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# < PRECAUTION > PRECAUTION

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## 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.

#### Procedure without Cowl Top Cover

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.

### Precaution for Servicing Doors and Locks

#### 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,

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- 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.



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### PRECAUTIONS

#### < PRECAUTION >

- 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.

# PREPARATION

### PREPARATION

### **Special Service Tools**

INFOID:000000011536421 B

[WITH INTELLIGENT KEY SYSTEM]

#### The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name		Description
 (J-39570) Chassis Ear		Locating the noise
	SIIA0993E	Repairing the cause of noise
NISSAN Squeak and Rattle Kit	Alutil23222	
— (J-43241) Remote Keyless Entry Tester	A CONTRACT OF CONT	Used to test keyfobs
 (J-50190) Signal Tech II		<ul> <li>Activate and display TPMS transmitter IDs</li> <li>Display tire pressure reported by the TPMS transmitter</li> <li>Read TPMS DTCs</li> <li>Desirer TDMS transmitter IDe</li> </ul>
	ALEIAO1312Z	<ul> <li>Register TPMS transmitter IDs</li> <li>Test remote keyless entry keyfob relative signal strength</li> <li>Compatible with future sensors</li> <li>Equipped with a display</li> <li>Check Intelligent Key relative signal strength</li> <li>Confirm vehicle Intelligent Key antenna signal strength</li> </ul>

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### PREPARATION

#### [WITH INTELLIGENT KEY SYSTEM]

Tool number (TechMate No.) Tool name		Description
KV48105501 (J-45295-A) Transmitter activation tool	ALEIA01832Z	<ul> <li>Activate TPMS transmitter IDs</li> <li>Compatible with future sensors</li> <li>Equipped with a display (KV48105501 only)</li> </ul>
 (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

### **Commercial Service Tools**

< PREPARATION >

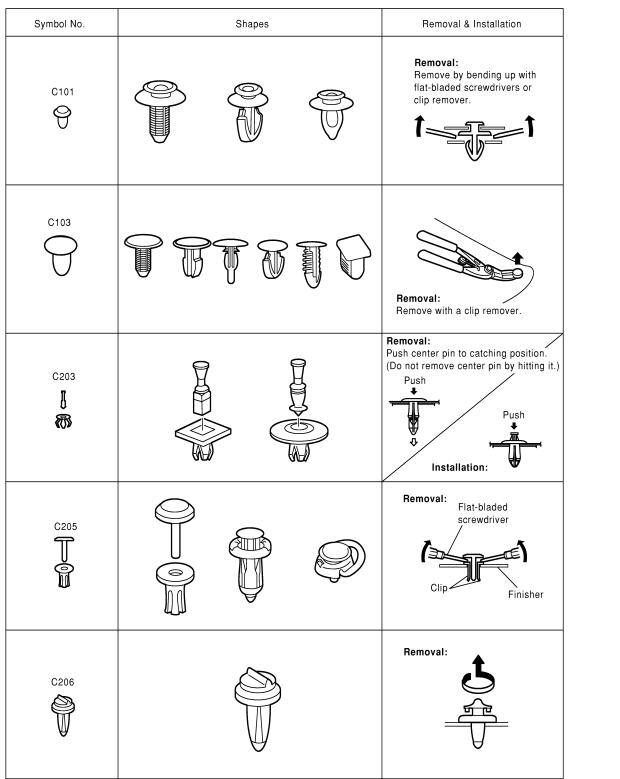
INFOID:000000011536422

(TechMate No.) Tool name		Description
(J-39565) Engine Ear	SIIA0995E	Locating the noise
( — ) Power tool	PIIB1407E	Loosening nuts, screws and bolts

### CLIP LIST

**Descriptions for Clips** 

Replace any clips which are damaged during removal or installation.



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[WITH INTELLIGENT KEY SYSTEM]

#### < PREPARATION >

Symbol No.	Shapes	Removal & Installation
CE103		Removal:
CF110 了 日	Clip A Clip B	Removal: Finisher Clip A Flat-bladed screwdrivers Clip B
CF118	Clip A Clip B (Grommet)	Removal: Flat-bladed Screwdrivers Body panel Clip A Clip B (Grommet)
CR103		Removal: Holder portion of clip must be spread out to remove rod.
CS101		Removal: 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver.

SIIA0316E

#### [WITH INTELLIGENT KEY SYSTEM]

Symbol No.	Shapes	Removal & Installation	А
CG101		Removal:     Installation:       Rotate 45° to remove     Installation:	B C D
		Removal:	E
CS102	Ś		F
	Ê		G
		Removal:	Н
CS113		Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip.	I
			J
			DLK
			L
C111	$\bigcirc$		Μ
		(B)	Ν
			0

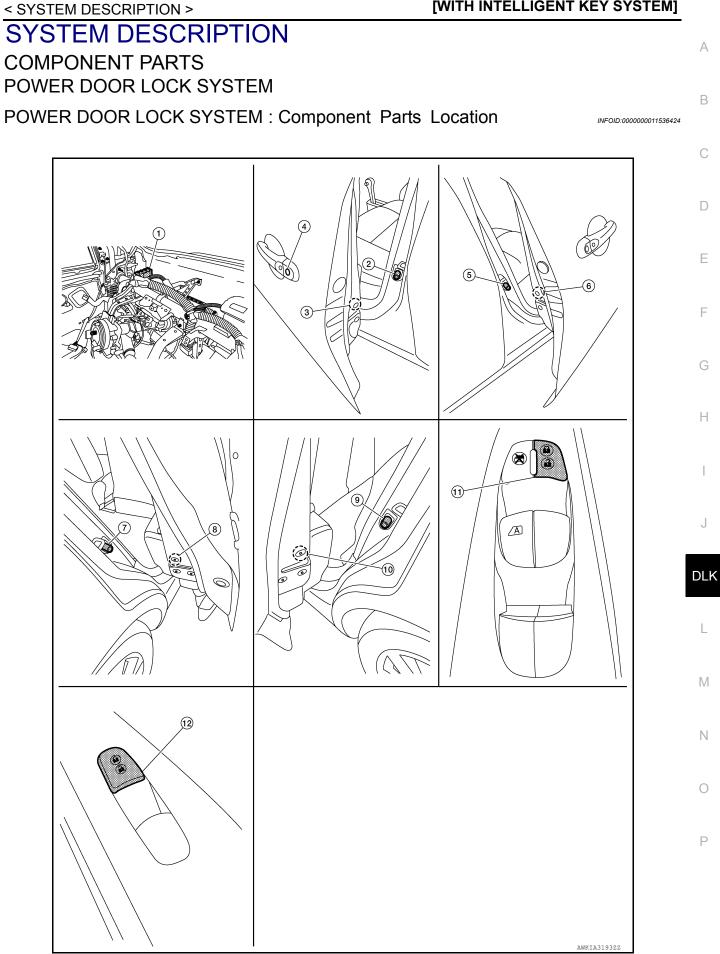
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Symbol No.	Shapes	Removal & Installation
CG104		Removal: Remove by bending up with flat-bladed screwdrivers. Radiator grille Body panel
CE114	B CONTRACTOR	
CF118	Clip A Clip B (Grommet)	Removal: Flat-bladed Finisher screwdrivers Body panel Clip A Clip B (Grommet)

ALJIA0564GB

#### [WITH INTELLIGENT KEY SYSTEM]



### < SYSTEM DESCRIPTION >

- 1. BCM (view with instrument panel re- 2. moved)
- 4. Front door lock assembly LH
- 7. Rear door switch RH
- 10. Rear door lock actuator LH
- Front door switch LH
- 5. Front door switch RH
- 8. Rear door lock actuator RH
- 11. Main power window and door lock/ unlock switch
- 3. Front door lock actuator LH
- 6. Front door lock actuator RH
- 9. Rear door lock switch LH
- 12. Power window and door lock/unlock switch RH

### POWER DOOR LOCK SYSTEM : Component Description

INFOID:000000011536425

Item Function		
BCM	Controls the door lock system	
Door switch	Inputs door open/close condition to BCM	
Door lock and unlock switch	<ul> <li>Detects if door lock and unlock switch is press/release</li> <li>Integrated in the main power window and door lock/unlock switch and power window and door lock/unlock switch RH</li> </ul>	
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door	

### INTELLIGENT KEY SYSTEM

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

### INTELLIGENT KEY SYSTEM : Component Parts Location

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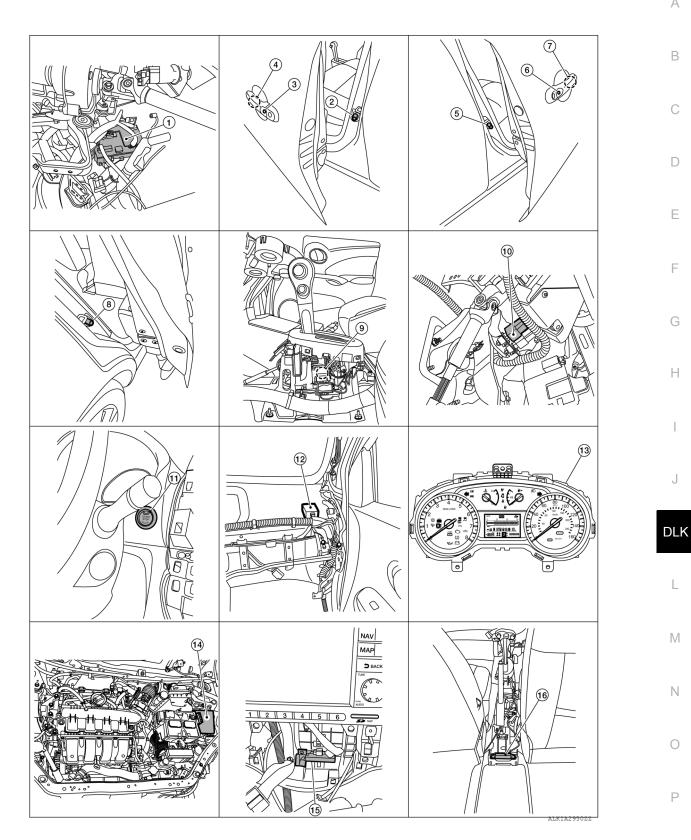
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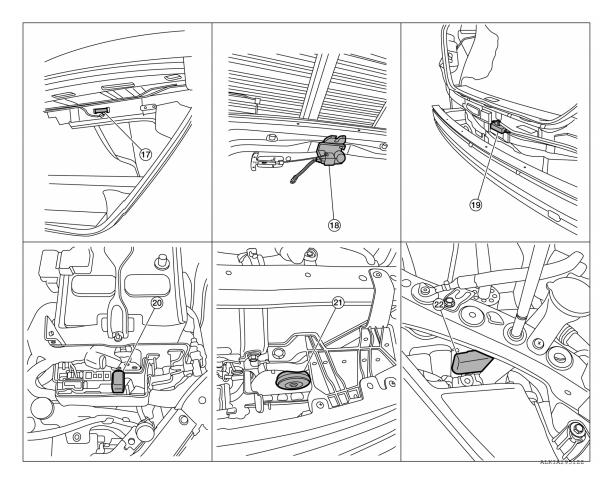
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#### < SYSTEM DESCRIPTION >

### COMPONENT PARTS



- 1. BCM (view with instrument panel re- 2. moved)
- 4. Outside key antenna (driver side)
- 7. Outside key antenna (passenger side)
- 10. Brake switch
- 13. Combination meter
- 16. Inside key antenna (console) (view with center console removed)
- Outside key antenna (rear bumper) (view with rear bumper fascia removed)
- 22. Intelligent Key warning buzzer

- Front door switch LH
- 5. Front door switch RH
- 8. Rear door switch RH (rear door switch LH similar)
- 11. Push-button ignition switch
- 14. IPDM E/R
- 17. Inside key antenna (trunk room)
- 20. Horn relay

- 3. Door request switch LH
- 6. Door request switch RH
- CVT shift selector (park position switch) (if equipped) (view with center console removed)
- 12. Remote keyless entry receiver (view with instrument panel removed)
- 15. Inside key antenna (instrument center)
- 18. Trunk lid opener assembly
- 21. Horn

### **INTELLIGENT KEY SYSTEM : Component Description**

INFOID:000000011536427

Item	Function
BCM	Controls the Intelligent Key system.
Trunk lid switch	Inputs trunk lid open/close condition to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Stop lamp switch	Inputs the brake pedal position condition to BCM.
Push-button ignition switch	Inputs the push-button ignition switch ON/OFF condition to BCM.
Door switch	Inputs door open/close condition to BCM.

Revision: December 2014

**DLK-20** 

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

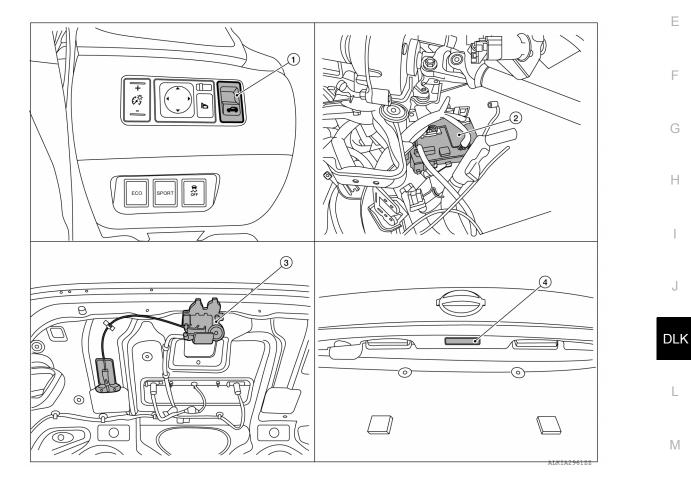
Item	Function	٥
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.	A
Request switch	Inputs lock/unlock operation to BCM.	
Intelligent Key	Transmits button operation to remote keyless entry receiver.	В
Outside key antenna	Detects if Intelligent Key is outside the vehicle.	
Inside key antenna	Detects if Intelligent Key is inside the vehicle.	
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.	С

### TRUNK LID OPENER SYSTEM

### TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:000000011536428

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- 1. Trunk lid opener switch
- 2. BCM (view with instrument panel re- 3. moved

Trunk lid opener assembly (trunk lid opener actuator and trunk lid switch)

4. Trunk opener request switch

#### TRUNK LID OPENER SYSTEM : Component Description

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Item	Function
BCM	Controls the Intelligent Key system.
Trunk opener request switch	Inputs the trunk open request to the BCM.
Trunk lid opener actuator	Releases the mechanical latch to open the trunk lid.
Trunk lid opener switch	Inputs the trunk open request to the BCM.
Trunk lid switch	Inputs the trunk lid open/close condition to the BCM.

Revision: December 2014

**DLK-21** 

#### SYSTEM (POWER DOOR LOCK SYSTEM)

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

### SYSTEM (POWER DOOR LOCK SYSTEM)

#### System Diagram

Door lock/unlock switch	Door lock/unlock switch signal			
Door key cylinder switch	Door key cylinder switch signal			
Each door switch	Door switch signal	BCM	Door lock actuator signal	Each door lock actuator
Key switch	Key switch signal			
Combination meter	CAN communication (vehicle speed signal)			

### System Description

INFOID:000000011536431

INFOID:000000011536430

Input	Single	Function	Actuator			
Door lock/unlock switch	— Door lock/unlock signal	Door lock function				
Door key cylinder switch						
Each door switch	Door open/close signal	Key reminder function	Each door lock actuator			
Combination meter	Warning buzzer signal					
	Vehicle speed signal	Automatic door lock/unlock function				

#### DOOR LOCK FUNCTION

- 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 RH.
- 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

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the driver side door lock actuator; turning it to "UNLOCK" 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 "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-37. "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

#### AUTOMATIC DOOR LOCKS (LOCK OPERATION)

The automatic door locks function is the function that locks all doors linked with the vehicle speed or shift position.

Vehicle Speed Sensing Auto Door Lock<sup>\*1</sup>

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.

### SYSTEM (POWER DOOR LOCK SYSTEM)

#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

< S	SYSTEM DESCRIPTION > [WITH INTELLIGENT KEY S	Y STEIVIJ	
loc	a door is opened and closed at any time during one ignition cycle (OFF $\rightarrow$ ON), even after initial a ck operation has taken place, the BCM will relock all doors when the vehicle speed reaches 24 PH) or more again.		A
The	etting change of Automatic Door Locks (LOCK) Function ne LOCK operation setting of the automatic door locks function can be changed.		В
The doc <u>"D(</u>	With CONSULT ne ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the a por locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to OOR LOCK : CONSULT Function (BCM - DOOR LOCK)".		С
9	Without CONSULT ne automatic door locks (LOCK) function can be switched ON/OFF by performing the following ope Close all doors (door switch OFF)	ration.	D
2.			
3.		n 20 sec-	Е
4.	The switching is completed when the hazard lamp blinks.		
	OFF $\rightarrow$ ON : 2 blinks ON $\rightarrow$ OFF : 1 blink		F
F			
5.			G
The	UTOMATIC DOOR LOCKS (UNLOCK OPERATION) ne automatic door locks (UNLOCK) function is the function that unlocks all doors linked with the key shift position.	y position	Н
All BC	N OFF Interlock Door Unlock <sup>*1</sup> Il doors are unlocked when the power supply position is changed from ON to OFF. CM outputs the unlock signal to all door lock actuators when it detects that the power supply p nanged from ignition switch ON to OFF.	osition is	
The	etting change of Automatic Door Locks (UNLOCK) Function ne UNLOCK operation setting of the automatic door locks function can be changed.		J
The	With CONSULT The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the a por locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refe 7, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".		DLI
	Without CONSULT		
	ne automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following o	peration.	L
1. 2.			
2. 3.		within 20	M
0.	seconds after turning the power supply position ON.		
4.	The switching is completed when the hazard lamp blinks.		Ν
	$OFF \rightarrow ON$ : 2 blinks $ON \rightarrow OFF$ : 1 blink		6
5.	The ignition switch must be turned OFF and ON again between each setting change.		0
*1.	: This function is set to ON before delivery.		
	,		Ρ

#### < SYSTEM DESCRIPTION >

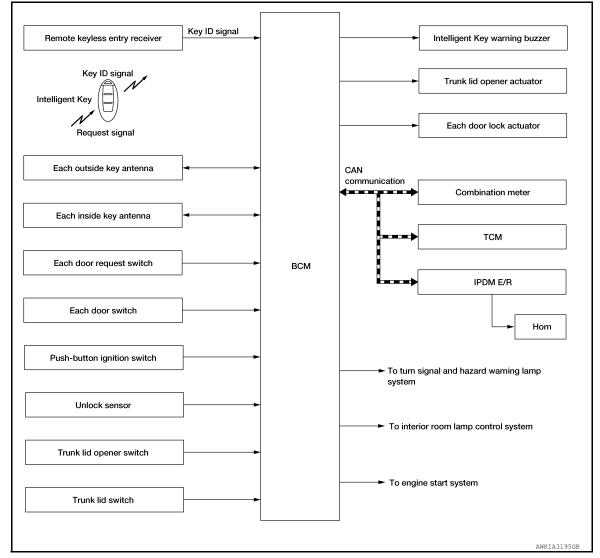
[WITH INTELLIGENT KEY SYSTEM]

### SYSTEM (INTELLIGENT KEY SYSTEM) INTELLIGENT KEY SYSTEM

### INTELLIGENT KEY SYSTEM : System Description

INFOID:000000011536432

#### 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).
   NOTE:
  - 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 Key, refer to CONSULT Immobilizer mode and follow the onscreen instructions.

Function	Description	Refer
Door lock	Lock/unlock can be performed by pressing the request switch	DLK-25
Trunk open	The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener switch	DLK-27

#### < SYSTEM DESCRIPTION >

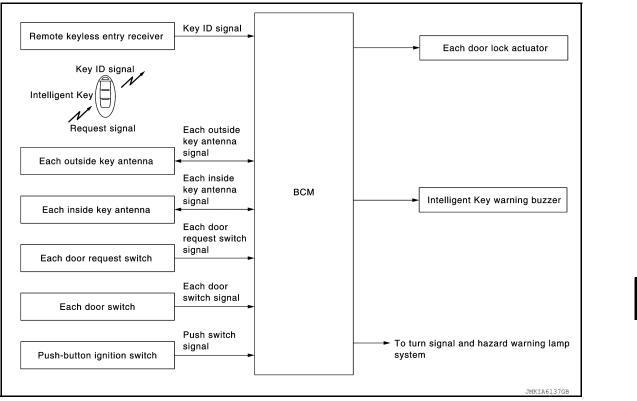
### [WITH INTELLIGENT KEY SYSTEM]

Function	Description	Refer	,
Remote keyless entry	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key	DLK-28	ŀ
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle	DLK-30	E
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-31	
Engine start	The engine can be turned on while carrying the Intelligent Key	<u>DLK-24</u>	C
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state	DLK-22	

### DOOR LOCK FUNCTION

### DOOR LOCK FUNCTION : System Description

#### SYSTEM DIAGRAM



### DOOR REQUEST SWITCH OPERATION

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

#### OPERATION DESCRIPTION

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

#### **OPERATION CONDITION**

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

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#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

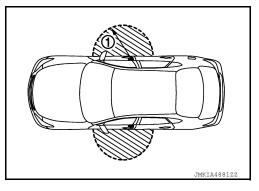
Each request switch operation	Operation condition				
Lock	<ul> <li>All doors are closed</li> <li>Ignition switch is in the LOCK or OFF position</li> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area</li> <li>P position warning is not activated</li> </ul>				
Unlock	<ul> <li>All doors are closed</li> <li>Ignition switch is in the LOCK or OFF position</li> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area *</li> </ul>				

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

Door lock function can be changed using "LOCK/UNLOCK BY I-KEY" mode in "WORK SUPPORT". Refer to <u>DLK-37, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

#### 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, passenger door handles (1). However, this operating range depends on the ambient conditions.



#### HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 1 time, unlock: 2 times) and sounds Intelligent Key warning buzzer (lock: 1 time, unlock: 2 times) when door lock or unlock operates by operation of each door request switch.

#### How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-37, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

#### AUTO DOOR LOCK FUNCTION

After door is unlocked by door request switch operation and if 30 seconds or more passes 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>BCM receives lock signal</li> <li>Push switch is pressed</li> </ul>
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Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-</u> <u>37, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

#### LIST OF OPERATION RELATED PARTS

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

#### SYSTEM (INTELLIGENT KEY SYSTEM) (WITH INTELLIGENT KEY SYSTEM)

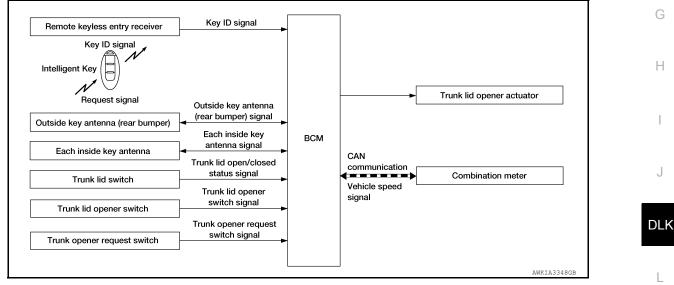
< SYSTEM DESCRIPTION >

Door lock function	Intelligent Key	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch	Combination meter	A B C
Door lock/unlock function	×	×	×	×	×	×	×			×				D
Hazard and buzzer reminder function								×	×	×	×		×	
Auto door lock function	×	×	×	×	×		×			×		×		F

### TRUNK OPEN FUNCTION

### TRUNK OPEN FUNCTION : System Description

#### System Diagram



#### TRUNK LID OPENER OPERATION

- When the BCM detects that trunk opener request switch is pressed, it starts the outside key antenna (rear bumper) and inside key antenna and transmits the request signal to the Intelligent Key. Then, checks that the Intelligent Key is near the trunk lid.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.

#### OPERATION CONDITION

If the following conditions are satisfied, the trunk lid can be opened.

Trunk lid open function	Operation condition	-
Trunk open operation	<ul> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> <li>Intelligent Key is within outside key antenna (rear bumper) detection area</li> <li>Trunk lid is closed</li> </ul>	Ρ

#### OUTSIDE KEY ANTENNA DETECTION AREA

INFOID:0000000011536434

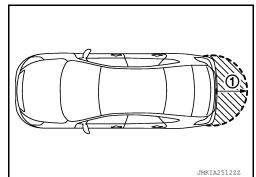
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#### SYSTEM (INTELLIGENT KEY SYSTEM) WITH INTELLIGENT KEY SYSTEM]

#### < SYSTEM DESCRIPTION >

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



#### LIST OF OPERATION RELATED PARTS Parts marked with × are the parts related to operation.

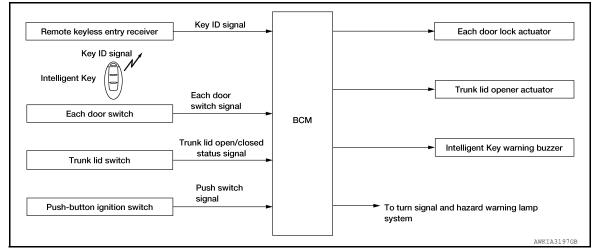
Trunk open function	Intelligent Key	Remote keyless entry receiver	Trunk lid opener actuator	Trunk lid switch	Inside key antenna	Outside key antenna (rear bumper)	CAN communication system	BCM	Trunk lid opener switch	Combination meter	Trunk opener request switch
Trunk lid open function	×	×	×	×	×	×	×	×	×	×	×

### REMOTE KEYLESS ENTRY FUNCTION

### REMOTE KEYLESS ENTRY FUNCTION : System Description

#### INFOID:000000011536435

#### SYSTEM DIAGRAM



#### REMOTE KEYLESS ENTRY OPERATION

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.

Remote keyless entry system controls operation of the following items.

- Auto door lock
- Door lock/unlock
- Hazard and buzzer reminder
- Panic alarm
- Trunk lid open

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

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#### OPERATION AREA

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

#### DOOR LOCK/UNLOCK FUNCTION

- When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmitted from Intelligent Key to BCM via remote keyless entry receiver.
- BCM receives the signal and compares it with the registered key ID to the vehicle.
- BCM transmits door lock/unlock signal to each door lock actuator and operates each door lock actuator, when key ID matches. At the same time, BCM blinks hazard warning lamps (lock: 1 time, unlock: 2 times) and sounds Intelligent Key buzzer (lock: 1 time, unlock: 2 times) as a reminder.

#### **OPERATION CONDITION**

Remote controller operation	Operation condition	
Lock	<ul> <li>All door are closed</li> <li>Ignition switch is in the LOCK or OFF position</li> <li>Panic alarm is not activated</li> <li>P position warning is not activated</li> </ul>	E
Unlock	<ul> <li>Ignition switch is in the LOCK or OFF position</li> <li>Intelligent Key is outside the vehicle</li> <li>Panic alarm is not activated</li> <li>P position warning is not activated</li> </ul>	G

#### TRUNK OPEN FUNCTION

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

#### **OPERATION CONDITION**

Remote controller operation	Operation condition	
Trunk open	<ul> <li>Press and hold the trunk open button for 0.4 second or more*</li> <li>Ignition switch is except the ON position</li> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> </ul>	

\*: Pattern of trunk open button can be selected using CONSULT. Refer to <u>DLK-37. "INTELLIGENT KEY</u>: CONSULT Function (BCM - INTELLIGENT KEY)".

#### PANIC ALARM FUNCTION

When ignition switch is OFF, BCM transmits theft warning horn request signal to IPDM E/R. Then, IPDM E/R turns on and off horn intermittently.

The horn sounds intermittently.

The alarm automatically turns off.

After 25 seconds

When BCM receives any signal from Intelligent Key

How to Change Panic Alarm Operation Mode Refer to DLK-37, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

#### HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 1 time, unlock: 2 times) and sounds Intelligent Key warning buzzer (lock: 1 time, unlock: 2 times) when door lock or unlock operates by each remote controller button operation of Intelligent Key.

How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-37, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

#### AUTO DOOR LOCK FUNCTION

After door is unlocked by Intelligent Key button operation and if 30 seconds or more passes without performing the following operation, all doors are automatically locked. However, operation check function does not activate.

#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Operating	condition
oporating	oonanaon

Door switch is ON (door is open)

BCM receives lock signal

Push switch is pressed

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-</u> <u>37. "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

#### LIST OF OPERATION RELATED PARTS

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

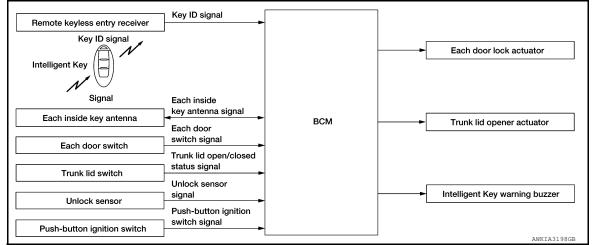
Remote keyless entry functions	Intelligent Key	Remote keyless entry receiver	Door switch	Door lock actuator	Push-button ignition switch	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamp	Trunk lid opener actuator	Trunk lid switch	IPDM E/R	Horn
Door lock/unlock function by remote control button	×	×	×	×	×			×						
Trunk open function	×	×			×	×	×	×			×	×		
Hazard and buzzer reminder function	×	×				×	×	×	×	×				
Auto door lock function	×	×	×	×	×			×						
Panic alarm function	×						×	×					×	×

### **KEY REMINDER FUNCTION**

### KEY REMINDER FUNCTION : System Description

INFOID:000000011536436

#### System Diagram



#### **BASIC OPERATION**

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

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Key reminder function	Operation condition	Operation
Driver side door closed*	<ul> <li>Right after driver side door is closed under the following conditions</li> <li>Intelligent Key is inside the vehicle</li> <li>Driver side door is opened</li> <li>Driver side door is in unlock state</li> </ul>	All doors unlock
Door is open or closed	<ul> <li>All doors unlock</li> <li>Honk Intelligent Key warn- ing buzzer</li> </ul>	
Trunk is closed	<ul><li>Right after trunk is closed under the following conditions</li><li>Intelligent Key is inside trunk room</li><li>All doors are closed</li><li>All doors are locked</li></ul>	<ul> <li>Trunk open</li> <li>Honk Intelligent Key warn- ing buzzer</li> </ul>

\*:When closing the door if something comes into contact with the door lock switch it might activate the door locks accidentally, but the unlock operation will override this.

#### NOTE:

The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function does 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 for the open door.

#### WARNING FUNCTION

### WARNING FUNCTION : System Description

#### **OPERATION DESCRIPTION**

The warning function are as per the following items and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, combination meter buzzer, KEY warning lamp, shift P warning lamp and engine start operation indicator lamp.

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

#### **OPERATION CONDITION**

Operation condition of warning and information is as per the following table.

Warning/Information functions	Operation procedure	-
Intelligent Key system malfunction	A malfunction is detected on BCM and key warning lamp turns ON	-

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INFOID:000000011536437

#### < SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Warning/Inform	nation functions	Operation procedure
OFF position warning	For internal	<ul> <li>When condition A, B or condition C is satisfied</li> <li>Condition A</li> <li>Ignition switch: ACC position</li> <li>Door switch (driver side): ON (Door is open)</li> <li>Condition B</li> <li>Turn ignition switch from ON to OFF while door is open</li> <li>Condition C</li> <li>Intelligent Key backside is contacted to push-button ignition switch while brake pedal is depressed and ignition switch is LOCK or OFF (When the Intelligent Key battery is discharged)</li> <li>Door switch (driver side): ON (Door is open)</li> </ul>
	For external*	OFF position warning (For internal) is in active mode, driver side door has been closed. <b>NOTE:</b> OFF position (For external) active only when each of the sequence has occurred as below: P position warning $\rightarrow$ ACC warning $\rightarrow$ OFF position warning (For internal) $\rightarrow$ OFF position warning (For internal)
	For internal	<ul> <li>Shift position: Other than P</li> <li>Engine is stopped (Ignition switch is turned from ON to OFF)</li> </ul>
P position warning	For external	<ul> <li>P position warning (For internal) operates</li> <li>Door switch: ON to OFF (Door is open to close)</li> <li>Intelligent Key cannot be detected inside the vehicle</li> </ul>
ACC warning		<ul> <li>After P position warning operates, or when ignition switch is turned ON immediately after P position warning operates</li> <li>Ignition switch: ACC</li> </ul>
Door status change from open to close		<ul> <li>Ignition switch: Other than LOCK and OFF</li> <li>Door switch: ON to OFF (Door status changes from open to close)</li> <li>Registered Intelligent Key is not detected inside the vehicle</li> </ul>
Take away warning	Door status is open	<ul> <li>Ignition switch: Other than LOCK and OFF</li> <li>Door switch: ON (Door is open)</li> <li>Registered Intelligent Key is not detected inside the vehicle during Key ID verification for 5 seconds</li> </ul>
	Push-button ignition switch operation	<ul> <li>Ignition switch: Other than LOCK position</li> <li>Push-button ignition switch is pressed</li> <li>Registered Intelligent Key is not detected inside the vehicle</li> </ul>
Door lock operation warn	ing	Door lock operation is requested while door lock operation condition of door request switch is not satisfied
	Ignition switch is ON po- sition	<ul> <li>Ignition switch: ON position</li> <li>Shift position: P</li> <li>Engine is stopped</li> </ul>
Engine start information	Ignition switch is other than ON position	<ul> <li>Ignition switch: Other than ON</li> <li>Shift position: P</li> <li>Intelligent Key is in the passenger room after driver door is opened and closed</li> </ul>
g.io cart inormatori	Ignition switch is ON po- sition to OFF position	<ul> <li>Ignition switch: ON position to OFF position</li> <li>Shift position: P position</li> <li>NOTE:</li> <li>Engine start information turns ON for several seconds and then turns OFF, when ignition switch is turned to the ON position from the OFF position. Engine start information does not turn ON until opening and closing of driver door is detected again.</li> </ul>
Intelligent Key low battery	y warning	BCM detects that Intelligent Key is low battery, after ignition switch is turned ON
Key ID warning		<ul><li>Push-button ignition switch is pressed</li><li>Registered Intelligent Key is not detected inside the vehicle</li></ul>

\*: M/T models do not apply.

#### WARNING METHOD

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

#### SYSTEM (INTELLIGENT KEY SYSTEM) [WITH INTELLIGENT KEY SYSTEM] < SYSTEM DESCRIPTION >

#### Warning chime А Shift P Engine start "KEY" warning Intelligent Warning/Information functions warning operation in-Combination lamp Key warnlamp dicator lamp meter buzzer ing buzzer В Intelligent Key system malfunction Indicate \_\_\_\_ \_ \_ \_\_\_\_ For internal Activate \_\_\_\_ \_\_\_\_ \_\_\_\_ \_ OFF position warning С For external Activate \_\_\_\_ \_\_\_\_ \_ \_\_\_\_ For internal Indicate Activate \_\_\_\_\_ P position warning Blink (yellow) For external \_\_\_\_ \_\_\_\_ Active \_ D ACC warning Activate \_ \_ \_\_\_\_ Door is open to close \_\_\_\_ Activate Activate \_ Е Door is open \_ \_\_\_ Blink (yellow) Take away warning Push-ignition switch oper-Activate ation F Door lock operation warning \_\_\_\_ \_ Activate \_ \_\_\_\_ Engine start information Indicate \_\_\_\_ \_\_\_\_ \_\_\_\_ Intelligent Key low battery warning Blink (green) \_\_\_\_ \_ \_\_\_\_ \_\_\_\_ Key ID warning Blink (yellow) \_\_\_\_ \_ \_\_\_\_ \_\_\_\_

#### LIST OF OPERATION RELATED PARTS

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

Function		Intelligent Key	Push-button ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter buzzer	CAN communication system	BCM	Shift P warning lamp	Engine start operation indicator lamp	"KEY" warning lamp
Intelligent Key system malfunction										×	×			×
OFF position warning	For internal			×					×	×	×			
	For external			×				×			×			
P position warning			×						×	×	×	х		×
ACC warning			×						×	×	×			
	Door is open or close	×		×		×		×	×	×	×			×
	Door is open	×		×		×				×	×			×
Take away warning	Push-button ignition switch operation	×	×			×			×	×	×			×
Door lock operation warning		×		×	×	×	×	×			×			
Key ID warning			×			×				×	×			×
Engine start information		×	×			×				×	×		×	
Intelligent Key low batter	v warning	×				×				×	×			×

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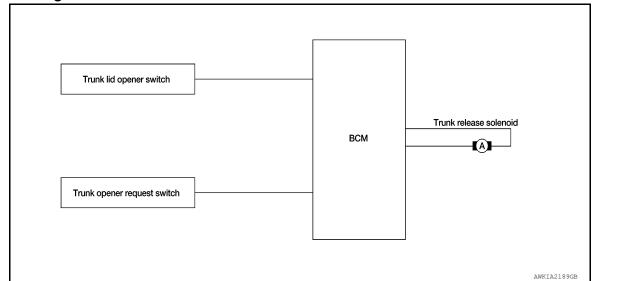
#### SYSTEM (TRUNK LID OPENER SYSTEM)

#### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

### SYSTEM (TRUNK LID OPENER SYSTEM)

#### System Diagram



#### System Description

INFOID:000000011536439

INFOID:000000011536438

#### TRUNK LID OPENER OPERATION

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

#### **OPERATION CONDITION**

If the following conditions are satisfied, trunk open operation is performed.

Trunk lid opener switch operation	Operation condition
Trunk lid open	<ul> <li>Trunk lid opener switch is ON</li> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> </ul>

# SYSTEM (INTEGRATED HOMELINK TRANSMITTER) < SYSTEM DESCRIPTION > [WITH INTELLIGENT KEY SYSTEM]

### SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

### System Description

INFOID:000000011898667

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

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### DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000011897883

#### 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.

System	Sub System	Direct Diagnostic Mode						
		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	HEAD LAMP			×	×	×		
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			×	×	×		
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

#### DIAGNOSIS SYSTEM (BCM) [WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

## DOOR LOCK

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

INFOID:000000011897885

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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 trunk open 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 trunk 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 [OTR ULK/AS UNLK/DR UNLK/ALL UNLK/ALL LOCK].

#### WORK SUPPORT

Support Item	Setting	Description	
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.	
DOOR LOCK-DINLOCK SET	Off	Automatic door locks function OFF.	
	Lock/Unlock*	Automatic door locks function operates in lock and unlock.	
AUTOMATIC LOCK/UNLOCK	Lock Only	Automatic door locks function operates in lock only.	
SELECT	Unlock Only	Automatic door locks function operates in unlock only.	
	Off	Automatic door locks function OFF.	
	P RANGE	Doors lock automatically when shifted out of Park (P).	
AUTOMATIC DOOR LOCK SELECT	VH SPD*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).	
	MODE6*	Drivers door unlocks automatically when key is removed.	
	MODE5	Drivers door unlocks automatically when shifted into Park (P).	•
AUTOMATIC DOOR UNLOCK	MODE4	Drivers door unlocks automatically when ignition is switched from ON to OFF.	•
SELECT	MODE3	Doors unlock automatically when key is removed.	•
	MODE2	Doors unlock automatically when shifted into Park (P).	
	MODE1	Doors unlock automatically when ignition is switched from ON to OFF.	•

#### \*: Initial setting

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000011897887

SELF DIAGNOSTIC RESULT Refer to <u>BCS-49, "DTC Index"</u>.

## < SYSTEM DESCRIPTION >

## **DIAGNOSIS SYSTEM (BCM)**

## [WITH INTELLIGENT KEY SYSTEM]

## DATA MONITOR

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 trunk open switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
CLUCH SW [On/Off]	×	Indicates condition of clutch switch.
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 driver 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 commu- nication line.
DETE SW -IPDM [On/Off]		Indicates condition of detent 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 com- munication 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 communica- tion 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 commu- nication 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.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while oper- ating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while oper- ating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk lid 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 trunk 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.

ACTIVE TEST

## **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

Test Item	Description
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/ Off].
LCD	This test is able to check combination meter display information [Off/LK WN/OUTKEY/NO KY/BATT/INSRT/SFT P/ROTAT/ID NG/B&P I/B&P N].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
ENGINE SW ILLUMI	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].
TRUNK/BACK DOOR	This test is able to check trunk actuator operation [Open].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
HORN	This test is able to check horn operation [On].
P RANGE	This test is able to check CVT shift selector illumination operation [On/Off].

#### WORK SUPPORT

Support Item	Setting		Description		
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.		
LUCK/UNLUCK BY I-KEY	Off		Door lock/unlock function from Intelligent Key OFF.		
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function from trunk opener switch.		
TRUNK/GLASS HATCH UPEN	Off		No buzzer reminder function from trunk opener switch.		
	On*		Anti lock out setting ON.		
ANTI KEY LOCK IN FUNCTI	Off		Anti lock out setting OFF.		
	Off		No buzzer reminder when doors are unlocked with request switch.		
ANS BACK I-KEY UNLOCK	On*		Buzzer reminder when doors are unlocked with request switch.		
	Horn Chir	р	Horn chirp reminder when doors are locked with request switch.	С	
ANS BACK I-KEY LOCK	DCK         Buzzer*         Buzzer reminder when doors are locked with request switch.				
	Off		No reminder when doors are locked with request switch.		
HORN WITH KEYLESS LOCK	Off		Horn chirp reminder when doors are locked with Intelligent Key.		
HURN WITH RETLESS LUCK	On*		No horn chirp reminder when doors are locked with Intelligent Key.		
	Lock/Unic	ock*	Hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch.		
HAZARD ANSWER BACK	Unlock O	nly	Hazard warning lamp activation when doors are unlocked with Intelligent Key or request switch.		
HAZARD ANSWER BACK	Lock Only	1	Hazard warning lamp activation when doors are locked with Intelli- gent Key or request switch.		
Off			No hazard warning lamp activation when doors are locked/unlock with Intelligent Key or request switch.		
INSIDE ANT DIAGNOSIS		_	This function allows inside key antenna self-diagnosis.		
CONFIRM KEY FOB ID			Intelligent Key ID code can be checked.		
SHORT CRANKING OUTPUT		Starter motor operation duration time setting.			
	Fad	200 msec			
	End		—		

## **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

#### [WITH INTELLIGENT KEY SYSTEM]

Support Item	Setting		Description	
	MODE 3	1.5 sec		
PANIC ALARM SET	MODE 2	OFF	Intelligent Key panic alarm button setting.	
	MODE 1*	0.5 sec		
LO-BATT OF KEY FOB WARN	On*		Intelligent Key low battery warning ON.	
LO-BATT OF RET FOB WARN	Off		Intelligent Key low battery warning OFF.	
	MODE7	5 min		
	MODE6	4 min		
	MODE5	3 min		
AUTO LOCK SET	MODE4	2 min	Auto door lock time setting.	
	MODE3*	1 min		
	MODE2	30 sec		
	MODE1	Off		
	MODE 3	1.5 sec		
TRUNK OPEN DELAY	MODE 2	OFF	Intelligent Key trunk open button setting.	
	MODE 1*	0.5 sec		

# \*: Initial Setting

## TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000011897888

#### 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 driver door unlock sensor.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TR/BD OPEN SW [On/Off]	Indicates condition of trunk open switch.
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk lid switch.
RKE-TR/BD [On/Off]	Indicates condition of trunk open signal from Intelligent Key.

## ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

INFOID:0000000011536444

[WITH INTELLIGENT KEY SYSTEM]

# ECU Reference C BCS-29, "Reference Value" BCS-29, "Reference Value" C BCS-46, "Fail-safe" BCS-46, "Fail-safe" D BCS-49, "DTC Inspection Priority Chart" D

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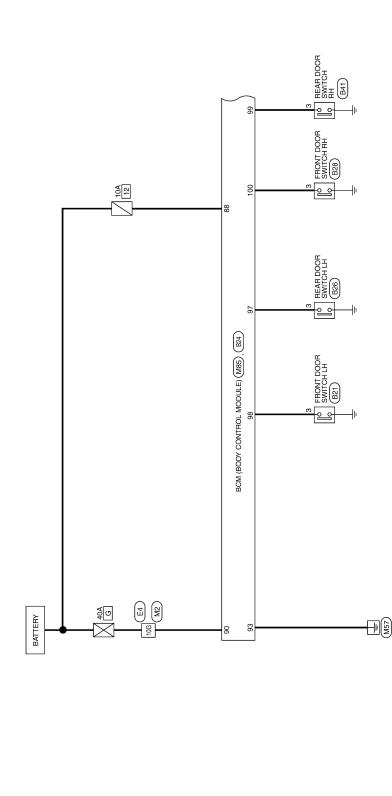
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## WIRING DIAGRAM POWER DOOR LOCK SYSTEM

Wiring Diagram

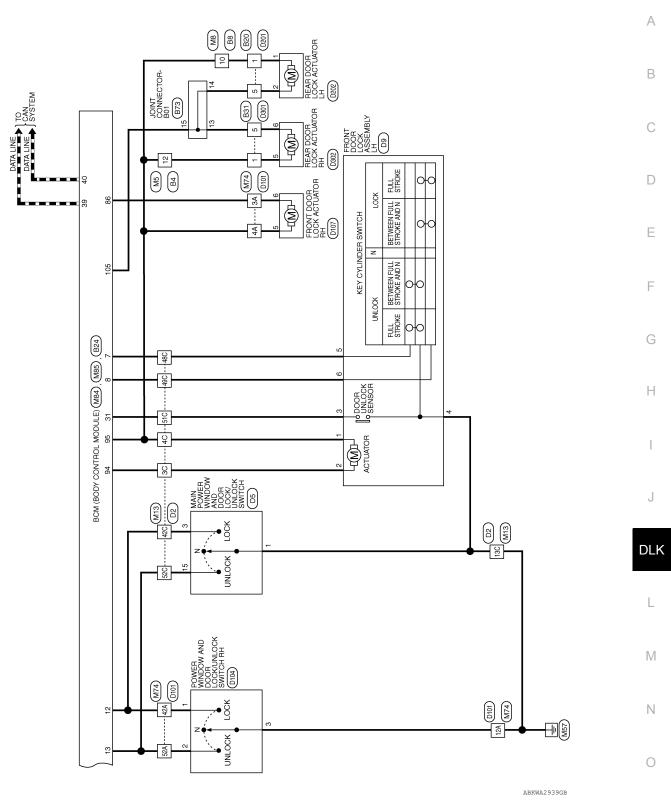
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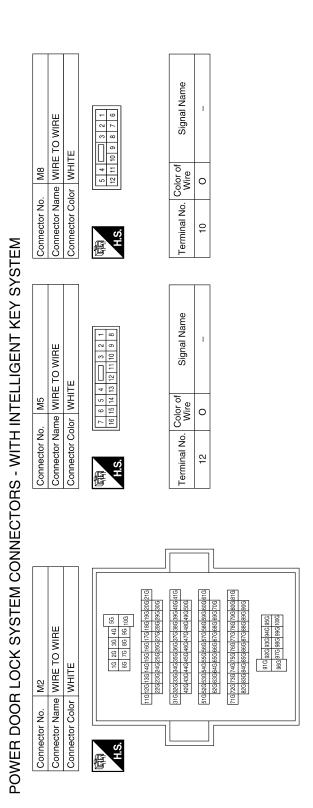


POWER DOOR LOCK SYSTEM - WITH INTELLIGENT KEY SYSTEM

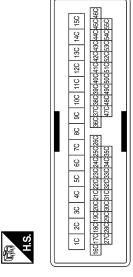
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#### POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]





Signal Name	1	I	I	I	I	I	I	I
Color of Wire	SB	0	В	GR	Г	٧	Н	BR
Terminal No.	30	4C	13C	42C	48C	49C	51C	52C



Signal Name

Color of Wire

Terminal No. 10G

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Connector Name WIRE TO WIRE

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Connector No.

Connector Color WHITE

## POWER DOOR LOCK SYSTEM

#### [WITH INTELLIGENT KEY SYSTEM]

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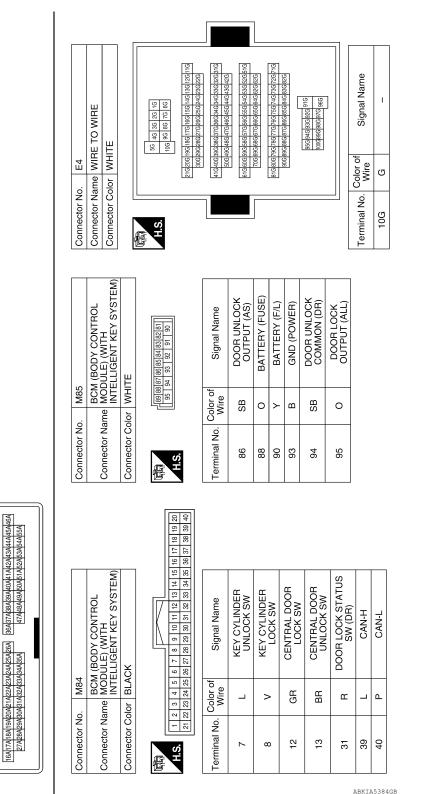
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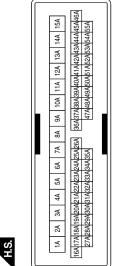
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Signal Name I. Т Т Т Т Color of Wire SB GR 0 ш BB Ferminal No. 12A 42A 52A 4A ЗA



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Connector Name WIRE TO WIRE

M74

Connector No.

Connector Color WHITE

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Signal Name

Color of Wire GR

Terminal No.

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DOOR SW (DR)

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DOOR SW (RL) Signal Name

GR

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Color of Wire

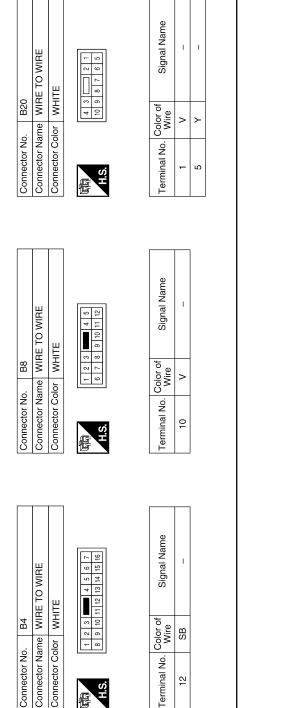
Terminal No.

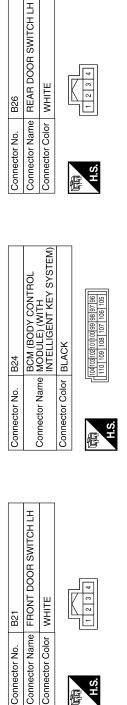
DOOR UNLOCK OUTPUT (RR, RL)

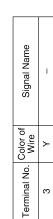
DOOR SW (AS) DOOR SW (RR)

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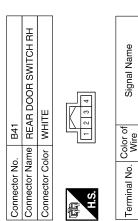
Connector Color WHITE

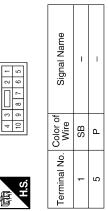
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Connector No.

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Connector No.	B28
Connector Name	Connector Name FRONT DOOR SWITCH RH
Connector Color WHITE	WHITE
SH SH	1234

Connector Name WIRE TO WIRE

B31

Connector No.

