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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. to prevent damage to the windshield.

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,

 $\langle \mathcal{A} \rangle$

- 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.

Precaution for Work

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

PREPARATION

PREPARATION

Special Service Tools

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А

[WITH INTELLIGENT KEY SYSTEM]

The actual shape of the tools ma	y differ from those illustrated here.
The decidal enape of the teele that	

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	Γ
NISSAN Squeak and Rattle Kit	The second secon		G
	ALJIA1232ZZ		Н
		Used to test keyfobs	_
(J-43241) Remote Keyless Entry Tester	LEL946A		l J
()()()()()()()_		Activate and display TPMS transmitter	DLk
(J-50190) Signal Tech II	ALEIA0131ZZ	 IDs Display tire pressure reported by the TPMS transmitter Read TPMS DTCs Register TPMS transmitter IDs Test remote keyless entry keyfob relative signal strength Compatible with future sensors Equipped with a display Check Intelligent Key relative signal strength Confirm vehicle Intelligent Key antenna signal strength 	L M N

PREPARATION

[WITH INTELLIGENT KEY SYSTEM]

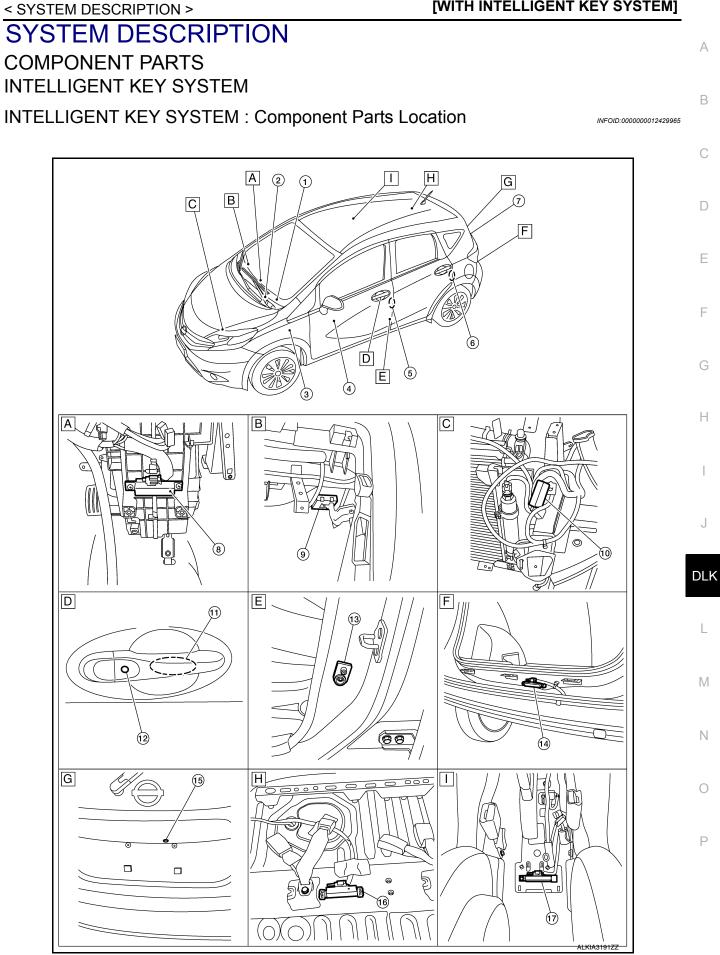
Tool number (TechMate No.) Tool name		Description
KV48105501 (J-45295-A) Transmitter Activation Tool	ALEIA0183ZZ	 Activate TPMS transmitter IDs Compatible with future sensors Equipped with a display (KV48105501 only)
 (J-46534) Trim Tool Set	AWJIA0483ZZ	Removing trim components

Commercial Service Tools

< PREPARATION >

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

[WITH INTELLIGENT KEY SYSTEM]



Revision: August 2015

< SYSTEM DESCRIPTION >

- A. View with instrument panel assembly B. View with glove box door removed removed
- D. View of LH door (RH similar)

G. View from rear of vehicle

H. View with rear seat cushion removed I.

- C. View with front grille removed
- E. View of LH door switch (RH similar) F. View with rear bumper cover removed
 - View with center console removed

No.	Component	Function
1.	Combination meter	Combination meter transmits the vehicle speed sig- nal to BCM via CAN communication. BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to de- tect the vehicle speed. Security indicator lamp is located on combination meter. Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NIS- SAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. Refer to <u>MWI-59, "METER SYSTEM : Combination</u> <u>Meter"</u> .
2.	Push-button ignition switch	Push-button ignition switch has push switch inside which detects that push-button ignition switch is pressed, and then transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of push-button ignition switch. BCM maintains the ignition switch position status while push-button ignition switch is not operated.
3.	BCM	BCM controls INTELLIGENT KEY SYSTEM (EN- GINE START FUNCTION), NISSAN VEHICLE IM- MOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM. BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna, and push-button ignition switch is pressed. If the ID ver- ification result is OK, ignition switch operation is available. Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start en- gine. Refer to <u>BCS-6, "BODY CONTROL SYSTEM :</u> <u>Component Parts Location"</u> for detailed installation location.
4.	Main power window and door lock/unlock switch	Door lock and unlock switch is integrated into the main power window and door lock/unlock switch. Door lock and unlock switch transmits door lock/un- lock operation signal to BCM. Refer to <u>PWC-7</u> , " <u>Main Power Window And Door</u> <u>Lock/Unlock Switch</u> ".
5.	Front door lock assembly LH	Door key cylinder switch is integrated into front door lock assembly (driver side). Door key cylinder switch detects door LOCK/UN- LOCK operation using mechanical key, and then transmits the operation signal to BCM. Refer to <u>DLK-17, "INTELLIGENT KEY SYSTEM :</u> <u>Front Door Lock Assembly (Driver Side)"</u> .
6.	Rear door lock actuator LH	Rear door lock actuator locks/unlocks the rear door latch assembly.

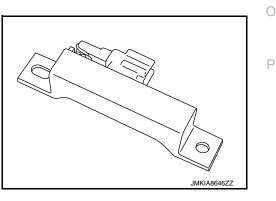
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
7.	Back door lock actuator	Back door lock actuator locks/unlocks the back door latch assembly.
8.	Inside key antenna (instrument center)	Inside key antenna (instrument center) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to <u>DLK-15</u> , "INTELLIGENT KEY SYSTEM : Inside Key Antenna (Instrument Center)".
9.	Remote keyless entry receiver	Remote keyless entry receiver receives button op- eration signal and key ID signal of Intelligent Key, and them transmits them to the BCM. Refer to <u>DLK-17</u> , "INTELLIGENT KEY SYSTEM : <u>Remote Keyless Entry Receiver</u> ".
10.	Intelligent Key warning buzzer	Intelligent Key warning buzzer warns the user, who is outside the vehicle, of operation confirmation ac- cording to Intelligent Key operation and door re- quest switch operation, or of an inappropriate operation. Refer to <u>DLK-17, "INTELLIGENT KEY SYSTEM :</u> <u>Intelligent Key Warning Buzzer"</u> .
11.	Outside key antenna LH	Outside key antenna (LH) detects whether Intelli- gent Key is outside the vehicle or not, and then transmits the signal to the BCM. Refer to <u>DLK-16, "INTELLIGENT KEY SYSTEM :</u> <u>Outside Key Antenna (Driver Side)"</u> .
12.	Door request switch	Door request switch transmits door lock/unlock re- quest signal to the BCM.
13.	Door switch	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
14.	Outside key antenna (rear bumper)	Outside key antenna (Rear bumper) detects wheth- er Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM. Refer to <u>DLK-16. "INTELLIGENT KEY SYSTEM :</u> <u>Outside Key Antenna (Rear Bumper)"</u> .
15.	Back door request switch	Back door request switch transmits door lock/unlock request signal to the BCM.
16.	Inside key antenna (trunk room)	Inside key antenna (trunk room) detects whether In- telligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to <u>DLK-16, "INTELLIGENT KEY SYSTEM :</u> <u>Inside Key Antenna (Trunk Room)"</u> .
17.	Inside key antenna (console)	Inside key antenna (console) detects whether Intel- ligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to DLK-16, "INTELLIGENT KEY SYSTEM : Inside Key Antenna (Console)".

INTELLIGENT KEY SYSTEM : Inside Key Antenna (Instrument Center)

- Inside key antenna (instrument center) detects that Intelligent Key is within the inside detection area, and then transmits detection status to BCM.
- Inside key antenna (instrument center) is installed in the rear of cluster lid C of instrument center.



INTELLIGENT KEY SYSTEM : Inside Key Antenna (Console)

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

< SYSTEM DESCRIPTION >

 Inside key antenna (console) is installed underneath the center console.

INTELLIGENT KEY SYSTEM : Inside Key Antenna (Trunk Room)

- · Inside key antenna (trunk room) detects that Intelligent Key is within the inside detection area, and then transmits detection status to BCM.
- · Inside key antenna (trunk room) is installed under the rear seat cushion.

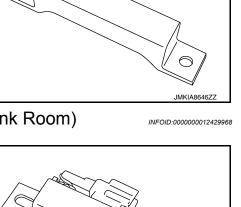
INTELLIGENT KEY SYSTEM : Outside Key Antenna (Rear Bumper)

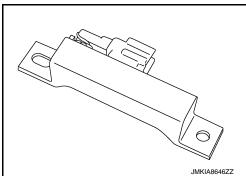
- · Outside key antenna (rear bumper) detects that Intelligent Key is within the outside detection area, and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Kev.
- Outside key antenna (rear bumper) is installed in the rear of rear bumper.

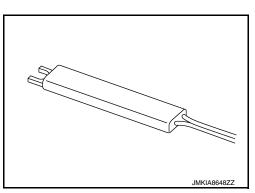
INTELLIGENT KEY SYSTEM : Outside Key Antenna (Driver Side)

DLK-16

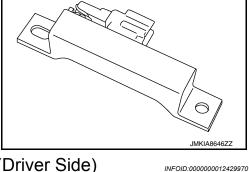
- Outside key antenna LH detects that Intelligent Key is within the outside detection area, and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- · Outside key antenna LH is installed in front outside handle LH.













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outside detection area, and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent

INTELLIGENT KEY SYSTEM : Front Door Lock Assembly (Driver Side)

Outside key antenna RH is installed in front outside handle RH.

Kev.

- · Door lock actuator and unlock sensor are Integrated in front door lock assembly LH.
- Door lock actuator receives lock/unlock signal from BCM, and then locks/unlocks driver door.
- Only front door lock assembly LH integrates unlock sensor. Unlock sensor transmits lock/unlock status of LH door to BCM.

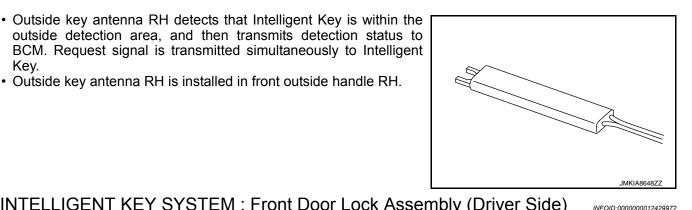
INTELLIGENT KEY SYSTEM : Remote Keyless Entry Receiver

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

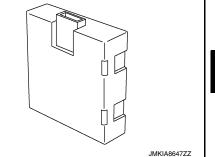
INTELLIGENT KEY SYSTEM : Intelligent Key Warning Buzzer

DLK-17

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



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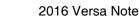


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[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION > INTELLIGENT KEY SYSTEM : Outside Key Antenna (Passenger Side)

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COMPONENT PARTS [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM : Back Door Lock Assembly

Back door lock assembly integrates door lock actuator and back
 door latch.

< SYSTEM DESCRIPTION >

 Door lock actuator locks/unlocks the back door according to the door lock/unlock signal from BCM.

INTELLIGENT KEY SYSTEM : Door Lock and Unlock Switch

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

INTELLIGENT KEY SYSTEM : Front Door Request Switch (Driver Side)

- Front door request switch LH transmits door request switch signal to BCM.
- Front door request switch (LH) (1) is integrated in front outside handle LH.



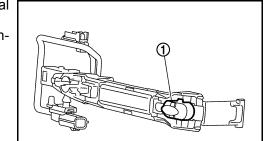
DLK-18

quest switch signal

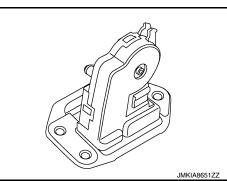
Front door request switch RH transmits door request switch signal to BCM.
Front door request switch RH (1) is integrated in front outside han-

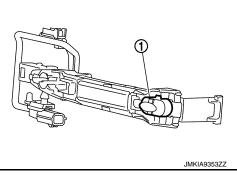
Revision: August 2015

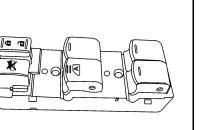
dle RH.



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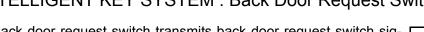
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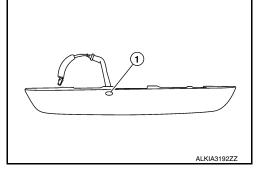
INFOID:000000012429975

< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM : Back Door Request Switch

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





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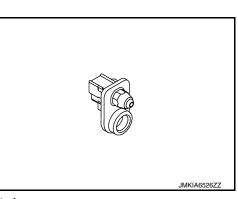
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INTELLIGENT KEY SYSTEM : Door Switch

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



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SYSTEM (POWER DOOR LOCK SYSTEM)

< SYSTEM DESCRIPTION >

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	ВСМ	Door lock actuator signal	Each door lock actuator
Key switch	Key switch signal			
Combination meter	(vehicle speed signal)			

System Description

INFOID:000000012429982

INFOID:000000012429981

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

DOOR LOCK FUNCTION

- The door lock and unlock switch LH is built into the main power window and door lock/unlock switch.
- The door lock and unlock switch RH is built into the 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" in "Work support". Refer to <u>BCS-</u> 18, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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^{*1}

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.

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.

