector Color BROWN	(LOW)
原本 H.S.	H.S.	[ C		H.S.		
Terminal No. Color of Wire Signal Name	Terminal No.	Color of Wire B	Signal Name -	Terminal No.	Color of Wire W	Signal Name
Connector No. E223 Connector Name HORN (LOW) Connector Color BLACK	Connector No. B6 Connector Name WIRE TO WIRE Connector Color WHITE	. B6 me WIRE TC lor WHITE	) WIRE	Connector No. Connector Nar Connector Col	Connector No. B8 Connector Name FRONT Connector Color WHITE	Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE
斯斯 H.S.	H.S.	2 3 4 5 6 7 16 17 18 19	7 8 9 10 11 12 19 20 21 22 23 24	是 S:H	-	4
Terminal No. Color of Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
2 B -	6	А	1	က	0	1
	0 1	> a	1 1			
	12	: o	1			

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### **INTELLIGENT KEY SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

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			31 32			
B46	Connector Name WIRE TO WIRE	WHITE	5 6 7 8 9 10 11 12 13 14 21 22 23 24 25 26 27 28 29 30	r of Signal Name	1	- N
	ame \	olor	2 3 4 18 19 20	Colo	ш	BW
Connector No.	Connector N	Connector Color WHITE	H.S.	Terminal No. Wire	4	15
			14 15 16 30 31 32			
_	RE TO WIRE	IITE	1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   17   18   19   20   21   22   23   24   25   26   27   28   29   30   31   21   22   23   24   25   26   27   28   29   30   31   21   22   23   24   25   26   27   28   29   30   31   30   30	Signal Name	1	1
- 1	me WIF	or WF	3 4 8 19 20 2	Solor of Wire	۵	_
Connector No.	Connector Nar	Connector Col	斯 H.S.	Terminal No.	56	27
Connector No. B41	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S. 17 18 19 20 21 2	Terminal No. Wire		27
18	Connector Name REAR DOOR SWITCH LH	HITE	2 2 4	of Signal Name	ı	
, B18	me	lor WI		Color c Wire	≥	
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No. Wire	က	

Signal Name	ı	_	_			Connector Name AUTOMATIC BACK DOOR CONTROL MODULE	TE	35 36 37	38   39   40   41   42   43   44	Signal Name	PBD POWER1	PBD POWER2	GND1	GND2
Wire	ш	B/W	A/O		). B56	Ime AUT	lor WHITE	33 34	38 39 4	Color of Wire	Ь	Ь	В	B/L
Terminal No.	14	15	16		Connector No.	Connector Na	Connector Color		H.S.	Terminal No.	33	34	41	42
Signal Name	1	1			2	AUTOMATIC BACK DOOR CONTROL MODULE	WHITE		5 6 7 8 9 10 11 12 13 14 15 16 1	Signal Name	CAN-H	CL SW GND	CAN-L	
Wire	Ь	_			). B55	me AU	olor WF		2 3 4 5 18 19 20 21	Color of Wire	Τ	B/W	Ь	
l erminal No.	56	27			Connector No.	Connector Name	Connector Color		H.S. 17 18	Terminal No.	1	11	17	

	IE TO WIRE	47	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	ı
). B47	ıme WIF	lor GR/	<b>■</b> - ω	Color of Wire	В
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY	H.S.	Terminal No.	5

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	P		Terminal No.	Color of Wire	Signal Name	Connector Name NSIDE KEY ANTENNA	B76 INSIDE K
Y/O	S6A   Y/O   -		3A	۵	- (WITH AUTOMATIC BACK DOOR)	Connector Color	(LUGGAGE RC
R	S6A   R	Г		V/0	-		
B	T4A   B		56A	œ	ı		«
L/W	T5A   L/W   -		74A	В	1		-
O	Terminal No.   Color of   Terminal No.   Wire   W	_			1	יפוו	
W - Color of Terminal No. Color of Wire 1 W   1 W   2 P   1 W   2 P   2 P   2 P   3	Terminal No.   Color of	_	76A	0	ı		
≥ α	1 W		77A	8	ı		
	nector No.         B84           nector Name         Connector No.         B101           connector Name         WIRE TO WIRE           nector Color         GRAY           Rear Bumper         Connector Name         WIRE TO WIRE           Connector Name         WIRE TO WIRE           Connector Rame         WIRE TO WIRE           Rame         Rame           To State					- N	
	nector No.         B84           nector Name         Connector No.         B101           Connector Name         WIRE TO WIRE           Connector Size         WHITE           This is in Size         In Size           This is In Size         In Size         In Size           This is In Size         In Size         In Size           This is In Size         In Size         In Size         In Size					_	
	nector No.         B84         Connector No.         B101           nector Name (REAR BUMPER)         Connector Name (WIRE TO WIRE Connector Color GRAY         WHITE						
	Dector No.   B84   Connector No.   B101   Connector Name   WIRE TO WIRE   Connector Color   WHITE   Connector Color   WH						
	Dector No.   B84   Connector No.   B101   Connector Name   OUTSIDE KEY ANTENNA   Connector Name   WIRE TO WIRE						
	Connector Name   OUTSIDE KEY ANTENNA   Connector Name   WIRE TO WIRE		Connector No.	B84		Connector No.	B101
B84 Connector No.	Connector Color GRAY		Connector Name		SIDE KEY ANTENNA R BUMPER)	Connector Name	WIRE TO WIRE
B84 ne OUTSIDE KEY ANTENNA (REAR BUMPER)	H.S. (17   18   19   20   21   22   23   24   25   28   27   28   27   28   27   28   27   28   27   28   27   28   27   28   27   28   27   28   28		Connector Color	-	\ \		
B84 OUTSIDE KEY ANTENNA (REAR BUMPER) GRAY			H.S.			رن ات	6 7 8 9 10 11 22 23 24 25 26 27
Dector No.   B84			-	g	1	21	1
Dector No.   B84	G - 21 P		2		1	22	-
Dector No.   B84	G - 21 P - 22 L					58	1
Connector No.   B84	G - 21 P - 22 L 28 P P - 28 P P P P P P P P P P P P P P P P P P					59	-
Section No.   B84	G - 21 P 22 L 22 R 28 P 29 L 29 L					31	- W/£
B84   Connector No.   B84   Connector Name   WIRE TO WIRE	G     -       R     -       22     L       28     P       29     L       31     GW					32	

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Connector No. Connector Nan Connector Col	Connector No. B108 Connector Name FRONT Connector Color WHITE	Connector No. B108 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE	Connector No. Connector Name Connector Color		B116 REAR DOOR SWITCH RH WHITE	Connector No. D3 Connector Name WIRE TO WIRE Connector Color WHITE	D3 ame WIRE T	TO WIRE	
H.S.		4 6 0 0	是 H.S.	1 2 3	4	顾 H.S.			
						15C   14C   13C   12C   11C   10C   9C   4    46C   46C   44C   44C	C 12C 11C 1	7C	3C 2C 1C 1C 0C19C19C19C19C19C19C1
Terminal No.	I No. Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
ဂ	>	I	၈	G/W	ı	15C 25C	<u>а</u> ш	1 1	
						33C 34C	<u>م</u> ت	1 1	
						42C	GR	ı	
Connector No.	tor No. D14		Connector No.	). D15		Connector No.	o. D101		
Conneci	Connector Name FRO	FRONT DOOR LOCK	Connector Name		FRONT OUTSIDE HANDLE	Connector Name WIRE TO WIRE	ame WIRE	TO WIRE	
Connect	Connector Color GRAY	\.	Connector Color			Connector Color WHITE	olor WHIT	ш	
E	J ⊩		E		4	是 H.S.			
S.	1 2	3 4 5 6	H.S.						
						15B 14B 10	15B 14B 13B 12B 11B 10B	9B 8B 7B 6B 5B 4B	38 28 18
						46B45B44B43B 55B54B53B	46B45B44B43B42B41B40B39B38B37B36B 53B54B53B52B51B50B49B48B47B	RBB\$/78360B         RCBB\$/28B\$/18B\$/28B\$/18B\$/18B           RBB\$/78         338B\$/48B\$/38B\$/18B\$/08B\$/18B	B19B18B17B16B B29B28B27B
Terminal No	I No Color of	Signal Name	Terminal No.	Color of	Signal Name	Terminal No.	Color of	Signal Name	
				WIFe		15B	M Me		
akia:	В	1	2	g	1	33B	G/W	1	
24950			ဧ	Я	ı	34B	>	1	
ŝB			4	В	1	35B	GR/BR	1	

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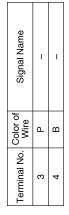
Connector Color GRAY  MAC A B B C C C C C C C C C C C C C C C C	Terminal No. Color of Wire 5 B –	Connector No. D557  Connector Name ASSEMBLY (WITH ASSEMBLY (WITH AUTOMATIC BACK DOOR)  Connector Color WHITE	Terminal No. Color of Wire Signal Name 7 P 8 B
WIRE TO WIRE  WHITE    13   12   11   10   9   8   7   6   5   4   3   2   1     29   20   27   26   25   24   23   22   21   20   19   18   17	Signal Name – – – – – – – – – – – – – – – – – – –	/IRE TO WIRE //HITE // HITE //	Signal Name
Connector Name WIRE T Connector Color WHITE  ##6.    16   15   14   13   12   11     18   19   19   19   19     19   19   19	Terminal No. Color of Wire 14 V 15 B 16 P	Connector No. D552  Connector Name WIRE TO WIRE  Connector Color WHITE	Terminal No. Color of Wire 5 P P 6 B C C C C C C C C C C C C C C C C C C
FRONT OUTSIDE HANDLE ASSEMBLY RH BLACK	Signal Name	TO WIRE  F  7 6 5 4 3 2 1 1 19 18 17 16 15 14 13	Signal Name – – – – – – – – – – – – – – – – – – –
Connector Name FRONT ASSEM Connector Color BLACK H.S.	Color of Wire   Wire   2   Y   S   S   S   S   S   S   S   S   S	Connector No. D507  Connector Name WIRE TO WIRE  Connector Color WHITE	Terminal No. Color of Wire 5 P P 8 S V B P P P P P P P P P P P P P P P P P P

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Connector No.	H-1
connector Name	Connector Name FUSE AND FUSIBLE LINK BOX (HORN RELAY)
Connector Color	ı
1.8. 1.3. 1.3. 1.3. 1.3.	

Signal Name	ı	-	-
Color of Wire	>	M	В
Terminal No. Wire	-	2	3

Connector No.	D567
Connector Name	Connector Name ASSEMBLY (WITHOUT AUTOMATIC BACK DOOR)
Connector Color WHITE	WHITE



D559	BACK DOOR OPENER SWITCH	WHITE	
Connector No.	Connector Name BACK DOOR OPENER SW	Connector Color WHITE	

Signal Name	I	_
Color of Wire	В	۸
Terminal No.	3	4

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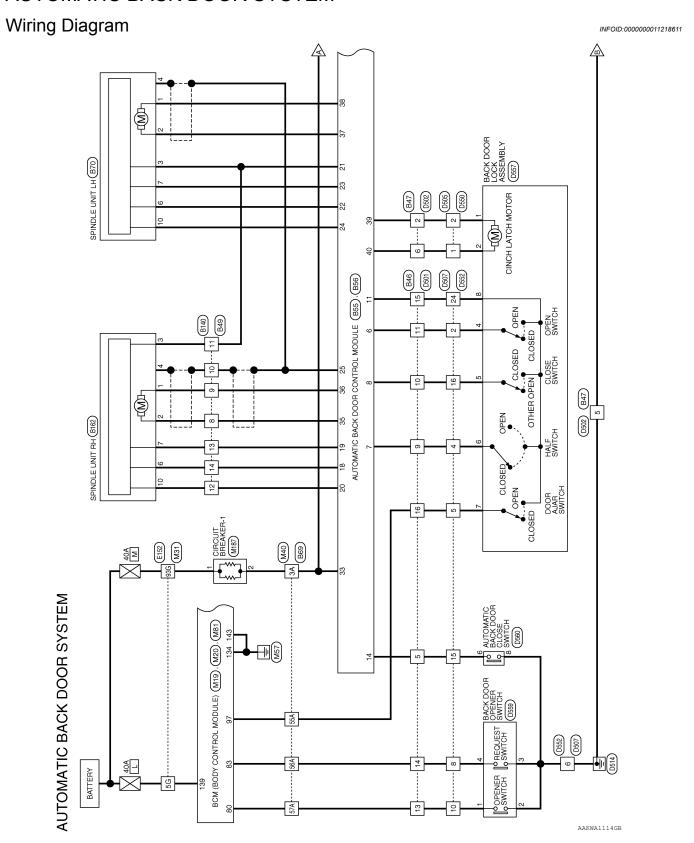
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### **AUTOMATIC BACK DOOR SYSTEM**



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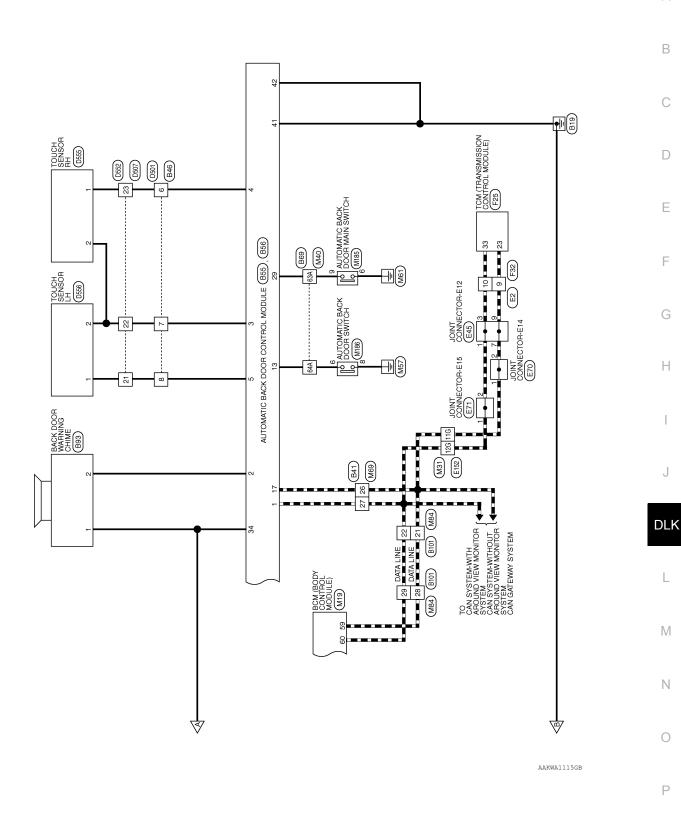
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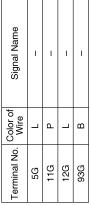
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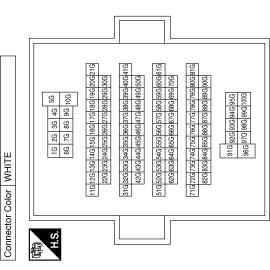
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## AUTOMATIC BACK DOOR SYSTEM CONNECTORS

	Connector Name BCM (BODY CONTROL MODULE)	٨t	88   87   88   83   82   87   88   88   87   88   88   88	Signal Name	BACK DOOR	REQUEST SW	BACK DOOR S'	
M20	me BCN MOI	or GR/	92 91 90 89 88 87 104 103 102 101 100 99	Solor of Wire	B.G.	5	Μ	
Connector No.	Connector Nar	Connector Color GRAY	所 H.S. 104	Terminal No.   Color of   Wire	83	}	26	
	ı		42 41					7
6	Connector Name BCM (BODY CONTROL MODULE)	OK	(H.S.)  (H.S.)  (H.S.)  (S) 58 58 58 58 58 58 58 58 58 58 58 58 58	Signal Name	CAN-L	CAN-H	BACK DOOR OPEN SW	
M19	me BCN MO	lor BLA	56 55 54 53 6 76 75 74 73 7	Color of Wire	۵	_	œ	
Connector No.	Connector Na	Connector Color BLACK	H.S. 80 59 58 57 56 80 77 78 77 76	Terminal No. Wire	59	09	80	





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Connector Name WIRE TO WIRE

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Connector No.

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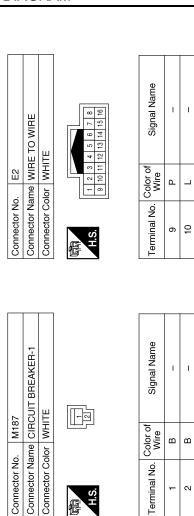
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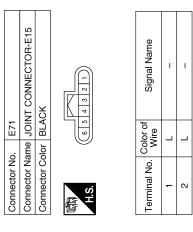
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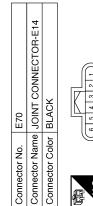
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Connector No.		M40		Terminal No	Color of	Signal Name	Connector No. M69	
Connector Name	lame v	Connector Name WIRE TO WIRE		ΔE.	Wire	W) –	Connector Name WIRE TO WIRE	VIRE
	_			,	.	BACK DOOH)		
			ſ	55A	>	ı		
A THE THE				56A	BG	ı	NTATI NTATI	
H.S.		2A 3A		57A	œ	ı	H.S.	
		6A 7A 8A 9A 10A		63A	>	ı		
	1141	118 128 138 148 158 168 178 188 198 208 218		64A	FG	ı	16 15 14 13 12 11 10 9 8 7 6 39 31 30 96 98 97 96 95 90 99 99	21 20 19 18 17
							77 07 17 07 07	01 02 17
	31A3							
	4	42A 43A 44A 45A 46A 47A 48A 49A 50A					Terminal No. Color of Wire	Signal Name
	51A 5	51A 52A 53A 54A 55A 56A 57A 58A 59A 60A 61A 62A 63A 64A 65A 66A 67A 68A 69A 70A					26 P	ı
	71A 7:	718 728 738 748 758 768 778 788 798 808 818					27 L	1
	80	2A 83A 84A 85A 86A 87A 88A 89A 90A						
		914 924 938 948 958						
		96A 97A 98A 99A 100A						
			7]					
Connector No.		M81		Connector No.	D. M84		Connector No. M185	
Connector Na	lame E	Connector Name   BCM (BODY CONTROL MODULE)		Connector Name WIRE TO WIRE	ame WIR	E TO WIRE	Connector Name AUTOMATIC BACK DOOR MAIN SWITCH	IC BACK DOOR
Connector Color	olor	WHITE		Connector Color	olor WHITE	E L	Connector Color WHITE	5
.E.S.	143	142   142   141   140   139   138		νį	16 15 14 13 32 31 30 29	13   12   11   10   9   8   7   6   5   4   3   2   1	H.S.	<del></del>
							- - -	ה ה
Terminal No.	Color of Wire	of Signal Name		Terminal No.	Color of Wire	Signal Name	Terminal No.   Color of   S	Signal Name
134	GR	GND2		21	Ь	I	6 B	ı
139	_	BAT POWER F/L		22	_	1	<b>≻</b> 6	I
143	GR	dND1		28	۵	1		
				29	٦	1		

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Signal Name	-	-
Color of Wire	Ь	Ь
Terminal No.	1	2

9	Connector Name AUTOMATIC BACK DOOR SWITCH	EN	- a - a - a	Signal Name	ı	ı
. M186	me AUT SWI	lor GREEN	4 8	Color of Wire	LG	В
Connector No.	Connector Na	Connector Color	H.S.	Terminal No.	9	80

o. E45	Connector Name JOINT CONNECTOR-E12	olor BLUE	12 11 10 9 8 7 6 5 4 3 2 1
Connector No.	Connector Na	Connector Color BLUE	H.S.

Signal Name	ı	ı	ı	ı
Color of Wire	Γ	Г	Д	Ь
Terminal No. Wire	1	3	7	6

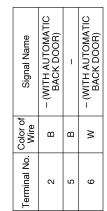
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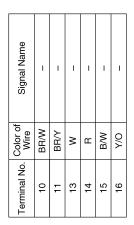
CONTROL MODULE)	¥			35 36 37 38 39 40 47 48	17 18 19 20 43	7 8 9 10 41		Signal Name	Olginal Ivaline	CAN-L	LLAKO												
CON	Color BLACK			31 32 33 34 35 36	12 5	2 3		Color of	o. Wire	۵	_												
	Connector Color		僵	H.S.				Terminal No	<u> </u>	23	000												
				1											1								
I	ı	I	ı											TO WIRE			10 11 12 13 14 15 16	26 27 28 29 30 31 32	Signal Name	ı	1		
۵	Ь	7	SB										o. B41	ame WIRE	_		6 8 9	22 23 24 25 26 27	Color of		٦		
5G	11G	12G	93G										Connector No.	Connector Name WIRE TO WIRE Connector Color WHITE		H.S.	1 2 3 4 5	17 18 19 20 21	Terminal No.	26	27		
			56 46 36 26 16	106 96 76 66		21G20G19G18G17G16G15G14G13G12G11G	G 27G 26G 25G 24G 23G 22G	416406396386376386356346336326316	50G 49G 48G 47G 46G 45G 44G 43G 42G	61 G 60 G 59 G 58 G 57 G 56 G 55 G 54 G 53 G 52 G 51 G	100     100	]		O WIRE		12 11 10 9			Signal Name	ı	ı		
Connector Color WHITE			56	10G		21G20G19G18	30G29G28	41G40G39G38	50G 49G 48	61G60G59G58	81G80G79G78 90G89G88 95G11		o. F32	Connector Name WIRE TO WIRE Connector Color WHITE		8 7 6 5 4 16 15 14 13 12			Color of	<u>D</u> <u>C</u>			
Connector Co			S E	2									Connector No.	Connector Name WIRE T		H.S.			Terminal No.	6	10		
Connecto			U II	11:3:									Connecto	Connecto		H.S.			Terminal		<b>0</b> 1	'GB	

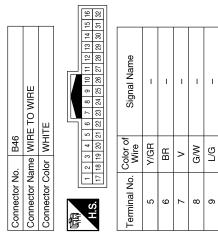
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Signal Name	ı	_	ı	_
Color of Wire	G/W	G/BR	W/V	A/O
Terminal No.	11	12	13	14

	O WIRE		
B49	WIRE T	WHITE	
	Name	Color	
onnector	onnector	onnector	
	Connector No. B49	ЭС	Connector No. B49  Connector Name WIRE TO WIRE  Connector Color WHITE



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### **AUTOMATIC BACK DOOR SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

Signal Name	SDL RH HL A PLS	SDL RH HL B PLS	SDL HL GND	SDL LH HL PWR	SDL LH HL A PLS	SDL LH HL B PLS	SDL NOISE GND	ı	ı	I	IR CNCL SW PIN D	I	ı	-
Color of Wire	N/W	G/BR	G/W	B/W	W/\	>	SHIELD	ı	ı	1	BR/Y	ı	ı	ı
Terminal No.	19	20	21	22	23	24	52	26	27	87	29	30	31	32

Signal Name	CL OP+	CL HF+	CL CL+	ı	1	CL SW GND	ı	DRV SW INPT	INNR SW INPT	ı	1	CAN-L	SDL RH HL PWR
Color of Wire	BR/Y	L/G	BR/W	-	ı	B/W	ı	٦	Y/GR	-	ı	Ь	Λ/0
Terminal No.	9	7	8	6	10	11	12	13	14	15	16	11	18

					8 9 10 11 12 13 14 15 16	17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
					7	8
	N.				5	62
	Ŏ			Ш	42	82
	AUTOMATIC BACK E		_	J	Ξ	27
	28		Ι П,	П	10	26
	90		I 17		თ	52
	2≥		ΙIΛ		œ	54
	돈입			П	^	ß
	NSE.	Ш		ا٦	9	22
ιÖ	IEZ.	∓		Ш	2	51
B55	물	⋛		Ш	4	20
	Φ	-		Ш	က	13
o.	an l	응		Ш	0	92
ž	Ž	Ŏ		Ш	-	11
ctor	ctor	ctor		_		_
Connector No.	Connector Name AUTOMATIC BACK DOOR CONTROL MODULE	Connector Color WHITE	4	THE THE	The state of the s	Ž

Signal Name	CAN-H	BZR CNTL	TS GND	TS RH	TS LH	
Color of Wire	_	В	۸	BR	G/W	
Terminal No. Wire	-	2	3	4	5	

Signal Name	SDL LH MTR-	CL MTR+	CL MTR-	GND1	GND2	ı	1
Color of Wire	>	В	Μ	В	B/L	ı	ı
Terminal No.	38	39	40	41	42	43	44

tor No. tor Name	AUT SOL	15 á	105	Èŭ	<del> </del>	ౖౖ≥	tor Name AUTOMATIC BACK DOOR	
tor Color WHITE	3	[] [ ]	ΙĒ	Hiii				
	33 34	4			35 36 37	36	37	
	38 39 40 41 42 43 44	9	g	4	42	43	44	

_	g	0 00
onnector Color		8 8

Signal Name	PBD POWER1	PBD POWER2	SDL RH MTR+	SDL RH MTR-	SDL LH MTR+	
Color of Wire	Ь	Ь	В	Μ	В	
Terminal No.	33	34	35	36	37	

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													Connector No B93	Connector Name BACK DOOR	WARNING CHIME	Connector Color BROWN			H.S.		)	Terminal No. Color of Signal Name	Wire	- 0	
Signal Name	- (WITH AUTOMATIC BACK DOOR)	I	ı	ı	ı	1								Signal Name	1	ı	1	ı	ı	ı	ı				
Color of Wire	А	٨/٥	н	>	BR/Y	٦	-						Color of	Wire	>	В	G/W	SHIELD	B/W	W/N	>				
Terminal No.	3A	55A	¥95	57A	63A	64A							:	Terminal No.	-	2	င	4	9	2	10				
Connector No. B69	Connector Color GRAY			\$ i	10A 9A AA AA	218/208/198/178/168/158/148/138/128/118	30A 29A 28A 27A 26A 25A 24A 23A 22A	41 A 40A 39A 38A 97A 38A 38A 93A 38A 93A 38A 38A 38A 38A 38A 38A 38A 38A 38A 3	61 A 60 A 58 A 57 A 58 A 55 A 53 A 53 A 51 A 70 A 58 A 53 A 53 A 51 A 70 A 59 A 58 A 57 A 58 A 53 A 54 A 59 A 52 A	81 A 80A 739 A 734 774 775 A 735 A 734 734 734 734 718 90A 99A 98A 98A 98A 98A 98A 98A 98A 98A 98	95A 94A 93A 92A 91A	100A 99A 98A 97A 96A	Connector No.   B70	و				2 , 8	4 :	2 10					

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### **AUTOMATIC BACK DOOR SYSTEM**

### [WITH INTELLIGENT KEY SYSTEM]

### < WIRING DIAGRAM >

Connector Name SPINDLE UNIT RH Connector Color BLACK	<u> </u>	Signal Name		I	1	ı	1	1	1		70 WIRE	1		Г	- 40	ה	omoly longing	Signal Name	- (WITH AUTOMATIC BACK DOOR)		- (WITH AUTOMATIC	BACK DOOR)
ime SPINDI	<u> </u>	Color of Wire	2 1	≥ α	ـ ا	SHIELD	G/W	>	BB	). D502	MARE 1	lor GRAY			4 & 8 \		Color of		R/G	В	<u></u>	_
Connector Name SPINDL Connector Color BLACK	原 H.S.	Terminal No.	•	- 0	7 დ	4	9	7	10	Connector No.	Connector Name WIBE TO WIBE	Connector Color			U I		Torimina		2	2	ď	0
	I																					
O WIRE	12 13 14 15 16	Signal Name		1	1	ı	1	I	1	Signal Name	olgnal Name	ı	I	ı	ı	ı	1	I	1	1	ı	I
ame WIRE T	1   2   3       4   5   6   8   9   10   11   12   13   14   15   15   14   15   15   14   15   15	Color of Wire	ם מ	۵ ۶	SHIELD		BR	>	G/W	Color of		>	>	G/W	ŋ	N/	Γ	Œ	G/W	>	В	<u> </u>
Connector Name WIRE TO WIRE Connector Color WHITE	所 H.S.	Terminal No.	c	0 0	9 0	Ξ	12	13	14	Terminal No.	erminai No.	5	9	7	80	6	10	11	13	41	15	9
	<u>8</u> 8																					
ro wire	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32	Signal Name		<b>!</b>		ı					TO WIRE					[7	7 6 5 4 3 2 1	23 22 21 20 19 18 17				
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Connector Name WIRE T	H.S.	Terminal No.		12 66	77	29				Connector No.	Connector Name WIBE TO WIBE	Connector Color			V I		16 15 14 13 12 11 10 9	32 31 30 29 28				
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Revision: October 2014 DLK-103 2015 Murano

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Signal Name	ı	ı	1	ı	1	1	ı	1	1	ı
Color of Wire	۵	В	^	G/W	>	٦	ŋ	G/W	^	В
Terminal No. Wire	5	9	8	10	15	16	21	22	23	24

Signal Name	ı	I	ı	ı	-	1	ı	-	1	1	
Color of Wire	N/	Ь	В	>	G/W	<b>\</b>	_	G	G/W	>	
Terminal No.	4	5	9	80	10	15	16	21	22	23	

Connector No.	D507
Connector Name WIRE TO WIRE	WIRE TO WIRE
Connector Color WHITE	WHITE

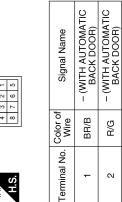
Signal Name	-	ı
Color of Wire	н	×
Terminal No.	2	4

Connector No.	9		ä	D552	اما							
Connector Name WIRE TO WIRE	Nar	ne	M	ΊR	ш	0	≥	IRI	111			
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Signal Name	-	
Color of Wire	В	
Terminal No.	2	

D505	WIRE TO WIRE	GRAY
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY



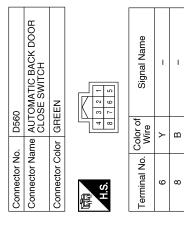


D550	WIRE TO WIRE	GRAY	5 6 7 8 8
Connector No.	Connector Name WIRE TO WIRE	Connector Color GRAY	崎 H.S.

Signal Name	- (WITH AUTOMATIC BACK DOOR)	- (WITH AUTOMATIC BACK DOOR)
Color of Wire	BR/B	B/G
erminal No.	-	2

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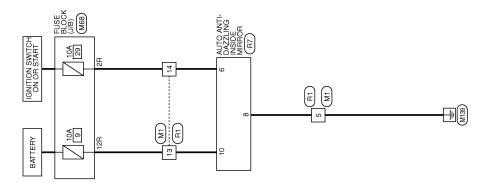
### **HOMELINK UNIVERSAL TRANSCEIVER**

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

### HOMELINK UNIVERSAL TRANSCEIVER

Wiring Diagram



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HOMELINK UNIVERSAL TRANSCEIVER

Connector Name | WIRE TO WIRE Connector Color WHITE

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Connector No.