Connector Color WHITE

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	Signal Name	I
	Color of Wire	н
0 I	Terminal No.	e

Terminal No. Wire	3 3		
Signal Name	I	I	
Color of Wire	SB	٩	
erminal No. Color of Wire	-	5	

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Connector No.	B73	Connector No. D2	Terminal No. Color of	Color of	Signal Namo	_
lector Name	Connector Name JOINT CONNECTOR-B01	Connector Name WIRE TO WIRE		Wire		-
Connector Color BLACK	BIACK	Connector Color WHITE	ЗС	_	I	
			4C	BR	I	-
			13C	в	I	
H C 12			42C		I	-
			48C	~	I	-
ļ			49C	щ	I	-
		15C 14C 13C 12C 11C 10C 9C 8C 7C 6C 5C 4C 3C 2C 1C	51C	×	I	-
Terminal No. Color of Wire	lor of Signal Name	4604s044c04tc4ac04s0c3sc2sc2sc2sc2sc2sc2sc2scc1sc0ftsc0ftsc0ftsc0ftsc0	52C	BR	I	
13	Г	550540530520510500490480470 5505405330220510300290280270				
14						
15	1					

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Connector Name WIRE TO WIRE Connector Color WHITE	S.	7436A 2542442342242142041941841	M/Zhazhazhachi chzekeshtekee		Color of Signal Name			י ו א כ	BR	. D201	Connector Name WIRE TO WIRE Connector Color WHITE		1     2     3     4       5     6     7     8     9     10	Color of Signal Name Vire	1	۰ ا	
Connector Name WIRE T Connector Color WHITE	H.S.	464444444444444444444444444444444444444	dkodkted		Terminal No.	3A	4A	42A	52A	Connector No.	Connector Name Connector Color		E HS	Terminal No.	-	Ð	
GRAY	3 4 5	Signal Name	1	1 1	1	I	I				Connector Name FRONT DOOR LOCK ACTUATOR RH	~	3 4 5 6	Signal Name	1	I	
me FROI ASSE or GRA	1 2	Color of Wire	BB	_ >	: @	~	æ			D107	ne FROI ACTI	or GRAY	-	Color of Wire	>	~	
Connector Name FROM Connector Color GRAY	HS	Terminal No.	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0 4	5	Q			Connector No.	Connector Na	Connector Color	民 H.S.	Terminal No.	2	9	
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH WHITE	5         4         1         3         2         1           10         11         12         13         14         15         16	Signal Name	GND	LOCK SW							POWEH WINDOW AND DOOR LOCK/UNLOCK		8 9 10 11 12	Signal Name	1	1	I
	7 6 5 8 9 10	Color of Wire	В.		ī							_	6 7	Color of Wire	≻	BR	в
Connector Name Connector Color	H.S.	Terminal No.	+	т т	2					Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2	ო

## POWER DOOR LOCK SYSTEM

#### < WIRING DIAGRAM >

## [WITH INTELLIGENT KEY SYSTEM]

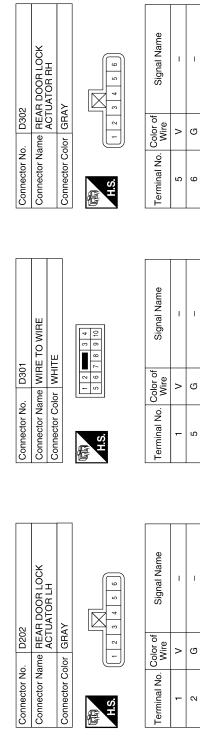


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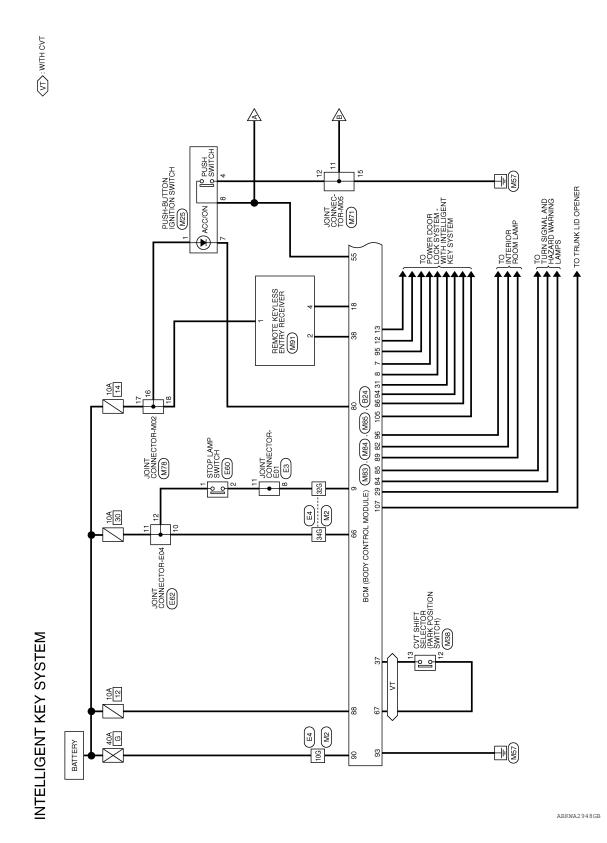


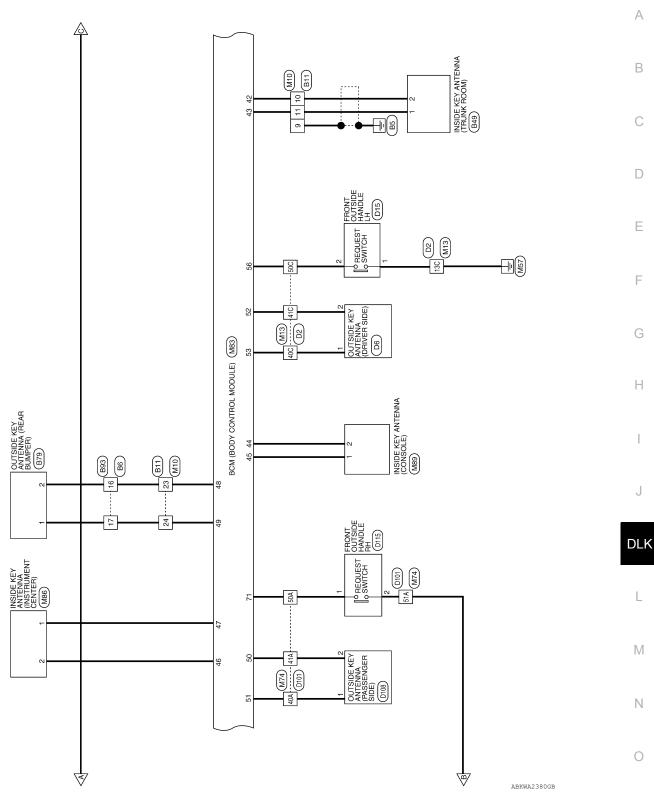
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## INTELLIGENT KEY SYSTEM

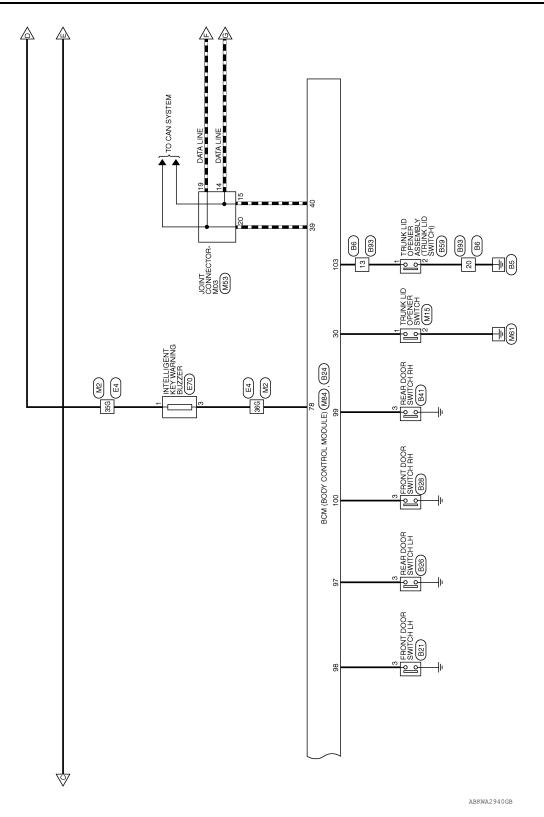
## Wiring Diagram

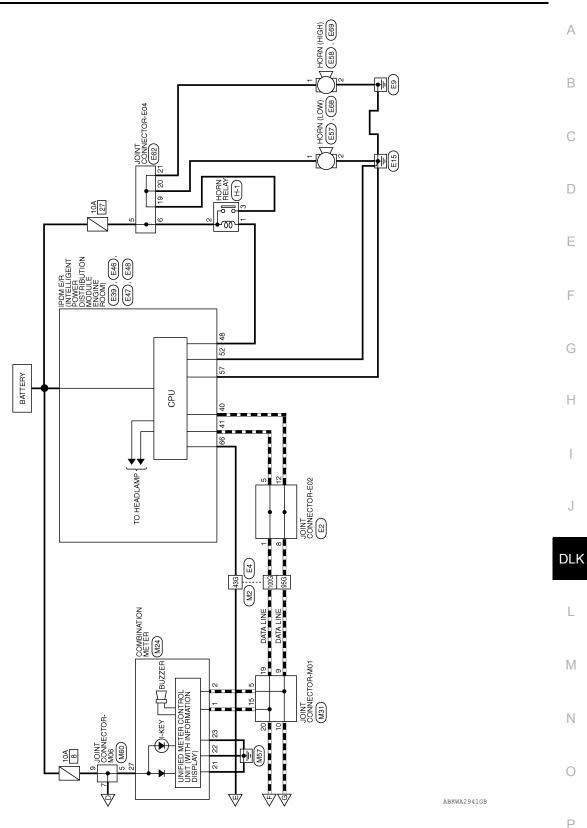
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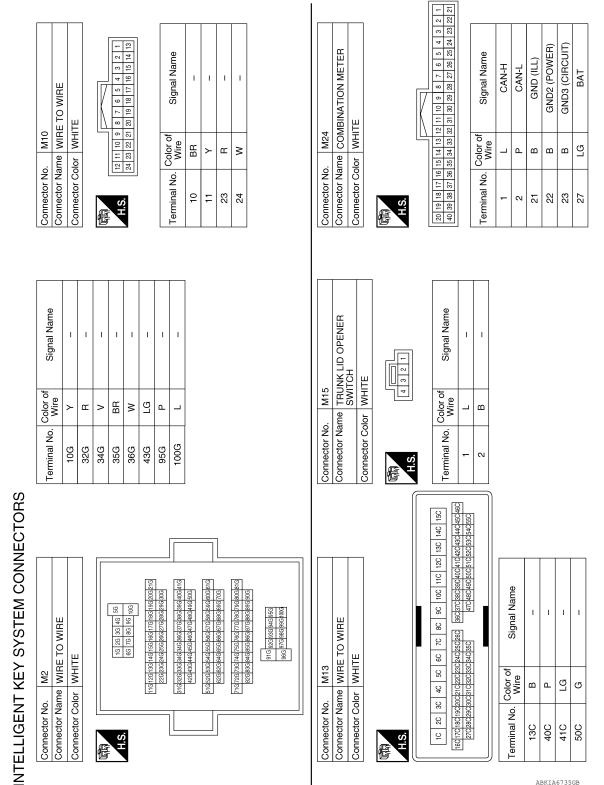




## INTELLIGENT KEY SYSTEM

#### < WIRING DIAGRAM >

## [WITH INTELLIGENT KEY SYSTEM]



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	CVT SHIFT SELECTOR WHITE	1 1 3 1 3 1 3	Signal Name	1 1					Connector Name JOINT CONNECTOR-M05		10         9         8         7         6         5         4         3         2         1           (20)         19         18         17         16         15         14         13         12         11	Signal Name	1	I	I		
		8 7 6 5 4 16 15 14 13 12	Color of Wire	B G	-			171		PINK	9 8 7 6 19 18 17 16	Color of Wire	В	В	В		
Connector No.	Connector Name Connector Color	H.S.	No.	13 12	_			Connector No	Connector Name	Connector Color PINK	H.S.	Terminal No. Col	11	12	15		
					]				,10								
	JOINT CONNECTOR-M01 GRAY	10         8         7         6         5         4         3         2         1           C20         19         18         17         16         15         14         13         12         11         D	Signal Name	1 1	1	1	1		NNECTOR-M06		10         9         7         6         5         4         3         2         1           20         19         18         17         16         15         14         13         12         11	Signal Name	1	1	I		
M31	JOINT CC GRAY	8 7 6 5 18 17 16 15	Color of Wire		<u>م</u>			Men	JOINT CO	BLUE	9 8 7 6 19 18 17 16	or of ire	ГG	BR	N		
Connector No.	Connector Name Connector Color	H.S.	al No.	ы о 1		15		Connector No	e	Connector Color BLUE	H.S.	Terminal No. Color of Wire	5 L(	7 B	S 6		
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	Connector Name PUSH-BUTTON IGNITION SWITCH Connector Color WHITE		Signal Name	1 1	1	I			Connector Name JOINT CONNECTOR-M03		10 9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11	Signal Name	I	I	I	1	
M25	Connector Name PUSH-E SWITCH Connector Color WHITE	2 4 0 3 	Color of Wire	- m	>	LG		M53		or PINK	10 9 8 7 6 20 19 18 17 1	Color of Wire	Ч	٩			
Connector No.	ector Narr actor Colo		al No.	- 4	7	8		Connector No	ector Nam	Connector Color PINK		Terminal No. C	14	15	19	20	
Conne	Conne	H.S.	Termir					- Juno		Conne	侣 H.S.	[ermir					

Revision: December 2014



**DLK-56** 

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ი	BCM (BODY CONTROI MODULE) (WITH INTELLIGENT KEY SY:	<u></u>		$  \rangle$	52	73 72 71	
M83	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)	WHITE	l		53		
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Connector Name Connector Color

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43	63				+		+		+
44	64			Э	έ	N	N.	-	÷
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47	67		Ž	Ë	世	١Ë.	₽	Ε	₽
48	88		na	I₹	A	₹	A	F	A
49	69		Signal Name	ROOM ANTENNA 3	ROOM ANTENNA 3 +	<b>ROOM ANTENNA 2</b> -	ROOM ANTENNA 2 +	ROOM ANTENNA 1 -	ROOM ANTENNA 1 +
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51	72 71 70			Ĭ	ГЩ	Ĭ	ы	Ĕ	۲ ۳
52	72								
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56	76		o.						
57	78 77		Z						
58	78		na	42	43	4	45	46	47
59	79		Ē						
60	80		Terminal No.						
	_	1			1			1	

ABKIA6737GB

Color of Wire ВВ GB ≻ ш Terminal No. 41A 50A 40A 51A

Connector Name WIRE TO WIRE

M74

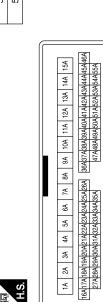
Connector No.

Connector Color WHITE

H.S.

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Signal Name I L T Т



		 、 、	
ליחבל יחבל ייבבל יחבל ייבלי יו בליחבל יחבל יחמל יוחלי יחס	2A53A54A55A		
the street was made and	47A48A49A50A51A52A53A54A55A		
	A32A33A34		M83
ימי או זיז או מי או מי אבמי אב זי אבמי אבמי אבעי אבעי אבמי אבמי א	274284294304314324334344354		Connector No.
Ś		J	Conr

Signal Name	BACK DOOR ANTENNA -	BACK DOOR ANTENNA +	DOOR ANTENNA (AS) -	DOOR ANTENNA (AS) +	DOOR ANTENNA (DR) -	DOOR ANTENNA (DR) +	ENGINE START SW	REQUEST SW (DR)	BRAKE SW2	AT DEVICE OUTPUT	REQUEST SW (AS)	SMART KEYLESS BUZZER OUTPUT	POWER POSITION LED (LOCK POSITION LED)
Color of Wire	œ	×	≻	ВВ	ГG	٩	ГG	σ	>	SB	GR	Μ	>
Terminal No.	48	49	50	51	52	53	55	56	66	67	71	78	80



< WIRING DIAGRAM >

Signal Name	I	I	Ι
Color of Wire	≻	SB	ш
Terminal No. Color of Wire	16	17	18

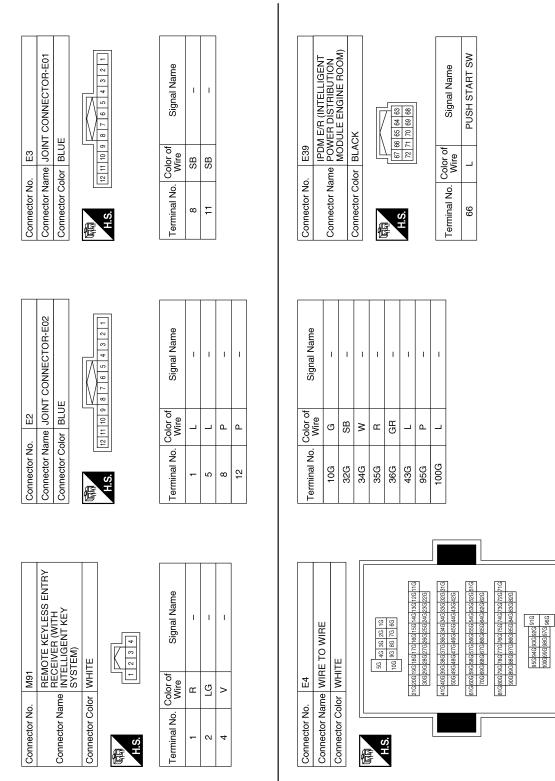
Signal Name	HAZARD SW	TRUNK/BACK DOOR OPENER SW	DOOR LOCK STATUS SW (DR)	SHIFT P POSITION PARKING POSITION	SW (WITH CVT) INTELLIGENT TUNER	CAN-H CAN-L		INSIDE KEY ANTENNA (CONSOLE)	ш		Signal Name	1	I									
Color of Wire	SB	_	œ	٩	Ľ	┙╺	o.   M89	e	olor BLUE	-	Color of Wire	σ	æ									
Terminal No.	29	30	31	37	38	39 40	Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	N									
Signal Name	KEY CYLINDER	KEY CYLINDER	LUCK SW BRAKE SW1	CENTRAL DOOR LOCK SW	CENTRAL DOOR UNLOCK SW	KEYLESS TUNER, AUTO LIGHT SENSOR GND		INSIDE KEY ANTENNA (INSTRUMENT CENTER)			Signal Name	1	Ι									
Color of Wire		>	· 🗹	GR	BR	>	. M86	ne	lor BLUE	-	Color of Wire	BR	GR									
Terminal No.	7	œ	0 0	12	13	18	Connector No.	Connector Name	Connector Color	国 H.S.	Terminal No.	-	5									
					9 20 9 40	]																
(RODY CONTROL	MODULE) (WITH INTELLIGENT KEY SYSTEM)	X			1         10         11         12         13         14         15         16         17         18         19         20           9         30         31         32         33         34         35         36         37         38         39         40			BCM (BODY CONTROL Connector Name MODULE) (WITH	ELLIGENT KEY SYSTEM) TE	100 100 100 100 100 100 100 100 100 100	Signal Name	ROOM LAMP OUTPUT	FLASHER OUTPUT (RIGHT)	FLASHER OUTPUT (LEFT)	DOOR UNLOCK OUTPUT (AS)	BATTERY (FUSE)	BATTERY SAVER OUTPUT	BATTERY (F/L)	GND (POWER)	DOOR UNLOCK COMMON (DR)	DOOR LOCK OUTPUT (ALL)	
					5 6 7 8 9 25 26 27 28 29	-	. M85	me BCV MOE	INTELL lor WHITE	89887 95 94	Color of Wire	BR	8	~	SB	0	٩	≻	ш	SB	0	
Connector No.	Connector Name	Connector Color			1 2 3 4 5 6 21 22 23 24 25 26		Connector No.	ector Na	Connector Color	R.S.H	Terminal No.	82	84	85	86	88	89	06	93	94	95	

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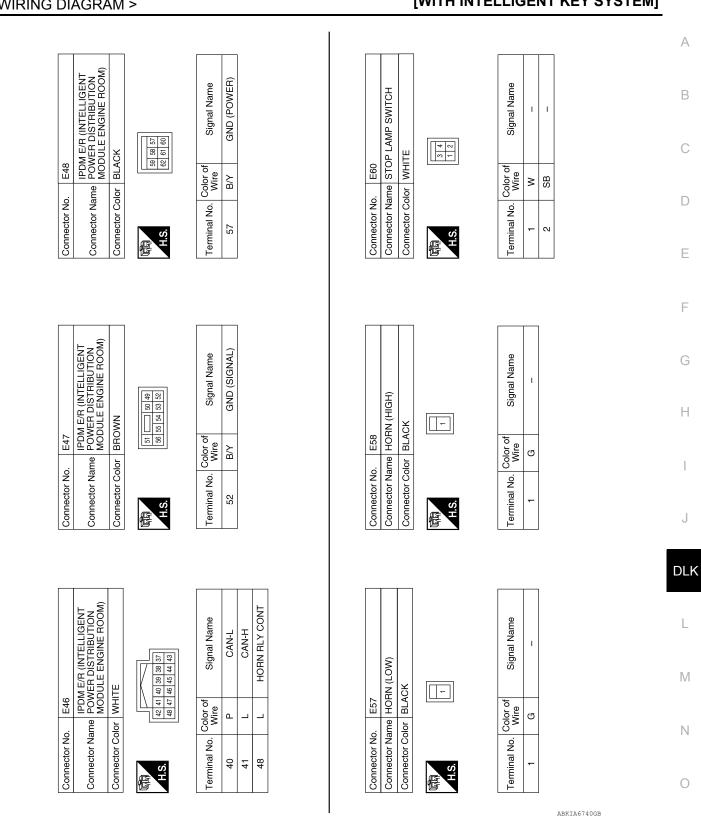
## **INTELLIGENT KEY SYSTEM**

#### < WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



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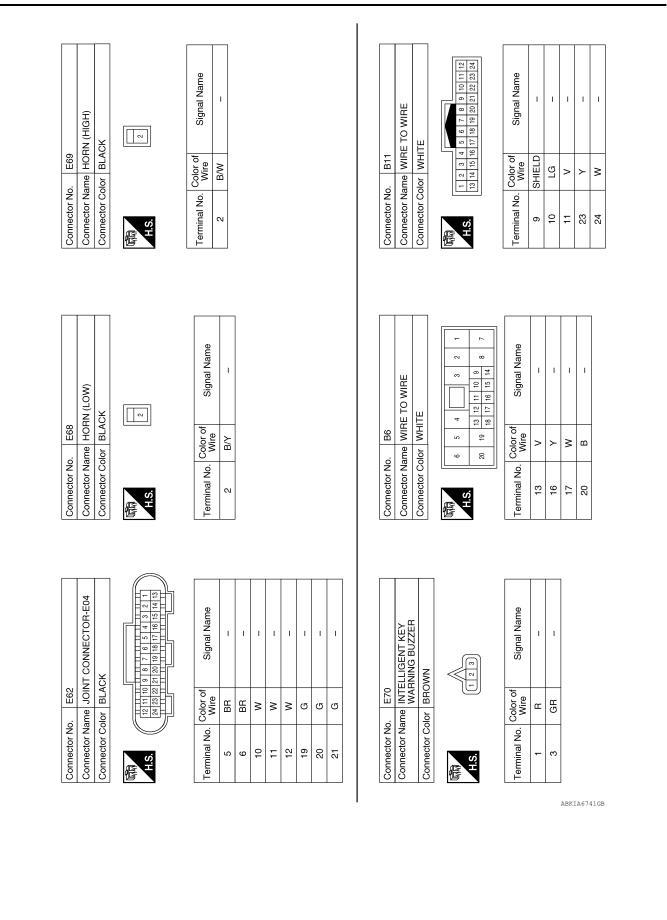
#### < WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

**Revision: December 2014** 

2015 Sentra NAM

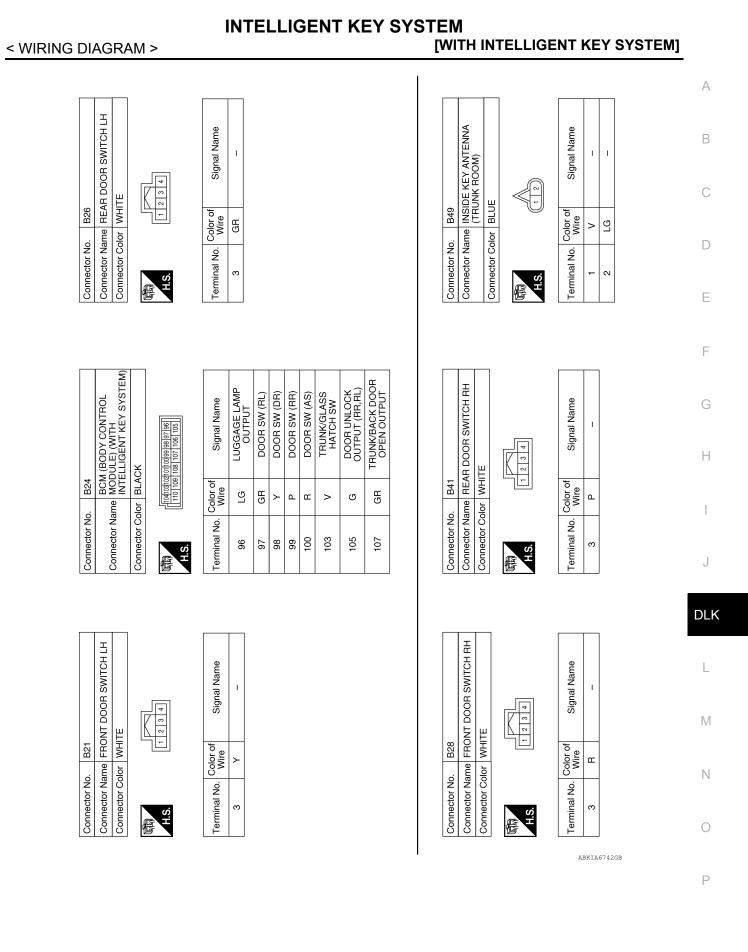
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#### < WIRING DIAGRAM >

#### INTELLIGENT KEY SYSTEM [WITH INTELLIGENT KEY SYSTEM]

Revision: December 2014

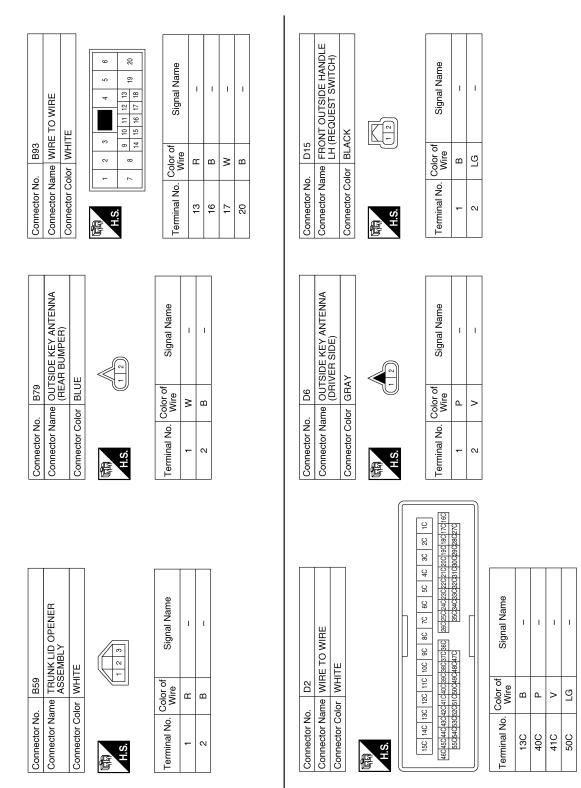


**Revision: December 2014** 

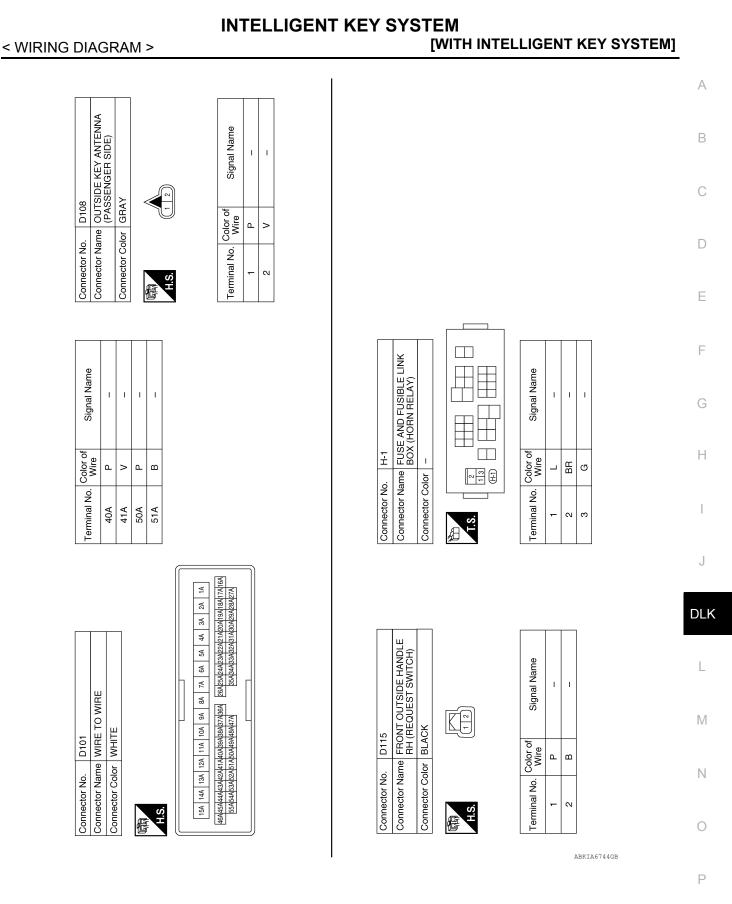
2015 Sentra NAM

## INTELLIGENT KEY SYSTEM

#### < WIRING DIAGRAM >



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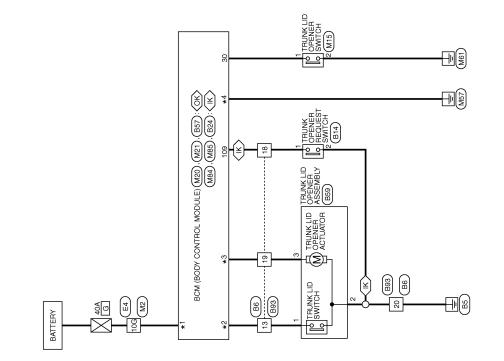


## TRUNK LID OPENER

## Wiring Diagram

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 $\begin{array}{l} \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ *1 & \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ *2 & \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K) : \label{eq:constraint} (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} \\ \hline (K) : \label{eq:constraint} (K$ 



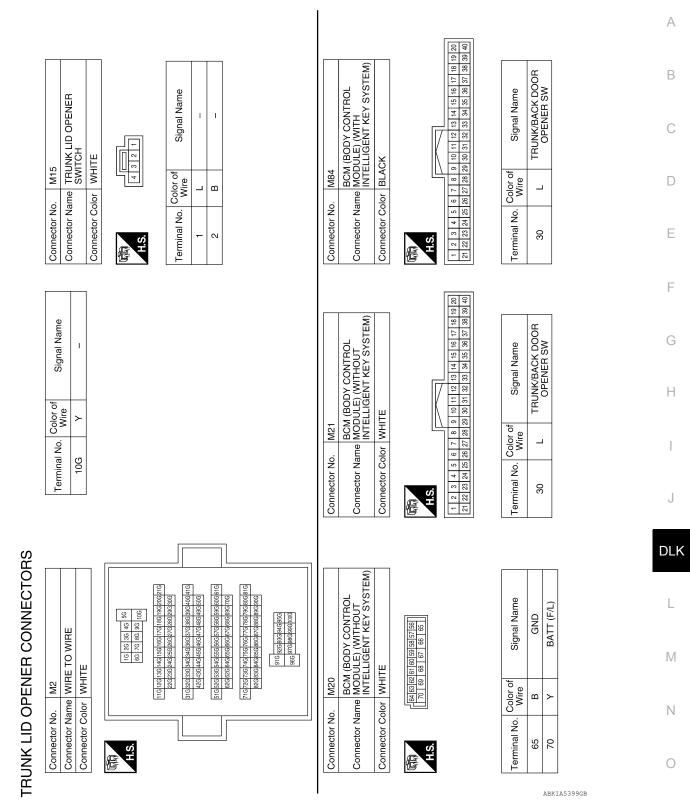
TRUNK LID OPENER

ABKWA2942GB

#### < WIRING DIAGRAM >

## TRUNK LID OPENER

#### [WITH INTELLIGENT KEY SYSTEM]



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Connector No. M85	Connector No. E4		Connector No. B6
Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM)	Connector Name WIRE TO WIRE Connector Color WHITE	WIRE TO WIRE WHITE	Connector Name WIRE TO WIRE Connector Color WHITE
Connector Color WHITE	đ		
89         88         87         86         85         84         83         82         81         90           95         94         93         32         91         90	HI H.S. Bac	96 445 35 25 16 106 96 86 77 965 2102/2001/302/186 1705/1863/1863/1863/1863/1863/1863/1863/1863	H.S. 20 19 13 12 11 10 9 8 7 20 19 18 17 16 15 14 8 7
Terminal No. Color of Signal Name	1000 1000 1000 1000 1000 1000		Terminal No. Color of Signal Name
90 Y BATTERY (F/L)		70G69G68G67G66G65G64G62G62G	13 V –
93 B GND	816,800	81.6 80.6 796 786 776 766 756 746 736 726 716	18 SB -
		950344058303820 916 9500344058303820 916 1006989039809370 9860	
	No. No.	f Signal Name	
	10G G	1	
Connector No. B14 Connector Name TRUNK OPENER	Connector No. B24 BCM	4 M (BODY CONTROL	
Connector Color BROWN		MODULE) (WITH INTELLIGENT KEY SYSTEM)	
		BLACK Tothics/tot/tot/99 [98]97]96] 110]109 108 107 106 105	
Terminal No. Color of Signal Name	Terminal No. Color of Miro	f Signal Name	Terminal No Color of Sinnal Name
	103	TRUNK/GLASS HATCH SW	Wire V
2 B -	107 GR	TRUNK/BACK DOOR OPEN OUTPUT	55 GR TRUNK OPEN OUTPUT
	109 SB		

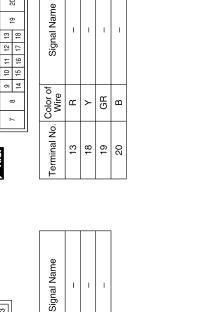
## TRUNK LID OPENER

#### < WIRING DIAGRAM >

#### [WITH INTELLIGENT KEY SYSTEM]

Revision: December 2014

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Color of Wire

Terminal No.

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Connector Name WIRE TO WIRE

Connector Name TRUNK LID OPENER ASSEMBLY

B59

Connector No.

WHITE

Connector Color

B93

Connector No.

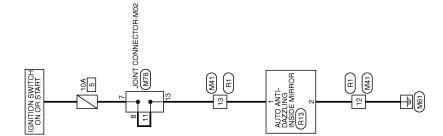
Connector Color WHITE

< WIRING DIAGRAM >

## HOMELINK UNIVERSAL TRANSCEIVER

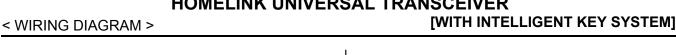
## Wiring Diagram

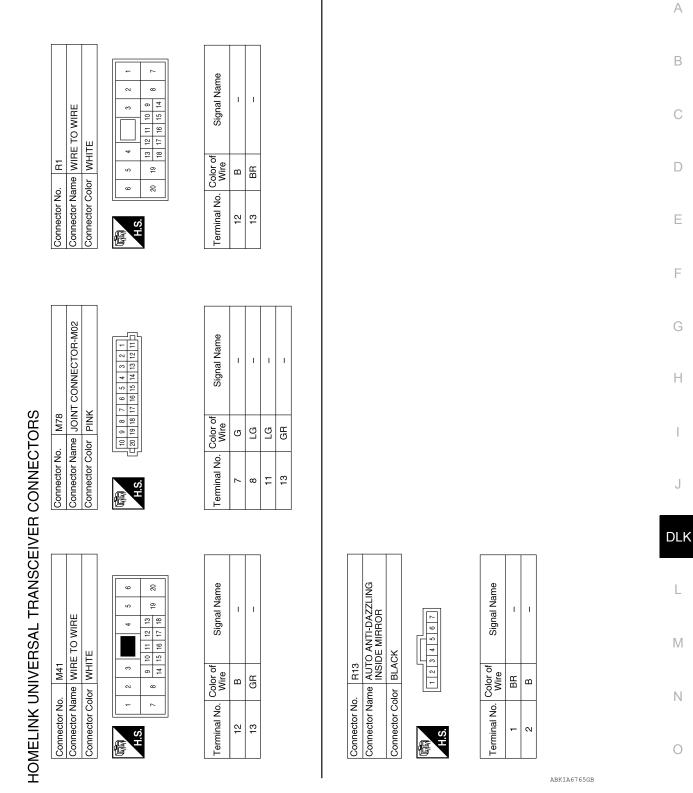
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HOMELINK UNIVERSAL TRANSCEIVER

ABKWA2962GB





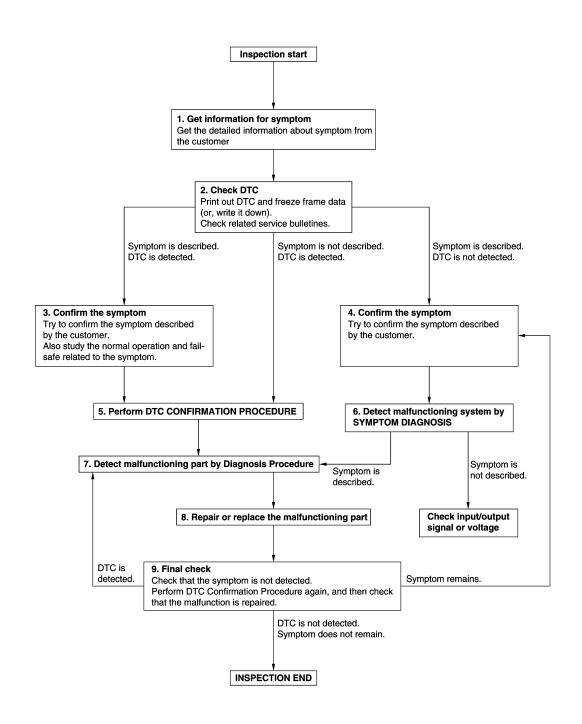
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## BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000011536448

**OVERALL SEQUENCE** 



JMKIA8652GB

## **DIAGNOSIS AND REPAIR WORK FLOW**

#### < BASIC INSPECTION >

## [WITH INTELLIGENT KEY SYSTEM]

<b>1.</b> GET INFORMATION FOR SYMPTOM	Λ		
<ol> <li>Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).</li> <li>Check operation condition of the function that is malfunctioning.</li> </ol>	A		
	В		
>> GO TO 2.			
2.CHECK DTC	С		
1. Check DTC.			
<ol> <li>Perform the following procedure if DTC is detected.</li> <li>Record DTC and freeze frame data (Print them out using CONSULT.)</li> </ol>	D		
- Erase DTC.	D		
<ul> <li>Study the relationship between the cause detected by DTC and the symptom described by the customer.</li> <li>Check related service bulletins for information.</li> </ul>	Е		
Are any symptoms described and any DTC detected?			
Symptom is described, DTC is detected>>GO TO 3. Symptom is described, DTC is not detected>>GO TO 4.			
Symptom is not described, DTC is detected>>GO TO 5.			
3.CONFIRM THE SYMPTOM			
Try to confirm the symptom described by the customer.	G		
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.			
	Н		
>> GO TO 5.			
4.CONFIRM THE SYMPTOM	I		
Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.			
verify relation between the symptom and the condition when the symptom is detected.	I		
>> GO TO 6.	J		
5.PERFORM DTC CONFIRMATION PROCEDURE			
Penorm DTC CONFIRMATION PROCEDORE for the delected DTC, and then check that DTC is delected	DLK		
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 <u>BCS-48</u> , " <u>DTC Inspection Priority Chart</u> " and determine trouble			
diagnosis order.			
<ul> <li>NOTE:</li> <li>Freeze frame data is useful if the DTC is not detected.</li> </ul>			
Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service     Manual, This simplified shack presedure is an effective alternative though DTC connect he detected during			
Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.			
If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIR- MATION PROCEDURE.			
Is DTC detected?			
YES >> GO TO 7.	0		
NO >> Check according to <u>GI-40. "Intermittent Incident"</u> . 6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS	0		
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.			

**1**.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

## DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to <u>GI-40, "Intermittent Incident"</u>.

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.

## < DTC/CIRCUIT DIAGNOSIS > DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

### Description

Refer to LAN-7, "CAN COMMUNICATION SYSTEM : System Description".

### DTC Logic

### DTC DETECTION LOGIC

#### NOTE:

U1000 can be set if a module harness was disconnected and reconnected, perhaps during a repair. Confirm that there are actual CAN diagnostic symptoms and a present DTC by performing the Self Diagnostic Result procedure.

CONSULT Display	DTC Detection Condition	Possible Cause	
CAN COMM CIRCUIT [U1000]	When any listed module cannot communicate with CAN communication signal continuously for 2 seconds or more with ignition switch ON	In CAN communication system, any item (or items) of the following listed below is malfunc- tioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)	-

## **Diagnosis** Procedure

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 seconds or more.

2. Check "SELF- DIAG RESULTS".

Is "CAN COMM CIRCUIT" displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT operation manual.

**DLK-73** 

NO >> Refer to <u>GI-40, "Intermittent Incident"</u>.

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#### < DTC/CIRCUIT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

## DTC Logic

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#### DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	BCM detected internal CAN communication cir- cuit malfunction.	ВСМ

## **Diagnosis Procedure**

## **1.**REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

### **B2621 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **B2621 INSIDE ANTENNA**

## DTC Logic

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

## DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause	
B2621	INSIDE ANTENNA 1	An excessive high or low voltage from inside anten- na (instrument center) is sent to BCM.	<ul> <li>Inside key antenna (instrument center)</li> <li>Harness between BCM and inside- key antenna (instrument center)</li> <li>BCM</li> </ul>	E

### DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
- 3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
- 4. Check BCM for DTC.

#### Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-75, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (instrument center) is OK.

#### Diagnosis Procedure

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

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

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

1. Turn ignition switch ON.

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

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## B2621 INSIDE ANTENNA

#### < DTC/CIRCUIT DIAGNOSIS >

(+) BCM		(-)	Condition	Signal (Reference value)	
Connector	Terminal			(	
M83	46	Ground	When Intelligent Key is in the an- tenna detection area	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 10 10 10 10 10 10 10 10 10 10 10 10 10	
Mee	47	Ground	When Intelligent Key is not in the antenna detection area	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1	

#### Is the inspection result normal?

- YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.
- NO >> GO TO 2.

## 2. CHECK INSIDE KEY ANTENNA CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and inside key antenna (instrument center) connector.
- 3. Check continuity between BCM harness connector and inside key antenna (instrument center) harness connector.

E	BCM		Inside key antenna (instrument center)	
Connector	Terminal	Connector	Terminal	Continuity
M83	47	M86	1	Yes
INIOS	46	IVIOU	2	165

#### 4. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M83	47	Ground	No
	46		NU

#### Is the inspection result normal?

YES >> GO TO 3.

- NO >> Repair or replace harness.
- **3.**CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2
- 1. Replace inside key antenna (instrument center). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (instrument center) connector.
- 3. Turn ignition switch ON.
- 4. Check signal between BCM harness connector and ground using oscilloscope.

## **B2621 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## [WITH INTELLIGENT KEY SYSTEM]

(+	-)			
BC	M	(-)	Condition	Signal (Reference value)
Connector	Terminal			(10000000000000)
M83	47	Ground	When Intelligent Key is in the an- tenna detection area	(V) 15 10 50 1 s JMKIA3839GB
Wee	46	Cround	When Intelligent Key is not in the	(V) 15 10 5 0
			antenna detection area	
e inspection	n result norm	al?		

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

NO >> Replace BCM. Refer to BCS-76, "Removal and Installation".

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#### < DTC/CIRCUIT DIAGNOSIS >

## **B2622 INSIDE ANTENNA**

## DTC Logic

#### 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

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2622	INSIDE ANTENNA 2	An excessive high or low voltage from inside anten- na (console) is sent to BCM	<ul> <li>Inside key antenna (console)</li> <li>Harness between BCM and inside key antenna (console)</li> <li>BCM</li> </ul>

#### DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
- 3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
- 4. Check BCM for DTC.

Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-78</u>, "Diagnosis Procedure".

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

#### **Diagnosis** Procedure

#### 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

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

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

1. Turn ignition switch ON.

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

## **B2622 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

			0	-1141		Signal
Connector	CM Terminal	(–)	Con	dition	(Refe	rence value)
M83	45	Ground	When Intelligent K na detection area	ey is in the anten-	(V) 15 10 5 0	JMKIA3839GB
Moo	44	Ground	When Intelligent K tenna detection ar	ey is not in the an- ea	(V) 15 10 5 0 1	JMKIA5951GB
ie inspectio	on result norn	nal?				
		Refer to <u>BCS</u>	-76, "Removal a	and Installation".		
	D TO 2.					
		ITENNA CIR	UII			
Disconnec	tinuity betwe	ector and insid		nd inside key a	ntenna (consol	e) harness connect
	BCM			ide key antenna (co		Continuity
Connec	tor	Terminal	Connee	ctor	Terminal	
		45		<b>`</b>	1	
M83		11	M89	,	2	Yes
		44 en BCM harr			2	Yes
			less connector a		2	Yes
Check con	tinuity betwe	en BCM harr	less connector a		2	
Check con	tinuity betwe	en BCM harr	rminal		2	Yes
Check con Con	tinuity betwe	en BCM harr	rminal	ind ground.	2	
Check con Con	tinuity betwe E	en BCM harr	rminal	ind ground.	2	Continuity

## **B2622 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITH INTELLIGENT KEY SYSTEM]

	+) CM	()	Condition	Signal (Reference value)
Connector	Terminal			
M83	45	Ground	When Intelligent Key is in the anten- na detection area	(V) 15 0 1 s JMKIA3839GB
	44		When Intelligent Key is not in the an- tenna detection area	(V) 15 10 5 0 1 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Is the inspection result normal?

YES >> Replace inside key antenna (console).

NO >> Replace BCM. Refer to <u>BCS-76. "Removal and Installation"</u>.

### **B2623 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **B2623 INSIDE ANTENNA**

## DTC Logic

#### 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

#### DTC DETECTION LOGIC

-	DTC	CONSULT display description	DTC detecting condition	Possible cause	D
_	B2623	INSIDE ANTENNA 3	An excessive high or low voltage from inside anten- na (trunk room) is sent to BCM	<ul> <li>Inside key antenna (trunk room)</li> <li>Harness between BCM and inside key antenna (trunk room)</li> <li>BCM</li> </ul>	E

#### DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select INSIDE ANT DIAGNOSIS in WORK SUPPORT mode.
- 3. Perform inside key antenna (INSIDE ANT DIAGNOSIS) on WORK SUPPORT of INTELLIGENT KEY.
- 4. Check BCM for DTC.

Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-81, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (trunk room) is OK.

#### **Diagnosis** Procedure

#### 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

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

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

1. Turn ignition switch ON.

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

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## **B2623 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

	+) CM	()	Condition	Signal (Reference value)
Connector	Terminal			
M83	43	Ground	When Intelligent Key is in the anten- na detection area	(V) 15 0 5 0 1 s JMKIA3839GB
	42		When Intelligent Key is not in the an- tenna detection area	(V) 15 0 0 1 s JMKIA5951GB

Is the inspection result normal?

- YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.
- NO >> GO TO 2.

## 2. CHECK INSIDE KEY ANTENNA CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and inside key antenna (trunk room) connector.
- Check continuity between BCM harness connector and inside key antenna (trunk room) harness connector.

E	BCM	Inside key antenna (trunk room)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M83	43	B49	1	Yes
IVI05	42	D49	2	165

4. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
 M83	43	Ground	No
	42		NO

Is the inspection result normal?

YES >> GO TO 3.

- NO >> Repair or replace harness.
- **3.**CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2
- 1. Replace inside key antenna (trunk room). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (trunk room) connector.
- 3. Turn ignition switch ON.
- 4. Check signal between BCM harness connector and ground using oscilloscope.

## **B2623 INSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

	+) CM		Condition	Signal
Connector	Terminal	()	Condition	(Reference value)
M02	43	Ground	When Intelligent Key is in the anten- na detection area	(V) 15 10 5 0 1 s JMKIA3839GB
M83	42	Ground	When Intelligent Key is not in the an- tenna detection area	(V) 15 10 5 0 •••••••••••••••••••••••••••••
				JMKIA5951GB

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-76. "Removal and Installation"</u>.

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## **B2626 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **B2626 OUTSIDE ANTENNA**

## DTC Logic

#### 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

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2626	OUTSIDE ANTENNA 1	An excessive high or low voltage from outside key antenna (driver side) is sent to BCM	<ul> <li>Outside key antenna (driver side)</li> <li>Harness between BCM and outside key antenna (driver side)</li> <li>BCM</li> </ul>

#### DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to <u>DLK-84, "Diagnosis Procedure"</u>.
- NO >> Outside key antenna (driver side) is OK.

#### Diagnosis Procedure

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#### 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

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

## 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

## **B2626 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

52       52       and 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)       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10
M83       53 52       Ground       When the driver door request switch is op- erated with ignition switch OFF       When Intelligent Key is in the an- tenna detection area (The dis- tance between Intelligent Key and antenna: 80 cm or less)       Image: Comparison of the solution of the antenna detec- tion area (The distance be- tween Intelli- gent Key and antenna: Ap- prox. 2 m)         inspection result normal?       BCS-76, "Removal and Installation".
tion area (The distance be-tween Intelligent Key and antenna: Approx. 2 m)       10         inspection result normal?       JMKTA5954G         >> Replace BCM. Refer to BCS-76, "Removal and Installation".       >> GO TO 2.         HECK OUTSIDE KEY ANTENNA CIRCUIT       function switch OFF.
<ul> <li>&gt;&gt; Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>&gt;&gt; GO TO 2.</li> <li>HECK OUTSIDE KEY ANTENNA CIRCUIT</li> <li>'urn ignition switch OFF.</li> </ul>
>> GO TO 2. HECK OUTSIDE KEY ANTENNA CIRCUIT
HECK OUTSIDE KEY ANTENNA CIRCUIT
urn ignition switch OFF.
Check continuity between BCM harness connector and outside key antenna (driver side) harnes or. BCM Outside key antenna (driver side)
Connector Terminal Connector Terminal
53 De 1
M83 D6 Yes
Check continuity between BCM harness connector and ground.
BCM
Connector         Terminal         Continuity
Ground
M83 52 No
inspection result normal?
•
>> GO TO 3.
•

Check signal between BCM harness connector and ground using oscilloscope. 4.

# B2626 OUTSIDE ANTENNA < DTC/CIRCUIT DIAGNOSIS > [WI]

### [WITH INTELLIGENT KEY SYSTEM]

(+) BCM		()	Condit	ion	Signal (Reference value)
Connector	Terminal				
	52		When the driver door request switch	When Intelligent Key is in the an- tenna detection area (The dis- tance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA59556B
M83	53	Ground	is operated with igni- tion switch OFF	When Intelligent Key is not in the antenna detec- tion area (The distance be- tween Intelli- gent Key and antenna: Ap- prox. 2 m)	(V) 15 10 50 50 500 ms JMKLASS4GB

Is the inspection result normal?

YES >> Replace outside key antenna (driver side).

NO >> Replace BCM. Refer to <u>BCS-76. "Removal and Installation"</u>.

## **B2627 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **B2627 OUTSIDE ANTENNA**

## DTC Logic

#### 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

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause		
B2627	OUTSIDE ANTENNA 2	An excessive high or low voltage from outside key antenna (passenger side ) is sent to BCM	<ul> <li>Outside key antenna (passenger side)</li> <li>Harness between BCM and out- side key antenna (passenger side)</li> <li>BCM</li> </ul>		
DTC CONFI	RMATION PROC	EDURE			
1.PERFORM	M DTC CONFIRMA	TION PROCEDURE			
	tion switch ON.	t mode of BCM using CONSULT			
<ol> <li>Check Self Diagnostic Result mode of BCM using CONSULT.</li> <li><u>Is outside key antenna DTC detected?</u></li> </ol>					
		agnosis Procedure". I (passenger side) is OK.			
Diagnosis	Procedure		INFOID:000000011536463		
II User Guide <ul> <li>Check Intel</li> </ul>	for additional inforr ligent Key relative s		unctions. Refer to the Signal Tech		
Regarding W	Iring Diagram Inform	nation, refer to <u>DLK-50, "Wiring Diagram"</u> .			
1.снеско	UTSIDE KEY ANTE	ENNA INPUT SIGNAL 1			
1 Turn ignit	tion switch ON.				

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

[WITH INTELLIGENT KEY SYSTEM]

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## **B2627 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

	+) CM	()	(–) Condition		Signal (Reference value)
Connector	Terminal				
Mea	51	Cround	When the passenger side door request	When Intelli- gent Key is in the antenna de- tection area (The distance between Intelli- gent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms JMKIA5955GB
M83	50	Ground	switch is operated with ignition switch OFF	When Intelli- gent Key is not in the antenna detection area (The distance between Intelli- gent Key and antenna: Ap- prox. 2 m)	(V) 15 10 5 0 500 ms JMKIA5954GB

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

2.

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and outside key antenna (passenger side) connector.
- 3. Check continuity between BCM harness connector and outside key antenna (passenger side) harness connector.

В	СМ	Outside key anten	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M83	51	D108	1	Yes
INIOS	50	0100	2	165

#### 4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M83	51	Ground	No
	50		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 (passenger side). (New antenna or other antenna)

2. Connect BCM connector and outside key antenna (passenger side) connector.

3. Turn ignition switch ON.

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

### < DTC/CIRCUIT DIAGNOSIS >

## **B2627 OUTSIDE ANTENNA**

#### [WITH INTELLIGENT KEY SYSTEM]

(+	+)				
BC	CM	(-)	Condition		Signal (Reference value)
Connector	Terminal				
M83	51	Ground	When the passenger side door request	When Intelli- gent Key is in the antenna de- tection area (The distance between Intelli- gent Key and antenna: 80 cm or less)	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0
M83	50	Ground	switch is operated with ignition switch OFF	When Intelli- gent Key is not in the antenna detection area (The distance	(V) 15 10 5 0
				between Intelli- gent Key and antenna: Ap- prox. 2 m)	500 ms

Is the inspection result normal?

YES >> Replace outside key antenna (passenger side).

NO >> Replace BCM. Refer to <u>BCS-76. "Removal and Installation"</u>.

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## **B2628 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

## **B2628 OUTSIDE ANTENNA**

## DTC Logic

#### 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

#### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2628	OUTSIDE ANTENNA 3	An excessive high or low voltage from outside key antenna (rear bumper) is sent to BCM	<ul> <li>Outside key antenna (rear bumper)</li> <li>Harness between BCM and out- side key antenna (rear bumper)</li> <li>BCM</li> </ul>

#### DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check Self Diagnostic Result mode of BCM using CONSULT.

Is outside key antenna DTC detected?

YES >> Refer to <u>DLK-90</u>, "Diagnosis Procedure".

NO >> Outside key antenna (rear bumper) is OK.

#### Diagnosis Procedure

#### 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

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

## 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

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## **B2628 OUTSIDE ANTENNA**

## < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(	+)					
BC	СМ	(—)	Con	dition	(Ref	Signal erence value)
Connector	Terminal			(		
		Oraund	When the trunk	When Intelligen Key is in the an tenna detection area (The dis- tance between Intelligent Key and antenna: 80 cm or less)		JMKIA5955GB
M83	48,49	Ground	ed with ignition switch OFF	vitch is operat- l with ignition		JMKIA5954GB
e inspec	tion result i	normal?			l.	
) >> (	GO TO 2.					
	UTSIDE K		A CIRCUIT			
Turn igni Disconne	OUTSIDE K ition switch ect BCM co	OFF.	outside key ante			ar bumper) harness o
Turn igni Disconne Check ce	DUTSIDE K ition switch ect BCM co ontinuity be	OFF.	outside key anter narness connect		key antenna (re	
Turn igni Disconne Check co nector.	DUTSIDE K ition switch ect BCM co ontinuity be	OFF. onnector and c etween BCM h	outside key ante narness connect	or and outside	key antenna (re	ar bumper) harness o
Turn igni Disconne Check co nector. Conr	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector	OFF. onnector and c etween BCM h	outside key ante narness connect	or and outside	key antenna (re	- Continuity
Turn igni Disconne Check co nector. Conr	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83	OFF. onnector and c etween BCM h CM Terminal 49 48	outside key anter narness connect	or and outside	key antenna (re (rear bumper) Terminal 1 2	
Turn igni Disconne Check co nector. Conr M	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83	OFF. onnector and c etween BCM h CM Terminal 49 48	outside key ante narness connect	or and outside	key antenna (re (rear bumper) Terminal 1 2	- Continuity
Turn igni Disconne Check co nector. Conr M	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83	OFF. onnector and c etween BCM h CM Terminal 49 48	outside key anter narness connect	or and outside	key antenna (re (rear bumper) Terminal 1 2	- Continuity
Turn igni Disconne Check co nector. Conr M Check co	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83	OFF. onnector and c etween BCM h CM Terminal 49 48 etween BCM h	outside key anter narness connect	or and outside	key antenna (re a (rear bumper) Terminal 1 2	- Continuity
Turn igni Disconne Check co nector. Conr M Check co	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83 ontinuity be	OFF. onnector and c etween BCM h CM Terminal 49 48 etween BCM h	Terminal	or and outside	key antenna (re (rear bumper) Terminal 1 2	- Continuity - Yes
Furn igni Disconne Check co nector. Conr M Check co C	DUTSIDE K ition switch ect BCM cc ontinuity be BC ector 83 ontinuity be onnector M83	OFF. Dennector and c etween BCM h CM Terminal 49 48 etween BCM h BCM	outside key anter arness connect	or and outside	key antenna (re a (rear bumper) Terminal 1 2	Continuity Yes Continuity
Turn igni Disconne Check co nector. Conr M Check co C e inspec	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83 ontinuity be onnector M83 tion result t	OFF. Dennector and c etween BCM h CM Terminal 49 48 etween BCM h BCM	Terminal	or and outside	key antenna (re a (rear bumper) Terminal 1 2	Continuity Yes Continuity
Turn igni Disconne Check co nector. M Conr M Check co C <u>e inspec</u> S >> 0	DUTSIDE K ition switch ect BCM cc ontinuity be BC nector 83 ontinuity be onnector M83 tion result n GO TO 3.	CM  CM  CM  Terminal  49  48  etween BCM h  BCM  BCM  Inormal?	outside key anter harness connect Ou Cor arness connecto Terminal 49 48	or and outside	key antenna (re a (rear bumper) Terminal 1 2	Continuity Yes Continuity
Turn igni Disconne Check co nector. Conr M Check co C C e inspec S >> ( >> F	DUTSIDE K ition switch ect BCM cc ontinuity be nector 83 ontinuity be onnector M83 tion result I GO TO 3. Repair or re	OFF. Dennector and c etween BCM h CM Terminal 49 48 etween BCM h BCM BCM BCM anormal? eplace harness	outside key anter harness connect Ou Con arness connecto Terminal 49 48	or and outside	key antenna (re a (rear bumper) Terminal 1 2	Continuity Yes Continuity
Turn igni Disconne Check co nector. Conr M Check co C C e inspec S >> ( ) >> F CHECK C	DUTSIDE K ition switch ect BCM cc ontinuity be nector 83 ontinuity be onnector M83 tion result n GO TO 3. Repair or re DUTSIDE K	OFF. Dennector and c etween BCM h CM Terminal 49 48 etween BCM h BCM BCM BCM BCM BCM BCM CM BCM B	outside key anter arness connect Ou Con Con arness connecto Terminal 49 48 S. A INPUT SIGNA	or and outside	key antenna (re a (rear bumper) Terminal 1 2 bund	Continuity Yes Continuity
Turn igni Disconne Check co nector. Conr M Check co C Check co C e inspec S >> F CHECK C Replace	DUTSIDE K ition switch ect BCM cc ontinuity be nector 83 ontinuity be onnector M83 tion result I GO TO 3. Repair or re DUTSIDE K outside ke	OFF. Dennector and c etween BCM h CM Terminal 49 48 etween BCM h BCM BCM BCM BCM BCM CM Etween BCM h BCM BCM CM CM CM CM CM CM CM CM CM	outside key anter harness connect Ou Con arness connecto Terminal 49 48	or and outside	key antenna (re a (rear bumper) Terminal 1 2 bund ther antenna)	Continuity Yes Continuity

Revision: December 2014

## **B2628 OUTSIDE ANTENNA**

#### < DTC/CIRCUIT DIAGNOSIS >

(+) BCM		(–) Cor		dition	Signal (Reference value)
Connector	Terminal				
M83	49,48	Ground	When the trunk opener request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the an- tenna detection area (The dis- tance between Intelligent Key and antenna: 80 cm or less) When Intelligent Key is not in the antenna detec- tion area (The distance be- tween Intelli- gent Key and antenna: Ap- prox. 2 m)	(V) 10 0 500 ms JMKIA5955GB (V) 15 0 10 500 ms JMKIA5955GB JMKIA5954GB

Is the inspection result normal?