SYSTEM (POWER DOOR LOCK SYSTEM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Setting change of Automatic Door Locks (LOCK) Function	
The LOCK operation setting of the automatic door locks function can be changed.	А
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. Refer to <u>BCS-18, "DOOR LOCK :</u>	В
CONSULT Function (BCM - DOOR LOCK)"	D
Without CONSULT	
The automatic door locks (LOCK) function can be switched ON/OFF by performing the following operation:	С
1. Close all doors. (door switch OFF)	0
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 sec- onds after turning the ignition switch ON.	D
4. The switching is completed when the hazard lamp blinks.	
	Е
$OFF \rightarrow ON$: 2 blinks	
$ON \rightarrow OFF$: 1 blink	
5. The ignition switch must be turned OFF and ON again between each setting change.	F
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.	G
IGN OFF Interlock Door Unlock ^{*1}	
All doors are unlocked when the power supply position is changed from ON to OFF.	
BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is	Н
changed from ignition switch ON to OFF.	
Setting change of Automatic Door Locks (UNLOCK) Function	1
The UNLOCK operation setting of the automatic door locks function can be changed.	I
The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic	J
door locks (UNLOCK) function can be performed at the "Work support" setting. Refer to <u>BCS-18, "DOOR</u> <u>LOCK : CONSULT Function (BCM - DOOR LOCK)"</u> .	-
Without CONSULT	
	DLK
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	L
seconds after turning the power supply position ON.	
The switching is completed when the hazard lamp blinks.	B. 4
	M
$OFF \rightarrow ON$: 2 blinks	
$ON \rightarrow OFF$: 1 blink	Ν
5. The ignition switch must be turned OFF and ON again between each setting change.	IN
^{*1} : This function is set to ON before delivery.	
	0
	_

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< SYSTEM DESCRIPTION >

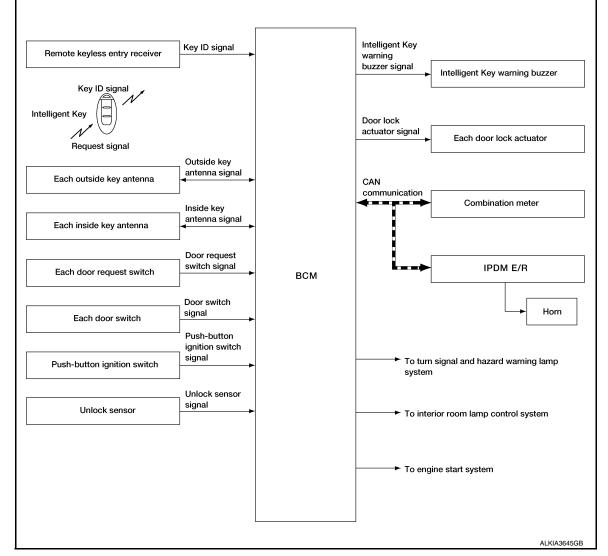
[WITH INTELLIGENT KEY SYSTEM]

SYSTEM (INTELLIGENT KEY SYSTEM) INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM : System Description

INFOID:000000012429983

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 Keys, 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-23
Remote keyless entry	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	<u>DLK-25</u>

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

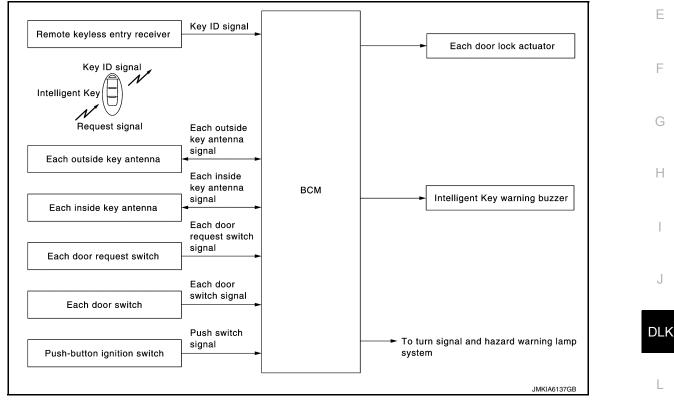
Function	Description	Refer	٨
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	DLK-27	A
Warning	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver.	DLK-27	В
Engine start	The engine can be turned on while carrying the Intelligent Key.	DLK-22	
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state.	DLK-20	С

DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Description

INFOID:000000012429984

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: 2 times, unlock: 1 time) and sounds Intelligent Key buzzer (lock: 1 time, unlock: 1 time) as a reminder.

OPERATION CONDITION

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

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

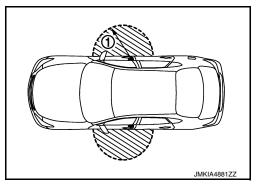
Each request switch operation	Operation condition							
Lock	 All doors are closed. Ignition switch is in the LOCK or OFF position. Panic alarm is not activated. Intelligent Key is outside the vehicle. Intelligent Key is within outside key antenna detection area. P position warning is not activated.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

*: 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" in "Work support". Refer to <u>BCS-22.</u> "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

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: 2 times, unlock: 1 time) and sounds Intelligent Key warning buzzer (lock: 1 time, unlock: 1 time) when door lock or unlock operates by operation of each door request switch.

How to Change Hazard and Buzzer Reminder Mode

Refer to BCS-22, "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

Auto door lock mode can be changed by the "AUTO LOCK SET" in "Work support". Refer to <u>BCS-22, "INTEL-</u> <u>LIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

LIST OF OPERATION RELATED PARTS

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

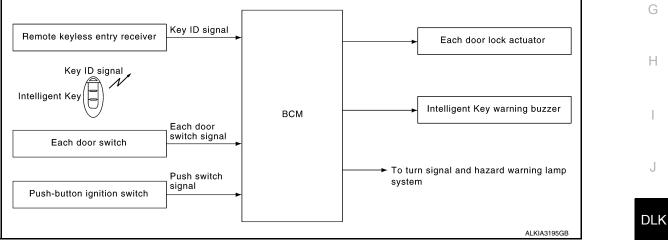
< SYSTEM DESCRIPTION >

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

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Description

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

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: 2 times, unlock: 1 time) and sounds Intelligent Key buzzer (lock: 1 time) as a reminder.

OPERATION CONDITION

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< SYSTEM DESCRIPTION >

Remote controller operation	Operation condition
Lock	 All door are closed. Ignition switch is in the LOCK or OFF position. P position warning is not activated.
Unlock	 Ignition switch is in the LOCK or OFF position. Intelligent Key is outside the vehicle. P position warning is not activated.

HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 2 times, unlock: 1 time) and sounds Intelligent Key warning buzzer (lock: 1 time) 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 BCS-22, "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.

Push switch is pressed.	Operating condition	 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" in "Work support". Refer to <u>BCS-22, "INTEL-</u> <u>LIGENT 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	IPDM E/R	Нот
Door lock/unlock function by remote control button	×	×	×	×	×			×				
Hazard and buzzer reminder function	×	×				×	×	×	×	×		
Door lock/unlock function by remote control button		×	×	×	×			×				

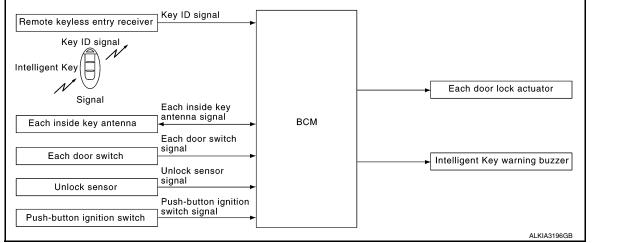
KEY REMINDER FUNCTION

< SYSTEM DESCRIPTION >

KEY REMINDER FUNCTION : System Description

Revision: August 2015

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:

Key reminder function	Operation condition	Operation	
Driver side door closed*	 Right after driver side door is closed under the following conditions: Intelligent Key is inside the vehicle. Driver side door is opened. Driver side door is in unlock state. 	All doors unlock	
Door is open or closed	 Right after all doors are closed under the following conditions: Door lock/unlock switch or driver side door lock knob are operated. Intelligent Key is inside the vehicle. Any door is opened. All doors are locked. 	 All doors unlock Honk Intelligent Key warn- ing buzzer 	
Back door is closed	Right after Back door is closed under the following conditions:Intelligent Key is inside trunk room.All doors are closed.All doors are locked.	 Back door open Honk Intelligent Key warn- ing buzzer 	D

*: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 Μ 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. Ν

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

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< SYSTEM DESCRIPTION >

Intelligent Key low battery warning

Key ID warning

OPERATION CONDITION

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

Warning/Inform	nation functions	Operation procedure										
Intelligent Key system ma	alfunction	A malfunction is detected on BCM and key warning lamp turns ON When condition A, B or condition C is satisfied:										
OFF position warning		 When condition A, B or condition C is satisfied: Condition A Ignition switch: ACC position Door switch (driver side): ON (Door is open) Condition B Turn ignition switch from ON to OFF while door is open. Condition C Intelligent Key backside is contacted to push-button ignition switch while brake pedal is depressed and ignition switch is LOCK or OFF. (When the Intelligent Key battery is discharged.) Door switch (driver side): ON (Door is open) 										
	For internal	 Shift position: Other than P Engine is stopped. (Ignition switch is turned from ON to OFF.) 										
P position warning	For external	 P position warning (For internal) operates. Door switch: ON to OFF (Door is open to close.) Intelligent Key cannot be detected inside the vehicle. 										
ACC warning		 After P position warning operates, or when ignition switch is turned immediately after P position warning operates. Ignition switch: ACC 										
	Door status changes from open to close	 Ignition switch: Other than LOCK and OFF. Door switch: ON to OFF (Door status changes from open to close.) Registered Intelligent Key is not detected inside the vehicle. 										
Take away warning	Int - Do - Do - Do - Sh - En - Do - Sh - En - Do - Int - Do - Int - Do - Int - Aft - Int - Aft - Int - Aft - Int - Aft - Int - Aft - Int - Int - Aft - Int - Igr - Door status changes from open to close - Re - Do - Re - Sh - En - Sh - En - Sh - En	 Ignition switch: Other than LOCK and OFF. Door switch: ON (Door is open.) Registered Intelligent Key is not detected inside the vehicle during ID verification for 5 seconds. 										
	-	 Ignition switch: Other than LOCK position. Push-button ignition switch is pressed. Registered Intelligent Key is not detected inside the vehicle. 										
Door lock operation warn	ing	Door lock operation is requested while door lock operation condition of door request switch is not satisfied.										
		 Ignition switch: ON position Shift position: P Engine is stopped. 										
Engine start information		 Ignition switch: Other than ON. Shift position: P Intelligent Key is in the passenger room after driver door is opened and closed. 										
	Ignition switch is ON po- sition to OFF position	 Ignition switch: ON position to OFF position. Shift position: P position NOTE: 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. 										
Intelligent Key low battery	y warning	BCM detects that Intelligent Key is low battery, after ignition switch is turned ON.										
Key ID warning		Push-button ignition switch is pressed.Registered Intelligent Key is not detected inside the vehicle.										

WARNING METHOD

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

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

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 _ Ε 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 system malfunction		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 ma	Ifunction									×	×			×
OFF position warning	For internal			×					×	×	×			
	For external			×				×			×			
P position warning			×						×	×	×	×		×
ACC warning			×						×	×	×			
	Door is open or close	×		×		×		×	×	×	×			×
Take away warning	Door is open	×		×		×				×	×			×
Take away warning	Push-button ignition switch operation	×	×			×			×	×	×			×
Door lock operation warni	ng	×		×	×	×	×	×			×			
Key ID warning			×			×				×	×			×
Engine start information		×	×			×				×	×		×	
Intelligent Key low battery						×				×	×			×

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions.

			Direct Diagnostic Mode					
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK			×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	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			×	×	×		
Vehicle security system	THEFT ALM			×	×			
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

DIAGNOSIS SYSTEM (BCM) [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

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DATA MONITOR

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

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-UNLOCK SET	Off	Automatic door locks function OFF.	1
	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.	•
AUTOMATIC DOOR LOCK SELECT	P RANGE	Doors lock automatically when shifted out of Park (P).	
	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)

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SELF DIAGNOSTIC RESULT Refer to <u>BCS-50, "DTC Index"</u>.

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< 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 back door request switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
CLUCH SW [On/Off]	×	Indicates condition of clutch interlock 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 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.
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-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

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].

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test Item	Description	Δ
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].	A
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].	
INT LAMP	This test is able to check interior room lamp operation [On/Off].	В
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].	С
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].	D

WORK SUPPORT

Support Item	Se	tting	Description	ļ
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.	
	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 Chirp)	Horn chirp reminder when doors are locked with request switch.	
ANS BACK I-KEY LOCK	Buzzer*		Buzzer reminder when doors are locked with request switch.	
	Off		No reminder when doors are locked with request switch.	
	Off		Horn chirp reminder when doors are locked with Intelligent Key.	
HORN WITH KEYLESS LOCK	On*		No horn chirp reminder when doors are locked with Intelligent Key.	
HAZARD ANSWER BACK	Lock/Unlo	ck*	Hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch.	
	Unlock On	ly	Hazard warning lamp activation when doors are unlocked with Intel- ligent Key or request switch.	
	Lock Only		Hazard warning lamp activation when doors are locked with Intelli- gent Key or request switch.	Γ
	Off		No hazard warning lamp activation when doors are locked/unlocked 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.	
		70 msec		
SHORT CRANKING OUTPUT	Start	100 msec	Starter motor operation duration time setting.	
		200 msec		
	End		_	
	MODE 3	1.5 sec		
PANIC ALARM SET	MODE 2	OFF	Intelligent Key panic alarm button setting.	
	MODE 1*	0.5 sec		
	On*	1	Intelligent Key low battery warning ON.	
LO- BATT OF KEY FOB WARN	Off		Intelligent Key low battery warning OFF.	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Support Item	Setting		Setting		Description
	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			

*: Initial Setting

ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

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[WITH INTELLIGENT KEY SYSTEM]

	ECU	Reference	C
		BCS-30, "Reference Value"	U
DOM		BCS-48, "Fail-safe"	
BCM		BCS-49, "DTC Inspection Priority Chart"	D
		BCS-50, "DTC Index"	

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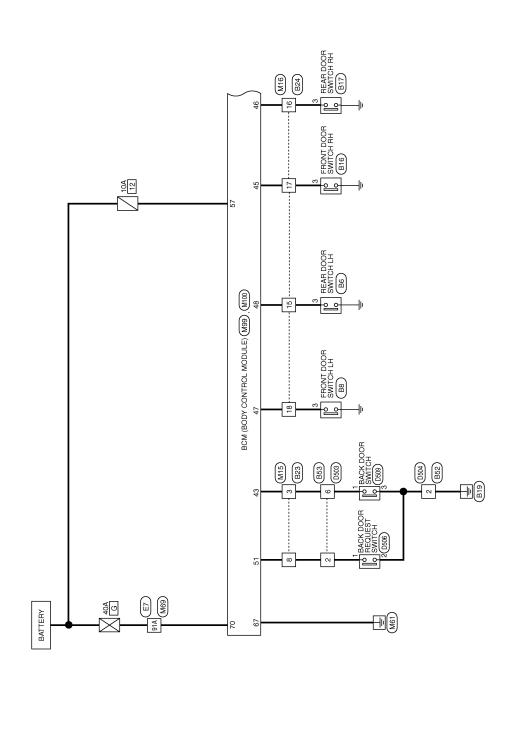
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Revision: August 2015

WIRING DIAGRAM POWER DOOR LOCK SYSTEM

Wiring Diagram

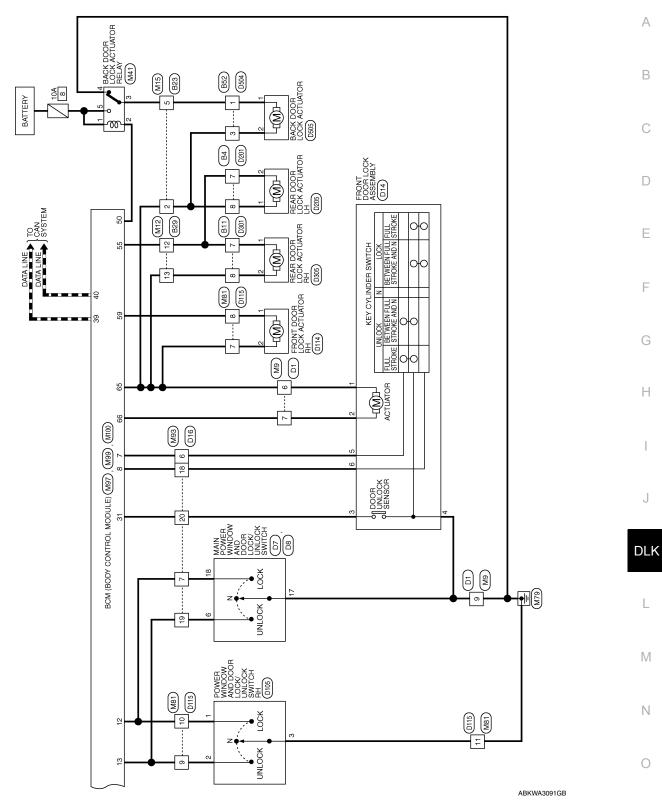
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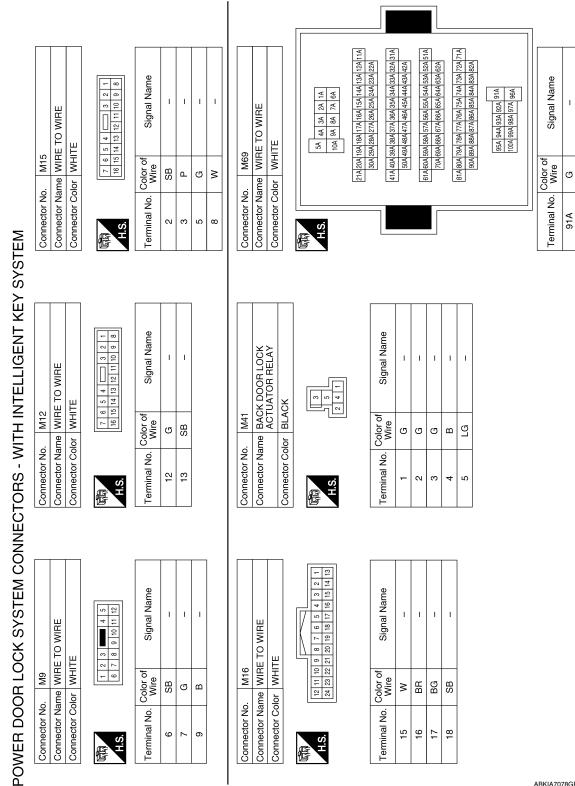
POWER DOOR LOCK SYSTEM - WITH INTELLIGENT KEY SYSTEM

AAKWA0963GB

[WITH INTELLIGENT KEY SYSTEM]



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< WIRING DIAGRAM >

Revision: August 2015

2016 Versa Note

ABKIA7078GB

POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

[WITH INTELLIGENT KEY SYSTEM]

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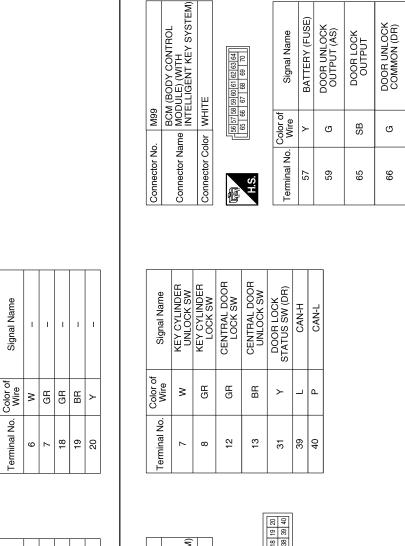
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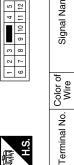
Connector Name WIRE TO WIRE

M93

Connector No.