# HOMELINK UNIVERSAL TRANSCEIVER CONNECTORS

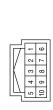
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Signal Name	I	-	
Color of Wire	ГG	۸	
Terminal No.	2R	12R	







Signal Name	I	ı	I	
Color of Wire	BR	В	٦	
Terminal No.	9	8	10	

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# **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

**OVERALL SEQUENCE** 

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

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### DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

# 1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

# 2.CHECK DTC

- 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 is any DTC detected?

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

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

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

# 3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

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

>> GO TO 5.

### 4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

# 5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle and check self diagnostic results in real time. If two or more DTCs are detected, refer to <a href="BCS-51">BCS-51</a>, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

#### NOTE:

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

If the result of Component Function Check is NG, it is the same as the detection of a DTC by DTC CONFIR-MATION PROCEDURE.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Check according to GI-42, "Intermittent Incident".

# 6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

#### Is the symptom described?

YES >> GO TO 7.

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

# 7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

### DIAGNOSIS AND REPAIR WORK FLOW

### < BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to GI-42. "Intermittent Incident".

# 8.REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.

- Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
- 3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

# 9. FINAL CHECK

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

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

### Is DTC detected and does symptom remain?

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

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

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

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Revision: October 2014 DLK-111 2015 Murano

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL [WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

Description INFOID:0000000011218614

When the battery is disconnected from the negative terminal, it is necessary to perform initial setting to operate automatic back door control system normally.

### NOTE:

The following specified operations are not performed under the non-initialized condition:

- Automatic back door open/close function
- Anti-pinch function

Work Procedure INFOID:0000000011218615

# 1.INITIALIZATION

- Fully close the back door manually. (When back door is already fully closed, this operation is not necessary.)
- Perform automatic back door open/close operation of back door.
- 3. Check for noise or malfunctioning during operation.
- 4. Check that hazard lamps blink and that warning buzzer operates.

#### NOTE:

Never touch back door or allow foreign materials to be pinched in door when performing automatic back door open/close operation until it is in the fully closed or fully open position.

>> Inspection End.

**DLK-112 Revision: October 2014** 2015 Murano

### ADDITIONAL SERVICE WHEN REPLACING BCM

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

# ADDITIONAL SERVICE WHEN REPLACING BCM

Description A

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

Work Procedure

Refer to the CONSULT Immobilizer mode and follow the on-screen instructions.

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# ADDITIONAL SERVICE WHEN REPLACING AUTOMATIC BACK DOOR CONTROL UNIT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

# ADDITIONAL SERVICE WHEN REPLACING AUTOMATIC BACK DOOR CONTROL UNIT

Description INFOID:000000011218618

#### BEFORE REPLACEMENT

When replacing automatic back door control module, save or print current vehicle specification with CONSULT configuration before replacement.

#### NOTE

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing automatic back door control module.

### AFTER REPLACEMENT

#### **CAUTION:**

When replacing automatic back door control module, always perform "WRITE CONFIGURATION" with CONSULT. If not performed, automatic back door system will not operate normally.

- Complete the procedure of "WRITE CONFIGURATION" in order.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.

When replacing automatic back door control module or removing connector terminal, it is necessary to perform initial setting to operate automatic back door system normally.

#### NOTE:

The following specified operations are not performed under the non-initialized condition:

- Automatic back door open/close function
- · Anti-pinch function

Work Procedure

# 1. SAVING VEHICLE SPECIFICATION (AUTOMATIC BACK DOOR CONTROL MODULE)

### (P)CONSULT Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to <a href="DLK-117">DLK-117</a>, "Description".

### NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing automatic back door control module.

>> GO TO 2.

# 2.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

>> GO TO 3.

# 3. Writing vehicle specification (automatic back door control module)

### © CONSULT Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to DLK-117, "Work Procedure".

>> GO TO 4.

# 4. PERFORM INITIAL SETTING

- 1. Fully close the back door manually. (When back door is already fully closed, this operation is not necessary.)
- 2. Perform automatic back door open/close operation of back door.
- 3. Check for noise or malfunctions during operation.
- 4. Check that hazard lamps blink and that warning buzzer operates.

#### NOTE:

### ADDITIONAL SERVICE WHEN REPLACING AUTOMATIC BACK DOOR CON-**TROL UNIT**

[WITH INTELLIGENT KEY SYSTEM] < BASIC INSPECTION > Never touch back door or allow foreign materials to be pinched in door when performing automatic back door open/close operation until it is in the fully closed or fully open position. Α >> Work End. В C D Е F Н J 

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### CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION [WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

# CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

Description INFOID:0000000011218620

When the following work is performed, it is necessary to perform initial setting of automatic back door position information to operate automatic back door system:

- After removing and installing or replacing back door assembly
- · After removing and installing or replacing spindle unit
- After adjustment or position change of the back door hinges or striker

Work Procedure INFOID:0000000011218621

# **1**.STEP 1

Fully close the back door manually.

>> GO TO 2.

# 2.STEP 2

### (P) CONSULT

- Select "AUTO BACK DOOR".
- Select "RESET AUTO BACK DOOR STATUS" of "Work support" mode.
- Touch "START" to erase automatic back door position information.

>> GO TO 3.

# **3.**STEP 3

Operate back door opener switch and perform automatic open operation.

At this time, automatic operation of back door is performed at half speed.

>> GO TO 4.

## **4**.STEP 4

- The back door fully opens.
- Check that hazard warning lamps blink and automatic back door warning buzzer sounds normally.

Do hazard warning lamps blink and automatic back door warning buzzer sound normally?

YES >> GO TO 5.

NO >> GO TO 1.

### **5**.STEP 5

Fully close the back door.

>> Inspection End.

### [WITH INTELLIGENT KEY SYSTEM]

### CONFIGURATION

Description INFOID:0000000011875484

Vehicle specification needs to be written with CONSULT because it is not written after replacing automatic back door control module.

Configuration has three functions as follows.

Function		Description
Read / Write Configuration	Before Replace ECU	Reads the vehicle configuration of current automatic back door control module.     Saves the read vehicle configuration.
	After Replace ECU	Writes the vehicle configuration with saved data.
Manual Configuration		Writes the vehicle configuration with manual selection.

### NOTE:

Manual setting item: Items which need selection by vehicle specifications

Automatic setting item: Items which are written in automatically (Setting cannot be changed)

For some models and specifications, the automatic setting item may not be displayed.

#### **CAUTION:**

When replacing automatic back door control module, always perform "Re/programming, Configuration" with CONSULT. If not performed, automatic back door control module control function will not operate normally.

- Complete the procedure of "Read / Write Configuration" in order.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Read / Write Configuration" except for new automatic back door control module.
- If you set incorrect "Read / Write Configuration", the automatic back door system may not operate properly.

Work Procedure

INFOID:0000000011875485

# 1. WRITING MODE SELECTION

### (P)CONSULT Configuration

Select "Re/programming, Configuration" of AUTO BACK DOOR.

When writing saved data>>GO TO 2.

When writing manually>>GO TO 3.

# $oldsymbol{2}$ .PERFORM "AFTER REPLACE ECU" OF "READ / WRITE CONFIGURATION"

(P)CONSULT Configuration

Perform "After Replace ECU" of "Read / Write Configuration".

>> WORK END

# $3.\mathtt{perform}$ "manual configuration"

(P)CONSULT Configuration

- Select "Manual Configuration".
- Identify the correct model and configuration list. Refer to <u>DLK-118</u>, "Configuration list".
- Confirm and/or change setting value for each item.

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

### NOTE:

If items are not displayed, touch "Next". Refer to <u>DLK-118</u>, "Configuration list" for written items and setting value.

- Touch "Next".
- Touch "OK".

**CAUTION:** 

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### CONFIGURATION

### < BASIC INSPECTION >

### [WITH INTELLIGENT KEY SYSTEM]

Make sure to select "OK" even if the indicated configuration of brand new automatic back door control module is the same as the desired configuration. If "OK" is not selected, configuration will not be complete.

6. Check that the configuration has been successfully written and touch "End".

>> GO TO 4.

### 4. OPERATION CHECK

Confirm that the automatic back door operates normally.

>> WORK END

# Configuration list

INFOID:0000000011875486

#### **CAUTION:**

- Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
- The "setting value" of this vehicle is as follows: Never select any other value than the setting value shown below. (If there is only 1 item in "setting value" that means that item is the only choice for this certain vehicle.)

SETTING ITEM		NOTE	
Items	Setting value	Note	
Destination	NAM	NAM: North America	

### **U1000 CAN COMM CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

DTC Description

### Description

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-37, "CAN COMMUNICATION SYSTEM: CAN Communication Signal Chart".

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
	U1000 CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
111000		Signal (terminal)	_
01000		Threshold	_
		Diagnosis delay time	2 seconds or more

### POSSIBLE CAUSE

CAN communication system

**FAIL-SAFE** 

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### Diagnosis Procedure

INFOID:0000000011545445

### SELF DIAGNOSTIC RESULT

### CONSULT

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

### Is DTC "U1000" displayed?

YES >> Refer to LAN-21, "Trouble Diagnosis Flow Chart".

NO-1 >> To check malfunction symptom before repair: Refer to GI-42, "Intermittent Incident".

NO–2 >> Confirmation after repair: Inspection End.

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# **U1010 CONTROL UNIT (CAN)**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# U1010 CONTROL UNIT (CAN)

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
'	U1010 CONTROL UNIT (Control unit)	Diagnosis condition	When ignition switch is ON.
111010		Signal (terminal)	_
01010		Threshold	_
	Diagnosis delay time	2 seconds or more	

### **POSSIBLE CAUSE**

• BCM

FAIL-SAFE

# Diagnosis Procedure

INFOID:0000000011545447

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-82, "Removal and Installation".

### **B2401 IGNITION POWER SUPPLY CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# **B2401 IGNITION POWER SUPPLY CIRCUIT**

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	32401 IGN OPEN	Signal (terminal)	_	
B2401		Threshold	Automatic back door control module cannot detect ignition switch ON signal via CAN communication with BCM	
	Diagnosis delay time	_		

### POSSIBLE CAUSE

- BCM
- · Automatic back door control module
- CAN communication system

### **FAIL-SAFE**

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

### CONSULT

- 1. Turn ignition switch ON.
- Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-121, "Diagnosis Procedure"</u>.

NO >> Inspection End.

# Diagnosis Procedure

1. CHECK BCM OUTPUT SIGNAL

### CONSULT

- Select "IPDM E/R".
- Select "PUSH SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
PUSH SW	Ignition switch	Pressed	Close
	ignition switch	Not pressed	Open

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

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## **B2409 HALF LATCH SWITCH**

### [WITH INTELLIGENT KEY SYSTEM]

### **B2409 HALF LATCH SWITCH**

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	B2409 HALF LATCH SW	Signal (terminal)	Automatic back door control module terminal 7	
B2409		Threshold	Automatic back door control module detects a malfunction of half latch switch during automatic operation of back door	
	Diagnosis delay time	_		

### POSSIBLE CAUSE

- · Entry of foreign materials in back door lock assembly
- Back door mechanism
- · Automatic back door control module
- Half latch switch
- · Harness or connectors

### **FAIL-SAFE**

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

### (P) CONSULT

- Turn ignition switch ON.
- 2. Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-122</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000011218631

Regarding Wiring Diagram information, refer to <u>DLK-94</u>, "Wiring Diagram".

# 1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

Check for entry of foreign materials in back door lock assembly.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

# 2.CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.check half latch switch monitor item

### (P) CONSULT

- Select "AUTO BACK DOOR".
- 2. Select "HALF LATCH SW" in "Data Monitor" mode.

### **B2409 HALF LATCH SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
HALF LATCH SW	LATCH SW Back door	Fully closed/Half latch	OFF
HALI LATOH SW		Open	ON

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 4.

# 4. CHECK HALF LATCH SWITCH 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.

(+)			Voltage (Approx.)	
Back door lock assembly		(–)		
Connector	Terminal		( FF - 7	
D557	6	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

# 5.CHECK HALF LATCH SWITCH CIRCUIT

1. Disconnect automatic back door control module connector.

2. Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back de	oor control module	Back door lock assembly				Continuity
Connector	Terminal	Connector Terminal		Continuity		
B55	7	D557	6	Yes		

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector Terminal		Ground	Continuity
B55	7		No

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

NO >> Repair or replace harness.

### **6.**CHECK HALF LATCH SWITCH GROUND CIRCUIT

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

Back door lock assembly			Continuity	
Connector	Connector Terminal		Continuity	
D557	8		Yes	

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness or connector.

### 7.CHECK HALF LATCH SWITCH

Refer to DLK-124, "Component Inspection".

### Is the inspection result normal?

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### **B2409 HALF LATCH SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 8.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

### 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

### Component Inspection

INFOID:0000000011218632

### COMPONENT INSPECTION

# 1. CHECK SWITCH

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

Back door lock	Back door lock assembly Terminal		Condition	Continuity
Termin			Condition	Continuity
4			Open	Yes
4	Back door lock  Back door switch	Back door lock	Fully closed/Half latch	No
5			Fully close	Yes
3			Open/Half latch	No
6			Open	Yes
O			Fully closed/Half latch	No
7		Back door	On	Yes
		Off	No	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

### **B2416 TOUCH SENSOR RH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **B2416 TOUCH SENSOR RH**

**DTC** Description

INFOID:0000000011218633

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### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	B2416 TOUCH SEN R OPEN	Signal (terminal)	Automatic back door control module terminals 3 and 4	
B2416		Threshold	Automatic back door control module detects a malfunction of touch sensor RH during automatic operation of back door	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- · Improper installation of touch sensor
- · Touch sensor RH
- Harness or connectors
- Automatic back door control module

### FAIL-SAFE

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.

2. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-125, "Diagnosis Procedure"</u>.

NO >> Inspection End.

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a href="DLK-94">DLK-94</a>, "Wiring Diagram".

# 1. CHECK INSTALLATION OF TOUCH SENSOR RH

Check that touch sensor RH is installed normally.

Refer to DLK-299, "BACK DOOR TOUCH SENSOR: Removal and Installation".

### Is the inspection result normal?

YES >> GO TO 2.

>> Refer to DLK-299, "BACK DOOR TOUCH SENSOR: Removal and Installation".

# 2.check touch sensor monitor item

### (II) CONSULT

NO

- Select "AUTO BACK DOOR".
- 2. Select "TOUCH SEN RH" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor item	C	Status	
TOUCH SEN RH	Touch sensor RH	Other than below	OFF
	Touch sensor RH	Detect obstruction	ON

### Is the inspection result normal?

### **B2416 TOUCH SENSOR RH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 8. NO >> GO TO 3.

# 3. CHECK TOUCH SENSOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between touch sensor RH harness connector and automatic back door control module harness connector.

(	(+) (–)					
Touch s	ensor RH		utomatic back door control mod- ule Condition		dition	Voltage (Approx.)
Connector	Terminal	Connector	Terminal			
D555	2	B55	3	Touch sensor	Detect obstruc- tion	1.8 – 5 V
D333	D000 Z B00 3	RH	Other than above	2.72 – 7.27 V		

### Is the inspection result normal?

YES >> GO TO 5. NO >> GO TO 4.

## 4. CHECK TOUCH SENSOR RH CIRCUIT

- 1. Disconnect automatic back door control module and touch sensor RH connector.
- Check continuity between automatic back door control module harness connector and touch sensor RH harness connector.

Automatic back do	Automatic back door control module		Touch sensor RH	
Connector	Terminal	Connector Terminal		Continuity
B55	4	D555	1	Yes

Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity
Connector	Connector Terminal		Continuity
B55	4		No

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

# 5.check touch sensor RH GROUND CIRCUIT

- Disconnect automatic back door control module and touch sensor RH connector.
- Check continuity between automatic back door control module harness connector and touch sensor RH harness connector.

Automatic back door control module		Touch sensor RH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B55	3	D555	2	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity
Connector	Connector Terminal		Continuity
B55	3		No

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### **B2416 TOUCH SENSOR RH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

# 6. CHECK TOUCH SENSOR RH GROUND CIRCUIT 2

- 1. Connect automatic back door control module and touch sensor RH connector.
- 2. Check voltage between automatic back door control module harness connector and ground.

Automatic back of	(+) door control module	(–)	Voltage (Approx.)
Connector	Connector Terminal		(
B55	3	Ground	0.01 – 0 V

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

# 7. CHECK TOUCH SENSOR RH

Refer to DLK-127, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace touch sensor RH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and <u>Installation</u>".

# 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

# 1. CHECK TOUCH SENSOR RH

- 1. Turn ignition switch OFF.
- 2. Disconnect touch sensor RH connector.
- 3. Check resistance between touch sensor RH terminals.

Touch sensor RH		Condition		Resistance	
Terminal				(Approx.)	
1	2	Touch sensor RH	Detect obstruction	380 – 420 kΩ	
			Other than above	0.95 – 1.05 kΩ	

#### Is the inspection result normal?

YES >> Inspection End.

NO

>> Replace touch sensor RH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and Installation".

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### **B2417 TOUCH SENSOR LH**

DTC Description INFOID:0000000011218636

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	Automatic back door control module terminals 5 and 3	
B2417	B2417 TOUCH SEN L OPEN	Threshold	Automatic back door control module detects a malfunction of touch sensor LH during automatic operation of back door	
		Diagnosis delay time	_	

### POSSIBLE CAUSE

- · Improper installation of touch sensor
- · Touch sensor LH
- Harness or connectors
- Automatic back door control module

### FAIL-SAFE

### DTC CONFIRMATION PROCEDURE

# 1.PERFORM DTC CONFIRMATION PROCEDURE

### CONSULT

- Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-128</u>, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

INFOID:0000000011218637

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

# 1. CHECK INSTALLATION OF TOUCH SENSOR LH

Check that touch sensor LH is installed normally.

Refer to DLK-299, "BACK DOOR TOUCH SENSOR: Removal and Installation".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to <a href="DLK-299">DLK-299</a>, "BACK DOOR TOUCH SENSOR: Removal and Installation".

# 2.check touch sensor monitor item

- CONSULT
  1. Select "Al Select "AUTO BACK DOOR".
- Select "TOUCH SEN LH" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor item	Condition		Status
TOUCH SEN LH	Touch sensor LH	Other than below	OFF
	Touch sensor Ln	Detect obstruction	ON

### Is the inspection result normal?

### **B2417 TOUCH SENSOR LH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

YES	>> GO TO 8.
NO	>> GO TO 3.

# 3.CHECK TOUCH SENSOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Check voltage between touch sensor LH harness connector and automatic back door control module harness connector.

(	+)	(-	<b>–</b> )			
Touch s	ensor LH		door control mod- lle	Condition		Voltage (Approx.)
Connector	Terminal	Connector	Terminal			
D556	2	B55	Touch sensor		Detect obstruc- tion	1.8 – 5 V
D330	2	B33	3	LH	Other than above	2.72 – 7.27 V

### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4. CHECK TOUCH SENSOR LH CIRCUIT

- Disconnect automatic back door control module and touch sensor LH connector.
- Check continuity between automatic back door control module harness connector and touch sensor LH harness connector.

Automatic back do	or control module	Touch se	ensor LH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B55	5	D556	1	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity
Connector	Terminal	Ground	Continuity
B55	5		No

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

# 5.CHECK TOUCH SENSOR LH GROUND CIRCUIT

- Disconnect automatic back door control module and touch sensor LH connector.
- Check continuity between automatic back door control module harness connector and touch sensor LH harness connector.

Automatic back do	ck door control module Touch sensor LH		Continuity		
Connector	Terminal	Connector Terminal		Continuity	
B55	3	D556	2	Yes	

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity
Connector	Terminal	Ground	Continuity
B55	3		No

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

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### **B2417 TOUCH SENSOR LH**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# 6. CHECK TOUCH SENSOR LH GROUND CIRCUIT 2

- 1. Connect automatic back door control module and touch sensor LH connector.
- 2. Check voltage between automatic back door control module harness connector and ground.

	(+)		Mallana
Automatic back of	door control module	(–)	Voltage (Approx.)
Connector	Terminal		( )
B55	3	Ground	0.01 – 0 V

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

# 7.check touch sensor LH

Refer to DLK-127, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace touch sensor LH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and <u>Installation</u>".

# 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000011218638

# 1. CHECK TOUCH SENSOR LH

- Turn ignition switch OFF.
- 2. Disconnect touch sensor LH connector.
- 3. Check resistance between touch sensor LH terminals.

Touch sensor LH		Condition		Resistance	
Terr	minal	Conduon		(Approx.)	
1	2	Touch sensor LH	Detect obstruction	380 – 420 kΩ	
	2	TOUGH SENSOI EN	Other than above	0.95 – 1.05 kΩ	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace touch sensor LH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and Installation".

### **B2419 OPEN SWITCH**

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### [WITH INTELLIGENT KEY SYSTEM]

# **B2419 OPEN SWITCH**

**DTC** Description

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### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition			
		Diagnosis condition	When ignition switch is ON.		
		Signal (terminal)	Automatic back door control module terminal 4		
B2419	OPEN SW	Threshold	Automatic back door control module detects a malfunction of open switch during automatic operation of back door		
		Diagnosis delay time	_		

### POSSIBLE CAUSE

- · Entry of foreign materials in back door lock assembly
- Back door mechanism
- · Automatic back door control module
- Open switch
- Harness or connectors

### **FAIL-SAFE**

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

### CONSULT

- 1. Turn ignition switch ON.
- Operate automatic back door.
- Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-131</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000011218640

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

# 1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

Check for entry of foreign materials in back door lock assembly.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

# 2.CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3. CHECK OPEN SWITCH SIGNAL

### (P) CONSULT

- Select "AUTO BACK DOOR".
- 2. Select "OPEN SW" in "Data Monitor" mode.

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### **B2419 OPEN SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

3. Check that the function operates normally according to the following conditions:

Monitor Item	Cond	Status	
OPEN SW	Back door	Fully closed/Half latch OFF	
OI LIN OW	Dack door	Open	ON

### Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 4.

### 4. CHECK OPEN SWITCH INPUT SIGNAL

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

(+) Back door lock assembly		(-)	Voltage (Approx.)	
Connector	Connector Terminal		(Αρριολ.)	
D557	4	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

# 5. CHECK OPEN SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- 2. Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back d	oor control module	Back door lock assembly		Continuity
Connector	Terminal	Connector Terminal		Continuity
B55	6	D557	4	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	6		No

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### 6. CHECK OPEN SWITCH GROUND CIRCUIT

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

Back door lock assembly			Continuity
Connector	Terminal	Ground	Continuity
D557	8		Yes

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

### 7. CHECK OPEN SWITCH

Refer to DLK-124, "Component Inspection".

### Is the inspection result normal?

### **B2419 OPEN SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 8.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

### 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

### Component Inspection

### INFOID:0000000011218641

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### COMPONENT INSPECTION

# 1. CHECK SWITCH

1. Turn ignition switch OFF.

2. Disconnect back door lock assembly connector.

3. Check continuity between back door lock assembly terminals.

Back door lock	Back door lock assembly		Condition	Continuity	
Terminal		Condition		Continuity	
4		Fully closed/Half latch  Fully close  Fully close  Y	Open	Yes	
4			No		
5			Fully close	Yes	
5	8		Open/Half latch	No	
6	0		Open	Yes	
0				Fully closed/Half latch	No
7		Back door switch	On	Yes	
I			switch	Off	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

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### **B2420 CLOSE SWITCH**

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	Automatic back door control module terminal 5	
B2420	CLOSE SW	Threshold	Automatic back door control module detects a malfunction of close switch during automatic operation of back door	
		Diagnosis delay time	_	

### POSSIBLE CAUSE

- · Entry of foreign materials in back door lock assembly
- Back door mechanism
- · Automatic back door control module
- Close switch
- · Harness or connectors

### **FAIL-SAFE**

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

### (P) CONSULT

- Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-134</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000011218643

Regarding Wiring Diagram information, refer to <u>DLK-94</u>, "Wiring <u>Diagram"</u>.

# 1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

Check for entry of foreign materials in back door lock assembly.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

# 2.CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.CHECK CLOSE SWITCH SIGNAL

- Select "AUTO BACK DOOR".
- 2. Select "CLOSE SW" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

### [WITH INTELLIGENT KEY SYSTEM]

Monitor item	Condition Status		
CLOSE SW	SE SW Back door	Open/Half latch	OFF
GLOGE SW		Fully closed	ON

### Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 4.

# 4. CHECK CLOSE SWITCH 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.

(+)			V 11	
Back door lock assembly		(–)	Voltage (Approx.)	
Connector	Terminal		(, 44, 2, 11)	
D557	5	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

# 5. CHECK CLOSE SWITCH CIRCUIT

1. Disconnect automatic back door control module connector.

Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back de	oor control module	Back door lock assembly		Continuity
Connector	Terminal	Connector Terminal		Continuity
B55	8	D557	5	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	8		No

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### 6. CHECK CLOSE SWITCH GROUND CIRCUIT

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

	Back door lock assembly			Continuity
	Connector Terminal		Ground	Continuity
_	D557	8		Yes

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

## 7.CHECK CLOSE SWITCH

Refer to DLK-124, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 8.

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### **B2420 CLOSE SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

NO >> Replace back door lock assembly. Refer to <u>DLK-297</u>, "<u>DOOR LOCK</u>: <u>Removal and Installation</u>".

# 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

INFOID:0000000011218644

### COMPONENT INSPECTION

# 1. CHECK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect back door lock assembly.
- 3. Check continuity between back door lock assembly terminals.

Back door lock	Back door lock assembly Terminal		Condition	Continuity	
Termi			Condition		
4			Open	Yes	
4		Back door lock	Fully closed/Half latch	No	
5			Fully close	Yes	
5	8		Back door lock	Back door lock	Open/Half latch
6	0		Open	Yes	
O			Fully closed/Half latch	No	
7		Back door	On	Yes	
S	switch	Off	No		

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <a href="DLK-297">DLK-297</a>, "DOOR LOCK: Removal and Installation".

### **B2422 BACK DOOR STATE**

< DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

### **B2422 BACK DOOR STATE**

**DTC** Description

INFOID:0000000011218645

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### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	_	
B2422	BACK DOOR STATE	Threshold	When the automatic back door control module detects back door position malfunction according to the pulse signal	
		Diagnosis delay time	_	

### POSSIBLE CAUSE

- Improper installation of back door assembly
- [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION]: not complete
- Back door mechanism
- Encoder
- Automatic back door control module
- Harness or connectors

### FAIL-SAFE

DTC CONFIRMATION PROCEDURE

# 1.PERFORM DTC CONFIRMATION PROCEDURE

### (P) CONSULT

- Turn ignition switch ON.
- Operate automatic back door.
- Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

#### Is DTC detected?

YES >> Refer to <u>DLK-137</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000011218646

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

# ${f 1.}$ CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

### (P) CONSULT

Perform initialization setting of automatic back door position information. Refer to DLK-114, "Work Procedure".

Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

### Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End.

# 2.CHECK INSTALLATION OF BACK DOOR ASSEMBLY

- Check that back door assembly is installed normally. Refer to DLK-284, "BACK DOOR ASSEMBLY: Adjustment".
- Check back door assembly for mechanism deformation, looseness, rattle, interference with other parts and pinched foreign materials.

#### Is the inspection result normal?

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### **B2422 BACK DOOR STATE**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3. CHECK ENCODER SIGNAL

### (P) CONSULT

- Select "AUTO BACK DOOR".
- Select "SPINDLE SENSOR LH" and "SPINDLE SENSOR RH" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor item	Status
SPINDLE SENSOR LH	0 – 65535%
SPINDLE SENSOR RH	0 – 65535%

### Is the difference between the 2 monitor items 10 or more?

YES >> GO TO 4.

NO >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

### 4. CHECK ENCODER POWER SUPPLY

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

	(+) Spindle unit		(–)	Voltage (Approx.)	
Con	nector	Terminal		( .pp. 5/)	
LH	B70	6	Ground	Battery voltage	
RH	B162		Ground	Battery Voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

### 5. CHECK ENCODER CIRCUIT

- 1. Disconnect automatic back door control module connector.
- 2. Check continuity between automatic back door control module harness connector and spindle unit harness connector.

Automatic back d	oor control module	Spindle unit				Continuity
Connector	Terminal	Connector		Terminal	Continuity	
B55	22	LH	B70	6	Yes	
D00	18	RH	B162	0	ies	

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity	
Connector	Terminal	Ground	Continuity	
B55	22	Ground	No	
	18		INO	

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

NO >> Repair or replace harness.

### **O.**CHECK ENCODER CIRCUIT 2

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and spindle unit harness connector.

### **B2422 BACK DOOR STATE**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Automatic back do	oor control module	Spindle unit		Continuity	
Connector	Terminal	Connector		Terminal	Continuity
	23	LH B70	7		
DEE	24		B70	10	V <sub>2</sub> =
B55	19		D400	7	Yes
	20	RH	B162	10	

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity	
Connector	nector Terminal		Continuity	
B55	23	Ground		
	24		No	
	19			
	20			

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

# 7.CHECK ENCODER CIRCUIT $_3$

- Connect automatic back door control module and spindle unit connector.
- 2. Check continuity between automatic back door control module harness connector and ground.

Automatic back do	oor control module		Voltage
Connector	Connector Terminal Ground		(Approx.)
B55	21		0 V

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

# 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts. DLK

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### **B2423 AUTOMATIC BACK DOOR MOTOR OPERATION TIME**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2423 AUTOMATIC BACK DOOR MOTOR OPERATION TIME

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	Automatic back door control module terminals 38,37,36,35	
B2423	ABD MTR TIME OUT	Threshold	When the automatic back door control module and spindle motor operate in the same direction for 180 seconds or more continuously	
		Diagnosis delay time	_	

### POSSIBLE CAUSE

- Spindle motor
- · Automatic back door control module
- · Harness or connectors

### **FAIL-SAFE**

### DTC CONFIRMATION PROCEDURE

# 1.PERFORM DTC CONFIRMATION PROCEDURE

- CONSULT
- 1. Turn ignition switch ON.
- Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to DLK-140, "Diagnosis Procedure".

NO >> Inspection End.

# Diagnosis Procedure

INFOID:0000000011218648

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

# 1. ERASE DTC

- CONSULT
- 1. Wait at least 180 seconds after automatic back door operation is inhibited.
- Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

### Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End.

# 2.CHECK SPINDLE MOTOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic back door control module and spindle unit connector.
- Check continuity between automatic back door control module harness connector and spindle unit harness connector.