YES

 >> Replace outside key antenna (rear bumper).
 >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>. NO

< DTC/CIRCUIT DIAGNOSIS		ID GROUND CIR [WITH	CUIT INTELLIGENT KEY SYSTEM]
POWER SUPPLY ANI		RCUIT	
Diagnosis Procedure			INFOID:000000011897903
			IN 012.0000000 1103/303
Regarding Wiring Diagram infor	mation, refer to BCS-5	51, "Wiring Diagram".	
5 5 5 5			
1.CHECK FUSES AND FUSIB	LE LINK		
Check that the following fuses a	Ind fusible link are not	blown.	
Terminal No.	Sign	al name	Fuses and fusible link No.
88			12 (10A)
90	Battery p	oower supply	G (40A)
Disconnect BCM connector     Check voltage between BC     BCM		ground.	
Connector	Terminal	Ground	Voltage
M85	88		Battery voltage
COM	90		Ballery voltage
Is the inspection result normal? YES >> GO TO 3. NO >> Repair harness or c <b>3.</b> CHECK GROUND CIRCUIT	connector.	ound.	
Check continuity between BCIVI		1	
BCM Connector	Terminal	Ground	Continuity
BCM	93	- Ground —	Continuity Yes

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## COMBINATION METER BUZZER

Component Function Check

## **1.**CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select INSIDE BUZZER in ACTIVE TEST mode.
- 3. Touch Key, Knob or Take Out to check that it works normally.

### Is the inspection result normal?

- Yes >> Combination meter buzzer is OK.
- No >> Refer to <u>DLK-94, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

**1.**CHECK METER BUZZER CIRCUIT

Refer to WCS-29, "Component Function Check".

Is the inspection result normal?

- Yes >> GO TO 2.
- No >> Repair or replace harness.
- 2. CHECK INTERMITTENT INCIDENT

Refer to GI-40. "Intermittent Incident".

>> Inspection End.

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000011536467

< DTC/CIRCUIT DIAG	NOSIS >		[WITH INTE	LIGENT KEY SYSTEM]
DOOR LOCK A	TUATOR			
DRIVER SIDE				
DRIVER SIDE : C	omponent Fund	ction Check		INFOID:000000011536469
1.CHECK FUNCTION				
<ol> <li>Select DOOR LOC</li> <li>Touch ALL LOCK of s the inspection result</li> <li>YES &gt;&gt; Door lock a NO &gt;&gt; Refer to DI</li> </ol>	normal? actuator is OK. _K-95, "DRIVER SIE	mode. ck that it works norma <u>DE : Diagnosis Procee</u>		
DRIVER SIDE : D	agnosis Procec	lure		INFOID:000000011536470
Regarding Wiring Diagi			<u>Diagram"</u> .	
		JT SIGNAL		
	oor lock actuator LH	connector. actuator LH harness	connector and gro	und.
(+)				
Front door lock actua LH	(-)	Cond	tion	Voltage (Approx.)
D9	l Ground	Door lock and unlock sw	itch Unlock	12 V
s the inspection result			OHIOCK	
YES >> Replace fro	ont door lock actuate	or LH .		
NO >> GO TO 2. CHECK DOOR LOO				
		or lock actuator conne	ctors	
				LH harness connector.
	СМ	Front door l	ock actuator LH	
B			Transford	Continuity
Connector	Terminal	Connector	Terminal	
	95	Connector D9	1	Yes
Connector M85	95 94		1 2	Yes
Connector M85	95 94 etween BCM harnes	D9	1 2	Yes
Connector M85	95 94	D9	1 2 nd.	Yes
Connector M85 3. Check continuity be	95 94 etween BCM harnes BCM	D9	1 2	