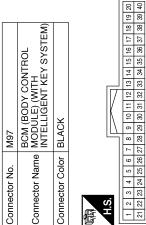
WHITE

Connector Color



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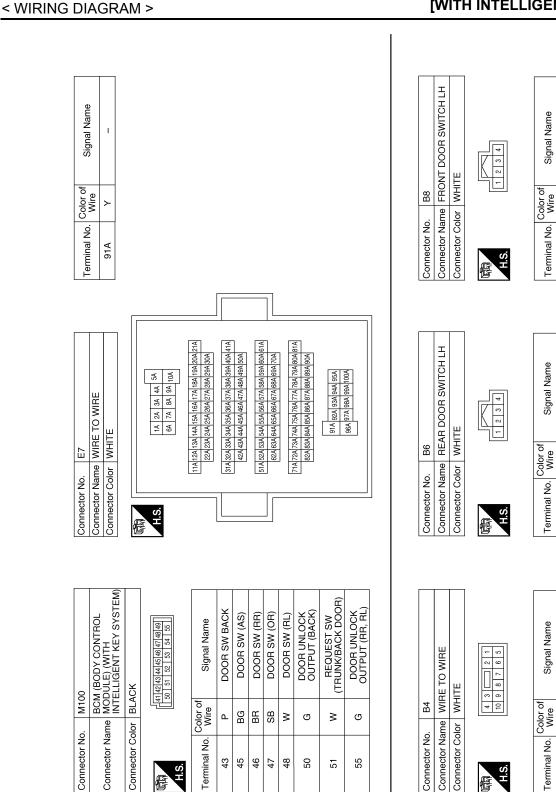
Signal Name	I	I	I	I	I	
Color of Wire	SB	σ	BR	GR	В	
Terminal No.	7	8	6	10	11	



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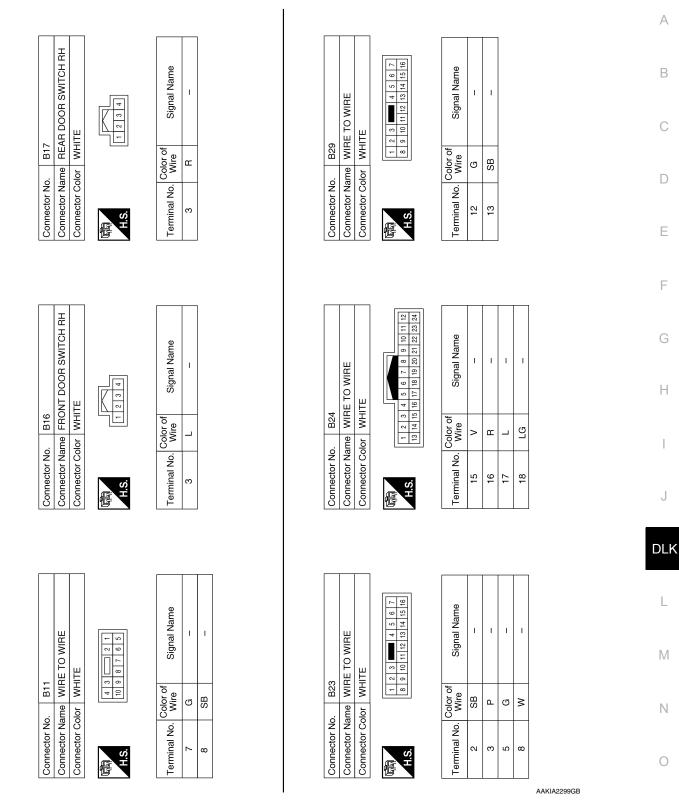
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POWER DOOR LOCK SYSTEM

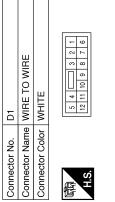
[WITH INTELLIGENT KEY SYSTEM]

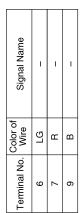


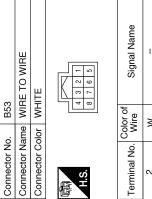
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POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]





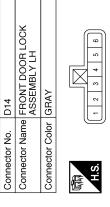




Signal Name	I	I
Color of Wire	M	Ь
Terminal No.	2	9

Connector Name WIRE TO WIRE	ame WII	RE TO WIRE
Connector Color	olor WF	WHITE
际 H.S.		4
Terminal No.	Color of Wire	Signal Name

Signal Name	I	I	I	
Color of Wire	G	В	Μ	
Terminal No.	-	2	3	



Signal Name	I	I	I	I	I	I
Color of Wire	ГG	œ	٩	В	Μ	GR
Terminal No.	-	2	e	4	5	9

LOCK SW

GВ

18

Connector No.	. D8	
Connector Na	tme ANE SWI	Connector Name AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	lor WH	TE
际可 H.S.		
Terminal No. Color of Wire	Color of Wire	Signal Name
17	В	GND

Connector Na	me AND SWI	Connector Name AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	lor WHI	TE
ात्त्रज्ञ H.S.	1 2 3 8 9 10 2	2 3 4 5 6 7 9 10 11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
9	_	UNLOCK SW

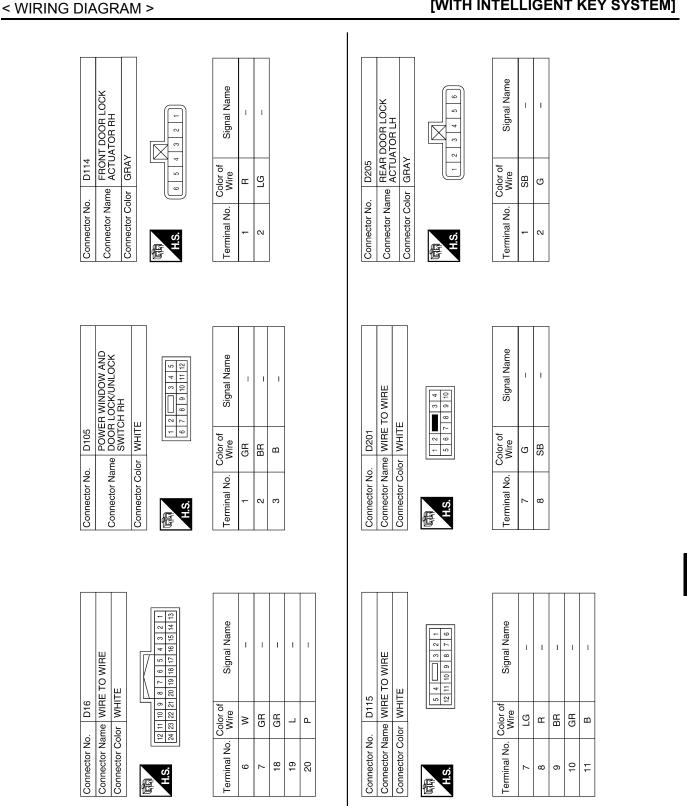
AAKIA2300GB

B52

Connector No.

D7

Connector No.



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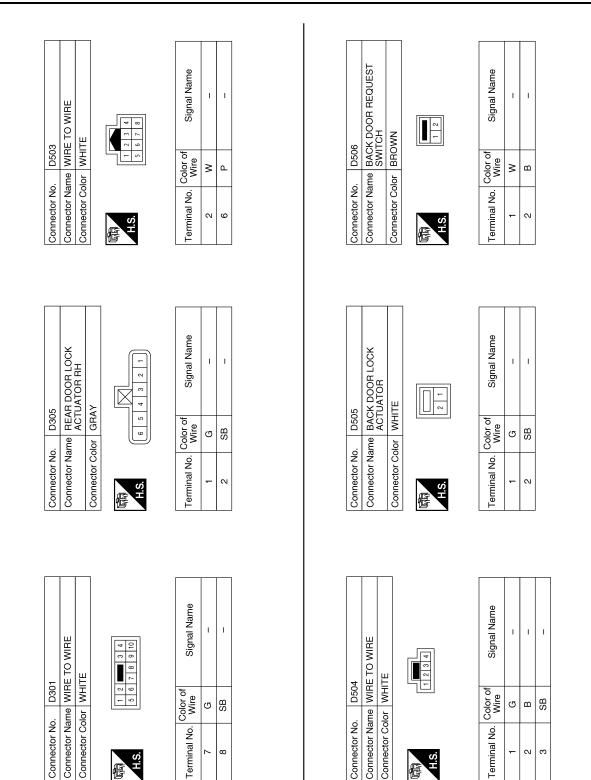
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POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]

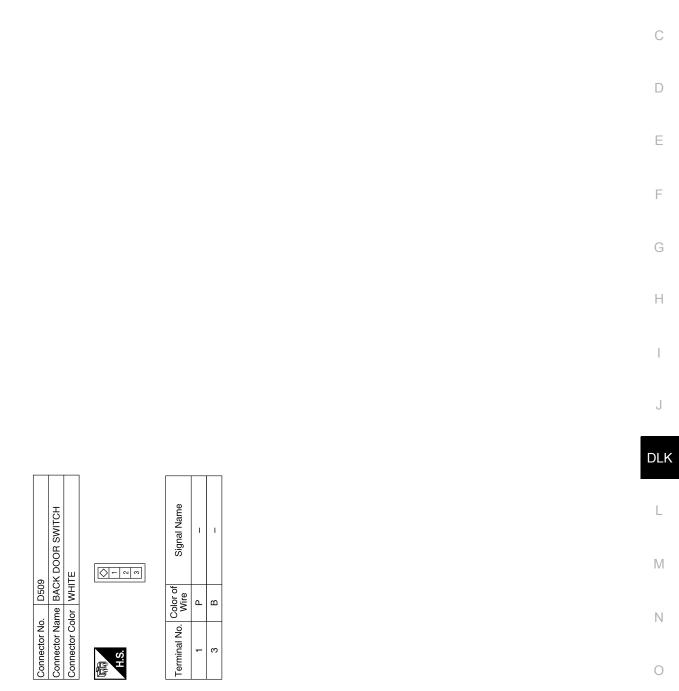
Revision: August 2015



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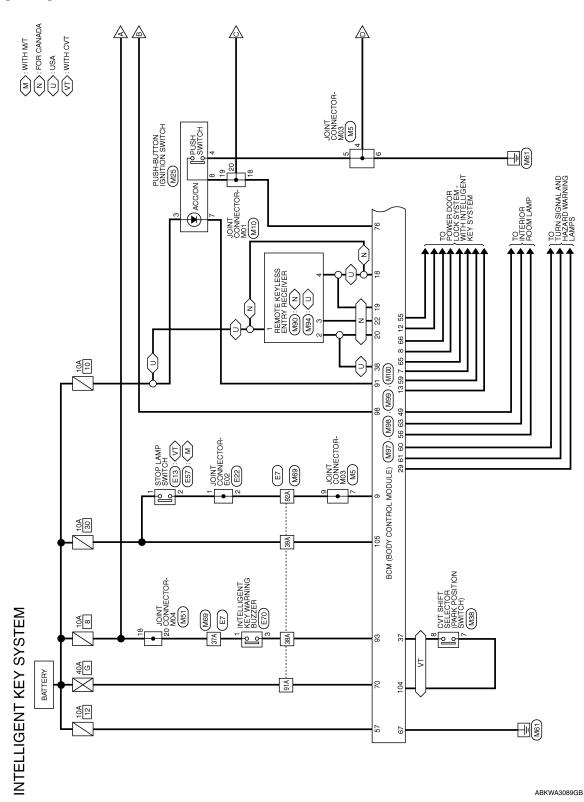


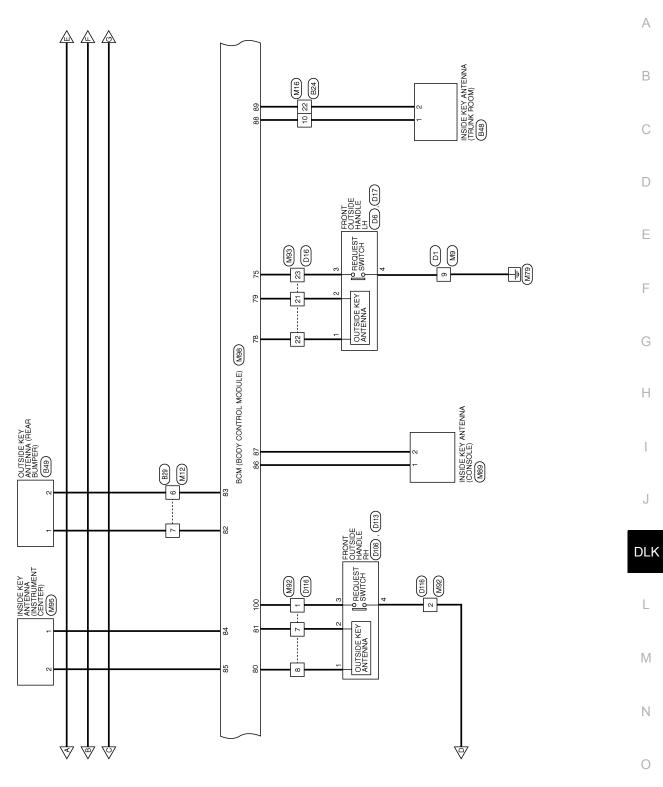
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INTELLIGENT KEY SYSTEM