# B2423 AUTOMATIC BACK DOOR MOTOR OPERATION TIME [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Automatic back d	oor control module	Spindle unit		Continuity		
Connector	Terminal	Connector		Terminal	Continuity	
	38	LH B70	111		1	
B56	37		B70	2	Vaa	
D30	36	RH	D162	1	Yes	
	35		B162	2	1	

4. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity	
Connector	Terminal		Continuity	
B56	38	Ground		
	37		No	
	36			
	35			

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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# **B2426 ENCODER**

DTC Description

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	_	
B2426	SPINDLE SENSOR LH	Threshold	When the automatic back door control module cannot receive the pulse signal from the encoder just after starting the open/close operation	
		Diagnosis delay time	_	

### POSSIBLE CAUSE

- · Improper installation of back door assembly
- [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION]: not complete
- Back door mechanism
- · Automatic back door control module
- Encoder
- · Harness or connectors

### **FAIL-SAFE**

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### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE



#### CONSULT

- 1. Turn ignition switch ON.
- 2. Operate automatic back door.
- Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

### Is DTC detected?

YES >> Refer to <u>DLK-142</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

### Diagnosis Procedure

INFOID:0000000011218650

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

# 1. CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

(A) CONSULT

- 1. Perform initialization setting of automatic back door position information. Refer to DLK-114, "Work Procedure".
- Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

### Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End.

# 2.CHECK INSTALLATION OF BACK DOOR ASSEMBLY

- Check that back door assembly is installed normally. Refer to <u>DLK-284</u>, "BACK DOOR ASSEMBLY: Adjustment".
- Check back door assembly mechanism for deformation, looseness, rattle, interference with other parts, and pinched foreign materials.

### **B2426 ENCODER**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3. CHECK ENCODER SIGNAL

### CONSULT

- Select "AUTO BACK DOOR".
- 2. Select "SPINDLE LH ENCODER A" and "SPINDLE LH ENCODER B" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
SPINDLE LH ENCODER A		Moving (automatic or manual)	HI⇔LO
	Dools door	When stopped	HI or LO
SPINDLE LH ENCODER B	Back door	Moving (automatic or manual)	HI⇔LO
		When stopped	HI or LO

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

### 4. CHECK ENCODER POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect spindle unit LH connector.
- Check voltage between spindle unit LH harness connector and ground.

(+) Spindle unit LH		(-)	Voltage (Approx.)	
Connector	Terminal		( , , , , , , , , , , , , , , , , , , ,	
B70	6	Ground	Battery voltage	

### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

## 5. CHECK ENCODER CIRCUIT

- Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and spindle unit LH harness connector.

Automatic back door control module		Spindle unit LH		Continuity
Connector	Terminal	Connector	Terminal	
B55	22	B70	6	Yes

Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity	
Connector	Terminal	Ground	Continuity	
B55	22		No	

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### 6.CHECK ENCODER CIRCUIT 2

1. Disconnect automatic back door control module connector.

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### **B2426 ENCODER**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Check continuity between automatic back door control module harness connector and spindle unit LH harness connector.

Automatic back door control module		Spindle unit LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B55	24	B70	10	Yes
	23	570	7	163

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module	Ground	Continuity	
Connector	Terminal		Continuity	
B55	24		No	
	23			

### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

# 7. CHECK ENCODER CIRCUIT 3

- 1. Connect automatic back door control module and spindle unit LH connector.
- 2. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Voltage
Connector	Terminal	Ground	(Approx.)
B55	21		0 V

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

# 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

#### **B2427 ENCODER**

<	D-	CC/CIRC	TILL:	DIAGN	IOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

#### **B2427 ENCODER**

**DTC** Description

INFOID:0000000011218651

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#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	SPINDLE SENSOR RH	Signal (terminal)	_	
B2427 SI		Threshold	When the automatic back door control module cannot receive the pulse signal from the encoder just after starting the open/close operation	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- Improper installation of back door assembly
- [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION]: not complete
- Back door mechanism
- Automatic back door control module
- Encoder
- Harness or connectors

#### **FAIL-SAFE**

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#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE



#### CONSULT

- 1. Turn ignition switch ON.
- 2. Operate automatic back door.
- Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

#### Is DTC detected?

YES >> Refer to <u>DLK-145</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

## Diagnosis Procedure

INFOID:0000000011218652

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

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## 1.calibration of automatic back door position information

 $_{\widehat{\square}}$  Consult

1. Perform initialization setting of automatic back door position information. Refer to <u>DLK-114</u>, "Work <u>Procedure"</u>.

2. Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

#### Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End.

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## 2.CHECK INSTALLATION OF BACK DOOR ASSEMBLY

- Check that back door assembly is installed normally. Refer to <u>DLK-284, "BACK DOOR ASSEMBLY: Adjustment"</u>.
- 2. Check back door assembly mechanism for deformation, looseness, rattle, interference with other parts, and pinched foreign materials.

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#### **B2427 ENCODER**

#### [WITH INTELLIGENT KEY SYSTEM]

#### < DTC/CIRCUIT DIAGNOSIS >

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3. CHECK ENCODER SIGNAL

## CONSULT

- 1. Select "AUTO BACK DOOR".
- 2. Select "SPINDLE RH ENCODER A" and "SPINDLE RH ENCODER B" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
SPINDLE RH ENCODER A	- Back door	Moving (automatic or manual)	HI ⇔ LO
		When stopped	HI or LO
SPINDLE RH ENCODER B		Moving (automatic or manual)	HI ⇔ LO
		When stopped	HI or LO

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

## 4. CHECK ENCODER POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect spindle unit RH connector.
- Check voltage between spindle unit RH harness connector and ground.

(+	•)		Voltago	
Spindle	unit RH	(–)	Voltage (Approx.)	
Connector Terminal			, , ,	
B162	6	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

## 5. CHECK ENCODER CIRCUIT

- Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and spindle unit RH harness connector.

Automatic back d	oor control module	Spindle ur	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B55	18	B162	6	Yes

Check continuity between automatic back door control module harness connector and ground.

Automatic back de	oor control module		Continuity
Connector	Terminal	Ground	Continuity
B55	18		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

#### **O.**CHECK ENCODER CIRCUIT 2

1. Disconnect automatic back door control module connector.

#### **B2427 ENCODER**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

Check continuity between automatic back door control module harness connector and spindle unit RH harness connector.

Automatic back d	oor control module	Spindle ur	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B55	19	B162	7	Yes
В33	20	D102	10	163

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module	Ground	Continuity
Connector	Terminal		
B55	19	Ground	No
D33	20		INO

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

## 7. CHECK ENCODER CIRCUIT 3

Connect automatic back door control module and spindle unit RH connector.

Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Voltage
Connector	Terminal	Ground	(Approx.)
B55	21		0 V

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

## 8. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts. DLK

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### **B2428 AUTOMATIC BACK DOOR CONTROL UNIT**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## **B2428 AUTOMATIC BACK DOOR CONTROL UNIT**

DTC Description

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
	Diagnosis condition	When ignition switch is ON.		
	AUTO BACK DR CNT UNIT	Signal (terminal)	_	
B2428		Threshold	Automatic back door control module detected CPU malfunction	
		Diagnosis delay time	_	

#### **POSSIBLE CAUSE**

· Automatic back door control module

**FAIL-SAFE** 

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## Diagnosis Procedure

INFOID:0000000011218654

1. REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

When DTC [B2428] is detected, replace automatic back door control module.

>> Replace automatic back door control module. Refer to <u>DLK-311</u>, "Removal and Installation".

#### **B242A CLOSURE CONDITION**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **B242A CLOSURE CONDITION**

DTC Description

INFOID:0000000011218655

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#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	CLSR CONDITION	Signal (terminal)	Automatic back door control module terminals 6,7,8	
B242A		Threshold	Automatic back door control module detects malfunctions of open switch, close switch and half latch switch when auto closure of back door operates	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- Entry of foreign materials in back door lock assembly
- · Back door mechanism
- · Automatic back door control module
- Open switch
- · Close switch
- Half latch switch
- Harness or connectors

#### FAIL-SAFE

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

#### CONSULT

- Turn ignition switch ON.
- Operate back door auto closure operation.
- Check "Self Diagnostic Result" mode of "AUTO BACK DOOR".

#### Is DTC detected?

YFS >> Refer to <u>DLK-149</u>, "<u>Diagnosis Procedure</u>".

>> Inspection End. NO

### Diagnosis Procedure

INFOID:0000000011218656

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

## 1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

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Check for entry of foreign materials in back door lock assembly.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

2.CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.check monitor item

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**DLK-149** 

#### **B242A CLOSURE CONDITION**

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

**CONSULT** 

- **1**. Select "AUTO BACK DOOR".
- Select "HALF LATCH SW", "OPEN SW" and "CLOSE SW" in "Data Monitor" mode.
- Check that the functions operate normally according to the following conditions:

Monitor Item	Condition		Status
HALF LATCH SW		Fully closed/Half latch	OFF
HALF LATOR SW	Back door	Open	ON
OPEN SW		Fully closed/Half latch	OFF
OPEN SW		Open	ON
CLOSE SW		Open/Half latch	OFF
CLOSE SW		Fully closed	ON

#### Is the inspection result normal?

YES >> GO TO 8. NO >> GO TO 4.

## 4. CHECK SWITCH INPUT SIGNAL

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

(+	(+)		
Back door loo	Back door lock assembly		Voltage (Approx.)
Connector	Terminal		(* .pp. 67.1)
	4		
D557	5	Ground	Battery voltage
	6		

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

## 5. CHECK SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- 2. Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back d	Automatic back door control module		Back door lock assembly		
Connector	Terminal	Connector	Terminal	Continuity	
	7		6		
B55	8	D557	5	Yes	
	6		4		

Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity
Connector	Terminal		Continuity
	7	Ground	
B55	8		No
	6		

#### Is the inspection result normal?

>> Replace automatic back door control module. Refer to <a href="DLK-311">DLK-311</a>, "Removal and Installation". YES

#### **B242A CLOSURE CONDITION**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

NO >> Repair or replace harness.

## 6. CHECK SWITCH GROUND CIRCUIT

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

Back door lock	assembly		Continuity
Connector	Terminal	Ground	Continuity
D557	8		Yes

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness or connector.

#### .CHECK SWITCH

Refer to DLK-151, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace back door lock assembly. Refer to <a href="DLK-297">DLK-297</a>, "DOOR LOCK: Removal and Installation".

### 8.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

### COMPONENT INSPECTION

## 1. CHECK SWITCH

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

Back door loc	Back door lock assembly Terminal		Condition	Continuity
Termi			Condition	Continuity
4			Open	Yes
4			Fully closed/Half latch	No
5		Back door lock	Fully close	Yes
5	8		Open/Half latch	No
6	0		Open	Yes
O	6		Fully closed/Half latch	No
7		Back door switch	On	Yes
			Off	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

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#### **B261B REMOTE ENGINE START**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **B261B REMOTE ENGINE START**

DTC Description

#### DTC DETECTION LOGIC

#### NOTE:

- If DTC B261B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-69, "DTC Description".
- If DTC B261B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-70, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	_	
B261B	ВСМ	Threshold	The BCM has requested ignition OFF but ECM keeps the engine running for more than 10 seconds after the OFF request was made	
		Diagnosis delay time	_	

#### **POSSIBLE CAUSE**

• ECM

**FAIL-SAFE** 

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### Diagnosis Procedure

INFOID:0000000011541465

## 1. CHECK ECM IGNITION, POWER AND GROUND CIRCUITS

Check ECM ignition power and ground circuits. Refer to EC-188, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> Replace ECM. Refer to EC-579, "Removal and Installation". GO TO 2.

NO >> Repair or replace harness or connectors.

## 2. INSPECTION



- 1. Turn ignition switch ON.
- 2. Select "Self Diagnostic Result" mode.
- 3. Touch "ERASE".
- Perform vehicle remote start operation.

#### Does DTC B261B return?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Inspection End.

#### **B2621 INSIDE ANTENNA**

< DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

## **B2621 INSIDE ANTENNA**

DTC Description

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#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
'		Diagnosis condition	When ignition switch is ON.	
	B2621 INSIDE ANTENNA	Signal (terminal)	BCM terminals 123,124	
B2621		Threshold	An excessive high or low voltage from inside antenna (instrument center) is sent to BCM	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- Inside key antenna (instrument center)
- Harness or connector [Inside key antenna (instrument center) circuit is open or shorted]

#### **FAIL-SAFE**

DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

- Select "INTELLIGENT KEY" of "BCM".
- Select "INSIDE ANT DIAGNOSIS" in "Work support" mode.
- Perform inside key antenna ("INSIDE ANT DIAGNOSIS") in "Work support" mode of "INTELLIGENT KEY".
- 4. Check BCM for DTC.

#### Is inside key antenna DTC detected?

>> Refer to <u>DLK-153</u>, "<u>Diagnosis Procedure</u>".

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

### Diagnosis Procedure

INFOID:0000000011218659

Regarding Wiring Diagram information, refer to <a href="DLK-76">DLK-76</a>, "Wiring Diagram".

## 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

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(+) BCM Connector Terminal		(-)	Condition	Signal (Reference value)
M80	123, 124	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA3839GB
INIOO	120, 124	Ciound	When Intelligent Key is not in the antenna detection area.	(V) 15 10 1

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

ВСМ		Inside key antenna (instrument center)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M80	123	M14	1	Yes
WOO	124	IVI I <del>4</del>	2	163

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M80	123	Ground	No
	124		INU

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

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

### **B2621 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

(+) BCM		(–) Condition		Signal (Reference value)	
Connector	Terminal			(Notoronice Value)	
M80	123, 124	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA3839GB	
IVIGO	120, 124	Ground	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 JMKIA5951GB	

#### Is the inspection result normal?

YES >> Replace inside key antenna (instrument center).

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

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#### **B2622 INSIDE ANTENNA**

[WITH INTELLIGENT KEY SYSTEM]

#### **B2622 INSIDE ANTENNA**

DTC Description

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
	B2622 INSIDE ANTENNA	Signal (terminal)	BCM terminals 116, 128	
B2622		Threshold	An excessive high or low voltage from inside antenna (console) is sent to BCM	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- Inside key antenna (console)
- Harness or connector [Inside key antenna (console) circuit is open or shorted]

#### **FAIL-SAFE**

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

### CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "INSIDE ANT DIAGNOSIS" in "Work support" mode.
- Perform inside key antenna ("INSIDE ANT DIAGNOSIS") in "Work support" mode of "INTELLIGENT KEY".
- 4. Check BCM for DTC.

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-156</u>, "<u>Diagnosis Procedure</u>".

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

### Diagnosis Procedure

INFOID:0000000011218661

Regarding Wiring Diagram information, refer to <u>DLK-76</u>, "Wiring <u>Diagram"</u>.

## 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

#### < DTC/CIRCUIT DIAGNOSIS >

(+) BCM		(-)	Condition	Signal (Reference value)	
Connector	Terminal			,	
M80	116, 128	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA3839GB	
Wido	110, 120	Glound	When Intelligent Key is not in the antenna detection area.	(V) 15 10 10 1 1 s JMKIA5951GB	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82</u>, "Removal and Installation".

NO >> GO TO 2.

## 2.check inside key antenna circuit

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

ВСМ		Inside key antenna (console)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M80	116	B83	1	Yes
IVIOU	128	603	2	165

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M80	116	Ground	No	
IVIOU	128		INO	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

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

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### **B2622 INSIDE ANTENNA**

(+) BCM		(–) Condition		Signal (Reference value)	
Connector	Terminal			,	
M80	116, 128	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA3839GB	
.mee	116, 126	Glound	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 MKIA5951GB	

#### Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-305, "CONSOLE : Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

#### **B2623 INSIDE ANTENNA**

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#### [WITH INTELLIGENT KEY SYSTEM]

## **B2623 INSIDE ANTENNA**

**DTC** Description

INFOID:0000000011541462

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#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	BCM terminals 99,100	
B2623	INSIDE ANTENNA	Threshold	An excessive high or low voltage from inside antenna (lug- gage room) is sent to BCM	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- · Inside key antenna (luggage room)
- Harness or connector [Inside key antenna (luggage room) circuit is open or shorted]

FAIL-SAFE

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DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "INSIDE ANT DIAGNOSIS" in "Work support" mode.
- 3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) in "Work support" mode of "INTELLIGENT KEY".
- 4. Check BCM for DTC.

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-159</u>, "<u>Diagnosis Procedure</u>".

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

## Diagnosis Procedure

INFOID:0000000011541463

Regarding Wiring Diagram information, refer to <a href="DLK-76">DLK-76</a>, "Wiring Diagram".

## 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

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(+) BCM		(–) Condition		Signal (Reference value)	
Connector	Terminal				
M20	100, 99	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0	
IVIZU	100, 99	Ground	When Intelligent Key is not in the antenna detection area.	(V) 15 10 1	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

ВСМ		Inside key antenna (luggage room)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M20	100	B76	1	Yes
IVIZO	99	B70	2	163

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Cround	Continuity	
M20	100	Ground	No	
MZU	99		INU	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

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

### **B2623 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

(+) BCM		(–) Condition		Signal (Reference value)	
Connector	Terminal				
M20	100, 99	Ground	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 JMKIA3839GB	
WZ5	100, 00	Ground	When Intelligent Key is not in the antenna detection area.	(V) 15 10 1	

#### Is the inspection result normal?

YES >> Replace inside key antenna (luggage room).

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

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#### **B26FD SHIFT LOCK SOLENOID**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **B26FD SHIFT LOCK SOLENOID**

DTC Description

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
		Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	BCM terminals 143,134	
B26FD	B26FD SHIFT LOCK SOLENOID	Threshold	BCM shift lock solenoid output control is OFF, but shift lock solenoid output feedback is ON	
		Diagnosis delay time	1 second	

#### POSSIBLE CAUSE

- · Shift lock solenoid
- · Harness or connector
- · Shift lock solenoid circuit is open or shorted

#### **FAIL-SAFE**

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#### DTC CONFIRMATION PROCEDURE

## 1.perform dtc confirmation procedure

### CONSULT

- 1. Turn ignition switch ON.
- 2. Check "Self Diagnostic Result" mode of "BCM".

#### Is DTC detected?

YES >> Refer to <u>DLK-162</u>, "<u>Diagnosis Procedure</u>".

NO >> Shift lock solenoid is OK.

#### Diagnosis Procedure

INFOID:0000000011541467

Regarding Wiring Diagram information, refer to <u>DLK-76</u>, "Wiring <u>Diagram"</u>.

## 1. CHECK POWER SOURCE (STOP LAMP SWITCH)

- 1. Turn ignition switch OFF.
- Disconnect stop lamp switch connector.
- Check voltage between stop lamp switch connector and ground.

Stop lan	np switch		Voltage
Connector	Terminal	Ground	(Approx.)
E38	1		Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following:

- · Harness for short or open between fuse block (J/B) and stop lamp switch
- 10A fuse (No. 10, located in fuse block [J/B])

## 2. CHECK STOP LAMP SWITCH

Check stop lamp switch.

#### Is the inspection result normal?

YES >> GO TO 3.

#### **B26FD SHIFT LOCK SOLENOID**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

NO >> Replace stop lamp switch. Refer to <u>BR-20, "Exploded View"</u>.

## 3.CHECK GROUND CIRCUIT (BCM)

- 1. Disconnect BCM.
- 2. Check continuity between BCM connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M81	134	Ground	Yes
IVIO I	143		162

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

## 4. CHECK HARNESS BETWEEN BCM AND STOP LAMP SWITCH FOR OPEN

- 1. Disconnect BCM.
- 2. Check continuity between BCM and stop lamp switch.

В	CM	Stop	lamp switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M18	27	E38	2	Yes

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace damaged parts.

## 5.CHECK HARNESS BETWEEN BCM AND STOP LAMP SWITCH FOR SHORT CIRCUIT

Check continuity between BCM and ground.

BCM			Continuity	
Connector Terminal		Ground	Continuity	
M18	27		No	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace damaged parts.

## 6.CHECK HARNESS BETWEEN BCM AND CVT SHIFT SELECTOR FOR OPEN

- 1. Disconnect CVT shift selector and BCM.
- Check continuity between BCM and CVT shift selector.

В	BCM		CVT shift selector	
Connector	Terminal	Connector	Terminal	Continuity
M80	108	M78	3	Yes

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace damaged parts.

## 7.CHECK HARNESS BETWEEN BCM AND CVT SHIFT SELECTOR FOR SHORT CIRCUIT

Check continuity between BCM and ground.

BCM			Continuity	
Connector Terminal		Ground	Continuity	
M80	108		No	

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#### **B26FD SHIFT LOCK SOLENOID**

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace damaged parts.

## $8.\mathsf{CHECK}$ GROUND CIRCUIT (CVT SHIFT SELECTOR)

Check continuity between CVT shift selector and ground.

CVT shift selector			Continuity
Connector	Terminal	Ground	Continuity
M78	4		Yes

#### Is the inspection result normal?

YES >> Replace shift lock solenoid. Refer to <u>TM-193</u>, "Exploded View".

NO >> Repair or replace damaged parts.

### **B26FE HOOD SWITCH**

**DTC** Description

#### INFOID:0000000011541468

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#### DTC DETECTION LOGIC

#### NOTE:

- If DTC B26FE is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-69, "DTC Description".
- If DTC B26FE is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-70, "DTC Description".

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
B26FE	HOOD SWITCH	Signal (terminal)	IPDM E/R terminals 94,96
DZUFE	HOOD SWITCH	Threshold	BCM detects that the hood switch input is malfunctioning
		Diagnosis delay time	3 seconds

#### POSSIBLE CAUSE

- Hood switch
- Harness or connector [hood switch circuit is open or shorted]

#### FAIL-SAFE

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#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

- 1. Turn ignition switch ON.
- Check "Self Diagnostic Result" mode of "BCM".

#### Is DTC detected?

YES >> Refer to <u>DLK-165</u>, "<u>Diagnosis Procedure</u>".

NO >> Hood switch is OK.

## Diagnosis Procedure

INFOID:0000000011541469

Regarding Wiring Diagram information, refer to <a href="DLK-76">DLK-76</a>, "Wiring Diagram".

## 1. CHECK HOOD SWITCH SIGNAL CIRCUITS

- 1. Turn ignition switch OFF.
- Disconnect hood switch connector.
- Check voltage between hood switch harness connector and ground.

(+) Hood switch		(–)	Voltage (Approx.)	
Connector	Terminal		( 175.371)	
E205	1	Ground	Battery voltage	
L203	2	Giouna	Dattery Voltage	

#### Is the inspection result normal?

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

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#### < DTC/CIRCUIT DIAGNOSIS >

## $\overline{2}$ .check hood switch signal circuits

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between IPDM E/R harness connector and hood switch harness connector.

IPDI	M E/R	Hood switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E218	94	E205	1	Yes
L210	96	L205	2	165

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

IPDM E/R			Continuity	
Connector	Terminal	Ground	Continuity	
E218	94	Ground	No	
E210	96	=	INO	

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-37, "Removal and Installation".

NO >> Repair or replace harness.

## 3.check hood switch ground circuit

Check continuity between hood switch harness connector and ground.

Hood switch			Continuity	
Connector Terminal		Ground	Continuity	
E205	3		Yes	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4. CHECK HOOD SWITCH

Refer to DLK-166, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace hood switch. Refer to <u>DLK-287, "HOOD LOCK : Removal and Installation"</u>.

## 5. CHECK BCM CONFIGURATION

Refer to BCS-66, "CONFIGURATION (BCM): Configuration List".

>> Inspection End.

## Component Inspection

INFOID:0000000011541470

## 1. CHECK HOOD SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect hood switch connector.
- Check continuity between hood switch terminals.

Hood	Hood switch Terminal		Condition	
Tern				
1			Press	Yes
'	2	I I and a State	Release	No
2	3	Hood switch	Press	No
2			Release	Yes

### **B26FE HOOD SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace hood switch. Refer to <u>DLK-287, "HOOD LOCK : Removal and Installation"</u>.

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#### **B26FF REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **B26FF REMOTE KEYLESS ENTRY RECEIVER**

DTC Description

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition		
B26FF	INTELLIGENT TUNER COM- MUNICATION FAIL	Diagnosis condition	When ignition switch is ON.	
		Signal (terminal)	BCM terminal 119	
		Threshold	Inactive communication between BCM and remote keyless entry receiver	
		Diagnosis delay time	_	

#### POSSIBLE CAUSE

- · Remote keyless entry receiver
- · Harness or connector
- BCM

**FAIL-SAFE** 

#### DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

- 1. Turn ignition switch ON.
- 2. Check DTC in "Self Diagnostic Result" mode of "BCM".

#### Is DTC detected?

YES >> Refer to <u>DLK-168</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

#### Diagnosis Procedure

INFOID:0000000011541472

Regarding Wiring Diagram information, refer to <u>DLK-76</u>, "Wiring <u>Diagram"</u>.

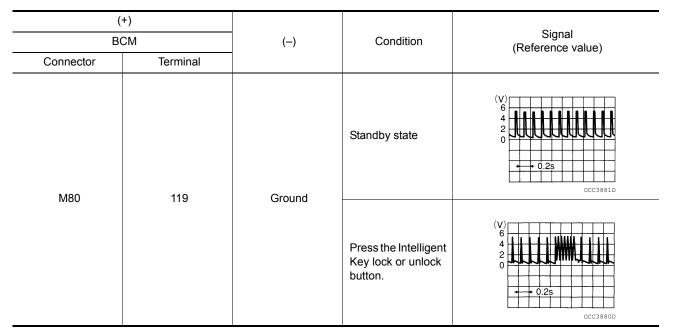
## 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

#### **B26FF REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]



#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82</u>, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

1. Disconnect BCM and remote keyless entry receiver connectors.

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

ВСМ		Remote keyles	Continuity	
Connector Terminal		Connector Terminal		Continuity
M80	119	M86	2	Yes

Check continuity between BCM harness connector and ground.

	(+)	(–) Continuity		
E	BCM		Continuity	
Connector	Connector Terminal			
M80	M80 119		No	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

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

	(+)	(–)		
Remote keyle	ess entry receiver		Voltage (Approx)	
Connector Terminal			( ) - 7	
M86	1	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 4.

NO-1 >> Check 10A fuse No. 25 [located in fuse block J/B].

NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 25.

## 4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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#### **B26FF REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check continuity between remote keyless entry receiver harness connector and ground.

Remote keyles	ss entry receiver		Continuity	
Connector	Connector Terminal		Continuity	
M86 3			Yes	

#### Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-309</u>, "Removal and Installation".

NO >> Repair or replace harness.

### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# POWER SUPPLY AND GROUND CIRCUIT AUTOMATIC BACK DOOR CONTROL UNIT

AUTOMATIC BACK DOOR CONTROL UNIT : Diagnosis Procedure

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Regarding Wiring Diagram information, refer to <a href="DLK-76">DLK-76</a>, "Wiring Diagram".

## 1. CHECK FUSIBLE LINK

Check that the following fusible link is not open:

Fusible link No.	Signal name	
M (40A)	Battery power supply	

#### Is the fusible link open?

YES >> Replace the open fusible link after repairing the affected circuit.

NO >> GO TO 2.

## 2.CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect automatic back door control module connector.
- 3. Check voltage between automatic back door control module harness connector and ground.

·	+) oor control module	(-)	Voltage (Approx.)	
Connector	Terminal			
B56	33	Cround Detter welters	Pottory voltage	
D30	34	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK GROUND CIRCUIT

Check continuity between automatic back door control module harness connector and ground.

Automatic back d	oor control module		Continuity	
Connector	Terminal	Ground Yes	Continuity	
DEG	41		Voc	
B56	42		Yes	

#### Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.

**BCM** 

## BCM: Diagnosis Procedure

Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

## 1. CHECK FUSE AND FUSIBLE LINK

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

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#### POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Signal name	Fuse and fusible link No.	
Fusible link battery power	L (40A)	
BCM battery fuse	1 (10A)	

#### Is the fuse or fusible link blown?

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

NO >> GO TO 2.

## 2. CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector M81.
- 2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

В	CM	Ground	Voltage	
Connector	Connector Terminal		(Approx.)	
M81	131	— Battery voltage		
IVIO I	139	<del>_</del>	Battery Voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

## 3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

В	CM	Ground	Continuity	
Connector	Terminal	Ground		
M81	134		Yes	
IVIOI	143	_	ies	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

### **OUTSIDE KEY ANTENNA (PASSENGER SIDE)**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## **OUTSIDE KEY ANTENNA (PASSENGER SIDE)**

## Component Function Check

#### INFOID:0000000011218664

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## 1. CHECK OUTSIDE KEY ANTENNA (RH)

- 1. Place the Intelligent Key into the detection area of the outside key antenna (RH).
- 2. Press the door request switch (RH).

#### Does the door unlock?

YES >> Inspection End.

NO >> Refer to <u>DLK-173, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000011218665

Regarding Wiring Diagram information, refer to DLK-76, "Wiring Diagram".

## 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM		(–)	Condition		Signal (Reference value)	
Connector	Terminal					
M80	114, 115	Ground	When the driver door request switch is op-	When Intelligent Key is in the antenna detection area. (The distance between Intelligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0 JMKIA5955GB	
IVIOU	114, 113	Ground	erated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0 JMKIA5954GB	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect BCM connector and outside key antenna (RH) connector.
- Check continuity between BCM harness connector and outside key antenna (RH) harness connector.

В	CM	Outside key	Continuity		
Connector Terminal		Connector	Terminal	Continuity	
M80	114	D115	1	Yes	
14100	115	פווט	2	165	

3. Check continuity between BCM harness connector and ground.

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## **OUTSIDE KEY ANTENNA (PASSENGER SIDE)**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	BCM		Continuity
Connector	Terminal	Ground	Continuity
M80	114	Ground	No
IVIOU	115	-	No

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

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

(+) BCM		(–)	Con	dition	Signal (Reference value)
Connector	Terminal			When Intelligent Key is in the antenna detection area. (The distance between Intelligent Key and antenna: 80 cm or	(V) 15 10 5 0
M80	114, 115	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	JMKIA5955GB  (V) 15 10 500 ms  JMKIA5954GB

#### Is the inspection result normal?

YES >> Replace outside key antenna (RH). Refer to <u>DLK-306, "PASSENGER SIDE : Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

### **OUTSIDE KEY ANTENNA (DRIVER SIDE)**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## **OUTSIDE KEY ANTENNA (DRIVER SIDE)**

## Component Function Check

#### INFOID:0000000011218666

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## 1. CHECK OUTSIDE KEY ANTENNA (LH)

- 1. Place the Intelligent Key into the detection area of the outside key antenna (LH).
- 2. Press the door request switch (LH).

#### Does the door unlock?

YES >> Inspection End.

NO >> Refer to <u>DLK-175, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000011218667

Regarding Wiring Diagram information, refer to DLK-76, "Wiring Diagram".