3. CHECK BCM OUTPUT SIGNAL

## DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

INFOID:000000011536471

INFOID:000000011536472

#### 1. Connect BCM connector.

2. Check voltage between front door lock actuator LH harness connector and ground.

```	+) CM	(-)	Condition		Voltage (Approx.)
Connector	Terminal				(/ ())
M85	95	Ground	Door lock and unlock switch	Lock	12 V
10100	94	Ground		Unlock	12 V

#### Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.

NO >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

#### PASSENGER SIDE

## PASSENGER SIDE : Component Function Check

1.CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 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-96</u>, "PASSENGER SIDE : Diagnosis Procedure".

## PASSENGER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-42, "Wiring Diagram".

## 1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+) Front door lock actuator RH		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
D107	5	Ground	Door lock and unlock switch	Lock	12 V
	6	Ground	DOUT TOOK AND UTTOOK SWITCH	Unlock	12 V

Is the inspection result normal?

- YES >> Replace front door lock actuator RH.
- NO >> GO TO 2.

## 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector and all door lock actuators.
- 2. Check continuity between BCM harness connector and front door lock actuator RH harness connector.

B	СМ	Front door loo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
 M85	95	D107	5	Yes
COM	86	1010	6	165

3. Check continuity between BCM harness connector and ground.

## DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

-	BCN	N				Continuity
Conne	ector	Termi	nal	Cro	und	Continuity
M8	Ground M85		No			
86			110			
the inspection		?				
YES >> GO						
	air or replace					
CHECK BCM		JNAL				
	M connector.	ont door lock	actuator PL	l harness cor	nector and gr	ound
					inector and gr	ound.
(-	-)					
BC	M	()		Condition		Voltage (Approx.)
Connector	Terminal					· · · · /
M85	95	Ground	Door lock an	d unlock switch	Lock	12 V
	86				Unlock	
CHECK FUN	-					INFOID:0000000115364
. Select DOO . Touch ALL L s the inspection		CTIVE TEST UNLK to cheo <u>?</u>	mode.	ks normally.		
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo	R LOCK in AC OCK or ALL result normal r lock actuato	CTIVE TEST UNLK to cheo ? r is OK.	mode. ck that it wor	-		
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo NO >> Refe	R LOCK in A0 OCK or ALL result normal r lock actuato er to <u>DLK-97,</u>	CTIVE TEST UNLK to cheo ? r is OK. <u>"REAR LH : [</u>	mode. ck that it wor	-		
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo	R LOCK in A0 OCK or ALL result normal r lock actuato er to <u>DLK-97,</u>	CTIVE TEST UNLK to cheo ? r is OK. <u>"REAR LH : [</u>	mode. ck that it wor	-		INFOID:0000000115364:
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo NO >> Refe	R LOCK in A0 OCK or ALL result normal r lock actuato er to <u>DLK-97,</u>	CTIVE TEST UNLK to cheo ? r is OK. <u>"REAR LH : [</u>	mode. ck that it wor	-		INFOID:0000000115364
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo NO >> Refe	R LOCK in A0 OCK or ALL result normal r lock actuato er to <u>DLK-97,</u> viagnosis P	CTIVE TEST UNLK to cheo ? r is OK. "REAR LH : I Procedure	mode. ck that it wor <u>Diagnosis Pr</u>	ocedure".	<u>gram"</u> .	INFOID:0000000115364:
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo NO >> Refe REAR LH : D	R LOCK in A0 OCK or ALL result normal r lock actuato er to <u>DLK-97,</u> viagnosis P	CTIVE TEST UNLK to cheo ? r is OK. "REAR LH : I Procedure	mode. ck that it wor <u>Diagnosis Pr</u>	ocedure".	gram".	INFCID:0000000115364:
. Select DOO . Touch ALL L <u>s the inspection</u> YES >> Doo NO >> Refe REAR LH : D	R LOCK in A0 OCK or ALL result normal r lock actuato or to <u>DLK-97,</u> riagnosis P g Diagram info	CTIVE TEST UNLK to cheo ? r is OK. "REAR LH : I Procedure	mode. ck that it wor <u>Diagnosis Pr</u> er to <u>DLK-42</u>	ocedure".	<u>gram"</u> .	INFOID:0000000115364;
. Select DOO . Touch ALL L sthe inspection YES >> Doo NO >> Refe REAR LH : D Regarding Wiring .CHECK DOO	R LOCK in AC OCK or ALL result normal r lock actuato or to <u>DLK-97,</u> iagnosis P g Diagram info R LOCK ACT switch OFF.	CTIVE TEST UNLK to cheo <u>?</u> r is OK. "REAR LH : I Procedure ormation, refe	mode. ck that it wor <u>Diagnosis Pr</u> er to <u>DLK-42</u> JT SIGNAL	ocedure".	<u>gram"</u> .	INFOID:0000000115364;
. Select DOO . Touch ALL L sthe inspection YES >> Doo NO >> Refe REAR LH : D Regarding Wiring .CHECK DOO . Turn ignition . Disconnect i	R LOCK in AC OCK or ALL result normal r lock actuato or to <u>DLK-97</u> , <b>biagnosis</b> P g Diagram info R LOCK ACT switch OFF. rear door lock	CTIVE TEST UNLK to cheo <u>?</u> r is OK. "REAR LH : I Procedure ormation, refe	mode. ck that it wor <u>Diagnosis Pr</u> er to <u>DLK-42</u> JT SIGNAL connector.	ocedure".		
. Select DOO . Touch ALL L sthe inspection YES >> Doo NO >> Refe REAR LH : D Regarding Wiring .CHECK DOO . Turn ignition . Disconnect i	R LOCK in AC OCK or ALL result normal r lock actuato or to <u>DLK-97</u> , <b>biagnosis</b> P g Diagram info R LOCK ACT switch OFF. rear door lock	CTIVE TEST UNLK to cheo <u>?</u> r is OK. "REAR LH : I Procedure ormation, refe	mode. ck that it wor <u>Diagnosis Pr</u> er to <u>DLK-42</u> JT SIGNAL connector.	ocedure".	gram". nector and gro	

	(-	+)		Condition			0
-	Rear door loo	k actuator LH	()			Condition Voltage (Approx.)	Voltage (Approx.)
-	Connector	Terminal				()	Р
-	D202	1	Ground	Door lock and unlock switch	Lock	12 V	
_	D202	2	Ground	Door lock and unlock switch	Unlock	12 V	

Is the inspection result normal?

YES >> Replace rear door lock actuator LH.

NO >> GO TO 2.

#### < DTC/CIRCUIT DIAGNOSIS >

## 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

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

В	СМ	Rear door loo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M85	95	D202	1	Yes
B24	105	D202	2	163

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Connector Terminal		Continuity	
M85	95	- Ground	No	
B24	105		NO	

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 rear door lock actuator LH harness connector and ground.

·	+) CM	()	Condition		Voltage (Approx.)
Connector	Terminal				(/ ())
M85	95	Ground	Door lock and unlock switch	Lock	12 V
B24	105	Giounu	Door lock and unlock switch Unlock		12 V

Is the inspection result normal?

- YES >> Check for internal short of each door lock actuator.
- NO >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

#### REAR RH

## **REAR RH : Component Function Check**

#### **1.**CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 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-98. "REAR RH : Diagnosis Procedure"</u>.

## **REAR RH** : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-42, "Wiring Diagram"</u>.

## 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.

#### **DLK-98**

INFOID:000000011536475

## DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

## [WITH INTELLIGENT KEY SYSTEM]

	)					Voltage	
Rear door lock		(-)		Condition		(Approx.)	
Connector	Terminal						
D302	5	Ground	Door lock an	d unlock switch	Lock	12 V	
	6			Unlock			
) >> GO T CHECK DOOI Disconnect E	ace rear doo ГО 2. R LOCK AC <sup>-</sup> 8CM connect	r lock actuato	CUIT or lock actua			RH harness connecto	
	BCM		1	Rear door lock a			
Connector		Terminal		nector	Terminal	Continuity	
M85		95			5		
B24		105	D3	302	6	Yes	
Check contin	uity betweer	BCM harnes	s connector	and ground.			
	_			0			
Conne	BC	Termi	nal	- Ground -		Continuity	
M85	5	95					
B24	-	105	5			No	
CHECK BCM	air or replace OUTPUT SI M connector.	GNAL	actuator RH	harness con	nector and gro	und.	
(+ BC		()	Condition		Voltage		
Connector	Terminal	(-)		Condition		(Approx.)	
			Door look on	d unlock switch	Lock	12 V	
M85	95	Ground	DOUT IOCK at	a annook ownton			
	105		DOOI TOCK AT		Unlock		

## DOOR LOCK AND UNLOCK SWITCH

## Component Function Check

## **1**.CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select CDL LOCK SW, CDL UNLOCK SW in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Con	Status	
CDL LOCK SW		LOCK	ON
CDL LOCK SW	Main power window and door lock/unlock switch	UNLOCK	OFF
CDL UNLOCK SW		LOCK	OFF
ODE UNLOOK SW		UNLOCK	ON

Is the inspection result normal?

- YES >> Main power window and door lock/unlock switch is OK.
- NO >> Refer to <u>DLK-100, "Diagnosis Procedure"</u>.

## **Diagnosis** Procedure

INFOID:000000011536478

Regarding Wiring Diagram information, refer to DLK-42, "Wiring Diagram".

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

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector.
- 3. Check signal between main power window and door lock/unlock switch harness connector and ground using oscilloscope.

(+) Main power window and door lock/unlock switch Connector Terminal		()	Signal (Reference value)	
	15			
D5	3	Ground	(V) 15 10 10 10 10 10 10 10 10 10 10	

Is the inspection result normal?

YES >> GO TO 3.

2. CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and main power window and door lock/unlock switch harness connector.

# OOR LOCK AND UNLOCK SWITCH < DTC/CIRCUIT DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

B	СМ	Main power window an	in power window and door lock/unlock switch		
Connector	Terminal	Connector	Terminal	Continuity	
M84	12	D5	3	Yes	
1004	13	5	15	103	
Check continuity b	etween BCM harness	connector and grou	nd.		
	BCM				
Connector	Termina	al		Continuity	
	12		Ground		
M84	13			No	
	CM. Refer to <u>BCS-76.</u> eplace harness. CK AND UNLOCK SW	ITCH GROUND		onnector and ground.	
Main power wind	low and door lock/unlock s	witch		Continuity	
Connector	Termina	al	Ground	Continuity	
D5	1			Yes	
<ul> <li>4.CHECK DOOR LOC</li> <li>Refer to <u>DLK-101. "Cor</u></li> <li><u>Is the inspection result</u></li> <li>YES &gt;&gt; GO TO 5.</li> <li>NO &gt;&gt; Replace m</li> <li><u>lation</u>".</li> <li>5.CHECK INTERMITT</li> <li>Refer to <u>GI-40. "Interm</u></li> </ul>	mponent Inspection". normal? ain power window and FENT INCIDENT		vitch. Refer to <u>PWC-6</u>	9. "Removal and Ins	
>> Inspection	End.				
Component Inspe	ction			INFOID:0000000115	
1.CHECK MAIN POW	ER WINDOW AND D	OOR LOCK/UNLOC	K SWITCH		
•	n OFF. ower window and doc etween main power w			als.	
Main power window and	d door lock/unlock switch			_	
-		Con	dition	Continuity	

Main power window and door lock/unlock switch Terminal		Condition		Continuity	
				Continuity	
45			LOCK	No	Р
15	1	Main power window and door lock/ unlock switch	UNLOCK	Yes	_
2			LOCK	Yes	
3			UNLOCK	No	

## Is the inspection result normal?

YES >> Inspection End

#### < DTC/CIRCUIT DIAGNOSIS >

## [WITH INTELLIGENT KEY SYSTEM]

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-69</u>, "<u>Removal and Instal-</u> lation".

INLOCK SENSO						
omponent Functio						INFOID:000000011897923
CHECK FUNCTION						
Select INTELLIGENT	KEY of BCM usin		т			
Select UNLK SEN-D	r in data monito	Rmode.				
Check that the function	on operates norma	ly accordir	ng to the fo	llowing condition	ns.	
Monitor item		Con	dition			Status
UNLK SEN -DR	Driver side door		Lock			OFF
UNER SEN-BR	Driver side door		Unlock			ON
he inspection result no						
ES >> Unlock sense O >> Refer to DLK	or is OK. -103, "Diagnosis P	rocedure".				
agnosis Procedur	-					INFOID:000000011897924
29.10010 1 1000000	~					114F-OID.0000000011897924
garding Wiring Diagra	n information, refer	to <u>DLK-50</u>	), "Wiring [	<u>Diagram"</u> .		
CHECK UNLOCK SEI	NSOR INPUT SIGN	IAL				
Turn ignition switch C	DFF.					
Disconnect front doo	r lock assembly LH					
Check signal betwee	n front door lock as	sembly LF	I harness o	connector and g	round	I with oscilloscope.
(+	)					
Front door lock	assembly LH	_	()	(		ignal ence value)
Connector	Terminal					
D9	3		Ground	(V) 15 10 5 0 	+ 10ms	PKIB4960J
the inspection result no	ormal?	1				
ES >> GO TO 3.						
IO >> GO TO 2.						
CHECK UNLOCK SEI						
Disconnect BCM con Check continuity betw		connecto	r and front	door lock assen	nbly L	.H harness connector.
BCM					-	
Connector	Terminal		nector	k assembly LH Terminal		Continuity
M84	31		09	3		Yes
Check continuity bet			-	_		100
<b>,,,</b>						
	BCM					Continuity
Connector	Termin	al		Ground		

M84

< DTC/CIRCUIT DIAGNOSIS >

31

No

## UNLOCK SENSOR

#### [WITH INTELLIGENT KEY SYSTEM]

## < DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## $\mathbf{3}$ .check unlock sensor ground circuit

Check continuity between front door lock assembly LH harness connector and ground.

Front door loc	k assembly LH		Continuity	
Connector	Terminal	Ground	Continuity	
D9	4		Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK UNLOCK SENSOR

Refer to DLK-104, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace front door lock assembly LH. Refer to <u>DLK-186, "FRONT DOOR LOCK : Removal and</u> <u>Installation"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

#### Component Inspection

INFOID:000000011897925

## 1.CHECK UNLOCK SENSOR

#### 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		Condition		Continuity	
	Terr	minal	Con	ulion	Continuity	
	3	4	Driver side door	Unlock	Yes	
_			Driver side door	Lock	No	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to <u>DLK-186, "FRONT DOOR LOCK : Removal and</u> <u>Installation"</u>.

#### < DTC/CIRCUIT DIAGNOSIS >

## **KEY CYLINDER SWITCH**

#### Description

When the mechanical key is inserted and turned into the front door lock key cylinder switch LH, the switch ransmits the LOCK or UNLOCK signal directly to the BCM.

## **Component Function Check**

INFOID:000000011897905

INFOID:000000011897904

## 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" <sup>D</sup> with CONSULT. Refer to <u>DLK-37, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item				Condition			
	014/			Lock	: ON		
KEY CYL LK-	500			Neutral / Unlock	: OFF		
KEY CYL UN-SW				Unlock	: ON		F
				Neutral / Lock	: OFF		
the inspection	on result nor	mal?					(
	ey cylinder so efer to <u>DLK-</u>		K. <u>nosis Procedure"</u> .				
iagnosis F	Procedure	-				INFOID:000000011897906	ŀ
lagnoolo i	100000010					INFOID.000000011897900	
egarding Wir	ing Diagram	informatio	n, refer to <u>DLK-42</u>	2. "Wiring Diagram	<u>-</u> -		
.CHECK DC	OR KEY CI	LINDER S	WITCH INPUT S	GIGNAL			,
Turn ignitio	on switch Of	۷.					
Check vol	tage betwee	n BCM cor	nnector and groun	nd.			D
							ע
	Terminals						ט
(+	Terminals		Key position	Voltage (V)			
(+ BCM connector		- (-)	Key position	Voltage (V) (Approx.)			
	) Terminal	- (-)	Key position				
BCM connector	)			(Approx.)			
	) Terminal 8	- (–) - Ground	Lock	(Approx.)			I
BCM connector	) Terminal		Lock Neutral / Unlock	(Approx.) 0 7.0 - 8.0 V			I I
BCM connector	) Terminal 8 7	Ground	Lock Neutral / Unlock Unlock	(Approx.) 0 7.0 - 8.0 V 0			
BCM connector M84 the inspection YES >> Fr	) Terminal 8 7 on result nor ont door locl	- Ground	Lock Neutral / Unlock Unlock	(Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V			ľ
M84 M84 M85 M84 M84 M84 M84 M84 M84 M84 M84 M84 M84	) Terminal 8 7 on result nor ont door locl O TO 2	Ground mal? < key cylind	Lock Neutral / Unlock Unlock Neutral / Lock der switch LH is C	(Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V			
M84 M84 M85 M84 M84 M84 M84 M84 M84 M84 M84 M84 M84	) Terminal 8 7 on result nor ont door locl O TO 2	Ground mal? < key cylind	Lock Neutral / Unlock Unlock Neutral / Lock	(Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V			I
BCM connector M84 the inspection YES >> Fr NO >> Go CHECK DC Turn ignition	Terminal 8 7 0 result nor 0 ro locl 0 TO 2 0 OR KEY CY 0 n switch OF	Ground mal? key cylind /LINDER S	Lock Neutral / Unlock Unlock Neutral / Lock der switch LH is C	(Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V OK. D CIRCUIT			

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

## **DLK-105**

А

С

## **KEY CYLINDER SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3

NO >> Repair or replace harness.

**3.**CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Disconnect BCM connector M84.
- 2. Check continuity between front door lock key cylinder switch LH connector and BCM connector M84.

Front door lock key cylin- der switch LH connector	Terminal	BCM connector	Terminal	Continuity	
D9	6	M84	8	Yes	
09	5	1010-4	7	165	

3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylin- der switch LH connector	Terminal		Continuity	
D9	6	Ground	No	
D9	5			

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch. Refer to <u>DLK-106, "Component Inspection"</u>.

the increation result remains

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> Replace front door lock key cylinder switch LH.

#### **Component Inspection**

#### COMPONENT INSPECTION

## 1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

Terminal			Continuity
Front door lock key cylinder switch LH connector		Key position	
6		Lock	Yes
0	4	Neutral / Unlock	No
5		Unlock	Yes
		Neutral / Lock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock key cylinder switch LH.

## DOOR REQUEST SWITCH

## **Component Function Check**

## **1.**CHECK FUNCTION

- 1. Select INTELLIGENT KEY of CM using CONSULT.
- Select REQ SW-DR, REQ SW-AS in DATA MONITOR mode. 2.
- Check that the function operates normally according to the following conditions. 3.

Monitor item	Condition		Status	•
REQ SW -DR	Deer request switch LH	Pressed	ON	D
REQ SW -DR	Door request switch LH	Released	OFF	-
	Deer request switch DLL	Pressed	ON	- - F
REQ SW -AS	Door request switch RH	Released	OFF	E

#### Is the inspection result normal?

- YES >> Front door request switch is OK.
- NO >> Refer to DLK-107, "Diagnosis Procedure".

### Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-50, "Wiring Diagram"</u>.

## 1. CHECK DOOR REQUEST SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. 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.)		
C	onnector	Terminal		(, , , , , , , , , , , , , , , , , , ,	DLK	
Left side	D15	2	Ground	12 V		
Right side	D115	1	Giouria	12 V	1	

#### Is the inspection result normal?

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

## 2. CHECK DOOR REQUEST SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- Ν Check continuity between malfunctioning front door request switch harness connector and BCM harness 2. connector.

Front door request switch			BCM		Continuity	0
Сог	Connector		Connector	Terminal	Continuity	
Left side	D15	2	- M83	56	Yes	_
Right side	D115	1	1005	71	165	Р

Check continuity between malfunctioning front door request switch harness connector and ground.

Μ

Н

А

В

INFOID:000000011536480

## DOOR REQUEST SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

Front door request switch				Continuity
Con	nector	Terminal	Ground	Continuity
Left side	D15	2	Ground	No
Right side	D115	1		INO

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## $\mathbf{3}$ .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	
Left side	D15	1		Yes	
Right side	D115	2			

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK DOOR REQUEST SWITCH

#### Refer to DLK-108, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning front door request switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

#### >> Inspection End.

#### Component Inspection

INFOID:000000011536482

## **1.**CHECK DOOR REQUEST SWITCH

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

_	Front door request switch		Condition		Continuity
	Terminal				Continuity
	1	2	Door request switch	Pressed	Yes
	Ι	Z		Released	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning front door request switch.

#### < DTC/CIRCUIT DIAGNOSIS >

## DOOR SWITCH

## Component Function Check

INFOID:000000011536483

[WITH INTELLIGENT KEY SYSTEM]

## **1**.CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL and DOOR SW-RR in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item		Condition	Status	
	Front door 111	Open	ON	[
DOOR SW-DR	Front door LH	Closed	OFF	
	Front does DU	Open	ON	
DOOR SW-AS	Front door RH	Closed	OFF	
	Deerdeerlij	Open	ON	
DOOR SW-RL	Rear door LH	Closed	OFF	F
	Da en de en Di l	Open	ON	
DOOR SW-RR	Rear door RH	Closed	OFF	

#### Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-109</u>, "Diagnosis Procedure".

#### **Diagnosis** Procedure

Regarding Wiring Diagram information, refer to DLK-50, "Wiring Diagram".

## 1. CHECK DOOR SWITCH INPUT SIGNAL

- 1. 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)	
Conn	ector	Terminal			
Front door switch LH	B21	3		(V) 15	
Front door switch RH	B28	3	Ground		
Rear door switch LH	B26	3		→ • 10ms	
Rear door switch RH	B41	3		рків4960J 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.

## **DLK-109**

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INFOID:000000011536484

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## **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

	Door switch			BCM		
Coni	Connector Terminal Connector		Terminal	Continuity		
Front door switch LH	B21			98		
Front door switch RH	B28	3	B24	100	Yes	
Rear door switch LH	B26		D24	97	Tes	
Rear door switch RH	B41			99		

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

	Door switch			Continuity
Connector		Terminal		Continuity
Front door switch LH	B21		Ground	
Front door switch RH	B28	3	Ground	No
Rear door switch LH	B26			NO
Rear door switch RH	B41			

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-76. "Removal and Installation".

NO >> Repair or replace harness.

#### **3.**CHECK DOOR SWITCH

Refer to DLK-110, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch.

#### **4.**CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

#### **Component Inspection**

1. CHECK DOOR SWITCH

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

	Door switch			Condition	
Terminal			Condition		Continuity
Front door switch				Pressed	No
LH				Released	Yes
Front door switch RH		Ground part of door switch	Door switch	Pressed	No
	3			Released	Yes
Rear door switch	3			Pressed	No
LH				Released	Yes
Rear door switch				Pressed	No
RH				Released	Yes

Is the inspection result normal?

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INFOID:0000000011536485

## < DTC/CIRCUIT DIAGNOSIS >

YES NO	>> Inspection End. >> Replace malfunction door switch.	А
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#### < DTC/CIRCUIT DIAGNOSIS >

## HAZARD FUNCTION

## Component Function Check

## **1.**CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select FLASHER in ACTIVE TEST mode.
- 3. Touch LH or RH to check that it works normally.

#### Is the inspection result normal?

- YES >> Hazard warning lamp circuit is OK.
- NO >> Refer to <u>DLK-112</u>, "Diagnosis Procedure".

## Diagnosis Procedure

1. CHECK HAZARD SWITCH CIRCUIT

Refer to EXL-106, "Component Function Check".

Is the inspection result normal?

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

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000011536487

#### [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

## INTELLIGENT KEY

#### **Component Function Check**

#### 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

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "RKE OPE COUN1" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition	E
RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.	
la the inequation requit normal?		

Is the inspection result normal?

- YES >> Intelligent Key is OK.
- NO >> Refer to <u>DLK-113</u>, "Diagnosis Procedure".

#### **Diagnosis** Procedure

#### NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech H II User Guide for additional information.

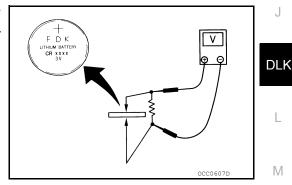
- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.
- **1.**CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA. Refer to <u>DLK-207</u>, "<u>Removal</u> and <u>Installation</u>".

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

Is the measurement value within the specification?

- YES >> Replace Intelligent Key.
- NO >> Replace Intelligent Key battery.



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#### KEY WARNING LAMP

#### **Component Function Check**

**1**.CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 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-114</u>, "Diagnosis Procedure".

#### Diagnosis Procedure

1.CHECK KEY WARNING LAMP

Refer to DLK-31. "WARNING FUNCTION : System Description".

Is the inspection result normal?

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

Refer to GI-40. "Intermittent Incident".

>> Inspection End.

INFOID:000000011536490

INFOID:000000011536491

## REMOTE KEYLESS ENTRY RECEIVER

## REMOTE KEYLESS ENTRY RECEIVER

Component Function Check

## 1.CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select RKE OPE COUN1 in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

M	onitor item			Condition	
RKE OPE COUN1		Check	s whether value chang	ges when operating In	telligent Key
	<u>sult normal?</u> e keyless entry re o <u>DLK-115, "Diag</u>				
iagnosis Proc	cedure				INFOID:00000001153
egarding Wiring (	Diagram informatio	on refer to	DLK-50, "Wiring D	iaoram"	
Jui ang tining t				<u></u> .	
.CHECK REMO	TE KEYLESS EN	IRY RECE	VER OUTPUT SI	GNAL	
Turn ignition s					
•	between BCM ha	rness conn	ector and ground.		
(*	+)				
	CM	(-)	Cor	ndition	Signal (Reference value)
Connector	Terminal				
M84	38	Ground	Push-button igni-	OFF or ACC	0 - 0.5V
			tion switch	ON	Battery voltage
the inspection re /ES >> Replace			amovel and install	otion"	
		<u>503-70, K</u>	emoval and Install	<u>allon</u> .	
10 >> GO TO	) 2.				
10 >> GO TO	) 2. TE KEYLESS EN <sup>-</sup>	IRY RECEI	VER CIRCUIT		
NO >> GO TO CHECK REMO Disconnect BO	TE KEYLESS EN M and remote key	yless entry	receiver connector		
NO >> GO TO CHECK REMO Disconnect BO	TE KEYLESS EN M and remote key	yless entry	receiver connector		ceiver harness connect
NO >> GO TO CHECK REMO Disconnect BO	TE KEYLESS EN M and remote key	yless entry	receiver connector	e keyless entry re	
NO >> GO TO CHECK REMO Disconnect BO	TE KEYLESS EN M and remote key ity between BCM	yless entry harness cor	receiver connector nnector and remot	e keyless entry re	ceiver harness connect
NO >> GO TO CHECK REMO Disconnect BO Check continu	TE KEYLESS EN CM and remote key ity between BCM BCM	yless entry harness cor	receiver connector nnector and remot Remote keyless	e keyless entry re	ceiver harness connect Continuity Yes
NO >> GO TO CHECK REMO Disconnect BO Check continu Connector M84	TE KEYLESS EN CM and remote key ity between BCM BCM Termina 38	yless entry harness cor	receiver connector nnector and remot Remote keyless Connector	e keyless entry re entry receiver Terminal 2	Continuity
NO >> GO TO CHECK REMO Disconnect BO Check continu Connector M84	TE KEYLESS EN CM and remote key ity between BCM BCM Termina 38	yless entry harness cor	receiver connector nnector and remot Remote keyless Connector M91	e keyless entry re entry receiver Terminal 2	Continuity
NO >> GO TO CHECK REMO Disconnect BO Check continu Connector M84	TE KEYLESS EN CM and remote key ity between BCM BCM Termina 38 ity between BCM	yless entry harness cor	receiver connector nnector and remot Remote keyless Connector M91	e keyless entry re entry receiver Terminal 2	Continuity
NO >> GO TO CHECK REMO Disconnect BO Check continu Connector M84	TE KEYLESS EN CM and remote key ity between BCM BCM Termina 38 ity between BCM (+) BCM	yless entry harness cor	Remote keyless Connector M91	e keyless entry re entry receiver Terminal 2	Continuity Yes

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## **REMOTE KEYLESS ENTRY RECEIVER**

#### < DTC/CIRCUIT DIAGNOSIS >

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

(	+)			
Remote keyles	Remote keyless entry receiver		Voltage Approx.	
Connector	Terminal			
M91	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO-1 >> Check 10A fuse No. 14 [located in fuse block J/B].

NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 14.

#### **4.**CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

Remote keyles	s entry receiver		Continuity
Connector	Terminal	Ground	Continuity
M91	4		Yes

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-206, "Removal and Installation"</u>.

NO >> Repair or replace harness.

#### SHIFT P WARNING LAMP А **Component Function Check** INFOID:000000011536494 **1.**CHECK FUNCTION В 1. Select INTELLIGENT KEY of BCM using CONSULT. Select LCD in ACTIVE TEST mode. 3. Touch SET P to check that it works normally. Is the inspection result normal? YES >> Shift P warning lamp is OK. NO >> Refer to DLK-117, "Diagnosis Procedure". D **Diagnosis** Procedure INFOID:000000011536495 Е 1.CHECK SHIFT P WARNING LAMP Refer to DLK-31, "WARNING FUNCTION : System Description". Is the inspection result normal? F YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK INTERMITTENT INCIDENT Refer to GI-40, "Intermittent Incident". Н >> Inspection End.

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< DTC/CIRCUIT DIAGNOSIS >

## TRUNK LID OPENER ACTUATOR

Component Function Check

## **1.**CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select TRUNK/GLASS HATCH in ACTIVE TEST mode.
- 3. Touch OPEN to check that it works normally.

#### Is the inspection result normal?

- YES >> Trunk lid opener actuator is OK.
- NO >> Refer to <u>DLK-118</u>, "Diagnosis Procedure".

#### Diagnosis Procedure

INFOID:0000000011536497

INFOID:000000011536496

Regarding Wiring Diagram information, refer to DLK-64, "Wiring Diagram".

## 1. CHECK TRUNK LID OPENER INPUT SIGNAL

#### 1. Turn ignition switch OFF.

- 2. Disconnect trunk lid opener assembly connector.
- 3. Check voltage between trunk lid opener assembly harness connector and ground.

	+) ener assembly	(–)	Condition	Voltage (Approx.)
Connector	Terminal			
B59	3	Ground	Trunk lid opener switch is ON	12 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

## **2.**CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

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

B	СМ	Trunk lid opener assembly		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B24	107	B59	3	Yes	

3. Check continuity between BCM harness connector and ground.

BC	CM		Continuity	
Connector	Terminal	Ground	Continuity	
B24	107		No	

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## **3.**CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

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

**Revision: December 2014** 

#### TRUNK LID OPENER ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM]

	Trunk lid opener assembly			Continuity	А
	Connector	Terminal	Ground	Continuity	
	B59	2	-	Yes	5
ls th	e inspection normal?				В

YES >> Replace trunk lid opener assembly.

NO >> Repair or replace harness.

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## TRUNK LID OPENER SWITCH

## Component Function Check

## **1.**CHECK FUNCTION

- 1. Select TRUNK of BCM using CONSULT.
- 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	Trunk lid opener switch	Pressed On	
		Released	Off

#### Is the inspection result normal?

- YES >> Trunk lid opener switch is OK.
- NO >> Refer to <u>DLK-120, "Diagnosis Procedure"</u>.

## **Diagnosis Procedure**

INFOID:000000011536499

Regarding Wiring Diagram information, refer to DLK-64, "Wiring Diagram".

## 1. CHECK TRUNK LID OPENER INPUT SIGNAL

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

	+) bener switch Terminal	()	Signal (Reference value)
M15	1	Ground	(V) 15 0 10 10 10 10 10 JEMIA00126B

Is the inspection result normal?

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

## 2. CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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

В	СМ	Trunk lid op	pener switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M84	30	M15	1	Yes

3. Check continuity between BCM harness connector and ground.

 BC	CM		Continuity
 Connector	Terminal	Ground	Continuity
 M84	30		No

## 

	TRUNK LID OP	ENER SWITCH		
< DTC/CIRCUIT DIAGNOS	IS >	[WITH INTI	ELLIGENT KEY SYSTEM]	
Is the inspection result norm	al?			
	Refer to <u>BCS-76, "Remova</u>	l and Installation".		А
NO >> Repair or replace				
<b>3.</b> CHECK TRUNK LID OPE	NER SWITCH GROUND	CIRCUIT		D
Check continuity between tru	unk lid opener switch harne	ess connector and ground.		В
Trunk lid op	pener switch		Continuity	С
Connector	Terminal	Ground	Continuity	C
M15	2		Yes	
Is the inspection result normal YES >> GO TO 4. NO >> Repair or replace 4.CHECK TRUNK LID OPE Refer to <u>DLK-121, "Compone</u> Is the inspection result normal YES >> GO TO 5. NO >> Replace trunk lice 5.CHECK INTERMITTENT Refer to <u>GI-40, "Intermittent</u>	e harness. ENER SWITCH <u>ent Inspection"</u> . <u>al?</u> d opener switch. INCIDENT			D E F G
>> Inspection End.				11
Component Inspection			INFOID:000000011536500	
1. CHECK TRUNK LID OPE	NER SWITCH			
<ol> <li>Turn ignition switch OFF</li> <li>Disconnect trunk lid ope</li> <li>Check continuity between</li> </ol>		erminals.		J

_	Trunk lid opener switch Terminal		Condition		Continuity	DL
_						
_	1	2	Trunk lid ononor owitch	Pressed	Yes	_
	I	2	Trunk lid opener switch Release		No	- L

Is the inspection result normal?

YES

>> Inspection End.>> Replace trunk lid opener switch. NO

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< DTC/CIRCUIT DIAGNOSIS >

## **TRUNK LAMP SWITCH**

#### Description

Detects trunk open/close condition.

**Component Function Check** 

## 1.CHECK FUNCTION

#### With CONSULT

Check TRNK/HAT MNTR in Data Monitor mode with CONSULT.

Monitor item	Monitor item Condition		
TRNK/HAT MNTR	OPEN	: ON	
	CLOSE	: OFF	

Is the inspection result normal?

YES >> Trunk lid switch is OK.

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

#### **Diagnosis** Procedure

INFOID:000000011536503

Regarding Wiring Diagram information, refer to DLK-64, "Wiring Diagram".

## 1. CHECK TRUNK LID SWITCH INPUT SIGNAL

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

	Terminals			
(+	+)		Trunk	Voltage (V)
BCM connector	Terminal (-) condition		condition	(Approx.)
			OPEN	0
B24	103	Ground	CLOSE	(V) 15 0 • • • 10ms • • • • • • • • • • • • • • • • • • •

#### Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

2. CHECK TRUNK LID SWITCH CIRCUIT

1. Disconnect BCM and trunk lid opener assembly connector.

2. Check continuity between BCM connector and trunk lid opener assembly connector.

BCM connector	Terminal	Trunk lid opener as- sembly connector	Terminal	Continuity
B24	103	B59	1	Yes

3. Check continuity between BCM connector and ground.

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INFOID:0000000011536502

## **TRUNK LAMP SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

BCM connector	Terminal	Ground	Continuity	, A
B24	103		No	
<u>Is the inspection resu</u> YES >> GO TO 3				E
		between BC	M and trunk lid op	ener assembly.
3.CHECK TRUNK L	ID SWITCH GRO	UND CIRCU	ЛТ	C
Check continuity betw	veen trunk lid ope	ner assembl	y connector and g	jround.
	1			Г
Trunk lid opener as- sembly connector	Terminal	Ground	Continuity	L
B59	2	Ground	Yes	
Is the inspection resu	It normal?			E
YES >> GO TO 4				
	•	opener asse	mbly ground circu	iit. F
4.CHECK BCM OUT				
<ol> <li>Ensure trunk lid r</li> <li>Connect BCM co</li> </ol>		iring this step	<b>D</b> .	(
3. Check voltage be		nector and gr	ound.	
	Terminal	6		⊢ ─────Voltage (V)
	(+)	1	()	(Approx.)
BCM connector	Termina	1		
B24	103		Ground	(V) 15 10 5 0 + 10ms FRIB4960J 7.0 - 8.0V
Is the inspection resu	It normal?			L
YES >> GO TO 5 NO >> Replace	BCM Refer to B(	CS-76 "Rem	oval and Installation	חר <b>י</b>
5.CHECK TRUNK L		<u>70 70, 1(011</u>		
Refer to <u>DLK-123</u> , "C		tion"		Ν
Is the inspection resu				
YES >> GO TO 6				Ν
· · ·	trunk lid opener a	-		
6.CHECK INTERMIT		Т		(
Refer to GI-40, "Interr	<u>mittent Incident"</u> .			
>> Inspectio	n End			-
				F
Component Inspe 1.check TRUNK L				INFOID:000000011536504
1. Turn ignition swite				
<ol> <li>Disconnect trunk</li> <li>Check trunk lid sy</li> </ol>	lid opener assem	bly connecto	or.	

## **TRUNK LAMP SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

Tei	minal	Trunk condition	Continuity
Trunk	lid switch		
1	2	OPEN	Yes
I	2	CLOSE	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace trunk lid opener assembly.

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

< SYMPTOM DIAGNOSIS > [WITH INTELLIGENT K	EY SYSTEM]
SYMPTOM DIAGNOSIS	
DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND	UNLOCK
SWITCH	
ALL DOOR	
ALL DOOR : Description	INFOID:000000011536505
All doors do not lock/unlock using door lock and unlock switch.	
ALL DOOR : Diagnosis Procedure	INFOID:000000011536506
1. CHECK DOOR LOCK AND UNLOCK SWITCH	
Check door lock and unlock switch. Refer to <u>DLK-100, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.CHECK DOOR LOCK ACTUATOR	
Check front door lock assembly (driver side).	
Refer to DLK-95, "DRIVER SIDE : Component Function Check".	
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>	
Is the result normal?	
YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".	_
DRIVER SIDE	
DRIVER SIDE : Description	INFOID:000000011536507
Driver side door does not lock/unlock using door lock and unlock switch.	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000011536508
1. CHECK DOOR LOCK ACTUATOR	
Check front door lock assembly (driver side). Refer to <u>DLK-95, "DRIVER SIDE : Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.REPLACE BCM	
1. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> .	
2. Confirm the operation after replacement.	
<u>Is the result normal?</u> YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	
PASSENGER SIDE	

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

PASSENGER SIDE : Description	INFOID:000000011536509
Passenger side door does not lock/unlock using door lock and unlock switch.	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000011536510
1.CHECK DOOR LOCK ACTUATOR	
Check front door lock assembly (passenger side). Refer to <u>DLK-96, "PASSENGER SIDE : Component Function Check"</u> .	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>	
<u>Is the result normal?</u> YES >> Inspection End.	
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> . REAR LH	
REAR LH : Description	INFOID:000000011536511
Rear LH side door does not lock/unlock using door lock and unlock switch.	
REAR LH : Diagnosis Procedure	INFOID:000000011536512
1. CHECK DOOR LOCK ACTUATOR	
Check rear door lock assembly LH. Refer to <u>DLK-97, "REAR LH : Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
<b>2.</b> REPLACE BCM	
1. Replace BCM. Refer to BCS-76, "Removal and Installation".	
2. Confirm the operation after replacement.	
<u>Is the result normal?</u> YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	
REAR RH	
REAR RH : Description	INFOID:000000011536513
Rear RH side door does not lock/unlock using door lock and unlock switch.	
REAR RH : Diagnosis Procedure	INFOID:000000011536514
1. CHECK DOOR LOCK ACTUATOR	
Check rear door lock assembly RH. Refer to <u>DLK-98, "REAR RH : Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.REPLACE BCM	
1. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> .	

#### ----. . . . . **.**... . . .

	<b>DR DOES NOT LOCK/UNLOCK WITH DO</b> PTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
2. Co	nfirm the operation after replacement.	
	esult normal?	
YES	>> Inspection End.	- 11
NO	>> Check intermittent incident. Refer to GI-40, "Interr	

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#### DOOR DOES NOT LOCK/UNLOCK WITH DRIVER SIDE DOOR LOCK KNOB OR DOOR KEY CYLINDER

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## DOOR DOES NOT LOCK/UNLOCK WITH DRIVER SIDE DOOR LOCK KNOB OR DOOR KEY CYLINDER

**Diagnosis** Procedure

INFOID:0000000011536515

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-125</u>, "ALL DOOR : Diagnosis Procedure".

2. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to <u>DLK-105. "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

**3.**REPLACE BCM

1. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

2. Confirm the operation after replacement.

Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWI < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT K	
DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWI ALL DOOR REQUEST SWITCHES	TCH
ALL DOOR REQUEST SWITCHES : Description	INFOID:0000000011536516
All doors do not lock/unlock using all door request switches.	D
ALL DOOR REQUEST SWITCHES : Diagnosis Procedure	INFOID:000000011536517
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function. <u>Does door lock/unlock with Intelligent Key button?</u> YES >> GO TO 2. NO >> Refer to <u>DLK-131. "Diagnosis Procedure"</u> . <b>2</b> CHECK LOCK UNLOCK DY LKEY SETTING IN WORK SUPPORT	D
<ol> <li>CHECK LOCK/UNLOCK BY I-KEY SETTING IN WORK SUPPORT</li> <li>Select INTELLIGENT KEY of BCM using CONSULT.</li> <li>Select LOCK/UNLOCK BY I-KEY in WORK SUPPORT mode.</li> <li>Check LOCK/UNLOCK BY I-KEY setting in WORK SUPPORT. Refer to <u>BCS-22</u>, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".</li> </ol>	F
Is the inspection result normal? YES >> GO TO 3. NO >> Set "ON" in "LOCK/UNLOCK BY I-KEY".	G
3.CHECK DOOR SWITCH Check door switch.	
Refer to DLK-109, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 4.         NO       >> Repair or replace the malfunctioning parts.	I
4. CHECK INSIDE KEY ANTENNA	J
<ul> <li>Check inside key antenna.</li> <li>Instrument center: Refer to <u>DLK-75, "DTC Logic"</u>.</li> <li>Console: Refer to <u>DLK-78, "DTC Logic"</u>.</li> <li>Trunk room: Refer to <u>DLK-81, "DTC Logic"</u>.</li> </ul>	DLK
<u>Is the inspection result normal?</u> YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	L
5. CHECK OUTSIDE KEY ANTENNA	M
<ul> <li>Check outside key antenna.</li> <li>Driver side: Refer to <u>DLK-84, "DTC Logic"</u>.</li> <li>Passenger side: Refer to <u>DLK-87, "DTC Logic"</u>.</li> <li>Rear bumper: Refer to <u>DLK-90, "DTC Logic"</u>.</li> </ul>	Ν
<u>Is the inspection result normal?</u> YES >> GO TO 6.	0
NO >> Repair or replace the malfunctioning parts.	Ŭ
6.REPLACE BCM	P
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> <li><u>Is the result normal?</u></li> <li>YES &gt;&gt; Inspection End.</li> <li>NO &gt;&gt; Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.</li> </ol>	

DRIVER SIDE DOOR REQUEST SWITCH

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYS	TEM]
DRIVER SIDE DOOR REQUEST SWITCH : Description	00011536518
All doors do not lock/unlock using driver side door request switch.	
DRIVER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure	00011536519
1.CHECK DRIVER SIDE DOOR REQUEST SWITCH	
Check driver side door request switch. Refer to <u>DLK-107, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK OUTSIDE KEY ANTENNA	
Check outside key antenna (driver side). Refer to <u>DLK-84, "DTC Logic"</u> .	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>	
Is the result normal?	
YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> . PASSENGER SIDE DOOR REQUEST SWITCH	
PASSENGER SIDE DOOR REQUEST SWITCH : Description	00011536520
All doors do not lock/unlock using passenger side door request switch.	
PASSENGER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure	00011536521
1.CHECK PASSENGER SIDE DOOR REQUEST SWITCH	
Check passenger side door request switch. Refer to <u>DLK-107, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.CHECK OUTSIDE KEY ANTENNA	
Check outside key antenna (passenger side).	
Refer to <u>DLK-87, "DTC Logic"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
<b>3.</b> REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>	
Is the result normal?	
YES >> Inspection End NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

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

Diagnosis Procedure	А
1. CHECK POWER DOOR LOCK OPERATION	В
Check power door lock operation.	
Does door lock/unlock with door lock and unlock switch?	С
YES >> GO TO 2. NO >> Refer to DLK-125. "ALL DOOR : Diagnosis Procedure".	C
2.CHECK REMOTE KEYLESS ENTRY RECEIVER	D
Check remote keyless entry receiver. Refer to <u>DLK-115, "Component Function Check"</u> .	
Is the inspection result normal?	E
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.CHECK INTELLIGENT KEY	F
Check Intelligent Key.	
Refer to DLK-113, "Component Function Check".	G
Is the inspection result normal?	9
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CHECK DOOR SWITCH	Н
Check door switch.	
Refer to <u>DLK-109, "Component Function Check"</u> .	1
Is the inspection result normal?	I
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	J
5.REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>	DLK
Is the result normal?	
YES >> Inspection End	
NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	-
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TRUNK LID DOES NOT OPEN < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SY	STEMI
TRUNK LID DOES NOT OPEN TRUNK LID OPENER SWITCH	<u> </u>
TRUNK LID OPENER SWITCH : Description	0000011536523
Trunk lid does not open by trunk lid opener switch operation. TRUNK LID OPENER SWITCH : Diagnosis Procedure	0000011536524
1.CHECK TRUNK LID OPENER SWITCH	
Check trunk lid opener switch. Refer to <u>DLK-120</u> , " <u>Component Function Check</u> ". <u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. <b>2.</b> CHECK TRUNK LID OPENER ACTUATOR	
Check trunk lid opener actuator. Refer to <u>DLK-118</u> , " <u>Component Function Check</u> ". <u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. <b>3</b> .REPLACE BCM	
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> <li><u>Is the result normal?</u></li> <li>YES &gt;&gt; Inspection End.</li> <li>NO &gt;&gt; Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.</li> <li>INTELLIGENT KEY</li> </ol>	
INTELLIGENT KEY : Description	0000011536525
Trunk lid does not open by Intelligent Key remote operation.	
INTELLIGENT KEY : Diagnosis Procedure	0000011536526
1.CHECK TRUNK LID OPEN FUNCTION	
Check trunk lid open function with trunk lid opener switch. <u>Does trunk lid open with trunk lid opener switch?</u> YES >> GO TO 2. NO >> Refer to <u>DLK-132, "TRUNK LID OPENER SWITCH : Diagnosis Procedure"</u> . <b>2.</b> CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function.	
Does door lock/unlock with Intelligent Key button?         YES       >> GO TO 3.         NO       >> Refer to DLK-131, "Diagnosis Procedure".         2       OUTOK NUTER LOODNE KEY	
3.CHECK INTELLIGENT KEY Check Intelligent Key.	
Refer to DLK-113, "Component Function Check".         Is the inspection result normal?         YES       >> GO TO 4.         NO       >> Repair or replace the malfunctioning parts. <b>4.</b> REPLACE BCM	

## TRUNK LID DOES NOT OPEN

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
1. Replace BCM. Refer to <u>BCS-76. "Removal and Inst</u>	<u>allation"</u> .
2. Confirm the operation after replacement.	
Is the result normal?	
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-40</u> ,	"Intermittent Incident"

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## IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000011536527

1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with driver side door lock knob and door key cylinder?

YES >> GO TO 2.

NO >> Refer to <u>DLK-128</u>, "Diagnosis Procedure".

2. CHECK DOOR SWITCH

Check door switch.

Refer to <u>DLK-109</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.REPLACE BCM

1. Replace BCM. Refer to BCS-76, "Removal and Installation".

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

#### AUTO DOOR LOCK OPERATION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > AUTO DOOR LOCK OPERATION DOES NOT OPERATE А **Diagnosis** Procedure INFOID:000000011536528 1. CHECK AUTO LOCK SET SETTING IN WORK SUPPORT В 1. Select INTELLIGENT KEY of BCM using CONSULT. 2. Select AUTO LOCK SET in WORK SUPPORT mode. Check AUTO LOCK SET setting in WORK SUPPORT. 3. Refer to BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. D >> Set MODE 2, MODE 3, MODE 4, MODE 5, MODE 6 or MODE 7 in AUTO LOCK SET. NO 2.REPLACE BCM Е Replace BCM. Refer to BCS-76, "Removal and Installation". 1. 2. Confirm the operation after replacement. Is the result normal? F YES >> Inspection End. >> Check intermittent incident. Refer to GI-40, "Intermittent Incident". NO

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## VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

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

**Diagnosis** Procedure

INFOID:0000000011536529

[WITH INTELLIGENT KEY SYSTEM]

- 1. CHECK AUTOMATIC LOCK/UNLOCK SELECT SETTING IN WORK SUPPORT
- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select AUTOMATIC LOCK/UNLOCK SELECT in WORK SUPPORT mode.
- Check AUTOMATIC LOCK/UNLOCK SELECT setting in WORK SUPPORT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set Lock Only or Lock/Unlock in WORK SUPPORT.

2.CHECK AUTOMATIC DOOR LOCK SELECT SETTING IN WORK SUPPORT

- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select AUTOMATIC DOOR LOCK SELECT in WORK SUPPORT mode.
- 3. Check AUTOMATIC DOOR LOCK SELECT setting in WORK SUPPORT.
- Refer to BCS-17, "DOOR LOCK : CONSULT Function (BCM DOOR LOCK)".

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Set VH SPD in AUTOMATIC DOOR LOCK SELECT.

**3.**REPLACE BCM

- 1. Replace BCM. Refer to BCS-76, "Removal and Installation".
- 2. Confirm the operation after replacement.

#### Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

## IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
IGN OFF INTERLOCK DOOR UNLOCK FUN	CTION DOES NOT OPERATE
Diagnosis Procedure	INFOID:000000011536530
1. CHECK AUTOMATIC LOCK/UNLOCK SELECT SETTING IN	WORK SUPPORT B
<ol> <li>Select DOOR LOCK of BCM using CONSULT.</li> <li>Select AUTOMATIC LOCK/UNLOCK SELECT in WORK SUI</li> <li>Check AUTOMATIC LOCK/UNLOCK SELECT setting in WO Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM</u>)</li> </ol>	RK SUPPORT. C
Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Set Unlock Only or Lock/Unlock in AUTOMATIC LOCK	D CK/UNLOCK SELECT.
2. CHECK AUTOMATIC DOOR UNLOCK SELECT SETTING IN	WORK SUPPORT
<ol> <li>Select DOOR LOCK of BCM using CONSULT.</li> <li>Select AUTOMATIC DOOR UNLOCK SELECT in WORK SU</li> <li>Check AUTOMATIC DOOR UNLOCK SELECT setting in WO Refer to <u>BCS-17</u>, "DOOR LOCK : CONSULT Function (BCM)</li> </ol>	IPPORT mode. DRK SUPPORT.
Is the inspection result normal?	
YES >> GO TO 3. NO >> Set MODE 1 or MODE 3 in AUTOMATIC DOOR UNI	LOCK SELECT. G
<ul> <li><b>3.</b>REPLACE BCM</li> <li>1. Replace BCM. Refer to <u>BCS-76</u>, "<u>Removal and Installation</u>".</li> </ul>	
<ol> <li>Confirm the operation after replacement.</li> </ol>	Н
<u>Is the result normal?</u> YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-40, "Intermitt</u>	ent Incident".

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#### HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

#### [WITH INTELLIGENT KEY SYSTEM] HAZARD AND BUZZER REMINDER DOES NOT OPERATE

Diagnosis Procedure