Wiring Diagram

INFOID:000000012429992



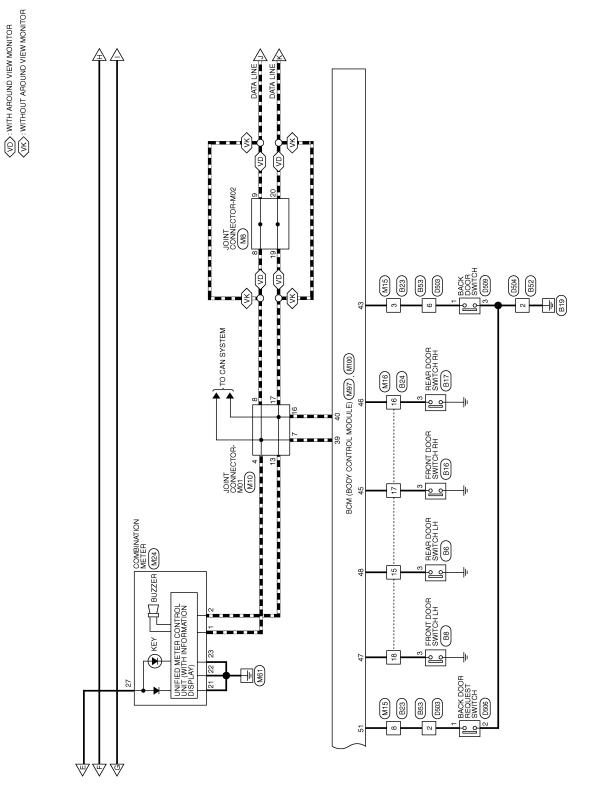


AAKWA0957GB

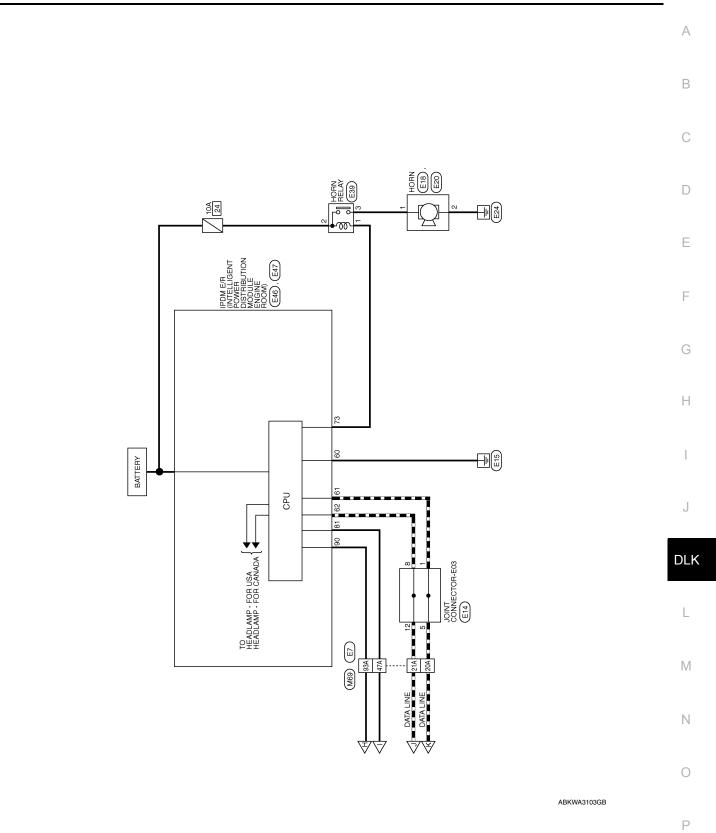
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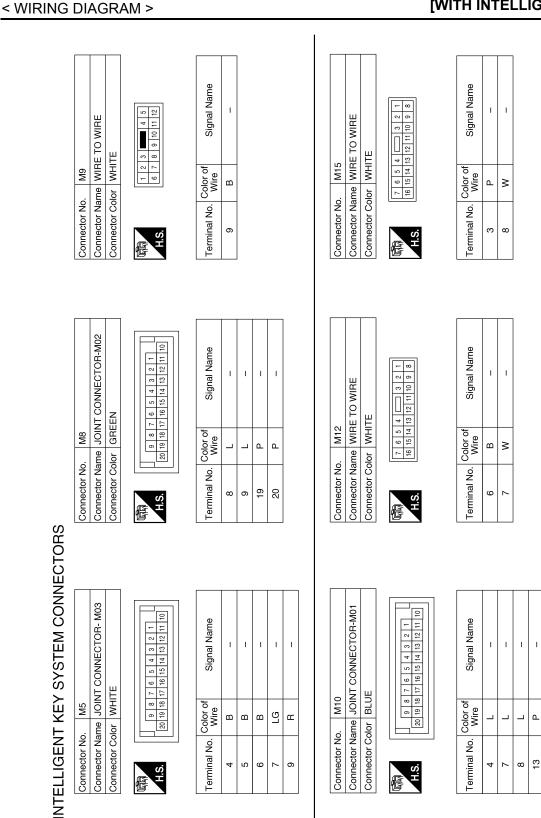
INTELLIGENT KEY SYSTEM

< WIRING DIAGRAM >



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INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

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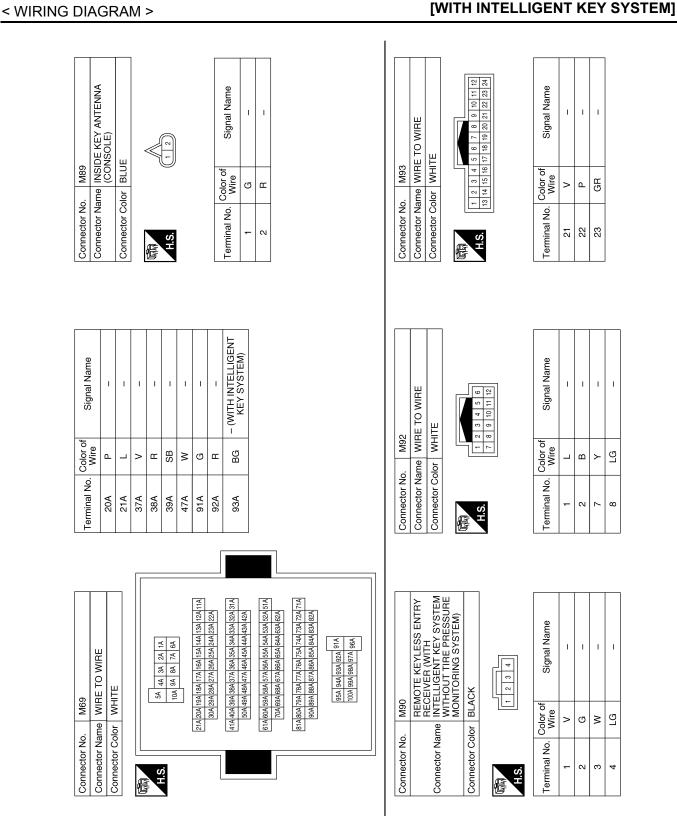
H.S. E

		Connector Name WIRE T Connector Color WHITE	Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. Connector Name Connector Color		M24 COMBINATION METER (WITH TYPE B) WHITE		Connector No. M25 Connector Name PUSH-E SWITCI Connector Color WHITE	o. M25 ame PUSI SWI1 olor WHI1	Connector No. M25 Connector Name PUSH-BUTTON IGNITION SWITCH Connector Color WHITE
Image: Construction Image: Construction Signal Name Terminat No. Color of Wire Signal Name Terminat No. Color of Wire Signal Name 2 E CANH 2 E CANL 2 E CANL 2 E CANL 2 E CANL 2 E CANC 2 CON E 2 CON E 2 <td< th=""><th>园 H.S.</th><th>24 23 22 2</th><th>8 7 6 5 4 3 2 20 19 18 17 16 15 14 -</th><th>H.S.</th><th>15 14 13</th><th></th><th>4 3 2 1</th><th>品.S.H</th><th></th><th></th></td<>	园 H.S.	24 23 22 2	8 7 6 5 4 3 2 20 19 18 17 16 15 14 -	H.S.	15 14 13		4 3 2 1	品.S.H		
1 1 1 1 1 2 P CAN-L 21 B GND (LL) 22 B GND (LL) 23 B GND (POWER) 27 RW BAT 27 RW BAT 28 R - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 7 V - 10 - - 10 - - 10 - - 10 - - 10 - - 10 - -	minal Nc). Color of Wire		[40] 39] 38] 37] 38 Terminal No.		na 28	24 23 22 21	Terminal No.	Color of Wire	Signal Name
21 B GNUL 21 B GND (RUL) 22 B GND (RUL) 27 RW BAT 28 RM R 29 V - 20 V - 21 - - 21 - - 21 - - 21 - - </td <td>10</td> <td>></td> <td>1</td> <td>-</td> <td>_</td> <td>CAN-H</td> <td></td> <td>m</td> <td>σ</td> <td>1</td>	10	>	1	-	_	CAN-H		m	σ	1
21 B GND ((LL) 22 B GND (POWER) 23 B GND (POWER) 27 R/W BAT 27 R/W BAT 27 R/W BAT 27 Monector No. M61 28 R - 29 M2 - 21 M61 - 22 V - 23 V - 20 V - 20 V - 20 V -	15	Ν	I	N	٩	CAN-L		4	в	I
22 B GND (POWEH) 23 B GND (CIRCUIT) 27 RW BAT 27 Name Joint Connector Name 20 M51 Connector Name Connector Name Joint CONNECTOR-M04 Connector Solar BLUE (20 V 20 V	16	BR	I	21	В	(ILL) GND		7	^	Ι
23 B GND (CIRCUIT) 27 R.W M51 27 R.W M51 Connector Name JOINT CONNECTOR-M04 Connector Color BUE Connector Name Color of Signal Name Color of 20 V 20 V	17	BG	I	22	ш	GND (POWER)		ω	œ	I
27 RW BAT Comector No. M51 Comector No. M51 Comector Name JOINT CONNECTOR-M04 Comector Anne JOINT CONNECTOR-M04 Comector Color BLUE Image: Color of the connector Color BLUE Image: Color of the color of the connector Color BLUE Image: Color of the color	18	SB	1	23	m	GND (CIRCUIT				
Image: Name Mass meetor No. M38 meetor Name CVT SHIFT SELECTOR connector Name CVT SHIFT SELECTOR connector Name CVT SHIFT SELECTOR meetor Color WHITE minal No. Connector Name 7 V 20 V 20 V	22	Ľ	1	27	МЯ	BAT				
Image: Signal Name Image: Signal Name Image: Signal Name Image: Signal Name <th>nector D</th> <th>Vame CVT</th> <th>SHIFT SELECTOR TE</th> <th>Connector N Connector C</th> <th>ame JOIN</th> <th>E CONNECTOR-MC</th> <th>4</th> <th></th> <th></th> <th></th>	nector D	Vame CVT	SHIFT SELECTOR TE	Connector N Connector C	ame JOIN	E CONNECTOR-MC	4			
Color of Wire Signal Name V - R - 20 V	si Si			国 H.S.	9 8 20 19 18	7 6 5 4 3 2 1 17 16 15 14 13 12 11 10				
D	minal Nc). Color of Wire		Terminal No.	Color of Wire	Signal Name				
	7	>		18	ГG	I				
	∞	œ	1	20	>	1				

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< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



INTELLIGENT KEY SYSTEM

	Connector Name INSIDE KEY ANTENNA (INSTRUMENT CENTER)	ш	~				Signal Name	1	1		Signal Name	KEYLESS TUNER GND	KEYLESS TUNER POWER SUPPLY	KEYLESS TUNER SIGNAL	KEYLESS TUNER RSSI	HAZARD SW	SHIFT P POSITION, PARKING POSITION SW	INTELLIGENT TUNER	CAN-H	CAN-L				
M95	ne INSII	or BLUE			Ŋ		Color of Wire	٩	_		Color of Wire	>	LG	σ	N	BG	æ	J	_	٩				
Connector No.	Connector Nai	Connector Color	ť		H.S.		Terminal No.	-	2		Terminal No.	18	19	20	22	29	37	88	39	40				
	RY Erw	M															17 18 19 20 37 38 39 40						~~	~
4	REMOTE KEYLESS ENTRY RECEIVER (WITH	TH TIRE PRESSURE	WHITE			2 3 4	f Signal Name	I	I	1	7 M (RODY CONTROL	MODULE) (WITH	BLACK				9 10 11 12 13 14 15 16 17 29 30 31 32 33 34 35 36 37		f Signal Name	KEY CYLINDER	KEY CYLINDER LOCK SW	BRAKE SW1	CENTRAL DOOR LOCK SW	CENTRAL DOOR UNLOCK SW
.			lor Wh	_			Color of Wire	Ľ	IJ	>			_		l		6 7 8 26 27 28		Color of Wire	>	GR	ГG	GR	BR
Connector No.		Connector Name	Connector Color		E	H.S.	Terminal No.	÷	2	4	Connector No.	Connector Name	Connector Color				1 2 3 4 5 21 22 23 24 25		Terminal No.	7	ω	6	12	13

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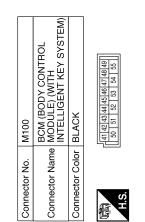
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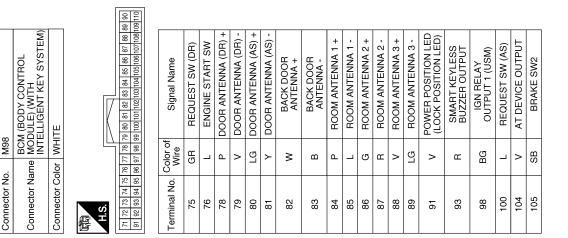
[WITH INTELLIGENT KEY SYSTEM]



							_	
Signal Name	DOOR SW (BACK)	(SA) WS ROOD	DOOR SW (RR)	DOOR SW (DR)	DOOR SW (RL)	LUGGAGE LAMP OUTPUT	REQUEST SW (TRUNK)	DOOR UNLOCK OUTPUT (RR, RL)
Color of Wire	Р	BG	BR	SB	W	Γ	W	G
Terminal No.	43	45	46	47	48	49	51	55



Signal Name	BATTERY SAVER OUTPUT	BATTERY (FUSE)	DOOR UNLOCK OUTPUT (AS)	FLASHER OUTPUT (LEFT)	FLASHER OUTPUT (RIGHT)	ROOM LAMP OUTPUT	DOOR LOCK OUTPUT	DOOR UNLOCK COMMON (DR)
Color of Wire	Μ	Y	G	>	Μ	н	SB	G
Terminal No.	56	57	59	60	61	63	65	66



BATTERY (F/L)

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GND

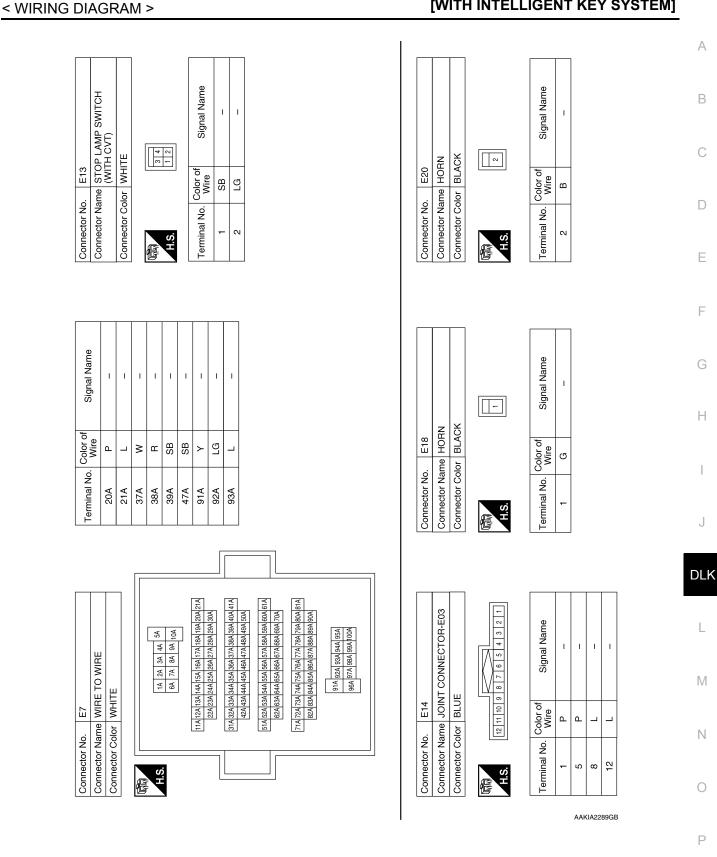
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INTELLIGENT KEY SYSTEM [WITH INTELLIGENT KEY SYSTEM]