## 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM		(-)	Condition		Signal (Reference value)	
Connector	Terminal					
M80	121, 122	Ground	When the driver door request switch is oper-	When Intelligent Key is in the antenna detection area. (The distance between Intelligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0 500 ms	
MOU	121, 122	Glound	ated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0 500 ms	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> GO TO 2.

## 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect BCM connector and outside key antenna (LH) connector.
- 2. Check continuity between BCM harness connector and outside key antenna (LH) harness connector.

В	CM	Outside key	antenna (LH)	Continuity	
Connector	Connector Terminal		Terminal	Continuity	
M80	122	D15	1	Yes	
14100	121	010	2	165	

3. Check continuity between BCM harness connector and ground.

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## **OUTSIDE KEY ANTENNA (DRIVER SIDE)**

< DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

	BCM		Continuity
Connector	Terminal	Ground	Continuity
M80	122	Ground	No
IVIOU	121		INU

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(+) BCM		(-)	Condition		Signal (Reference value)	
Connector	Terminal					
M80	122, 121	Ground	When the driver door request switch is oper-	When Intelligent Key is in the antenna detection area. (The distance between Intelligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0  JMKIA5955GB	
MISO	122, 121	Ground	ated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0 500 ms	

#### Is the inspection result normal?

YES >> Replace outside key antenna (LH). Refer to <u>DLK-306, "DRIVER SIDE : Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

### OUTSIDE KEY ANTENNA (REAR BUMPER)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## OUTSIDE KEY ANTENNA (REAR BUMPER)

## Component Function Check

#### INFOID:0000000011218668

## 1. CHECK OUTSIDE KEY ANTENNA (REAR BUMPER)

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- Place the Intelligent Key into the detection area of the outside key antenna (rear bumper).
- Press the door request switch (back door).

#### Does the door unlock?

YES >> Inspection End.

NO >> Refer to <u>DLK-177</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218669

Regarding Wiring Diagram information, refer to <u>DLK-76</u>, "Wiring Diagram".

## 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM		(-)	Con	dition	Signal (Reference value)
Connector	Terminal				
M20	102, 101	Ground	When the driver door request switch is op-	When Intelligent Key is in the antenna detection area. (The distance between Intelligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0  MKIA5955GB
			erated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0 JMKIA5954GB

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### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> GO TO 2.

## 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect BCM connector and outside key antenna (rear bumper) connector.
- Check continuity between BCM harness connector and outside key antenna (rear bumper) harness connector.

В	CM	Outside key antenna (rear bumper)  Continu		
Connector	Terminal	Connector	Terminal	Continuity
M20	102	B84	1	Yes
IVIZO	M20 101		2	165

Check continuity between BCM harness connector and ground.

## **OUTSIDE KEY ANTENNA (REAR BUMPER)**

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	BCM		
Connector	Terminal	Ground	Continuity
M20	102	Ground	No
IVIZU	101		INO

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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

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

(+) BCM		(–)	Condition		Signal (Reference value)
Connector	Terminal				
M20	102, 101	Ground	When the driver door request switch is op-	When Intelligent Key is in the antenna de- tection area. (The dis- tance between Intelligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0 500 ms
0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		erated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The distance between Intelligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0  JMKIA5954GB

#### Is the inspection result normal?

YES >> Replace outside key antenna (rear bumper). Refer to <u>DLK-306, "REAR BUMPER : Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

#### [WITH INTELLIGENT KEY SYSTEM]

### **DOOR SWITCH**

## Component Function Check

#### INFOID:0000000011218670

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## 1. CHECK FUNCTION

## CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL" or "DOOR SW-RR" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status		
DOOR SW-DR	Front door LH	Open	On		
DOOK SW-DR	FIOIIL GOOL EN	Closed	Off		
DOOD 014/40	Front door RH	Open On			
DOOR SW-AS	FIONL GOOF RH	Closed	Off		
DOOR SW-RL	Rear door LH	Open	On		
DOOR SW-RL	Real door Ln	Closed Off			
DOOR SW-RR	Rear door RH	Open On			
DOOK SW-KK	Real dool Rn	Closed	Off		

#### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-179</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218671

Regarding Wiring Diagram information, refer to DLK-76, "Wiring Diagram".

## 1. CHECK DOOR SWITCH INPUT SIGNAL

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

(+) Door switch				Signal (Reference value)		
			(–)			
Connector		Terminal	ial	(Classification)		
Front LH	B8	3				
Front RH	B108		Ground	(V) 15		
Rear LH	B18			10 5		
Rear RH	B116			0 → 10ms PKIB4960J 7.0 - 8.0 V		

#### Is the inspection result normal?

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

2.check door switch circuit

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

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Door switch			BCM		Continuity	
Connector		Terminal	Connector	Terminal	Continuity	
Front LH	B8	3	M20	96	Yes	
Front RH	B108			94		
Rear LH	B18			82		
Rear RH	B116			93		

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

Door switch				Continuity
Connector		Terminal		Continuity
Front LH	B8	3	Ground	No
Front RH	B108			
Rear LH	B18			
Rear RH	B116			

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Repair or replace harness.

## 3. CHECK DOOR SWITCH

Refer to DLK-180, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-303, "Removal and Installation"</u>.

#### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

INFOID:0000000011218672

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

Door switch		Condition		Continuity
Terminal				
3	Ground contact is part of the switch.	Door switch	Pressed	No
			Released	Yes

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-303</u>, "Removal and Installation".

### **BACK DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

## **BACK DOOR SWITCH**

# Component Function Check

#### INFOID:0000000011218673

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# 1. CHECK FUNCTION

# CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "DOOR SW-BK" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
DOOR SW-BK	Back door	Open	On
DOOK OW DIC	Daok door	Closed	Off

#### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-181</u>, "<u>Diagnosis Procedure (With Automatic Back Door)</u>".

## Diagnosis Procedure (With Automatic Back Door)

INFOID:0000000011218674

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

# 1. CHECK BACK DOOR SWITCH INPUT SIGNAL

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

(+ Back door loo		(-)	Signal (Reference value)	
Connector	Terminal		(Reference value)	
D557	7	Ground	(V) <sub>15</sub> 10 5 0 10ms 10ms 10ms 10ms 10ms 10ms 10ms 10	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK BACK DOOR SWITCH CIRCUIT

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

Back door lo	ack door lock assembly BCM Continu		BCM	
Connector	Terminal	Connector	Terminal	Continuity
D557	7	M20	97	Yes

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

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#### < DTC/CIRCUIT DIAGNOSIS >

Back door lock assembly			Continuity
Connector	Terminal	Ground	Continuity
D557	7		No

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check back door switch ground circuit

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

Back door lock assembly			Continuity
Connector	Terminal	Ground	Continuity
D557	8		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK BACK DOOR SWITCH

Refer to DLK-183, "Component Inspection (With Automatic Back Door)".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <a href="DLK-297">DLK-297</a>, "DOOR LOCK: Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Diagnosis Procedure (Without Automatic Back Door)

INFOID:0000000011218675

Regarding Wiring Diagram information, refer to <u>DLK-76</u>, "Wiring <u>Diagram"</u>.

# 1. CHECK BACK DOOR SWITCH INPUT SIGNAL

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

	+) ock assembly	(-)	Signal (Reference value)	
Connector	Terminal		(	
D567	3	Ground	(V) 15 10 5 0 JPMIA0593GB 9.0 - 10.0 V	

#### Is the inspection result normal?

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

### **BACK DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

# 2.check back door switch circuit

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

Back door lo	Back door lock assembly		BCM	
Connector	Terminal	Connector	Terminal	Continuity
D567	3	M20	97	Yes

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

Back door lock assembly			Continuity
Connector	Terminal	Ground	Continuity
D567	3		No

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check back door switch ground circuit

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

Back door lock assembly			Continuity
Connector	Terminal	Ground	Continuity
D567	4		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK BACK DOOR SWITCH

Refer to DLK-184, "Component Inspection (Without Automatic Back Door)".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection (With Automatic Back Door)

# 1. CHECK BACK DOOR SWITCH

- Turn ignition switch OFF.
- Disconnect back door lock assembly connector.
- 3. Check continuity between back door lock assembly terminals.

Back door lock assembly		Condition		Continuity
	Terminal		Condition	
7	0	Door switch	Pressed	No
1	0	Door Switch	Released	Yes

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <u>DLK-297</u>, "<u>DOOR LOCK</u>: <u>Removal and Installation</u>".

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### **BACK DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

# Component Inspection (Without Automatic Back Door)

INFOID:0000000011218677

# 1. CHECK BACK DOOR SWITCH

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

Back	door lock assembly	Con	Condition	
	Terminal		Condition	
3	4	Door switch	Pressed	No
3	7	Door switch	Released	Yes

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

### DOOR LOCK AND UNLOCK SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

# DOOR LOCK AND UNLOCK SWITCH

**DRIVER SIDE** 

## DRIVER SIDE: Component Function Check

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### 1.CHECK FUNCTION

CONSULT

- Select "DOOR LOCK" of "BCM".
- Select "CDL LOCK SW" or "CDL UNLOCK SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

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

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-185, "DRIVER SIDE : Diagnosis Procedure"</u>.

## DRIVER SIDE: Diagnosis Procedure

# 1. CHECK POWER WINDOW SWITCH

1. Turn ignition switch ON.

Check power window operation.

#### Does power window operate?

YES >> Replace power window main switch. Refer to PWC-67, "Removal and Installation".

NO >> Refer to PWC-34, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

#### PASSENGER SIDE

# PASSENGER SIDE : Component Function Check

INFOID:0000000011552697

INFOID:0000000011552693

# 1. CHECK FUNCTION

# CONSULT

Select "DOOR LOCK" of "BCM".

- 2. Select "CDL LOCK SW" or "CDL UNLOCK SW" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

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

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

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

# PASSENGER SIDE: Diagnosis Procedure

### INFOID:0000000011552698

# 1. CHECK POWER WINDOW SWITCH

- 1. Turn ignition switch ON.
- Check power window operation.

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### DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### Does power window operate?

- YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".
- NO >> Refer to <u>PWC-36</u>, "<u>FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u>: <u>Diagnosis Procedure</u>".

**DRIVER SIDE** 

DRIVER SIDE: Component Function Check

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## 1. CHECK FUNCTION

CONSULT

- Select "DOOR LOCK" of "BCM".
- Select "DOOR LOCK" in "Active Test" mode.
- Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

### Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-187, "DRIVER SIDE : Diagnosis Procedure". NO

### DRIVER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a href="DLK-63">DLK-63</a>, "Wiring Diagram".

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

	+) k assembly LH	(–)	Condition		Voltage (Approx.)
Connector	Terminal				(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
D14	1	Ground	Door lock and unlock switch	Lock	Battery voltage
<u> </u>	2	Giodila	Door lock and unlock switch	Unlock	Dattery Voltage

#### Is the inspection result normal?

YES >> Replace front door lock assembly LH. Refer to DLK-290, "DOOR LOCK: Removal and Installation".

NO >> GO TO 2.

# 2.check door lock actuator circuit

- Disconnect BCM and all door lock actuators.
- Check continuity between BCM harness connector and front door lock assembly LH harness connector.

В	CM	Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M81	135	D14	1	Yes
1010 1	137	D14	2	103

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M81	135	Giouna	No	
IVIO I	137		INO	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

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### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# 3.CHECK BCM OUTPUT SIGNAL

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

	+) CM	(–) Condit		Condition	
Connector	Terminal				(Approx.)
M81	135	Ground	Door lock and unlock switch	Lock	Battery voltage
1010 1	137	Ground	Door lock and unlock switch	Unlock	Dattery Voltage

#### Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

PASSENGER SIDE

### PASSENGER SIDE: Component Function Check

INFOID:0000000011552711

# 1. CHECK FUNCTION

#### CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "DOOR LOCK" in "Active Test" mode.
- 3. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-188</u>, "PASSENGER SIDE : <u>Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011552712

Regarding Wiring Diagram information, refer to <u>DLK-63</u>, "Wiring <u>Diagram"</u>.

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(	+)		Condition		Voltage	
Front door loo	ck actuator RH	(-)				Voltage (Approx.)
Connector	Terminal				,	
D114	1	Ground	Ground Door lock and unlock switch	Unlock	Battery voltage	
	2	Giodila	Door lock and unlock switch	Lock	Dattery voltage	

#### Is the inspection result normal?

YES >> Replace front door lock actuator RH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installation".</u>

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- Disconnect BCM and all door lock actuators.
- Check continuity between BCM harness connector and front door lock actuator RH harness connector.

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

ВСМ		Front door lock actuator RH		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M81	130	D114	1	Yes	
IVIO I	135		2	162	

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M81	130	Giodila	No
IVIO	135		INO

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3. CHECK BCM OUTPUT SIGNAL

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

	+) CM	(–)	Condition		Voltage (Approx.)	
Connector	Terminal				(	
M81	130	Ground	ound Door lock and unlock switch	Unlock	Ratteny voltage	
IVIO I	135	Giouna	Door lock and unlock switch	Lock	Battery voltage	

#### Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

### **REAR LH**

# REAR LH: Component Function Check

# 1.CHECK FUNCTION

CONSULT

Select "DOOR LOCK" of "BCM".

Select "DOOR LOCK" in "Active Test" mode.

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

### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-189</u>, "REAR LH: <u>Diagnosis Procedure"</u>.

### REAR LH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-63</u>, "Wiring Diagram".

# 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

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	+) ck actuator LH	(_)	Condition		Voltage
Connector	Terminal	(-)	Condition		(Approx.)
D205	1	Ground	Door lock and unlock switch	Lock	Pattony voltago
D205	2	Giouna	Door lock and unlock switch	Unlock	Battery voltage

#### Is the inspection result normal?

YES >> Replace rear door lock actuator LH. Refer to <u>DLK-294, "DOOR LOCK : Removal and Installation"</u>. NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

ВСМ		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M81	133	D205	2	Yes
IVIOI	132	D203	1	165

3. Check continuity between BCM harness connector and ground.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M81	133	Ground	No	
	132		INO	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK BCM OUTPUT SIGNAL

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

	+) CM	(–)	Condition		Condition		Voltage (Approx.)
Connector	Terminal				( ) ;		
M81	133	Ground	Door lock and unlock switch	Unlock	Pattony voltago		
IVIOI	132	Ground	Door lock and unlock switch	Lock	Battery voltage		

### Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

#### REAR RH

# REAR RH: Component Function Check

INFOID:0000000011552715

# 1. CHECK FUNCTION

CONSULT

- Select "DOOR LOCK" of "BCM".
- Select "DOOR LOCK" in "Active Test" mode.
- 3. Touch "ALL LOCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-191</u>, "REAR RH : <u>Diagnosis Procedure"</u>.

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

## REAR RH: Diagnosis Procedure

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Regarding Wiring Diagram information, refer to <a href="DLK-63">DLK-63</a>, "Wiring Diagram".

# 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		V 16	
Rear door loo	k actuator RH	(-)			Condition Voltage (Approx.)	Voltage (Approx.)
Connector	Terminal				(	
D305	1	Ground	Door lock and unlock switch	Unlock	Battery voltage	
D303	2	Ground	Door lock and diffock switch	Lock	Dattery voltage	

### Is the inspection result normal?

YES >> Replace rear door lock actuator RH. Refer to <u>DLK-294, "DOOR LOCK: Removal and Installation"</u>.

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

Disconnect BCM and all door lock actuators.

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

ВСМ		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M81	133	D305	1	Yes
IVIO I	132	D303	2	165

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M81	133	Ground	No
IVIO I	132		INU

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

## 3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

2. Check voltage between BCM harness connector and ground.

(-	+)		Condition		Voltage	
В	CM	(–)				(Approx.)
Connector	Terminal				( 11 - )	
M81	133	Ground	Door lock and unlock switch		Battery voltage	
IVIOI	132	Giouna	DOOL TOCK AND UNIOCK SWITCH	Lock	Dattery Voltage	

#### Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.

NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

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# **UNLOCK SENSOR**

# Component Function Check

#### INFOID:0000000011218692

## 1. CHECK FUNCTION

# CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- Select "UNLK SEN-DR" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
UNLK SEN -DR	Driver side door	Lock	OFF
	Driver side door	Unlock	ON

### Is the inspection result normal?

YES >> Unlock sensor is OK.

NO >> Refer to <u>DLK-192</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218693

Regarding Wiring Diagram information, refer to <u>DLK-63</u>, "Wiring Diagram".

# 1. CHECK UNLOCK SENSOR INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly LH connector.
- 3. Check signal between front door lock assembly LH harness connector and ground with oscilloscope.

	(+) Front door lock assembly LH Connector Terminal		Signal (Reference value)
D14	3	Ground	(V) 15 10 5 0 + 10ms PKIB4960J

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK UNLOCK SENSOR CIRCUIT

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

Connector Terminal Connector Terminal	Continuity	Front door lock assembly LH		BCM	
1440 00 D14	Continuity	Terminal	Connector	Terminal	Connector
M18 30 D14 3	Yes	3	D14	30	M18

3. Check continuity between BCM harness connector and ground.

### **UNLOCK SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

### **IWITH INTELLIGENT KEY SYSTEM**

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M18	30		No
e inspection result norma	al?		
ES >> Replace BCM. F O >> Repair or replace	Refer to <u>BCS-82, "Remova</u> e harness.	al and Installation".	
NIECK LINII OOK OENIO	OR GROUND CIRCUIT		
HECK UNLOCK SENSO			
	ont door lock assembly LF	H harness connector and gr	ound.
eck continuity between fro		H harness connector and gr	ound.
eck continuity between fro	ont door lock assembly Lh	H harness connector and gr	
eck continuity between fro		H harness connector and gr	Continuity

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK UNLOCK SENSOR

Refer to DLK-193, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly LH. Refer to <u>DLK-290, "DOOR LOCK: Removal and Installa-</u> tion".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000011218694

# 1. CHECK UNLOCK SENSOR

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly LH connector.
- Check continuity between front door lock assembly LH terminals.

Front door lock assembly LH		Condition		Continuity
Terminal				Continuity
2	4	Driver side door	Unlock	Yes
3	4	Driver side door	Lock	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to DLK-290, "DOOR LOCK: Removal and Installation".

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### DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# DOOR KEY CYLINDER SWITCH

# Component Function Check

INFOID:0000000011552729

# 1. CHECK FUNCTION

# (P) CONSULT

- 1. Select "DOOR LOCK" of "BCM".
- 2. Select "KEY CYL LK-SW" or "KEY CYL UN-SW" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
KEY CYLLK SW		Lock	ON
KEY CYL LK-SW	Driver eide deer key eylinder	Neutral / Unlock	OFF
KEY CYL UN-SW	Driver side door key cylinder	Unlock	ON
RET CTL UN-3W		Neutral / Lock	OFF

### Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to <u>DLK-194</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000011552730

Regarding Wiring Diagram information, refer to DLK-63, "Wiring Diagram".

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

	(+)		Voltage (Approx.)	
Front door lo	ck assembly LH	(–)		
Connector	Terminal		( +)	
D14	5	Ground	5 V	
	6	Ground	3 V	

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

- 1. Disconnect main power window and door lock/unlock switch connector.
- 2. Check continuity between main power window and door lock/unlock switch harness connector and front door lock assembly LH harness connector.

Main power window and door lock/unlock switch		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D7	3	D14	6	Yes
	15	014	5	165

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

### DOOR KEY CYLINDER SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Main power window and door lock/unlock switch			Continuity
Connector	Terminal	Ground	Continuity
D7	3	Giouna	No
DI	15		INO

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <a href="PWC-67">PWC-67</a>, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check door key cylinder switch ground circuit

Check continuity between front door lock assembly LH harness connector and ground.

Front door loo	k assembly LH		Continuity	
Connector	Connector Terminal		Continuity	
D14 4			Yes	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK DOOR KEY CYLINDER SWITCH

Refer to DLK-195, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

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

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

1. CHECK DOOR KEY CYLINDER SWITCH

1. Turn ignition switch OFF.

2. Disconnect front door lock assembly LH connector.

3. Check continuity between front door lock assembly LH terminals.

Front door lock assembly LH  Terminal		Condition		Continuity
				Continuity
5		Unlock	Yes	
3	4	Driver side door key cylinder	Neutral / Lock	No
6	Driver side door key cyllinder	Lock	Yes	
		Neutral / Unlock	No	

#### Is the inspection result normal?

YES >> Inspection End.

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

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### REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### REMOTE KEYLESS ENTRY RECEIVER

# Component Function Check

#### INFOID:0000000011552734

# 1. CHECK FUNCTION

# CONSULT

- Select "INTELLIGENT KEY" of "BCM".
- 2. Select "RKE OPE COUN1" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition
RKE OPE COUN1	Checks whether value changes when operating Intelligent Key.

### Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to <u>DLK-196, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000011552735

Regarding Wiring Diagram information, refer to <u>DLK-63</u>, "Wiring Diagram".

# 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

(+) BCM		(–) Condition		Signal (Reference value)
Connector	Terminal			(1.0.0.0.00 (0.00)
M80	119	Ground	Standby state	(V) 6 4 2 0 0 0.2s
Mau	119	Ground	Press the Intelligent Key lock or unlock button.	(V) 6 4 2 0 0 0.2s

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

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

### **REMOTE KEYLESS ENTRY RECEIVER**

### < DTC/CIRCUIT DIAGNOSIS >

# [WITH INTELLIGENT KEY SYSTEM]

В	CM	Remote keyles	s entry receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M80	119	M86	2	Yes
Check continuity b	etween BCM harness	connector and grour	nd.	
	(+)			
	BCM	(-)		Continuity
Connector	Terminal			
M80	119	Ground		No
s the inspection result	normal?		·	
YES >> GO TO 3. NO >> Repair or r	onlago harnogo			
3.CHECK REMOTE R	eplace harness.		DDLV	
Check voltage betweer	n remote keyless entry	receiver harness co	nnector and groun	ıd.
	(+)			
Remote ke	yless entry receiver	(-)		Voltage (Approx.)
Connector	Terminal			
M86	1	Ground		
s the inspection result	normal?			Battery voltage
NO-2 >> Repair or r	tuse No. 25 [located in the control of the control	en remote keyless e	•	0A fuse No. 25.
Check continuity between	en remote keyless ent	try receiver harness	connector and gro	und.
	keyless entry receiver			Continuity
Connector	Termina		Ground	
				Yes
	normal? emote keyless entry redeplace harness.	ceiver. Refer to DLK	309, "Removal an	Yes d Installation".

**DLK-197 Revision: October 2014** 2015 Murano

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# DOOR REQUEST SWITCH

# Component Function Check

# 1. CHECK FUNCTION

CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "REQ SW-DR" or "REQ SW-AS" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor Item	Condition	Status	
REQ SW -DR	LH door request switch	Pressed	ON
REQ SW -DR	Li door request switch	Released	OFF
REQ SW -AS	Dil de ce es constant	Pressed	ON
	RH door request switch	Released	OFF

#### Is the inspection result normal?

YES >> Front door request switch is OK.

NO >> Refer to <u>DLK-198</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a href="DLK-63">DLK-63</a>, "Wiring Diagram".

# 1. CHECK DOOR REQUEST SWITCH INPUT SIGNAL

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

(+) Front door request switch			(–)	Voltage (Approx.)
Coni	Connector			(ripprox.)
LH	D15	2	Ground	Battery voltage
RH	D115	3	Ground	Dattery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR REQUEST SWITCH CIRCUIT

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

Front door request switch			В	Continuity	
Conr	nector	Terminal	Connector	Terminal	Continuity
LH	D15	3	M19	71	Yes
RH	D115	3	10/19	72	165

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

### **DOOR REQUEST SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

Front door request switch				Continuity
Cor	Connector Ter		Ground	Continuity
LH	D15	2	Giouna	No
RH	D115	3		NO

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check door request switch ground circuit

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

Front door request switch				Continuity	
Connector		Terminal	Ground	Continuity	
LH	D15	4	Ground	Yes	
RH	D115	4		163	

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR REQUEST SWITCH

Refer to DLK-199, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning front outside handle assembly. Refer to <u>DLK-304, "DRIVER SIDE : Removal and Installation"</u> or <u>DLK-304, "PASSENGER SIDE : Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

1. CHECK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.

Disconnect malfunctioning front door request switch connector.

Check continuity between malfunctioning front door request switch terminals.

Front door request switch		Condition		Continuity
Terr	minal	Conduon		Continuity
3	4	Door request switch	Pressed	Yes
3	4	Door request switch	Released	No

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning front door request switch. Refer to <u>DLK-304, "DRIVER SIDE : Removal and Installation"</u> or <u>DLK-304, "PASSENGER SIDE : Removal and Installation"</u>.

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### **BACK DOOR REQUEST SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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# BACK DOOR REQUEST SWITCH

# Component Function Check

# 1. CHECK FUNCTION

CONSULT

- Select "INTELLIGENT KEY" of "BCM".
- Select "REQ SW-BD/TR" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
REQ SW-BD/TR	Back door request switch	Pressed	On
NEQ OW-DD/TN	back door request switch	Released	Off

#### Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> Refer to <u>DLK-200, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

# 1. CHECK BACK DOOR REQUEST SWITCH INPUT SIGNAL

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

Back door o	+) pener switch	(-)	Voltage (Approx.)	
Connector	Terminal		( ) ; ; ; ;	
D559	4	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check back door request switch circuit

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

В	CM	Back door opener switch				Continuity
Connector	Terminal	Connector	Terminal	Continuity		
M20	83	D559	4	Yes		

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M20	83		No

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82</u>, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check back door request switch ground circuit

### **BACK DOOR REQUEST SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

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

Back door o	Back door opener switch		Continuity
Connector	Terminal	Ground	Continuity
D559	3		Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK BACK DOOR REQUEST SWITCH

Refer to DLK-201, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch. Refer to <u>DLK-313</u>, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

1. CHECK BACK DOOR REQUEST SWITCH

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

Back door opener switch assembly		Condition		Continuity
Terr	ninal	Condition		Continuity
2	1	Back door request switch	Pressed	Yes
3	4	Back door request switch	Released	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door opener switch assembly. Refer to <u>DLK-313</u>, "Removal and Installation".

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### **BACK DOOR OPENER SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### BACK DOOR OPENER SWITCH

# Component Function Check

#### INFOID:0000000011218704

# 1. CHECK FUNCTION

# CONSULT

- Select "TRUNK" of "BCM".
- 2. Select "TR/BD OPEN SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
TR/BD OPEN SW	Back door opener switch	Pressed	ON
TIVED OF EN OW	Dack door opener switch	Released	OFF

### Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-202</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218705

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

# 1. CHECK BACK DOOR OPENER SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect back door opener switch connector.
- 3. Check signal between back door opener switch harness connector and ground.

Back door o	(+) Back door opener switch		Signal (Reference value)
Connector	Terminal		
D559	1	Ground	(V) 15 10 5 10 ms  JPMIA0012GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK BACK DOOR OPENER SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and back door opener switch harness connector.

В	BCM Back door opener switch		Back door opener switch	
Connector	Terminal	Connector	Terminal	Continuity
M19	80	D559	1	Yes

Check continuity between BCM harness connector and ground.

### **BACK DOOR OPENER SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M19	80		No

# NO >> Repair or replace harness. 3. CHECK BACK DOOR OPENER SWITCH GROUND CIRCUIT

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

Back door opener switch			Continuity
Connector	Terminal	Ground	Continuity
D559	2		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK BACK DOOR OPENER SWITCH

Refer to DLK-203, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

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

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

1. CHECK BACK DOOR OPENER SWITCH

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

Back door opene	Back door opener switch assembly		Condition	
Terr	minal	Conduon		Continuity
1	2	Back door opener	Pressed	Yes
ı	2	switch	Released	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door opener switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

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### INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY WARNING BUZZER

# Component Function Check

# 1.CHECK FUNCTION

INFOID:0000000011218707

# CONSULT

- (A) CONSULT
- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "OUTSIDE BUZZER" in "Active Test" mode.
- 3. Touch "On" or "Off" to check that it works normally.

### Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Refer to <u>DLK-204</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218708

Regarding Wiring Diagram information, refer to DLK-76, "Wiring Diagram".

# 1. CHECK INTELLIGENT KEY WARNING BUZZER CIRCUIT

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

В	CM	Intelligent Key warning buzzer		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M19	64	E1	3	Yes

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Connector Terminal		Continuity
M19	64		No

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

# 2. CHECK INTELLIGENT KEY WARNING BUZZER

Refer to DLK-204, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-307</u>, "Removal and Installation".

# Component Inspection

INFOID:0000000011218709

# 1. CHECK INTELLIGENT KEY WARNING BUZZER

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

Intelligent Key warning buzzer		
Terminal		Operation
(+)	(–)	
1	3	Buzzer sounds

### INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Ì٩	the	insne	ction	result	normal?

YES >> Inspection End.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-307</u>, "Removal and Installation".

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## **INTELLIGENT KEY**

## Component Function Check

INFOID:0000000011218710

#### NOTE:

The Signal Tech II Tool [- (J-50190)] can be used to perform the following functions: Refer to the Signal Tech II User Guide for additional information.

- Check Intelligent Key relative signal strength.
- · Confirm vehicle Intelligent Key antenna signal strength.

# 1. CHECK FUNCTION



#### CONSULT

- Select "INTELLIGENT KEY" of "BCM".
- Select "RKE OPE COUN1" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

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

### Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to <u>DLK-206</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218711

#### NOTE:

The Signal Tech II Tool [- (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Check Intelligent Key relative signal strength.
- · Confirm vehicle Intelligent Key antenna signal strength.

### 1. CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA. Refer to <u>DLK-310</u>, "Removal and Installation".

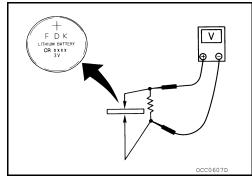
#### Standard : App

: Approx. 2.5 - 3.0V

#### Is the measurement value within the standard?

YES >> Replace Intelligent Key.

NO >> Replace Intelligent Key battery.



### **METER BUZZER CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

METER BUZZER CIRCUIT	Λ
Description INFOID:0000000011218712	А
<ul> <li>The buzzer for the warning chime system is installed in the combination meter.</li> <li>The combination meter sounds the buzzer based on the signals transmitted from various units.</li> </ul>	В
Component Function Check	
1. CHECK OPERATION OF METER BUZZER	С
CONSULT  1. Select "BUZZER" of "BCM".  2. Perform "LIGHT WARN ALM" or "SEAT BELT WARN TEST" of "Active Test" mode.	D
Does meter buzzer activate?  YES >> Inspection End.  NO >> Refer to DLK-207, "Diagnosis Procedure".	Е
Diagnosis Procedure	F
1. CHECK COMBINATION METER INPUT SIGNAL	
CONSULT	G
Select the "Data Monitor" mode of the "METER/M&A" and check the "BUZZER" monitor value.  BUZZER  Under the condition of human input. 11 On	Н
Under the condition of buzzer input : On  Except above : Off  Is the inspection result normal?	I
YES >> Replace combination meter. Refer to MWI-78, "Removal and Installation".  NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".	J
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### **KEY WARNING LAMP**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **KEY WARNING LAMP**

# Component Function Check

INFOID:0000000011218715

# 1. CHECK FUNCTION

# CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "INDICATOR" in "Active Test" mode.
- 3. Touch "KEY IND" or "KEY ON" to check that it works normally.