1

INFOID:000000011536531

I.	CHECK HAZARD ANSWER BACK SETTING IN WORK SUPPORT
1.	Select INTELLIGENT KEY of BCM using CONSULT.
2.	Select HAZARD ANSWER BACK in WORK SUPPORT mode.
3.	Check the HAZARD ANSWER BACK setting in WORK SUPPORT.
	Refer to BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".
ls	the inspection result normal?
γ	/ES >> GO TO 2.

NO >> Set the Lock Only, Unlock Only or Lock/Unlock in HAZARD ANSWER BACK.

2.CHECK ANS BACK I-KEY LOCK SETTING IN WORK SUPPORT

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- Select ANS BACK I-KEY LOCK in WORK SUPPORT mode. 2.
- Check the ANS BACK I-KEY LOCK setting in WORK SUPPORT. 3. Refer to BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Set the Horn Chirp or Buzzer in ANS BACK I-KEY LOCK.

 ${f 3.}$  CHECK ANS BACK I-KEY UNLOCK SETTING IN WORK SUPPORT

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- Select ANS BACK I-KEY UNLOCK in WORK SUPPORT mode. 2.
- Check the ANS BACK I-KEY UNLOCK setting in WORK SUPPORT. Refer to BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

- YFS >> GO TO 4.
- NO >> Set the On in ANS BACK I-KEY UNLOCK.
- **4.**CHECK HAZARD FUNCTION

#### Check hazard function.

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

 ${f b}$ .CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-94, "Component Function Check".

Is the inspection result normal?

- YES >> GO TO 6.
- >> Repair or replace the malfunctioning parts. NO

#### **6.**REPLACE BCM

- 1. Replace BCM. Refer to BCS-76, "Removal and Installation".
- 2. Confirm the operation after replacement.

#### Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

KEY REMINDER FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT K	EY SYSTEM]
KEY REMINDER FUNCTION DOES NOT OPERATE	
Diagnosis Procedure	INFOID:000000011536532
1. CHECK ANTI KEY LOCK IN FUNCTI SETTING IN WORK SUPPORT	
<ol> <li>Select INTELLIGENT KEY of BCM using CONSULT.</li> <li>Select ANTI KEY LOCK IN FUNCTI in WORK SUPPORT mode.</li> <li>Check ANTI KEY LOCK IN FUNCTI setting in WORK SUPPORT. Refer to <u>BCS-22</u>, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</li> </ol>	
Is the inspection result normal? YES >> GO TO 2. NO >> Set On in ANTI KEY LOCK IN FUNCTI.	
2.CHECK DOOR SWITCH Check door switch.	
Refer to DLK-109, "Component Function Check".	
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3. CHECK INSIDE KEY ANTENNA	
<ul> <li>Check inside key antenna.</li> <li>Instrument center: Refer to <u>DLK-75, "DTC Logic"</u>.</li> <li>Console: Refer to <u>DLK-78, "DTC Logic"</u>.</li> <li>Trunk room: Refer to <u>DLK-81, "DTC Logic"</u>.</li> </ul>	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CHECK UNLOCK SENSOR	
Check unlock sensor. Refer to DLK-103, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 5.	I
NO >> Repair or replace the malfunctioning parts. 5.REPLACE BCM	_
1. Replace BCM. Refer to BCS-76, "Removal and Installation".	
<ol> <li>Confirm the operation after replacement.</li> </ol>	
Is the result normal?	
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	

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#### OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## OFF POSITION WARNING DOES NOT OPERATE

**Diagnosis** Procedure INFOID:000000011536533 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 (driver side). Refer to DLK-109, "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 DLK-94, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.  ${f b}.$ CHECK INTELLIGENT KEY WARNING BUZZER Check Intelligent Key warning buzzer. Refer to DLK-94, "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-76, "Removal and Installation". 1. Confirm the operation after replacement. 2. Is the result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

< SYMPTOM DIAGNOSIS >

P POSITION WARNING DOES NOT OPERATE	
Diagnosis Procedure	A INFOID:000000011536534
1.снеск отс with всм	В
Check that DTC is not detected with BCM	
Is the inspection result normal?	C
YES >> GO TO 2. NO >> Perform trouble diagnosis relevant to DTC indicated.	C
2. CHECK DTC WITH COMBINATION METER	
Check that DTC is not detected with combination meter	D
Is the inspection result normal?	
YES >> GO TO 3.	E
NO >> Perform trouble diagnosis relevant to DTC indicated.	
3.CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to <u>DLK-94, "Component Function Check"</u> .	Г
Is the inspection result normal?	G
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	0
4. CHECK COMBINATION METER BUZZER	
Check combination meter buzzer.	Η
Refer to <u>DLK-94, "Component Function Check"</u> .	
Is the inspection result normal?	I
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
NO >> Repair or replace the malfunctioning parts. 5.CHECK DOOR SWITCH	J
Check front door switch (driver side). Refer to <u>DLK-109, "Component Function Check"</u> .	
Is the inspection result normal?	DLK
YES >> GO TO 6.	
NO >> Repair or replace the malfunctioning parts. 6.CHECK KEY WARNING LAMP	L
Check key warning lamp. Refer to <u>DLK-114, "Component Function Check"</u> .	Μ
Is the inspection result normal?	
YES >> GO TO 7.	
NO >> Repair or replace the malfunctioning parts.	Ν
CHECK SHIFT P WARNING LAMP Check shift P warning lamp.	
Refer to <u>DLK-117, "Component Function Check"</u> .	0
Is the inspection result normal?	
YES >> GO TO 8. NO >> Repair or replace the malfunctioning parts.	Р
8. REPLACE BCM	
1. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> .	
2. Confirm the operation after replacement.	
Is the result normal?	
YES >> Inspection End.	

Revision: December 2014

#### < SYMPTOM DIAGNOSIS >

NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

## [WITH INTELLIGENT KEY SYSTEM]

Diagnosis Procedure
<b>1.</b> СНЕСК 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
D
Check that DTC is not detected with combination meter
<u>Is the inspection result normal?</u> YES >> GO TO 3
YES >> GO TO 3. NO >> Perform trouble diagnosis relevant to DTC indicated.
3. CHECK COMBINATION METER BUZZER
Check combination meter buzzer.
Refer to DLK-94, "Component Function Check".
Is the inspection result normal?
YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.
4.REPLACE BCM
<ol> <li>Replace BCM. Refer to <u>BCS-76. "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>
Is the result normal?
YES >> Inspection End.
NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .
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#### TAKE AWAY WARNING DOES NOT OPERATE

## TAKE AWAY WARNING DOES NOT OPERATE

Diagnosis Procedure INFOID:000000011536536 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 DLK-75, "DTC Logic". Console: Refer to <u>DLK-78, "DTC Logic"</u>. Trunk room: Refer to <u>DLK-81</u>, "<u>DTC Logic</u>". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. **4**.CHECK DOOR SWITCH Check door switch. Refer to DLK-109, "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-94, "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-94, "Component Function Check". Is the inspection result normal? YES >> GO TO 7. NO >> Repair or replace the malfunctioning parts. 7. CHECK KEY WARNING LAMP Check key warning lamp. Refer to DLK-114, "Component Function Check". Is the inspection result normal? YES >> GO TO 8. NO >> Repair or replace the malfunctioning parts.

8.REPLACE BCM

1. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.

2. Confirm the operation after replacement.

## TAKE AWAY WARNING DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

# [WITH INTELLIGENT KEY SYSTEM]

	esult normal?	/
YES NO	>> Inspection End. >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	/
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## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000011536537

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.

 ${f 3.}$  CHECK LO- BATT OF KEY FOB WARN SETTING IN WORK SUPPORT

1. Select INTELLIGENT KEY of BCM.

- 2. Select LO- BATT OF KEY FOB WARN in WORK SUPPORT mode.
- 3. Check LO- BATT OF KEY FOB WARN setting in WORK SUPPORT.

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-113, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Instrument center: Refer to DLK-75, "DTC Logic".
- Console: Refer to <u>DLK-78, "DTC Logic"</u>.
- Trunk room: Refer to <u>DLK-81, "DTC Logic"</u>.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

**6.**CHECK KEY WARNING LAMP

Check key warning lamp. Refer to <u>DLK-114, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

7.REPLACE BCM

- 1. Replace BCM. Refer to BCS-76, "Removal and Installation".
- 2. Confirm the operation after replacement.

Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

## DOOR LOCK OPERATION WARNING DOES NOT OPERATE

[WITH INTELLIGENT KEY SYSTEM]

# DOOR LOCK OPERATION WARNING DOES NOT OPERATE

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Diagnosis Procedure	INFOID:000000011536538	~
1. CHECK DOOR LOCK FUNCTION		В
Check door lock function.		
Does door lock/unlock using door request switch?		
YES >> GO TO 2. NO >> Refer to <u>DLK-129</u> , "ALL DOOR REQUEST SWITCHES : Diagnosis Procedure".		С
2.CHECK INTELLIGENT KEY WARNING BUZZER		D
Check Intelligent Key warning buzzer.		
Refer to <u>DLK-94, "Component Function Check"</u> .		
Is the inspection result normal?		E
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		
3.REPLACE BCM		F
<ol> <li>Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u>.</li> <li>Confirm the operation after replacement.</li> </ol>		
Is the result normal?		G
YES >> Inspection End.		
NO >> Check intermittent incident. Refer to <u>GI-40. "Intermittent Incident"</u> .		Н

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## [WITH INTELLIGENT KEY SYSTEM]

# KEY ID WARNING DOES NOT OPERATE

**Diagnosis** Procedure INFOID:000000011536539 1. CHECK DTC WITH BCM Check that DTC is not detected with BCM Is the inspection result normal? YES >> GO TO 2. NO >> Perform trouble diagnosis relevant to DTC indicated. 2.CHECK DTC WITH COMBINATION METER Check that DTC is not detected with combination meter Is the inspection result normal? YES >> GO TO 3. NO >> Perform trouble diagnosis relevant to DTC indicated. 3. CHECK INTELLIGENT KEY Check Intelligent Key. Refer to DLK-113, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CHECK INSIDE KEY ANTENNA Check inside key antenna. Instrument center: Refer to DLK-75, "DTC Logic". Console: Refer to DLK-78, "DTC Logic". Trunk room: Refer to DLK-81, "DTC Logic". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5. CHECK KEY WARNING LAMP Check key warning lamp. Refer to DLK-114. "Component Function Check". Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts. 6.REPLACE BCM 1. Replace BCM. Refer to BCS-76, "Removal and Installation". Confirm the operation after replacement. 2. Is the result normal? YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

# PANIC ALARM FUNCTION DOES NOT OPERATE

SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]
PANIC ALARM FUNCTION DOES NOT OPERATE
Diagnosis Procedure
CHECK REMOTE KEYLESS ENTRY FUNCTION
Check remote keyless entry function.
Does door lock/unlock with Intelligent Key button?
YES >> GO TO 2. NO >> Refer to <u>DLK-131, "Diagnosis Procedure"</u> .
CHECK HORN OPERATION
<ul> <li>Select IPDM E/R using CONSULT.</li> <li>Select HORN in ACTIVE TEST mode.</li> <li>Touch On to check that it works normally.</li> </ul>
s the inspection result normal?
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.
$\mathbf{S}_{\mathbf{C}}$ CHECK PANIC ALARM SET SETTING IN WORK SUPPORT
<ul> <li>Select INTELLIGENT KEY of BCM.</li> <li>Select PANIC ALARM SET in WORK SUPPORT mode.</li> <li>Check PANIC ALARM SET setting in WORK SUPPORT.</li> <li>Refer to BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".</li> </ul>
s the inspection result normal?
YES >> GO TO 4. NO >> Set MODE 1 or MODE 3 in PANIC ALARM SET
I.REPLACE BCM
. Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> . 2. Confirm the operation after replacement.
s the result normal?
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-40. "Intermittent Incident"</u> .

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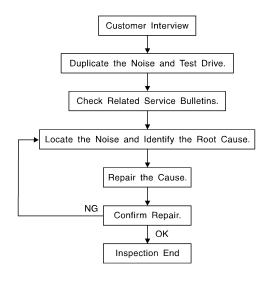
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## [WITH INTELLIGENT KEY SYSTEM]

INFOID:000000011536541

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

## Work Flow



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#### 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 <u>DLK-154</u>, "<u>Diagnostic Worksheet</u>". 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.

#### < 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 dupli- cate the noise with the vehicle stopped by doing one or all of the following: 1) Close a door.	А
<ol> <li>2) Tap or push/pull around the area where the noise appears to be coming from.</li> <li>3) Rev the engine.</li> </ol>	_
<ul> <li>4) Use a floor jack to recreate vehicle "twist".</li> <li>5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on CVT and A/T models).</li> <li>6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.</li> </ul>	В
<ul> <li>Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.</li> <li>If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.</li> </ul>	С
CHECK RELATED SERVICE BULLETINS After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.	D
If a TSB relates to the symptom, follow the procedure to repair the noise.	Ε
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	
<ol> <li>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).</li> </ol>	F
<ul> <li>2. Narrow down the noise to a more specific area and identify the cause of the noise by:</li> <li>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.</li> </ul>	G
<ul> <li>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.</li> </ul>	Η
<ul> <li>feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.</li> <li>placing a piece of paper between components that you suspect are causing the noise.</li> </ul>	
<ul> <li>looking for loose components and contact marks.</li> <li>Refer to <u>DLK-151</u>, "Generic Squeak and Rattle Troubleshooting".</li> </ul>	
REPAIR THE CAUSE	J
If the cause is a loose component, tighten the component securely.	
- 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 Depart-	DLł
ment. CAUTION:	L
Do not use excessive force as many components are constructed of plastic and may be damaged.	
<ul> <li>NOTE:</li> <li>Always check with the Parts Department for the latest parts information.</li> <li>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.</li> </ul>	M
<ul> <li>The following materials not found in the kit can also be used to repair squeaks and rattles.</li> <li>SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months.</li> </ul>	Ν
<ul> <li>SILICONE SPRAY: Use when grease cannot be applied.</li> <li>DUCT TAPE: Use to eliminate movement.</li> </ul>	0
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.	Ρ
Generic Squeak and Rattle Troubleshooting	
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 >

- 1. Cluster lid A and the instrument panel
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar finisher
- 4. Instrument panel to windshield
- 5. Instrument panel pins
- 6. Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or 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
- 2. A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

#### DOORS

Pay attention to the:

- 1. Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- 3. Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. 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:

- 1. Trunk lid bumpers out of adjustment
- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

## SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sun visor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

## 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. In addition look for:

- 1. Loose harness or harness connectors.
- 2. Front console map/reading lamp lens loose.

Revision: December 2014

< SYMPTOM DIAGNOSIS >

# [WITH INTELLIGENT KEY SYSTEM]

#### 3. 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:

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

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component installed to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator installation pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine rpm or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

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## SQUEAK AND RATTLE TROUBLE DIAGNOSES OSIS > [WITH INTELLIGENT KEY SYSTEM]

## < SYMPTOM DIAGNOSIS > Diagnostic Worksheet

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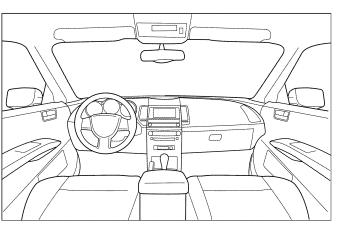
#### Dear Customer:

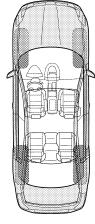
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

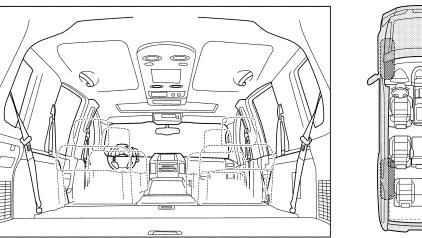
#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### 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 >

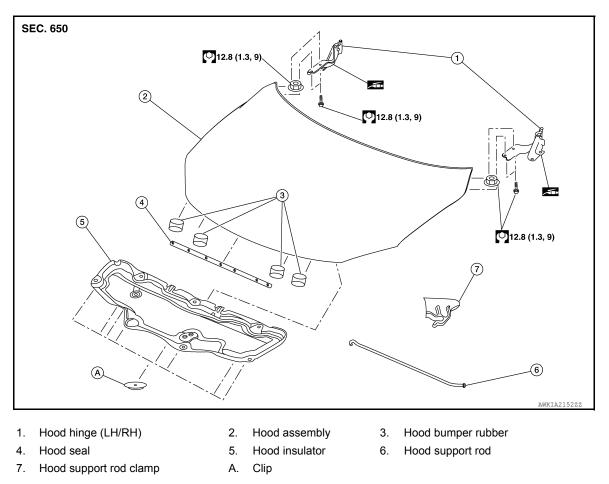
## [WITH INTELLIGENT KEY SYSTEM]

Briefly describe the location where the	e noise occurs:
I. WHEN DOES IT OCCUR? (please	e check the boxes that apply)
Anytime	After sitting out in the rain
☐ 1st time in the morning	When it is raining or wet
Only when it is cold outside	Dry or dusty conditions
Only when it is hot outside	Other:
II. WHEN DRIVING:	IV. WHAT TYPE OF NOISE
Through driveways	$\Box$ Squeak (like tennis shoes on a clean floor)
Over rough roads	Creak (like walking on an old wooden floor)
Over speed bumps	Rattle (like shaking a baby rattle)
Only about mph	☐ Knock (like a knock at the door)
On acceleration	Tick (like a clock second hand)
Coming to a stop	<ul> <li>Thump (heavy muffled knock noise)</li> <li>Buzz (like a bumble bee)</li> </ul>
<ul> <li>On turns: left, right or either (circle</li> <li>With passengers or cargo</li> </ul>	
Other:	
	— minutes
TO BE COMPLETED BY DEALERSH	HP PERSONNEL
Test Drive Notes:	
	YES NO Initials of person performing
	YES NO Initials of person performing
/ehicle test driven with customer	YES NO Initials of person performing
/ehicle test driven with customer - Noise verified on test drive	performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	performing       Image: Im
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to co	performing       Image: Im

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# < REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > HOOD HOOD ASSEMBLY HOOD ASSEMBLY : Exploded View

INFOID:000000011536544



## HOOD ASSEMBLY : Removal and Installation

INFOID:000000011536545

## **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 the hood assembly using a suitable tool.

#### WARNING:

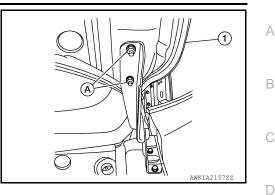
Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

2. Disconnect front washer nozzle and tube.

## HOOD

## < REMOVAL AND INSTALLATION >

 Remove hood hinge to hood nuts (A) and then remove the hood assembly (1).



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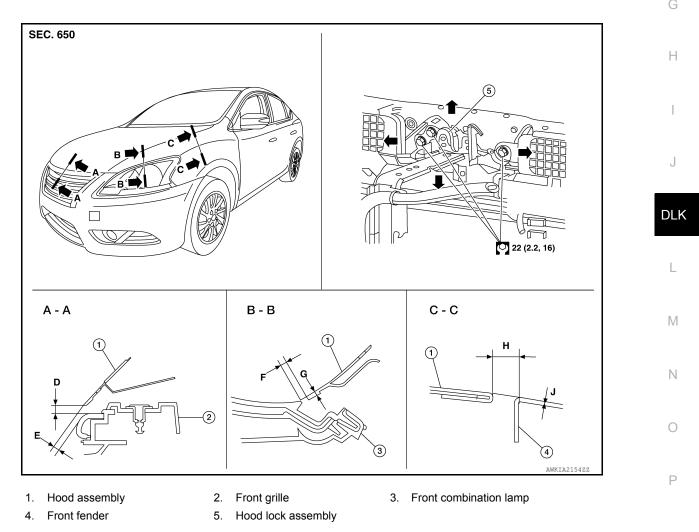
#### INSTALLATION

Installation is in the reverse order of removal.

Tighten hood hinge to hood nuts to specified torque. Refer to <u>DLK-156, "HOOD ASSEMBLY : Exploded View"</u>. E CAUTION:

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-157, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.

HOOD ASSEMBLY : Adjustment



Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

Linit: mm (in)

					Unit. mm (m
Section	Item	Measurement	Standard	Parallelism	Equality
A – A	D	Clearance	6.2 ±2.2 (0.24 ±0.09)	2.0	—
	E	Surface height	—	—	_
B – B	F	Clearance	3.5 ±2.0 (0.14 ±0.08)	2.0	3.0
0-0	G	Surface height	3.6 ±2.0 (0.14 ±0.08)	2.0	2.0
C – C	Н	Clearance	3.7 ±1.0 (0.15 ±0.04)	2.0	2.0
0-0	J	Surface height	0.0 ±1.0 (0.00 ±0.04)		_

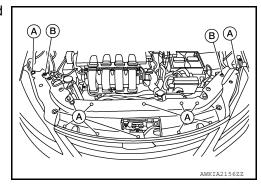
## CLEARANCE ADJUSTMENT

1. Loosen hood hinge (LH/RH) nuts and bolts.

NOTE:

The anticorrosive agent applied between the hoodledge and the hood hinges also acts as an adhesive. This seal must be broken before the hinges will move.

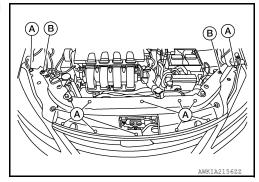
2. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.



- 3. Loosen the hood lock assembly bolts.
- Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to <u>DLK-156</u>. "HOOD ASSEMBLY : <u>Exploded View</u>".
- 5. Tighten the hood lock assembly bolts to specified torque. Refer to <u>DLK-161, "HOOD LOCK CONTROL :</u> <u>Exploded View"</u>.
- 6. Install the radiator core support upper cover.

#### HEIGHT ADJUSTMENT

1. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.



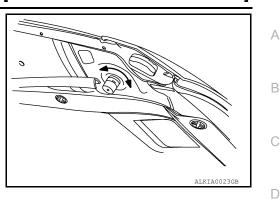
2. Loosen the hood lock assembly bolts.

## HOOD

## < REMOVAL AND INSTALLATION >

 Adjust the surface height of the hood assembly to front bumper fascia and front fender according to the specified values by rotating the hood bumper rubbers. NOTE:

Only one hood bumper rubber shown for clarity.



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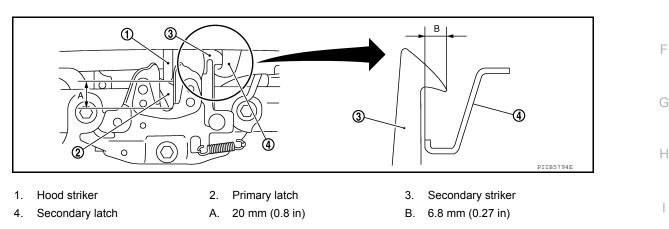
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[WITH INTELLIGENT KEY SYSTEM]

- 4. Temporarily tighten the hood lock assembly bolts.
- 5. Adjust (A) and (B) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.9 in) height or by pressing hood lightly [approximately 29 Nm (3.0 kg-m, 21 ft-lb)].



- After adjustment, tighten hood hinge nuts and bolts to the specified torque. Refer to <u>DLK-156, "HOOD</u> <u>ASSEMBLY : Exploded View"</u>. CAUTION:
  - Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.
  - After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.
- 7. Tighten the hood lock assembly bolts to specified torque.
- 8. Install the radiator core support upper cover.
- If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to <u>DLK-167</u>, "Adjustment".

## HOOD HINGE

REMOVAL

## HOOD HINGE : Removal and Installation

- 1. Remove the fender protector. Refer to <u>EXT-29</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector"</u>.
- 2. Remove the core support upper cover. Refer to HA-39, "Exploded View".
- 3. Remove the front fascia. Refer to EXT-18, "Removal and Installation".
- 4. Remove the front combination lamp. Refer to EXL-120, "Removal and Installation".
- 5. Remove the front fender. Refer to <u>DLK-166, "Removal and Installation"</u>.

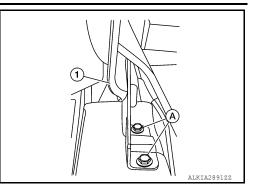
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## HOOD

## < REMOVAL AND INSTALLATION >

6. Remove hood hinge bolts (A) and hood hinge (1).

## [WITH INTELLIGENT KEY SYSTEM]



## INSTALLATION

Installation is in the reverse order of removal.

Tighten bolts to specified torque. Refer to <u>DLK-156</u>, "HOOD ASSEMBLY : Exploded View". **CAUTION**:

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-157</u>, "HOOD ASSEM-<u>BLY : Adjustment"</u>.

## HOOD SUPPORT ROD

## HOOD SUPPORT ROD : 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 support rod.

- 2. Rotate and remove hood support rod from grommet.
- 3. Remove grommet from hood hinge using a suitable tool (if necessary).

## INSTALLATION

Installation is in the reverse order of removal.

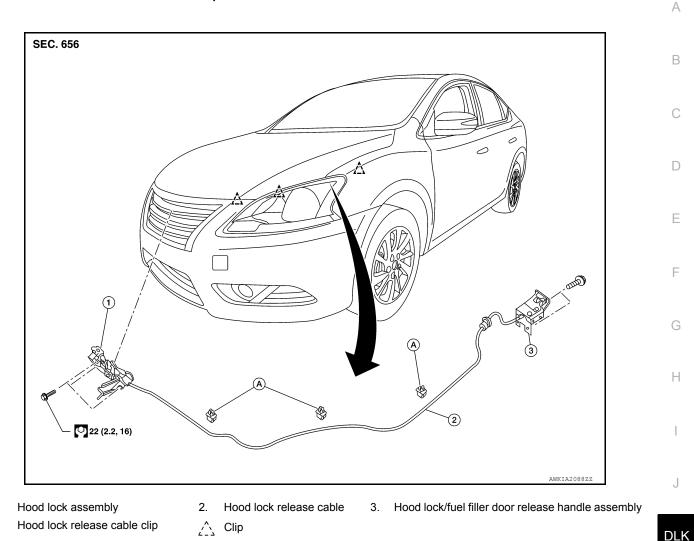
## HOOD LOCK CONTROL

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

## HOOD LOCK CONTROL : Exploded View

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HOOD

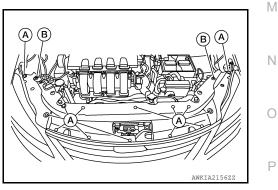
## HOOD LOCK CONTROL : Removal and Installation

#### REMOVAL

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- Remove the fender protector (LH). Refer to EXT-29, "FENDER PROTECTOR : Removal and Installation -1. Front Fender Protector".
- 2. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.



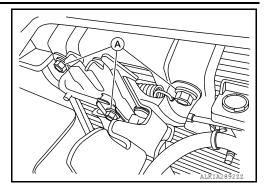
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## < REMOVAL AND INSTALLATION >

3. Remove the hood lock assembly bolts (A).

## [WITH INTELLIGENT KEY SYSTEM]



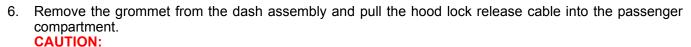
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- 4. Disconnect the hood lock release cable from the hood lock assembly.
- Remove the bolts (A), then separate the hood lock/fuel filler door release handle assembly (1) from the hood lock release cable (3) and fuel filler door release cable (2).



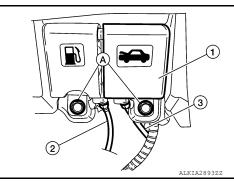
## While pulling, be careful not to damage (peel) the outside of the hood lock release cable.

## INSTALLATION

1. Pull the hood lock release cable through the dash assembly into the engine compartment. **CAUTION:** 

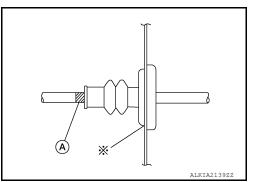
## Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.

- 2. Attach the hood lock release cable (3) and the fuel filler door release cable (2) to the hood lock/fuel filler door release handle assembly (1).
- 3. Place hood lock/fuel filler door release handle assembly in position and retain with bolts (A).



4. Check that the cable is not offset from the center of the grommet and seat the grommet into the dash hole. **NOTE:** 

Make sure that the marked area (A) of the cable is located as shown after mounting grommet to dash upper assembly. Apply sealant around the grommet at \* mark.



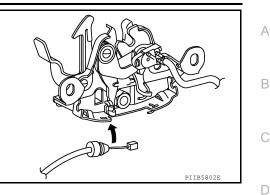
5. Position the hood lock release cable and clip it into place.

## HOOD

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

6. Connect the hood lock release cable to the hood lock assembly.



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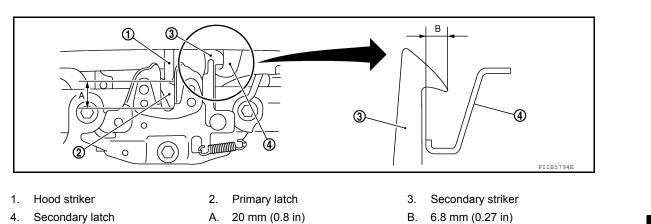
- 7. Perform hood fitting adjustment. Refer to <u>DLK-157, "HOOD ASSEMBLY : Adjustment"</u>.
- 8. Perform the hood lock control inspection.

## INSPECTION

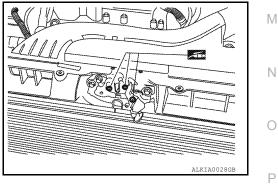
#### NOTE:

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

1. Check that the secondary latch is properly engaged with the secondary striker and meets specification provided (B) with hood's own weight.



- 2. While operating the hood lock release handle, carefully check that the front end of the hood assembly is raised and meets the specification provided (A). Also check that the hood lock release handle returns to the original position.
- 3. Check that the hood lock release handle operating force is 49 N (5.0 kg, 11 lb) or less.
- 4. Install so the static closing force of the hood assembly is 49 490 N (5.0 50 kg-f, 36 110.2 lb-f).
- 5. Check the hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease as shown.



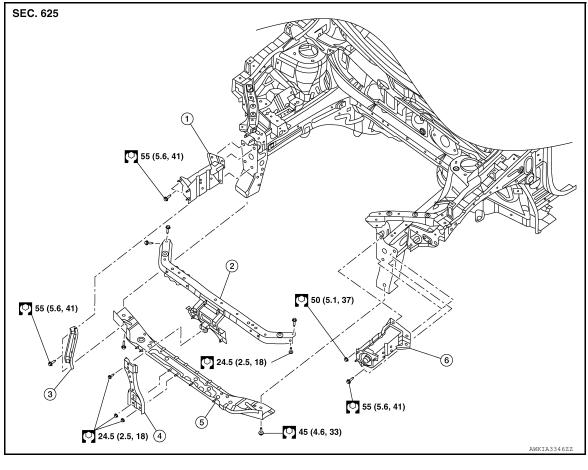
## < REMOVAL AND INSTALLATION >

## RADIATOR CORE SUPPORT

[WITH INTELLIGENT KEY SYSTEM]

## **Exploded View**

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Core support side member (RH)
 Core support upper
 Core support lower stay
 Core support lower
 Core support side member (LH)

## Removal and Installation

INFOID:000000011536552

## REMOVAL

#### **CAUTION:**

# Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

- 1. Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to <u>PG-74.</u> <u>"Removal and Installation (Battery)"</u>.
- 2. Remove crash zone sensor. Refer to SR-25. "Removal and Installation".
- 3. Remove radiator. Refer to CO-15, "Removal and Installation".
- 4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
- 5. Remove the horns. Refer to HRN-6, "Removal and Installation".
- 6. Remove air guides (LH/RH).
- 7. Remove the hood lock support bolts and hood lock support.
- 8. Remove the core support lower stay bolts and core support lower stay.
- 9. Remove the core support lower bolts and core support lower.
- 10. Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

## INSTALLATION

Revision: December 2014

## **DLK-164**

## **RADIATOR CORE SUPPORT**

< REMOVAL AND INSTALLATION >	[WITH INTELLIGENT KEY SYSTEM]	
Installation is in the reverse order of removal. Tighten bolts to specification. Refer to <u>DLK-164, "Exploded View"</u> . CAUTION:		A
After installation, perform hood fitting adjustment. Refer to <u><u>I</u><u>ment</u>".</u>	<u>JLK-157, "HOOD ASSEMBLY : Adjust-</u>	В
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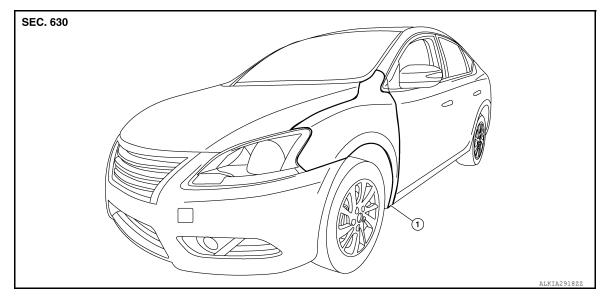
## < REMOVAL AND INSTALLATION >

## FRONT FENDER

Exploded View

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[WITH INTELLIGENT KEY SYSTEM]



1. Front fender

## Removal and Installation

INFOID:000000011536554

## REMOVAL

- 1. Remove the front combination lamp. Ref to EXL-120, "Removal and Installation".
- 2. Remove the front bumper fascia. Refer to EXT-18, "Removal and Installation".
- 3. Remove the front fender protector. Refer to <u>EXT-29</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".
- 4. Remove the front fender bolts and the front fender. CAUTION:

## Use shop cloths to protect the body from being damaged during removal and installation.

#### INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform fender adjustment procedure. Refer to DLK-167, "Adjustment".

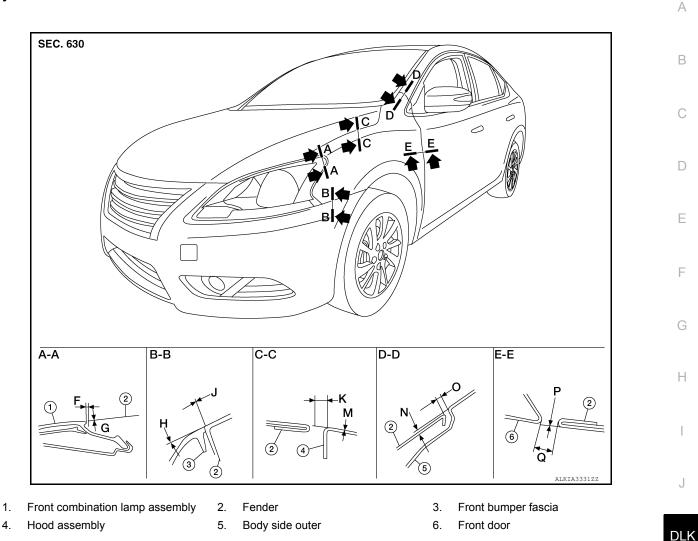
## **FRONT FENDER**

## < REMOVAL AND INSTALLATION >

## Adjustment

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[WITH INTELLIGENT KEY SYSTEM]



Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

			Unit: mm (	(in)
Section	Item	Measurement	Standard	
A A	A-A F CI	Clearance	1.5 +1.2, -1.0 (0.06 + 0.05, -0.04)	
A-A	G	Surface height	$3.9 \pm 1.2 \; (0.15 \pm 0.05)$	
B – B	Н	Surface height	$0.7 \pm 1.0 \; (0.03 \pm 0.04)$	
D – D	J	Clearance	$0.0 \pm 1.0 \; (0.00 \pm 0.04)$	ſ
C – C	К	Clearance	$3.7 \pm 1.0 \; (0.15 \pm 0.04)$	
0-0	М	Surface height	$0.0 \pm 1.0 \; (0.00 \pm 0.04)$	
D – D	Ν	Surface height	$0.0 \pm 1.0 \; (0.00 \pm 0.04)$	
U - U	0	Clearance	$3.0\pm1.0\;(0.12\pm0.04)$	
E-E	Р	Surface height	—	
	Q	Clearance	-	

## Adjustment

- 1. Remove front bumper fascia. Refer to <u>EXT-18, "Removal and Installation"</u>.
- 2. Remove the front fender protector. Refer to <u>EXT-29</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".

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## FRONT FENDER

## < REMOVAL AND INSTALLATION >

- 3. Loosen the front fender bolts.
- 4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
- 5. Tighten the rear upper and lower front fender bolts.
- 6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
- 7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
- 8. Tighten the inner front fender bolts.
- 9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
- 10. Tighten the front fender to front fascia and bracket screws.
- 11. Install front bumper fascia. Refer to <u>EXT-18, "Removal and Installation"</u>.
- 12. Install front combination lamp.Refer to EXL-120, "Removal and Installation"
- 13. Install the front fender protector. Refer to <u>EXT-29</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".

#### **CAUTION:**

- If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.
- Hood assembly: Refer to <u>DLK-157, "HOOD ASSEMBLY : Adjustment"</u>.
- Front door: Refer to <u>DLK-171, "DOOR ASSEMBLY : Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.

# < REMOVAL AND INSTALLATION > FRONT DOOR

DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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## CAUTION:

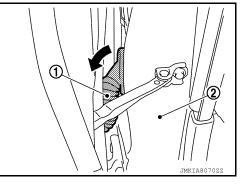
- Use two people when removing or installing the front door assembly due to its heavy weight.
- When removing and installing front door assembly, support front door using a suitable tool.
- Do not use air tools or electric tools for servicing.
- Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

## NOTE:

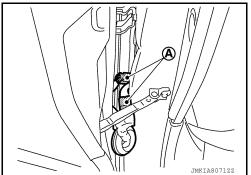
LH side shown; RH side similar.

## REMOVAL

- 1. Disconnect the battery negative and positive terminals and wait at least three minutes, if equipped with the side air bag (satellite) sensor. Refer to <u>PG-74</u>, "Removal and Installation (Battery)".
- 2. Remove front door assembly harness grommet LH (1) then pull out door harness from body (2).



3. Disconnect the harness connectors (A) from the front door assembly harness.



4. Remove check link bolt (body side).

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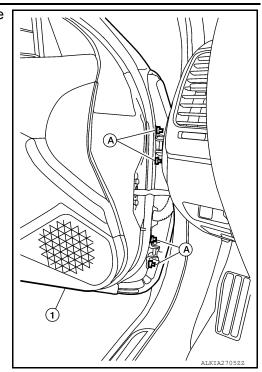
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## < REMOVAL AND INSTALLATION >

5. Remove front door assembly hinge nuts (A) (door side) and the door assembly (1).

## [WITH INTELLIGENT KEY SYSTEM]



## INSTALLATION

Installation is in the reverse order of removal. Tighten door hinge nuts to specified torque. CAUTION:

- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-171, "DOOR ASSEM-BLY : Adjustment"</u>.

## NOTE:

When main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to <u>PWC-28</u>, "Work Procedure".

## [WITH INTELLIGENT KEY SYSTEM]

## DOOR ASSEMBLY : Adjustment

< REMOVAL AND INSTALLATION >

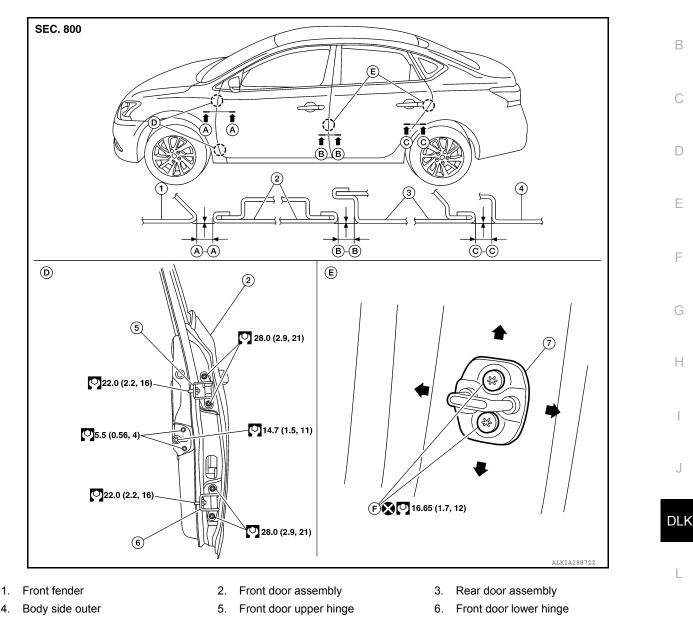
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7. Front door striker

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Front door striker bolts

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Check the clearance and surface height between front door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment proce-Ν dure.

Section	Item	Measurement	Standard	C
	G	Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$	
A – A	Н	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	
B – B	Н	Clearance	4.2 ± 1.0 (0.17 ± 0.04)	F
<b>В – В</b>	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)	
0-0	к	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	

## LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to DLK-166, "Removal and Installation". Unit: mm (in)

#### < REMOVAL AND INSTALLATION >

- 2. Loosen the front door hinge to body bolts. Move the door forward or backward as necessary until within specifications provided.
- 3. Tighten the hinge to body bolts to specified torque.

#### Front door hinge bolts 22.0 N·m (2.2 kg-m, 16 ft-lb)

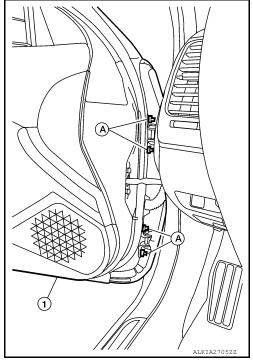
4. Install the front fender. Refer to <u>DLK-166, "Removal and Installation"</u>.

## SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the front door hinge nuts (A).
- 2. Move the top and/or bottom of the door (1) in or out as necessary until it is within specifications provided.
- 3. Tighten the front door hinge nuts to specified torque.

#### Front door hinge nuts

28.0 N·m (2.9 kg-m, 21 ftlb)



## **CAUTION:**

- Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.
- If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.
- Front fender: Refer to DLK-167, "Adjustment".
- Rear door: Refer to DLK-176, "DOOR ASSEMBLY : Adjustment".

## DOOR STRIKER ADJUSTMENT

Adjust front door assembly striker so that it becomes parallel with door lock insertion direction.

## DOOR HINGE

DOOR HINGE : Removal and Installation

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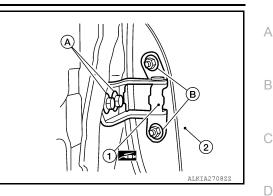
## REMOVAL

- 1. Remove front door fender. Refer to <u>DLK-166, "Removal and Installation"</u>.
- 2. Remove front door assembly (2). Refer to DLK-169. "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove bolt (A) and door hinge (1).

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

4. Remove door hinge bolts (B) and remove hinge (1).



## INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.<u>DLK-171, "DOOR ASSEMBLY : Adjustment"</u> CAUTION:

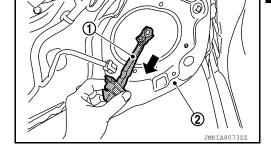
- Apply anticorrosive agent onto the front door hinge mating surface.
- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-171, "DOOR ASSEM-BLY : Adjustment"</u>.

## DOOR CHECK LINK

## DOOR CHECK LINK : Removal and Installation

#### REMOVAL

- 1. Fully close the front door glass.
- Remove front door speaker. Refer to <u>AV-56, "Removal and Installation"</u> (BASE AUDIO), <u>AV-118, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM), <u>AV-320, "Removal and Installation"</u> (NAVIGA-TION WITH BOSE) and <u>AV-211, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



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#### INSTALLATION

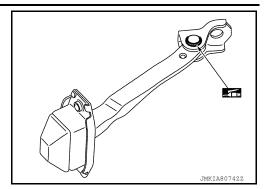
Installation is in the reverse order of removal.

#### CAUTION:

- After installation, check front door open/close, lock/unlock operation.
- Check front door check link rotating point for poor lubrication. If necessary, apply a suitable multipurpose grease.

## 🚮: Grease

## [WITH INTELLIGENT KEY SYSTEM]



## [WITH INTELLIGENT KEY SYSTEM]

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## < REMOVAL AND INSTALLATION > REAR DOOR

## DOOR ASSEMBLY

## DOOR ASSEMBLY : Removal and Installation

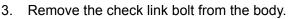
## **CAUTION:**

- Use two people when removing or installing the rear door assembly due to its heavy weight.
- When removing and installing rear door assembly, support rear door with a suitable tool.

## REMOVAL

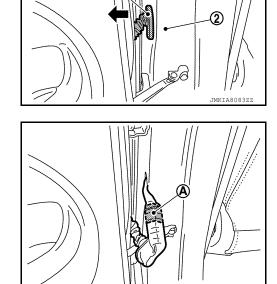
1. Remove rear door assembly harness grommet (LH) (1) then pull out door harness from body (2).

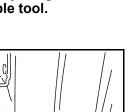
2. Disconnect the harness connector (A) from the door harness.



4. Remove rear door assembly hinge nuts (A) (door side) and the door assembly (1).







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## < REMOVAL AND INSTALLATION >

## INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door hinge nuts (door side) to specified torque.

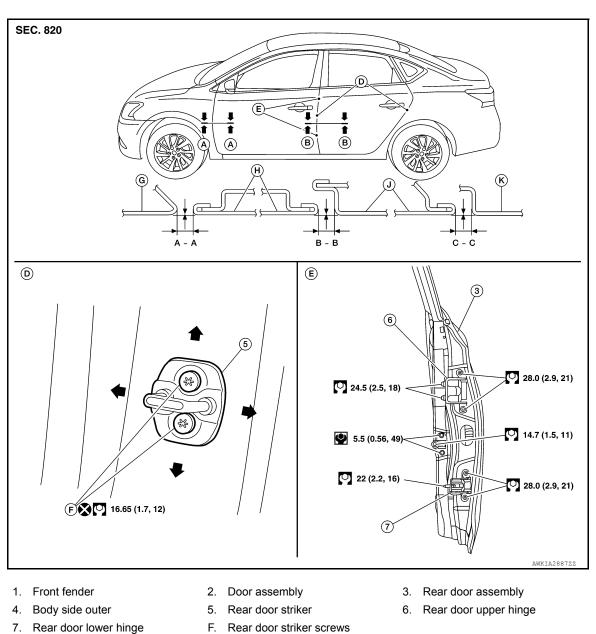
**CAUTION:** 

- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-176, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.

DOOR ASSEMBLY : Adjustment

## ADJUSTMENT





Check the clearance and surface height between rear door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

## **REAR DOOR**

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

22 N·m (2.2 kg-m, 16 ft-lb)

24.5 N·m (2.5 kg-m, 18 ft-lb)

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			Unit: n	nm (in
Section	Item	Measurement	Standard	
	G	Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$	
A – A	Н	Surface height	$0.0\pm 1.0\;(0.0\pm 0.04)$	
	Н	Clearance	$4.2 \pm 1.0 \; (0.17 \pm 0.04)$	
B – B	J	Surface height	$0.0\pm 1.0\;(0.0\pm 0.04)$	
0.0	J	Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$	
C – C	К	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	

#### LONGITUDINAL CLEARANCE

1.	Remove the center pillar upper finisher. Refer to INT-28, "CENTER PILLAR UPPER FINISHER : Removal
	and Installation".

- 2. Loosen the rear door upper hinge nuts.
- 3. Loosen the rear door lower hinge bolts.
- 4. Move the rear door forward or backward as necessary until within specifications provided.
- 5. Tighten the lower hinge bolts to specification.

#### **Rear door lower hinge bolts**

6. Tighten the upper hinge nuts to specification.

#### Rear door upper hinge nuts

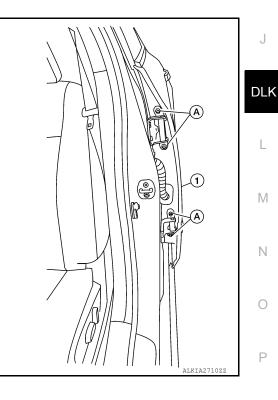
7. Install the center pillar upper finisher. Refer to <u>INT-28, "CENTER PILLAR UPPER FINISHER : Removal</u> <u>and Installation"</u>.

#### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the rear door hinge nuts (door side) (A).
- 2. Move the top and/or the bottom of the rear door (1) in or out as necessary until it is within specifications provided.
- 3. Tighten the rear door hinge nuts (door side) (A) to specification.

Rear door nuts

28.0 N·m (2.9 kg-m, 21 ft-lb)



- 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 the head of rear door assembly hinge bolts and nuts.

## **REAR DOOR**

< REMOVAL AND INSTALLATION >

• If the clearance measurements cannot be corrected by adjusting the rear door, adjust the front door. Refer to <u>DLK-171, "DOOR ASSEMBLY : Adjustment"</u>.

## DOOR STRIKER ADJUSTMENT

Adjust rear door assembly striker so that it becomes parallel with door lock insertion direction.

DOOR HINGE

DOOR HINGE : Removal and Installation

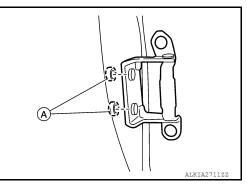
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#### CAUTION:

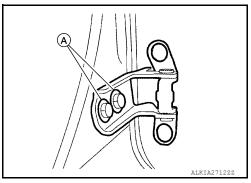
- Use two people when removing or installing rear door assembly due to its heavy weight.
- When removing and installing rear door assembly, support door using a suitable tool.

## REMOVAL

- 1. Remove rear door assembly. Refer to DLK-175, "DOOR ASSEMBLY : Removal and Installation".
- 2. Remove center pillar upper finisher (upper hinge only). Refer to <u>INT-28, "CENTER PILLAR UPPER FIN-ISHER : Removal and Installation"</u>.
- 3. Remove rear door assembly upper hinge nuts (A) and remove.



4. Remove rear door assembly lower hinge bolts (A) and remove.



## INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to <u>DLK-176, "DOOR ASSEMBLY :</u> <u>Adjustment"</u>

#### CAUTION:

- Apply anticorrosive agent onto the hinge mating surface.
- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-176, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.

## DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

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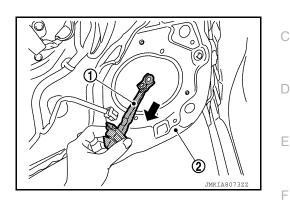
[WITH INTELLIGENT KEY SYSTEM]

## **REAR DOOR**

## < REMOVAL AND INSTALLATION >

## [WITH INTELLIGENT KEY SYSTEM]

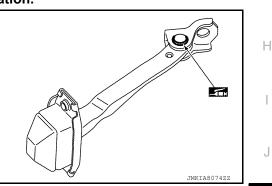
- 1. Fully close the rear door glass.
- Remove rear door speaker. Refer to <u>AV-57, "Removal and Installation"</u> (BASE AUDIO), <u>AV-118, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM), <u>AV-321, "Removal and Installation"</u> (NAVIGATION WITH BOSE) and <u>AV-212, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



## INSTALLATION

Installation is in the reverse order of removal. **CAUTION:** 

- After installation, check rear door open/close, lock/unlock operation.
- Check rear door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



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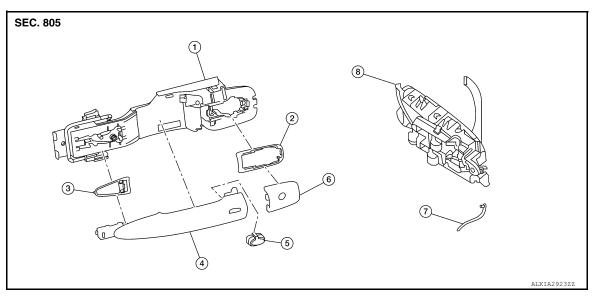
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# DOOR HANDLE FRONT DOOR HANDLE

FRONT DOOR HANDLE : Exploded View

INFOID:000000011536564



- 1. Outside handle bracket
  - Outside handle
- Rear gasket
   Door request switch
- Front gasket
   Outside hand

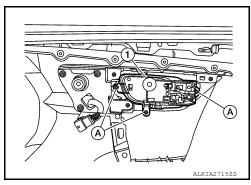
- 7. Door key cylinder rod
- 8. Inside handle assembly
- 6. Outside handle escutcheon
- FRONT DOOR HANDLE : Removal and Installation Inside Handle

INFOID:000000011536565

## REMOVAL

4.

- 1. Remove front door finisher. Refer to INT-15. "Removal and Installation".
- 2. Remove screws (A) and inside handle assembly (1).



## INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:** 

- Check front door lock cables are properly engaged to inside handle.
- After installation, check front door open/close, lock/unlock operation.

FRONT DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:000000011536566

## REMOVAL

- 1. 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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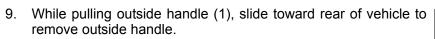
## **DLK-180**

#### < REMOVAL AND INSTALLATION >

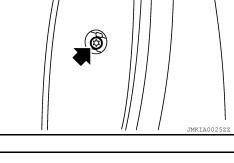
- 4. Remove front door glass channel rear.
- А 5. Disconnect the harness connectors from the door antenna and door request switch and then remove harness clamp on outside handle bracket.
- 6. Remove door side grommet, and loosen screw (+) that retains the front door outside handle bracket.

7. Reach in to separate door key cylinder rod (LH side) (1) from door key cylinder assembly (LH side) (2).

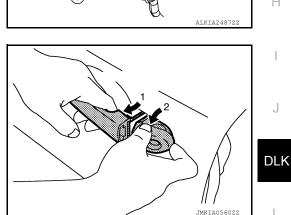
8. While pulling (1) outside handle, remove (2) door key cylinder assembly (LH side) or outside handle escutcheon (RH side).



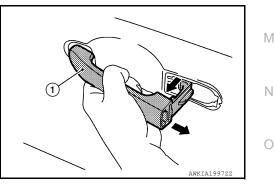
**DLK-181** 



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[WITH INTELLIGENT KEY SYSTEM]



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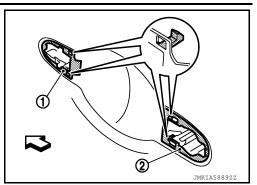
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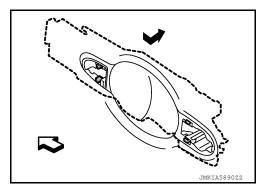
# < REMOVAL AND INSTALLATION >

10. Remove front gasket (1) and rear gasket (2). <□: Front

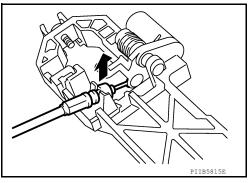
# [WITH INTELLIGENT KEY SYSTEM]



11. Slide outside handle bracket toward rear of vehicle to remove.



12. Disconnect the outside handle cable from the outside handle bracket connection.



# INSTALLATION

Installation is in the reverse order of removal. **CAUTION:** 

- When installing door key cylinder rod on the (LH) front door, be sure to rotate door key cylinder rod holder until a click is felt.
- Check front door lock cable is properly engaged to outside handle bracket.
- After installation, check front door open/close, lock/unlock operation.

# REAR DOOR HANDLE

# < REMOVAL AND INSTALLATION >

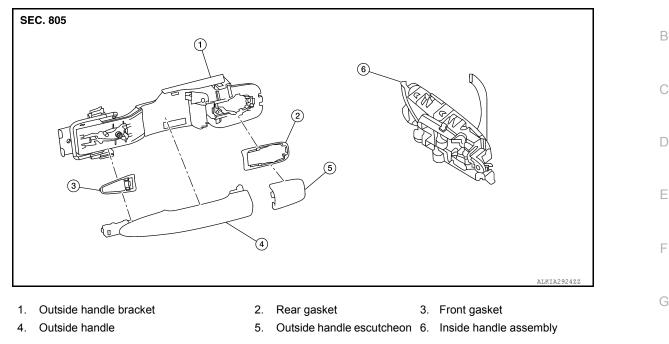
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# **REAR DOOR HANDLE : Exploded View**

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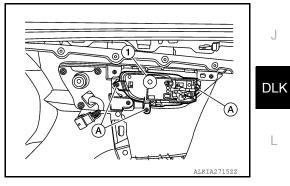
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# REAR DOOR HANDLE : Removal and Installation - Inside Handle

#### REMOVAL

- 1. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
- 2. Remove screws (A) and inside handle (1).



INSTALLATION Installation is in the reverse order of removal. CAUTION: • Check rear door lock cables are properly engaged to inside handle. • After installation, check rear door open/close, lock/unlock operation.	M
REAR DOOR HANDLE : Removal and Installation - Outside Handle	0
<ul><li>REMOVAL</li><li>1. Fully close rear door glass.</li><li>2. Remove rear door finisher. Refer to INT-19, "Removal and Installation".</li></ul>	Ρ

3. Remove rear door vapor barrier.

#### < REMOVAL AND INSTALLATION >

escutcheon.

remove outside handle.

<⊐: Front

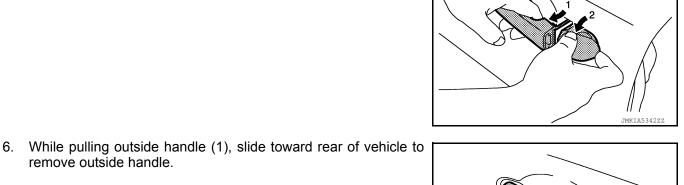
7. Remove front gasket (1) and rear gasket (2).

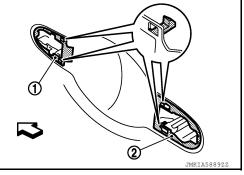
Remove door side grommet, and loosen screw (+)that retains 4. the rear door outside handle bracket.

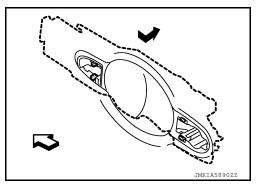
5. While pulling (1) outside handle, remove (2) outside handle

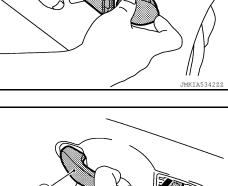
8. Slide outside handle bracket toward rear of vehicle to remove. <⊐: Front

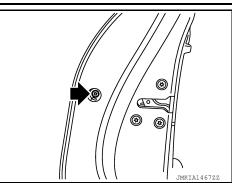
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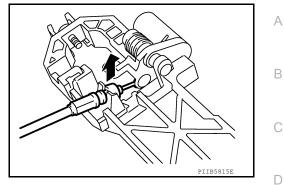
[WITH INTELLIGENT KEY SYSTEM]

**Revision: December 2014** 

#### < REMOVAL AND INSTALLATION >

#### [WITH INTELLIGENT KEY SYSTEM]

9. Remove clip and disconnect the outside handle cable from the outside handle bracket.



# INSTALLATION

Installation is in the reverse order of removal. **CAUTION:** 

- Check rear door lock cable is properly engaged to outside handle bracket.
- After installation, check rear door open/close, lock/unlock operation.

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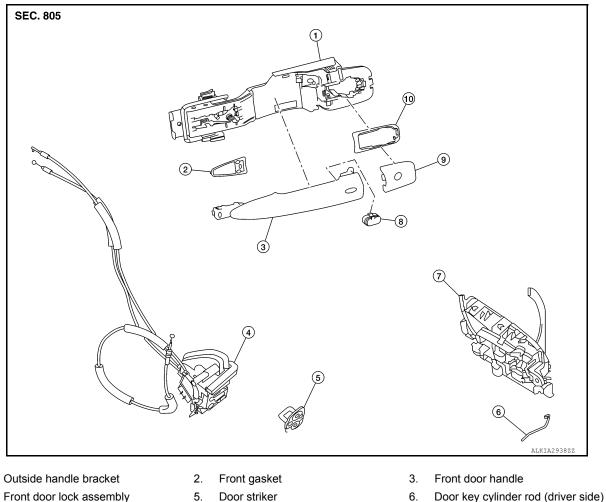
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# < REMOVAL AND INSTALLATION > DOOR LOCK FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

INFOID:000000011536570



9. Outside handle escutcheon

7. Inside handle 8. Door request switch

10. Rear gasket

# FRONT DOOR LOCK : Removal and Installation

INFOID:000000011536571

#### CAUTION:

1.

4.

# Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

#### REMOVAL

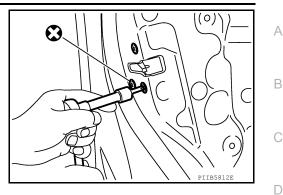
- 1. Remove the front door outside handle. Refer to DLK-180, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".
- 2. Remove the rear glass run.
- 3. Disconnect the harness connector from the front door lock actuator.

# DOOR LOCK

#### < REMOVAL AND INSTALLATION >

4. Remove screws and the front door lock assembly.

# [WITH INTELLIGENT KEY SYSTEM]



- 5. Disconnect door key cylinder rod (LH only) from door key cylinder (LH only).
- 6. Disconnect door lock cables from inside handle.

#### INSTALLATION

Installation is in the reverse order of removal. Tighten front door lock screws to specified torque.

#### Front door lock screws: 5.8 Nm (0.59 kg-m, 51 in-lb)

#### **CAUTION:**

- Do not reuse front door lock assembly screws. Always replace screws with new ones when composed.
- Check front door lock cables are properly engaged to inside handle and outside handle bracket.
- When installing door key cylinder rod on the (LH) front door, be sure to rotate door key cylinder rod H
   holder until a click is felt.
- After installation, check front door open/close, lock/unlock operation.
- Check front door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.

# **REAR DOOR LOCK**

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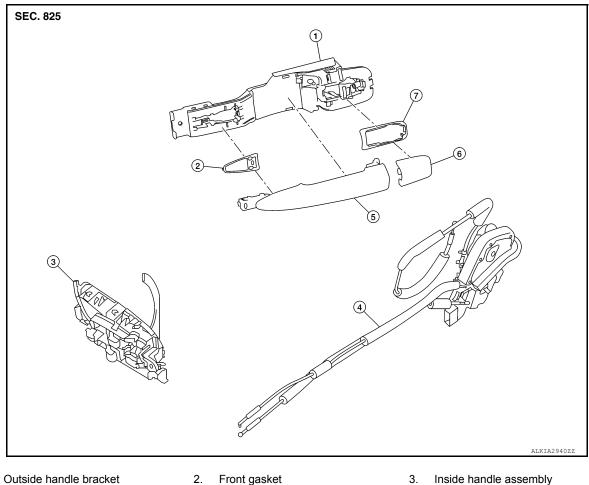
# DOOR LOCK

#### < REMOVAL AND INSTALLATION >

# [WITH INTELLIGENT KEY SYSTEM]

# **REAR DOOR LOCK : Exploded View**

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- 1.
- Front gasket Outside handle

5.

- Door lock assembly 4.
- Rear gasket 7.

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

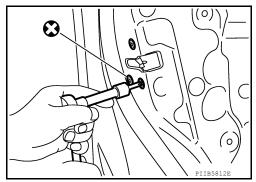
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# REMOVAL

1. Remove the rear door outside handle. Refer to DLK-183, "REAR DOOR HANDLE : Removal and Installation - Outside Handle".

6.

- 2. Disconnect the harness connector from the rear door lock actuator.
- 3. Remove the screws and the rear door lock assembly.



Outside handle escutcheon

**INSTALLATION** Installation is in the reverse order of removal. Tighten rear door lock screws to specified torque.

Rear door lock screws:	5.8 Nm (0.59 kg-m, 51 in-lb)	А
<ul> <li>Check rear door lock cables are p</li> <li>After installation, check rear door</li> </ul>	ably screws. Always replace screws with new ones when removed. roperly engaged to inside handle and outside handle bracket. open/close, lock/unlock operation. for poor lubrication. If necessary apply a suitable multi-purpose	В
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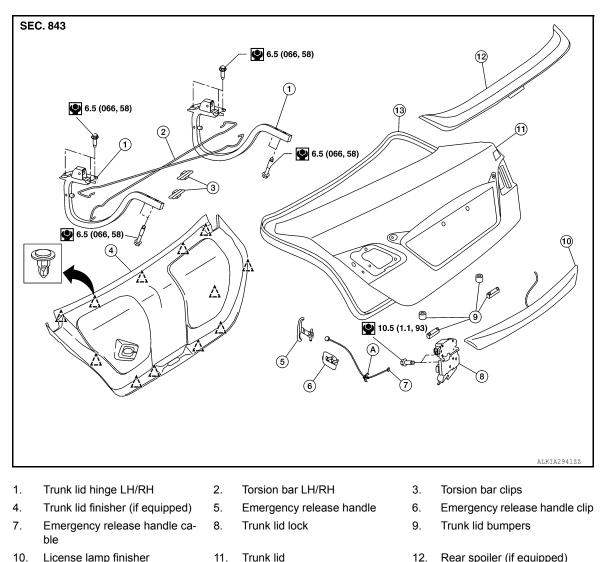
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# < REMOVAL AND INSTALLATION > **TRUNK LID**

TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

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12. Rear spoiler (if equipped)

 $\triangle$ Clip

# **TRUNK LID ASSEMBLY : Removal and Installation**

#### **CAUTION:**

10.

13.

License lamp finisher

Weatherstrip

Use two people when removing or installing trunk lid assembly due to its heavy weight.

Clip

 Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of trunk lid assembly.

#### REMOVAL

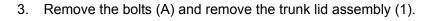
Remove trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation". 1.

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#### < REMOVAL AND INSTALLATION >

2. Disconnect the harness connectors in the trunk lid assembly (1) and remove the harness clips (A) then pull out harness from the trunk lid assembly (1).



INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-192, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

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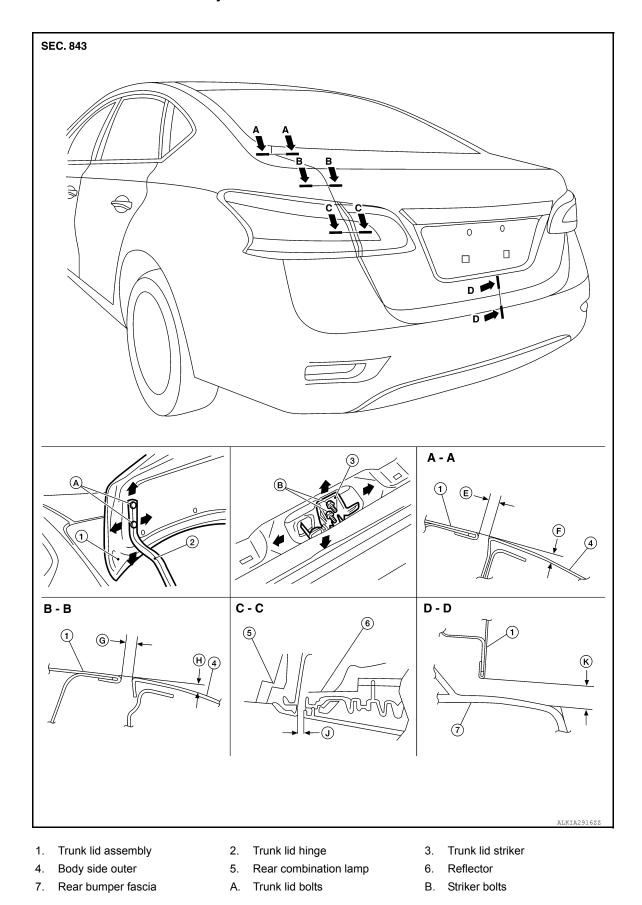
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# < REMOVAL AND INSTALLATION > TRUNK LID ASSEMBLY : Adjustment