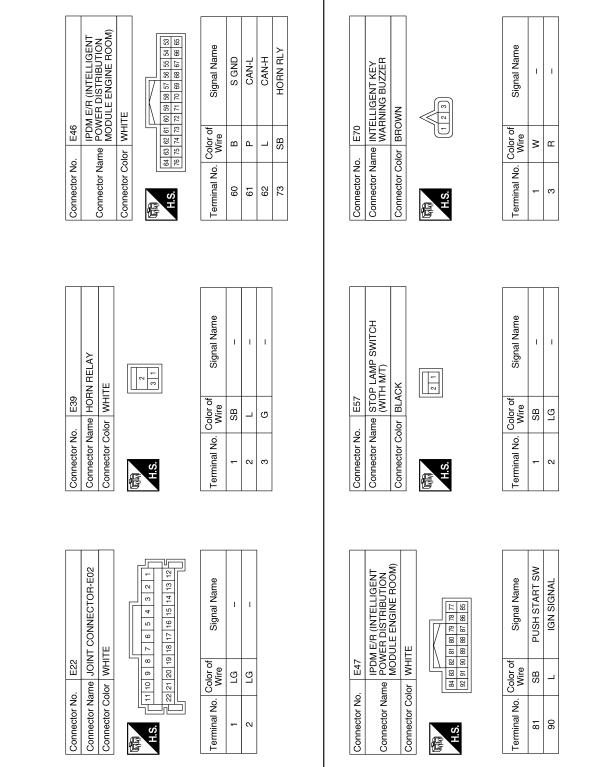
< WIRING DIAGRAM >

Revision: August 2015



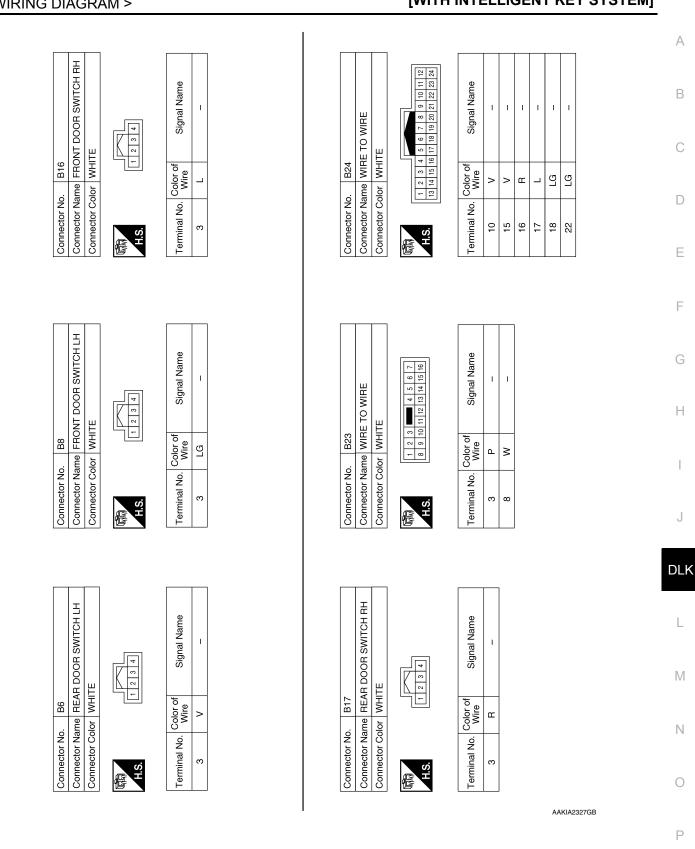
[WITH INTELLIGENT KEY SYSTEM]

Revision: August 2015



INTELLIGENT KEY SYSTEM

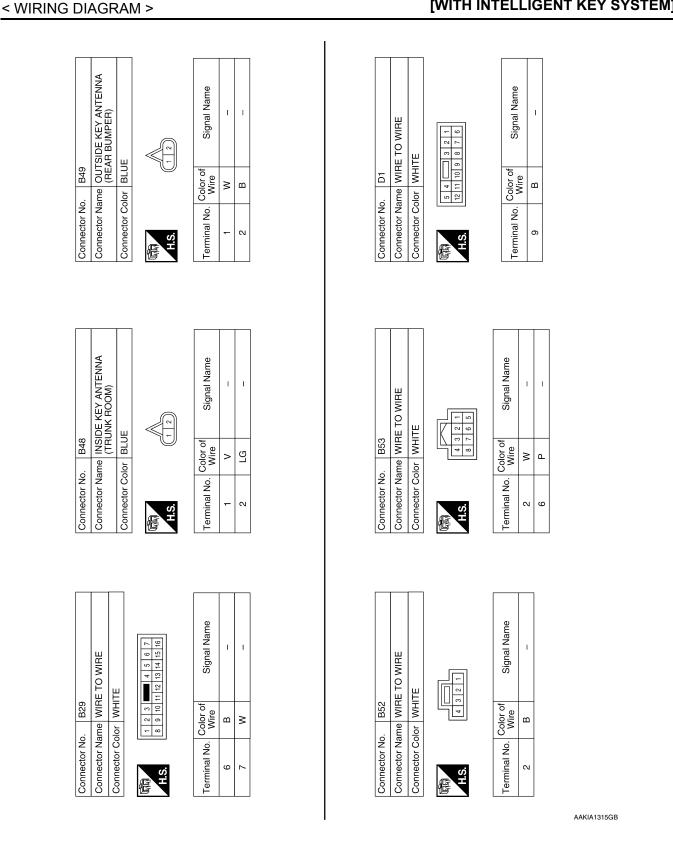
< WIRING DIAGRAM >

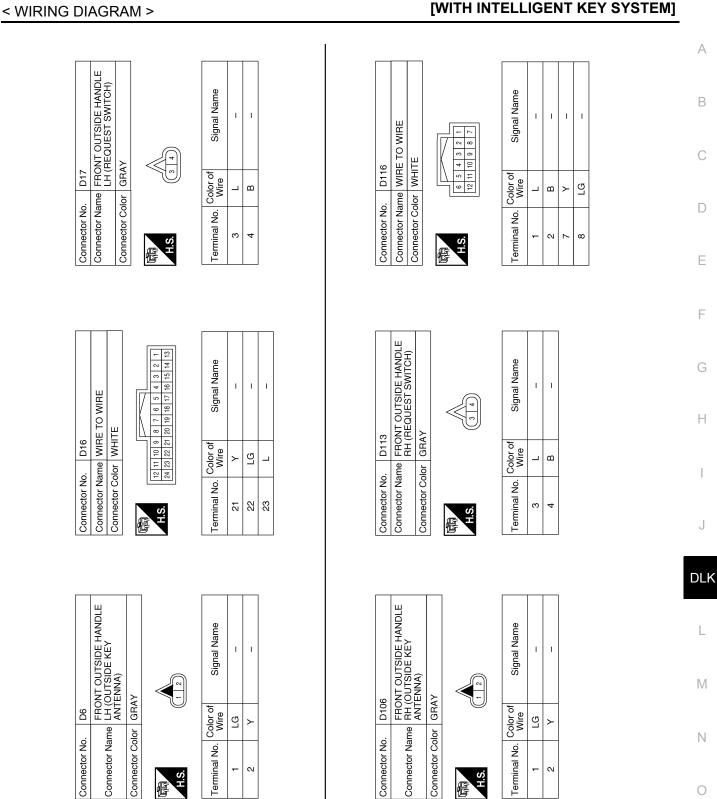


< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

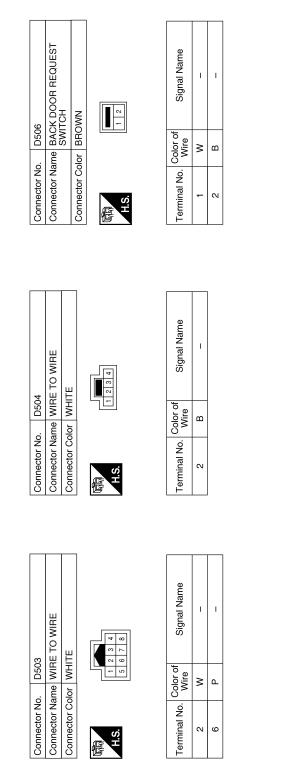
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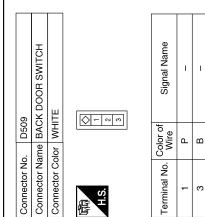




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BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

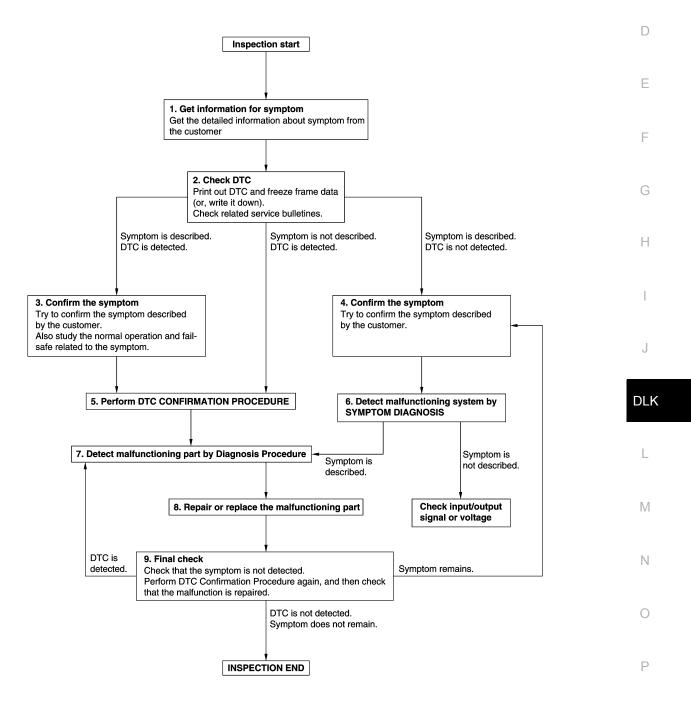
Work Flow

INFOID:000000012429994

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[WITH INTELLIGENT KEY SYSTEM]

OVERALL SEQUENCE



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< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC

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

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3. Symptom is described, DTC is not detected>>GO TO 4. Symptom is not described, DTC is detected>>GO TO 5.

3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Also study the normal operation and fail-safe related to the symptom. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-49. "DTC Inspection Priority Chart"</u> and determine trouble diagnosis order.

NOTE:

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

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

Is DTC detected?

YES >> GO TO 7.

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

6. Detect malfunctioning system by symptom diagnosis

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

Is the symptom described?

- YES >> GO TO 7.
- NO >> Monitor input data from related sensors or check voltage of related module terminals using CON-SULT.

1.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >	[WITH INTELLIGENT KEY SYSTEM]
Inspect according to Diagnosis Procedure of the system.	
Is malfunctioning part detected?	A
YES >> GO TO 8. NO >> Check according to <u>GI-42. "Intermittent Incident"</u> .	
8.REPAIR OR REPLACE THE MALFUNCTIONING PART	В
 Repair or replace the malfunctioning part. Reconnect parts or connectors disconnected during Diagnosis ment. Check DTC. If DTC is detected, erase it. 	Procedure again after repair and replace-
>> GO TO 9. 9.FINAL CHECK	D
When DTC is detected in step 2, perform DTC CONFIRMATION PRO	OCEDURE again, and then check that the \square
malfunction is repaired securely. When symptom is described by the customer, refer to confirmed sy symptom is not detected. Is DTC detected and does symptom remain?	mptom in step 3 or 4, and check that the \ulcorner
YES-1 >> DTC is detected: GO TO 7. YES-2 >> Symptom remains: GO TO 4. NO >> Before returning the vehicle to the customer, always era	ise DTC.
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< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

-INFOID:000000012542545

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement.

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

When replacing BCM, always perform "WRITE CONFIGURATION" with CONSULT. Or not doing so, BCM control function does not operate normally.

Complete the procedure of "WRITE CONFIGURATION" in order.

• Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

• If you set incorrect "WRITE CONFIGURATION", incidents might occur.

NOTE:

When replacing BCM, perform the system initialization (NATS) (if equipped).

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure INFOID:000000012542546

1.SAVING VEHICLE SPECIFICATION

(R)CONSULT Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-59, "Description".

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2

2.REPLACE BCM

Replace BCM. Refer to BCS-74, "Removal and Installation".

>> GO TO 3.

3.WRITING VEHICLE SPECIFICATION

CONSULT Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to BCS-59, "Work Procedure".

>> GO TO 4.

4.REGISTER INTELLIGENT KEYS

For initialization and registration of Intelligent Keys, refer to CONSULT immobilizer mode and follow the onscreen instructions.

>> WORK END

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS B2621 INSIDE ANTENNA

DTC Logic

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.	 Inside key antenna (instrument center) Between BCM Inside key antenna (instrument center)
TC CONFI	RMATION PROC	EDURE	
.PERFORM	M DTC CONFIRMA	TION PROCEDURE	
. Select "II . Perform i	NSIDE ANT DIAGN	of "BCM" using CONSULT. OSIS" in "Work support". 'INSIDE ANT DIAGNOSIS".	
	antenna DTC detec	ted?	
YES >> F	Refer to <u>DLK-65, "Di</u>	agnosis Procedure". instrument center) is OK.	
Diagnosis	Procedure		INFOID:0000000124

Regarding Wiring Diagram information, refer to DLK-46, "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.

(+ BC		()	Condition	Signal
Connector	Terminal			(Reference value)
M98	84	Ground	When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0 1 s JMKIA3839GB
MBO	85	Ground	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 11 11 11 11 11 11 11 11 11

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

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INFOID:000000012429997

< DTC/CIRCUIT DIAGNOSIS >

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.

I	BCM	Inside key antenna	(instrument center)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M98	84	M95	1	Yes
10190	85	10195	2	165

4. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Terminal	Ground		
M98	84	Ground	No	
10190	85		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 (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.

(+ BC		(-)	Condition	Signal (Reference value)
Connector	Terminal			
M98	84	Ground	When Intelligent Key is in the an- tenna detection area.	(V) 15 10 5 0 1 s JMKIA3839GB
Web	85	Ground	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Is the inspection result normal?

- YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-182, "INSTRUMENT CENTER :</u> <u>Removal and Installation"</u>.
- NO >> Replace BCM. Refer to <u>BCS-74</u>, "Removal and Installation".

B2622 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2622 INSIDE ANTENNA

DTC Logic

INFOID:000000012429999

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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.	 Inside key antenna (console) Between BCM Inside key antenna (console)
OTC CONFI	RMATION PROC	EDURE	
1.PERFORM	M DTC CONFIRMA	TION PROCEDURE	
		of "BCM" using CONSULT. OSIS" in "Work support".	
v Jeleci II	NOIDE AINT DIAGN		
3. Perform '	"INSIDE ANT DIAG CM for DTC.		
3. Perform ' 4. Check Bo s inside key a	"INSIDE ANT DIAG CM for DTC. antenna DTC detec	NOSIS".	
3. Perform ⁽ 4. Check B(<u>s inside key a</u> YES >> F	"INSIDE ANT DIAG CM for DTC. antenna DTC detec	NOSIS". . <u>ted?</u> iagnosis Procedure".	

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+	•)			Cianal
BC	M	(-)	Condition	Signal (Reference value)
Connector	Terminal			· · · · · · · · · · · · · · · · · · ·
100	86	Orecord	When Intelligent Key is in the anten- na detection area.	(V) 15 0 1 s 0 JMKIA3839GB
M98	87	Ground	When Intelligent Key is not in the an- tenna detection area.	(V) 15 10 5 0 • 1 • 1 • • • • • • • • • • • • •
				JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

B2622 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

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

В	СМ	Inside key ant	enna (console)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M98	86	M89	1	Yes
10190	87	W09	2	165

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	
M98	86	Ground	No
MIBO	87		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 (console). (New antenna or other antenna)
- 2. Connect BCM connector and inside key antenna (console) connector.
- 3. Turn ignition switch ON.
- 4. Check signal between BCM harness connector and ground using oscilloscope.