### Is the inspection result normal?

YES >> Key warning lamp is OK.

NO >> Refer to <u>DLK-208, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000011218716

# 1. CHECK KEY WARNING LAMP

Refer to MWI-20, "CONSULT Function (METER/M&A)".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## **HAZARD FUNCTION**

< DTC/CIRCUIT DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
HAZARD FUNCTION	_
Component Function Check	INFOID:000000011218717
1.CHECK FUNCTION	В
CONSULT  1. Select "INTELLIGENT KEY" of "BCM".  2. Select "FLASHER" in "Active Test" mode.  3. Touch "LH" or "RH" to check that it works normally.	C
Is the inspection result normal?  YES >> Hazard warning lamp circuit is OK.  NO >> Refer to DLK-209, "Diagnosis Procedure".	
Diagnosis Procedure	INFOID:0000000011218718
1.CHECK HAZARD SWITCH CIRCUIT  Refer to DLK-209, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.	F
NO >> Repair or replace the malfunctioning parts.  2.CHECK INTERMITTENT INCIDENT	G
Refer to GI-42, "Intermittent Incident".	
>> Inspection End.	
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### **AUTOMATIC BACK DOOR CLOSE SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR CLOSE SWITCH

# Component Function Check

Component Function Chec

INFOID:0000000011218719

## 1. CHECK FUNCTION

CONSULT

- Select "AUTO BACK DOOR".
- 2. Select "BK DOOR CL SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status	
BK DOOR CL SW	Automatic back door close switch	Pressed	ON	
	Automatic back door close switch	Released	OFF	

#### Is the inspection result normal?

YES >> Automatic back door close switch is OK.

NO >> Refer to <u>DLK-210, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000011218720

Regarding Wiring Diagram information, refer to <u>DLK-94</u>, "Wiring Diagram".

# 1. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH INPUT SIGNAL

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

(+) Automatic back door close switch		(–)	Voltage (Approx.)	
Connector	Terminal		( +)	
D560	6	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK AUTOMATIC BACK DOOR CLOSE SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and automatic back door close switch harness connector.

Automatic back de	natic back door control module Automatic back door close switch		Automatic back door close switch	
Connector	Terminal	Connector	Terminal	Continuity
B55	14	D560	6	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity	
Connector	Terminal	Ground	Continuity	
B55	14		No	

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### **AUTOMATIC BACK DOOR CLOSE SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# 3. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH GROUND CIRCUIT

Check continuity between automatic back door close switch harness connector and ground.

Automatic back door close switch			Continuity
Connector	Terminal	Ground	Continuity
D560	8		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH

Refer to DLK-211, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic back door close switch. Refer to <u>DLK-314, "Removal and Installation"</u>.

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000011218721

# 1. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH

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

Automatic back	Automatic back door close switch		dition	Continuity	
Terr	ninal	Condition		Continuity	
6	0	Automatic back door close switch	Pressed	Yes	
0	0		Released	No	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace automatic back door close switch. Refer to <u>DLK-314</u>, "Removal and Installation".

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### **AUTOMATIC BACK DOOR MAIN SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR MAIN SWITCH

# Component Function Check

INFOID:0000000011218722

# 1. CHECK FUNCTION

CONSULT

- Select "AUTO BACK DOOR".
- 2. Select "MAIN SW" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
MAIN SW	Automatic back door main switch	ON	ON
WAIN OW	Automatic back door main switch	OFF	OFF

#### Is the inspection result normal?

YES >> Automatic back door main switch is OK.

NO >> Refer to <u>DLK-212</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218723

Regarding Wiring Diagram information, refer to <u>DLK-94</u>, "Wiring Diagram".

# 1. CHECK AUTOMATIC BACK DOOR MAIN SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect automatic back door main switch connector.
- Check voltage between automatic back door main switch harness connector and ground.

(+) Automatic back door main switch			Voltage (Approx.)	
		(–)		
Connector	Terminal		( )   - /	
M185	9	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK AUTOMATIC BACK DOOR MAIN SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and automatic back door main switch harness connector.

Automatic back d	oor control module	Automatic back door main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B55	29	M185	9	Yes

Check continuity between automatic back door control module connector and ground.

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	29		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### **AUTOMATIC BACK DOOR MAIN SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# 3. CHECK AUTOMATIC BACK DOOR MAIN SWITCH GROUND CIRCUIT

Check continuity between automatic back door main switch connector and ground.

Automatic back door main switch			Continuity
Connector	Terminal	Ground	Continuity
M185	6		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Refer to DLK-213, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic back door main switch. Refer to <u>DLK-312, "Removal and Installation"</u>.

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000011218724

# 1. CHECK AUTOMATIC BACK DOOR MAIN SWITCH

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

Automatic back door main switch		Condition		Continuity
Terminal				
0 6	Automatic back door	ON	Yes	
9	0	main switch	OFF	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace automatic back door main switch. Refer to <u>DLK-312</u>, "Removal and Installation".

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### **AUTOMATIC BACK DOOR SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR SWITCH

# Component Function Check

# .

INFOID:0000000011218725

## 1. CHECK FUNCTION

CONSULT

- Select "AUTO BACK DOOR".
- Select "AUTO BD SW" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
AUTO BD SW	Automatic back door switch	Pressed	
A010 BD 3W	Automatic back door switch	Released	OFF

#### Is the inspection result normal?

YES >> Automatic back door switch is OK.

NO >> Refer to <u>DLK-214</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000011218726

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

# 1. CHECK AUTOMATIC BACK DOOR SWITCH INPUT SIGNAL

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

(+)	(+) Automatic back door switch		Voltage (Approx.)	
Automatic back				
Connector	Terminal		, II ,	
M186	6	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK AUTOMATIC BACK DOOR SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and automatic back door switch harness connector.

Automatic back d	oor control module	Automatic back door switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B55	13	M186	6	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	13		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### **AUTOMATIC BACK DOOR SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

# $\overline{3}$ .check automatic back door switch ground circuit

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

Automatic back door switch			Continuity
Connector	Terminal	Ground	Continuity
M186	8		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK AUTOMATIC BACK DOOR SWITCH

Refer to DLK-215, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace automatic back door switch. Refer to <u>DLK-313</u>, "Removal and Installation".

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# Component Inspection

INFOID:0000000011218727

# 1. CHECK AUTOMATIC BACK DOOR SWITCH

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

Automatic back door switch		Condition		Continuity	
Terr	minal	Condition		Continuity	
6 9	0	Automatic back door switch	Pressed	Yes	
0	6 8		Released	No	

### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace automatic back door switch. Refer to <u>DLK-313</u>, "Removal and Installation".

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### < DTC/CIRCUIT DIAGNOSIS >

### HALF LATCH SWITCH

# Component Function Check

INFOID:0000000011218728

## 1. CHECK FUNCTION

CONSULT

- Select "AUTO BACK DOOR".
- Select "HALF LATCH SW" in "Data Monitor" mode.
- Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
HALF LATCH SW	Back door	Fully closed/Half latch	OFF
		Open	ON

#### Is the inspection result normal?

YES >> Half latch switch is OK.

NO >> Refer to <u>DLK-216</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000011218729

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

# 1. CHECK HALF LATCH SWITCH INPUT SIGNAL

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

(–)  Back door lock assembly		(-)	Voltage (Approx.)	
Connector	Terminal		(· .PF(0))	
D557	6	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK HALF LATCH SWITCH CIRCUIT

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back d	Automatic back door control module		assembly	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B55	7	D557	6	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	7		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

### HALF LATCH SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

## 3. CHECK HALF LATCH SWITCH GROUND CIRCUIT

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

Back door lock	assembly		Continuity	
Connector	Terminal	Ground	Continuity	
D557	7		Yes	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4.CHECK HALF LATCH SWITCH

Refer to DLK-217, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

### 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

INFOID:0000000011218730

#### COMPONENT INSPECTION

## 1. CHECK HALF LATCH SWITCH

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

Back door lock assembly		Condition		Continuity
Terminal				
			Open	Yes
6	8	Back door	Fully closed/Half latch	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock assembly. Refer to DLK-297, "DOOR LOCK: Removal and Installation".

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## **TOUCH SENSOR**

RH

## RH: Component Function Check

INFOID:0000000011218731

## 1. CHECK FUNCTION

CONSULT

- Select "AUTOMATIC BACK DOOR".
- 2. Select "TOUCH SEN RH" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
TOUCH SEN RH	Touch sensor RH	Other than below	OFF
	Touch sensor Kir	Detect obstruction	ON

#### Is the inspection result normal?

YES >> Touch sensor RH is OK.

NO >> Refer to <u>DLK-218</u>, "RH: <u>Diagnosis Procedure"</u>.

RH: Diagnosis Procedure

INFOID:0000000011218732

Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

## 1. CHECK TOUCH SENSOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between touch sensor RH harness connector and automatic back door control module harness connector.

(	(+)	(-	-)			
Touch s	ensor RH		door control mod- le	Condition		Voltage (Approx.)
Connector	Terminal	Connector	Terminal			
D555	1 B55 3		Touch sensor	Detect obstruc- tion	1.8 – 5 V	
	I	B55	3	RH	Other than above	2.72 – 7.27 V

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK TOUCH SENSOR RH CIRCUIT

- Disconnect automatic back door control module and touch sensor RH connector.
- Check continuity between automatic back door control module harness connector and touch sensor RH harness connector.

Automatic back door control module		Touch se	ensor RH	Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B55	4	D555	2	Yes	

3. Check continuity between automatic back door control module harness connector and ground.

#### [WITH INTELLIGENT KEY SYSTEM]

Automatic back door control module			Continuity
Connector	Terminal	Ground	Continuity
B55	4		No
inspection result normal?			
S >> Replace automatic	back door control module	e. Refer to DLK-311, "Rem	oval and Installation
>> Repair or replace h	narness.		

 ${f 3.}$ check touch sensor RH ground circuit

- Disconnect automatic back door control module and touch sensor RH connector.
- Check continuity between automatic back door control module harness connector and touch sensor RH harness connector.

Automatic back door control module		Touch sensor RH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B55	3	D555	2	Yes

Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity
Connector Terminal		Ground	Continuity
B55	3		No

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## f 4.CHECK TOUCH SENSOR RH GROUND CIRCUIT $\scriptstyle 2$

- Connect automatic back door control module and touch sensor RH connector.
- Check voltage between automatic back door control module harness connector and ground.

(+) Automatic back door control module		(-)	Voltage (Approx.)	
Connector	Terminal		(	
B55	B55 3		0.01 – 0 V	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## 5.CHECK TOUCH SENSOR RH

Refer to DLK-219, "RH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

>> Replace touch sensor RH. Refer to DLK-299, "BACK DOOR TOUCH SENSOR: Removal and NO Installation".

### 6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

### RH: Component Inspection

## 1. CHECK TOUCH SENSOR RH

- Turn ignition switch OFF.
- Disconnect touch sensor RH connector.

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#### < DTC/CIRCUIT DIAGNOSIS >

Check resistance between touch sensor RH terminals.

Touch sensor RH Terminal		Condition		Resistance (Approx.)
1	4		Detect obstruction	380 – 420 kΩ
I	2	Touch sensor RH Other than above	0.95 – 1.05 kΩ	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace touch sensor RH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and <u>Installation</u>".

LH

## LH: Component Function Check

INFOID:0000000011218734

## 1. CHECK FUNCTION

□ CONSULT

- 1. Select "AUTOMATIC BACK DOOR".
- Select "TOUCH SEN LH" in "Data Monitor" mode.
- 3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
TOUCH SEN LH	Touch sensor LH	Other than below	OFF
	Touch sensor Ln	Detect obstruction	ON

#### Is the inspection result normal?

YES >> Touch sensor LH is OK.

NO >> Refer to <u>DLK-220</u>, "LH: <u>Diagnosis Procedure"</u>.

### LH: Diagnosis Procedure

INFOID:0000000011218735

Regarding Wiring Diagram information, refer to <u>DLK-94, "Wiring Diagram"</u>.

## 1. CHECK TOUCH SENSOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- Check voltage between touch sensor LH harness connector and automatic back door control module harness connector.

(	(+)	(-	-)			
Touch s	ensor LH		door control mod- le	Condition		Voltage (Approx.)
Connector	Terminal	Connector	Terminal			
D556	2	B55	3	Touch sensor	Detect obstruc- tion	1.8 – 5 V
D330	2	B33	3	LH	Other than above	2.72 – 7.27 V

#### Is the inspection result normal?

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

## 2. CHECK TOUCH SENSOR LH CIRCUIT

- 1. Disconnect automatic back door control module and touch sensor LH connector.
- Check continuity between automatic back door control module harness connector and touch sensor LH harness connector.

#### [WITH INTELLIGENT KEY SYSTEM]

Automatic back door control module		Touch sensor LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
B55	5	D556	1	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity
Connector Terminal		Ground	Continuity
B55	5		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## 3.check touch sensor LH ground circuit

Disconnect automatic back door control module and touch sensor LH connector.

Check continuity between automatic back door control module harness connector and touch sensor LH harness connector.

Automatic back door control module		Touch sensor LH		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B55	3	D556	2	Yes	

Check continuity between automatic back door control module harness connector and ground.

Automatic back do	or control module		Continuity	
Connector	Terminal	Ground	Continuity	
B55	3		No	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK TOUCH SENSOR LH GROUND CIRCUIT 2

- Connect automatic back door control module and touch sensor LH connector.
- 2. Check voltage between automatic back door control module harness connector and ground.

	(+)		Voltago	
Automatic back door control module		(–)	Voltage (Approx.)	
Connector	nector Terminal		(11 - 7	
B55	3	Ground	0.01 – 0 V	

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

## 5. CHECK TOUCH SENSOR LH

Refer to DLK-222, "LH: Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

**Revision: October 2014** 

NO >> Replace touch sensor LH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and <u>Installation"</u>.

**DLK-221** 

## 6. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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### **TOUCH SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

## LH: Component Inspection

#### INFOID:0000000011218736

## 1. CHECK TOUCH SENSOR LH

- 1. Turn ignition switch OFF.
- 2. Disconnect touch sensor LH connector.
- 3. Check resistance between touch sensor LH terminals.

Touch sensor LH		Condition		Resistance	
Terr	minal	0011	ullion	(Approx.)	
1	2	Touch sensor LH	Detect obstruction	380 – 420 kΩ	
ı	2	TOUCH SCHOOL ETT	Other than above	0.95 – 1.05 kΩ	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace touch sensor LH. Refer to <u>DLK-299</u>, "<u>BACK DOOR TOUCH SENSOR</u>: Removal and <u>Installation</u>".

#### [WITH INTELLIGENT KEY SYSTEM]

## SPINDLE MOTOR

RH

RH: Diagnosis Procedure

INFOID:0000000011218737

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Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

## 1. CHECK SPINDLE MOTOR INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect spindle unit RH connector.
- Check voltage between spindle unit RH harness connector and ground.

(+) Spindle unit RH		(–)	Condition		Voltage (Approx.)
Connector	Terminal				( 44)
B162	1	Cround	Pack door	Auto open opera- tion	Battery voltage
Б102	2	Giouna	Ground Back door		Dattery Voltage

#### Is the inspection result normal?

YES >> Replace spindle unit RH. Refer to <u>DLK-297, "SPINDLE UNIT: Removal and Installation"</u>.

NO >> GO TO 2.

## 2.CHECK SPINDLE MOTOR CIRCUIT

- Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and spindle unit harness connector.

Automatic back d	oor control module	Spindle unit RH		Spindle unit RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
B56	36	B162	1	Yes		
D30	35	D102	2	res		

Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity	
Connector	Connector Terminal		Continuity	
B56	36	Ground	No	
Б30	35		INO	

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <a href="DLK-311">DLK-311</a>, "Removal and Installation".

NO >> Repair or replace harness.

LH

## LH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a href="DLK-94">DLK-94</a>, "Wiring Diagram".

## 1. CHECK SPINDLE MOTOR INPUT SIGNAL

Turn ignition switch OFF.

**DLK-223 Revision: October 2014** 2015 Murano

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INFOID:0000000011218738

### **SPINDLE MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

- Disconnect spindle unit LH connector.
- 3. Check voltage between spindle unit LH harness connector and ground.

(+) Spindle unit LH		(–) Condit		dition	Voltage (Approx.)
Connector	Terminal				( 44)
B70	1	Ground	Cround Book door		Battery voltage
670	2	Ground Back door		Auto close opera- tion	Dattery Voltage

#### Is the inspection result normal?

YES >> Replace spindle unit LH. Refer to <u>DLK-297</u>, "SPINDLE UNIT: Removal and Installation".

NO >> GO TO 2.

## 2. CHECK SPINDLE MOTOR CIRCUIT

- Disconnect automatic back door control module connector.
- 2. Check continuity between automatic back door control module harness connector and spindle unit LH harness connector.

Automatic back d	oor control module	Spindle unit LH		Spindle unit LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
B56	38	B70	1	Yes		
Б30	37	670	2	165		

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back door control module			Continuity	
Connector	Connector Terminal		Continuity	
B56	38	Ground	No	
B30	37		INO	

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".

NO >> Repair or replace harness.

#### **BACK DOOR CLOSURE MOTOR**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## **BACK DOOR CLOSURE MOTOR**

## Diagnosis Procedure

INFOID:0000000011218739

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Regarding Wiring Diagram information, refer to DLK-94, "Wiring Diagram".

## 1. CHECK BACK DOOR CLOSURE MOTOR INPUT SIGNAL

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

(+ Back door lo	/	(-)	Condition		Condition		Voltage (Approx.)
Connector	Terminal				,		
D557	1	Ground	Back door opener	Pressed	Battery voltage		
D337	2		switch	Released	0 V		

#### Is the inspection result normal?

YES >> Replace back door lock assembly. Refer to <u>DLK-297, "DOOR LOCK: Removal and Installation"</u>.

NO >> GO TO 2.

## 2.CHECK BACK DOOR CLOSURE MOTOR CIRCUIT

Disconnect automatic back door control module connector.

Check continuity between automatic back door control module harness connector and back door lock assembly harness connector.

Automatic back door control module		Back door lock assembly		Continuity
Connector	Terminal	Connector Terminal		Continuity
P56	39	D557	1	Yes
D30	B56 40		2	165

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back doo	r control module	Ground	Continuity
Connector	Terminal		
DEG	39	Ground	No
B56	40	-	NO

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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#### AUTOMATIC BACK DOOR WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR WARNING BUZZER

## Diagnosis Procedure

INFOID:0000000011218740

Regarding Wiring Diagram information, refer to <a href="DLK-94">DLK-94</a>, "Wiring Diagram".

## 1. CHECK BACK DOOR WARNING CHIME POWER SUPPLY CIRCUIT

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

(+) Back door warning chime		(-)	Voltage (Approx.)
Connector	Terminal		, , ,
B93	1	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.CHECK BACK DOOR WARNING CHIME OUTPUT SIGNAL CIRCUIT

- 1. Disconnect automatic back door control module connector.
- Check continuity between automatic back door control module harness connector and back door warning chime harness connector.

Automatic back d	oor control module	Back door warning chime		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B56	34	B93	1	Yes

3. Check continuity between automatic back door control module harness connector and ground.

Automatic back dod	or control module		Continuity
Connector	Terminal	Ground	Continuity
B56	34		No

#### Is the inspection result normal?

YES >> Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## 3.CHECK BACK DOOR WARNING CHIME GROUND CIRCUIT

Check continuity between back door warning chime harness connector and ground.

Back door wa	rning chime		Continuity
Connector	Terminal	Ground	Continuity
B93	2		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK BACK DOOR WARNING CHIME

Refer to DLK-227, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door warning chime. Refer to <u>DLK-308</u>, "Removal and Installation".

### **AUTOMATIC BACK DOOR WARNING BUZZER**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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<b>.</b> .	CHECKINIERWILLEN	1 11111111111111111

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

INFOID:0000000011218741

## 1. CHECK BACK DOOR WARNING CHIME

- 1. Turn ignition switch OFF.
- 2. Disconnect back door warning chime connector.
- 3. Connect battery power supply directly to back door warning chime terminals and check the operation.

Back door v	Back door warning chime	
Ter	minal	Operation
(+)	(-)	
1	2	Chime sounds

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door warning chime. Refer to <u>DLK-308</u>, "Removal and Installation".

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## **HOOD SWITCH**

## Component Function Check

INFOID:0000000011552736

## 1. CHECK FUNCTION

CONSULT

- 1. Select "HOOD SW" in "Data Monitor" mode of "IPDM E/R".
- 2. Check "HOOD SW" indication under the following conditions:

Monitor Item	Condition		Indication
HOOD SW	Hood	Open	ON
HOOD 3W		Close	OFF

#### Is the indication normal?

YES >> Hood switch is OK.

NO >> Go to <u>DLK-228</u>, "<u>Diagnosis Procedure</u>".

### Diagnosis Procedure

INFOID:0000000011552737

Regarding Wiring Diagram information, refer to DLK-76, "Wiring Diagram".

## 1. CHECK HOOD SWITCH SIGNAL CIRCUITS

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

	+) switch	(-)	Voltage (V) (Approx.)
Connector	Terminal		(· .pp. 6/11)
E205	1 2	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## 2.check hood switch signal circuits

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between IPDM E/R harness connector and hood switch harness connector.

IPD	M E/R	Hood switch  Connector Terminal		Continuity
Connector	Terminal			Continuity
E218	94	E205	1	Yes
LZIO	96	200	2	165

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

IPDM E/R			Continuity
Connector	Terminal	Ground	Continuity
E218	94	Ground	No
	96		NO

#### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-37, "Removal and Installation".

#### **HOOD SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

NO >> Repair or replace harness.

## 3.check hood switch ground circuit

Check continuity between hood switch harness connector and ground.

Hood switch			Continuity
Connector	Terminal	Ground	Continuity
E205	3		Yes

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK HOOD SWITCH

Refer to DLK-229, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace hood switch. Refer to <u>SEC-154, "Removal and Installation"</u>.

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

## Component Inspection

## 1. CHECK HOOD SWITCH

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

Hood switch Terminal		- Condition		Continuity
'	3	Hood switch	Release	No
2	3	1100d Switch	Press	No
			Release	Yes No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace hood switch. Refer to <u>SEC-154</u>, "Removal and Installation".

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### INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### INTEGRATED HOMELINK TRANSMITTER

## Component Function Check

INFOID:0000000011218742

## 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 ILLUMINATION

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

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to <u>DLK-230, "Diagnosis Procedure"</u>.

## 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-19. "Removal and Installation".

## Diagnosis Procedure

INFOID:0000000011218743

Regarding Wiring Diagram information, refer to <u>DLK-107</u>, "Wiring <u>Diagram"</u>.

## 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect auto anti-dazzling inside mirror (HomeLink® universal transceiver) connector.
- Check voltage between auto anti-dazzling inside mirror (HomeLink<sup>®</sup> universal transceiver) harness connector and ground.

Auto anti-dazzling inside mirror (HomeLink <sup>®</sup> universal transceiver) connector	Terminal		Condition	Voltage (V) (Approx.)
R7	10	Ground	Ignition switch position: OFF	Battery voltage
	6	Ground	Ignition switch position: ON	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following items:

- 10A fuse No. 29 located in the fuse block (J/B).
- 10A fuse No. 9 located in the fuse block (J/B).
- Harness for open or short between fuse and auto anti-dazzling inside mirror (HomeLink<sup>®</sup> universal transceiver).

### CHECK GROUND CIRCUIT

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

## INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

## [WITH INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (HomeLink <sup>®</sup> universal transceiver) connector	Terminal	Ground	Continuity
R7	8		Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

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## INTELLIGENT KEY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SYMPTOM DIAGNOSIS

## INTELLIGENT KEY SYSTEM SYMPTOMS

Symptom Table INFOID:000000011218744

#### **CAUTION:**

(P) CONSULT

Perform the self diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom	Inspection item
Door does not lock/unlock with door lock and unlock switch.	<ul> <li>All doors inoperative. Refer to <u>DLK-233</u>.</li> <li>Drivers side door inoperative. Refer to <u>DLK-233</u>.</li> <li>Passenger side door inoperative. Refer to <u>DLK-234</u>.</li> <li>Rear LH door inoperative. Refer to <u>DLK-234</u>.</li> <li>Rear RH door inoperative. Refer to <u>DLK-234</u>.</li> </ul>
Door does not lock/unlock with door key cylinder operation.	Refer to DLK-236.
Door does not lock/unlock with door request switch.	<ul> <li>All door request switches. Refer to <u>DLK-237</u>.</li> <li>Drivers side door request switch. Refer to <u>DLK-238</u>.</li> <li>Passenger side door request switch. Refer to <u>DLK-238</u>.</li> <li>Back door request switch. Refer to <u>DLK-238</u>.</li> </ul>
Door does not lock/unlock with Intelligent Key.	Refer to DLK-240.
Ignition position warning function does not operate.	Refer to DLK-241.
OFF position warning does not operate.	Refer to DLK-242.
Take away warning does not operate.	Refer to DLK-243.
Key ID warning does not operate.	Refer to DLK-245.
Intelligent Key low battery warning does not operate.	Refer to DLK-246.
Door lock operation warning does not operate.	Refer to DLK-247.
Automatic back door operation does not operate.	<ul> <li>All switches. Refer to <u>DLK-248</u>.</li> <li>Automatic back door switch. Refer to <u>DLK-249</u>.</li> <li>Automatic back door close switch. Refer to <u>DLK-249</u>.</li> <li>Intelligent Key. Refer to <u>DLK-250</u>.</li> <li>Back door opener switch. Refer to <u>DLK-250</u>.</li> <li>Open/closure function. Refer to <u>DLK-251</u>.</li> <li>Open function. Refer to <u>DLK-252</u>.</li> <li>Closure function. Refer to <u>DLK-253</u>.</li> </ul>
Automatic back door warning does not operate.	Refer to DLK-254.
Automatic back door functions do not cancel.	Refer to DLK-256.
Automatic back door anti-pinch functions do not operate.	Refer to DLK-257.
Integrated HomeLink® transmitter does not operate.	Refer to DLK-258.
Squeak and rattle trouble diagnosis.	Refer to <u>DLK-260</u> .

#### [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK Α **SWITCH ALL DOOR** В ALL DOOR: Description INFOID:0000000011218745 All doors do not lock/unlock using door lock and unlock switch. ALL DOOR: Diagnosis Procedure INFOID:0000000011218746 1. CHECK DOOR LOCK AND UNLOCK SWITCH D Check door lock and unlock switch. Driver side: Refer to <u>DLK-185</u>, "<u>DRIVER SIDE</u>: <u>Component Function Check</u>". • Passenger side: Refer to DLK-185, "PASSENGER SIDE: Component Function Check". Е Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. F 2. CHECK DOOR LOCK ACTUATOR Check front door lock assembly LH. Refer to DLK-187, "DRIVER SIDE: Component Function Check". Is the inspection result normal? YFS >> GO TO 3. Н NO >> Repair or replace the malfunctioning parts. 3.REPLACE BCM Replace BCM. Refer to BCS-82, "Removal and Installation". · Confirm the operation after replacement. Is the result normal? YES >> Inspection End. >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO DRIVER SIDE DLK DRIVER SIDE : Description INFOID:0000000011218747 Driver side door does not lock/unlock using door lock and unlock switch. DRIVER SIDE: Diagnosis Procedure INFOID:0000000011218748 1. CHECK DOOR LOCK ACTUATOR M Check front door lock assembly LH. Refer to DLK-187, "DRIVER SIDE: Component Function Check". Is the inspection result normal? N YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.REPLACE BCM · Replace BCM. Refer to BCS-82, "Removal and Installation". · Confirm the operation after replacement. Р Is the result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". PASSENGER SIDE

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

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

PASSENGER SIDE: Description INFOID:0000000011218749

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

PASSENGER SIDE : Diagnosis Procedure INFOID:0000000011218750

## CHECK DOOR LOCK ACTUATOR

Check front door lock actuator RH.

Refer to DLK-187, "DRIVER SIDE: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- · Confirm the operation after replacement.

### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### REAR LH

### **REAR LH**: Description

INFOID:0000000011218751

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

## REAR LH: Diagnosis Procedure

INFOID:0000000011218752

### 1. CHECK DOOR LOCK ACTUATOR

Check rear door lock actuator LH.

Refer to DLK-189, "REAR LH: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### REAR RH

## REAR RH: Description

INFOID:0000000011218753

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

#### **REAR RH**: Diagnosis Procedure

INFOID:0000000011218754

## CHECK DOOR LOCK ACTUATOR

Check rear door lock actuator RH.

Refer to DLK-190, "REAR RH: Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.REPLACE BCM

Replace BCM. Refer to BCS-82, "Removal and Installation".

**DLK-234 Revision: October 2014** 2015 Murano

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

< SYMPTOM DIAGNOSIS >

• Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". Α

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

< SYMPTOM DIAGNOSIS >

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

## Diagnosis Procedure

INFOID:0000000011218755

## 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.

>> Refer to DLK-233, "ALL DOOR: Diagnosis Procedure". NO

## 2. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to DLK-194, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- · Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

**DLK-236 Revision: October 2014** 2015 Murano

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

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH Α ALL DOOR REQUEST SWITCHES ALL DOOR REQUEST SWITCHES: Description INFOID:0000000011218756 В All doors do not lock/unlock using all door request switches. ALL DOOR REQUEST SWITCHES: Diagnosis Procedure INFOID:0000000011218757 1. CHECK REMOTE KEYLESS ENTRY FUNCTION Check remote keyless entry function. D Does door lock/unlock with Intelligent Key button? YES >> GO TO 2. NO >> Refer to <u>DLK-206</u>, "Component Function Check". Е 2. CHECK DOOR SWITCH Check door switch. Refer to DLK-179, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK INSIDE KEY ANTENNA Check inside key antenna. Н Instrument center: Refer to <u>DLK-153, "DTC Description"</u>. · Console: Refer to DLK-156, "DTC Description". Luggage room: Refer to <u>DLK-159</u>, "<u>DTC Description</u>". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK OUTSIDE KEY ANTENNA Check outside key antenna. Driver side: Refer to <u>DLK-175</u>, "Component Function Check". DLK Passenger side: Refer to <u>DLK-173, "Component Function Check"</u>. Rear bumper: Refer to <u>DLK-177</u>, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.  $oldsymbol{5}$  . CHECK BACK DOOR SWITCH M Check back door switch. Refer to DLK-181, "Component Function Check". N Is the inspection result normal? YFS >> GO TO 6. NO >> Repair or replace the malfunctioning parts. 6.REPLACE BCM Replace BCM. Refer to BCS-82, "Removal and Installation". Confirm the operation after replacement. Р Is the result normal? YES >> Inspection End. >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO DRIVER SIDE DOOR REQUEST SWITCH

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

< SYMPTOM DIAGNOSIS >

DRIVER SIDE DOOR REQUEST SWITCH: Description

INFOID:0000000011218758

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

## DRIVER SIDE DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000011218759

## CHECK DOOR REQUEST SWITCH

Check front door request switch (driver side).