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#### < REMOVAL AND INSTALLATION >

Check the clearance and the surface height between trunk lid and each part by visual inspection and tactile feel.

If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

					Unit: mm (in)	) В
Section	Item	Measurement	Standard	Parallelism (MAX)	Right/Left Difference (MAX)	
A-A	E	Clearance	3.5 ±1.0 (0.14 ±0.04)	1.5 (0.06)	1.5 (0.06)	С
A-A	F	Surface height	1.0 ±1.0 (0.04 ±0.04)	1.5 (0.06)	1.5 (0.06)	
B – B	G	Clearance	3.5 ±1.0 (0.14 ±0.04)	1.5 (0.06)	1.5 (0.06)	
B-B	Н	Surface height	1.0 ±1.0 (0.04 ±0.04)	1.5 (0.06)	1.5 (0.06)	D
C – C	J	Clearance	4.3 ±1.9 (0.17 ±0.07)	-	2.0 (0.08)	
D – D	К	Clearance	7.0 ±2.0 (0.28 ±0.08)	_	_	

# LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

- 1. Loosen the trunk lid to hinge bolts.
- 2. Move the trunk lid so that the clearance measurements are within specifications provided.
- 3. Tighten the trunk lid to hinge bolts.

Trunk Lid Hinge Removed From Vehicle

- 1. Remove the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
- 2. Loosen the hinge to parcel shelf bolts.
- 3. Move the trunk lid so that the clearance measurements are within specifications provided.
- 4. Tighten the hinge to parcel shelf bolts.
- 5. Install the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".

# SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the bumper rubber.
- 2. Loosen the striker bolts.
- 3. Lift up the trunk lid approx. 100 150 mm (3.94 5.91 in) height then close it lightly. Make sure it engages firmly with the trunk lid closed.
- 4. Tighten the trunk lid striker.

# TRUNK LID HINGE

# TRUNK LID HINGE : Removal and Installation

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- 1. Remove trunk lid assembly. Refer to <u>DLK-190, "TRUNK LID ASSEMBLY : Removal and Installation"</u>.
- Remove torsion bar. Refer to <u>DLK-194</u>, "TORSION BAR : Removal and Installation".
- 3. Remove rear parcel shelf finisher. Refer to INT-33. "Removal and Installation".
- 4. Remove trunk lid hinge bolts (body side) and remove.

#### INSTALLATION

Installation is in the reverse order of removal.

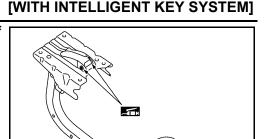
#### **CAUTION:**

REMOVAL

- Check trunk lid open/close, lock/unlock operation after installation.
- After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-192, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

#### < REMOVAL AND INSTALLATION >

• Check trunk lid hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



# TORSION BAR

**TORSION BAR : Removal and Installation** 

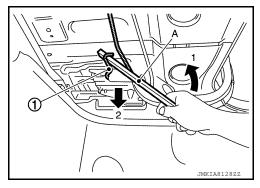
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# REMOVAL

- 1. Remove torsion bar clips.
- 2. Support the trunk lid assembly using a suitable tool.

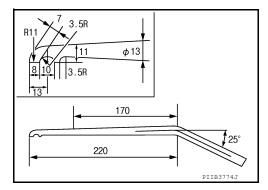
#### WARNING: Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

3. Lift torsion bar (1) using a suitable tool (A) as shown to remove.



#### NOTE:

The suitable tool specifications are as shown.



INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation check the trunk lid open/close, lock/unlock operation.

# TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

#### REMOVAL

1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".

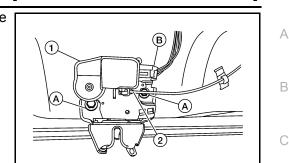
Revision: December 2014

**DLK-194** 

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# < REMOVAL AND INSTALLATION >

- 2. Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
- 3. Remove the trunk lid lock bolts (A) and remove.



[WITH INTELLIGENT KEY SYSTEM]

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Installation is in the reverse order of removal. CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-192, "TRUNK LID ASSEMBLY : Adjustment".

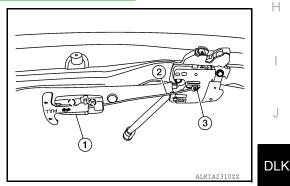
# EMERGENCY LEVER

# EMERGENCY LEVER : Removal and Installation

# REMOVAL

INSTALLATION

- Remove the trunk lid finisher (if equipped). Refer to <u>INT-45, "Removal and Installation"</u>.
- Using a suitable tool release the pawls and remove emergency release handle (1) from trunk lid assembly. (): Pawl
- 3. Disconnect emergency release handle cable (2) from trunk lid lock assembly (3).

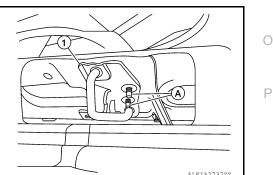


INSTALLATION Installation is in the reverse order of removal. TRUNK LID STRIKER

# TRUNK LID STRIKER : Removal and Installation

# REMOVAL

- 1. Remove the trunk kicking plate. Refer to INT-42, "TRUNK REAR PLATE : Removal and Installation".
- 2. Remove bolts (A) and striker (1).



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< REMOVAL AND INSTALLATION >

Installation is in the reverse order of removal. CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-192, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

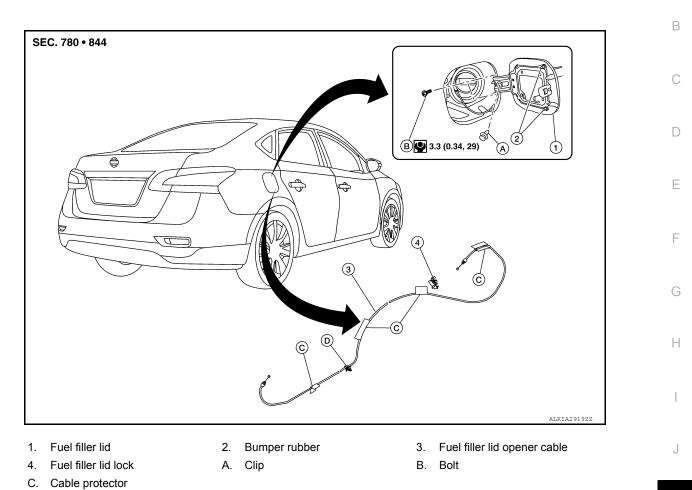
# < REMOVAL AND INSTALLATION >

FUEL FILLER LID OPENER

# Exploded View

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[WITH INTELLIGENT KEY SYSTEM]

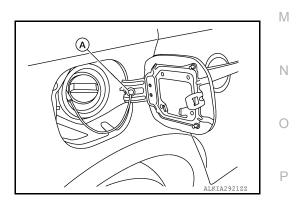


# FUEL FILLER LID

# FUEL FILLER LID : Removal and Installation

# REMOVAL

- 1. Fully open fuel filler lid.
- 2. Remove fuel cap clip (A).



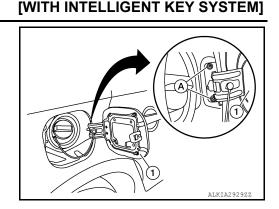
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# < REMOVAL AND INSTALLATION >

3. Remove fuel filler lid screws (A) and fuel filler lid (1).



#### INSTALLATION

Installation is in the reverse order of removal.

#### CAUTION:

# After installation, check fuel filler lid assembly open/close, lock/unlock operation. NOTE:

- The following table shows the specifications for a correctly installed fuel filler lid.
- Fitting adjustment cannot be performed.

Unit: mm (in)

Portion	Measurement	Standard
Fuel filler lid – Body side outer	Clearance	5.1 ±1.0 (0.20 ±0.04)
Fuel filler lid – Body side outer	Surface height	0.0 ±1.0 (0.0 ±0.04)

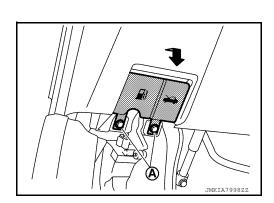
# FUEL FILLER OPENER CABLE

# FUEL FILLER OPENER CABLE : Removal and Installation

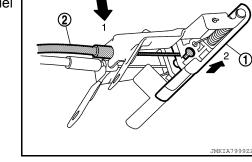
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# REMOVAL

1. Remove hood and fuel filler handle assembly bolts (A).



2. Release fuel filler lid opener cable (2) by pulling downward and then sliding cable end to the side to remove from hood and fuel filler handle assembly (1).



- 3. Remove dash side finisher (LH). Refer to IP-14, "Removal and Installation".
- 4. Remove center pillar lower finisher (LH). Refer to <u>INT-27, "CENTER PILLAR LOWER FINISHER :</u> <u>Removal and Installation"</u>.

#### < REMOVAL AND INSTALLATION >

# [WITH INTELLIGENT KEY SYSTEM]

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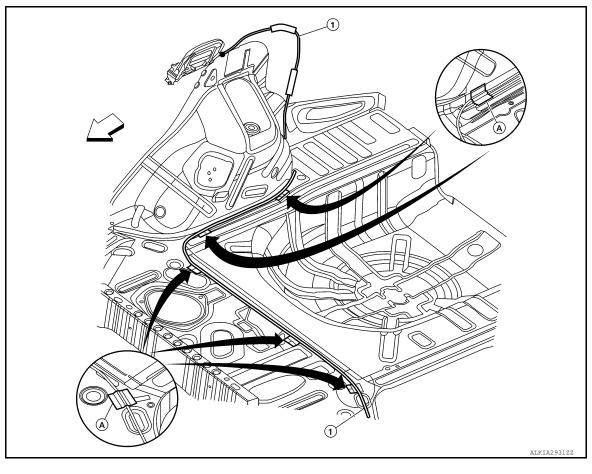
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- 5. Remove rear seat bolster (LH). Refer to SE-24, "Removal and Installation Rear Seat Bolster".
- 6. Remove trunk side finisher (LH). Refer to INT-43, "TRUNK SIDE FINISHER : Removal and Installation".
- 7. Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to <u>DLK-199</u>, "FUEL FILLER <u>LID LOCK : Removal and Installation"</u>.



↓ Front

8. Remove each cable protector (A), then remove fuel filler lid opener cable (1).

# INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation, check fuel filler lid assembly open/close, lock/unlock operation.

FUEL FILLER LID LOCK : Removal and Installation

# REMOVAL

1. Fully open fuel filler lid.

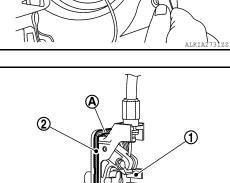
**Revision: December 2014** 

# < REMOVAL AND INSTALLATION >

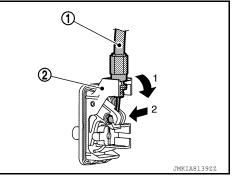
2. Insert a suitable tool (A) as shown into bottom of fuel filler lock assembly (1).

3. Release upper and lower pawls (A) using a suitable tool and remove fuel filler lid lock assembly (1). **CAUTION:** 

Be careful not to damage gasket (2) when removing.



4. Disconnect fuel filler lid opener cable (1) by pulling downward and then sliding cable end to the side to remove from fuel filler lid lock assembly (2).

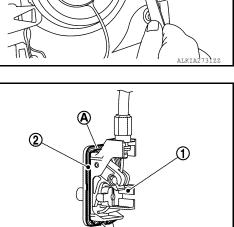


INSTALLATION Installation is in the reverse order of removal. **CAUTION:** After installation, check fuel filler lid assembly open/close, lock/unlock operation.

# [WITH INTELLIGENT KEY SYSTEM]

 $(\mathbf{1})$ 

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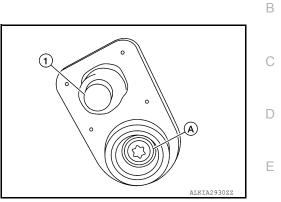
# < REMOVAL AND INSTALLATION >

# DOOR SWITCH

# **Removal and Installation**

# REMOVAL

- 1. Remove the door switch screw (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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# [WITH INTELLIGENT KEY SYSTEM]

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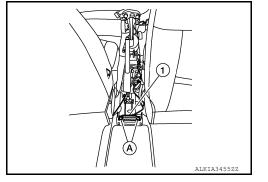
< REMOVAL AND INSTALLATION >

# INSIDE KEY ANTENNA CONSOLE

**CONSOLE : Removal and Installation** 

# REMOVAL

- 1. Remove the shift selector finisher. Refer to <u>IP-17</u>, "Removal and <u>Installation"</u>.
- 2. Remove the inside key antenna (console) screws (A) and inside key antenna (console) (1).



#### INSTALLATION Installation is in the reverse order of removal.

# LUGGAGE ROOM

# LUGGAGE ROOM : Removal and Installation

#### REMOVAL

- 1. Disconnect the harness connector (A) from the inside key antenna (luggage room) (1).
- 2. Remove the inside key antenna (luggage room) clips (B), and remove.

# INSTALLATION Installation is in the reverse order of removal. INSTRUMENT CENTER

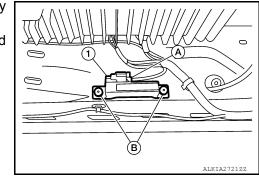
**INSTRUMENT CENTER : Removal and Installation** 

#### REMOVAL

- 1. Remove the A/C switch assembly (automatic air conditioner). Refer to <u>HAC-104</u>. "Removal and Installation".
- 2. Remove the A/C switch assembly (manual air conditioner). Refer to <u>HAC-188</u>, "Removal and Installation"
- 3. Disconnect the harness connector from the inside key antenna (instrument center).
- 4. Remove the inside key antenna (instrument center) screws and inside key antenna (instrument center).

#### INSTALLATION

Installation is in the reverse order of removal.



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# ITCIDE VEV ANTENNA

OUTSIDE KEY ANT	ENNA
< REMOVAL AND INSTALLATION >	[WITH INTELLIGENT KEY SYSTEM]
OUTSIDE KEY ANTENNA	
DRIVER SIDE	
DRIVER SIDE : Removal and Installation	INFOID:000000011536589
The driver side outside key antenna and driver side outside hand be a side hand be side han	
PASSENGER SIDE : Removal and Installation	INFOID:000000011536590
The passenger side outside key antenna and passenger side or Refer to <u>DLK-180</u> , "FRONT DOOR HANDLE : Removal and Inst	
Installation is in the reverse order of removal.	
REAR BUMPER	
REAR BUMPER : Removal and Installation	INFOID:000000011536591
REMOVAL	
1. Remove rear bumper fascia. Refer to EXT-21, "Removal and	<u>d Installation"</u> .
<ol> <li>Disconnect the harness connector (B) from the rear bumper antenna (1).</li> </ol>	key
<ol> <li>Remove the nuts (A) that retain the rear bumper key antenna to the body.</li> </ol>	
INSTALLATION	Abring /2326
Installation is in the reverse order of removal.	

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< REMOVAL AND INSTALLATION >

# DOOR REQUEST SWITCH DRIVER SIDE

DRIVER SIDE : Removal and Installation

The driver side door request switch and driver side outside handle are serviced as an assembly. Refer to <u>DLK-180, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle"</u>. **PASSENGER SIDE** 

PASSENGER SIDE : Removal and Installation

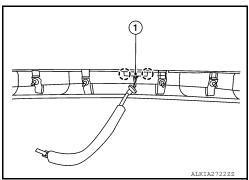
The passenger side door request switch and passenger side outside handle are serviced as an assembly. Refer to <u>DLK-180</u>, "<u>FRONT DOOR HANDLE</u> : <u>Removal and Installation - Outside Handle</u>". **TRUNK LID FINISHER** 

TRUNK LID FINISHER : Removal and Installation

INFOID:000000011536594

REMOVAL

- 1. Remove the license lamp finisher. Refer to EXT-45, "Removal and Installation".
- Release the pawls and remove the trunk lid request switch (1).
   (<sup>\*</sup>): Pawl



INSTALLATION Installation is in the reverse order of removal. INFOID:0000000011536593

# < REMOVAL AND INSTALLATION >

# INTELLIGENT KEY WARNING BUZZER

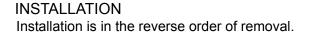
# Removal and Installation

#### REMOVAL

#### NOTE:

The Intelligent Key warning buzzer is located in the front passenger side area of the engine compartment, near the washer tank.

- 1. Remove the washer tank inlet. Refer to <u>WW-51, "Exploded View"</u>.
- 2. Remove the nut (B) and the Intelligent Key warning buzzer (1).
- 3. Disconnect the harness connector (A) from the Intelligent Key warning buzzer (1) and remove.



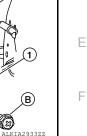
# side area of the engine compartment,

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# REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

#### REMOVAL

- 1. Remove glove box assembly. Refer to <u>IP-22, "Removal and Installation"</u>.
- 2. Disconnect the harness connector from the remote keyless entry receiver.
- 3. Remove the screw and remote keyless entry receiver.

#### INSTALLATION

Installation is in the reverse order or removal.

# INTELLIGENT KEY BATTERY

# < REMOVAL AND INSTALLATION >

# INTELLIGENT KEY BATTERY

# Removal and Installation

- 1. Release the lock knob on the back of the Intelligent Key and remove the key.
- 2. Insert a suitable tool (A) wrapped with a cloth into the slit of the corner and rotate it to separate the upper part from the lower part.

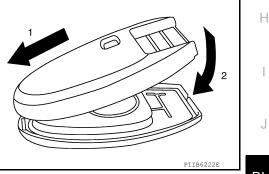
#### **CAUTION:**

- Do not insert a tool into the notches of the Intelligent Key to pry it open, as this may damage the circuit board.
- Do not use excessive force when opening the Intelligent Key, as this may result in damage to the internal components.
- Do not touch the circuit board or battery terminal.
- The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. Replace the battery with a new one.

**Battery replacement** 

#### :Coin-type lithium battery (CR2032)

- 4. Align the tips of the 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 the electrode contact area.
  - After replacing the battery, check that all Intelligent Key functions work normally.



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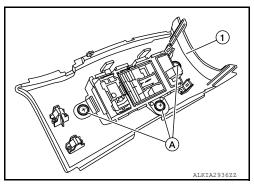
# < REMOVAL AND INSTALLATION >

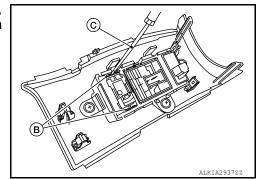
# TRUNK LID OPENER SWITCH

Removal and Installation

# REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-21, "Removal and Installation".
- 2. Remove to the instrument finisher D (1).
- 3. Remove the screws (A) that retain the switch carrier to the instrument finisher D.





4. Release upper tab and lower tab (B) using a suitable tool (C), then remove the trunk lid opener switch from the upper switch carrier.

INSTALLATION Installation is in the reverse order of removal.

# < PRECAUTION > PRECAUTION

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# 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.

# Procedure without Cowl Top Cover

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.

# Precaution for Servicing Doors and Locks

#### 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.

# **DLK-209**

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# PRECAUTIONS

#### < PRECAUTION >

- 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.

# PREPARATION

# PREPARATION

# Special Service Tools

INFOID:000000011536602 В

#### The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name		Description	С
 (J-39570) Chassis Ear		Locating the noise	D
	SIIA0993E		E
 (J-50397)		Repairing the cause of noise	F
NISSAN Squeak and Rattle Kit	XX Salary & Yasang		G
	ALJIA1232ZZ		Н
 (J-43241)		Used to test key fobs	_
Remote Keyless Entry Tester			J
	LEL946A	Activate and display TPMS transmitter	
 (J-50190) Signal Tech II		<ul> <li>Activate and display iPNS transmitter IDs</li> <li>Display tire pressure reported by the</li> </ul>	DLK
		TPMS transmitter <ul> <li>Read TPMS DTCs</li> </ul>	L
		<ul> <li>Register TPMS transmitter IDs</li> <li>Test remote keyless entry keyfob rela- tion of any test remote to be any test of the second se</li></ul>	
		tive signal strength <ul> <li>Compatible with future sensors</li> <li>Equipped with a display</li> <li>Check Intelligent Key relative signal</li> </ul>	M
	ALEIA01312Z	<ul> <li>Confirm vehicle Intelligent Key anten- na signal strength</li> </ul>	Ν

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# PREPARATION

# < PREPARATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

Tool number (TechMate No.) Tool name		Description
KV48105501 (J-45295-A) Transmitter activation tool	ALEIA0183ZZ	<ul> <li>Activate TPMS transmitter IDs</li> <li>Compatible with future sensors</li> <li>Equipped with a display (KV48105501 only)</li> </ul>
— (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

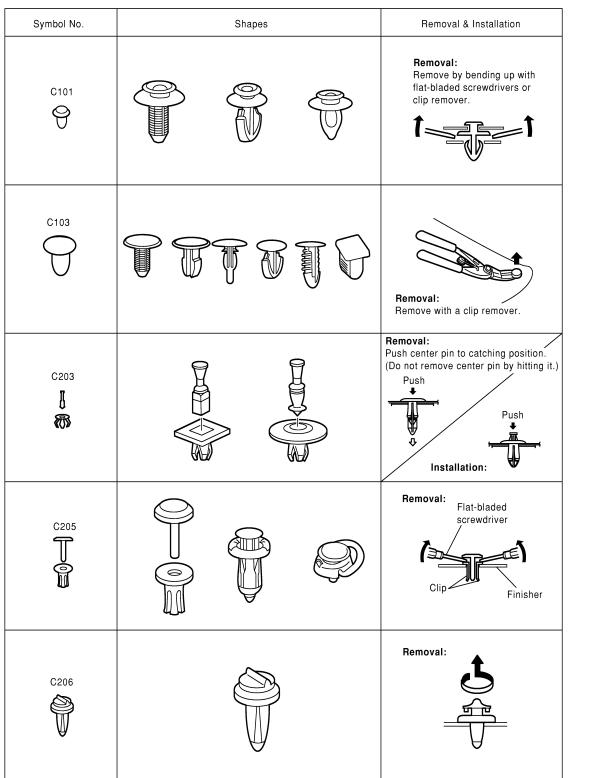
# **Commercial Service Tools**

(TechMate No.) Tool name		Description
(J-39565) Engine Ear	SIIA0995E	Locating the noise
( — ) Power tool		Loosening nuts, screws and bolts
	PIIB1407E	

# CLIP LIST

**Descriptions for Clips** 

Replace any clips which are damaged during removal or installation.



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[WITHOUT INTELLIGENT KEY SYSTEM]

# < PREPARATION >

Symbol No.	Shapes	Removal & Installation
CE103		Removal:
CF110	Clip A Clip B	Removal: Finisher Clip A Flat-bladed screwdrivers Clip B
CF118	Clip A Clip B (Grommet)	Removal: Flat-bladed Finisher screwdrivers Body panel Clip A Clip B (Grommet)
CR103		Removal: Holder portion of clip must be spread out to remove rod.
CS101		Removal: 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver.

SIIA0316E

# [WITHOUT INTELLIGENT KEY SYSTEM]

Symbol No.	Shapes	Removal & Installation	A
CG101		Removal: Installation: Rotate 45° to remove Removal:	B C D
CS102	() June		E F G
CS113		Removal: Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip.	J DL
C111			L M N O

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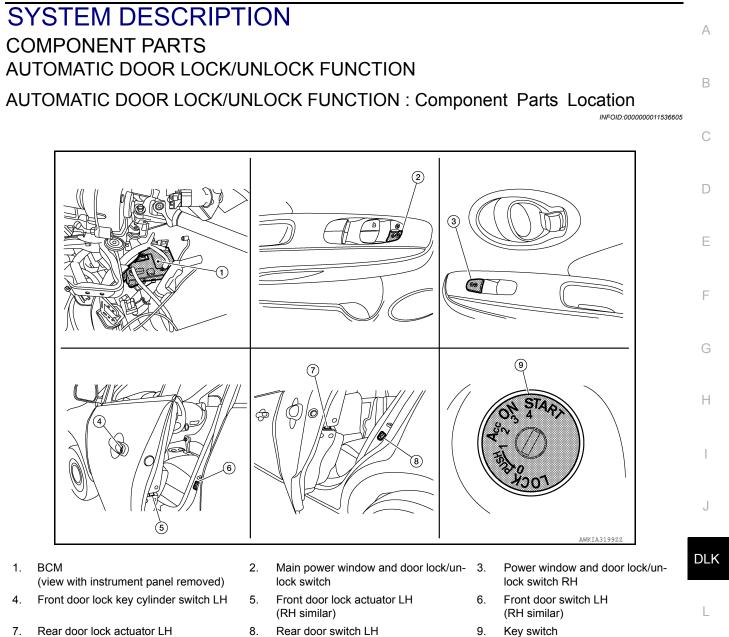
Symbol No.	Shapes	Removal & Installation
CG104		Removal: Remove by bending up with flat-bladed screwdrivers. Radiator grille Body panel
CE114	B B	
CF118	Clip A Clip B (Grommet)	Removal: Flat-bladed Finisher screwdrivers Body panel Clip A Clip B (Grommet)

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## **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]



# AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Description

(RH similar)

INFOID:000000011536606

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Item	Function	
BCM	Controls the door lock function.	
Door lock and unlock switch	Input lock or unlock signal to BCM.	
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.	
Door switch	Input door open/close condition to BCM.	
Key switch	Input key switch condition to BCM.	
Front door lock key cylinder switch LH	Input lock or unlock signal to the BCM.	
ABS actuator and electric unit (control unit)	Transmits vehicle speed signal to CAN communication line.	
Ignition switch	Input ignition switch ON/OFF condition to BCM.	

# POWER DOOR LOCK SYSTEM

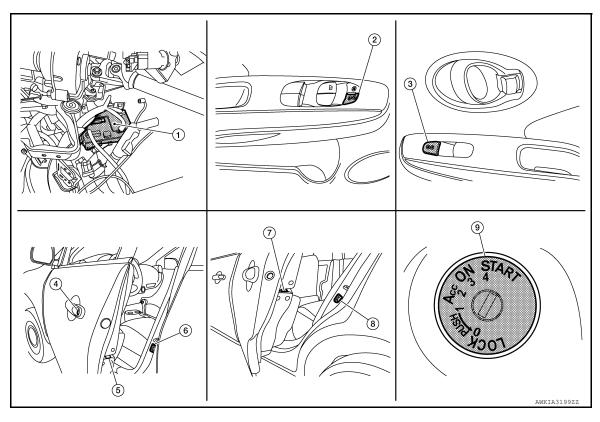
(RH similar)

## **COMPONENT PARTS**

#### [WITHOUT INTELLIGENT KEY SYSTEM]

# POWER DOOR LOCK SYSTEM : Component Parts Location

INFOID:000000011536607



- 1. BCM (view with instrument panel removed)
- 4. Front door lock key cylinder switch LH
- 7. Rear door lock actuator LH (RH similar)
- 2. Main power window and door lock/un- 3. lock switch
- 5. Front door lock actuator LH (RH similar)
- 8. Rear door switch LH (RH similar)

- Power window and door lock/unlock switch RH
- 6. Front door switch LH (RH similar)
- 9. Key switch

# POWER DOOR LOCK SYSTEM : Component Description

INFOID:000000011536608

Item	Function
BCM	Controls the door lock function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Key switch	Input key switch condition to BCM.
Front door lock key cylinder switch LH	Input lock or unlock signal to the BCM.
ABS actuator and electric unit (control unit)	Transmits vehicle speed signal to CAN communication line.
Ignition switch	Input ignition switch ON/OFF condition to BCM.

# **REMOTE KEYLESS ENTRY SYSTEM**

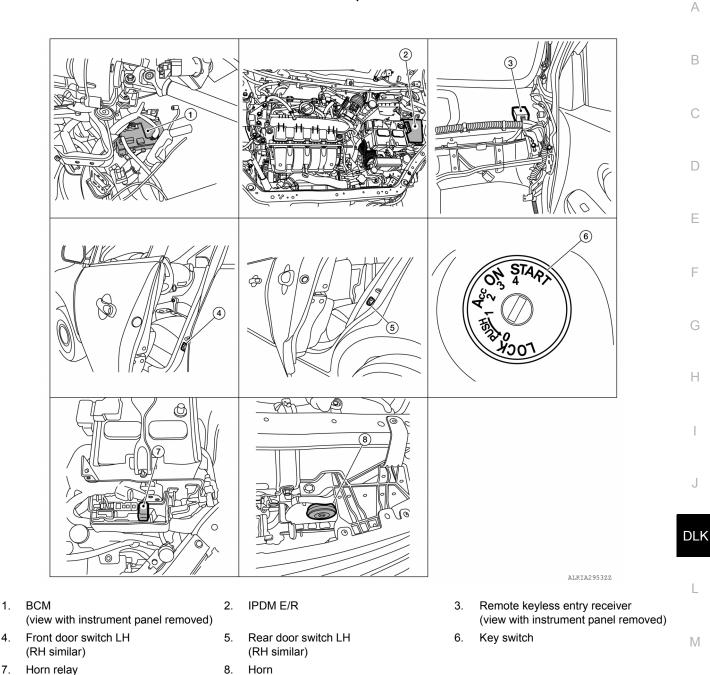
Revision: December 2014

## **COMPONENT PARTS**

#### [WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY SYSTEM : Component Parts Location

INFOID:000000011536609



#### 7. Horn relay

4.

# **REMOTE KEYLESS ENTRY SYSTEM : Component Description**

Ν INFOID:000000011536610

Item	Function	С		
BCM	Controls the door lock function.			
Door lock and unlock switch	Input lock or unlock signal to BCM.			
Door switch	Input door open/close condition to BCM.	P		
Key switch	Input key switch condition to BCM.			
Remote keyless entry receiver	Receives lock/unlock signal from the keyfob, and then transmits to BCM.			
Ignition switch	Input ignition switch ON/OFF condition to BCM.			
Horn	Provides audible warning in panic mode.			

# TRUNK LID OPENER SYSTEM

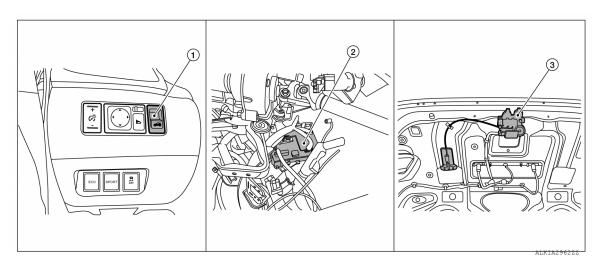
**Revision: December 2014** 

**DLK-219** 

## **COMPONENT PARTS**

#### [WITHOUT INTELLIGENT KEY SYSTEM]

# TRUNK LID OPENER SYSTEM : Component Parts Location



- 1. Trunk lid opener switch
- 2. BCM (view with instrument panel re- 3. moved
- opener actuator and trunk lid switch)

INFOID:000000011536612

Trunk lid opener assembly (trunk lid

# **TRUNK LID OPENER SYSTEM : Component Description**

Item	Function
BCM	Controls the trunk lid opener system.
Trunk lid opener actuator	Releases the mechanical latch to open the trunk lid.
Trunk lid opener switch Inputs the trunk open request to the BCM.	
Trunk lid switch Inputs the trunk lid open/close condition to the BCM.	

#### SYSTEM (POWER DOOR LOCK SYSTEM) [WITHOUT INTELLIGENT KEY SYSTEM] < SYSTEM DESCRIPTION > SYSTEM (POWER DOOR LOCK SYSTEM) AUTOMATIC DOOR LOCK/UNLOCK FUNCTION AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Diagram INEOID 000000011536613 Door lock/unlock switch signal Door lock/unlock switch Door key cylinder switch signal Door key cylinder switch Door lock actuator всм signal Door switch signal Each door lock actuator Each door switch Key switch signal Key switch CAN communication (vehicle speed signal) Combination meter ALKIA2288GH

# AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Description

Н Input Single Function Actuator Door lock/unlock switch Door lock/unlock signal Door lock function Door key cylinder switch Each door switch Door open/close signal Each door lock actuator Key reminder function Warning buzzer signal Combination meter. Automatic door lock/unlock Vehicle speed signal function

#### DOOR LOCK FUNCTION

- DLK • 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 RH.
- 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

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors.
- Ν • With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the driver side door lock actuator; turning it to "UNLOCK" 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 "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-Ο PORT". Refer to BCS-91, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

# AUTOMATIC DOOR LOCKS (LOCK OPERATION)

Ρ The automatic door locks function is the function that locks all doors linked with the vehicle speed or shift position.

Vehicle Speed Sensing Auto Door Lock<sup>1</sup>

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.

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## SYSTEM (POWER DOOR LOCK SYSTEM)

#### < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

If a door is opened and closed at any time during one ignition cycle (OFF  $\rightarrow$  ON), even after initial auto door lock operation has taken place, the BCM will relock all doors when the vehicle speed reaches 24 km/h (15 MPH) or more again.

Setting change of Automatic Door Locks (LOCK) Function

The LOCK operation setting of the automatic door locks function can be changed.

#### (B) With CONSULT

The ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the automatic door locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to <u>BCS-91</u>, <u>"DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

#### Without CONSULT

The automatic door locks (LOCK) function can be switched ON/OFF by performing the following operation.

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

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

5. The ignition switch must be turned OFF and ON again between each setting change.

#### AUTOMATIC DOOR LOCKS (UNLOCK OPERATION)

The automatic door locks (UNLOCK) function is the function that unlocks all doors linked with the key position or shift position.

IGN OFF Interlock Door Unlock<sup>\*1</sup>

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.

Setting change of Automatic Door Locks (UNLOCK) Function

The UNLOCK operation setting of the automatic door locks function can be changed.

#### () With CONSULT

The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic door locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to <u>BCS-91, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

#### Without CONSULT

The automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following operation.

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

5. The ignition switch must be turned OFF and ON again between each setting change.

<sup>\*1</sup>: This function is set to ON before delivery.

POWER DOOR LOCK SYSTEM

# SYSTEM (POWER DOOR LOCK SYSTEM)

#### < SYSTEM DESCRIPTION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

#### POWER DOOR LOCK SYSTEM : System Diagram INFOID:0000000011536615 А Main power window and В door lock/unlock switch Door lock/unlock switch signal Power window and door lock/unlock switch RH Door lock actuator signal BCM Each door lock actuator Key switch signal Key switch D Key cylinder switch signal Front door lock assembly LH (key cylinder switch) Ε ALKIA2289GB

# POWER DOOR LOCK SYSTEM : System Description

Switch	Input/output signal to BCM	BCM function	Actuator	G
Main power window and door lock/unlock switch				_
Power window and door lock/ unlock switch RH	Door lock/unlock signal	Door lock/unlock control	Door lock actuator	Н
Front door lock key cylinder switch LH				

#### DOOR LOCK FUNCTION

Functions Available by Operating the Door Lock and Unlock Switches on Driver Door and Passenger Door

- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all door lock actuators are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all door lock actuators are unlocked.
- Functions Available by Operating the Key Cylinder Switch on Driver Door
- Interlocked with the locking operation of door key cylinder, door lock actuators of all door lock actuators are locked.

Selective Unlock Operation

- When door key cylinder is unlocked, door lock actuator driver side is unlocked.
- When door key cylinder is unlocked for the second time within 5 seconds after the first operation, door lock actuators on all doors are unlocked.

Select unlock operation mode can be changed using DOOR LOCK-UNLOCK SET mode in "WORK SUP-PORT". Refer to <u>BCS-91, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

REMOTE KEYLESS ENTRY SYSTEM

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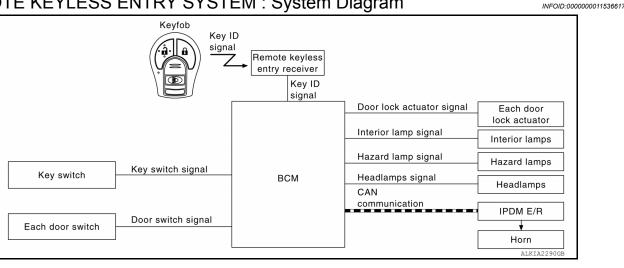
INFOID:000000011536616

## SYSTEM (POWER DOOR LOCK SYSTEM)

#### < SYSTEM DESCRIPTION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

### **REMOTE KEYLESS ENTRY SYSTEM : System Diagram**



# REMOTE KEYLESS ENTRY SYSTEM : System Description

INFOID:000000011536618

The remote keyless entry system can be locked and unlocked by pressing door lock and unlock button of keyfob.

#### DOOR LOCK AND UNLOCK OPERATION

- When door lock and unlock button of keyfob is pressed, door lock and unlock signal transmits from keyfob to BCM via remote keyless entry receiver.
- When BCM receives the door lock and unlock signal, it operates door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 1 time) as a reminder.

#### OPERATION CONDITION

Remote controller operation	Operation condition
Lock/unlock	Key switch is OFF. Mechanical key is removed from the ignition cylinder.

#### **OPERATION AREA**

To ensure that the keyfob works effectively, use within 10 m (33ft) range of the vehicle, however the operable range may differ according to surroundings.

#### SELECTIVE UNLOCK OPERATION

When door lock is unlocked, pressing LOCK button on keyfob once will lock all doors. When door lock is locked, pressing UNLOCK button on keyfob will unlock driver side door. Pressing UNLOCK button on keyfob second time within 5 seconds from the first time will unlock all doors.

#### HAZARD AND HORN REMINDER

When the doors are locked or unlocked by keyfob, power is supplied to sound horn and flash hazard warning lamps as a reminder

The hazard and horn reminder has C mode (horn chirp mode) and S mode (non-horn chirp mode).

How to Change Hazard and Horn Reminder Modes

#### (I) With CONSULT

Hazard and horn reminders can be changed using "WORK SUPPORT" mode in "MULTI REMOTE ENT".

Hazard reminder setting	Мо	de 1	Мо	de 2	Мо	de 3	Мо	de 4
Keyfob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp blink				Once	Twice		Twice	Once

# SYSTEM (POWER DOOR LOCK SYSTEM) DN > [WITHOUT INTELLIGENT KEY SYSTEM]

Keyfob operation         Lock         Unlock         Lock         Unlock           Horns sound         Once         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - </th <th>Once         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #</th> <th></th>	Once         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         —         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #         #	
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Door switch OFF (when all the doors are closed).	imp switch is in the DOOR position	
	· F (when all the doors are closed).	

### SYSTEM (TRUNK LID OPENER SYSTEM)

#### < SYSTEM DESCRIPTION >

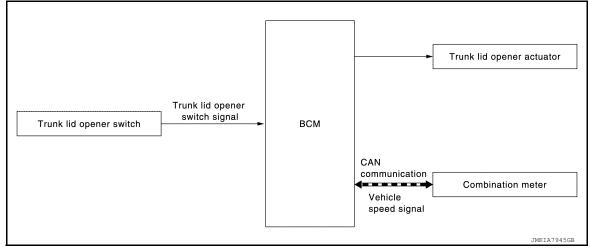
[WITHOUT INTELLIGENT KEY SYSTEM]

# SYSTEM (TRUNK LID OPENER SYSTEM)

## System Description

INFOID:000000011536619

## System Diagram



#### TRUNK LID OPENER OPERATION

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

#### **OPERATION CONDITION**

If the following conditions are satisfied, trunk open operation is performed.

Trunk lid opener switch operation	Operation condition
Trunk lid open	<ul> <li>Trunk lid opener switch is ON</li> <li>Vehicle speed is less than 5 km/h (3 MPH)</li> </ul>

#### DIAGNOSIS SYSTEM (BCM) [WITHOUT INTELLIGENT KEY SYSTEM]

# < SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM)

## COMMON ITEM

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

INFOID:000000011898034

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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.	E
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>	F
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.	

#### SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [	Diagnosti	c Mode			- Н
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR	J DLK
Door lock	DOOR LOCK			×	×	×			DLK
Rear window defogger	REAR DEFOGGER			×	×				-
Warning chime	BUZZER			×	×				L
Interior room lamp timer	INT LAMP			×	×	×			-
Remote keyless entry system	MULTI REMOTE ENT			×	×	×			5.4
Exterior lamp	HEAD LAMP			×	×	×			M
Wiper and washer	WIPER			×	×	×			-
Turn signal and hazard warning lamps	FLASHER			×	×				Ν
Air conditioner	AIR CONDITIONER			×					-
Combination switch	COMB SW			×					-
BCM	BCM	×	×			×	×	×	0
Immobilizer	IMMU		×		×	×			-
Interior room lamp battery saver	BATTERY SAVER			×	×	×			Р
Trunk open	TRUNK			×					
RAP system	RETAINED PWR			×		×			-
Signal buffer system	SIGNAL BUFFER			×					-
TPMS	AIR PRESSURE MONITOR		×	×	×	×			-
Panic alarm system	PANIC ALARM				×				-

#### DIAGNOSIS SYSTEM (BCM) [WITHOUT INTELLIGENT KEY SYSTEM]

# DOOR LOCK

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

INFOID:000000011898036

#### DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
KEY ON SW [On/Off]	Indicates condition of key 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.
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.
ACC ON SW [On/Off]	Indicates condition of ignition switch ACC position.
KEYLESS LOCK [On/Off]	Indicates condition of lock signal from keyfob.
KEYLESS UNLOCK [On/Off]	Indicates condition of unlock signal from keyfob.
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.
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.

#### ACTIVE TEST

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

#### WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
DOOR LOCK-UNLOCK SET	Off	Automatic door locks function OFF.
AUTOMATIC DOOR LOCK SELECT	P RANGE	Doors lock automatically when shifted out of Park (P).
AUTOMATIC DOOR LOCK SELECT	VH SPD*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
	MODE6*	Drivers door unlocks automatically when key is removed.
	MODE5	Drivers door unlocks automatically when shifted into Park (P).
AUTOMATIC DOOR UNLOCK	MODE4	Drivers door unlocks automatically when ignition is switched from ON to OFF.
SELECT	MODE3	Doors unlock automatically when key is removed.
	MODE2	Doors unlock automatically when shifted into Park (P).
	MODE1	Doors unlock automatically when ignition is switched from ON to OFF.
	Lock/Unlock*	Automatic door locks function operates in lock and unlock.
AUTOMATIC LOCK/UNLOCK	Lock Only	Automatic door locks function operates in lock only.
SELECT	Unlock Only	Automatic door locks function operates in unlock only.
	Off	Automatic door locks function OFF.

# \* : Initial setting

# TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000011898038

#### DATA MONITOR

Revision: December 2014

# DIAGNOSIS SYSTEM (BCM)

## [WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description	A
KEY ON SW [On/Off]	Indicates condition of key switch.	
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.	
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.	В

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# ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

INFOID:000000011536623

ECU	Reference
	BCS-101, "Reference Value"
BCM	BCS-112, "Fail-safe"
	BCS-113, "DTC Inspection Priority Chart"
	BCS-113, "DTC Index"

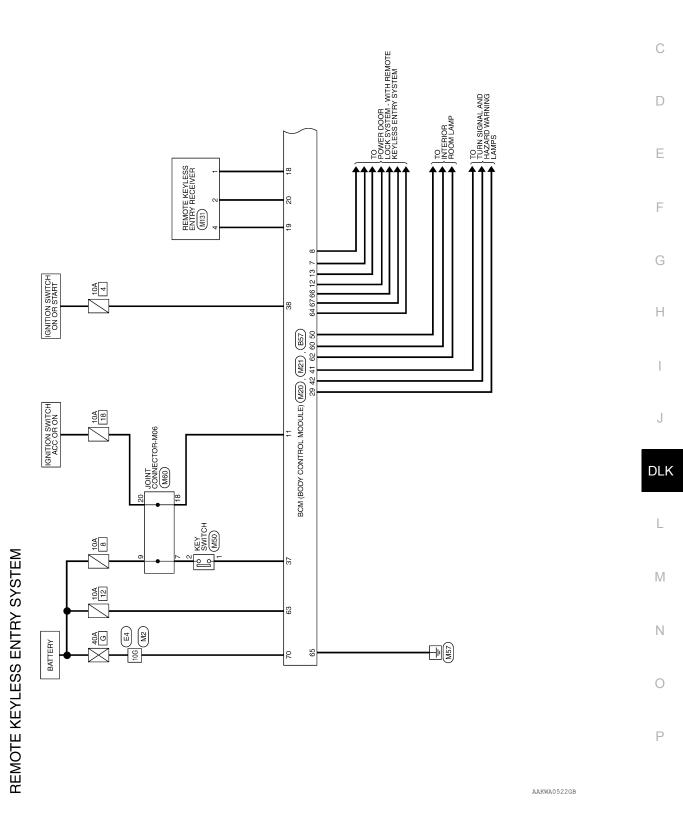
# [WITHOUT INTELLIGENT KEY SYSTEM]

# WIRING DIAGRAM REMOTE KEYLESS ENTRY SYSTEM

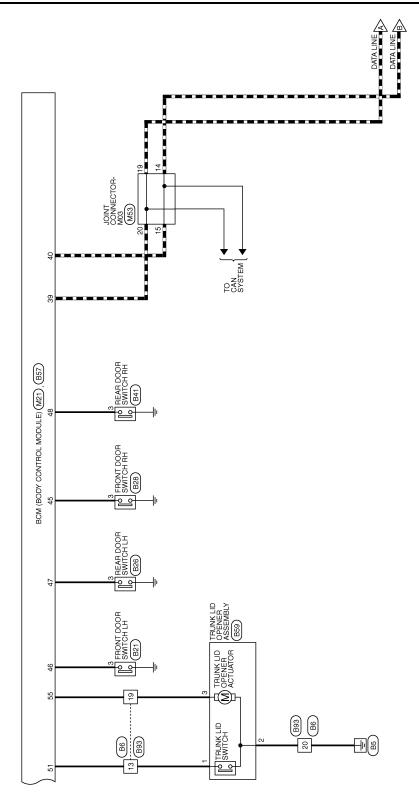
# Wiring Diagram

INFOID:000000011536624 B

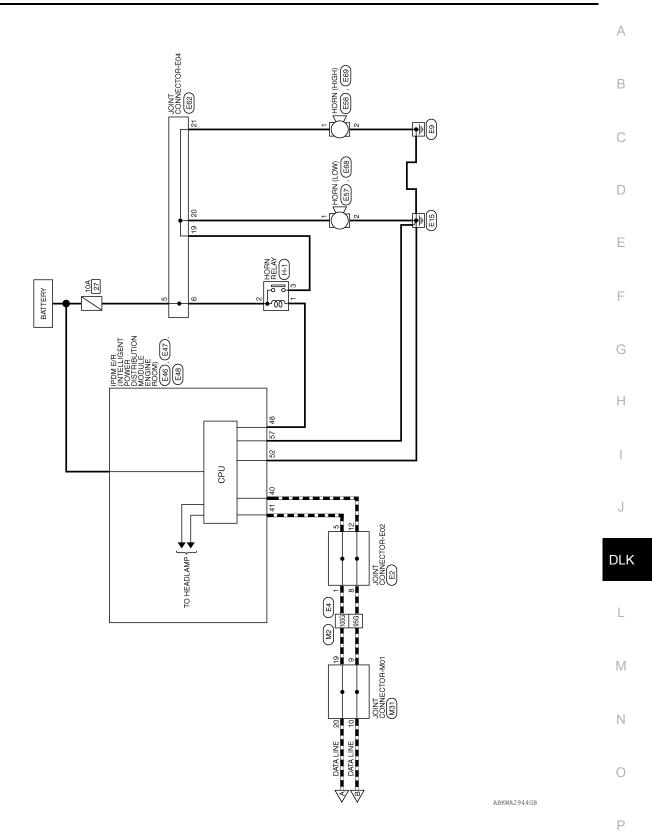
А



### REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



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#### < WIRING DIAGR

M20

)	AGR	٩M	>												[W	<b>IT</b>	HC		NTE	LL	.IG	E	NT	KEY	SYS	STE	M]
	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	WHITE		1 44 53 62 61 60 59 58 57 56 70 69 68 67 66 65	f Signal Name	ROOM LAMP OUTPUT	BATTERY SAVER OUTPUT	BATTERY (FUSE)	DOOR UNLOCK OUTPUT (DR)	GND	DOOR LOCK OUTPUT	DOOR UNLOCK OUTPUT (AS,RR,RL)	BATTERY (F/L)	34	JOINT CONNECTOR-M01	GRAY	-	8 7 6 5 4 3 2 1	of Signal Name	1	1	I	1				
		-		6463	Color of Wire	BR	٩.	0	SB	В	0	SB	>	M31			lt	20 19 18 20 19 18	Color c Wire	٩	₽	L	_				
5	lame	Color			0								$\left  - \right $	ļļģ	lame	Color	Ľ		<u> </u>								

REMOTE KEYLESS ENTRY SYSTEM CONNECTORS

М2

Connector No.

Signal Name	I	Ι	I
Color of Wire	≻	Р	_
Terminal No. Color of Wire	10G	95G	100G
			Γ

		]	
WIRE TO WIRE	WHITE		110         2.03         3.6         4.0         5.6           110         2.03         3.6         4.0         5.6           111         1.0         1.0         1.0         1.0           111         1.0         1.0         1.0         1.0           111         1.0         1.0         1.0         1.0           111         1.0         1.0         1.0         1.0         1.0           111         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0
Connector Name	Connector Color		S.H

60 62 63 64 65 66 67 20

Terminal No.

H.S. f

Connector Color WHITE

Connector Name Connector No.

Signal Name	CENTRAL DOOR LOCK SW	CENTRAL DOOR UNLOCK SW	KEYLESS & AUTO LIGHT SENSOR GND	KEYLESS TUNER POWER SUPPLY	KEYLESS TUNER SIGNAL	HAZARD SW	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	GR	BR	>	BR	LG	SB	GR	н	Γ	⊾
Terminal No.	12	13	18	19	20	29	37	38	39	40

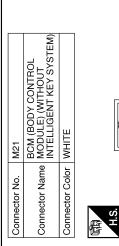
Terminal No.

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	20	40				
	19	39				
	18	38				
	17	37		~	~	
	16	36	e	Ш≥	<u>ل</u> نا –	
	15	35	an	2S	28	l ≥
	14	34	Z	ŞÇ	Ξž	0
	9 10 11 12 13 14 15 16 17 18 19	33	Signal Name	KEY CYLINDER UNLOCK SW	KEY CYLINDER LOCK SW	ACC SW
	12	32	Sig	ΣĽ	ΣŬ	◄
	÷	31		Υ Π Γ	R	
	10	30				
	თ	29	-			
1	8	28	0 e			
	7	27	Sir		>	G
	9	26	ŏ_			
	5	25	<u>.</u>			
	4	24	<u> </u>			
	2 3	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	ina	~	ω	÷
	2	22	Ē			
	-	21	Terminal No. Color of Wire			
-	_	_				

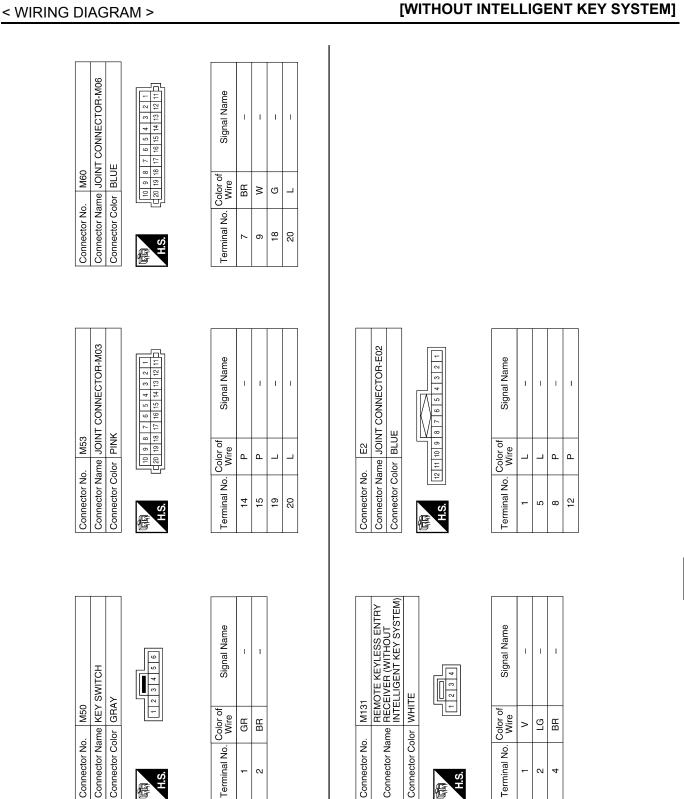
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# **REMOTE KEYLESS ENTRY SYSTEM**

Connector Name JOINT CONNEC

Connector No.

Connector Color GRAY



Revision: December 2014

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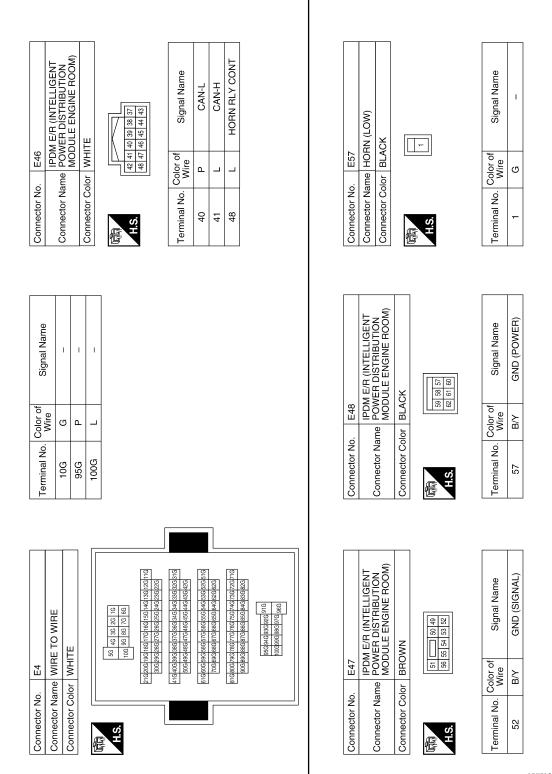
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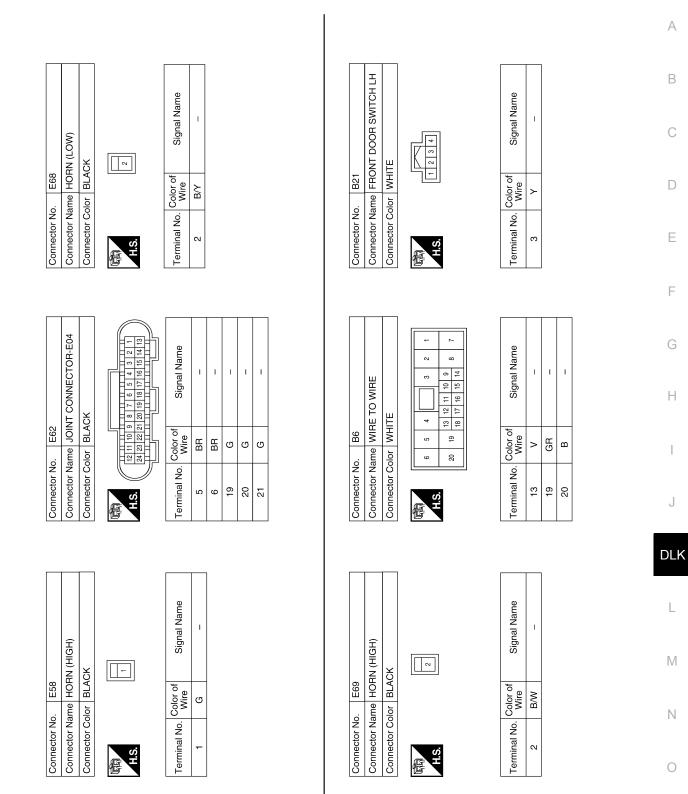
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#### REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



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### < WIRING DIAGRAM >

#### **REMOTE KEYLESS ENTRY SYSTEM** [WITHOUT INTELLIGENT KEY SYSTEM]

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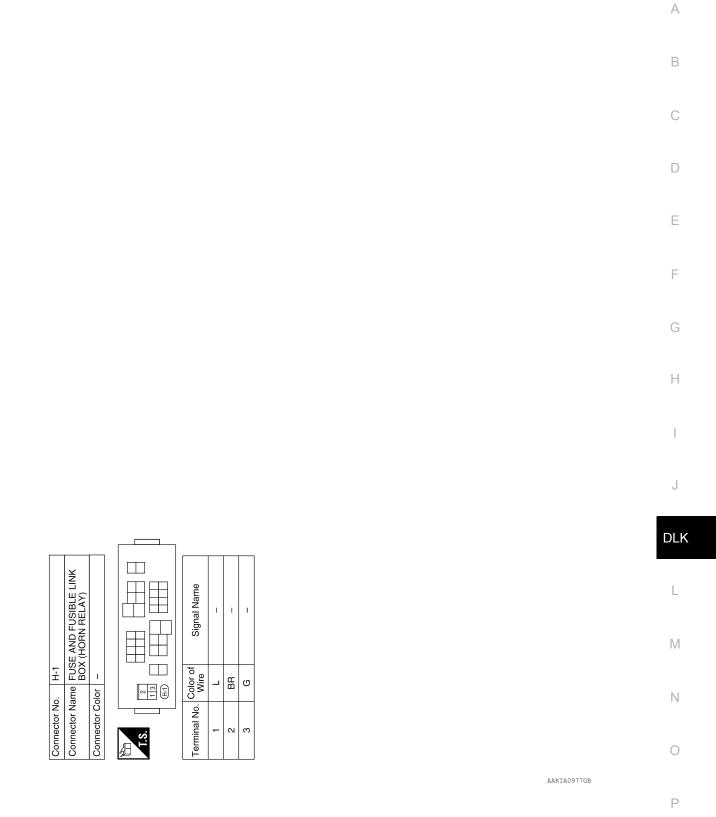
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B41 REAR DOOR SWITCH RH WHITE	53	Signal Name -		E TO WIRE	4         5         6           10         11         12         13           15         16         17         18         19	Signal Name
8 2		Color of Wire P	B93	me WIRE lor WHIT	8 2 14 9 14	Color of Wire R
Connector No. B41 Connector Name REAR I Connector Color WHITE	国 H.S.	Terminal No.	Connector No.	Connector Name WIRE TO WIRE Connector Color WHITE	H.S.	Terminal No. Color of Wire 13 R
Connector No. B28 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE		Signal Name		Connector Name TRUNK LID OPENER ASSEMBLY Connector Color WHITE	1 3	Signal Name
me FRO		Color of Wire R	. B59	ASSEM ASSEM	-	Color of Wire R
Connector No. B28 Connector Name FRONT Connector Color WHITE	雨 H.S.	Terminal No. 3	Connector No.	Connector Name Connector Color	品.S.H	Terminal No.
Connector No. B26 Connector Name REAR DOOR SWITCH LH Connector Color WHITE	234	Signal Name		Connector Name MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)	r BLACK	Signal Name FLASHER
me B26 me REA		Color of Wire GR	. B57	me BCM INTE	lor BLACK	Color of Wire
Connector No. B26 Connector Name REAR I Connector Color WHITE	同 H.S.	Terminal No. 3	Connector No.	Connector Na	Connector Color	Terminal No.

Signal Name	FLASHER OUTPUT (LEFT)	FLASHER OUTPUT (RIGHT)	DOOR SW (AS)	DOOR SW (DR)	DOOR SW (RL)	DOOR SW (RR)	LUGGAGE LAMP OUTPUT	TRUNK SW	TRUNK OPEN OUTPUT	
Color of Wire	ГG	0	Ч	≻	GR	Ь	ГG	>	GR	
Terminal No.	41	42	45	46	47	48	50	51	55	

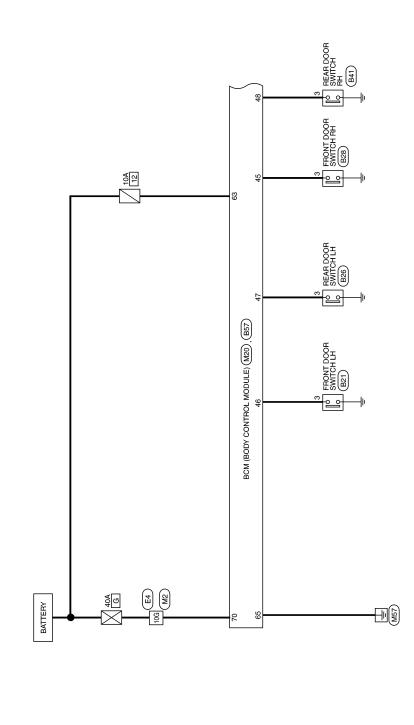
ABKIA5398GB



# POWER DOOR LOCK SYSTEM

# Wiring Diagram

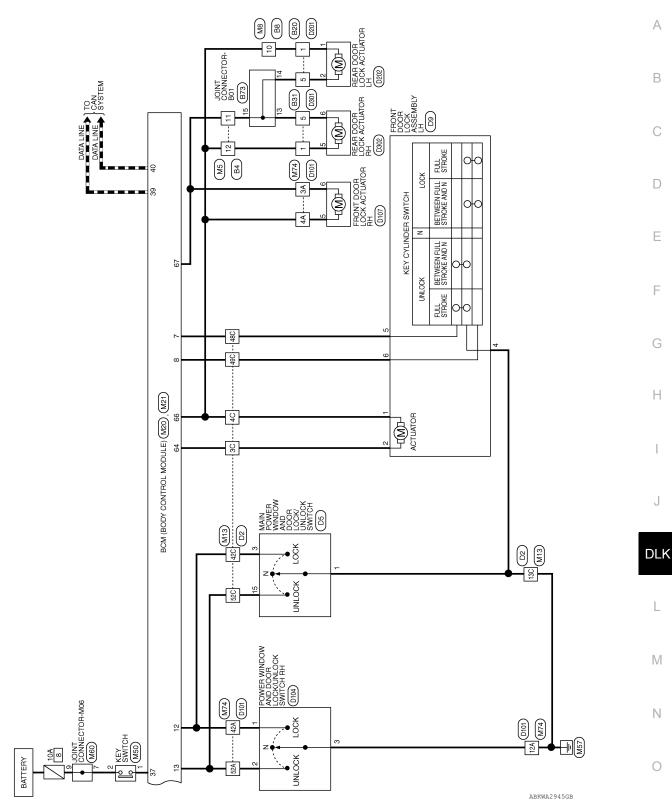
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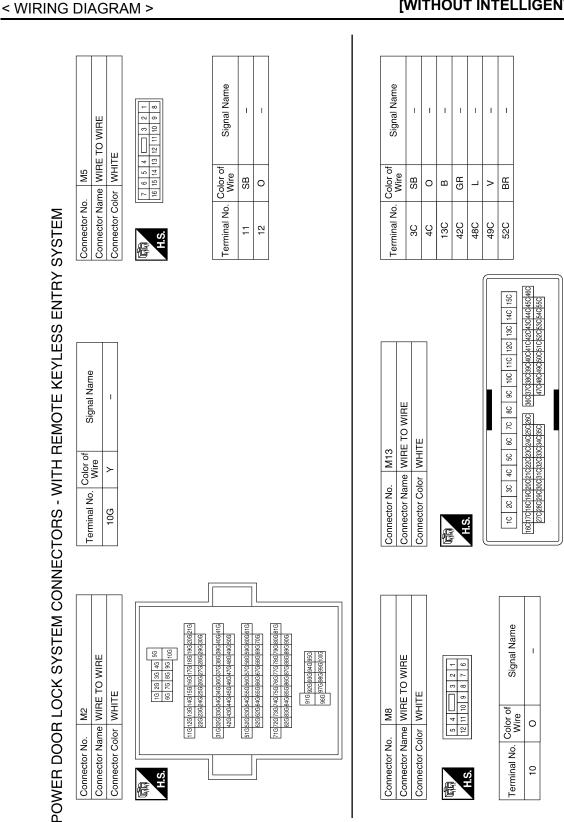


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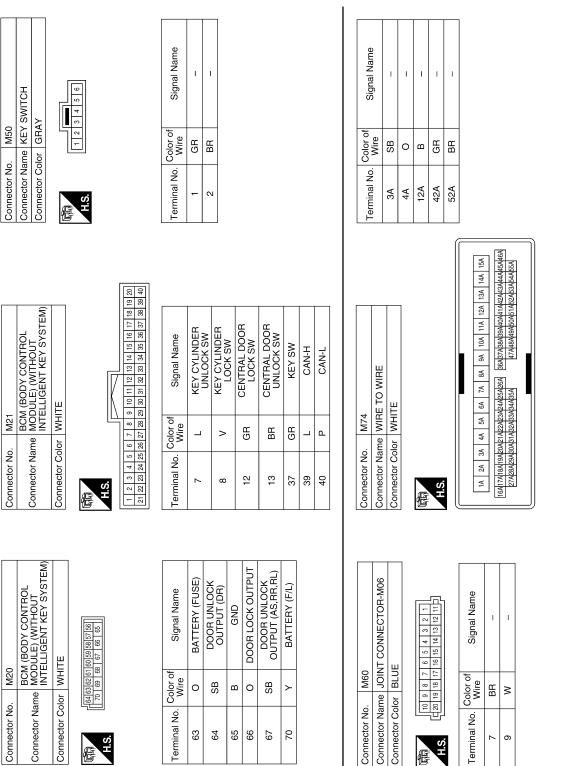
POWER DOOR LOCK SYSTEM - WITH REMOTE KEYLESS ENTRY SYSTEM

### POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]





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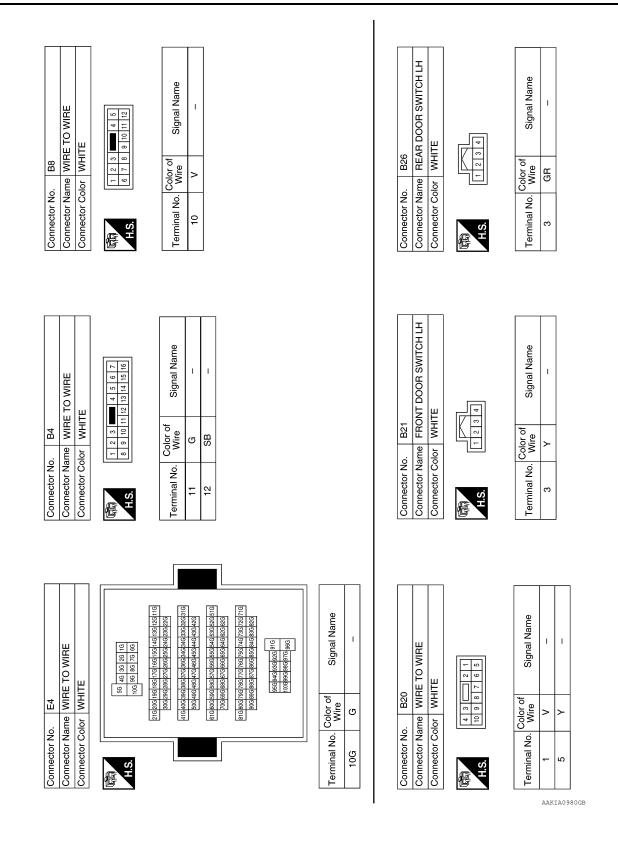
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# POWER DOOR LOCK SYSTEM



#### **POWER DOOR LOCK SYSTEM** [WITHOUT INTELLIGENT KEY SYSTEM]

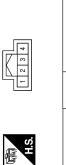
	/
B41 REAR DOOR SWITCH RH WHITE WHITE WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE D2 WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE WHITE W	E (
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Connector No. Connector Name Connector Name 1.5. Connector No. Connector No.	I
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No.       B28         Name       FRONT DOOR SWITCH RH         Color       WHITE         Color       White         I       I         O.       Older of R       Signal Name         No.       B57         No.       B57         Oolor       BCM (BODY CONTROL Name       MoDULE (WITHOUT INTHOUT         Mare       MODULE (WITHOUT         Mare       BCM (BODY CONTROL Name       Module (MITHOUT)         Orior       BLACK       Signal Name         Mare       MODULE (MITHOUT)       Module (MITHOUT)         Mare       MODULE (MITHOUT)       Module (MITHOUT)         Mare       MODOR SW (RN)       Module (MITHOUT)         Mare       MODOR SW (RN)       Module (MITHOUT)         Mare       MODOR SW (RN)       Module (MIL)         Mare       DOOR SW (RI)       Module (MIL)	I
No.     B28       Name     FRONT DOOR       Name     FRONT DOOR       Color     WHITE       Color of     Signa       No.     B57       No.     B57       Name     BCM (BODY CC)       Name     NOULE (WIT       Signa     Signa       Signa     Signa       Signa     Signa       Signa     Signa       P     DOOR	1

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	R SWITCH R		
B28	FRONT DOOI	WHITE	1 2 3 4
Connector No.	Connector Name FRONT DOOR SWITCH RH	Connector Color WHITE	H.S.



Signal Name	I	
Color of Wire	щ	
Terminal No.	e	

Connector No.	B57		Conne
	BCN		Conne
		CONTRECTOR NAME INCODES (VALLEDO)	 Conne
Connector Color BLACK	or BLA	CK	Ą
确 H.S.	49 48 47 46 55 54 5	49 48 47 46 45 44 43 42 41 55 54 53 52 51 50	 H.S.
Terminal No. Wire	Color of Wire	Signal Name	Termir

45 46 47 48

**Revision: December 2014** 

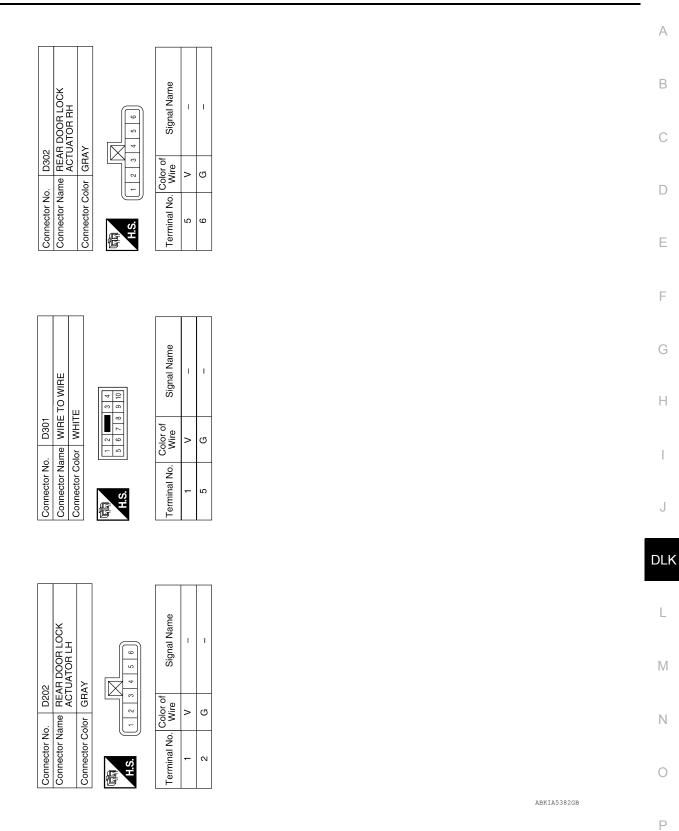
Connector No.     D5       Connector Name     MAIN POWER WINDOW       Connector Name     AND DOOR LOCK/ UNLOCK SWITCH       Main     Connector Signal Name       1     B     GND       3     L     LOCK SW       15     BR     UNLOCK SW	Connector No.     D9       Connector Name     FRONT DOOR LOCK       Connector Color     GRAY       Connector Color     GRAY       Terminal No.     Color of Wire     Signal Name       2     L     -       4     B     -       5     Y     -	Connector No.       D101         Connector Name       WIRE TO WIRE         Connector Name       WIRE TO WIRE         Connector Color       WHITE         Connector Color       WHITE         Main       State       State         State       State       State       State         Connector Color       WHITE       Main       State       State         Main       State       State       State       State       State         State       V       Color of       Standard       State
Connector No.     D104       Connector Name     POWER WINDOW AND DOOR LOCK/UNLOCK       Connector Color     WHITE       Connector Color     WHITE       Terminal No.     01       Vire     Signal Name       3     B	Connector No.     D107       Connector Name     FRONT DOOR LOCK       Connector Color     GRAY       Connector Color     GRAY       Terminal No.     V       5     V       6     Y	Connector No.     D201       Connector Name     WIRE TO WIRE       Connector Color     WHITE       Connector Color     WHITE       Image: Total of the state of the

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# POWER DOOR LOCK SYSTEM

< WIRING DIAGRAM >

# [WITHOUT INTELLIGENT KEY SYSTEM]



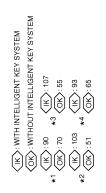
# POWER DOOR LOCK SYSTEM

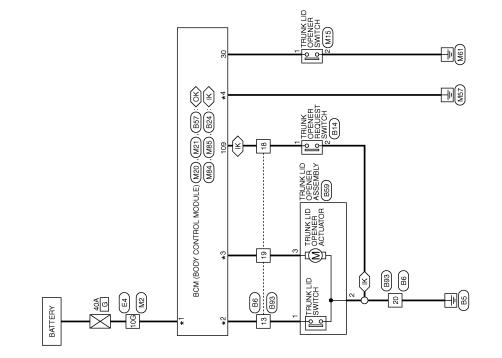
### [WITHOUT INTELLIGENT KEY SYSTEM]

# TRUNK LID OPENER

# Wiring Diagram

INFOID:000000011536626

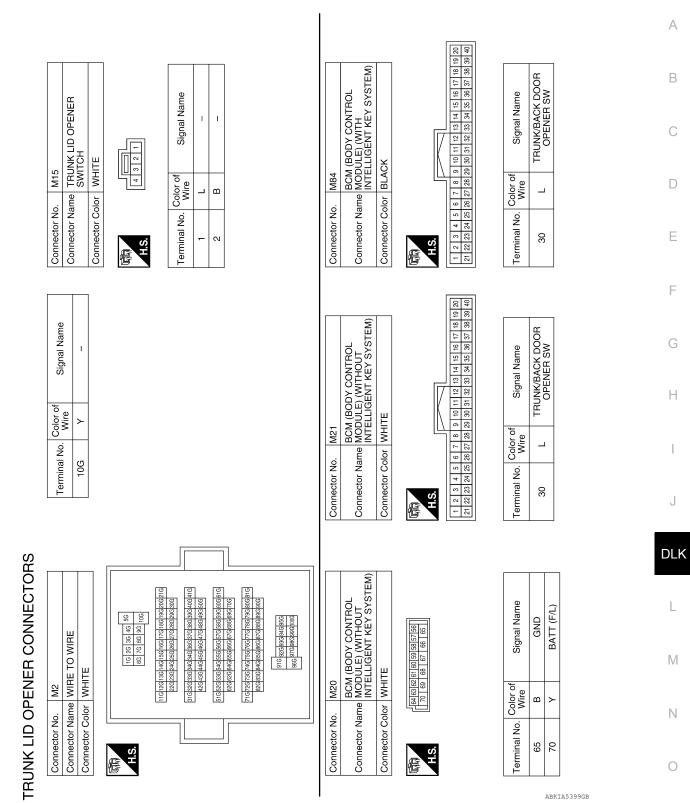




TRUNK LID OPENER

ABKWA2942GB

#### TRUNK LID OPENER [WITHOUT INTELLIGENT KEY SYSTEM]



Р

Connector No. M85	Connector No. E4		Connector No.	BG
Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM)	Connector Name WIRE TO WIRE Connector Color WHITE	e to wire re	Connector Name WIRE TO WIRE Connector Color WHITE	WIRE TO WIRE WHITE
Connector Color WHITE				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	H.S.H	56 46 35 26 16 106 95 86 75 66 106 96 96 75 66 106 166 176 166 156 146 156 176 16 107 04004 587 5856 564 146 156 175 116	HIS.	5         4         3         2         1           19         13         12         14         10         9         8         7           18         17         16         15         14         7         7
-	41G40G39	416 406 386 386 376 366 346 346 336 356 356 356 356 356 356 356 356 35		
Terminal No. Color of Signal Name Wire	616(606)59	04+004+004+004+004+004+004 35865765665655465366526516	Terminal No. Colo	Color of Signal Name Wire
90 Y BATTERY (F/L)	100669	700690680670660650640620620	13 V	1
93 B GND	81680679	816806796786776766756746736726716		I M
	800988	906 896 886 876 886 856 846 836 826	19 GR	T a
		956946936926926 916 10069959929976 966	_	_
	Terminal No. Color of Wire	Signal Name		
	10G G	I		
Connector No. B14	Connector No. 824		Connector No.	B57
an a	ne	BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)	Connector Name	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
	Connector Color BLACK	X	Connector Color	BLACK
H.S.	[所] H.S.	110 100 100 100 100 100 100 100 100	(14) (15) H.S.	49 48 47 46 45 44 43 42 41 55 54 53 22 51 50
Terminal No. Color of Signal Name	Terminal No. Color of Wire	Signal Name	Terminal No. Color of Wire	r of Signal Name
c	103 V	TRUNK/GLASS HATCH SW		
	107 GR	TRUNK/BACK DOOR OPEN OUTPUT	55 GR	
	109 SB	REQUEST SW (TRUNK/BACK DOOR)		

# < WIRING DIAGRAM >

# [WITHOUT INTELLIGENT KEY SYSTEM]

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9 10 11 12 13 14 15 16 17 18 Connector Color WHITE ო Terminal No. Color of c, 80 ۳ -~ 13 18 H.S. E Connector Name TRUNK LID OPENER ASSEMBLY ო 1

H.S. E

9 20

2 19

4

Connector Name WIRE TO WIRE

WHITE

Connector Color

B59

Connector No.

B93

Connector No.

Signal Name

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Signal Name	I	I	Ι	
Color of Wire	æ	в	GR	
Terminal No. Color of Wire	-	2	£	

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< WIRING DIAGRAM >

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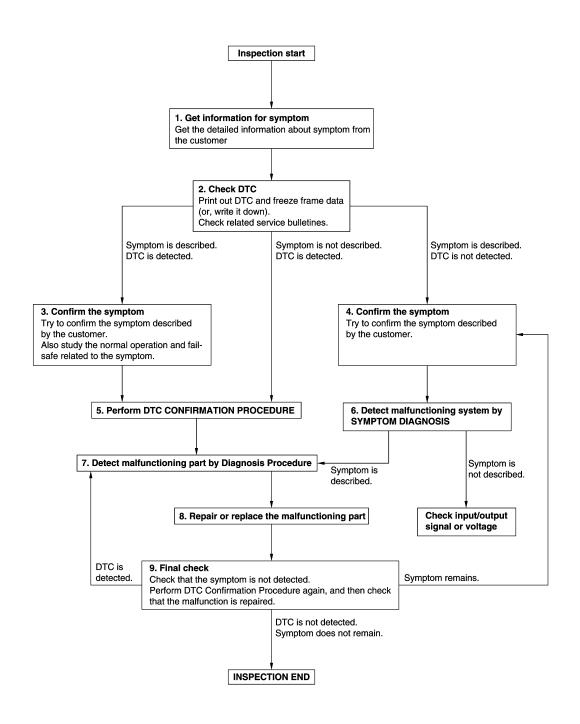
# [WITHOUT INTELLIGENT KEY SYSTEM]

# BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000011536627

**OVERALL SEQUENCE** 



DETAILED FLOW

Revision: December 2014

### DIAGNOSIS AND REPAIR WORK FLOW

#### < BASIC INSPECTION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

<b>1.</b> GET INFORMATION FOR SYMPTOM	А
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.	В
>> GO TO 2.	
2.CHECK DTC	С
1. Check DTC.	
2. Perform the following procedure if DTC is detected.	D
<ul> <li>Record DTC and freeze frame data (Print them out using CONSULT.)</li> <li>Erase DTC.</li> </ul>	D
<ul><li>Study the relationship between the cause detected by DTC and the symptom described by the customer.</li><li>Check related service bulletins for information.</li></ul>	Е
Are any symptoms described and any DTC detected?	
Symptom is described, DTC is detected>>GO TO 3. Symptom is described, DTC is not detected>>GO TO 4.	F
Symptom is not described, DTC is detected>>GO TO 5.	F
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.	G
Verify relation between the symptom and the condition when the symptom is detected.	
	Η
>> GO TO 5.	
4.CONFIRM THE SYMPTOM	Ι
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.	J
5.PERFORM DTC CONFIRMATION PROCEDURE	
Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected	DLK
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 <u>BCS-113</u> , " <u>DTC Inspection Priority Chart</u> " and determine trouble	
diagnosis order.	L
<ul> <li>NOTE:</li> <li>Freeze frame data is useful if the DTC is not detected.</li> </ul>	
Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service	M
Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.	
If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIR- MATION PROCEDURE.	Ν
Is DTC detected?	
YES >> GO TO 7. NO >> Check according to GI-40, "Intermittent Incident".	0
NO >> Check according to <u>GI-40. "Intermittent Incident"</u> . <b>6.</b> DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS	0
Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step	Ρ
<ol> <li>and determine the trouble diagnosis order based on possible causes and symptom.</li> <li><u>Is the symptom described?</u></li> </ol>	
YES >> GO TO 7.	
NO >> Monitor input data from related sensors or check voltage of related module terminals using CON- SULT.	
7	

**1.** DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to <u>GI-40, "Intermittent Incident"</u>.

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.

# **KEYFOB ID REGISTRATION**

# < BASIC INSPECTION > **KEYFOB ID REGISTRATION**

KETFUD ID REGISTRATION	A
Description	INFOID:000000011536628
Perform the following procedure after BCM is replaced or when new keyfob ID is registered <b>NOTE:</b>	E
When registering the keyfob ID, perform only one procedure to simultaneously register both LIZER ID and keyfob ID).	
Work Procedure	INFOID:000000011536629
<b>1</b> .STEP 1	[
Close all doors.	
>> GO TO 2.	E
<b>2.</b> STEP 2	
Perform lock operation by door lock and unlock switch.	F
>> GO TO 3.	
<b>3</b> .STEP 3	(
<ol> <li>Remove and insert the key into the ignition key cylinder 6 times within 10 seconds (turning the key switch from OFF to ON counts as 1 time).</li> <li>All doors unlock automatically.</li> </ol>	ŀ
<b>NOTE:</b> On the sixth key insertion, keep the key in the ignition key cylinder with the key switch ON.	
Do all unlock automatically?	
YES >> GO TO 4. NO >> GO TO 1.	
4.STEP 4	
Turn ignition switch to ACC within 3 seconds after all doors unlock and perform lock operation and unlock switch.	n by door lock Di
>> GO TO 5.	
<b>5</b> .STEP 5	l
<ol> <li>Press the lock or unlock button of the keyfob to be added.</li> <li>All doors unlock simultaneously.</li> </ol>	
3. Key ID is registered.	Ν
<u>Is key ID registered?</u> YES-1 >> When adding a keyfob: GO TO 6. YES-2 >> When ending registration: GO TO 8. NO >> GO TO 1.	١
6.STEP 6	
Perform lock operation by door lock and unlock switch.	(
>> GO TO 7.	F
<b>7</b> .STEP 7	
<ol> <li>Press the lock or unlock button of the keyfob to be added.</li> <li>All doors unlock simultaneously.</li> <li>Key ID is registered.</li> </ol>	
Is key ID registered?	

YES-1 >> When adding a keyfob: GO TO 6.

YES-2 >> When ending registration: GO TO 8. NO >> GO TO 6. 8.STEP 8

Open the driver door.

>> REGISTRATION END

Description

Refer to LAN-7, "CAN COMMUNICATION SYSTEM : System Description".

# DTC Logic

# DTC DETECTION LOGIC

< DTC/CIRCUIT DIAGNOSIS >

U1000 CAN COMM

DTC/CIRCUIT DIAGNOSIS

#### NOTE:

U1000 can be set if a module harness was disconnected and reconnected, perhaps during a repair. Confirm that there are actual CAN diagnostic symptoms and a present DTC by performing the Self Diagnostic Result procedure.