	+) CM	(-)	Condition	Signal (Reference value)	
Connector	Terminal			(**************************************	
M98	When Intelligent Key na detection area.	When Intelligent Key is in the anten- na detection area.	(V) 15 0 1 s JMKIA3839GB		
	87	Ground	When Intelligent Key is not in the an- tenna detection area.	(V) 15 10 5 0 11 1 5 0 11 5 0 11 5 0 11 5 10 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 0 15 5 10 15 5 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	

Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-182, "CONSOLE : Removal and Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

B2623 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2623 INSIDE ANTENNA

DTC Logic

INFOID:000000012430001

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[WITH INTELLIGENT KEY SYSTEM]

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA 3	An excessive high or low voltage from inside anten- na (trunk room) is sent to BCM.	 Inside key antenna (trunk room) Between BCM Inside key antenna (trunk room)
TC CONF	IRMATION PROC	EDURE	
.PERFOR	M DTC CONFIRMA	TION PROCEDURE	
		of "BCM" using CONSULT.	
Select "I Perform		of "BCM" using CONSULT. OSIS" in "Work support".	
Select "I Perform Check B	NSIDE ANT DIAGN "INSIDE ANT DIAG	of "BCM" using CONSULT. OSIS" in "Work support". NOSIS".	
Select "I Perform Check B inside key YES >> F	NSIDE ANT DIAGN "INSIDE ANT DIAG CM for DTC. antenna DTC detec	of "BCM" using CONSULT. OSIS" in "Work support". NOSIS". <u>eted?</u> iagnosis Procedure".	

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+)			Cisnel	
BC	Μ	(-)	Condition	Signal (Reference value)	
Connector	Terminal				
MOS	88	Orecord	When Intelligent Key is in the anten- na detection area.	(V) 15 0 1 s 0 JMKIA3839GB	
M98	89	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 BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK INSIDE KEY ANTENNA CIRCUIT

B2623 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

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

В	BCM		Inside key antenna (trunk room)		
Connector	Terminal	Connector	Terminal	Continuity	
M98	88	B48	1	Yes	
14190	89	040	2	163	

4. Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	
M98	88	Ground	No
10190	89		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.

(+) BCM		()	Condition	Signal (Reference value)	
Connector	Terminal				
M98	88	Ground	When Intelligent Key is in the anten- na detection area.	(V) 15 10 5 0 1 s JMKIA3839GB	
	89		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 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	

Is the inspection result normal?

YES >> Replace inside key antenna (trunk room). Refer to <u>DLK-182, "LUGGAGE ROOM : Removal and</u> <u>Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-74</u>, "Removal and Installation".

B2626 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2626 OUTSIDE ANTENNA

DTC Logic

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430005

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DTC DETECTION LOGIC В CONSULT display de-DTC DTC detecting condition Possible cause scription · Outside key antenna (LH) OUTSIDE ANTENNA An excessive high or low voltage from outside key an-B2626 Between BCM and Outside key antenna (LH) is sent to BCM. 1 tenna (LH) D DTC CONFIRMATION PROCEDURE 1.PERFORM DTC CONFIRMATION PROCEDURE Ε 1. Turn ignition switch ON. Check "Self Diagnostic Result" of "BCM" using CONSULT. 2. Is outside key antenna DTC detected? F >> Refer to DLK-71, "Diagnosis Procedure". YES NO >> Outside key antenna (LH) is OK. Diagnosis Procedure INFOID:000000012430006 Regarding Wiring Diagram information, refer to <u>DLK-46, "Wiring Diagram"</u>. Н 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.

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

(+					Signal
BCM		(–) Condition		ion	(Reference value)
Connector	Terminal				()
Noo 78	Ground	When the driver side door request switch is	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 JMKIA5955GB	
M98	79	Ground	operated with ignition switch OFF.	When Intelligent Key is not in the antenna detec- tion area. (The distance between Intelligent Key and antenna: Ap-	(V) 15 10 5 0 •••••••••••••••••••••••••••••
				prox. 2 m.)	500 ms

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connector and outside key antenna (LH) connector.

B2626 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM harness connector and outside key antenna (LH) harness connector.

BCM		Outside key antenna (LH)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M98	78	D6	1	Yes
10190	79	50	2	165

4. Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M98	78	Gibunu	No
1190	79		INU

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 (LH). (New antenna or other antenna)

2. Connect BCM connector and outside key antenna (LH) connector.

3. Turn ignition switch ON.

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

(+) BCM		(–) Condi		on	Signal (Reference value)	
Connector	Terminal					
M98 78	Ground	When the driver side door request switch is	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 0 0 500 ms JMKIA5955GB		
M190	79	Giouna	operated with ignition switch OFF.	When Intelligent Key is not in the antenna detec- tion area. (The distance be- tween Intelligent Key and anten- na: Approx. 2 m.)	(V) 15 10 5 0 500 ms JMKIA5954GB	

Is the inspection result normal?

YES >> Replace outside key antenna (LH). Refer to <u>DLK-184, "OUTSIDE HANDLE : Removal and Instal-</u> lation".

NO >> Replace BCM. Refer to <u>BCS-74. "Removal and Installation"</u>.

B2627 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2627 OUTSIDE ANTENNA

DTC Logic

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430003

А

DTC DETECTION LOGIC В CONSULT display de-DTC DTC detecting condition Possible cause scription Outside key antenna (RH) OUTSIDE ANTENNA An excessive high or low voltage from outside key an-B2627 Between BCM and Outside key antenna (RH) is sent to BCM. 2 tenna (RH) D DTC CONFIRMATION PROCEDURE 1.PERFORM DTC CONFIRMATION PROCEDURE Ε 1. Turn ignition switch ON. Check "Self Diagnostic Result" of "BCM" using CONSULT. 2. Is DTC detected? F YES >> Refer to DLK-73, "Diagnosis Procedure". NO >> Outside key antenna (RH) is OK. Diagnosis Procedure INFOID:000000012430004 Regarding Wiring Diagram information, refer to <u>DLK-46, "Wiring Diagram"</u>. Н 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.

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

	(+) BCM		(–) Condition		Signal	
Connector	Terminal				(Reference value)	
МОР	80	Ground	When the passenger door request switch is	When Intelligent Key is in the an- tenna detection area. (The dis- tance between In- telligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0 5 5 5 5 5 5 5 5 5 5 5 5 5	-
M98	81	Ground	operated with ignition switch OFF.	When Intelligent Key is not in the antenna detec- tion area. (The distance between Intelligent 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-74, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connector and outside key antenna (RH) connector.

B2627 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM harness connector and outside key antenna (RH) harness connector.

B	СМ	Outside key	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M98	80	D106	1	Yes
	81	Ditto	2	163

4. Check continuity between BCM harness connector and ground.

В	СМ		Continuity	
Connector	Terminal	Ground		
M98	80	Ground	No	
IMBO	81		No	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace outside key antenna (RH). (New antenna or other antenna)

2. Connect BCM connector and outside key antenna (RH) connector.

3. Turn ignition switch ON.

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

(+) BCM		()	(–) Condition		Signal (Reference value)
Connector	Terminal				
M98	80	Ground	When the passenger door request switch is	When Intelligent Key is in the an- tenna detection area. (The dis- tance between In- telligent Key and antenna: 80 cm or less.)	(V) 15 10 5 0 500 ms JMKIA5955GB
Web	81	Ground	operated with ignition switch OFF.	When Intelligent Key is not in the antenna detection area. (The dis- tance between In- telligent Key and antenna: Approx. 2 m.)	(V) 15 10 5 0

Is the inspection result normal?

YES >> Replace outside key antenna (RH). Refer to <u>DLK-184, "OUTSIDE HANDLE : Removal and Instal-</u> lation".

NO >> Replace BCM. Refer to <u>BCS-74. "Removal and Installation"</u>.

B2628 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2628 OUTSIDE ANTENNA

DTC Logic

INFOID:000000012430007

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.	 Outside key antenna (rear bumper) Between BCM – Outside key an- tenna (rear bumper)
TC CONF	IRMATION PROC	EDURE	
.PERFOR	M DTC CONFIRMA	TION PROCEDURE	
	tion switch ON. Self Diagnostic Resu	Ilt" of "BCM" using CONSULT.	
. Check "S	0	-	
	y antenna DTC dete	ected?	
<u>s outside ke</u> YES >> I	<u>y antenna DTC dete</u> Refer to <u>DLK-75, "Di</u>	e <u>cted?</u> agnosis Procedure". I (rear bumper) is OK.	

Regarding Wiring Diagram information, refer to <u>DLK-46, "Wiring Diagram"</u>.

1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.

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

(+	-)				Circuit	
BCM		()	Con	dition	Signal (Reference value)	
Connector	Terminal					
	82		When the back door request	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 5 0 5 5 5 5 5 5 5 5 5 5 5 5 5	
M98	83	Ground	switch is operat- ed with ignition 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 5 0 	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Turn ignition switch OFF.

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B2628 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- 2. Disconnect BCM connector and outside key antenna (rear bumper) connector.
- Check continuity between BCM harness connector and outside key antenna (rear bumper) harness connector.

B	СМ	Outside key ante	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M98	82	B49	1	Yes	
14190	83	649	2		

4. Check continuity between BCM harness connector and ground.

В	CM			
Connector	Terminal	Ground	Continuity	
M98	82	Ground	No	
	83		NU	

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 (rear bumper). (New antenna or other antenna)

2. Connect BCM and outside key antenna (rear bumper) connector.

3. Turn ignition switch ON.

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

(+) BCM		(–) Cor		dition	Signal (Reference value)
Connector	Terminal				
M98	82 83	Ground	When the back door 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) 15 0 500 ms JMKIA5955GB (V) 15 10 500 ms JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (rear bumper). Refer to <u>DLK-184, "REAR BUMPER : Removal and</u> <u>Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

PO < DTC/CIRCUIT DIAGNOS	OWER SUPPLY AN		CUIT INTELLIGENT KEY SYSTEM]
POWER SUPPLY A		-	<u> </u>
BCM : Diagnosis Proce	edure		INFOID:000000012542547
Regarding Wiring Diagram ir	formation, refer to <u>BCS-</u>	52, "Wiring Diagram".	
1.CHECK FUSES AND FUS	-		
Check that the following fuse	s and fusible link are not	blown.	
Terminal No.	Sigi	nal name	Fuses and fusible link No.
57	Pottony	nowor supply	12 (10A)
70	Dallery	power supply	G (40A)
 CHECK POWER SUPPLY Disconnect BCM connect Check voltage between I 	ctor M99.	ground.	
BCN	1	Ground	Voltage
Connector	Terminal		
M99	57		Battery voltage
Is the inspection result norma YES >> GO TO 3. NO >> Repair harness o 3.CHECK GROUND CIRCU	al? or connector. JIT		
Check continuity between BC	SM connector M99 and g	rouna.	
BCN	Л	Ground	Continuity
Connector	Terminal	Ground	
M99	67	_	Yes
Is the inspection result normal YES >> Inspection End. NO >> Repair harness of			

COMBINATION METER BUZZER

Component Function Check

1.CHECK FUNCTION

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "INSIDE BUZZER" in "Active Test".
- 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-78, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK METER BUZZER CIRCUIT

Refer to WCS-38, "Component Function Check".

Is the inspection result normal?

- Yes >> GO TO 2.
- No >> Repair or replace harness.
- 2. CHECK INTERMITTENT INCIDENT
- Refer to GI-42. "Intermittent Incident".

>> Inspection End.

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430011

	GNOSI	S >				LIGENT KEY SYSTEM]
OOR LOCK A	CTU	ATOR				
RIVER SIDE						
ORIVER SIDE : C	compc	nent Fund	tion Checl	k		INFOID:000000012430012
CHECK FUNCTION	١					
. Select "DOOR LO 2. Select "DOOR LO 3. Touch "ALL LOCK	CK" in '	"Active Test".		orks normal	ly.	
s the inspection result					,	
YES >> Door lock			E Discussion	D		
NO >> Refer to D ORIVER SIDE : D) <u>E : Diagnosis</u> Iuro	Procedure	<u> </u>	
NIVER ODE . E	hagno		uic			INFOID:000000012430013
Regarding Wiring Diag	ram inf	ormation, refe	er to <u>DLK-36, "</u>	Wiring Diac	<u>gram"</u> .	
1.check door lo	СК АСТ	LUATOR INPL	JT SIGNAL			
1. Turn ignition switc			000000010-			
 Disconnect front d Check voltage bet 				arness con	nector and gro	und.
(+)				Condition		
Front door lock actu LH	uator	(-)				Voltage (Approx.)
Connector Ter	minal					
D14	1 2	Ground	Door lock and u	unlock switch	Lock Unlock	Battery voltage
•			ή LΠ.			
s the inspection result YES >> Replace fr NO >> GO TO 2.						
YES >> Replace fr NO >> GO TO 2.		UATOR CIRC	CUIT			
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO	CK ACT	or and all doo	r lock actuato			
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LO Disconnect BCM of Check continuity b	CK ACT connect between	or and all doo	r lock actuator s connector a	nd front doo	or lock actuator	LH harness connector.
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO 1. Disconnect BCM of 2. Check continuity b	CK ACT	or and all doo BCM harnes	r lock actuator s connector a	nd front doo	or lock actuator	LH harness connector.
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOG 1. Disconnect BCM (2. 2. Check continuity b E Connector	CK ACT connect between	or and all doo	r lock actuator s connector an Fro Connec	nd front doo ont door lock a ctor	or lock actuator	Continuity
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO 1. Disconnect BCM of 2. Check continuity b	CK ACT connect between	or and all doo BCM harnes Terminal	r lock actuator s connector a	nd front doo ont door lock a ctor	or lock actuator Ictuator LH Terminal	
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO . Disconnect BCM of . Check continuity b Connector M99	CK AC1 connect between 3CM	Terminal 65 66	r lock actuator s connector a Fro Connec	nd front doo ont door lock a ctor	or lock actuator	Continuity
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO . Disconnect BCM of . Check continuity b Connector M99	CK AC1 connect between 3CM	Terminal 65 66 BCM harnes	r lock actuator s connector a Fro Connec	nd front doo ont door lock a ctor	or lock actuator	Continuity Yes
YES >> Replace fr NO >> GO TO 2. 2.CHECK DOOR LOO 1. Disconnect BCM of 2. Check continuity b Connector M99	CK AC1	Terminal 65 66 M BCM harnes M Termin	r lock actuator s connector an Fro Connec D14 s connector an	nd front doo ont door lock a ctor	or lock actuator	Continuity
NO >> GO TO 2. 2.CHECK DOOR LOO 1. Disconnect BCM of 2. Check continuity b Connector M99 3. Check continuity b	CK AC1	Terminal 65 66 M BCM harnes	r lock actuator s connector an Fro Connec D14 s connector an	nd front door ont door lock a ctor	or lock actuator	Continuity Yes

3. CHECK BCM OUTPUT SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

1. Connect BCM connector.

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

(+)						
BCM		(—)	Condition		Voltage (Approx.)	
Connector	Terminal					
M99	65	Ground	Door lock and unlock switch	Lock	Battery voltage	
10133	66	Ground	Door lock and unlock switch	Unlock	Dallery vollage	

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-74, "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".
- 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-80</u>, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-36, "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			Condition		Voltage
F	RH Terminal	()	Condition		(Approx.)
D114	2	Ground	Door lock and unlock switch	Lock	Battery voltage
0114	1	Ground Door lock and unlock switch		Unlock	ballery vollage

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.