Refer to DLK-198, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- · Confirm the operation after replacement.

### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

### PASSENGER SIDE DOOR REQUEST SWITCH

### PASSENGER SIDE DOOR REQUEST SWITCH: Description

INFOID:0000000011218760

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

## PASSENGER SIDE DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000011218761

## CHECK DOOR REQUEST SWITCH

Check front door request switch (passenger side).

Refer to DLK-198, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

>> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### BACK DOOR REQUEST SWITCH

## BACK DOOR REQUEST SWITCH: Description

INFOID:0000000011218762

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

## BACK DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000011218763

## 1. CHECK BACK DOOR REQUEST SWITCH

Check back door request switch.

Refer to DLK-200, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.REPLACE BCM

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Replace BCM. Refer to BCS-82, "Removal and Installation".

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

< SYMPTOM DIAGNOSIS >

· Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". Α

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## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

## Diagnosis Procedure

INFOID:0000000011218764

## 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Refer to <u>DLK-233</u>, "ALL <u>DOOR</u>: <u>Diagnosis Procedure"</u>.

## 2. CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to DLK-206, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- · Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

## **IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

#### IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000011218765 1. CHECK POWER DOOR LOCK OPERATION В Check power door lock operation. Does door lock/unlock with door lock and unlock switch? YES >> GO TO 2. NO >> Refer to DLK-233, "ALL DOOR: Diagnosis Procedure". 2. CHECK DOOR SWITCH D Check door switch. Refer to DLK-179, "Component Function Check". Is the inspection result normal? Е YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK BACK DOOR SWITCH F Check back door switch. Refer to DLK-181, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. Н 4.REPLACE BCM Replace BCM. Refer to BCS-82, "Removal and Installation". Confirm the operation after replacement. Is the result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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## OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFOID:0000000011218766

## OFF POSITION WARNING DOES NOT OPERATE

## Diagnosis Procedure

## 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 DOOR SWITCH

Check front door switch LH.

Refer to DLK-179, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4. CHECK COMBINATION METER BUZZER

#### Check combination meter buzzer.

Refer to <u>DLK-207</u>, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5. CHECK INTELLIGENT KEY WARNING BUZZER

#### Check Intelligent Key warning buzzer.

Refer to DLK-204, "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-82, "Removal and Installation".
- · Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

## TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

TAKE AWAY WARNING DOES NOT OPERATE	
Description	D:0000000011218767
Take away warning function does not operate for vehicles with information display models.	
NOTE: Warning function operating condition is extremely complicated. During operating confirmations, reclist above twice in order to ensure proper operation. Refer to <a href="DLK-32">DLK-32</a> , "WARNING FUNCTION <a <="" a="" href="Description">.</a>	
Diagnosis Procedure	D:0000000011218768
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 INSIDE KEY ANTENNA	
Check inside key antenna.  Instrument center: Refer to <u>DLK-153</u> , " <u>DTC Description</u> ".  Console: Refer to <u>DLK-156</u> , " <u>DTC Description</u> ".  Luggage room: Refer to <u>DLK-159</u> , " <u>DTC Description</u> ".  Is the inspection result normal?	
YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.  4.CHECK DOOR SWITCH	
Check front door switch LH. Refer to DLK-179, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.  5. CHECK COMBINATION METER BUZZER	
Check combination meter buzzer. Refer to DLK-207, "Component Function Check".	
Is the inspection result normal?  YES >> GO TO 6.  NO >> Repair or replace the malfunctioning parts.	
6.CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to DLK-204, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 7.  NO >> Repair or replace the malfunctioning parts.	
7.REPLACE BCM	
<ul> <li>Replace BCM. Refer to BCS-82, "Removal and Installation".</li> </ul>	

Replace BCM. Refer to <u>BCS-82</u>, "Removal and Installation".

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<sup>•</sup> Confirm the operation after replacement.

## TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

KEY ID WARNING DOES NOT OPERATE	
Description	-
Key ID warning function does not operate for vehicles with information display models.	Е
NOTE: Warning function operating condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-32">DLK-32</a> , "WARNING FUNCTION: System <a href="Description">Description</a> ".	
Diagnosis Procedure	1
1. CHECK DTC WITH BCM	
Check that DTC is not detected with BCM.	
Is the inspection result normal?  YES >> GO TO 2.	E
NO >> Perform trouble diagnosis relevant to DTC indicated.	
2.CHECK DTC WITH COMBINATION METER	F
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-206, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.	
4.CHECK INSIDE KEY ANTENNA	,
Check inside key antenna.	
<ul> <li>Instrument center: Refer to <u>DLK-153, "DTC Description"</u>.</li> <li>Console: Refer to <u>DLK-156, "DTC Description"</u>.</li> </ul>	DI
<ul> <li>Luggage room: Refer to <u>DLK-159</u>, "<u>DTC Description</u>".</li> </ul>	
Is the inspection result normal?  YES >> GO TO 5.	Ĺ
NO >> Repair or replace the malfunctioning parts.	
5.REPLACE BCM	1
<ul> <li>Replace BCM. Refer to <u>BCS-82</u>, "<u>Removal and Installation</u>".</li> <li>Confirm the operation after replacement.</li> </ul>	
Is the result normal?	1
YES >> Inspection End.	
NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".	(

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description INFOID:0000000011218771

Intelligent Key low battery warning does not operate for vehicles with information display models.

#### NOTE:

Warning function operating condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-32</u>, "WARNING FUNCTION: System <u>Description</u>".

### Diagnosis Procedure

INFOID:0000000011218772

## 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 "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"

#### (P) CONSULT

- 1. Select "INTELLIGENT KEY" of "BCM".
- 2. Select "LO- BATT OF KEY FOB WARN" in "Work support" mode.
- Check "LO- BATT OF KEY FOB WARN" setting in "Work support" mode.
   Refer to BCS-22, "INTELLIGENT KEY: CONSULT Function (BCM INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "ON" in "LO- BATT OF KEY FOB WARN".

## 4. CHECK INTELLIGENT KEY

#### Check Intelligent Key.

Refer to DLK-206, "Component Function Check".

#### 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.

- Instrument center: Refer to <u>DLK-153</u>, "<u>DTC Description</u>".
- Console: Refer to DLK-156, "DTC Description".
- Luggage room: Refer to <u>DLK-159</u>, "<u>DTC Description</u>".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

### **6.**REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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### DOOR LOCK OPERATION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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## DOOR LOCK OPERATION WARNING DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000011218773 1. CHECK DOOR LOCK FUNCTION В Check door lock function. Does door lock/unlock using door request switch? YES >> GO TO 2. >> Refer to DLK-237, "ALL DOOR REQUEST SWITCHES: Diagnosis Procedure". NO 2.CHECK INTELLIGENT KEY WARNING BUZZER D Check Intelligent Key warning buzzer. Refer to DLK-204, "Component Function Check". Is the inspection result normal? Е YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.REPLACE BCM F • Replace BCM. Refer to BCS-82, "Removal and Installation". · Confirm the operation after replacement. Is the result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". Н DLK M Ν

Revision: October 2014 DLK-247 2015 Murano

## **AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE ALL SWITCHES

**ALL SWITCHES: Description** 

INFOID:0000000011218774

Automatic back door open/close function does not operate using all switches.

#### NOTE:

Automatic back door open/close operation condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-39</u>, "System <u>Description"</u>.

### ALL SWITCHES: Diagnosis Procedure

INFOID:0000000011218775

## 1.check dtc with automatic back door control module

Check that DTC is not detected with automatic back door control module.

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 2.CHECK BACK DOOR AUTO CLOSURE FUNCTION

Check back door auto closure function.

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Refer to <u>DLK-251</u>, "<u>OPEN/CLOSURE FUNCTION</u>: <u>Diagnosis Procedure</u>".

## 3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check automatic back door control module power supply and ground circuit.

Refer to <u>DLK-121</u>, "<u>Diagnosis Procedure</u>".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### CHECK GROUND CIRCUIT

Check automatic back door control module ground circuit.

Refer to DLK-148, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

## 5. CHECK TOUCH SENSOR LH

Check touch sensor LH.

Refer to DLK-130, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.CHECK TOUCH SENSOR RH

Check touch sensor RH.

Refer to DLK-127, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

## 7. REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.
- 2. Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

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## AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". AUTOMATIC BACK DOOR SWITCH Α AUTOMATIC BACK DOOR SWITCH: Description INFOID:0000000011218776 В Automatic back door open/close function does not operate using automatic back door switch. Automatic back door open/close operation condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "System Description". AUTOMATIC BACK DOOR SWITCH: Diagnosis Procedure INFOID:0000000011218777 D CHECK AUTOMATIC BACK DOOR SWITCH Check automatic back door switch. Refer to DLK-214, "Component Function Check". Е Is the inspection result normal? >> GO TO 2. >> Repair or replace the malfunctioning parts. 2.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE Replace automatic back door control module. Refer to DLK-311, "Removal and Installation". Confirm the operation after replacement. Is the result normal? >> Inspection End. Н >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". AUTOMATIC BACK DOOR CLOSE SWITCH AUTOMATIC BACK DOOR CLOSE SWITCH: Description INFOID:0000000011218778 Automatic back door open/close function does not operate using automatic back door close switch. Automatic back door open/close operation condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "System Description". AUTOMATIC BACK DOOR CLOSE SWITCH: Diagnosis Procedure INFOID:0000000011218779 DLK ${f 1}$ . CONFIRM THE OPERATION Turn ON automatic back door main switch. Confirm the operation. >> Automatic back door system is OK. >> GO TO 2.

## Is the result normal?

NOTE:

YES

NO

YES

NOTE:

NO

YES

NO

## 2.CHECK AUTOMATIC BACK DOOR CLOSE SWITCH

Check automatic back door close switch.

Refer to DLK-210, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch.

Refer to DLK-212, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

 $oldsymbol{4}.$ REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

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## **AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- 1. Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".
- Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### INTELLIGENT KEY

## INTELLIGENT KEY: Description

INFOID:0000000011218780

Automatic back door open/close function does not operate using Intelligent Key.

#### NOTE:

Automatic back door open/close operation condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-39</u>, "System <u>Description"</u>.

### INTELLIGENT KEY: Diagnosis Procedure

INFOID:0000000011218781

## ${f 1}.$ CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL MODULE

Check that DTC is not detected with automatic back door control module.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 2. CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 3.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

#### Does door lock/unlock with Intelligent Key button?

YES >> GO TO 4.

NO >> Refer to DLK-240, "Diagnosis Procedure".

## 4. REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- 1. Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".
- Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### BACK DOOR OPENER SWITCH

### **BACK DOOR OPENER SWITCH: Description**

INFOID:0000000011218782

Automatic back door open/close function does not operate using back door opener switch. **NOTE:** 

Automatic back door open/close operation condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-39</u>, "System <u>Description"</u>.

## BACK DOOR OPENER SWITCH: Diagnosis Procedure

INFOID:0000000011218783

## 1.CONFIRM THE OPERATION

- 1. Turn ON automatic back door main switch.
- 2. Confirm the operation.

#### Is the result normal?

YES >> Automatic back door system is OK.

NO >> GO TO 2.

AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS >  $\overline{2}$ . CHECK AUTOMATIC BACK DOOR MAIN SWITCH Check automatic back door main switch. Refer to DLK-212, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK BACK DOOR OPENER SWITCH Check back door opener switch. Refer to DLK-202, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.  $oldsymbol{4}.$ REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

### Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

### OPEN/CLOSURE FUNCTION

Confirm the operation after replacement.

## OPEN/CLOSURE FUNCTION: Description

Back door auto closure function does not operate when back door opening and closing operations are performed.

**DLK-251** 

## OPEN/CLOSURE FUNCTION: Diagnosis Procedure

## 1.CONFIRM THE OPERATION

- Turn ON automatic back door main switch.
- Confirm the operation.

#### Is the result normal?

YES >> Automatic back door system is OK.

NO >> GO TO 2.

## 2.CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL MODULE

Check that DTC is not detected with automatic back door control module.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 3.CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch.

Refer to DLK-212, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4.CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-202, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

>> Repair or replace the malfunctioning parts. NO

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## **AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE**

#### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## 5. CHECK BACK DOOR CLOSURE MOTOR

Check back door closure motor.

Refer to DLK-225, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

## 6.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- 1. Replace automatic back door control module. Refer to <a href="DLK-311">DLK-311</a>, "Removal and Installation".
- 2. Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### OPEN FUNCTION

## **OPEN FUNCTION: Description**

Back door auto closure function does not operate when back door opening operations are performed.

### **OPEN FUNCTION**: Diagnosis Procedure

#### INFOID:0000000011218787

INFOID:0000000011218788

INFOID:0000000011218786

## 1. CONFIRM THE OPERATION

- 1. Turn ON automatic back door main switch.
- 2. Confirm the operation.

#### Is the result normal?

YES >> Automatic back door system is OK.

NO >> GO TO 2.

## 2.CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch.

Refer to DLK-212, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-202, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- 1. Replace automatic back door control module. Refer to <a href="DLK-311">DLK-311</a>, "Removal and Installation".
- 2. Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

#### CLOSURE FUNCTION

## **CLOSURE FUNCTION: Description**

Back door auto closure function does not operate when back door closing operations are performed.

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## **AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
CLOSURE FUNCTION : Diagnosis Procedure	INFOID:000000011218789
1.CHECK HALF LATCH SWITCH	
Check half latch switch. Refer to DLK-216, "Component Function Check".	
s the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
2.CHECK BACK DOOR CLOSURE MOTOR	
Check back door closure motor. Refer to DLK-225, "Diagnosis Procedure".	
ls the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE	
<ol> <li>Replace automatic back door control module. Refer to <u>DLK-31</u></li> <li>Confirm the operation after replacement.</li> </ol>	1, "Removal and Installation".
s the result normal?	
YES >> Inspection End.	
NO >> Check intermittent incident. Refer to GI-42, "Intermitter	nt Incident".

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## **AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

# AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE BUZZER

**BUZZER**: Description

INFOID:0000000011218790

Automatic back door warning chime does not operate when automatic back door warning function is performed.

## **BUZZER**: Diagnosis Procedure

INFOID:0000000011218791

## 1. CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL MODULE

Check that DTC is not detected with automatic back door control module.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 2.CHECK BACK DOOR WARNING CHIME

Check back door warning chime.

Refer to DLK-226, "Diagnosis Procedure".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".
- 2. Confirm the operation after replacement.

#### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

### HAZARD WARNING LAMP

## HAZARD WARNING LAMP: Description

INFOID:0000000011218792

Hazard warning lamp does not operate when automatic back door warning function is performed.

## HAZARD WARNING LAMP: Diagnosis Procedure

INFOID:0000000011218793

## 1. CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL MODULE

Check that DTC is not detected with automatic back door control module.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 2.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

## 3.CHECK GROUND CIRCUIT

Check automatic back door control module ground circuit.

Refer to DLK-171, "AUTOMATIC BACK DOOR CONTROL UNIT: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts

## $oldsymbol{4}.$ CHECK HAZARD AND HORN REMINDER FUNCTION

## AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check hazard and horn reminder function.

Is the inspection result normal?

YES >> GO TO 5.

NO >> Refer to DLK-209, "Diagnosis Procedure".

5. REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

Replace automatic back door control module. Refer to <u>DLK-311, "Removal and Installation"</u>.

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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## **AUTOMATIC BACK DOOR FUNCTIONS DO NOT CANCEL**

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR FUNCTIONS DO NOT CANCEL

## Diagnosis Procedure

INFOID:0000000011218794

## 1. CHECK THE OPERATION

Check automatic back door main switch function.

#### NOTE:

When the main switch is OFF, the automatic back door operation is not available by back door opener switch and automatic back door close switch.

## Is the inspection result normal?

YES >> Automatic back door system is OK.

NO >> GO TO 2

## 2. CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch.

Refer to DLK-212, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE

- Replace automatic back door control module. Refer to DLK-311, "Removal and Installation".
- Confirm the operation after replacement.

### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

## AUTOMATIC BACK DOOR ANTI-PINCH FUNCTION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

## AUTOMATIC BACK DOOR ANTI-PINCH FUNCTION DOES NOT OPERATE

#### Α Diagnosis Procedure INFOID:0000000011218795 ${f 1}$ .CHECK POWER SUPPLY AND GROUND CIRCUIT В Check automatic back door control module power supply and ground circuit. Refer to <u>DLK-121</u>, "<u>Diagnosis Procedure</u>". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. D 2.check touch sensor LH $\,$ Check touch sensor LH. Refer to DLK-220, "LH: Component Function Check". Е Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. F 3.CHECK TOUCH SENSOR RH Check touch sensor RH. Refer to DLK-218, "RH: Component Function Check". Is the inspection result normal? YES >> GO TO 4. Н NO >> Repair or replace the malfunctioning parts. 4.REPLACE AUTOMATIC BACK DOOR CONTROL MODULE Replace automatic back door control module. Refer to DLK-311, "Removal and Installation". Confirm the operation after replacement. Is the result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

## Diagnosis Procedure

INFOID:0000000011218796

## 1. CHECK INTEGRATED HOMELINK® TRANSMITTER

Check integrated HomeLink® transmitter.

Refer to DLK-230, "Component Function Check".

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2. REPLACE AUTO ANTI-DAZZLING INSIDE MIRROR

Replace auto anti-dazzling inside mirror.

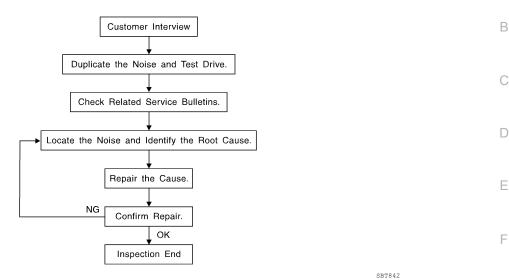
Refer to MIR-19, "Removal and Installation".

### Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

Work Flow



### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to <a href="DLK-263">DLK-263</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving 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 bumble bee)
- Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge
  as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

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

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Revision: October 2014 DLK-259 2015 Murano

### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on CVT and 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: J-39565 and mechanic's stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - removing the components in the area that you suspect the noise is coming from.
     Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
  - tapping or pushing/pulling the component that you suspect is causing the noise.
     Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
  - placing a piece of paper between components that you suspect are causing the noise.
  - looking for loose components and contact marks.
     Refer to <u>DLK-260</u>, "Generic Squeak and Rattle Troubleshooting".

#### 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-50397) is available through your authorized NISSAN Parts Department.

#### **CAUTION:**

## Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

- Always check with the Parts Department for the latest parts information.
- The materials contained in the NISSAN Squeak and Rattle Kit (J-50397) are listed on the inside cover of the kit; and can each be ordered separately as needed.
- The following materials not found in the kit can also be used to repair squeaks and rattles.
- SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months.
- SILICONE SPRAY: Use when grease cannot be applied.
- DUCT TAPE: Use to eliminate movement.

#### CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

## Generic Squeak and Rattle Troubleshooting

INFOID:0000000011218798

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

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

## < SYMPTOM DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

- Cluster lid A and the instrument panel
- Acrylic lens and combination meter housing
- Instrument panel to front pillar finisher
- 4. Instrument panel to windshield
- Instrument panel pins
- Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

#### **CAUTION:**

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

#### CENTER CONSOLE

Components to pay attention to include:

- 1. Shift selector assembly cover to finisher
- A/C control unit and cluster lid C
- Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

#### DOORS

Pay attention to the:

- Finisher and inner panel making a slapping noise
- Inside handle escutcheon to door finisher
- Wiring harnesses tapping
- Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-50397) to repair the noise.

#### TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

- Trunk lid bumpers out of adjustment
- Trunk lid striker out of adjustment
- The trunk lid torsion bars knocking together
- A loose license plate or bracket

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

#### SUNROOF/HEADLINING

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

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

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

### OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage.

- Loose harness or harness connectors.
- Front console map/reading lamp lens loose.

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In addition look for:

### < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Loose screws at console attachment points.

#### SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

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

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

#### **UNDERHOOD**

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

Causes of transmitted underhood noise include:

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

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

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## **Diagnostic Worksheet**

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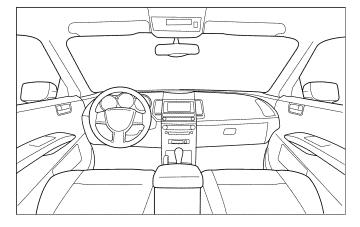
#### Dear Customer:

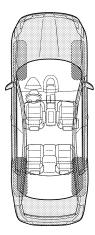
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

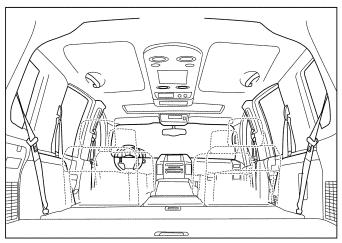
#### **SQUEAK & RATTLE DIAGNOSTIC WORKSHEET**

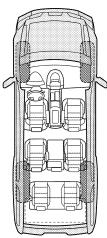
## I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.









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

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< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Briefly describe the location where the nois	e occurs	:		
II. WHEN DOES IT OCCUR? (please chec	ck the bo	xes that app	oly)	
<ul> <li>☐ Anytime</li> <li>☐ 1st time in the morning</li> <li>☐ Only when it is cold outside</li> <li>☐ Only when it is hot outside</li> </ul>	□ W □ Dr	ter sitting ou hen it is rair y or dusty c her:	ning or wet	
III. WHEN DRIVING:	IV. W	HAT TYPE	OF NOISE	<u> </u>
<ul> <li>☐ Through driveways</li> <li>☐ Over rough roads</li> <li>☐ Over speed bumps</li> <li>☐ Only about mph</li> <li>☐ On acceleration</li> <li>☐ Coming to a stop</li> <li>☐ On turns: left, right or either (circle)</li> <li>☐ With passengers or cargo</li> <li>☐ Other: miles or minuter</li> </ul>	Squeak (like tennis shoes on a clean floor)  Creak (like walking on an old wooden floor)  Rattle (like shaking a baby rattle)  Knock (like a knock at the door)  Tick (like a clock second hand)  Thump (heavy muffled knock noise)  Buzz (like a bumble bee)			
TO BE COMPLETED BY DEALERSHIP PE Test Drive Notes:	ERSONN			
		YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	repair			
- Follow up test drive performed to confirm	ropan	Ц		
·	·	∟ tomer Name	·	

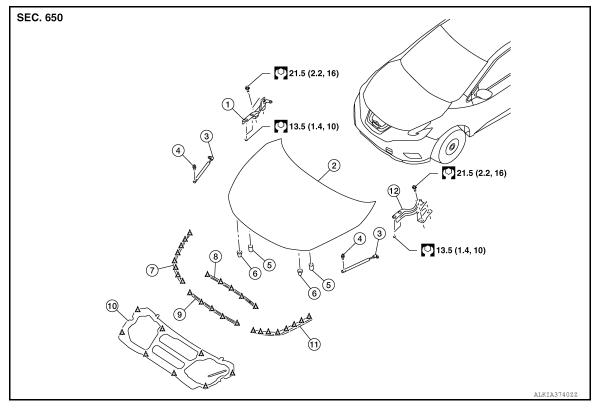
This form must be attached to Work Order

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## REMOVAL AND INSTALLATION

HOOD

**Exploded View** 



- 1. Hood hinge (RH)
- 4. Hood stay stud ball (LH/RH)
- 7. Hood side seal (RH)
- 10. Hood insulator
- ^\ Clip

- 2. Hood
- 5. Bumper rubber (LH/RH)
- 8. Hood rear seal
- 11. Hood side seal (LH)
- Hood stay (RH/LH)
- 6. Grommet
- 9. Hood front seal
- 12. Hood hinge (LH)

## **HOOD ASSEMBLY**

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

**CAUTION:** 

- Use two people when removing or installing hood assembly due to its heavy weight.
- Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of hood assembly.

## **REMOVAL**

1. Support hood assembly using a suitable tool.

#### **WARNING:**

Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

- Release clips using a suitable tool and remove hood insulator. Refer to <u>DLK-265</u>, "Exploded View".
- 3. Disconnect front washer tube. Refer to WW-59, "Exploded View".
- 4. Release clip (LH/RH) using a suitable tool and remove hood stay from hood side.

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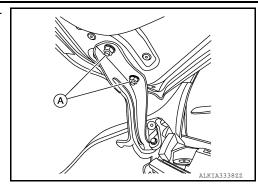
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Revision: October 2014 DLK-265 2015 Murano

Remove hood hinge to hood nuts (A) (LH/RH) and hood assembly.

NOTE:

RH side shown; LH similar.



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### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- Before installing hood hinge, apply anticorrosive agent onto surface of vehicle.
- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-266, "HOOD ASSEM-BLY</u>: Adjustment".

**HOOD ASSEMBLY: Adjustment** 

- 1. Hood assembly
- Front grille
- 7. Hood lock

- 2. Front fender
- Bumper rubber

- 3. Front combination lamp
- 6. Hood hinge

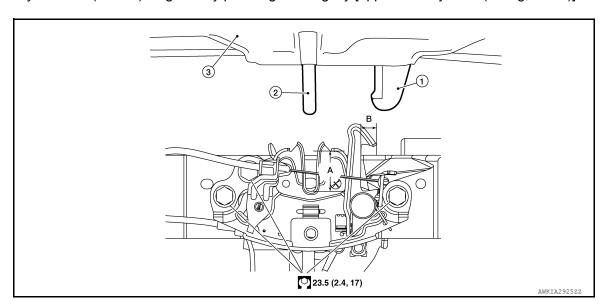
Check clearance and surface height between hood and each part by visual inspection and tactile feel. If clearance and surface height are out of specification, adjust them according to adjustment procedures.

#### [WITH INTELLIGENT KEY SYSTEM]

					Unit: mm (in)
Portion	Section	Item	Measurement	Standard	Parallelism
Hood - Fender	A - A	D	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	1.5 (0.06)
		Е	Clearance	3.5 ± 1.5 (0.14 ± 0.04)	1.5 (0.06)
Fender - Front combination lamp	B - B	F	Clearance	4.5 ± 2.0 (0.35 ± 0.08)	2.0 (0.08)
		G	Surface Height	Blend ± 1.1 (Blend ± 0.04)	2.0 (0.08)
Hood - Front combination lamp	C - C	Н	Clearance	$5.5 \pm 2.0 \; (0.22 \pm 0.08)$	2.3 (0.09)

### **HEIGHT ADJUSTMENT**

- Loosen hood lock assembly bolts.
- Adjust surface height of hood assembly to front grille and front fender according to specified values by rotating hood bumper rubber.
- Temporarily tighten hood lock assembly bolts.
- 4. Adjust (A) and (B) as shown to the following values with hood's own weight by dropping it from approximately 200 mm (7.87 in) height or by pressing hood lightly [approximately 29 N (3.0 kg, 6.5 lb)].



Secondary striker

20 mm (0.79 in)

- Primary striker
- 6.8 mm (0.27 in)
- Hood assembly
- 5. After adjustment, tighten hood hinge nuts and bolts to specified torque.
  - **CAUTION:** 
    - Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose
  - After adjusting, apply touch-up paint (body color) to heads of hood hinge bolts and nuts.

#### CLEARANCE ADJUSTMENT

- 1. Loosen hood hinge nuts and bolts.
- 2. Loosen hood lock assembly bolts.
- 3. Adjust hood assembly so clearance measurements are within specifications.
- Tighten hood hinge nuts and bolts to specified torque.
- 5. Tighten hood lock assembly bolts to specified torque.

## **HOOD HINGE**

**HOOD HINGE: Removal and Installation** 

REMOVAL

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### < REMOVAL AND INSTALLATION >

- Remove hood assembly. Refer to DLK-265, "HOOD ASSEMBLY: Removal and Installation".
- 2. Remove front fender. Refer to <u>DLK-272</u>, "Removal and Installation".
- 3. Remove hood hinge bolts, and then remove hood hinge.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Before installing hood hinge, apply anticorrosive agent onto surface of vehicle.
- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-266, "HOOD ASSEM-BLY: Adjustment"</u>.

**HOOD STAY** 

## **HOOD STAY**: Removal and Installation

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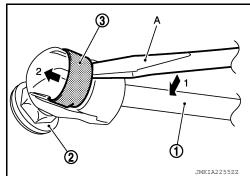
#### **REMOVAL**

1. Support hood assembly using a suitable tool.

#### **WARNING:**

Bodily injury may occur if hood assembly is not supported properly when removing hood stay.

2. Remove metal clip (3) located on connection between hood stay (1) and stud ball (2) (hood side) by using a suitable tool (A) to release clip to side and then toward front.



- 3. Release stud ball from hood stay (hood side).
- 4. Release stud ball from hood stay (body side) then remove hood stay.

#### INSTALLATION

Installation is in the reverse order of removal.

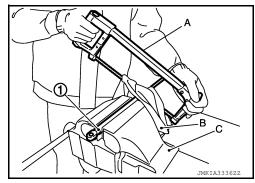
## HOOD STAY : Disposal

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

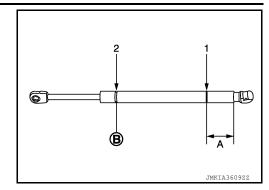
#### **CAUTION:**

- When cutting a hole in hood stay (1), always cover hacksaw (A) with a shop cloth (B) to avoid scattering metal fragments or oil.
- · Wear eye protection (safety glasses).
- Wear gloves.



## [WITH INTELLIGENT KEY SYSTEM]

A: 20 mm (0.79 in)B: Cut at groove.