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1000]	When any listed module cannot communicate with CAN communication signal continuously for 2 seconds or more with ignition switch ON	In CAN communication system, any item (or items) of the following listed below is malfunc- tioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

# Diagnosis Procedure

1. PERFORM SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON and wait for 2 second or more.

2. Check "SELF- DIAG RESULTS".

Is "CAN COMM CIRCUIT" displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT operation manual.

NO >> Refer to <u>GI-40, "Intermittent Incident"</u>.

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INFOID:000000011536630

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#### U1010 CONTROL UNIT (CAN) IAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

# U1010 CONTROL UNIT (CAN)

# DTC Logic

INFOID:000000011536633

INFOID:000000011536634

#### DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CONTROL UNIT (CAN) [U1010]	BCM detected internal CAN communication cir- cuit malfunction.	ВСМ

# **Diagnosis Procedure**

# **1.**REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to <u>BCS-133. "Removal and Installation"</u>.

# POWER SUPPLY AND GROUND CIRCUIT < DTC/CIRCUIT DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

# POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure									
Regarding Wiring Diagram information, refer to BCS-115, "Wiring Diagram".									
1.CHECK FUSES	AND FUSIBLE LIN	IK							
Check that the follo	wing fuses and fusi	ble link are not blov	wn.						
Termina	al No.	Signal na	ame	Fuses and fu	sible link No.				
63	3	Potton/ powo	r cupply	12 (	10A)				
70	)	Battery power supply		G (40A)					
11		Ignition switch A	ACC or ON	18 (	10A)				
YES >> Replac NO >> GO TO 2.CHECK POWER 1. Turn ignition sw 2. Disconnect BC	NO       >> GO TO 2.         2.CHECK POWER SUPPLY CIRCUIT         1. Turn ignition switch OFF.         2. Disconnect BCM connectors.								
	BCM Ignition switch position								
Connector	Terminal		OFF	ACC	ON				
	63	Ground							
M20	70		Battery voltage	Battery voltage	Battery voltage				
M21 11 — 0 V Battery voltage Battery voltage									

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

ВС	CM	Ground	Continuity	$\mathbb{M}$
Connector	Terminal			
M20	65	—	Yes	N

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

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# DOOR SWITCH

### Description

Detects door open/close condition.

**Component Function Check** 

# 1.CHECK FUNCTION

#### With CONSULT

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

Monitor item	Condition
DOOR SW-DR	
DOOR SW-AS	CLOSE $\rightarrow$ OPEN: OFF $\rightarrow$ ON
DOOR SW-RL	
DOOR SW-RR	

Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-260, "Diagnosis Procedure"</u>.

# **Diagnosis** Procedure

Regarding Wiring Diagram information, refer to <u>DLK-231, "Wiring Diagram"</u>.

1. CHECK DOOR SWITCH INPUT SIGNAL

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

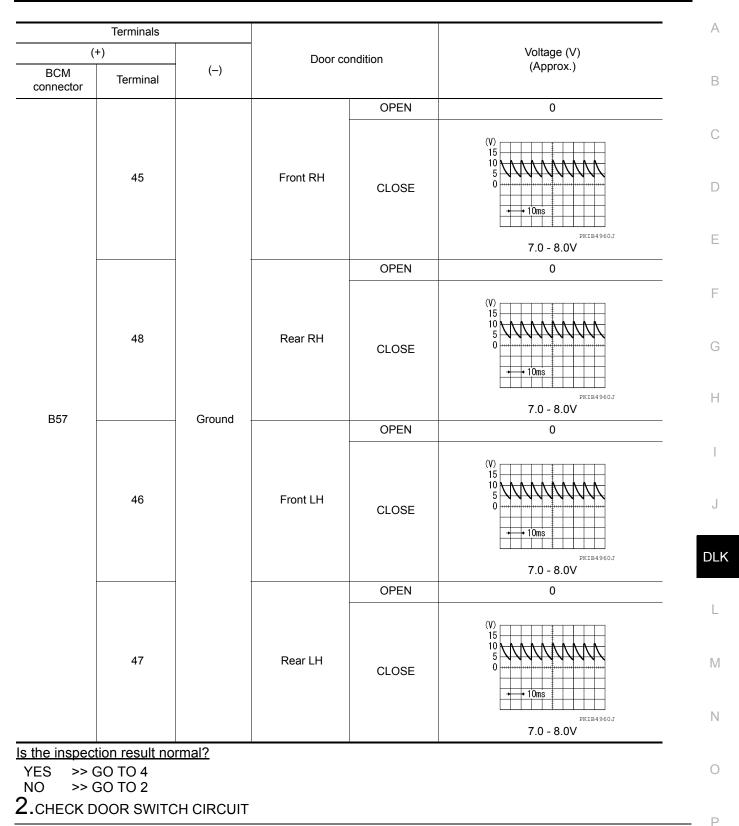
INFOID:000000011536636

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# **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [WITHOUT INTELLIGENT KEY SYSTEM]



1. Disconnect BCM connector and door switch connector.

2. Check continuity between BCM connector and door switch connector.

# **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

BCM connector	Terminal	Door switch connector	Terminal	Continuity
B57	45	B28 (Front RH)		
	48	48 B41 (Rear RH)		Yes
	46	B21 (Front LH)	3	165
	47	B26 (Rear LH)		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
B57	45	-	
	48	Ground	No
	46		NO
	47	-	

#### Is the inspection result normal?

YES >> GO TO 3

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

**3.**CHECK DOOR SWITCH

Refer to DLK-262, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

#### >> Inspection End.

# **Component Inspection**

# 1. CHECK DOOR SWITCH

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

	Tern	ninal	Door switch condition	Continuity
Door switch			- Door switch condition Continuity	
3	Ground part of	Pressed	No	
	door switch	Released	Yes	

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch.

			OR LO	ОСК А				T KEY SYSTEM]
	RCUIT DIAGNO		CK	SWIT	-			
DRIVEF								A
DRIVER	SIDE : Dese	cription	1					INFOID:000000011536640
Transmits	door lock/unlock	operatio	on to B	CM.				В
DRIVER	SIDE : Com	ponent	t Fur	nction	Check			INFOID:000000011536641
<b>1.</b> CHECK	FUNCTION							С
With Contract Check CD			CKSV	V in Data	a Monitor mode v	ith CONS	ULT.	D
	Monitor it	em				Cond	ition	
CDL LO	CKSW				LOCK		: ON	
					UNLOCK		: OFF	
CDL UN	LOCK SW				LOCK		: OFF	F
	ection result nor	10			UNLOCK		: ON	
Regarding <b>1</b> .CHECK 1. Turn ig 2. Check	CPOWER WIND	i informat DOW SWI N. Main pow CK" or "UI	tion, re ITCH ( ver wir	efer to <u>DI</u> DUTPUT			onnector whe	INFOID:000000011536642 H
Connector	door lock/unlock s state		Term	ninal	Voltage	_		L
D5	Neutral $\rightarrow$ Unic Neutral $\rightarrow$ Loc		15 3	Ground	Battery voltage $\rightarrow$ 0			M
YES > NO >	ection result nor > GO TO 5 > GO TO 2 < POWER WIND	mal?	ITCH (	GROUNI	)	-		N
2. Disco		er window			k/unlock switch co v and door lock/u		ch connector a	-
	window and door switch connector	٦	Termina	I	Continuity			P
	D5	1		Ground	Yes			
	ection result nor	mal?						
	> GO TO 3 > Repair or repla	ace harne	ess.					

# 3. CHECK POWER WINDOW SWITCH

Check continuity between main power window and door lock/unlock switch terminals.

Main power window and door lock/unlock switch state	Terminals	Continuity
Lock	1 - 3	Yes
Unlock	15 - 1	163
Neutral/Lock	15 - 1	No
Neutral/Unlock	1 - 3	NO

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-69</u>, "<u>Removal and Instal-</u><u>lation</u>".

### **4.**CHECK POWER WINDOW SWITCH CIRCUITS

- 1. Disconnect BCM connector.
- Check continuity between BCM connector and main power window and door lock/unlock switch connector.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M21	12	D5	3	Yes
IVIZ I	13	65	15	165

3. Check continuity between BCM connector and ground.

BCM connector	Terr	Continuity	
M21	12	Ground	No
	13	Ground	110

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

#### >> Inspection End. PASSENGER SIDE

#### PASSENGER SIDE : Description

Transmits door lock/unlock operation to BCM.

# PASSENGER SIDE : Component Function Check

#### **1.**CHECK FUNCTION

#### With CONSULT

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

Revision: December 2014

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### DOOR LOCK AND UNLOCK SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

# [WITHOUT INTELLIGENT KEY SYSTEM]

	Monitor item				Condition		
CDL LO	CK SW			LOCK	: ON		
				UNLOCK	: OF	F	
	LOCK SW			LOCK	: OF	F	
CDL UN	LUCK SW			UNLOCK	: ON		
the insp	ection result norma	?					
-	> Door lock and un						
NO >	> Refer to <u>DLK-265</u>	5. "PASSENC	SER SIDE	<u> E : Diagnosis Pro</u>	<u>ocedure"</u> .		
ASSEN	NGER SIDE : D	iagnosis I	Procedu	ure		INFOID:0000000115366	
eaardina	Wiring Diagram inf	formation re	fer to DL	K-240 "Wiring D	iagram"		
cyarung				(-2+0, Winig D	<u>lagrann</u> .		
.CHECK	K POWER WINDOW	V SWITCH C	DUTPUT	SIGNAL			
	gnition switch ON.	or window -	nd door !	ook/uplook out	h DU connector :	when the awitch (near a	
	de) is turned to "LO			OCK/UNIOCK SWITC	n RH connector	when the switch (passer	
300 000							
	Power window and						
Connector	door lock/unlock switch RH state	Termin	al	Voltage			
	Neutral → Lock	1					
D104	Neutral → Unlock	Gro		nd Battery voltage $\rightarrow 0$			
the inen		_					
	ection result norma	<u>1 (</u>					
VEQ >	> COTO 5						
	> GO TO 5 > GO TO 2						
NO >	> GO TO 2	V SWITCH G	ROUND				
NO >	> GO TO 2 ( POWER WINDOV	V SWITCH G	ROUND				
NO > CHECK . Turn iç . Discor	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power windov	w and door lo	ock/unloci	k switch RH coni			
NO > 2.CHECK	> GO TO 2 ( POWER WINDOV gnition switch OFF.	w and door lo	ock/unloci	k switch RH coni		ctor and ground.	
NO > CHECK . Turn ig . Discor . Check	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power windov continuity betweer	w and door lo	ock/unloci	k switch RH coni		ctor and ground.	
NO > CHECK . Turn iç . Discor . Check Power win	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power windov	w and door lo	ock/unlock ow and d	k switch RH coni		ctor and ground.	
NO > CHECK . Turn iç . Discor . Check Power win	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power windov continuity betweer dow and door lock/	w and door lo power wind Termina	ock/unlock ow and d	k switch RH coni loor lock/unlock		ctor and ground.	
NO > CHECK . Turn iç . Discor . Check Power win unlock sw	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power window continuity betweer dow and door lock/ vitch RH connector D104	w and door lo n power wind Termina 3 0	ock/unlock low and d	k switch RH coni loor lock/unlock		ctor and ground.	
NO > CHECK . Turn ig . Discor . Check Power win unlock sw	> GO TO 2 K POWER WINDOW gnition switch OFF. nnect power window continuity betweer Idow and door lock/ vitch RH connector D104 ection result normal	w and door lo n power wind Termina 3 0	ock/unlock low and d	k switch RH coni loor lock/unlock		ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES >	> GO TO 2 K POWER WINDOV gnition switch OFF. nnect power window continuity betweer dow and door lock/ vitch RH connector D104	w and door lo power wind Termina 3 0	ock/unlock low and d	k switch RH coni loor lock/unlock		ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO >	> GO TO 2 K POWER WINDOW gnition switch OFF. nnect power window k continuity betweer Idow and door lock/ vitch RH connector D104 ection result norma > GO TO 3	w and door lo n power wind Termina 3 0 <u>1?</u> harness.	ock/unlock low and d	k switch RH coni loor lock/unlock		ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK	<ul> <li>&gt; GO TO 2</li> <li>K POWER WINDOV     <li>gnition switch OFF.</li> <li>nnect power window</li> <li>continuity betweer</li> <li>Idow and door lock/     <li>itch RH connector     <li>D104     </li> <li>ection result norma     </li> <li>&gt; GO TO 3</li> <li>&gt; Repair or replace</li> </li></li></li></ul>	w and door lo power wind Termina 3 0 1? harness. V SWITCH	ock/unlock ow and d	k switch RH con loor lock/unlock Continuity Yes	switch RH conne	ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK	<ul> <li>&gt; GO TO 2</li> <li>K POWER WINDOV     <li>gnition switch OFF.     <li>nnect power window     <li>continuity betweer     </li> <li>dow and door lock/     </li> <li>itch RH connector     </li> <li>D104     </li> <li>ection result norma     </li> <li>&gt; GO TO 3     </li> <li>&gt; Repair or replace     </li> <li>K POWER WINDOW     </li> </li></li></li></ul>	w and door lo power wind Termina 3 0 1? harness. V SWITCH	ock/unlock ow and d	k switch RH con loor lock/unlock Continuity Yes	switch RH conne	ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK Check con	<ul> <li>&gt; GO TO 2</li> <li>K POWER WINDOV     <li>gnition switch OFF.     <li>nnect power window     <li>continuity betweer     </li> <li>dow and door lock/     </li> <li>itch RH connector     </li> <li>D104     </li> <li>ection result norma     </li> <li>&gt; GO TO 3     </li> <li>&gt; Repair or replace     </li> <li>K POWER WINDOW     </li> </li></li></li></ul>	w and door lo n power wind Termina 3 0 1? harness. V SWITCH wer window a	ock/unlock ow and d Ground	k switch RH con loor lock/unlock Continuity Yes	switch RH conne	ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK Check con	> GO TO 2 K POWER WINDOW Intion switch OFF. In	w and door lo n power wind Termina 3 0 1? harness. V SWITCH wer window a	ock/unlock ow and d Ground	k switch RH coni loor lock/unlock	switch RH conne	ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK Check con	> GO TO 2 K POWER WINDOW Innect power window Innect power window Indow and door lock/	w and door lo n power wind Termina 3 0 1? harness. V SWITCH wer window a	and door	k switch RH con loor lock/unlock	switch RH conne	ctor and ground.	
NO > CHECK Turn ig Discor Check Power win unlock sw s the insp YES > NO > CHECK Check con	> GO TO 2 K POWER WINDOW Intion switch OFF. In	w and door lo n power wind Termina 3 0 1? harness. V SWITCH wer window a	and door ate Termi	k switch RH consideration lock/unlock	switch RH conne	ctor and ground.	

NO

>> Replace power window and door lock/unlock switch RH.

# 4. CHECK POWER WINDOW SWITCH CIRCUITS

#### 1. Disconnect BCM connector.

2. Check continuity between BCM connector and power window and door lock/unlock switch RH connector.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M21	12	D104	1	Yes
1012-1	13	0104	2	163

3. Check continuity between BCM connector and ground.

BCM connector	Terr	Continuity	
M21	12	Ground	No
	13	Ground	No

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

# **KEY CYLINDER SWITCH**

#### Description

When the mechanical key is inserted and turned into the front door lock key cylinder switch LH, the switch ransmits the LOCK or UNLOCK signal directly to the BCM.

# **Component Function Check**

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" Distribution with CONSULT. Refer to <u>DLK-228, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item				Condition			
KEY CYL LK-	214/			Lock	: ON		
NET GTL LK-	577			Neutral / Unlock	: OFF		
KEY CYL UN-	C)//			Unlock	: ON		
KET GTL UN-	311			Neutral / Lock	: OFF		
the inspection result normal?							
	y cylinder s						
			nosis Procedure".				
iagnosis P	rocedure	;				INFOID:000000011536648	
egarding Wiri	ng Diagram	n informatio	n. refer to DLK-24	10, "Wiring Diagram	ו".		
- J	5 =		, <u></u>		_		
			WITCH INPUT S	IGNAL			
Turn ignitic	n switch $OI$	NI					
			neator and group	d		1	
			nector and groun	d.			
Check volt			nnector and groun	ıd.			
Check volt	age betwee Terminals	n BCM cor		Voltage (V)			
Check volt	age betwee Terminals		nector and groun				
Check volt	age betwee Terminals Terminal	n BCM cor		Voltage (V)			
Check volt (+) BCM connector	age betwee Terminals	n BCM cor (-)	Key position	Voltage (V) (Approx.)			
Check volt	age betwee Terminals Terminal 8	n BCM cor	Key position	Voltage (V) (Approx.) 0			
Check volt (+) BCM connector	age betwee Terminals Terminal	n BCM cor (-)	Key position Lock Neutral / Unlock	Voltage (V) (Approx.) 0 7.0 - 8.0 V			
Check volt (+) BCM connector M21	age betwee Terminals Terminal 8 7	n BCM cor (–) Ground	Key position Lock Neutral / Unlock Unlock	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0			
Check volt (+) BCM connector M21 the inspectio	age betwee Terminals Terminal  8 7 n result nor	(-) Ground	Key position Lock Neutral / Unlock Unlock Neutral / Lock	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V			
Check volt (+) BCM connector M21 the inspectio YES >> Fro	age betwee Terminals Terminal  8 7 n result nor	(-) Ground	Key position Lock Neutral / Unlock Unlock	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V			
(+) BCM connector M21 the inspectio YES >> Fro NO >> GC	Terminals Terminal Terminal	Ground (-) <u>Ground</u> <u>mal?</u> k key cylinc	Key position Lock Neutral / Unlock Unlock Neutral / Lock	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V 0 K.			
Check volt (+) BCM connector M21 the inspectio YES >> Fro NO >> GC .CHECK DO	Terminals Terminal Terminal	n BCM cor (-) Ground mal? k key cylinc YLINDER S	Key position Lock Neutral / Unlock Unlock Neutral / Lock der switch LH is C	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V 0 K.			
Check volt (+) BCM connector M21 the inspectio YES >> Fro YES >> Fro YES >> GO CHECK DO Turn ignitic Disconnec	age betwee Terminals Terminal 8 7 n result nor ont door loc 0 TO 2 OR KEY CN on switch OI t front door	m BCM cor (-) Ground mal? k key cylinc YLINDER S FF. lock key cy	Key position Lock Neutral / Unlock Unlock Neutral / Lock der switch LH is C SWITCH GROUNI	Voltage (V) (Approx.) 0 7.0 - 8.0 V 0 7.0 - 8.0 V 0K. D CIRCUIT			

Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

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# **KEY CYLINDER SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3

NO >> Repair or replace harness.

**3.**CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Disconnect BCM connector M21.
- 2. Check continuity between front door lock key cylinder switch LH connector and BCM connector M21.

Front door lock key cylin- der switch LH connector	Terminal	BCM connector	Terminal	Continuity	
D9	6	M21	8	Yes	
09	5		7		

3. Check continuity between front door lock key cylinder switch LH connector and ground.

Front door lock key cylin- der switch LH connector	Terminal		Continuity	
D9	6	Ground	No	
D9	5		NO	

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch. Refer to <u>DLK-268</u>, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u>.

NO >> Replace front door lock key cylinder switch LH.

# **Component Inspection**

#### COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

Term	inal		Continuity
Front door loc switch LH		Key position	
6		Lock	Yes
0	4	Neutral / Unlock	No
5		Unlock	Yes
5		Neutral / Lock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock key cylinder switch LH.

# KEY SWITCH (BCM INPUT)

# [WITHOUT INTELLIGENT KEY SYSTEM]

	DIAGNUSI		•	-
KEY SWITC	H (BCM	INPUT)		
Diagnosis Pro	ocedure			INFOID:000000011536650
Regarding Wiring	Diagram inf	ormation, refer to	DLK-231, "Wiring Di	agram".
1				
	SWITCH INF	PUT SIGNAL		
<ul> <li>With CONSUL</li> <li>Check key switch</li> <li><u>CONSULT Func</u></li> <li>When key is inst</li> </ul>	n "KEY ON S <u>ction (BCM -</u>	<u>DOOR LOCK)"</u> .	TOR mode with CO	NSULT. Refer to <u>DLK-228, "DOOR LOCK</u>
KEY ON S	SW	: <b>ON</b>		
		ignition key cylinde	r:	
KEY ON S	sw	: OFF		
Without CONS		connector MO1 tor	minal 27 and group	-
Jneck voltage be	etween BCM	connector M21 ter	minal 37 and groun	3.
Connector	Terminal	Condition	Voltage (V)	-
(+)	(-)			-
M21 37	Ground	Key is inserted. Key is removed.	Battery voltage	
s the inspection	result norma	-		-
YES >> Key s NO >> GO T		t) circuit is OK.		
2.CHECK KEY		SERT)		
1. Turn ignition		02)		
2. Disconnect k	ey switch co	nnector. 1 key switch termin	ale	
5. Check contin	uity between	rkey switch termin	ais.	
Terminals		Condition	Continuity	-
1 – 2		is inserted.	Yes	_
la tha increation	-	is removed.	No	-
Is the inspection YES >> Repa		harness or fuse.		
	ace key swite			

< DTC/CIRCUIT DIAGNOSIS >

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# <u>< DTC/CIRCUIT DIAGNOSIS ></u> DOOR LOCK ACTUATOR DRIVER SIDE

DRIVER SIDE : Description

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

**1.**CHECK FUNCTION

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

2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-270, "DRIVER SIDE : Diagnosis Procedure"</u>.

**DRIVER SIDE : Diagnosis Procedure** 

Regarding Wiring Diagram information, refer to <u>DLK-240, "Wiring Diagram"</u>.

# 1.CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

· · · ·	Terminals			
(+)			Condition of door lock and	Voltage (V)
BCM connector	Terminal	(-)	unlock switch	(Approx.)
M20	64	Ground	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$
10120	66	Giouna	Lock	$0 \rightarrow Battery voltage \rightarrow 0$

Is the inspection result normal?

YES >> GO TO 2

NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM and front door lock actuator driver side connector.

3. Check continuity between BCM connector and front door lock actuator driver side connector.

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M20	64	D9	2	Yes
WZ0	66	53	1	163

#### Is the inspection result normal?

- YES >> Replace front door lock actuator LH.
- NO >> Repair or replace harness.

**3.** Check door lock actuator harness

- 2. Disconnect BCM and front door lock actuator driver side connector.
- 3. Check continuity between BCM connector M20 terminals 64, 66 and ground.

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#### < DTC/CIRCUIT DIAGNOSIS >

Connector		Termina	ais	Continuity			
M20	64 66		Ground	No			
10 >> F	Replace B Repair or r	CM. Ref eplace h	er to <u>BCS-133</u>	. "Removal and	Installation".		
ASSENC ASSENC			scription			INFOID:000000011536654	
ocks/unlock	s the door	with the	e signal from B	SCM.			
ASSENG	ER SID	E : Co	mponent F	Function Che	eck	INFOID:000000011536655	
.CHECK F							
			Active Test ("[	DOOR LOCK").			
Touch "A	LL LOCK	or "ALL	UNLOCK" to	check that it wo	rks normally.		
<u>the inspec</u> YES >> [	<u>lion result</u> Door lock a						
-				R SIDE : Diagno:	<u>sis Procedure"</u> .		
ASSENC	ER SID	E : Dia	agnosis Pro	ocedure		INFOID:000000011536656	
	ïring Diag	ram info	rmation, refer	to <u>DLK-240, "Wi</u>	iring Diagram".		
egarding W .CHECK D	OOR LOC	CK ACTU	rmation, refer JATOR SIGNA onnector and g	AL	iring Diagram".		
egarding W .CHECK D heck voltag	OOR LOC	CK ACTU	JATOR SIGNA	AL	iring Diagram".		Γ
egarding W .CHECK D heck voltag	OOR LOC e betweer erminals	CK ACTU	JATOR SIGNA onnector and g Condition of	AL ground. Voltage (V	/)		
egarding W .CHECK D heck voltag	OOR LOC e betweer erminals	CK ACTU	JATOR SIGNA	AL ground.	/)		
egarding W .CHECK D heck voltag	OOR LOO e betweer <sup>[erminals</sup> Terminal 66	CK ACTU	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock	AL ground. Voltage (V (Approx.) 0 → Battery volta	()		Γ
egarding W .CHECK D heck voltag (+) BCM connector M20	OOR LOC e betweer <sup>-</sup> erminals Terminal 66 67	CK ACTU BCM co (-) Ground	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock Unlock	AL ground. Voltage (V (Approx.)	()		
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect	OOR LOC e betweer <sup>-</sup> erminals Terminal 66 67	CK ACTU BCM co (-) Ground	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock Unlock	AL ground. Voltage (V (Approx.) 0 → Battery volta	()		Ľ
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect YES >> ( NO >> (	OOR LOC e betweer ferminals Terminal 66 67 tion result GO TO 2 GO TO 3	CK ACTU BCM co (-) Ground normal?	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock Unlock	aL ground. Voltage (V (Approx.) 0 → Battery volta 0 → Battery volta	()		Γ
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect YES >> ( NO >> ( .CHECK D	OOR LOC e betweer <sup>Terminals</sup> Terminal 66 67 tion result GO TO 2 GO TO 3 OOR LOC	CK ACTU BCM co (-) Ground normal?	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock Unlock	aL ground. Voltage (V (Approx.) 0 → Battery volta 0 → Battery volta	()		
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect YES >> ( YES >> ( NO >> ( CHECK D Turn igni Disconne	OOR LOC e betweer erminals Terminal 66 67 tion result GO TO 2 GO TO 2 GO TO 3 OOR LOC tion switch ect BCM a	(-) Ground Normal?	JATOR SIGNA onnector and onnector and onnector and onector and onector and one of door lock and unlock switch Lock Unlock	AL ground. Voltage (V (Approx.) 0 → Battery volta 0 → Battery volta JIT	(') age $\rightarrow 0$ age $\rightarrow 0$		I
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect YES >> ( NO >> ( .CHECK D . Turn igni . Disconne . Check co	OOR LOC e betweer erminals Terminal 66 67 tion result GO TO 2 GO TO 2 GO TO 3 OOR LOC tion switch ect BCM a	CK ACTU BCM cd (-) Ground normal? CK ACTU D OFF. nd front etween I	JATOR SIGNA onnector and onnector and onnector and onector and onector and one of door lock and unlock switch Lock Unlock	AL ground. Voltage (V (Approx.) 0 → Battery volta 0 → Battery volta UIT JIT JIT	() $age \rightarrow 0$ $age \rightarrow 0$ extors.		Γ
egarding W .CHECK D heck voltag (+) BCM connector M20 the inspect YES >> ( NO >> ( .CHECK D . Turn igni . Disconne . Check co BCM connec-	OOR LOC e betweer erminals Terminal 66 67 tion result GO TO 2 GO TO 2 GO TO 3 OOR LOC tion switch ect BCM a ontinuity b	CK ACTU BCM cd (-) Ground normal? CK ACTU D OFF. nd front etween I	JATOR SIGNA onnector and g Condition of door lock and unlock switch Lock Unlock JATOR CIRCL door lock actu BCM connector	AL ground. Voltage (V (Approx.) $0 \rightarrow$ Battery volta $0 \rightarrow$ Battery volta JIT JIT JIT JIT Terminal Cor 5	() age $\rightarrow 0$ age $\rightarrow 0$ tors. lock actuator RH.		Γ

#### < DTC/CIRCUIT DIAGNOSIS >

#### NO >> Repair or replace harness.

# **3.**CHECK DOOR LOCK ACTUATOR HARNESS

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and front door lock actuator RH.
- 3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

Ter	minals	Continuity
66	Ground	No
67	Ground	INO .

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-133, "Removal and Installation"</u>. NO >> Repair or replace harness.

# REAR LH

# REAR LH : Description

Locks/unlocks the door with the signal from BCM.

# REAR LH : Component Function Check

# **1.**CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.
- Is the inspection result normal?
- YES >> Door lock actuator is OK.
- NO >> Refer to <u>DLK-272</u>, "REAR LH : Diagnosis Procedure".
- **REAR LH : Diagnosis Procedure**

Regarding Wiring Diagram information, refer to <u>DLK-240, "Wiring Diagram"</u>.

# 1. CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

	Terminals				
(+)			Condition of door lock and	Voltage (V)	
BCM connector	Terminal	(-)	unlock switch	(Approx.)	
M20	66	Ground	Lock	$0 \rightarrow Battery voltage \rightarrow 0$	
IVI20	67	Giouna	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$	

Is the inspection result normal?

YES >> GO TO 2

NO >> GO TO 3

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM and rear door lock actuator LH connectors.

3. Check continuity between BCM connector and rear door lock actuator LH connectors.

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2015 Sentra NAM

[WITHOUT INTELLIGENT KEY SYSTEM]

#### **DLK-272**

# DOOR LOCK ACTUATOR

# [WITHOUT INTELLIGENT KEY SYSTEM]

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity			
M20	66	– D202	1	Yes			
W20	67	- D202	2	163			
Is the inspectio	n result nor	mal?					
NO >> Re	pair or repla	door lock actuator ace harness.					
3.CHECK DO	OR LOCK /	ACTUATOR HAR	NESS				
1. Turn ignitio							
		rear door lock act een BCM connec			' and ground		
o. Oncor com					and ground.		
Te	erminals		Continuity	/			
66	0		No				
67	- Grou	Ind	No				
Is the inspectio YES >> Re		<u>mal?</u> . Refer to <u>BCS-13</u>	2 "Domov"	al and Insta	ation"		
		ace harness.		ai anu insta	<u>allOIT</u> .		
REAR RH							
REAR RH :	Descripti	ion					
	•					INFOID:000000011536660	
Locks/unlocks t	the door wit	th the signal from	BCM.				
REAR RH :	Compon	ent Function	Check			INFOID:000000011536661	
1.CHECK FUR							
		form Active Test ( "ALL UNLOCK" t			mally	ſ	
Is the inspectio					indiry:		
		uator is OK.					
NO >> Re	fer to <u>DLK-</u>	<u>273, "REAR RH :</u>	Diagnosis I	Procedure".			
REAR RH :	Diagnosi	is Procedure				INFOID:000000011536662	
	J						
				o			
Regarding Wiri	ng Diagram	n information, refe	r to <u>DLK-24</u>	U, "Wiring L	<u>agram"</u> .		

# 1. CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

	Terminals				
(+	(+)		Condition of door lock and	Voltage (V)	
BCM connector	Terminal	()	unlock switch	(Approx.)	
M20	66	Ground	Lock	$0 \rightarrow Battery voltage \rightarrow 0$	
IVIZU	67	Giounu	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$	

#### Is the inspection result normal?

YES >> GO TO 2 NO >> GO TO 3 Ν

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#### < DTC/CIRCUIT DIAGNOSIS >

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and rear door lock actuator RH connectors.
- 3. Check continuity between BCM connector and rear door lock actuator RH connectors.

BCM connector	Terminal	Door lock actuator connector	Terminal	Continuity
M20	66	D302	5	Yes
IVIZU	67	0302	6	163

Is the inspection result normal?

- YES >> Replace rear door lock actuator RH.
- NO >> Repair or replace harness.

# $\mathbf{3}$ .check door lock actuator harness

1. Turn ignition switch OFF.

2. Disconnect BCM and rear door lock actuator RH.

3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

Ter	minals	Continuity
66	Ground	No
67	Giouna	NO

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-133</u>, "Removal and Installation".

NO >> Repair or replace harness.

# REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

# REMOTE KEYLESS ENTRY RECEIVER

### Description

Receives keyfob operation and transmits to BCM.

**Component Function Check** 

# 1.CHECK FUNCTION

#### With CONSULT

Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

Monitor item	Condition
KEYLESS LOCK	Checks whether value changes from "Off" to "On" when operating keyfob lock button.
KEYLESS UNLOCK	Checks whether value changes from "Off" to "On" when operating keyfob unlock button.
KEYLESS PANIC	Checks whether value changes from "Off" to "On" when operating keyfob panic button.

#### Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to DLK-275, "Diagnosis Procedure".

### **Diagnosis** Procedure

Regarding Wiring Diagram information, refer to DLK-231. "Wiring Diagram".

# 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check signal between remote keyless entry receiver connector and ground with oscilloscope.

Ter	rminals				DL
(+)			Condition	Signal	
Remote keyless entry receiver connector	Terminal	()		(Reference value)	L
			Key inserted into ignition key cylinder	0 V	
M131	2	Ground	Waiting	(V) 64 20 •••••••••••••••••••••••••••••••••••	M N O
			When signal is received	(V) 6 2 0 ••••1.0ms ••••1.0ms •••••1.0ms ••••••••••••••••••••••••••••••••••••	Ρ

Is the inspection result normal?

YES >> GO TO 7

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# **REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

# NO >> GO TO 2

# 2. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

- 1. Disconnect remote keyless entry receiver connector.
- 2. Check signal between remote keyless entry receiver connector and ground with oscilloscope.

Te	Terminals				
(+)				Signal	
Remote keyless en- try receiver connec- tor	Terminal	()	Condition	(Reference value)	
			Key inserted into ignition key cylinder	0 V	
			Key removed from ignition key cylinder (Any door open)	5 V	
M131	4	Ground	Key removed from ignition key cylinder (Any door closed)	(V) 6 4 2 0 •••0,2 S JPMIA0338JP	

#### Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 3

# **3.**CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

1. Disconnect BCM connector.

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

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	19	M131	4	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M21	19		No

Is the inspection result normal?

YES >> Reconnect BCM, GO TO 4

NO >> Repair or replace harness between BCM and remote keyless entry receiver.

#### ${f 4}.$ CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver connector and ground.

Remote keyless entry receiver connector	Terminal	Ground	Continuity
M131	1		Yes

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

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

# REMOTE KEYLESS ENTRY RECEIVER

#### < DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	18	M131	1	Yes

Is the inspection result normal?

YES >> GO TO 7

NO >> Repair or replace harness between BCM and remote keyless entry receiver.

6.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 3

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

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M21	20	M131	2	Yes

2. Check continuity between BCM connector and ground.

3CM connector Terminal Cround	Continuity
M21 20 Ground	No

Is the inspection result normal?

YES >> GO TO 7

NO >> Repair or replace harness between BCM and remote keyless entry.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

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# **KEYFOB BATTERY AND FUNCTION**

#### < DTC/CIRCUIT DIAGNOSIS >

# **KEYFOB BATTERY AND FUNCTION**

### Description

The following functions are available when having and carrying the keyfob.

- Door lock/unlock
- Panic mode (horn and headlamp operation)
- Remote control entry function and panic alarm function are available when operating the remote buttons.

#### Component Function Check

#### 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 keyfob relative signal strength
- · Confirm vehicle antenna signal strength

#### **1.**CHECK FUNCTION

#### With CONSULT

Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

Monitor item	Condition
KEYLESS LOCK	Checks whether value changes from "Off" to "On" when operating keyfob lock button.
KEYLESS UNLOCK	Checks whether value changes from "Off" to "On" when operating keyfob unlock button.
KEYLESS PANIC	Checks whether value changes from "Off" to "On" when operating keyfob panic button.

#### Is the inspection result normal?

YES >> Keyfob is OK. NO >> Refer to DLK-278, "Diagnosis Procedure".

# Diagnosis Procedure

#### 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.

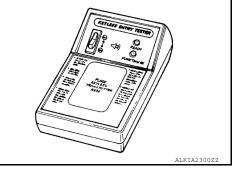
- Check keyfob relative signal strength
- Confirm vehicle antenna signal strength

**1.**CHECK KEYFOB FUNCTION

Check keyfob function using Signal Tech II Tool [– (J-50190)] or Remote Keyless Entry Tester [– (J-43241)] (shown).

#### Does the test pass?

YES >> Keyfob is OK. NO >> GO TO 2



# 2. CHECK KEYFOB COMPONENTS

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# **KEYFOB BATTERY AND FUNCTION**

#### < DTC/CIRCUIT DIAGNOSIS >

- 1. Remove the screw (A).
- 2. Insert a small screwdriver into the slit of the corner (B) and twist it to separate the upper part from the power part. Use a cloth to protect the casing.

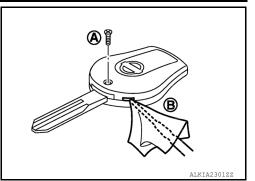
#### CAUTION:

- Do not touch the circuit board or battery terminal.
- The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. Remove the keyfob battery.
  - **CAUTION:**
  - Keep dirt, grease, and other foreign materials off the electrode contact area.
- 4. Visually inspect keyfob internal components.
- Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace malfunctioning parts.

**3.**CHECK KEYFOB BATTERY



[WITHOUT INTELLIGENT KEY SYSTEM]

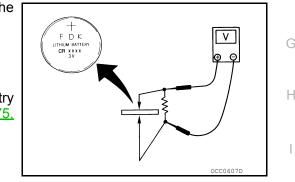
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# Check by connecting a resistance (approximately $300\Omega$ ) so that the current value becomes about 10 mA.

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

Is the measurement value within specification?

YES >> Keyfob battery is OK. Check remote keyless entry receiver. Refer to <u>DLK-275.</u> <u>"Component Function Check"</u>.

NO >> GO TO 4

# **4.** REPLACE KEYFOB BATTERY

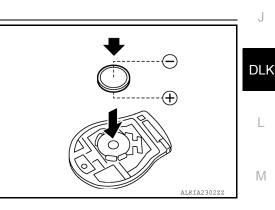
 Replace the keyfob battery with a new one (CR1620 or equivalent).

#### CAUTION:

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- Make sure that the + side faces the bottom of the case.
  Align the tips of the upper and lower parts, and then push them
- Align the tips of the upper and lower parts, and then push then together until it is securely closed.
- After replacing the battery, check that all keyfob functions work properly.

#### Is the inspection result normal?

- YES >> Keyfob is OK.
- NO >> Check remote keyless entry receiver. Refer to <u>DLK-275, "Component Function Check"</u>.



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# HORN FUNCTION

# Description

Perform answer-back for each operation with horn.

### **Component Function Check**

# 1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT.

2. Check the horn operation.

Test item		Description	
HORN	ON	Horn relay	ON (for 20 ms)

#### Is the operation normal?

YES >> Inspection End. NO >> Refer to <u>DLK-280</u>, "Diagnosis Procedure".

# Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-231, "Wiring Diagram"</u>.

# **1.**CHECK HORN FUNCTION

Check horn function with horn switch.

#### Does the horn sound?

YES >> GO TO 2

NO >> Refer to <u>HRN-3, "Wiring Diagram"</u>.

2. CHECK HORN RELAY POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT.
- 3. Using an oscilloscope or analog voltmeter to check voltage between IPDM E/R connector and ground.

IPDI	M E/R	Ground		Test item	Voltage (V)
Connector	Terminal	Ground	iest item		(Approx.)
E46	48	Ground	HORN	ON	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage
L+0		Ground	HORN	Other than above	Battery voltage

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace IPDM E/R. Refer to <u>PCS-60, "Removal and Installation"</u>.

# 3.CHECK HORN RELAY CIRCUIT

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

IPD	M E/R	Horn	Continuity	
Connector	Terminal	Connector Terminal		Continuity
E46	48	H-1	1	Yes

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

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# HORN FUNCTION

#### < DTC/CIRCUIT DIAGNOSIS >

	IPDN	M E/R	- Ground	Continuity
Cor	nnector	Terminal	Ground	Continuity
	E46	48	Ground	No
Is the ir	nspection r	esult normal?		
YES NO	>> GO T >> Rena	O 4 ir or replace harne	266	
-	•			
		ntermittent Inciden		
		esult normal?	<u></u> .	
YES	>> Repla	ce IPDM E/R. Re	fer to <u>PCS-60, "</u>	Removal and In
NO	>> Repa	ir or replace the m	nairunctioning pa	art.

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# TRUNK LID OPENER ACTUATOR

Component Function Check

# **1.**CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select TRUNK/GLASS HATCH in ACTIVE TEST mode.
- 3. Touch OPEN to check that it works normally.

### Is the inspection result normal?

- YES >> Trunk lid opener actuator is OK.
- NO >> Refer to <u>DLK-282</u>, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:000000011536673

Regarding Wiring Diagram information, refer to DLK-248, "Wiring Diagram".

# 1. CHECK TRUNK LID OPENER INPUT SIGNAL

#### 1. Turn ignition switch OFF.

- 2. Disconnect trunk lid opener assembly connector.
- 3. Check voltage between trunk lid opener assembly harness connector and ground.

	(+) Trunk lid opener assembly		Condition	Voltage (Approx.)
Connector	Terminal			
B59	3	Ground	Trunk lid opener switch is ON	12 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

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

BCM		Trunk lid ope	Continuity	
Connector	Terminal	Connector Terminal		Continuity
B57	55	B59	3	Yes

3. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Terminal	Ground	Continuity
B57	55		No

#### Is the inspection result normal?

- YES >> Replace BCM. Refer to <u>BCS-133, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

# **3.**CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

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

# TRUNK LID OPENER ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

	Trunk lid opener assembly			Continuity	А
	Connector	Terminal	Ground	Continuity	
	B59	2	-	Yes	_
Is th	e inspection normal?			•	В

YES >> Replace trunk lid opener assembly.

NO >> Repair or replace harness.

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# TRUNK LID OPENER SWITCH

# **Component Function Check**

# **1.**CHECK FUNCTION

- 1. Select TRUNK of BCM using CONSULT.
- 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	Trunk lid opener switch	Pressed	On
HUBB OF EN SW		Released	Off

#### Is the inspection result normal?

- YES >> Trunk lid opener switch is OK.
- NO >> Refer to <u>DLK-284, "Diagnosis Procedure"</u>.

### **Diagnosis** Procedure

INFOID:000000011536675

Regarding Wiring Diagram information, refer to DLK-248, "Wiring Diagram".

# 1. CHECK TRUNK LID OPENER INPUT SIGNAL

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

(+) Trunk lid opener switch		()	Signal (Reference value)
Connector	Terminal		
M15	1	Ground	(V) 15 10 5 10 ms JPMIA0012GB

Is the inspection result normal?

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

# 2. CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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

B	BCM Trunk lid		pener switch	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M21	30	M15	1	Yes	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M21	30		No

# 

	TRUNK LID OP	ENER SWITCH	
< DTC/CIRCUIT DIAGNOSI	S >	[WITHOUT INTI	ELLIGENT KEY SYSTEM]
Is the inspection result norma	<u> ?</u>		
	efer to <u>BCS-133, "Remov</u>	al and Installation".	
NO >> Repair or replace			
<b>3.</b> CHECK TRUNK LID OPE	NER SWITCH GROUND	CIRCUIT	
Check continuity between tru	nk lid opener switch harne	ess connector and ground.	
Trunk lid ope	ener switch		Continuity
Connector	Terminal	Ground	Continuity
M15	2		Yes
Is the inspection result normal         YES       >> GO TO 4.         NO       >> Repair or replace <b>4</b> .CHECK TRUNK LID OPEL         Refer to DLK-285, "Compone         Is the inspection result normal         YES       >> GO TO 5.         NO       >> Replace trunk lid <b>5</b> .CHECK INTERMITTENT I         Refer to GI-40, "Intermittent Intermittent Intermi	e harness. NER SWITCH <u>int Inspection"</u> . <u>I?</u> opener switch. NCIDENT		E F
>> Inspection End. Component Inspection			INFOID:000000011536676
1.CHECK TRUNK LID OPE	NER SWITCH		
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect trunk lid oper</li> <li>Check continuity between</li> </ol>		erminals.	,

Trunk lid opener switch		Condition		Continuity	DLK
Terr	Terminal		Condition		
1	2	Truck lid opporer owitch	Pressed	Yes	-
Ι	2	Trunk lid opener switch	Release	No	- L

Is the inspection result normal?

YES

>> Inspection End.>> Replace trunk lid opener switch. NO

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# TRUNK LAMP SWITCH

### Description

Detects trunk open/close condition.

**Component Function Check** 

# 1.CHECK FUNCTION

#### (I) With CONSULT

Check TRNK/HAT MNTR in Data Monitor mode with CONSULT.

Monitor item		Condition	
TRNK/HAT MNTR	OPEN	: ON	
	CLOSE	: OFF	

Is the inspection result normal?

YES >> Trunk lid switch is OK.

NO >> Refer to DLK-286, "Diagnosis Procedure".

# **Diagnosis** Procedure

INFOID:0000000011536679

Regarding Wiring Diagram information, refer to DLK-248. "Wiring Diagram".

# 1. CHECK TRUNK LID SWITCH INPUT SIGNAL

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

	Terminals			
(+)			Trunk	Voltage (V)
BCM connector	Terminal	(—)	(–) condition	(Approx.)
			OPEN	0
B57	51	Ground	CLOSE	(V) 15 15 15 15 15 15 15 15 15 15

#### Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

2. CHECK TRUNK LID SWITCH CIRCUIT

1. Disconnect BCM and trunk lid opener assembly connector.

2. Check continuity between BCM connector and trunk lid opener assembly connector.

BCM connector	Terminal	Trunk lid opener as- sembly connector	Terminal	Continuity
B57	51	B59	1	Yes

3. Check continuity between BCM connector and ground.

INFOID:000000011536677

# **TRUNK LAMP SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

### [WITHOUT INTELLIGENT KEY SYSTEM]

BCM connector	Terminal		Continuity	A
BCM connector	51	Ground	No	
Is the inspection resu				
YES >> GO TO 3	} r replace harness		M and trunk lid op IT	bener assembly.
Check continuity bet				
			,	
Trunk lid opener as- sembly connector	Terminal	Ground	Continuity	D
B59	2		Yes	E
Is the inspection result         YES       >> GO TO 4         NO       >> Repair o         4.CHECK BCM OUT         1. Ensure trunk lid         2. Connect BCM cc         3. Check voltage be	r replace trunk lic TPUT SIGNAL remains closed d onnector.	uring this step		iit. F G
	Termina	ls		н
	(+)			Voltage (V)
BCM connector	Termina	al	(-)	(Approx.)
B57	51		Ground	(V) 15 10 5 0 • • 10ms PKIB4960J 7.0 - 8.0V
Is the inspection resu	Ilt normal?			
YES >> GO TO 5	5	CS 122 "Dom	noval and Installat	Lion"
5.CHECK TRUNK L		<u>00-100, Ken</u>	ioval and installat	
Refer to <u>DLK-287</u> , "C <u>Is the inspection resu</u> YES >> GO TO 6	Component Inspe Ilt normal? S trunk lid opener a	assembly.		N N
Refer to GI-40, "Inter	mittent Incident".			0
>> Inspection	on End.			P
Component Insp	ection			INFOID:000000011536680
1.CHECK TRUNK L	ID SWITCH			
<ol> <li>Turn ignition swift</li> <li>Disconnect trunk</li> <li>Check trunk lid s</li> </ol>	lid opener asser	nbly connecto	r.	

Terminal		- Trunk condition	Continuity
Trunk lid switch			
1	2	OPEN	Yes
		CLOSE	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace trunk lid opener assembly.

## WARNING CHIME FUNCTION

# [WITHOUT INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > WARNING CHIME FUNCTION А Description INFOID:000000011536681 Performs operation method guide and warning with buzzer. В **Component Function Check** INFOID:000000011536682 **1.**CHECK FUNCTION (R) With CONSULT 1. Check the operation with "BUZZER" in the Active Test. D Touch "IGN KEY WARN ALM", "SEAT BELT WARN TEST" or "LIGHT WARN ALM" on screen. 2. Is the inspection result normal? YES >> Warning buzzer into combination meter is OK. Е NO >> Refer to DLK-289, "Diagnosis Procedure". **Diagnosis** Procedure INFOID:000000011536683 F 1.CHECK METER BUZZER CIRCUIT Operate the hazard lights by turning ON the hazard warning switch. Is the inspection result normal? YES >> GO TO 2 NO >> Replace combination meter. Refer to MWI-77, "Removal and Installation". 2. CHECK INTERMITTENT INCIDENT Н Refer to GI-40, "Intermittent Incident". >> Inspection End. DLK Μ Ν Ο

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# < DTC/CIRCUIT DIAGNOSIS >

# Description

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

Component Function Check

1.CHECK FUNCTION

Check hazard warning lamp ("FLASHER") in Active Test.

#### Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-290, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

1. CHECK HAZARD SWITCH CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace hazard warning switch circuit. Refer to EXL-130. "Removal and Installation".

2. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> Inspection End.

INFOID:000000011536684

INFOID:000000011536685

INFOID:000000011536686

#### < DTC/CIRCUIT DIAGNOSIS >

# **KEYFOB ID SET UP WITH CONSULT**

#### ID Code Entry Procedure

# KEYFOB ID SET UP WITH CONSULT

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory when an additional code is registered, only the oldest code is erased. If less than five codes are stored in memory when an additional code is registered, the new ID code is added and no ID codes are erased.
- Entry of a maximum of five ID codes is allowed. When more than five codes are entered, the oldest ID code will be erased.
- Even if the same ID code that is already in memory is input, the same ID code can be entered. The code is counted as an additional code.
- 1. Turn ignition switch ON.
- 2. Select BCM.
- 3. Select MULTI REMOTE ENT.
- 4. Select WORK SUPPORT.
- 5. You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT instructions:
  - REMO CONT ID REGIST
     Use this mode to register a keyfob ID code.
     NOTE:
     Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.
  - REMO CONT ID ERASUR
  - Use this mode to erase a keyfob ID code. • REMO CONT ID CONFIR
    - Use this mode to confirm if a keyfob ID code is registered or not.

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INFOID:0000000011536687

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#### < DTC/CIRCUIT DIAGNOSIS >

# **KEYFOB ID SET UP WITHOUT CONSULT**

# ID Code Entry Procedure

# KEYFOB ID SET UP WITHOUT CONSULT

Close all doors.	
Insert key into and remove it from ignition key cylinder more than six times within 10 seconds. (Hazard warning lamps will then flash twice.) NOTE • Withdraw key completely from ignition key cylinder each time. • If procedure is performed too fast, system will not enter registration mode.	
Insert key into ignition key cylinder and turn to ACC position.	
Push any button on keyfob once. (Hazard warning lamps will then flash twice.) At this time, the oldest ID code is erased and the new ID code is entered.	
Do you want to enter any additional keyfob ID codes? A maximum five ID codes can be entered. If more than five ID codes are entered, the oldest ID code will be erased.	
No Yes	
ADDITIONAL ID CODE ENTRY Unlock the door, then lock again with lock/unlock switch driver side (in power window main switch). NOTE Perform this procedure even if the door is in the un-lock state.	
Push any button on keyfob once. (Hazard warning lamps will then flash twice). At this time. The oldest ID code is erased and the new ID code is entered.	
A maximum of five ID codes can be entered. If more than five ID	
Codes are entered, the oldest ID code will be erased. Do you want to enter any additional keyfob ID codes?	
Yes	
ADDITIONAL ID CODE ENTRY Unlock the door, then lock again with lock/unlock switch driver side (in power window main switch).	
Open driver side door. (END) After entering ID code, check operation of remote keyless entry system.	

NOTE:

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If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller

INFOID:000000011536688

# **KEYFOB ID SET UP WITHOUT CONSULT**

# < DTC/CIRCUIT DIAGNOSIS >

# [WITHOUT INTELLIGENT KEY SYSTEM]

<ul> <li>To erase all ID codes in memory, register one ID code (keyfob) five times. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.</li> <li>When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.</li> <li>If you need to activate more than two additional new keyfobs, repeat the procedure "Additional ID code entry" for each new keyfob <u>DLK-291, "ID Code Entry Procedure"</u> (with CONSULT), <u>DLK-292, "ID Code Entry Procedure"</u> (without CONSULT).</li> <li>A maximum amount of five ID codes is allowed. When more than five ID codes are entered, the oldest ID</li> </ul>	A B C
<ul> <li>A maximum amount of five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.</li> <li>Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.</li> </ul>	D
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# SYMPTOM DIAGNOSIS

# POWER DOOR LOCK SYSTEM SYMPTOMS

# Symptom Table

INFOID:000000011536689

# DOOR LOCK/UNLOCK FUNCTION MALFUNCTION

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-252, "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Symptom	Diagnosis/service procedure			Reference page
Key reminder door function does not operate		Check door switch.	DLK-260	
		Check key switch.		DLK-269
property.	3.	Check Intermittent Incident.		<u>GI-40</u>
Dewerdeer leek deer net energte with deer	1.	Check BCM power supply and groun	d circuit.	BCS-126
Power door lock does not operate with door lock and unlock switch on main power window	2.	Check main power window and door	lock and unlock switch.	DLK-263
and door lock/unlock switch or power window	3.	Check power window and door lock a	and unlock switch RH.	DLK-264
and door lock/unlock switch RH.	4.	Check Intermittent Incident.		<u>GI-40</u>
			Driver side	DLK-270
	1	Check door lock actuator.	Passenger side	DLK-271
Specific door lock actuator does not operate.	1.		Rear LH	DLK-272
			Rear RH	DLK-273
	2.	Check Intermittent Incident.	<u>GI-40</u>	