E	BCM		Front door lock actuator RH		
Connector	Terminal	Connector	Terminal	Continuity	
M99	65	D114	2	Yes	
10199	59	0114	1	165	

3. Check continuity between BCM harness connector and ground.

INFOID:000000012430015

INFOID:000000012430014

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	BCI	M				Continuity
Conn	ector	Terminal		Ground		Continuity
M	M99					No
		59				
s the inspection		<u> ?</u>				
YES >> GO NO >> Reg	103. pair or replace	harness				
3.CHECK BCN	•					
	CM connector.					
		ont door lock	actuator RI	H harness cor	nnector and gro	ound.
((+)					
B	СМ	()		Condition		Voltage (Approx.)
Connector	Terminal					(FF)
M99	65	Ground	Door lock ar	nd unlock switch	Lock	Battery voltage
	59	2.30110			Unlock	
s the inspectior	n result norma	l <u>?</u>				
REAR LH : (Function	Check			INFOID:000000012430016
 Select "DOO Touch "ALL s the inspection 	OR LOCK" of ' OR LOCK" in ' LOCK" or "AL result norma or lock actuato	"Active Test ["] . .L UNLK" to c <u>l?</u>		works normal	ly.	
	er to <u>DLK-81,</u>		<u>Diagnosis</u> P	rocedure".		
REAR LH : [INFOID:000000012430017
						INFOID.000000012430017
	n Die erste ist	annation of t				
Regarding Wirir	ig Diagram inf	ormation, refe	er to <u>DLK-36</u>	b, "wiring Dia	<u>gram"</u> .	
1.снеск рос	OR LOCK ACT	LUATOR INPL	JT SIGNAL			
1. Turn ignitio	n switch OFF.					
2. Disconnect	rear door lock			harness con	nector and gro	und.
((+)					
Rear door lo	ck actuator LH	(–)		Condition		Voltage (Approx.)
Connector	Terminal					

Rear door loo	Rear door lock actuator LH		Condition		(Approx.)
Connector	Terminal				(FF - 7
D205	1	Ground	Door lock and unlock switch	Lock	Battery voltage
	2	Ground	Door lock and unlock switch	Unlock	Dattery voltage

Is the inspection result normal?

YES >> Replace rear door lock actuator LH. Refer to <u>DLK-172</u>, "Exploded View".

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	BCM		Rear door lock actuator LH		
Connector	Terminal	Connector	Terminal	Continuity	
M99	65	D205	1	Yes	
10139	55	D203	2		

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M99	65	Ground	No	
10139	55		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.

(*	(+)				Mallaca
BCM		(—)	Condition		Voltage (Approx.)
Connector	Terminal				(
M99	65	Ground	Door lock and unlock switch	Lock	Battery voltage
	55		Bool lock and unlock switch -		Dattery voltage

Is the inspection result normal?

- YES >> Check for internal short of each door lock actuator.
- NO >> Replace BCM. Refer to <u>BCS-74. "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".
- 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-82, "REAR RH : Diagnosis Procedure"</u>.

REAR RH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-36, "Wiring Diagram".

1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

DLK-82

INFOID:000000012430018

INFOID:000000012430019

< DTC/CIRCUIT DIAGNOSIS >

Rear door look actuator RH (-) Condition (Approx.) Connector Terminal Door look and unlock switch Look Battery voltage be inspection result normal? ES >> Replace rear door look actuator RH. Refer to DLK-172. "Exploded View". O >> GO O >> GO TO 2. CHECK DOOR LOCK ACTUATOR CIRCUIT Disconnect BCM connector and all door look actuator connectors. Check continuity between BCM harness connector and rear door lock actuator RH harness connector. Connector Terminal Continuity M99 65 D305 1 Yes Continuity between BCM harness connector and ground. BCM Continuity Connector Terminal Continuity M99 65 D305 1 No Meinspection result normal? ES >> GO TO 3. Condition Voltage (Approx.) Meinspection result normal? ES >> GO TO 3. Condition Voltage (Approx.) Condition Voltage (Approx.) Condition </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Valtaga</th>							Valtaga
D305 2 1 Ground Door lock and unlock switch Lock Battery voltage he inspection result normal? ES >> Replace rear door lock actuator RH. Refer to DLK-172. "Exploded View". O >> GO TO 2. CHECK DOOR LOCK ACTUATOR CIRCUIT Disconnect BCM connector and all door lock actuator connectors. Check continuity between BCM harness connector and rear door lock actuator RH harness connector. BCM Rear door lock actuator RH Continuity Connector Terminal Continuity M99 65 D305 1 Connector Terminal Continuity Continuity M99 65 D305 1 No Metabolic continuity between BCM harness connector and ground. BCM Continuity Continuity Connector Terminal Ground No he inspection result normal? ES > GO TO 3. No SS SO TO 3. O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connector. Check voltage between rear door lock actuator RH harness connector and ground. (*) Condition <td>Connector Terr</td> <td>or RH</td> <td>(-)</td> <td></td> <td>Condition</td> <td></td> <td>Voltage (Approx.)</td>	Connector Terr	or RH	(-)		Condition		Voltage (Approx.)
D305 1 Ground Door lock and unlock switch Unlock Battery voltage he inspection result normal? ES >> Replace rear door lock actuator RH. Refer to DLK-172. "Exploded View". O O >> GO TO 2. Check DOOR LOCK ACTUATOR CIRCUIT Disconnect BCM connector and all door lock actuator connectors. Check continuity between BCM harness connector and rear door lock actuator RH harness connector. BCM Rear door lock actuator RH Continuity Connector Terminal Connector Terminal Connector Terminal Connector Yes Check continuity between BCM harness connector and ground. ECM Continuity M99 65 D305 2 Yes Connector Terminal Ground Continuity M99 65 D305 1 No M99 65 D305 1 No M99 65 O No No No S5 O No No No S5 O No No M99 65 Ground No No Connector Ferminal Condition Voltage (Approx.) Connector Terminal Condition (Approx.) <		ninal					
ES >> Replace rear door lock actuator RH. Refer to DLK-172. "Exploded View". 0 >> GO TO 2. CHECK DOOR LOCK ACTUATOR CIRCUIT Disconnect BCM connector and all door lock actuator connectors. Check continuity between BCM harness connector and rear door lock actuator RH harness connector. Image: transmission of the transmi	D305		Ground	Door lock an	d unlock switch		Battery voltage
Disconnect BCM connector and all door lock actuator connectors. Check continuity between BCM harness connector and rear door lock actuator RH harness connector. BCM Rear door lock actuator RH Continuity M99 65 D305 2 Yes M99 65 D305 1 Yes Connector Terminal Continuity Yes Yes Check continuity between BCM harness connector and ground. Terminal Continuity M99 65 D305 1 Yes Connector Terminal Ground No No M99 65 So No No No he inspection result normal? ES >> GO TO 3. No No No Connect BCM connector. Check voltage between rear door lock actuator RH harness connector and ground. Contextor Condition Voltage (Approx.) Connector Terminal (-) Condition Voltage (Approx.) Voltage (Approx.) Connector Terminal (-) Condition Voltage (Approx.) Voltage (Approx.) Connector Terminal Door lock and unlock switch Lock Unlock	ES >> Replace re O >> GO TO 2.	ar doo	r lock actuato		to <u>DLK-172.</u>	"Exploded Vie	<u>ew"</u> .
Connector Terminal Connector Terminal Continuity M99 65 D305 2 Yes Check continuity between BCM harness connector and ground. Image: Continuity Yes Continuity Connector Terminal Ground Continuity Yes Connector Terminal Ground Continuity M99 65 No No he inspection result normal? ES >> GO TO 3. No O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Condition Voltage (Approx.) Connector Connector. Check voltage between rear door lock actuator RH harness connector and ground. Voltage (Approx.) M99 65 Ground Door lock and unlock switch Lock Unlock M99 65 Ground Door lock and unlock switch Lock Battery voltage he inspection result normal? ES >> Check for internal short of each door lock actuator. No >> Replace BCM. Refer to BCS-74, "Removal and Installation".	Disconnect BCM c	onnect	or and all doo	r lock actua			or RH harness connector.
Connector Terminal Connector Terminal M99 65 D305 2 Yes Check continuity between BCM harness connector and ground. 1 Yes Connector Terminal Ground Continuity M99 65 0 0 No M99 65 0 No No M99 65 0 No No he inspection result normal? ES >> GO TO 3. No No O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connector. Check voltage between rear door lock actuator RH harness connector and ground. (+) (-) Condition Voltage (Approx.) Connector Terminal Unlock Battery voltage M99 65 Ground Door lock and unlock switch Lock Unlock M99 65 Ground Door lock actuator. Yoltage Settery voltage	В	СМ		I	Rear door lock a	ctuator RH	Continuity
M99 55 D305 1 Yes Check continuity between BCM harness connector and ground. Continuity BCM Continuity Connector Terminal Ground Continuity M99 65 No No he inspection result normal? ES >> GO TO 3. No O >> Repair or replace harness. Check voltage between rear door lock actuator RH harness connector and ground. (+) (-) Condition Voltage (Approx.) Connector Terminal Voltage (Approx.) M99 65 Ground Unlock BCM (-) Condition Voltage (Approx.) Connector Terminal Unlock Battery voltage M99 65 Ground Door lock and unlock switch Lock Battery voltage he inspection result normal? ES >> Check for internal short of each door lock actuator. No No S >> Check for internal short of each door lock actuator. O >> Replace BCM. Refer to BCS-74, "Removal and Installation". O >> Replace BCM. Refer to BCS-74, "Removal and Installation". No <td>Connector</td> <td></td> <td>Terminal</td> <td>Conr</td> <td>ector</td> <td>Terminal</td> <td>Continuity</td>	Connector		Terminal	Conr	ector	Terminal	Continuity
55 1 Check continuity between BCM harness connector and ground. BCM Continuity Connector Terminal Ground Continuity M99 65 0 No he inspection result normal? ES >> GO TO 3. No O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connect BCM connector. Check voltage between rear door lock actuator RH harness connector and ground. Voltage (Approx.) (+) (-) Condition Voltage (Approx.) Connector Terminal Door lock and unlock switch Lock Battery voltage M99 65 Ground Door lock actuator. So the inspection result normal? ES >> Check for internal short of each door lock actuator. So the inspection result normal? ES the inspection result normal? ES >> Check for internal short of each door lock actuator. So the inspection result normal? Ack DOOR	M99		65	ים. יח	305	2	Yes
$\begin{tabular}{ c c c c c } \hline BCM & & & & & & & & & & & & & & & & & & &$							103
$\begin{tabular}{ c c c c } \hline Connector & \hline Terminal & & & & & & & & & & & & & & & & & & &$	Check continuity b	etween	BCM harnes	s connector	and ground.		
Connector Terminal Ground M99 65 he inspection result normal? ES >> GO TO 3. O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connect BCM connector. Check voltage between rear door lock actuator RH harness connector and ground. (+) Voltage (Approx.) BCM (-) Connector Terminal M99 65 55 Ground M99 65 Ground Door lock and unlock switch Lock Unlock M99 65 55 Ground Door lock and unlock switch Lock Unlock Battery voltage he inspection result normal? ES ES > Check for internal short of each door lock actuator. O >> Replace BCM. Refer to BCS-74, "Removal and Installation". ACK DOOR Action of the second and unlock switch		BCI	M				Continuity
M99 55 No he inspection result normal? ES >> GO TO 3. O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connect BCM connector. Connect BCM connector. Check voltage between rear door lock actuator RH harness connector and ground. (+) (-) Condition 0 65 Ground Door lock and unlock switch M99 65 Ground Door lock and unlock switch Lock Unlock Battery voltage he inspection result normal? ES >> Check for internal short of each door lock actuator. O >> Replace BCM. Refer to BCS-74, "Removal and Installation".	Connector		Termi	nal			Continuity
he inspection result normal? ES >> GO TO 3. O >> Repair or replace harness. CHECK BCM OUTPUT SIGNAL Connect BCM connector. Check voltage between rear door lock actuator RH harness connector and ground. (+)	M99		65				No
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			55				NO
$\begin{tabular}{ c c c c c c } \hline BCM & (-) & Condition & Voltage & (Approx.) \\ \hline Connector & Terminal & & & & & & & & & & & & & & & & & & &$	the inspection result	norma					NO
$\begin{tabular}{ c c c c c c } \hline BCM & (-) & Condition & Voltage & (Approx.) \\ \hline Connector & Terminal & & & & & & & & & & & & & & & & & & &$	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con	eplace PUT SIO	<u>l?</u> harness. GNAL	actuator RH	harness con	nector and gr	
Connector Terminal (Approx.) M99 65 Ground Door lock and unlock switch Lock Battery voltage the inspection result normal? ES >> Check for internal short of each door lock actuator. O >> Replace BCM. Refer to BCS-74, "Removal and Installation".	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con Check voltage bety	eplace PUT SIO	<u>l?</u> harness. GNAL	actuator RH	harness con	nector and gr	
M99 Ground Door lock and unlock switch Unlock Battery voltage he inspection result normal? ES >> Check for internal short of each door lock actuator. O >> Replace BCM. Refer to BCS-74, "Removal and Installation". ACK DOOR	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con Check voltage betw (+)	eplace PUT SIO	<u>l?</u> harness. GNAL ear door lock a	actuator RH		nector and gr	round.
 S >> Check for internal short of each door lock actuator. O >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. ACK DOOR 	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con Check voltage betw (+) BCM	eplace PUT SI nector. ween re	<u>l?</u> harness. GNAL ear door lock a	actuator RH		nector and gr	round.
O >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u> . ACK DOOR	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM cont Check voltage betw (+) BCM Connector Terr M99	PUT SI PUT SI nector. ween re minal	I <u>?</u> harness. GNAL ear door lock a		Condition	Lock	round. Voltage (Approx.)
	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con Check voltage betw (+) BCM Connector Terr M99	eplace PUT SIG nector. ween re minal	I <u>?</u> harness. GNAL ear door lock a (-) Ground		Condition	Lock	round. Voltage (Approx.)
	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM cont Check voltage betw (+) BCM Connector Terr M99 6 5 the inspection result ES >> Check for i	eplace PUT SI nector. ween re minal 55 55 norma	I? harness. GNAL ear door lock a (-) Ground I? I short of each	Door lock an	Condition d unlock switch actuator.	Lock Unlock	round. Voltage (Approx.)
cks/unlocks the door with the signal from BCM.	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM con Check voltage betw (+) BCM Connector Terr M99 Connector Terr Connector Terr M99 Connector Terr M99 Connector Terr Con Connector Terr Connector Terr Connector Terr Con Connector Terr Con Connector Terr Con Con Con Con Con Con Con Con	eplace PUT SIG nector. ween re minal 55 55 norma CM. Re	I? harness. GNAL ear door lock a (–) Ground I? I short of each efer to <u>BCS-74</u>	Door lock an	Condition d unlock switch actuator.	Lock Unlock	round. Voltage (Approx.) Battery voltage
CK DOOP : Component Eurotian Chack	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM cont Check voltage betw (+) BCM (+) BCM (+) BCM Connector Terr M99 (+) BCM Connector Terr M99 (+) BCM Connector Terr M99 (+) BCM Connector Terr M99 (+) Connect BCM cont Connector Terr M99 (+) Connector Terr M99 (+) Connector Terr M99 (+) Connector Terr M99 (+) Connector Terr M99 (+) Connector Terr M99 (+) Connector Terr ACK DOOR CON CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCE CONCELLANCELLANCE CONCELLANCELLANCELLANCELLANCELLANCELLANCELLANCELLANCELANCE	eplace PUT SIG nector. ween re minal 55 55 norma cM. Re escrip	I? harness. GNAL ear door lock a (-) Ground I? I short of each efer to <u>BCS-74</u>	Door lock an a door lock a 4, "Removal	Condition d unlock switch actuator.	Lock Unlock	round. Voltage (Approx.)
	the inspection result ES >> GO TO 3. O >> Repair or r CHECK BCM OUTF Connect BCM com Check voltage betw (+) BCM Connector Terr M99 Connector Terr M99 Connector Terr M99 Connector Terr M99 Connector Terr ACK DOOR TER ACK DOOR DEC Concertor Concertor Concertor Concertor Concertor Connector Terr Connector Terr Co	eplace PUT SIG nector. ween re minal 55 55 norma CM. Re escrip	I? harness. GNAL ear door lock a (-) Ground I? I short of each efer to <u>BCS-74</u> tion	Door lock an door lock a 4, "Removal BCM.	Condition d unlock switch actuator. and Installat	Lock Unlock	round. Voltage (Approx.) Battery voltage

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

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Back door lock actuator is OK.
- is OK
- NO >> Refer to <u>DLK-84, "BACK DOOR : Diagnosis Procedure"</u>.