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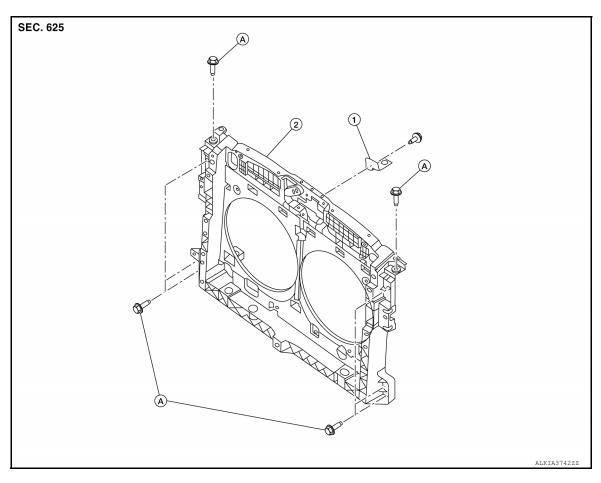
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## RADIATOR CORE SUPPORT

Exploded View



1. Secondary latch bracket

2. Radiator core support

A. Refer to INSTALLATION

## Removal and Installation

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### **CAUTION:**

When removing radiator core support upper, be careful not to damage painted surface.

### **REMOVAL**

- 1. Remove radiator. Refer to CO-13, "Removal and Installation".
- 2. Remove active grille shutter. Refer to EXT-32, "Removal and Installation".
- 3. Remove crash zone sensor. Refer to SR-25, "Removal and Installation".
- 4. Remove bolts and radiator core support.

### INSTALLATION

Installation is in the reverse order of removal.

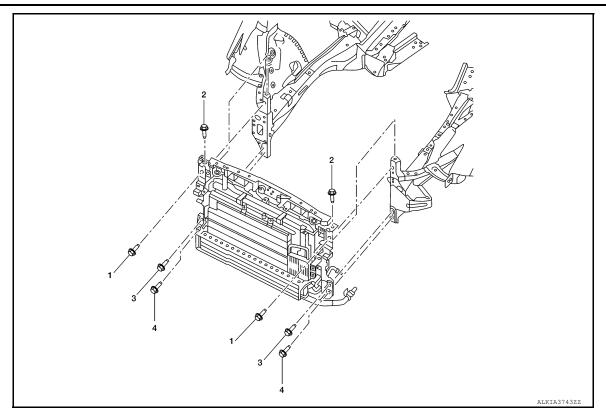
#### **CAUTION:**

- Tighten bolts to specified torque.
- When installing radiator core support, tighten core support bolts in sequence shown.

Radiator core support bolts :21.1 N·m (2.2 kg-m, 16 ft-lb)

## **RADIATOR CORE SUPPORT**

## [WITH INTELLIGENT KEY SYSTEM]



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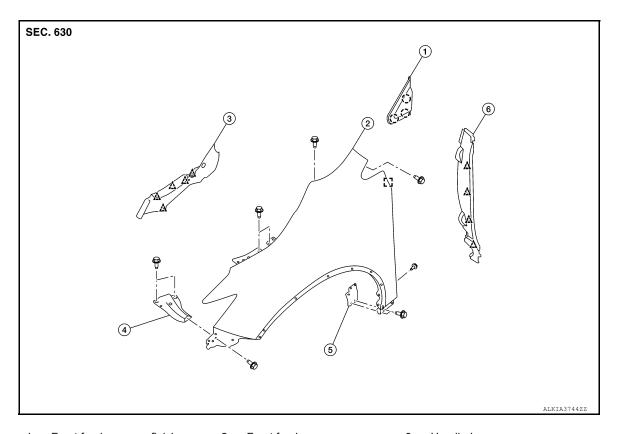
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## FRONT FENDER

Exploded View



- 1. Front fender corner finisher
- 4. Front fender front bracket
- Pawl

- 2. Front fender
- 5. Front fender rear bracket
- ,^ Clip

- 3. Hoodledge cover
- 6. Front fender baffle

## Removal and Installation

#### CAUTION:

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

## **REMOVAL**

- 1. Remove front combination lamp. Refer to <u>EXL-128</u>, "Removal and Installation" (HALOGEN HEADLAMP) or <u>EXL-128</u>, "Removal and Installation" (LED HEADLAMP).
- 2. Remove hoodledge cover. Refer to DLK-272, "Exploded View".
- Remove fender corner finisher. Refer to <u>DLK-272, "Exploded View"</u>.
- Remove front fender baffle. Refer to <u>DLK-272</u>, "Exploded View".
- Remove bolts and front fender.

#### **CAUTION:**

Use care when removing front fender. The front fender baffle adheres front fender to body side outer. Carefully release baffle foam or damage to front fender may occur.

- 6. Remove front fender front bracket (if necessary).
- Remove front fender rear bracket (if necessary).

## **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- After installation, apply touch up paint (body color) to heads of front fender bolts.
- After installation, adjust following components as necessary:
- Hood assembly: Refer to <u>DLK-266, "HOOD ASSEMBLY: Adjustment"</u>.

Revision: October 2014 DLK-272 2015 Murano

## **FRONT FENDER**

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

- Front door: Refer to <u>DLK-275</u>, "<u>DOOR ASSEMBLY</u>: <u>Adjustment</u>".

• Tighten bolts to specification. Refer to <u>DLK-272</u>, "Exploded View".

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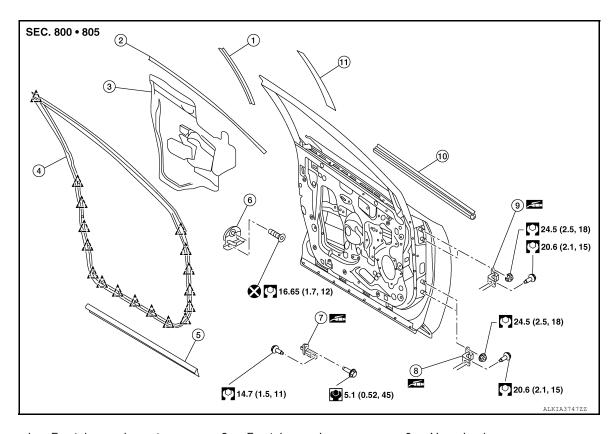
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## FRONT DOOR

Exploded View



- 1. Front door sash rear tape
- 4. Front door weather strip
- 7. Front door check link
- 10. Front door inside seal
- 2. Front door sash
- 5. Front door seal
- 8. Front door lower hinge
- 11. Front door outside tape
- 3. Vapor barrier
- 6. Front door striker
- Front door upper hinge

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## DOOR ASSEMBLY

## DOOR ASSEMBLY: Removal and Installation

### **CAUTION:**

- Use two people when removing or installing front door due to its heavy weight.
- When removing and installing front door assembly, support front door with a suitable tool.

## **REMOVAL**

- 1. Remove front door finisher. Refer to <a href="INT-15">INT-15</a>, "Removal and Installation".
- Remove front door vapor barrier.
- 3. Disconnect the front door harness connector (body side).
- 4. Remove front door check link bolt (body side).
- Remove front door hinge nuts (door side) and front door assembly.

#### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten nuts/bolts to specified torque. Refer to DLK-274, "Exploded View".
- Apply anticorrosive agent where necessary.
- After installation, check front door open/close and lock/unlock operation.
- After installation, perform front door adjustment procedure. Refer to <u>DLK-275, "DOOR ASSEMBLY:</u>
  Adjustment".

## DOOR ASSEMBLY: Adjustment

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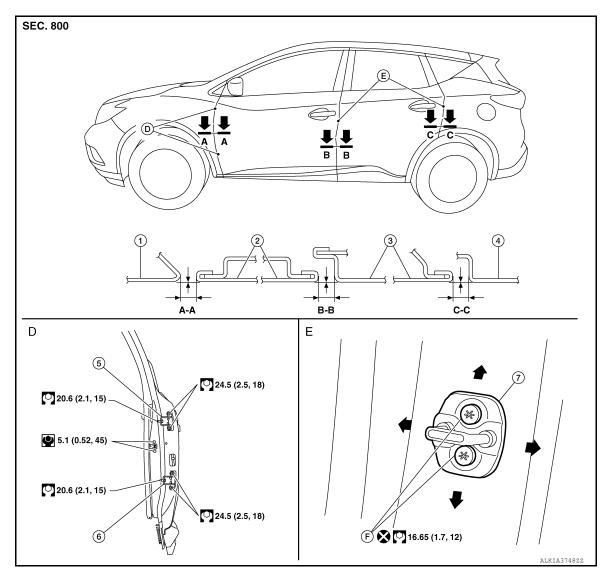
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## **ADJUSTMENT**



- 1. Front fender
- 4. Body side outer
- 7. Door striker

- 2. Front door
- 5. Front door upper hinge
- F. Front door striker bolts
- 3. Rear door
- 6. Front door lower hinge

Check clearance and surface height between front door and each part by visual inspection and tactile feel. If clearance and surface height are out of specification, adjust them according to adjustment procedure.

Unit: mm (in)

Portion	Section	Measurement	Standard
Front fender - Front door	A – A	Clearance	$3.5 \pm 1.0 \; (0.14 \pm 0.04)$
	A-A	Surface height	± 1.0 (± 0.04)
Front door - Rear door	B – B	Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$
		Surface height	± 1.0 (± 0.04)
Rear door - Body side outer	C – C	Clearance	$3.2 \pm 1.0 \; (0.13 \pm 0.04)$
		Surface height	± 1.0 (± 0.04)

1. Remove front fender. Refer to <u>DLK-272</u>, "Removal and Installation".

## **FRONT DOOR**

#### < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- 2. Loosen front door hinge nuts (door side).
- Adjust surface height of front door according to specifications provided.
- 4. Temporarily tighten front door hinge nuts (door side).
- 5. Loosen front door hinge bolts (body side).
- 6. Raise front door at rear end to adjust clearance of front door according to specifications provided.
- 7. After adjustment, tighten bolts and nuts to specified torque. **CAUTION**:
  - Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
  - After adjusting, apply touch-up paint (body color) to heads of front door hinge bolts and nuts.
- 8. Install front fender. Refer to DLK-272, "Removal and Installation".

### DOOR STRIKER

## DOOR STRIKER: Removal and Installation

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#### **REMOVAL**

Remove bolts and front door striker.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- · Do not reuse front door striker bolts.
- After installation, check front door open/close operation. If necessary, adjust front door striker. Refer to <u>DLK-276</u>, "<u>DOOR STRIKER</u>: <u>Adjustment</u>".
- Tighten bolts to specified torque. Refer to <u>DLK-274, "Exploded View"</u>.

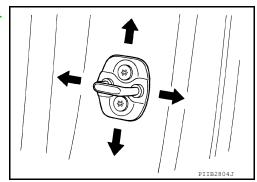
DOOR STRIKER : Adjustment

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#### DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts.
- 2. Adjust door striker so that it becomes parallel with front door lock insertion direction. **CAUTION**:

Tighten bolts to specified torque. Refer to <u>DLK-274</u>, "Exploded View".



## DOOR HINGE

## DOOR HINGE: Removal and Installation

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#### REMOVAL

- 1. Remove front door assembly. Refer to <a href="DLK-274">DLK-274</a>, "DOOR ASSEMBLY: Removal and Installation".
- Remove front door hinge bolts (body side) and front door hinge.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten nuts/bolts to specified torque. Refer to <u>DLK-274</u>, "Exploded View".
- Apply anticorrosive agent to hinge mating surface.

## FRONT DOOR

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

- After installation, check front door open/close and lock/unlock operation.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After installation, perform front door adjustment procedure. Refer to <u>DLK-275, "DOOR ASSEMBLY:</u>
   <u>Adjustment"</u>.

## DOOR CHECK LINK

## DOOR CHECK LINK: Removal and Installation

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#### REMOVAL

- Fully close front door window.
- Remove front door speaker. Refer to <u>AV-71, "Removal and Installation"</u> [MULTI AV (DISPLAY AUDIO)] or <u>AV-189, "Removal and Installation"</u> [MULTI AV (NAVIGATION)].
- 3. Remove door check link bolt (body side).
- 4. Remove door check link bolts (door side).
- 5. Remove door check link through hole in door assembly.

### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten nuts/bolts to specified torque. Refer to DLK-274, "Exploded View".
- After installation, check front door open/close and lock/unlock operation.
- Check door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.

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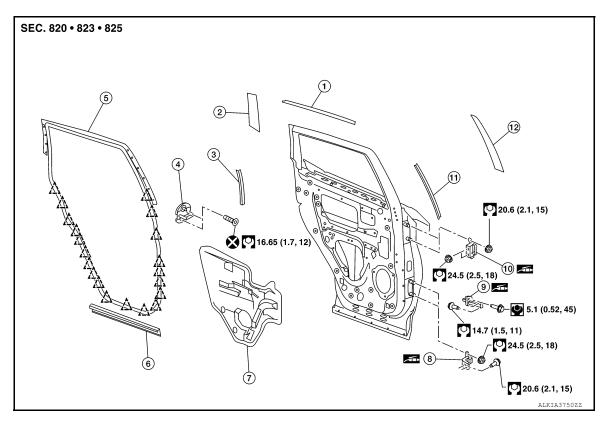
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## **REAR DOOR**

Exploded View



- 1. Rear door sash
- 4. Rear door striker
- 7. Vapor barrier
- 10. Rear door upper hinge
- ^ Clip

- 2. Rear door outside rear tape
- 5. Rear door weather strip
- 8. Rear door lower hinge
- 11. Rear door sash front tape
- 3. Rear door sash rear tape
- 6. Rear door seal
- 9. Rear door check link
- 12. Rear door outside front tape

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## DOOR ASSEMBLY

## DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

- · Use two people when removing or installing rear door due to its heavy weight.
- When removing and installing rear door assembly, support rear door using a suitable tool.

#### REMOVAL

- 1. Remove rear door finisher. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".
- Remove rear door vapor barrier.
- 3. Disconnect the harness connectors from the rear door.
- 4. Remove harness grommet from rear door then pull out rear door harness from rear door.
- 5. Remove rear door check link bolt (body side).
- Remove rear door hinge nuts (door side) and rear door assembly.

### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten nuts/bolts to specification. Refer to <a href="DLK-278">DLK-278</a>, "Exploded View".
- · Apply anticorrosive agent where necessary.
- After installation, check rear door open/close and lock/unlock operation.

After installation, perform rear door adjustment procedure. Refer to <u>DLK-279</u>, "<u>DOOR ASSEMBLY</u>:
 <u>Adjustment</u>".

DOOR ASSEMBLY: Adjustment

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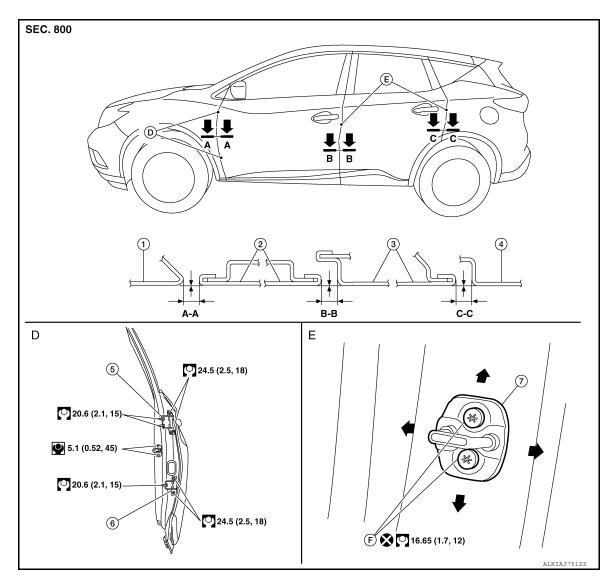
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- 1. Front fender
- 2. Front door

3. Rear door

- Body side outer
- 5. Door striker

6. Rear door upper hinge

- 7. Rear door lower hinge
- F. Door striker bolts

Check clearance and surface height between rear door and each part by visual inspection and tactile feel. If clearance and surface height are out of specification, adjust them according to adjustment procedures.

Unit: mm (in)

Portion	Section	Measurement	Standard
Front fender - Front door	A – A	Clearance	3.5 ± 1.0 (0.14 ± 0.04)
	A-A	Surface height	± 1.0 (± 0.04)
Front door - Rear door	B – B	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
		Surface height	± 1.0 (± 0.04)
Rear door - Body side outer	C – C	Clearance	3.2 ± 1.0 (0.13 ± 0.04)
	0-0	Surface height	± 1.0 (± 0.04)

## **REAR DOOR**

#### < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- 1. Remove center pillar lower finisher. Refer to <a href="INT-21">INT-21</a>, "CENTER PILLAR LOWER FINISHER: Removal and Installation".
- 2. Loosen rear door hinge nuts (door side).
- 3. Adjust surface height of rear door according to specifications provided.
- 4. Temporarily tighten rear door hinge nuts (door side).
- 5. Loosen rear door hinge nuts and bolts (body side).
- Raise rear door at rear end to adjust clearance of rear door according to specifications provided.
- 7. After adjustment, tighten bolts and nuts to specified torque.

### **CAUTION:**

- Check rear door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After adjusting, apply touch-up paint (body color) to heads of rear door hinge bolts and nuts.
- 8. Install center pillar lower finisher. Refer to <a href="INT-21">INT-21</a>, "CENTER PILLAR LOWER FINISHER: Removal and Installation".

## **DOOR STRIKER**

## DOOR STRIKER: Removal and Installation

INFOID:0000000011218818

#### REMOVAL

Remove bolts and rear door striker.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- · Do not reuse rear door striker bolts.
- Tighten bolts to specification. Refer to <u>DLK-278, "Exploded View"</u>.
- After installation, check rear door open/close operation. If necessary, adjust door striker. Refer to <u>DLK-280, "DOOR STRIKER: Adjustment"</u>.

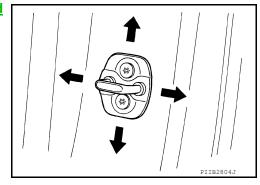
## DOOR STRIKER : Adjustment

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#### DOOR STRIKER ADJUSTMENT

- Loosen door striker bolts.
- Adjust door striker so that it becomes parallel with front door lock insertion direction.

Tighten bolts to specification. Refer to <u>DLK-278</u>, <u>"Exploded View"</u>.



## DOOR HINGE

### DOOR HINGE: Removal and Installation

INFOID:0000000011218820

#### REMOVAL

- Remove rear door assembly. Refer to DLK-278, "DOOR ASSEMBLY: Removal and Installation".
- Remove center pillar lower finisher (rear door lower hinge only). Refer to <u>INT-21, "CENTER PILLAR LOWER FINISHER: Removal and Installation"</u>.
- 3. Remove rear door hinge bolts and nuts and rear door hinge.

## **REAR DOOR**

#### < REMOVAL AND INSTALLATION >

### [WITH INTELLIGENT KEY SYSTEM]

## INSTALLATION

Installation is in the reverse order of removal.

### **CAUTION:**

- Tighten nuts/bolts to specification. Refer to <u>DLK-278</u>, "Exploded View".
- Apply anticorrosive agent onto hinge mating surface.
- After installation, check rear door open/close and lock/unlock operation.
- After installation, perform rear door adjustment procedure. Refer to <u>DLK-279</u>, "<u>DOOR ASSEMBLY</u>:
   <u>Adjustment</u>".

## DOOR CHECK LINK

### DOOR CHECK LINK: Removal and Installation

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#### **REMOVAL**

- 1. Fully close rear door window.
- 2. Remove rear door speaker. Refer to <u>AV-72</u>, "<u>Removal and Installation</u>" [MULTI AV (DISPLAY AUDIO)] or <u>AV-190</u>, "<u>Removal and Installation</u>" [MULTI AV (NAVIGATION)].
- Remove rear door check link bolt (body side).
- 4. Remove rear door check link bolts (door side).
- 5. Remove rear door check link through hole in rear door panel.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten bolts to specification. Refer to <u>DLK-278</u>, "<u>Exploded View</u>".
- After installation, check rear door open/close and lock/unlock operation.
- Check rear door check link rotating point for poor lubrication. If necessary, apply a suitable multipurpose grease.

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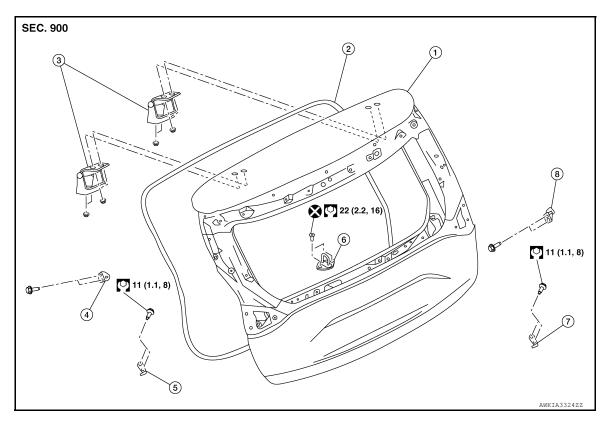
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## **BACK DOOR**

Exploded View



- 1. Back door
- Back door upper stud ball or spindle unit upper hinge (with power back door) (LH)
- Back door lower stud ball or spindle unit upper hinge (with power back door) (RH)
- 2. Back door weather stripping
- Back door lower stud ball or spindle unit lower hinge (with power back door) (LH)
- Back door upper stud ball or spindle unit lower hinge (with power back door) (RH)
- 3. Back door hinge (LH/RH)
- 6. Back door striker

## BACK DOOR ASSEMBLY

## BACK DOOR ASSEMBLY: Removal and Installation

INFOID:0000000011218823

#### **CAUTION:**

- Use two people when removing or installing back door due to its heavy weight.
- Use shop cloths to protect surrounding components from damage during removal and installation of back door.

#### REMOVAL

Support back door assembly using a suitable tool.

#### **WARNING:**

Bodily injury may occur if back door assembly is not supported properly when removing back door spindle unit.

- 2. Disconnect spindle units (LH/RH) or back door upper stud balls (LH/RH) from back door assembly. Refer to <a href="DLK-297">DLK-297</a>, "SPINDLE UNIT: Removal and Installation" (WITH AUTOMATIC BACK DOOR) or <a href="DLK-298">DLK-298</a>, "BACK DOOR STAY: Removal and Installation" (WITHOUT AUTOMATIC BACK DOOR).
- 3. Disconnect the harness connectors from the back door.
- Remove back door harness grommet then pull harness from back door.
- Disconnect washer tube.

## **BACK DOOR**

## < REMOVAL AND INSTALLATION >

### [WITH INTELLIGENT KEY SYSTEM]

- 6. Remove washer tube grommet and washer tube from back door.
- 7. Remove back door hinge bolts (door side) and back door assembly.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten bolts to specification. Refer to <u>DLK-282, "Exploded View"</u>.
- Apply anticorrosive agent onto surface between hinge and door side.
- When reusing stud ball, always apply locking sealant before installing stud ball to back door.
- After installation, perform back door assembly adjustment procedure. Refer to <u>DLK-284, "BACK DOOR ASSEMBLY: Adjustment"</u>.

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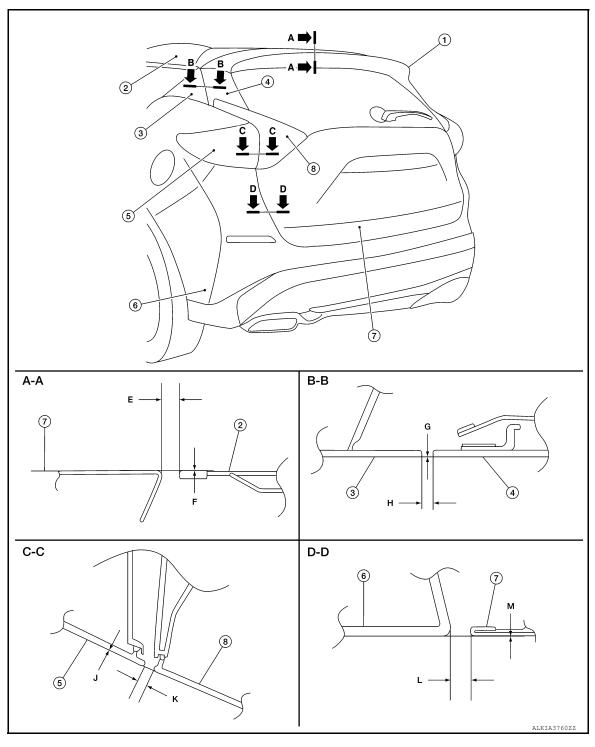
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## **BACK DOOR ASSEMBLY: Adjustment**

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- 1. Rear spoiler
- 4. Side air spoiler
- 7. Back door

- 2. Roof
- 5. Rear combination lamp
- 8. Back-up lamp
- 3. Quarter window finisher
- Rear bumper

Check clearance and surface height between back door and each part by visual inspection and tactile feel. If clearance and surface height are out of specification, adjust them according to adjustment procedure.

### [WITH INTELLIGENT KEY SYSTEM]

				Unit: mm (in)	
Section	Item	Measurement	Standard	Parallelism	/
A – A	E	Clearance	6.0 ± 1.0 (0.24 ± 0.04)	1.5 (0.06)	
	F	Surface height	0.3 ± 1.0 (0.01 ± 0.04)	1.5 (0.06)	
B – B	G	Clearance	$3.0 \pm 2.4 \; (0.12 \pm 0.09)$	1.9 (0.07)	
	Н	Surface height	_	_	
C – C	J	Clearance	$5.0 \pm 2.0 \; (0.18 \pm 0.08)$	2.0 (0.08)	(
	K	Surface height	_	_	
D – D	L	Clearance	6.0 ± 1.9 (0.19 ± 0.08)	2.0 (0.08)	-
	М	Surface height	$0.5 \pm 1.9 \; (0.02 \pm 0.07)$	_	ı
	A – A  B – B  C – C	A – A	B - B  C - C  E Clearance F Surface height C - C  K Surface height C - C  K Surface height C - C  K Clearance C C C C C C C C C C C C C C C C C C C	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	

- 1. Loosen back door hinge nuts (door side).
- Lift up back door approximately 100 150 mm (3.94 5.91 in) height then close it lightly and check that it is engaged firmly with back door closed.
- Check clearance and surface height according to specifications provided.
- Tighten back door hinge nuts to specified torque.
  - **CAUTION:** After installation, check back door open/close and lock/unlock operation.
  - · Check back door hinge rotating point for poor lubrication. If necessary, apply a suitable multipurpose grease.
  - After adjusting, apply touch-up paint (body color) to heads of rear door hinge bolts and nuts.
  - Perform calibration of automatic back door position information. Refer to <u>DLK-116</u>, "Work Proce-

### BACK DOOR STRIKER

## BACK DOOR STRIKER: Removal and Installation

### **REMOVAL**

- Remove back door kicking plate. Refer to INT-32, "BACK DOOR KICKING PLATE: Removal and Installation".
- Remove bolts and back door striker.

#### INSTALLATION

Installation is in the reverse order of removal.

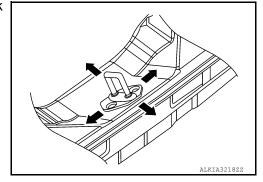
### **CAUTION:**

- Do not reuse back door striker bolts.
- Tighten bolts to specification. Refer to <u>DLK-282, "Exploded View"</u>.
- After installation, check back door open/close operation. If necessary, adjust door striker. Refer to DLK-285, "BACK DOOR STRIKER: Adjustment".

## BACK DOOR STRIKER: Adjustment

#### DOOR STRIKER ADJUSTMENT

- Loosen door striker bolts.
- Adjust door striker so that it becomes parallel with front door lock insertion direction.



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### **BACK DOOR**

#### < REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

3. Tighten door striker bolts to specification. Refer to <a href="DLK-282">DLK-282</a>, "Exploded View".

### **BACK DOOR HINGE**

## BACK DOOR HINGE: Removal and Installation

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#### REMOVAL

- 1. Remove back door assembly. Refer to DLK-282, "BACK DOOR ASSEMBLY; Removal and Installation".
- 2. Partially remove rear of headlining. Refer to <a href="INT-27">INT-27</a>, "Removal and Installation".</a>
- 3. Remove nuts and back door hinge.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten nuts to specification. Refer to <u>DLK-282</u>, "Exploded View".
- Apply anticorrosive agent onto surface between hinge and body side.
- After installation, perform back door assembly adjustment procedure. Refer to <u>DLK-284, "BACK DOOR ASSEMBLY: Adjustment"</u>.

### BACK DOOR WEATHER-STRIP

## BACK DOOR WEATHER-STRIP: Removal and Installation

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#### **REMOVAL**

Carefully remove back door weather-strip from opening door joint.

#### **INSTALLATION**

- 1. Beginning with upper section, align weather-strip mark with vehicle center position mark and install weather-strip to vehicle.
- 2. For lower section, align weather-strip seam with center of back door striker.

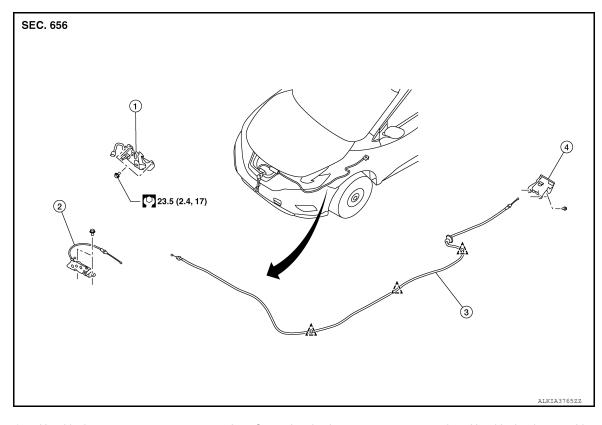
#### NOTE:

Pull weather-strip gently to ensure that there are no loose sections.

#### [WITH INTELLIGENT KEY SYSTEM]

## **HOOD LOCK**

**Exploded View** 



Hood lock

Secondary latch

Hood lock release cable

- Hood lock release handle
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### HOOD LOCK

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

**REMOVAL** 

- Remove core support cover. Refer to EXT-30, "Exploded View".
- Disconnect hood lock release cable and secondary latch cable from hood lock.
- Remove bolts, disconnect the harness connector and remove hood lock.

## INSTALLATION

Installation is in the reverse order of removal.

- Tighten bolts to specified torque. Refer to DLK-287, "Exploded View".
- Check that hood lock release cable and secondary latch cable are properly engaged with hood lock.
- After installation, perform hood assembly adjustment procedure. Refer to DLK-266, "HOOD ASSEM-**BLY: Adjustment".**
- After adjusting, perform hood lock inspection. Refer to DLK-287, "HOOD LOCK: Inspection".

## **HOOD LOCK: Inspection**

#### NOTE:

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

- Check that secondary latch is properly engaged with secondary striker with hood's own weight.
- While operating hood lock release handle, carefully check that front end of hood assembly is raised by approximately 20.0 mm (0.79 in). Also check that hood lock release handle returns to original position.