Power door locks do not operate with front		I. Check key cylinder switch.		DLK-267
door lock key cylinder switch LH.	2.	Replace BCM.	<u>BCS-133</u>	
Vehicle speed sensing auto door LOCK oper-		<ol> <li>Ensure automatic door lock/unlock function (lock operation) is enabled.</li> </ol>		<u>DLK-221</u>
ation does not operate.	2. Check combination meter vehicle speed signal.			<u>MWI-49</u>
	3. Check intermittent incident.			<u>GI-40</u>
Ignition OFF interlock auto door UNLOCK		Ensure automatic door lock/unlock fu tion) is enabled.	nction (unlock opera-	<u>DLK-221</u>
function does not operate.	2. Check BCM for DTCs.			BCS-113
	3.	Check intermittent incident.	<u>GI-40</u>	

## REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS NOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

# < SYMPTOM DIAGNOSIS >

# REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

# Symptom Table

INFOID:000000011536690

# REMOTE KEYLESS ENTRY SYSTEM

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Symptom	Diagnoses/service procedure	Reference page
All functions of remote keyless entry system do not operate.	1. Keyfob battery and function check use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)] <b>NOTE:</b> If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	<u>DLK-278</u>
	2. Check BCM and remote keyless entry receiver.	<u>DLK-275</u>
The new ID of keyfob cannot be entered.	1. Keyfob battery and function check use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)] <b>NOTE:</b> If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	<u>DLK-278</u>
	2. Door switch check	DLK-260
	3. ACC power check	BCS-126
	4. Replace BCM.	BCS-133
Door lock or unlock does not function. (If the power door lock system does not operate manually, check power door lock system)	1. Keyfob battery and function check use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)] <b>NOTE:</b> If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	<u>DLK-278</u>
	2. Replace BCM.	BCS-133
Hazard and horn reminder does not activate properly when pressing lock or unlock button of keyfob.	<ol> <li>Check hazard and horn reminder mode with CONSULT NOTE:</li> <li>Hazard and horn reminder mode can be changed.</li> <li>First check the hazard and horn reminder mode setting.</li> </ol>	DLK-224
	2. Door switch check	DLK-260
	3. Replace BCM.	BCS-133
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob.	<ol> <li>Check hazard reminder mode with CONSULT NOTE: Hazard reminder mode can be changed. First check the hazard reminder mode setting.</li> </ol>	<u>DLK-224</u>
(Horn reminder OK)	2. Check hazard function with hazard switch	_
	3. Replace BCM.	BCS-133
Horn reminder does not activate properly when	1. Check horn reminder mode with CONSULT <b>NOTE:</b> Horn reminder mode can be changed. First check the horn reminder mode setting.	<u>DLK-224</u>
pressing lock or unlock button of keyfob. (Hazard reminder OK)	2. Check horn function with horn switch	_
-	3. IPDM E/R operation check	PCS-37
	4. Replace BCM.	BCS-133
	1. Room lamp operation check	<u>INL-8</u>
Room lamp illumination does not operate properly.	2. Door switch check	DLK-260
	3. Replace BCM.	BCS-133

# REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

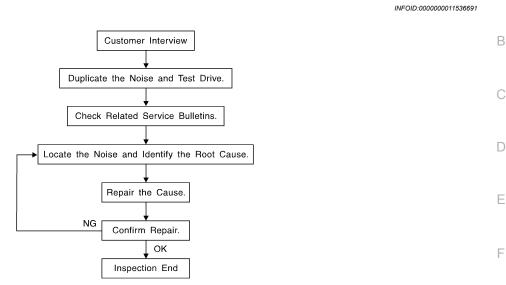
# [WITHOUT INTELLIGENT KEY SYSTEM]

Symptom	Diagnoses/service procedure	Reference page
Panic alarm (horn and headlamp) does not activate when panic alarm button is continuously pressed.	1. Keyfob battery and function check use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)] <b>NOTE:</b> If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	DLK-278
	2. ACC power check	PCS-37
	3. Replace BCM.	BCS-133
Auto door lock operation does not activate properly. (All other remote keyless entry functions OK.)	1. Check auto door lock operation mode with CONSULT <b>NOTE:</b> Auto door lock operation mode can be changed. First check the auto door lock operation mode setting.	<u>DLK-221</u>
	2. Replace BCM.	<u>BCS-133</u>

# < SYMPTOM DIAGNOSIS >

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

# Work Flow



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[WITHOUT INTELLIGENT KEY SYSTEM]

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#### 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 H customer's comments; refer to <u>DLK-301</u>, "<u>Diagnostic Worksheet</u>". 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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#### < SYMPTOM DIAGNOSIS >

# [WITHOUT INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T 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-298, "Generic Squeak and Rattle Troubleshooting"</u>.

#### 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:000000011536692

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

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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[WITHOUT INTELLIGENT KEY SYSTEM]

#### < SYMPTOM DIAGNOSIS >

#### 1. Cluster lid A and the instrument panel А Acrylic lens and combination meter housing 3. Instrument panel to front pillar finisher Instrument panel to windshield 5. Instrument panel pins 6. Wiring harnesses behind the combination meter 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 har-D ness. **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. Ε CENTER CONSOLE Components to pay attention to include: Shift selector assembly cover to finisher 2. 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: Н Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher 2. Wiring harnesses tapping Door striker out of alignment causing a popping noise on starts and stops 4. 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 DLK 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 2. 3. The trunk lid torsion bars knocking together 4. A loose license plate or bracket M Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise. Ν SUNROOF/HEADLINING Noises in the sunroof/headlining area can often be traced to one of the following: 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise 2. Sun visor shaft shaking in the holder Front or rear windshield touching headlining and squeaking 3. Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these P 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. In addition look for: 1. Loose harness or harness connectors.

2. Front console map/reading lamp lens loose.

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#### < SYMPTOM DIAGNOSIS >

#### 3. 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:

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

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

#### UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component installed to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator installation pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine rpm or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

# SQUEAK AND RATTLE TROUBLE DIAGNOSES < SYMPTOM DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

# Diagnostic Worksheet

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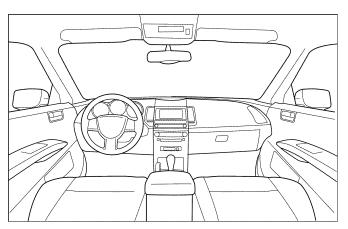
#### Dear Customer:

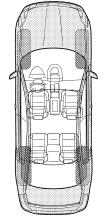
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

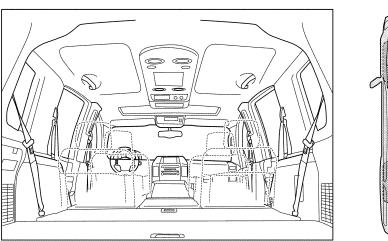
#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### 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.

LAIA0072E

#### < SYMPTOM DIAGNOSIS >

### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

**II. WHEN DOES IT OCCUR?** (please check the boxes that apply) Anytime After sitting out in the rain 1 st time in the morning When it is raining or wet Only when it is cold outside Dry or dusty conditions Other: Only when it is hot outside **III. WHEN DRIVING: IV. WHAT TYPE OF NOISE** Through driveways Squeak (like tennis shoes on a clean floor) Over rough roads Creak (like walking on an old wooden floor) Over speed bumps Rattle (like shaking a baby rattle) Only about mph Knock (like a knock at the door) On acceleration Tick (like a clock second hand) Coming to a stop Thump (heavy muffled knock noise) On turns: left, right or either (circle) Buzz (like a bumble bee) With passengers or cargo Other: After driving miles or minutes

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

	YES	NO	Initials of person performing
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm rep	□ □ air □		
	Customer Name Date:		

This form must be attached to Work Order

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### [WITHOUT INTELLIGENT KEY SYSTEM]

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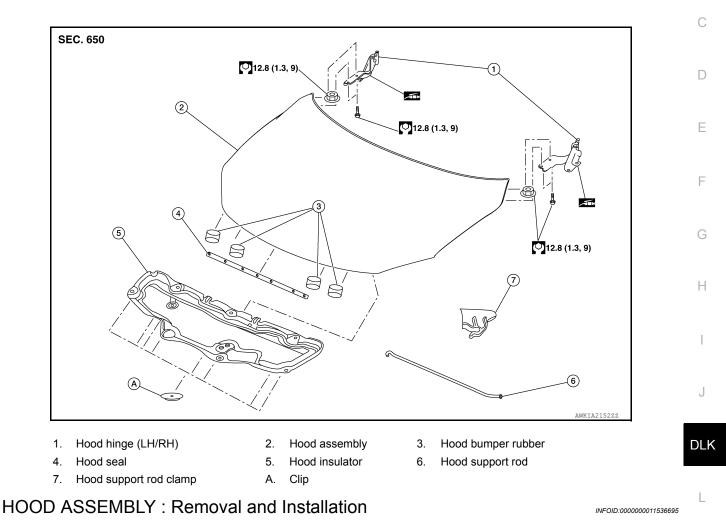
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INFOID:000000011536694

# < REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION HOOD HOOD ASSEMBLY

HOOD ASSEMBLY : Exploded View



#### **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 the hood assembly using a suitable tool.

#### WARNING:

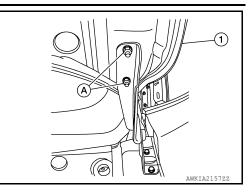
Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

2. Disconnect front washer nozzle and tube.

# HOOD

# < REMOVAL AND INSTALLATION >

3. Remove hood hinge to hood nuts (A) and then remove the hood assembly (1).



#### INSTALLATION

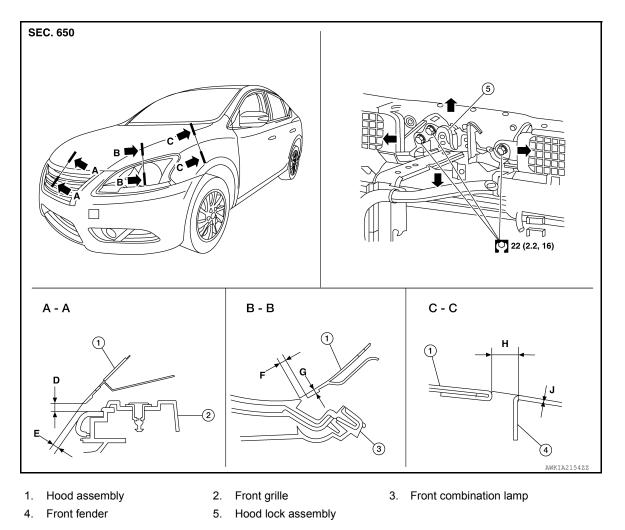
Installation is in the reverse order of removal.

Tighten hood hinge to hood nuts to specified torque. Refer to <u>DLK-156, "HOOD ASSEMBLY : Exploded View"</u>. CAUTION:

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-304</u>, "HOOD <u>ASSEMBLY : Adjustment"</u>.

HOOD ASSEMBLY : Adjustment

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Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

#### [WITHOUT INTELLIGENT KEY SYSTEM]

					Unit: mm (in	)
Section	Item	Measurement	Standard	Parallelism	Equality	A
A – A	D	Clearance	6.2 ±2.2 (0.24 ±0.09)	2.0	—	
	E	Surface height	—	—	—	В
B – B	F	Clearance	3.5 ±2.0 (0.14 ±0.08)	2.0	3.0	D
0-0	G	Surface height	3.6 ±2.0 (0.14 ±0.08)	2.0	2.0	
C – C	Н	Clearance	3.7 ±1.0 (0.15 ±0.04)	2.0	2.0	С
0-0	J	Surface height	0.0 ±1.0 (0.00 ±0.04)	_	—	

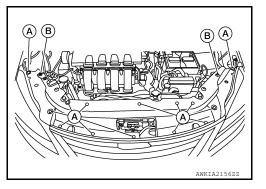
#### CLEARANCE ADJUSTMENT

1. Loosen hood hinge (LH/RH) nuts and bolts.

NOTE:

The anticorrosive agent applied between the hoodledge and the hood hinges also acts as an adhesive. This seal must be broken before the hinges will move.

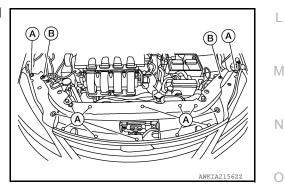
2. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.



- 3. Loosen the hood lock assembly bolts.
- Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to <u>DLK-156. "HOOD ASSEMBLY :</u> <u>Exploded View"</u>.
- 5. Tighten the hood lock assembly bolts to specified torque. Refer to <u>DLK-161, "HOOD LOCK CONTROL :</u> <u>Exploded View"</u>.
- 6. Install the radiator core support upper cover.

#### HEIGHT ADJUSTMENT

1. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.



2. Loosen the hood lock assembly bolts.

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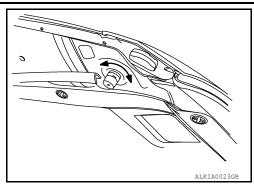
# HOOD

## < REMOVAL AND INSTALLATION >

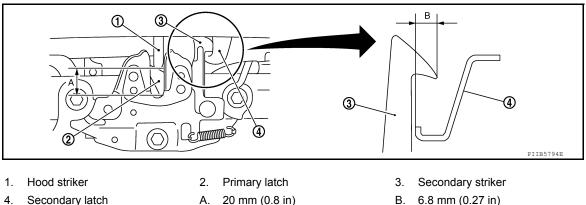
### [WITHOUT INTELLIGENT KEY SYSTEM]

3. Adjust the surface height of the hood assembly to front bumper fascia and front fender according to the specified values by rotating the hood bumper rubbers. NOTE:

Only one hood bumper rubber shown for clarity.



- Temporarily tighten the hood lock assembly bolts. 4.
- 5. Adjust (A) and (B) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.9 in) height or by pressing hood lightly [approximately 29 Nm (3.0 kg-m, 21 ft-lb)].



4. Secondary latch

- В. 6.8 mm (0.27 in)
- 6. After adjustment, tighten hood hinge nuts and bolts to the specified torgue. Refer to DLK-156, "HOOD ASSEMBLY : Exploded View".
  - **CAUTION:**
  - Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.
  - After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.
- 7. Tighten the hood lock assembly bolts to specified torque.
- 8. Install the radiator core support upper cover.
- 9. If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to DLK-167, "Adjustment".

# HOOD HINGE

# HOOD HINGE : Removal and Installation

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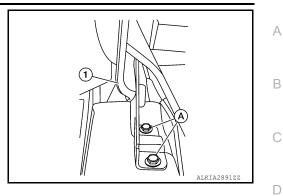
#### REMOVAL

- Remove the fender protector. Refer to EXT-29, "FENDER PROTECTOR : Removal and Installation -1. Front Fender Protector".
- Remove the core support upper cover. Refer to <u>HA-39</u>, "Exploded View".
- Remove the front fascia. Refer to <u>EXT-18, "Removal and Installation"</u>.
- Remove the front combination lamp. Refer to EXL-120, "Removal and Installation".
- 5. Remove the front fender. Refer to <u>DLK-166, "Removal and Installation"</u>.

# HOOD

# < REMOVAL AND INSTALLATION >

6. Remove hood hinge bolts (A) and hood hinge (1).



INSTALLATION Installation is in the reverse order of removal. Tighten bolts to specified torque. Refer to <u>DLK-156, "HOOD ASSEMBLY : Exploded View"</u> . CAUTION:	E
<ul> <li>Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.</li> <li>After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-304</u>, "HOOD ASSEM- <u>BLY : Adjustment"</u>.</li> </ul>	F
HOOD SUPPORT ROD	G
HOOD SUPPORT ROD : Removal and Installation	
REMOVAL	Н
<ol> <li>Support hood assembly using a suitable tool.</li> <li>WARNING: Bodily injury may occur if hood assembly is not supported properly when removing hood support rod.</li> </ol>	Ι
<ol> <li>Rotate and remove hood support rod from grommet.</li> <li>Remove grommet from hood hinge using a suitable tool (if necessary).</li> </ol>	J
INSTALLATION Installation is in the reverse order of removal.	DLł
HOOD LOCK CONTROL	L

Revision: December 2014

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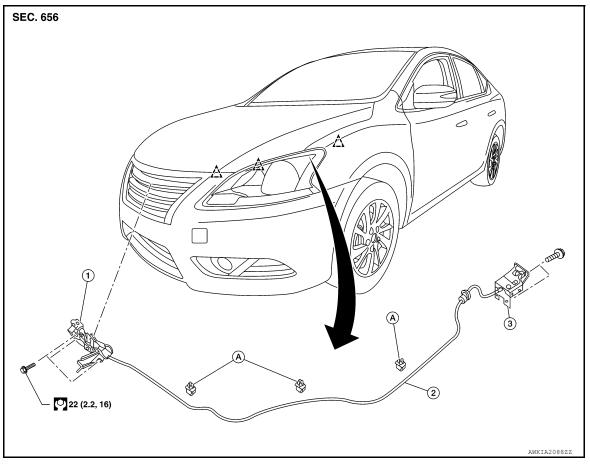
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# [WITHOUT INTELLIGENT KEY SYSTEM]

# HOOD LOCK CONTROL : Exploded View

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HOOD

Hood lock assembly 1.

Hood lock release cable clip

- 2.
- Clip
- Hood lock release cable 3. Hood lock/fuel filler door release handle assembly

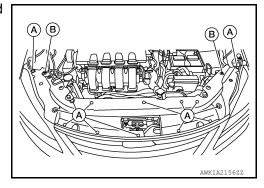
# HOOD LOCK CONTROL : Removal and Installation

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#### REMOVAL

Α.

- Remove the fender protector (LH). Refer to EXT-29, "FENDER PROTECTOR : Removal and Installation -1. Front Fender Protector".
- 2. Remove the radiator core support upper cover clips (A) and bolts (B) and remove.

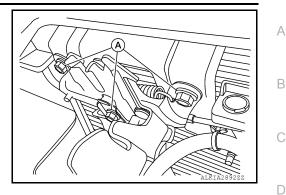


3. Remove the hood lock assembly bolts (A).

# [WITHOUT INTELLIGENT KEY SYSTEM]

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- Disconnect the hood lock release cable from the hood lock assembly.
- 5. Remove the bolts (A), then separate the hood lock/fuel filler door release handle assembly (1) from the hood lock release cable (3) and fuel filler door release cable (2).

Remove the grommet from the dash assembly and pull the hood lock release cable into the passenger compartment. CAUTION:

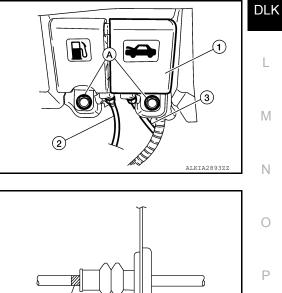
# While pulling, be careful not to damage (peel) the outside of the hood lock release cable.

#### INSTALLATION

1. Pull the hood lock release cable through the dash assembly into the engine compartment. **CAUTION:** 

#### Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.

- 2. Attach the hood lock release cable (3) and the fuel filler door release cable (2) to the hood lock/fuel filler door release handle assembly (1).
- 3. Place hood lock/fuel filler door release handle assembly in position and retain with bolts (A).



4. Check that the cable is not offset from the center of the grommet and seat the grommet into the dash hole. NOTE:

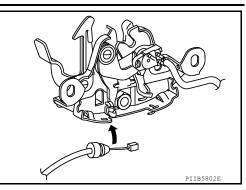
Make sure that the marked area (A) of the cable is located as shown after mounting grommet to dash upper assembly. Apply sealant around the grommet at \* mark.

- × ALKIA2139Z
- 5. Position the hood lock release cable and clip it into place.

# HOOD

# < REMOVAL AND INSTALLATION >

6. Connect the hood lock release cable to the hood lock assembly.



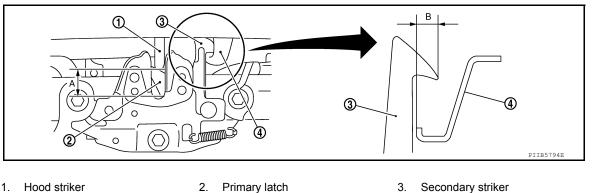
- 7. Perform hood fitting adjustment. Refer to DLK-304, "HOOD ASSEMBLY : Adjustment".
- 8. Perform the hood lock control inspection.

#### INSPECTION

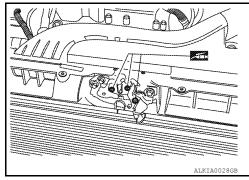
#### NOTE:

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

1. Check that the secondary latch is properly engaged with the secondary striker and meets specification provided (B) with hood's own weight.



- 1. Hood striker Secondary latch 4.
- 20 mm (0.8 in) A.
- Secondary striker 3.
- B. 6.8 mm (0.27 in)
- While operating the hood lock release handle, carefully check that the front end of the hood assembly is 2. raised and meets the specification provided (A). Also check that the hood lock release handle returns to the original position.
- 3. Check that the hood lock release handle operating force is 49 N (5.0 kg, 11 lb) or less.
- 4. Install so the static closing force of the hood assembly is 49 490 N (5.0 50 kg-f, 36 110.2 lb-f).
- Check the hood lock assembly lubrication condition. If neces-5. sary, apply a suitable multi-purpose grease as shown.



# RADIATOR CORE SUPPORT

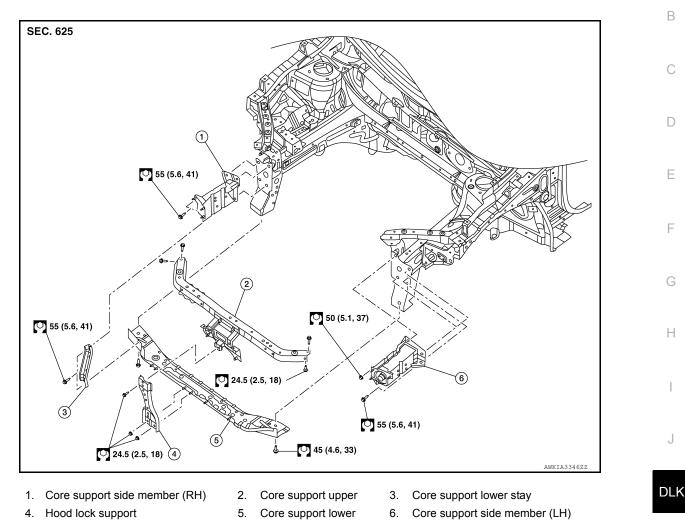
# < REMOVAL AND INSTALLATION >

# RADIATOR CORE SUPPORT

# Exploded View

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# Removal and Installation

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#### REMOVAL

#### **CAUTION:**

# Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

- Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to <u>PG-74</u>. <u>"Removal and Installation (Battery)"</u>.
- 2. Remove crash zone sensor. Refer to <u>SR-25. "Removal and Installation"</u>.
- 3. Remove radiator. Refer to CO-15, "Removal and Installation".
- 4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
- 5. Remove the horns. Refer to HRN-6, "Removal and Installation".
- 6. Remove air guides (LH/RH).
- 7. Remove the hood lock support bolts and hood lock support.
- 8. Remove the core support lower stay bolts and core support lower stay.
- 9. Remove the core support lower bolts and core support lower.
- 10. Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

## INSTALLATION

# DLK-311

#### 2015 Sentra NAM

# [WITHOUT INTELLIGENT KEY SYSTEM]

Installation is in the reverse order of removal. Tighten bolts to specification. Refer to <u>DLK-164</u>, "Exploded View". CAUTION:

After installation, perform hood fitting adjustment. Refer to <u>DLK-157, "HOOD ASSEMBLY : Adjust-ment"</u>.

# FRONT FENDER

# < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

# Exploded View

FRONT FENDER

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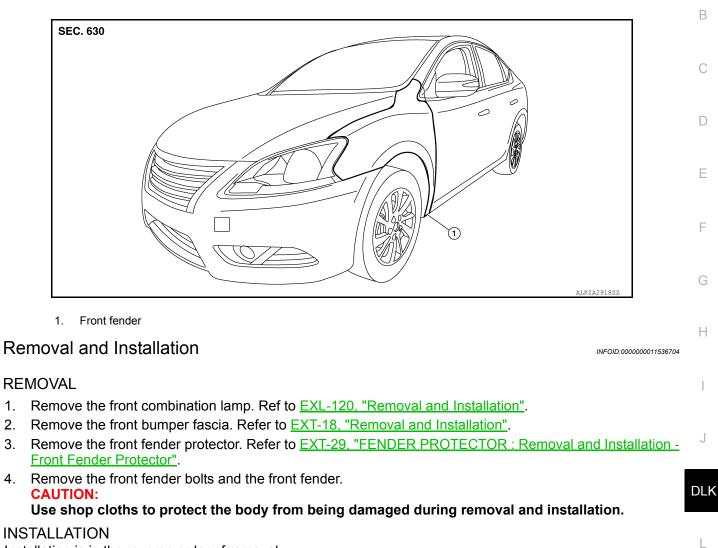
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Installation is in the reverse order of removal.

CAUTION:

After installation, perform fender adjustment procedure. Refer to DLK-314, "Adjustment".

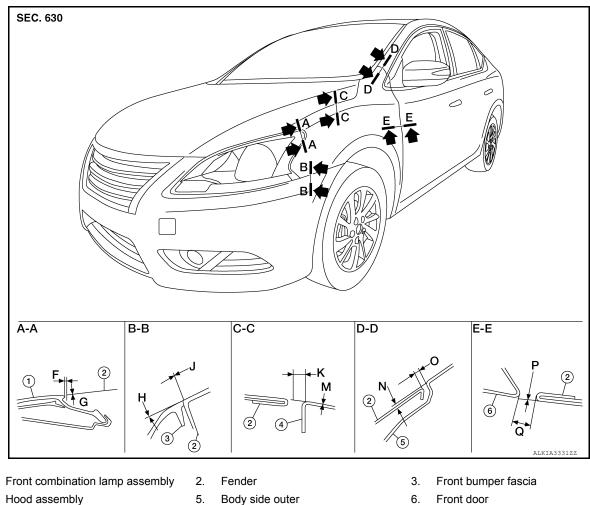
# **FRONT FENDER**

## < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

# Adjustment

INFOID:000000011536705



4. Hood assembly

1.

Check the clearance and the surface height between hood and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

6.

			Unit: mm (in
Section	Item	Measurement	Standard
A – A	F	Clearance	1.5 +1.2, -1.0 (0.06 + 0.05, -0.04)
A-A	G	Surface height	3.9 ± 1.2 (0.15 ± 0.05)
B – B	Н	Surface height	0.7 ± 1.0 (0.03 ± 0.04)
D - D	J	Clearance	0.0 ± 1.0 (0.00 ± 0.04)
C – C	К	Clearance	3.7 ± 1.0 (0.15 ± 0.04)
0-0	М	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
D – D	N	Surface height	0.0 ± 1.0 (0.00 ± 0.04)
D = D	0	Clearance	3.0 ± 1.0 (0.12 ± 0.04)
E-E	Р	Surface height	_
	Q	Clearance	—

# Adjustment

- Remove front bumper fascia. Refer to EXT-18, "Removal and Installation". 1.
- Remove the front fender protector. Refer to EXT-29, "FENDER PROTECTOR : Removal and Installation -2. Front Fender Protector".

# FRONT FENDER

#### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

- 3. Loosen the front fender bolts.
- 4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
- 5. Tighten the rear upper and lower front fender bolts.
- 6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
- 7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
- 8. Tighten the inner front fender bolts.
- 9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
- 10. Tighten the front fender to front fascia and bracket screws.
- 11. Install front bumper fascia. Refer to EXT-18, "Removal and Installation".
- 12. Install front combination lamp.Refer to EXL-120, "Removal and Installation"
- 13. Install the front fender protector. Refer to <u>EXT-29</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".

#### **CAUTION:**

- If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.
- Hood assembly: Refer to <u>DLK-157, "HOOD ASSEMBLY : Adjustment"</u>.
- Front door: Refer to <u>DLK-171, "DOOR ASSEMBLY : Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.

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# FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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## **CAUTION:**

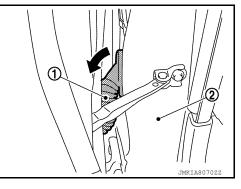
- Use two people when removing or installing the front door assembly due to its heavy weight.
- When removing and installing front door assembly, support front door using a suitable tool.
- Do not use air tools or electric tools for servicing.
- Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

#### NOTE:

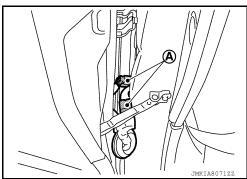
LH side shown; RH side similar.

#### REMOVAL

- 1. Disconnect the battery negative and positive terminals and wait at least three minutes, if equipped with the side air bag (satellite) sensor. Refer to <u>PG-74</u>, "Removal and Installation (Battery)".
- 2. Remove front door assembly harness grommet LH (1) then pull out door harness from body (2).



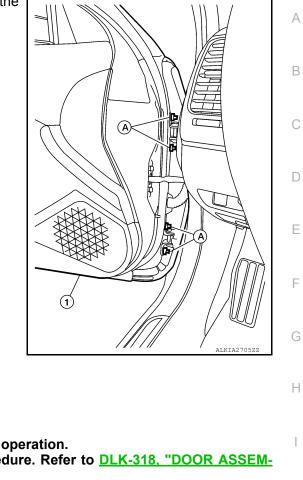
3. Disconnect the harness connectors (A) from the front door assembly harness.



4. Remove check link bolt (body side).

# [WITHOUT INTELLIGENT KEY SYSTEM]

5. Remove front door assembly hinge nuts (A) (door side) and the door assembly (1).



# INSTALLATION

Installation is in the reverse order of removal. Tighten door hinge nuts to specified torque. CAUTION:

- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-318</u>, "<u>DOOR ASSEM-BLY</u>: <u>Adjustment</u>".

**FRONT DOOR** 

#### NOTE:

When main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to <u>PWC-28</u>, "Work Procedure".

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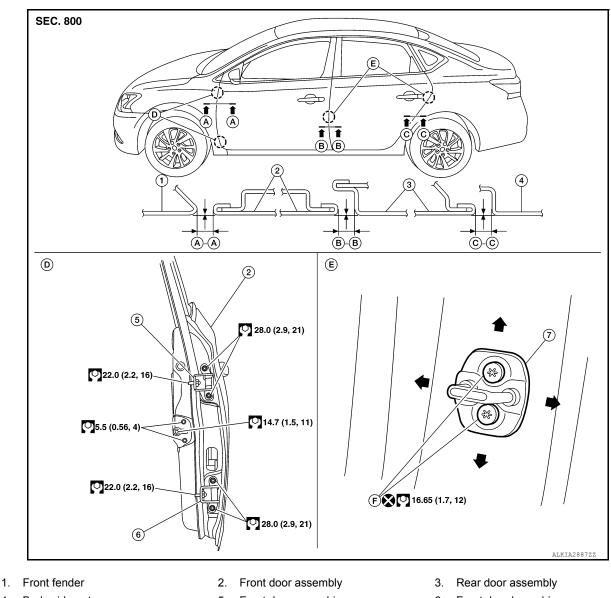
# **FRONT DOOR**

## < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

# DOOR ASSEMBLY : Adjustment

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- 4. Body side outer

Front door upper hinge

- 7. Front door striker
- 5.

- F. Front door striker bolts
- 6. Front door lower hinge

Check the clearance and surface height between front door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

Section	Item	Measurement	Standard
	G	Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$
A – A	Н	Surface height	$0.0 \pm 1.0 \; (0.0 \pm 0.04)$
В-В Н	Н	Clearance	$4.2 \pm 1.0 \; (0.17 \pm 0.04)$
D – D	J	Surface height	$0.0 \pm 1.0 \; (0.0 \pm 0.04)$
C-C J		Clearance	$4.0 \pm 1.0 \; (0.16 \pm 0.04)$
0-0	К	Surface height	$0.0 \pm 1.0 \; (0.0 \pm 0.04)$

# LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to DLK-166, "Removal and Installation".

# FRONT DOOR

#### < REMOVAL AND INSTALLATION >

- 2. Loosen the front door hinge to body bolts. Move the door forward or backward as necessary until within specifications provided.
- 3. Tighten the hinge to body bolts to specified torque.

#### Front door hinge bolts 22.0 N·m (2.2 kg-m, 16 ft-lb)

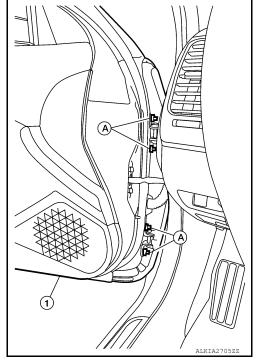
4. Install the front fender. Refer to <u>DLK-166, "Removal and Installation"</u>.

#### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the front door hinge nuts (A).
- 2. Move the top and/or bottom of the door (1) in or out as necessary until it is within specifications provided.
- 3. Tighten the front door hinge nuts to specified torque.

#### Front door hinge nuts

28.0 N·m (2.9 kg-m, 21 ftlb)



#### **CAUTION:**

•	Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-pur-
	pose grease.
•	After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.
•	If the clearance measurements cannot be corrected by adjusting the front door assembly adjust the

- If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.
   Front fonder: Pofer to DLK 167 "Adjustment".
- Front fender: Refer to <u>DLK-167, "Adjustment"</u>.
   Rear door: Refer to DLK-176, "DOOR ASSEMBLY : Adjustment".

# DOOR STRIKER ADJUSTMENT

Adjust front door assembly striker so that it becomes parallel with door lock insertion direction.

# DOOR HINGE

# DOOR HINGE : Removal and Installation

#### REMOVAL

- 1. Remove front door fender. Refer to <u>DLK-313</u>, "Removal and Installation".
- 2. Remove front door assembly (2). Refer to <u>DLK-316, "DOOR ASSEMBLY : Removal and Installation"</u>.
- 3. Remove bolt (A) and door hinge (1).

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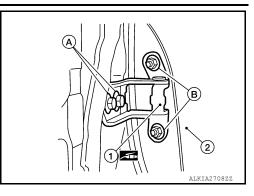
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# FRONT DOOR

#### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

4. Remove door hinge bolts (B) and remove hinge (1).



#### INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.<u>DLK-171, "DOOR ASSEMBLY : Adjustment"</u> CAUTION:

- Apply anticorrosive agent onto the front door hinge mating surface.
- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-318, "DOOR ASSEM-BLY : Adjustment"</u>.

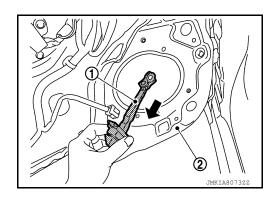
# DOOR CHECK LINK

# DOOR CHECK LINK : Removal and Installation

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#### REMOVAL

- 1. Fully close the front door glass.
- Remove front door speaker. Refer to <u>AV-56, "Removal and Installation"</u> (BASE AUDIO), <u>AV-117, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM) <u>AV-320, "Removal and Installation"</u> (NAVIGA-TION WITH BOSE) and <u>AV-211, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



#### INSTALLATION

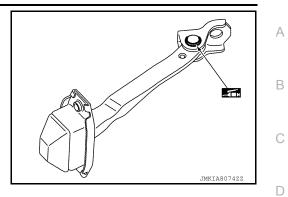
Installation is in the reverse order of removal.

#### CAUTION:

- After installation, check front door open/close, lock/unlock operation.
- Check front door check link rotating point for poor lubrication. If necessary, apply a suitable multipurpose grease.

# Grease







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# [WITHOUT INTELLIGENT KEY SYSTEM]

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# REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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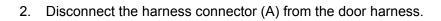
(2)

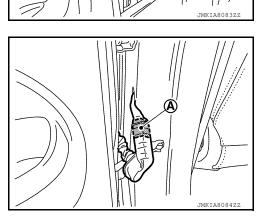
## **CAUTION:**

- Use two people when removing or installing the rear door assembly due to its heavy weight.
- When removing and installing rear door assembly, support rear door with a suitable tool.

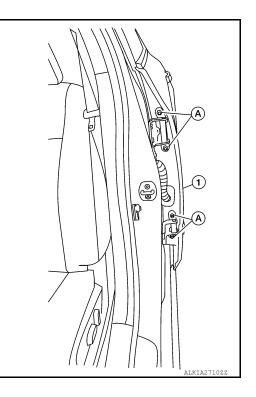
#### REMOVAL

1. Remove rear door assembly harness grommet (LH) (1) then pull out door harness from body (2).





- 3. Remove the check link bolt from the body.
- 4. Remove rear door assembly hinge nuts (A) (door side) and the door assembly (1).



#### [WITHOUT INTELLIGENT KEY SYSTEM]

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INFOID:000000011536711

#### INSTALLATION

Installation is in the reverse order of removal.

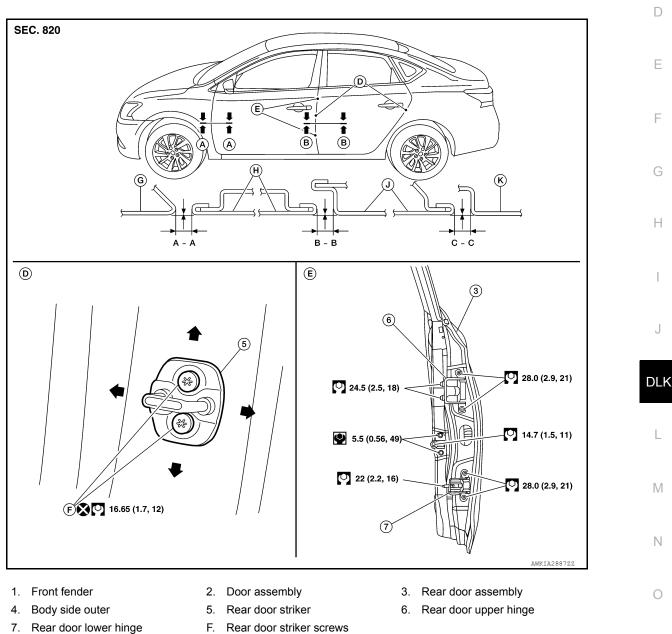
Tighten rear door hinge nuts (door side) to specified torque.

#### **CAUTION:**

- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-323</u>, "DOOR ASSEMBLY <u>: Adjustment"</u>.

# DOOR ASSEMBLY : Adjustment

# ADJUSTMENT



Check the clearance and surface height between rear door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

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# **REAR DOOR**

#### < REMOVAL AND INSTALLATION >

#### [WITHOUT INTELLIGENT KEY SYSTEM]

Unit<sup>·</sup> mm (in)

Section	Item	Measurement	Standard
A – A	G	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	Н	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
B – B	Н	Clearance	4.2 ± 1.0 (0.17 ± 0.04)
	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C – C	J	Clearance	4.0 ± 1.0 (0.16 ± 0.04)
	К	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

#### LONGITUDINAL CLEARANCE

- 1. Remove the center pillar upper finisher. Refer to <u>INT-28</u>, "CENTER PILLAR UPPER FINISHER : Removal <u>and Installation"</u>.
- 2. Loosen the rear door upper hinge nuts.
- 3. Loosen the rear door lower hinge bolts.
- 4. Move the rear door forward or backward as necessary until within specifications provided.
- 5. Tighten the lower hinge bolts to specification.

#### Rear door lower hinge bolts

6. Tighten the upper hinge nuts to specification.

#### Rear door upper hinge nuts

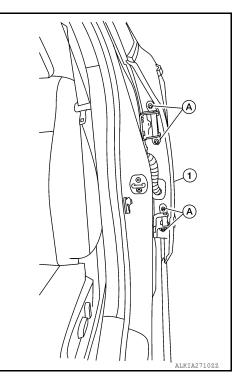
7. Install the center pillar upper finisher. Refer to <u>INT-28, "CENTER PILLAR UPPER FINISHER : Removal</u> and Installation".

#### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the rear door hinge nuts (door side) (A).
- 2. Move the top and/or the bottom of the rear door (1) in or out as necessary until it is within specifications provided.
- 3. Tighten the rear door hinge nuts (door side) (A) to specification.

Rear door nuts

28.0 N·m (2.9 kg-m, 21 ft-lb)

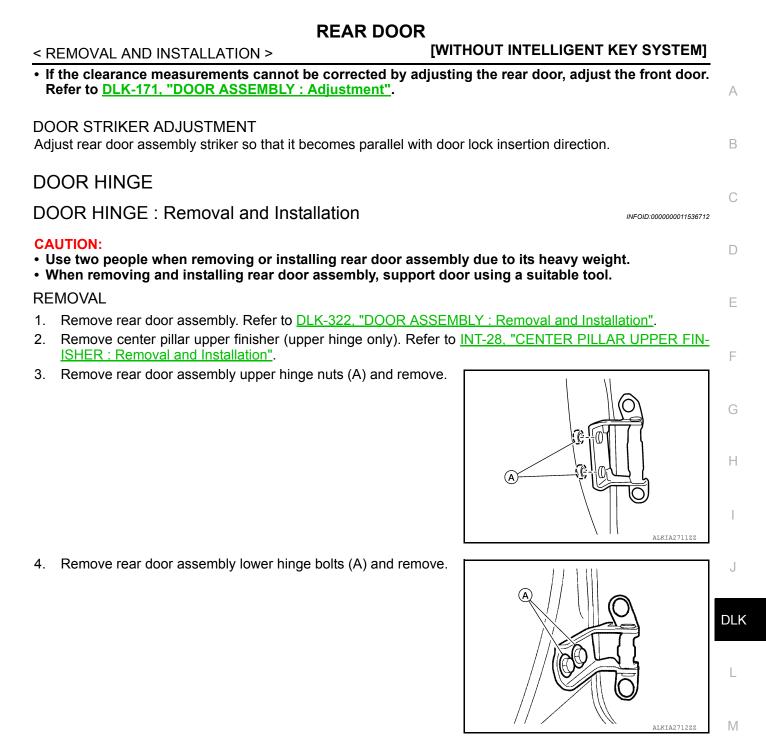


#### **CAUTION:**

- 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 the head of rear door assembly hinge bolts and nuts.

# 24.5 N·m (2.5 kg-m, 18 ft-lb)

22 N·m (2.2 kg-m, 16 ft-lb)



### INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to <u>DLK-176, "DOOR ASSEMBLY :</u> <u>Adjustment"</u>

### CAUTION:

- Apply anticorrosive agent onto the hinge mating surface.
- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-323, "DOOR ASSEMBLY</u>: Adjustment".

# DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

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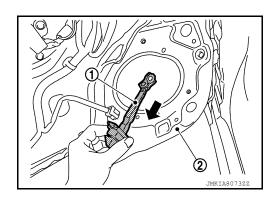
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# **REAR DOOR**

# < REMOVAL AND INSTALLATION >

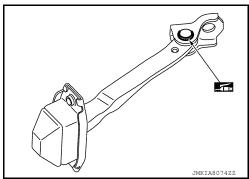
- 1. Fully close the rear door glass.
- Remove rear door speaker. Refer to <u>AV-57, "Removal and Installation"</u> (BASE AUDIO), <u>AV-118, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM) <u>AV-321, "Removal and Installation"</u> (NAVIGATION WITH BOSE) and <u>AV-212, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



INSTALLATION

Installation is in the reverse order of removal. **CAUTION:** 

- After installation, check rear door open/close, lock/unlock operation.
- Check rear door check link rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.

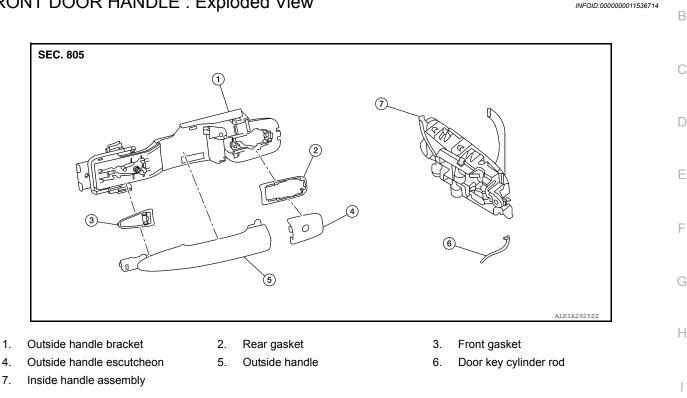


# [WITHOUT INTELLIGENT KEY SYSTEM]

# < REMOVAL AND INSTALLATION > DOOR HANDLE

# FRONT DOOR HANDLE

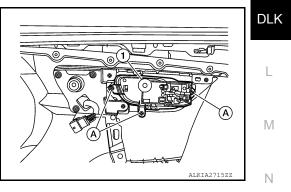
FRONT DOOR HANDLE : Exploded View



FRONT DOOR HANDLE : Removal and Installation - Inside Handle

### REMOVAL

- Remove front door finisher. Refer to <u>INT-15, "Removal and Installation"</u>.
- 2. Remove inside handle assembly screws (A) and the inside handle assembly (1).



### INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- · Check front door lock cables are properly engaged to inside handle.
- After installation, check front door open/close, lock/unlock operation.

FRONT DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:000000011536716

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### REMOVAL

- Fully close front door glass.
- Remove front door finisher. Refer to <u>INT-15, "Removal and Installation"</u>.
- Remove front door vapor barrier. 3.

**Revision: December 2014** 

# **DLK-327**

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### < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

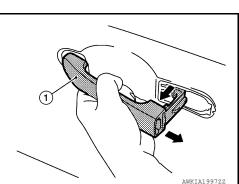
6

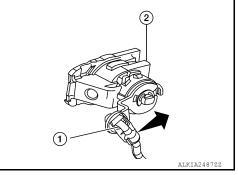
- 4. Remove front door glass channel rear.
- 5. Disconnect the harness connectors from the door antenna and door request switch and then remove harness clamp on outside handle bracket.
- 6. Remove door side grommet, and loosen screw **←** that retains the front door outside handle bracket.

7. Reach in to separate door key cylinder rod (LH side) (1) from door key cylinder assembly (LH side) (2).

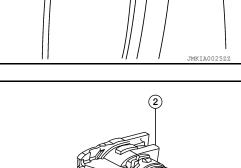
While pulling (1) outside handle, remove (2) door key cylinder 8. assembly (LH side) or outside handle escutcheon (RH side).

9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.





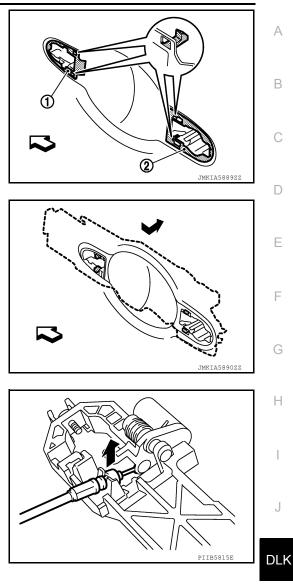




### < REMOVAL AND INSTALLATION >

10. Remove front gasket (1) and rear gasket (2).

# [WITHOUT INTELLIGENT KEY SYSTEM]



12. Disconnect the outside handle cable from the outside handle bracket connection.

11. Slide outside handle bracket toward rear of vehicle to remove.

### INSTALLATION

<⊐: Front

Installation is in the reverse order of removal. CAUTION:

- When installing do not reuse front door outside handle bracket screw. Always replace screw with new ones when removed.
- When installing door key cylinder rod on the LH front door, be sure to rotate door key cylinder rod M holder until a click is felt.
- Check front door lock cable is properly engaged to outside handle bracket.
- After installation, check front door open/close, lock/unlock operation.

# REAR DOOR HANDLE

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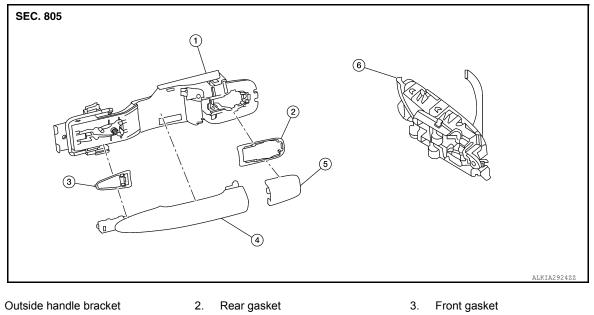
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# < REMOVAL AND INSTALLATION >

### [WITHOUT INTELLIGENT KEY SYSTEM]

# **REAR DOOR HANDLE : Exploded View**

INFOID:000000011536717



- 4. Outside door handle
- Outside handle escutcheon
- 6. Inside handle assembly

# REAR DOOR HANDLE : Removal and Installation - Inside Handle

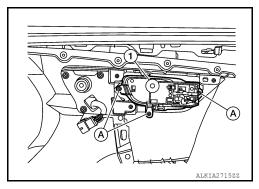
### REMOVAL

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1. Remove rear door finisher. Refer to INT-19, "Removal and Installation".

5.

2. Remove inside handle assembly screws (A) and inside handle assembly (1).



### INSTALLATION

Installation is in the reverse order of removal.

- CAUTION:
- Check rear door lock cables are properly engaged to inside handle.
- After installation, check rear door open/close, lock/unlock operation.

# REAR DOOR HANDLE : Removal and Installation - Outside Handle

INFOID:000000011536719

INFOID:000000011536718

### REMOVAL

- 1. Fully close rear door glass.
- 2. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
- 3. Remove rear door vapor barrier.

### < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

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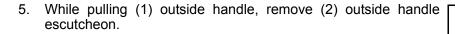
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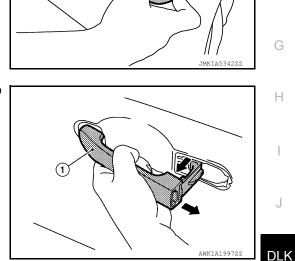
4. Remove door side grommet, and loosen screw **←** that retains the rear door outside handle bracket.

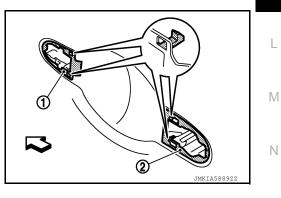


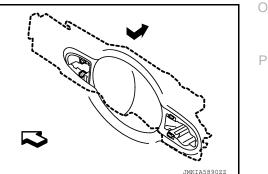
6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.

7. Remove front gasket (1) and rear gasket (2). <⊐: Front

8. Slide outside handle bracket toward rear of vehicle to remove. <⊐: Front



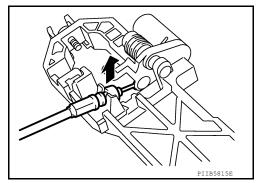




### < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

9. Remove clip and disconnect the outside handle cable from the outside handle bracket.



### INSTALLATION

Installation is in the reverse order of removal. **CAUTION:** 

- When installing do not reuse rear door outside handle bracket screw. Always replace screw with new ones when removed.
- Check rear door lock cable is properly engaged to outside handle bracket.
- After installation, check rear door open/close, lock/unlock operation.

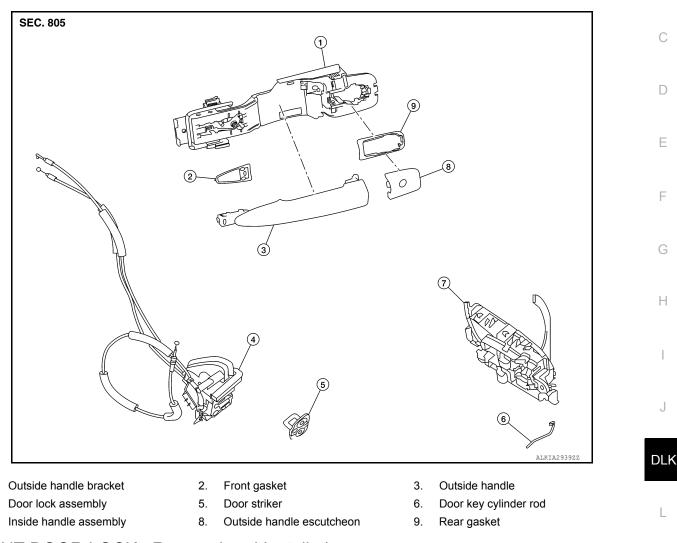
# [WITHOUT INTELLIGENT KEY SYSTEM]

# < REMOVAL AND INSTALLATION >

# DOOR LOCK FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

INFOID:0000000011536720



# FRONT DOOR LOCK : Removal and Installation

### **CAUTION:**

1.

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# Before servicing, turn ignition switch OFF, disconnect both battery terminals and wait at least three minutes.

### REMOVAL

- 1. Remove the front door outside handle. Refer to <u>DLK-180, "FRONT DOOR HANDLE : Removal and Instal-</u> lation - Outside Handle".
- 2. Remove the rear glass run.
- 3. Disconnect the harness connector from the front door lock actuator.

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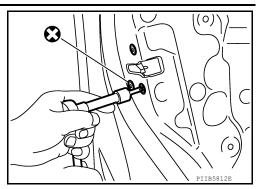
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# DOOR LOCK

## < REMOVAL AND INSTALLATION >

### [WITHOUT INTELLIGENT KEY SYSTEM]

4. Remove screws, and the door lock assembly.



- 5. Disconnect door key cylinder rod (LH only) from door key cylinder (LH only).
- 6. Disconnect the door lock cables from inside handle.

### INSTALLATION

Installation is in the reverse order of removal. Tighten front door lock screws to specified torque.

### Front door lock screws: 5.8 N·m (0.59 kg-m, 51 in-lb)

### CAUTION:

- Do not reuse front door lock assembly screws. Always replace screws with new ones when removed.
- Check front door lock cables are properly engaged to inside handle and outside handle bracket.
- When installing door key cylinder rod on the LH front door, be sure to rotate door key cylinder rod holder until a click is felt.
- After installation, check front door open/close, lock/unlock operation.
- Check front door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.

# REAR DOOR LOCK

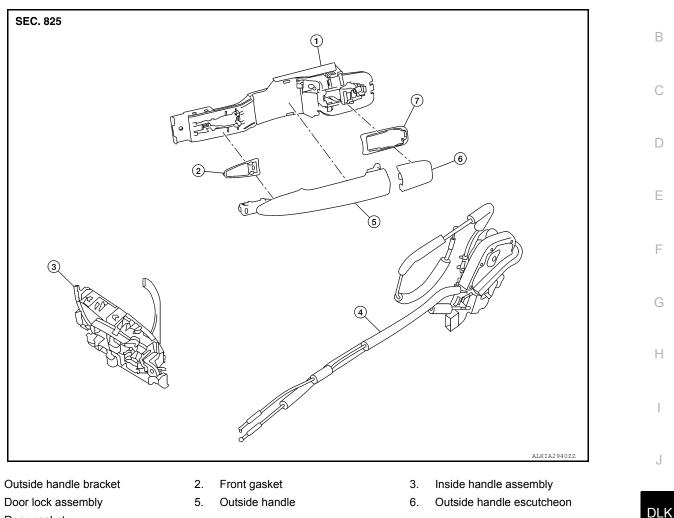
### < REMOVAL AND INSTALLATION >

### DOOR LOCK [WITHOUT INTELLIGENT KEY SYSTEM]

# **REAR DOOR LOCK : Exploded View**

### INFOID:000000011536722

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7. Rear gasket

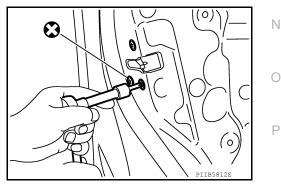
# REAR DOOR LOCK : Removal and Installation

### REMOVAL

1.

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- 1. Remove the rear door outside handle. Refer to <u>DLK-183</u>, "REAR DOOR HANDLE : Removal and Installation - Outside Handle".
- 2. Disconnect the harness connector from the rear door lock actuator.
- 3. Remove the screws, and the door lock assembly.



INSTALLATION Installation is in the reverse order of removal. Tighten rear door lock screws to specified torque. INFOID:000000011536723

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Rear door lock screws: 5.8 N·m (0.59 kg-m, 51 in-lb)

### **CAUTION:**

- Do not reuse rear door lock assembly screws. Always replace screws with new ones when removed.
- Check rear door lock cables are properly engaged to inside handle and outside handle bracket.
- After installation, check rear door open/close, lock/unlock operation.
- Check rear door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.

# [WITHOUT INTELLIGENT KEY SYSTEM]

# < REMOVAL AND INSTALLATION >

# **TRUNK LID** TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

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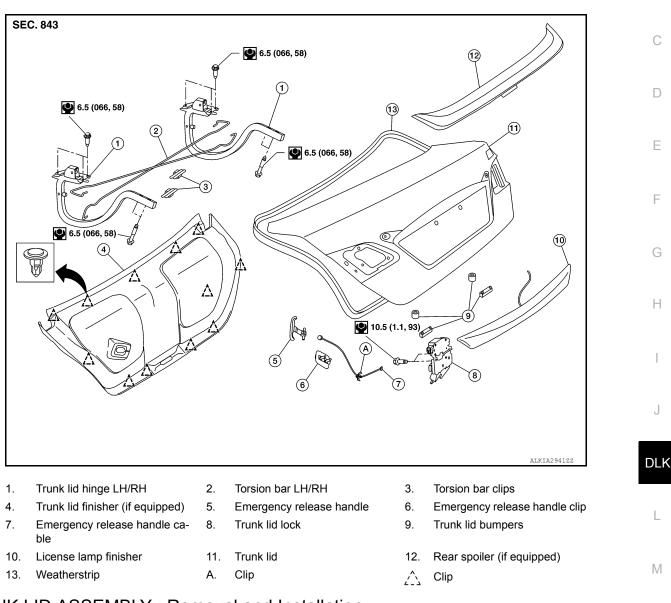
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# TRUNK LID ASSEMBLY : Removal and Installation

### **CAUTION:**

- Use two people when removing or installing trunk lid assembly due to its heavy weight.
- · Use protective tape or shop cloths to protect surrounding components from damage during removal 0 and installation of trunk lid assembly.

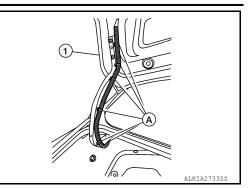
### REMOVAL

1. Remove trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".

# < REMOVAL AND INSTALLATION >

2. Disconnect the harness connectors in the trunk lid assembly (1) and remove the harness clips (A) then pull out harness from the trunk lid assembly (1).

### [WITHOUT INTELLIGENT KEY SYSTEM]



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3. Remove the bolts (A) and remove the trunk lid assembly (1).

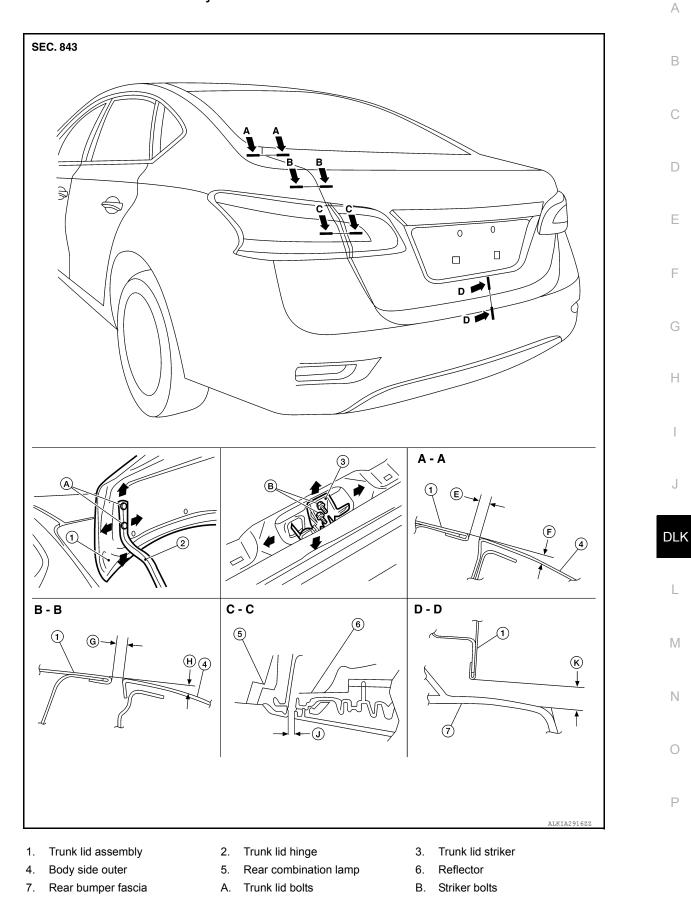
INSTALLATION Installation is in the reverse order of removal. CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-339</u>, <u>"TRUNK LID ASSEMBLY : Adjustment"</u>.

# < REMOVAL AND INSTALLATION >

# TRUNK LID ASSEMBLY : Adjustment

# [WITHOUT INTELLIGENT KEY SYSTEM]



### < REMOVAL AND INSTALLATION >

Check the clearance and the surface height between trunk lid and each part by visual inspection and tactile feel.

If the clearance and the surface height are out of specification, adjust them according to the adjustment procedures.

					Unit: mm (in)
Section	Item	Measurement	Standard	Parallelism (MAX)	Right/Left Difference (MAX)
A – A	E	Clearance	3.5 ±1.0 (0.14 ±0.04)	1.5 (0.06)	1.5 (0.06)
	F	Surface height	1.0 ±1.0 (0.04 ±0.04)	1.5 (0.06)	1.5 (0.06)
B – B	G	Clearance	3.5 ±1.0 (0.14 ±0.04)	1.5 (0.06)	1.5 (0.06)
	Н	Surface height	1.0 ±1.0 (0.04 ±0.04)	1.5 (0.06)	1.5 (0.06)
C – C	J	Clearance	4.3 ±1.9 (0.17 ±0.07)	—	2.0 (0.08)
D – D	К	Clearance	7.0 ±2.0 (0.28 ±0.08)	—	—

# LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

- 1. Loosen the trunk lid to hinge bolts.
- 2. Move the trunk lid so that the clearance measurements are within specifications provided.
- 3. Tighten the trunk lid to hinge bolts.

Trunk Lid Hinge Removed From Vehicle

- 1. Remove the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".
- 2. Loosen the hinge to parcel shelf bolts.
- 3. Move the trunk lid so that the clearance measurements are within specifications provided.
- 4. Tighten the hinge to parcel shelf bolts.
- 5. Install the rear parcel shelf finisher. Refer to INT-33, "Removal and Installation".

### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the bumper rubber.
- 2. Loosen the striker bolts.
- 3. Lift up the trunk lid approx. 100 150 mm (3.94 5.91 in) height then close it lightly. Make sure it engages firmly with the trunk lid closed.
- 4. Tighten the trunk lid striker.

# TRUNK LID HINGE

# TRUNK LID HINGE : Removal and Installation

INFOID:000000011536727

# REMOVAL

- 1. Remove trunk lid assembly. Refer to <u>DLK-337, "TRUNK LID ASSEMBLY : Removal and Installation"</u>.
- 2. Remove torsion bar. Refer to DLK-341, "TORSION BAR : Removal and Installation".
- 3. Remove rear parcel shelf finisher. Refer to <u>INT-33</u>, "Removal and Installation".
- 4. Remove trunk lid hinge bolts (body side) and remove.

### INSTALLATION

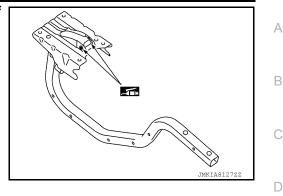
Installation is in the reverse order of removal.

### **CAUTION:**

- Check trunk lid open/close, lock/unlock operation after installation.
- After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-339, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

### < REMOVAL AND INSTALLATION >

• Check trunk lid hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



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# TORSION BAR

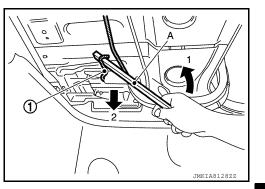
**TORSION BAR : Removal and Installation** 

# REMOVAL

- 1. Remove torsion bar clips.
- 2. Support the trunk lid assembly using a suitable tool.

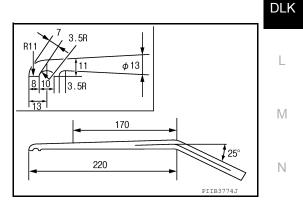
### WARNING: Bodily injury may occur if hood assembly is not supported properly when removing hood assembly.

3. Lift torsion bar (1) using a suitable tool (A) as shown to remove.



### NOTE:

The suitable tool specifications are as shown.



INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation check the trunk lid open/close, lock/unlock operation.

# TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

### REMOVAL

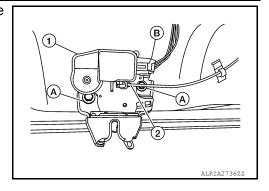
1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".

Revision: December 2014

**DLK-341** 

# < REMOVAL AND INSTALLATION >

- Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
   Demonstrate the trunk lid lock (2) and emergency release hardle (2) and e
- 3. Remove the trunk lid lock bolts (A) and remove.



[WITHOUT INTELLIGENT KEY SYSTEM]

INSTALLATION Installation is in the reverse order of removal. CAUTION:

After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-339, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

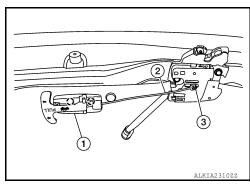
# EMERGENCY LEVER

# EMERGENCY LEVER : Removal and Installation

INFOID:000000011536730

# REMOVAL

- 1. Remove the trunk lid finisher (if equipped). Refer to INT-45, "Removal and Installation".
- Using a suitable tool release the pawls and remove emergency release handle (1) from trunk lid assembly.
   (\_): Pawl
- 3. Disconnect emergency release handle cable (2) from trunk lid lock assembly (3).

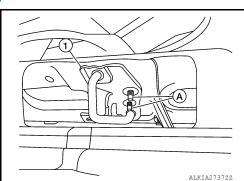


INSTALLATION Installation is in the reverse order of removal. TRUNK LID STRIKER

TRUNK LID STRIKER : Removal and Installation

# REMOVAL

- 1. Remove the trunk kicking plate. Refer to INT-42, "Exploded View".
- 2. Remove bolts (A) and striker (1).



INSTALLATION

# Revision: December 2014

< REMOVAL AND INSTALLATION >

Installation is in the reverse order of removal. **CAUTION:** After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-339</u>, "TRUNK <u>LID ASSEMBLY : Adjustment"</u>.

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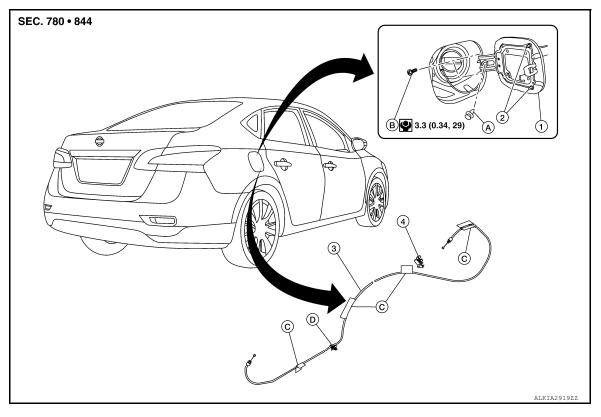
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# < REMOVAL AND INSTALLATION >

# FUEL FILLER LID OPENER

# **Exploded View**

INFOID:000000011536732



- 1. Fuel filler lid
- 4. Fuel filler lid lock
- C. Cable protector

Bumper rubber
 A. Clip

3. Fuel filler lid opener cable

[WITHOUT INTELLIGENT KEY SYSTEM]

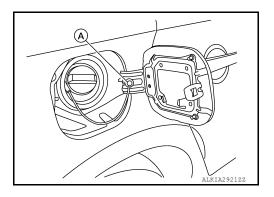
B. Bolts

# FUEL FILLER LID

# FUEL FILLER LID : Removal and Installation

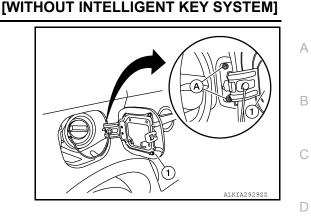


- 1. Fully open fuel filler lid.
- 2. Remove fuel cap clip (A).



# < REMOVAL AND INSTALLATION >

3. Remove fuel filler lid screws (A) and fuel filler lid (1).



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Unit: mm (in)

INFOID:000000011536734

# INSTALLATION

Installation is in the reverse order of removal.

### **CAUTION:**

# After installation, check fuel filler lid assembly open/close, lock/unlock operation. NOTE:

- The following table shows the specifications for a correctly installed fuel filler lid.
- Fitting adjustment cannot be performed.

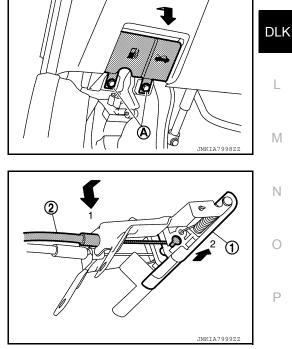
Portion	Measurement	Standard
Fuel filler lid – Body side outer	Clearance	5.1 ±1.0 (0.20 ±0.04)
Fuel filler lid – Body side outer	Surface height	0.0 ±1.0 (0.0 ±0.04)

# FUEL FILLER OPENER CABLE

# FUEL FILLER OPENER CABLE : Removal and Installation

# REMOVAL

1. Remove hood and fuel filler handle assembly bolts (A).



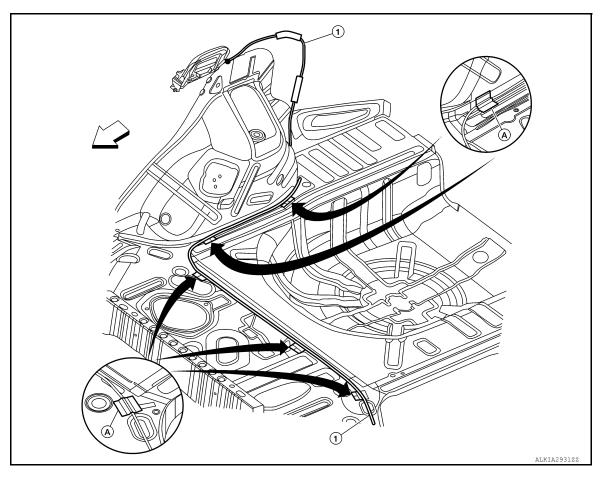
2. Release fuel filler lid opener cable (2) by pulling downward and then sliding cable end to the side to remove from hood and fuel filler handle assembly (1).

- 3. Remove dash side finisher (LH). Refer to INT-26, "DASH SIDE FINISHER : Removal and Installation".
- 4. Remove center pillar lower finisher (LH). Refer to <u>INT-27, "CENTER PILLAR LOWER FINISHER :</u> <u>Removal and Installation"</u>.

# < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

- 5. Remove rear seat bolster (LH). Refer to <u>SE-24, "Removal and Installation Rear Seat Bolster"</u>.
- 6. Remove trunk side finisher (LH). Refer to INT-43, "TRUNK SIDE FINISHER : Removal and Installation".
- 7. Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to <u>DLK-345</u>, "FUEL FILLER <u>OPENER CABLE : Removal and Installation"</u>.



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8. Remove each cable protector (A), then remove fuel filler lid opener cable (1).

# INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid assembly open/close, lock/unlock operation.

# FUEL FILLER LID LOCK

FUEL FILLER LID LOCK : Removal and Installation

INFOID:000000011536735

### REMOVAL

1. Fully open fuel filler lid.

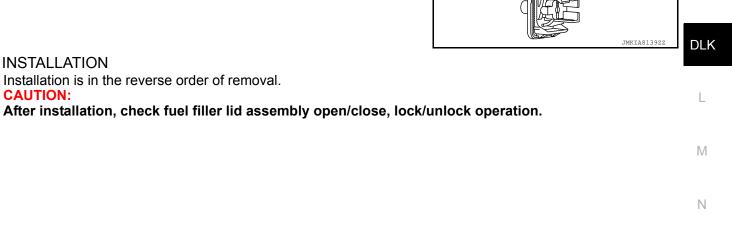
# < REMOVAL AND INSTALLATION >

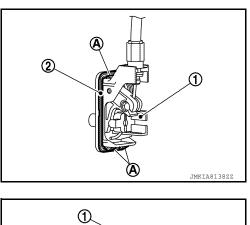
2. Insert a suitable tool (A) as shown into bottom of fuel filler lock assembly (1).

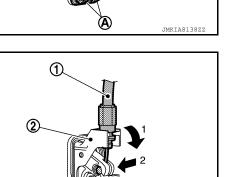
 Release upper and lower pawls (A) using a suitable tool and remove fuel filler lid lock assembly (1). CAUTION:

Be careful not to damage gasket (2) when removing.

4. Disconnect fuel filler lid opener cable (1) by pulling downward and then sliding cable end to the side to remove from fuel filler lid lock assembly (2).







Revision: December 2014

# [WITHOUT INTELLIGENT KEY SYSTEM]

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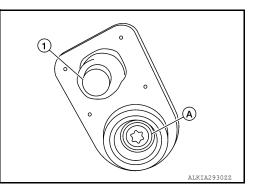
< REMOVAL AND INSTALLATION >

# **DOOR SWITCH**

# **Removal and Installation**

# REMOVAL

- 1. Remove the 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.

# Removal and Installation INFOID:00000011538737 REMOVAL B 1. Remove glove box assembly. Refer to IP-22, "Removal and Installation". B 2. Disconnect the harness connector from the remote keyless entry receiver. C 3. Remove the screw and remote keyless entry receiver. C INSTALLATION Installation is in the reverse order or removal. D

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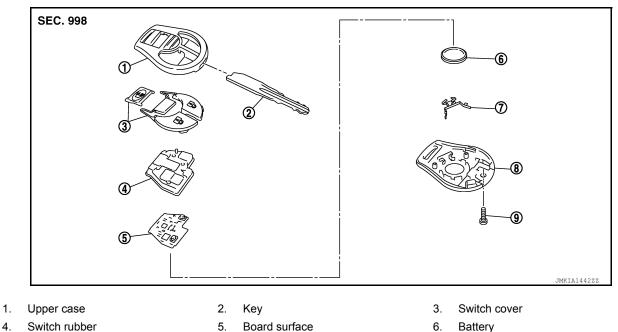
# < REMOVAL AND INSTALLATION >

# [WITHOUT INTELLIGENT KEY SYSTEM]

# **Exploded View**

**KEYFOB BATTERY** 

INFOID:000000011536738



9.

Screw

Switch rubber 4.

Plate

- 5. Board surface
- 8 Lower case

INFOID:000000011536739

# Removal and Installation

### REMOVAL

7.

- 1. Remove the keyfob screw.
- 2. Seperate the upper and lower case using a suitable tool. CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. Remove the circuit board from the upper case. **CAUTION:**

### Do not touch the printed circuits directly.

4. Remove the keyfob battery from the upper case.

### : Coin-type lithium battery (CR1620) **Battery replacement**

### **CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- After replacing the battery, Be sure to check that door locking operates normally using the keyfob.

INSTALLATION

Installation is in the reverse order of removal.

# < REMOVAL AND INSTALLATION >

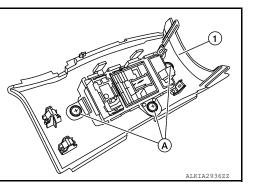
# TRUNK LID OPENER SWITCH

# **Removal and Installation**

# REMOVAL

carrier.

- 1. Remove the instrument lower panel LH. Refer to IP-21, "Removal and Installation".
- 2. Remove to the instrument finisher D (1).
- 3. Remove the screws (A) that retain the instrument finisher D to the switch carrier.



4. Release upper tab and lower tab (B) using a suitable tool (C), then remove the trunk lid opener switch from the upper switch  $\bigcirc$ 

INSTALLATION Installation is in the reverse order of removal.

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# [WITHOUT INTELLIGENT KEY SYSTEM]

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