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#### < REMOVAL AND INSTALLATION >

- Check that hood lock release handle operates at 49 N (5.0 kg-m, 11.0 ft-lb) or below.
- 4. Install so that static closing force of hood is 315-490 N (32.1-50.0 kg-m, 70.8-110.2 ft-lb).

#### NOTE:

- Do not exert vertical force on right side and left side of hood lock.
- Do not press simultaneously on both sides.
- 5. Check hood lock lubrication condition. If necessary, apply a suitable multi-purpose grease to hood lock assembly.

### SECONDARY LATCH

### SECONDARY LATCH: Removal and Installation

#### INFOID:0000000011218832

#### **REMOVAL**

- 1. Remove front grille. Refer to EXT-30, "Removal and Installation".
- 2. Disconnect secondary latch cable from hood lock assembly.
- 3. Remove bolts and secondary latch.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten bolts to specified torque. Refer to <u>DLK-287, "Exploded View"</u>.
- Check that secondary latch cable is properly engaged with hood lock.

### HOOD LOCK RELEASE CABLE

## HOOD LOCK RELEASE CABLE: Removal and Installation

#### INFOID:0000000011218833

### **REMOVAL**

- Remove fender protector (LH). Refer to EXT-36, "FENDER PROTECTOR: Removal and Installation".
- 2. Remove front grille. Refer to EXT-30, "Removal and Installation".
- 3. Disconnect hood lock release cable from hood lock release handle and hood lock.
- Release hood lock release cable clips using a suitable tool.
- Remove grommet on lower dash and carefully pull hood lock release cable into passenger compartment.

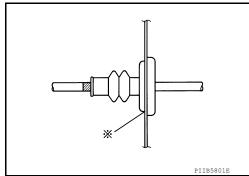
While pulling, be careful not to damage (peel) outside of hood lock release cable.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- Be careful not to bend cable too much, keep radius 100 mm (3.94 in) or more.
- Check that cable is not offset from positioning grommet, and apply sealant to grommet (at \* mark) properly.



- Check that hood lock release cable is properly engaged with hood lock assembly.
- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-266, "HOOD ASSEM-BLY: Adjustment"</u>.
- After adjusting, perform hood lock inspection. Refer to <u>DLK-287, "HOOD LOCK: Inspection"</u>.
   HOOD LOCK RELEASE HANDLE

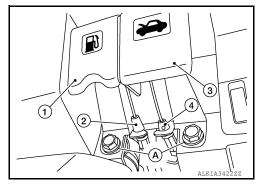
#### [WITH INTELLIGENT KEY SYSTEM]

## HOOD LOCK RELEASE HANDLE: Removal and Installation

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#### **REMOVAL**

- 1. Remove fuel filler lid/hood lock release handle bolts (A).
- 2. Disconnect fuel filler lid release cable (2) from fuel filler lid release handle (1).
- 3. Disconnect hood lock release cable (4) from hood lock release handle (3).
- 4. Remove hood lock release handle.



#### **INSTALLATION**

Installation is in the reverse order of removal.

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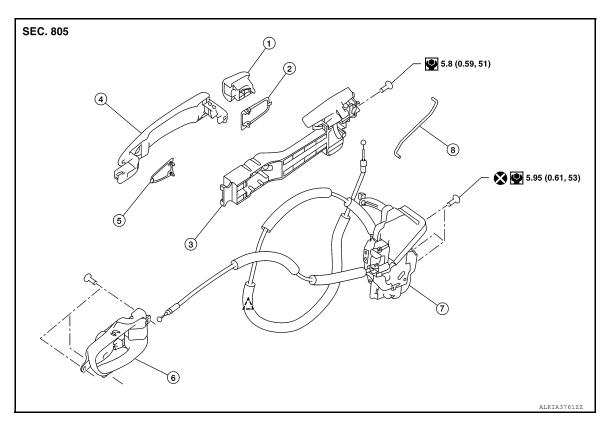
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Exploded View



- Outside handle escutcheon/door key 2. cylinder (LH only)
- 4. Outside handle
- 7. Front door lock

- . Rear gasket
- 5. Front gasket
- 8. Door key cylinder rod
- Outside handle bracket
- 6. Inside handle
- ,^∖ Clip

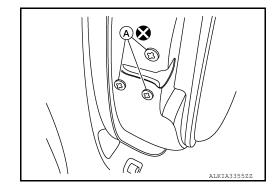
## **DOOR LOCK**

DOOR LOCK: Removal and Installation

#### **REMOVAL**

- 1. Remove front door finisher. Refer to <a href="INT-15">INT-15</a>, "Removal and Installation".
- 2. Remove vapor barrier.
- Remove front door lock bolts (A). CAUTION:

Do not reuse front door lock bolts.

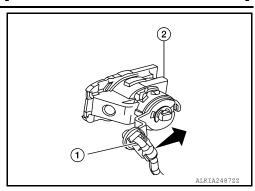


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#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

 Disconnect door key cylinder rod (LH only) (1) from front door lock (2) (LH only).



- Disconnect door lock cables from inside handle and outside handle.
- Disconnect the harness connector from the front door lock and remove.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- · Do not reuse front door lock bolts.
- Tighten bolts to specification. Refer to <u>DLK-290, "Exploded View"</u>.
- After installation, check that door lock cables are properly engaged to inside handle and outside handle bracket.
- When installing door key cylinder rod (LH only), be sure to rotate door key cylinder rod holder until a click is felt.
- After installation, check door open/close and lock/unlock operation.
- Check door lock assembly for poor lubrication. If necessary, apply a suitable multi-purpose grease.

#### INSIDE HANDLE

#### INSIDE HANDLE: Removal and Installation

#### **REMOVAL**

- Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 2. Remove inside handle bolt.
- Disconnect the door lock cables and remove the inside handle.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

REMOVAL

- After installation, check that door lock cables are properly engaged to inside handle.
- After installation, check door open/close and lock/unlock operation.

#### **OUTSIDE HANDLE**

#### OUTSIDE HANDLE: Removal and Installation

Fully close front door glass.

- 2. Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 3. Remove front door vapor barrier.

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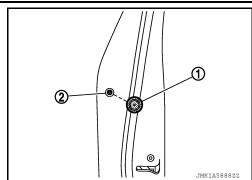
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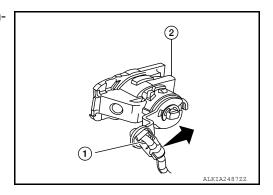
#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

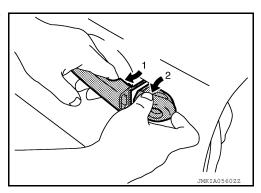
4. Remove door side grommet (1), and remove bolt from grommet hole (2).



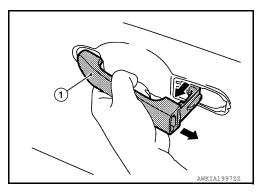
5. Separate door key cylinder rod (LH only) (1) from door key cylinder assembly (LH only) (2).



6. While pulling (1) outside handle, remove (2) door key cylinder assembly (LH side) or outside handle escutcheon (RH side).



7. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.

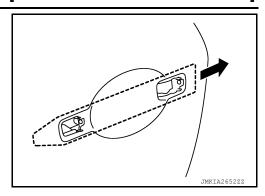


8. Remove front gasket and rear gasket.

## < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

Slide outside handle bracket toward rear of vehicle to remove.



10. Disconnect outside handle cable from outside handle bracket and remove.

#### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- . When installing door key cylinder rod (LH only), be sure to rotate door key cylinder rod holder until a click is felt.
- After installation, check that door lock cable is properly engaged to outside handle bracket.
- After installation, check door open/close and lock/unlock operation.

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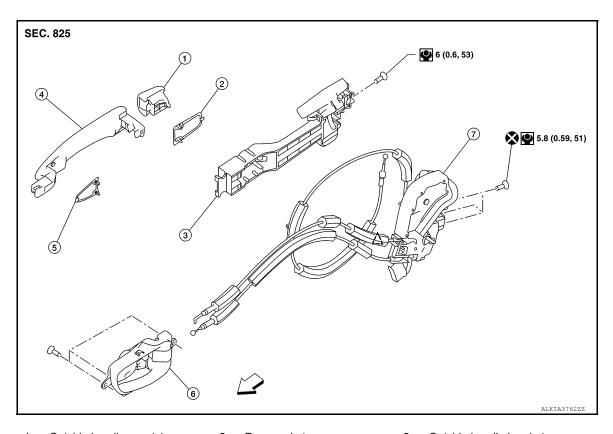
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## **REAR DOOR LOCK**

Exploded View



- 1. Outside handle escutcheon
- 4. Outside handle
- 7. Rear door lock
- 2. Rear gasket
- 5. Front gasket
- ← Front

3. Outside handle bracket

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- 6. Inside door handle
- ^ Clip

## DOOR LOCK

DOOR LOCK: Removal and Installation

#### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".
- 2. Remove vapor barrier.
- Remove rear door lock bolts.
- 4. Disconnect door lock cables.
- Disconnect the harness connector from the rear door lock and remove.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- · Do not reuse rear door lock bolts.
- Tighten bolts to specification. Refer to <u>DLK-294, "Exploded View"</u>.
- After installation, check that door lock cables are properly engaged to inside handle and outside handle.
- After installation, check door open/close and lock/unlock operation.

### **INSIDE HANDLE**

### **REAR DOOR LOCK**

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

## **INSIDE HANDLE: Removal and Installation**

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#### REMOVAL

- 1. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
- 2. Remove inside handle screws.

#### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- After installation, check door lock cables are properly engaged to inside handle.
- After installation, check door open/close and lock/unlock operation.

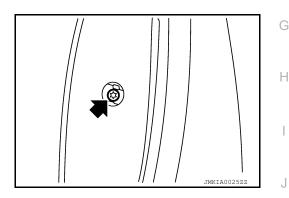
#### **OUTSIDE HANDLE**

**OUTSIDE HANDLE: Removal and Installation** 

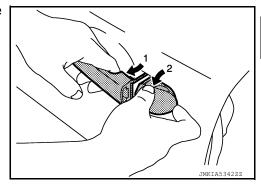
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#### **REMOVAL**

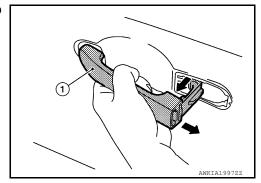
- 1. Fully close rear door glass.
- Remove rear door finisher. Refer to <u>INT-17</u>, "Removal and Installation".
- 3. Remove rear door vapor barrier.
- 4. Remove door side grommet and bolt from grommet hole.



5. While pulling (1) outside handle, remove (2) outside handle escutcheon.



6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



Remove front gasket and rear gasket.

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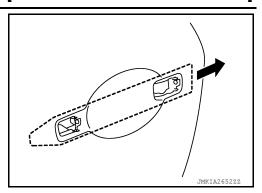
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## **REAR DOOR LOCK**

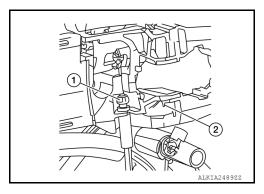
#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

8. Slide outside handle bracket toward rear of vehicle to remove.



9. Disconnect outside handle cable from outside handle bracket.



#### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- After installation, check that door lock cable is properly engaged to outside handle bracket.
- After installation, check door open/close and lock/unlock operation.

#### [WITH INTELLIGENT KEY SYSTEM]

## **BACK DOOR LOCK**

**Exploded View** 

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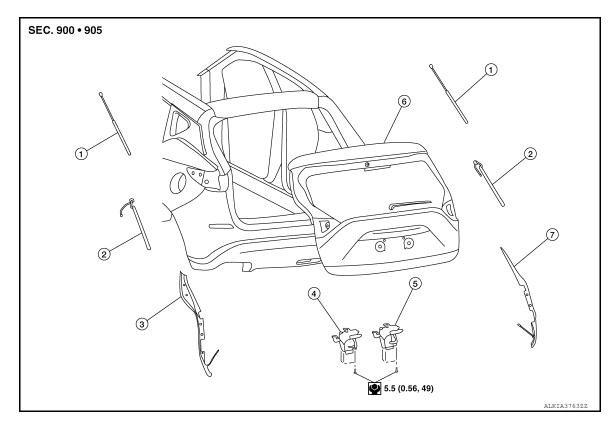
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Back door stay [(LH/RH) (without au- 2. tomatic back door)]

Back door touch sensor [(RH) (with

automatic back door)]

Back door lock

- Spindle unit [(LH/RH) (with automat- 3. ic back door)]
- Back door lock assembly (with auto- 6. matic back door)
- Back door touch sensor [(LH) (with automatic back door)]
- Back door

#### DOOR LOCK

#### DOOR LOCK: Removal and Installation

## **REMOVAL**

- Remove back door lower finisher. Refer to INT-34, "BACK DOOR LOWER FINISHER: Removal and Installation".
- Disconnect the harness connector from the back door lock. 2.
- Remove bolts and back door lock.

### **INSTALLATION**

Installation is in the reverse order of removal.

#### **CAUTION:**

- Tighten bolts to specification. Refer to <u>DLK-297</u>, "Exploded View".
- After installation, check back door open/close and lock/unlock operation.

#### SPINDLE UNIT

## SPINDLE UNIT: Removal and Installation

#### REMOVAL

Support back door using a suitable tool.

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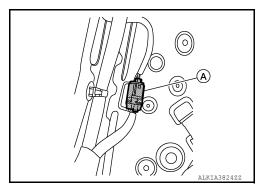
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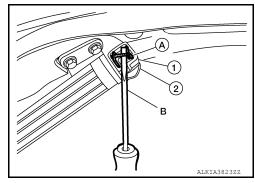
#### **WARNING:**

Bodily injury may occur if back door is not supported properly when removing back door spindle unit.

- Remove luggage side upper finisher. Refer to <u>INT-31</u>, "<u>LUGGAGE SIDE UPPER FINISHER</u>: Removal and Installation".
- 3. Disconnect the harness connector (A) from the spindle unit.



4. Remove metal clip (A) from spindle unit upper hinge ball socket (1) using a suitable tool (B) and release spindle unit from spindle unit upper hinge (2).



- 5. Remove metal clip from spindle unit lower hinge ball socket using a suitable tool and release spindle unit.
- 6. Pull harness through vehicle body and remove spindle unit.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- When reusing stud ball, always apply locking sealant before installing stud ball to back door.
- After installation, check back door open/close and lock/unlock operation.
- Perform calibration of automatic back door position information. Refer to <u>DLK-116</u>, "Work Procedure".

#### **BACK DOOR STAY**

BACK DOOR STAY: Removal and Installation

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## **REMOVAL**

1. Support back door using a suitable tool.

#### **WARNING:**

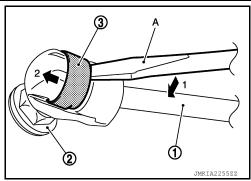
Bodily injury may occur if no supporting rod is holding back door open when removing back door stay.

## **BACK DOOR LOCK**

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

- Release metal clip (3) located on connection between back door stay (1) and stud ball (back door side) (2) using a suitable tool (A).
- 3. Remove back door stay (back door side).



4. Repeat procedure for removing back door stay from body side.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

After installation, check back door open/close operation.

BACK DOOR TOUCH SENSOR

BACK DOOR TOUCH SENSOR: Removal and Installation

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#### **CAUTION:**

Use care not to bend touch sensor.

#### REMOVAL

- 1. Release touch sensor clips using a suitable tool.
- 2. Disconnect the harness connector from the touch sensor and remove.

#### INSTALLATION

Installation is in the reverse order of removal.

#### CAUTION

After installation, check back door open/close and lock/unlock operation.

**EMERGENCY LEVER** 

**EMERGENCY LEVER: Unlock Procedure** 

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#### **UNLOCK PROCEDURE**

#### NOTE:

If back door lock cannot be unlocked due to a malfunction or battery discharge, perform unlock procedure to unlock back door assembly.

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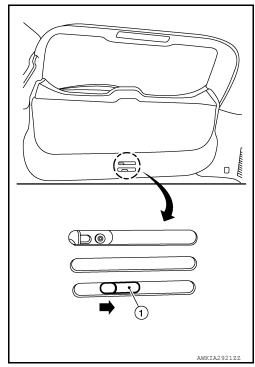
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## **BACK DOOR LOCK**

## < REMOVAL AND INSTALLATION >

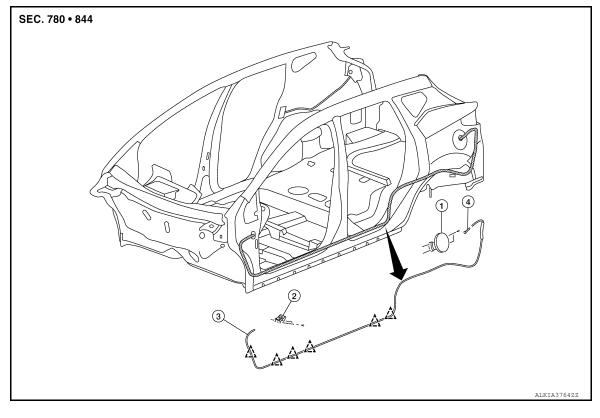
## [WITH INTELLIGENT KEY SYSTEM]

• From inside vehicle, rotate emergency lever (1) in direction shown to unlock.



## **FUEL FILLER LID OPENER**

Exploded View



1. Fuel filler lid

- Fuel filler lid release handle and hood lock
- 3. Fuel filler release cable

4. Fuel filler lid lock

#### ,^、Clip

### **FUEL FILLER LID**

## FUEL FILLER LID: Removal and Installation

#### **REMOVAL**

- 1. Remove fuel cap pin.
- 2. Remove screws and fuel filler lid.
- Remove fuel filler lid spring and bumper rubber from fuel filler lid (if necessary).

#### **INSTALLATION**

Installation is in the reverse order of removal.

#### CAUTION:

After installation, check fuel filler lid open/close and lock/unlock operation.

## FUEL FILLER LID LOCK

#### FUEL FILLER LID LOCK: Removal and Installation

#### **REMOVAL**

- Remove luggage side lower finisher (LH). Refer to <u>SE-140, "Removal and Installation"</u>.
- 2. Disconnect the fuel filler lid release cable from the fuel filler lid lock.
- 3. Rotate fuel filler lid lock to release pawls and remove.

#### INSTALLATION

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## **FUEL FILLER LID OPENER**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

Installation is in the reverse order of removal.

**CAUTION:** 

After installation, check fuel filler lid open/close and lock/unlock operation.

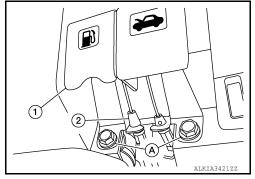
FUEL FILLER LID RELEASE CABLE

## FUEL FILLER LID RELEASE CABLE: Removal and Installation

#### INFOID:0000000011218852

#### REMOVAL

- 1. Partially remove front floor trim (LH). Refer to <a href="INT-25">INT-25</a>, "Exploded View".
- 2. Remove fuel filler lid/hood lock release handle bolts (A).
- 3. Disconnect the fuel filler lid release cable (2) from the fuel filler lid release handle (1).



- 4. Disconnect the fuel filler lid release cable from the fuel filler lid lock.
- 5. Release clips and remove fuel filler lid release cable.

#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

After installation, check fuel filler lid open/close and lock/unlock operation.

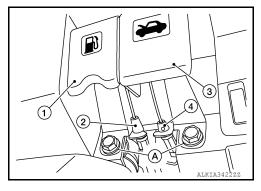
FUEL FILLER LID RELEASE HANDLE

#### FUEL FILLER LID RELEASE HANDLE: Removal and Installation

#### INFOID:0000000011218853

#### REMOVAL

- 1. Remove fuel filler lid/hood lock release handle bolts (A).
- 2. Disconnect fuel filler lid release cable (2) from fuel filler lid release handle (1).
- 3. Disconnect hood lock release cable (4) from hood lock release handle (3).
- 4. Remove fuel filler lid release handle.



#### INSTALLATION

## **DOOR SWITCH**

#### < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

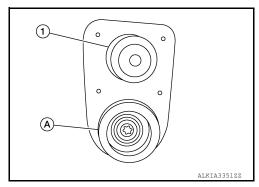
## DOOR SWITCH

## Removal and Installation

#### INFOID:0000000011218854

## **REMOVAL**

- 1. Remove door switch bolt (A).
- 2. Disconnect the harness connector from the door switch (1) and remove.



#### **INSTALLATION**

Installation is in the reverse order of removal.

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## DOOR REQUEST SWITCH

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR REQUEST SWITCH

**DRIVER SIDE** 

DRIVER SIDE: Removal and Installation

INFOID:0000000011218855

The driver side door request switch and driver side outside handle are serviced as an assembly. Refer to <u>DLK-291</u>, "OUTSIDE HANDLE: Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE: Removal and Installation

INFOID:0000000011218856

The passenger side door request switch and passenger side outside handle are serviced as an assembly. Refer to <u>DLK-291</u>, "OUTSIDE HANDLE: Removal and Installation".

**BACK DOOR** 

**BACK DOOR:** Removal and Installation

INFOID:0000000011218857

#### **REMOVAL**

- Remove back door outer finisher. Refer to <u>EXT-53</u>, "Removal and Installation".
- Disconnect the harness connector from the back door request switch.
- Release pawls and remove back door request switch.

#### INSTALLATION

## **INSIDE KEY ANTENNA**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

# INSIDE KEY ANTENNA INSTRUMENT CENTER

## **INSTRUMENT CENTER:** Removal and Installation

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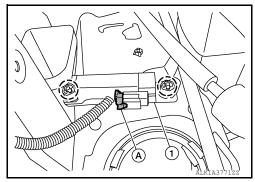
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#### REMOVAL

- 1. Remove shift selector finisher. Refer to IP-15, "Exploded View".
- 2. Disconnect the harness connector (A) from the inside key antenna (instrument center) (1).
- 3. Release pawls using a suitable tool and remove inside key antenna (instrument center).

( ): Pawl



#### **INSTALLATION**

Installation is in the reverse order of removal.

#### CONSOLE

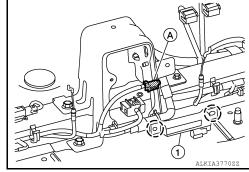
**CONSOLE**: Removal and Installation

#### INFOID:0000000011218859

#### REMOVAL

- 1. Remove center console rear finisher. Refer to SE-140, "Removal and Installation".
- 2. Disconnect the harness connector (A) from the inside key antenna (console) (1).
- 3. Release pawls using a suitable tool and remove inside key antenna (console).

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#### **INSTALLATION**

Installation is in the reverse order of removal.

#### LUGGAGE ROOM

#### LUGGAGE ROOM: Removal and Installation

#### INFOID:0000000011573889

#### **REMOVAL**

- 1. Fold second row seatback (LH) flat.
- Disconnect the harness connector from the inside key antenna (luggage).
- 3. Release clips using a suitable tool and remove inside key antenna (luggage).

#### INSTALLATION

Installation is 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: Removal and Installation

INFOID:0000000011218860

The driver side outside key antenna and driver side outside handle are serviced as an assembly. Refer to <u>DLK-291</u>, "<u>OUTSIDE HANDLE</u>: <u>Removal and Installation</u>".

PASSENGER SIDE

PASSENGER SIDE: Removal and Installation

INFOID:0000000011218861

The passenger side outside key antenna and passenger side outside handle are serviced as an assembly. Refer to <a href="https://doi.org/10.1007/journal.org/">DLK-291, "OUTSIDE HANDLE: Removal and Installation"</a>.

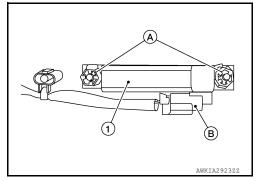
REAR BUMPER

REAR BUMPER: Removal and Installation

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#### **REMOVAL**

- 1. Remove rear bumper fascia. Refer to EXT-27, "Removal and Installation".
- 2. Disconnect the harness connector (B) from the outside key antenna (rear bumper).
- 3. Release clips (A) and remove outside key antenna (1).



#### INSTALLATION

## INTELLIGENT KEY WARNING BUZZER

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY WARNING BUZZER

## Removal and Installation

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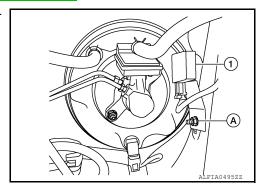
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#### **REMOVAL**

- 1. Remove air cleaner and air duct. Refer to EM-26, "Removal and Installation"
- 2. Disconnect the harness connector from the Intelligent Key warning buzzer (1).
- 3. Remove bolt (A) and Intelligent Key warning buzzer.



#### **INSTALLATION**

Installation is in the reverse order of removal.

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## **BACK DOOR WARNING CHIME**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## **BACK DOOR WARNING CHIME**

## Removal and Installation

#### INFOID:0000000011218864

#### **REMOVAL**

- 1. Remove rear bumper fascia. Refer to EXT-27, "Removal and Installation".
- 2. Disconnect the harness connector from the back door warning chime.
- 3. Remove nuts and back door warning chime.

#### **INSTALLATION**

## REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## REMOTE KEYLESS ENTRY RECEIVER

## Removal and Installation

INFOID:0000000011568150

### **REMOVAL**

- В
- 1. Remove glove box assembly. Refer to IP-25, "Removal and Installation".
- 2. Remove remote keyless entry receiver bolt.
- 3. Disconnect the harness connector from the remote keyless entry receiver and remove.

### **INSTALLATION**

Installation is in the reverse order of removal.

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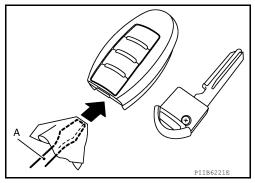
## INTELLIGENT KEY BATTERY

## Removal and Installation

- 1. Release lock knob on back of Intelligent Key and remove key.
- 2. Insert a suitable tool (A) wrapped with a cloth into slit of corner and twist it to separate upper part from lower part.

#### **CAUTION:**

- Do not insert a tool into notches of Intelligent Key to pry it open as this may damage circuit board.
- Do not use excessive force when opening Intelligent Key as this may result in damage to internal components.
- Do not touch circuit board or battery terminal.
- Key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



3. Replace battery with a new one.

**Battery replacement** 

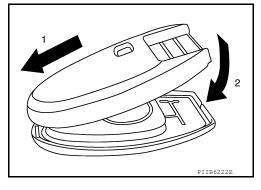
:Coin-type lithium battery

(CR2032)

4. Align tips of upper and lower parts, and then push them together until unit is securely closed.

#### **CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off electrode contact area.
- After replacing battery, check that all Intelligent Key functions work normally.



## **AUTOMATIC BACK DOOR CONTROL MODULE**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR CONTROL MODULE

## Removal and Installation

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#### **REMOVAL**

#### NOTE:

Before replacing automatic back door control module, perform "Before Replace ECU" of "Read / Write Configuration" to save or print current vehicle specification. Refer to <u>DLK-114</u>, "<u>Description</u>".

- 1. Remove luggage side lower finisher (LH). Refer to <a href="INT-31">INT-31</a>, "LUGGAGE SIDE UPPER FINISHER: Removal and Installation".
- 2. Disconnect the harness connectors from the automatic back door control module.
- Remove nuts and automatic back door control module.

#### **INSTALLATION**

#### **CAUTION:**

Be sure to perform "After Replace ECU" of "Read / Write Configuration" or "Manual Configuration" when replacing automatic back door control module. Refer to <a href="DLK-114">DLK-114</a>, "Work Procedure". Installation is in the reverse order of removal.

#### **CAUTION:**

Perform calibration of automatic back door position information. Refer to <u>DLK-114, "Work Procedure"</u>.

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Revision: October 2014 DLK-311 2015 Murano

## **AUTOMATIC BACK DOOR MAIN SWITCH**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

## AUTOMATIC BACK DOOR MAIN SWITCH

## Removal and Installation

#### INFOID:0000000011218867

#### **REMOVAL**

- 1. Remove glove box assembly. Refer to IP-25, "Removal and Installation".
- 2. Release pawls using a suitable tool and remove automatic back door main switch.

#### **INSTALLATION**

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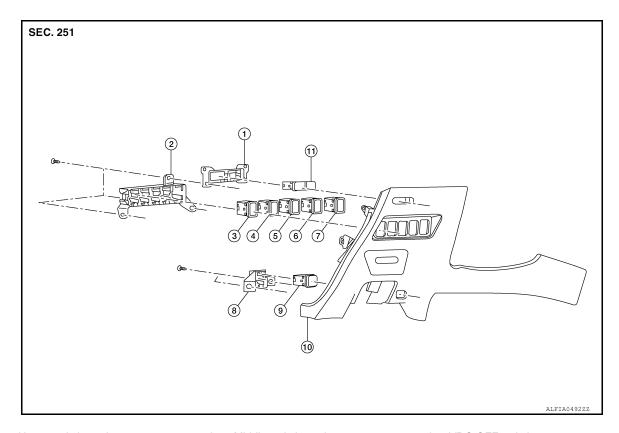
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## **AUTOMATIC BACK DOOR SWITCH**

Exploded View



- 1. Upper switch carrier
- 4. Mask
- 7. Warning system switch
- 10. Instrument lower panel LH
- 2. Middle switch carrier
- 5. Automatic back door switch
- 8. Lower switch carrier
- 11. Illumination control switch
- 3. VDC OFF switch
- 6. Heated steering wheel switch
- 9. Front power return switch

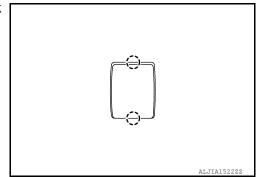
#### Removal and Installation

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#### **REMOVAL**

- 1. Remove instrument lower panel LH. Refer to <a href="IP-24">IP-24</a>, "Removal and Installation".
- 2. Remove screws and middle switch carrier from instrument lower panel LH.
- Release pawls using a suitable tool and remove automatic back door switch from middle switch carrier.

( ): Pawl



## **INSTALLATION**

## **AUTOMATIC BACK DOOR CLOSE SWITCH**

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

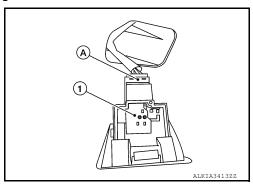
## **AUTOMATIC BACK DOOR CLOSE SWITCH**

## Removal and Installation

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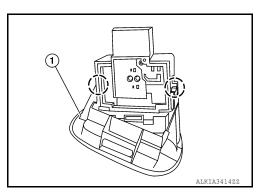
#### **REMOVAL**

- 1. Release the automatic back door close switch finisher pawls using a suitable tool.
- 2. Disconnect the harness connector (A) from the automatic back door close switch (1) and remove.



3. Release pawls and remove automatic back door switch finisher (1) (if necessary).





#### **INSTALLATION**