BACK DOOR : Diagnosis Procedure

INFOID:000000012430022

[WITH INTELLIGENT KEY SYSTEM]

Regarding Wiring Diagram information, refer to DLK-36. "Wiring Diagram".

1.CHECK BACK DOOR LOCK ACTUATOR INPUT SIGNAL

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

	(+) Back door lock actuator		Condition		Voltage (V) (Approx.)
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
D505	1	Ground	Door lock and unlock switch	Unlock	Batteny voltage
D305	2	Ground	Door lock and unlock switch	Lock	Battery voltage

Is the inspection result normal?

- YES >> Replace back door lock actuator. Refer to <u>DLK-176, "BACK DOOR LOCK : Removal and Installa-</u> tion".
- NO-1 >> GO TO 2 (lock signal).
- NO-2 >> GO TO 3 (unlock signal).

2.CHECK BACK DOOR LOCK ACTUATOR LOCK CIRCUIT

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

BCM		Back door I	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M99	65	D505	2	Yes	

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M99	65		No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

- NO >> Repair or replace harness.
- ${f 3}.$ CHECK BACK DOOR LOCK ACTUATOR UNLOCK CIRCUIT
- 1. Disconnect back door lock actuator relay connector.
- Check continuity between back door lock actuator relay harness connector and back door lock actuator harness connector.

Back door lock actuator relay		Back door I	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M41	3	D505	1	Yes	

3. Check continuity between BCM harness connector and ground.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Back door loc	k actuator relay		Continuity	
Connector	Terminal	Ground	Continuity	
M41	3		No	
Is the inspection result norm YES >> GO TO 4. NO >> Repair or replac 4.CHECK INTERMITTENT	e harness.			
Check intermittent incident. Refer to <u>GI-42, "Intermittent</u>	Incident"			
>> Inspection End.				

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BACK DOOR LOCK ACTUATOR RELAY

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR LOCK ACTUATOR RELAY

Description

Controls back door lock actuator lock/unlock operation.

Component Function Check

1.CHECK FUNCTION

1. Perform "DOOR LOCK" in "Active Test" using CONSULT.

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

Is the inspection result normal?

YES >> Back door lock actuator relay is OK.

NO >> Refer to <u>DLK-86. "Diagnosis Procedure"</u>.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-36, "Wiring Diagram".

1.CHECK FUSE

1. Turn ignition switch OFF.

2. Check 10 A fuse, No. 8, located in fuse block (J/B).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.check back door lock actuator relay power circuit

1. Remove back door lock actuator relay.

2. Check voltage between back door lock actuator relay harness connector and ground.

(+) Back door lock a	(+) r lock actuator relay (-)		Voltage (V) (Approx.)	
Connector	Terminal		(Approx.)	
M41	1	Ground	Pottory voltage	
1014-1	5	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK BACK DOOR LOCK ACTUATOR RELAY CIRCUIT 1

1. Install the back door lock actuator relay.

2. Check voltage between BCM harness connector and ground.

· · · · · · · · · · · · · · · · · · ·	+) CM	(-) Condition		Condition		
Connector	Terminal	*			(Approx.)	
M100	50	Ground	Door lock and un- LOCK		Battery voltage	
101100	50	Ground	lock switch	UNLOCK	0	

Is the inspection result normal?

YES >> GO TO 6.

NO-1 (when voltage is fixed at 12V)>>Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. NO-2 (when voltage is fixed at 0V)>>GO TO 4.

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INFOID:000000012430024

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BACK DOOR LOCK ACTUATOR RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

. Check voltage betw	onnector. een BCM harness	s connector and gro	ound.		
	(+)				
	BCM	(-)			Voltage (V) (Approx.)
Connector	Terr	ninal			
M100		50	Ground	aund Battery voltage	
NO >> GO TO 5. CHECK BACK DOOL	CM. Refer to <u>BCS-</u> R LOCK ACTUAT				
. Remove back door . Check continuity be			back door lock a	ctuator rela	ay harness connector.
Back door lock ac	tuator relay		BCM		Continuity
Connector	Terminal	Connector	Те	rminal	Continuity
M41	2	M100		50	Yes
. Check continuity be	tween BCM harne	ess connector and	ground.		
	k actuator relay				Continuity
Connector	Terminal	Gr	round		-
M41	2			No	
the inspection result r	ck door lock actua place harness.		ND CIRCUIT		
the inspection result r YES >> Replace ba NO >> Repair or re CHECK BACK DOOI check continuity betwee	ck door lock actua eplace harness. R LOCK ACTUAT	OR RELAY GROU		nd ground.	
the inspection result r YES >> Replace ban NO >> Repair or re CHECK BACK DOOI Check continuity betweet Back door loce Connector	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal	OR RELAY GROU actuator relay harn		nd ground.	Continuity
the inspection result r YES >> Replace bar NO >> Repair or re O.CHECK BACK DOOI Check continuity betwee Back door lock Connector M41	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4	OR RELAY GROU actuator relay harn	ness connector a	nd ground.	
the inspection result r YES >> Replace bar NO >> Repair or re O.CHECK BACK DOOI Check continuity betwee Back door lock Connector M41 Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOI	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT	OR RELAY GROU actuator relay harn	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or re O >> Repair or re O >> Repair or re O >> Repair or re CHECK BACK DOOI Back door lock Back door lock Back door lock M41 M41 Sthe inspection result r YES YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOI Check back door lock additional context of the cont	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT ctuator relay.Refer	OR RELAY GROU actuator relay harn	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or resident of the continuity between CHECK BACK DOOI check continuity between Back door lock Connector M41 the inspection result r YES >> GO TO 7. NO >> Repair or result r CHECK BACK DOOI Check back door lock adding the inspection result r CHECK BACK DOOI check back door lock adding the inspection result r YES >> GO TO 8.	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT ctuator relay.Refer	OR RELAY GROU actuator relay harn Gr OR RELAY	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or resident of the continuity between CHECK BACK DOOI check continuity between Back door lock Connector M41 the inspection result r YES >> GO TO 7. NO >> Repair or result r CHECK BACK DOOI Check back door lock adding the inspection result r CHECK BACK DOOI check back door lock adding the inspection result r YES >> GO TO 8.	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT ctuator relay.Reference normal? ck door lock actua	OR RELAY GROU actuator relay harn Gr OR RELAY	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or re O.CHECK BACK DOOL Check continuity betweet Back door lock Connector M41 Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOL Check back door lock are Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOL Sthe inspection result r YES >> GO TO 8. NO >> Replace bar	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 ormal? eplace harness. R LOCK ACTUAT ctuator relay.Reference normal? ck door lock actua ENT INCIDENT ent.	OR RELAY GROU actuator relay harn Gr OR RELAY	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or re CHECK BACK DOOI check continuity betweet Back door lock Connector M41 Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOI Scheck back door lock ad Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOI Scheck back door lock ad Sthe inspection result r YES >> GO TO 8. NO >> Replace bar .CHECK INTERMITT Check intermittent incide	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT ctuator relay.Reference normal? ck door lock actua ENT INCIDENT ent.	OR RELAY GROU actuator relay harn Gr OR RELAY	round		Continuity
the inspection result r YES >> Replace bar NO >> Repair or re CHECK BACK DOOL check continuity betweet Back door lock Connector M41 Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOL Scheck back door lock are Sthe inspection result r YES >> GO TO 7. NO >> Repair or re .CHECK BACK DOOL Scheck back door lock are Sthe inspection result r YES >> GO TO 8. NO >> Replace bar .CHECK INTERMITT Check intermittent incide CHECK INTERMITT Check intermittent incide Check intermittent incide	ck door lock actua eplace harness. R LOCK ACTUAT en back door lock k actuator relay Terminal 4 normal? eplace harness. R LOCK ACTUAT ctuator relay.Reference normal? ck door lock actua ENT INCIDENT ent. tent Incident" End.	OR RELAY GROU actuator relay harn Gr OR RELAY	round		Continuity

BACK DOOR LOCK ACTUATOR RELAY

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Remove back door lock actuator relay.

3. Check continuity between back door lock actuator relay terminals.

Back door locl	k actuator relay	Condition	Continuity
Terr	ninal	Condition	Continuity
	4	12 V direct current supply between terminals 1 and 2	No
3	4	No current supply	Yes
5	5	12 V direct current supply between terminals 1 and 2	Yes
_	5	No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door lock actuator relay.

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

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

Is the inspection result normal?

- YES >> Main power window and door lock/unlock switch is OK.
- NO >> Refer to <u>DLK-89, "Diagnosis Procedure"</u>.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-36, "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.

(+)				
lain power window and o	door lock/unlock switch	()	Signal (Reference value)	
Connector	Terminal			
D7	6			
D8	18	Ground	(V) 15 10 5 10 ms JPMIA0012GB	
			1.0 - 1.5 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DOOR LOCK AND UNLOCK SWITCH CIRCUIT

1. Disconnect BCM connector.

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

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DOOR LOCK AND UNLOCK SWITCH DSIS > [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

В	СМ	Main power window and door lock/unlock switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M97	12	D8	18	Yes
10107	13	D7	6	165

3. Check continuity between BCM harness connector and ground.

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
M97	12	Ground	No
10197	13		NO

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> Repair or replace harness.

 $\mathbf{3}$. CHECK DOOR LOCK AND UNLOCK SWITCH GROUND

Check continuity between main power window and door lock/unlock switch harness connector and ground.

Main power window and	door lock/unlock switch		Continuity	
Connector	Terminal	Ground	Continuity	
D8	17		Yes	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK DOOR LOCK AND UNLOCK SWITCH

Refer to DLK-90, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-55</u>, "<u>Removal and Instal-</u> lation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:000000012430029

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector.
- 3. Check continuity between main power window and door lock/unlock switch terminals.

Main power window and	I door lock/unlock switch	Cor	dition	Continuity	
Terr	ninal	Condition		Continuity	
6			LOCK	No	
0	17	Main power window and door lock/ unlock	UNLOCK	Yes	
18	17	switch	LOCK	Yes	
10			UNLOCK	No	

Is the inspection result normal?

YES >> Inspection End

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-55</u>, "<u>Removal and Instal-</u> lation".

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UNLOCK SENSOR

Component Function Check

INFOID:000000012542550

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select UNLK SEN-DR in DATA MONITORmode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
UNLK SEN -DR	Driver side door	Lock	OFF
		Unlock	ON

Is the inspection result normal?

- YES >> Unlock sensor is OK.
- NO >> Refer to <u>DLK-92, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000012542551

Regarding Wiring Diagram information, refer to DLK-36, "Wiring Diagram".

1. CHECK UNLOCK SENSOR INPUT SIGNAL

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

(+ Front door lock Connector	,	()	Signal (Reference value)
D14	3	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

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

2.CHECK UNLOCK SENSOR CIRCUIT

1. Disconnect BCM connector.

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

BCM		Front door lock assembly LH		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M97	31	D14	3	Yes	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M97	31		No	

UNLOCK SENSOR

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS > Is the inspection result normal? YES >> Replace BCM. Refer to BCS-74, "Removal and Installation". 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 lock assembly LH Continuity Connector Terminal Ground D14 4 Yes Is the inspection result normal? YES >> GO TO 4. >> Repair or replace harness. NO 4.CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. >> Replace front door lock assembly LH. Refer to DLK-168, "DOOR LOCK : Removal and Installa-NO tion". 5. CHECK INTERMITTENT INCIDENT Refer to GI-42, "Intermittent Incident". >> Inspection End. **Component Inspection** INFOID:000000012542552 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. Disconnect front door lock assembly LH connector. 2. 3. Check continuity between front door lock assembly LH terminals.

	Front door lock assembly LH Terminal		Condition		Continuity	
-					Continuity	
	3	Λ	Driver side door	Unlock	Yes	L
-	5	4	Driver side door	Lock	No	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to DLK-168, "DOOR LOCK : Removal and Installation".

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DOOR REQUEST SWITCH

Component Function Check

1.CHECK FUNCTION

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "REQ SW-DR", "REQ SW-AS" in "Data Monitor".
- 3. Check that the function operates normally according to the following conditions:

Monitor item	Condition		Status
REQ SW -DR	Door request switch LH	Pressed	ON
	Door request switch En	Released	OFF
REQ SW -AS		Pressed	ON
REQ SW -AS	Door request switch RH	Released	OFF

Is the inspection result normal?

YES >> Front door request switch is OK.

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

Diagnosis Procedure

INFOID:000000012430031

INFOID:000000012430030

Regarding Wiring Diagram information, refer to DLK-46. "Wiring Diagram".

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 Connector Terminal		()	Voltage (Approx.)	
		Terminal	-	(//pp/0x.)
Left side	D17	2	Cround	Detter veltage
Right side	D113	3	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR REQUEST SWITCH CIRCUIT

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

Front door request switch			B	Continuity	
Coni	nector	Terminal	Connector	Terminal	Continuity
Left side	D17	2	M98	75	Yes
Right side	D113	3	10190	100	Tes

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

DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	t door request switch			Continuity
Connec		Terminal	Ground	•
Left side	D17	3		No
Right side	D113			
the inspection result		"Domoval and loot	allation"	
	CM. Refer to <u>BCS-74</u> eplace harness.	Removal and inst	allation .	
CHECK DOOR REC		OUND CIRCUIT		
heck continuity betwe			ch harness conner	tor and around
neck continuity betwe		Shi uoon request swi		tor and ground.
	Front door request switc	h		Continuity
Conr	nector	Terminal	Ground	Continuity
Left side	D17	- 4	Ground	Yes
Right side	D113	т		103
the inspection result	normal?			
YES >> GO TO 4.				
•	eplace harness.			
CHECK DOOR REC	QUEST SWITCH			
efer to <u>DLK-95, "Com</u>	ponent Inspection".			
the inspection result	normal?			
YES >> GO TO 5.				
	alfunctioning front do	or request switch.		
CHECK INTERMITT				
efer to <u>GI-42, "Intermi</u>	ttent Incident".			
>> Inspection	End			
•				
component Inspec	ction			INFOID:0000000124
.CHECK DOOR REC	QUEST SWITCH			
. Turn ignition switch				
	ctioning front door re	quest switch connec	tor.	
. Check continuity be	etween malfunctionin	ig front door request	switch terminals.	
Front door re	equest switch			
	minal	- Co	ndition	Continuity
			Pressed	Yes
3	4	Door request switch	Released	No
the increation read	normal?			110
s the inspection result YES >> Inspection				
NO >> Replace m	anunctioning front o	oor request switch.	Refer to <u>DLK-185.</u>	"DRIVER SIDE : Remo

senger side).

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BACK DOOR REQUEST SWITCH

Description

Transmits lock/unlock operation to BCM.

Component Function Check

1.CHECK FUNCTION

Check "REQSW-BD/TR" in "Data Monitor" using CONSULT.

Monitor item	Condition		Status
REQSW-BD/TR	Pack door request switch	Pressed	ON
	Back door request switch	Released	OFF

Is the inspection result normal?

YES >> Back door request switch is OK.

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

Diagnosis Procedure

INFOID:000000012430035

INFOID:000000012430033

INFOID:000000012430034

Regarding Wiring Diagram information, refer to DLK-46. "Wiring Diagram".

1. CHECK BACK DOOR REQUEST SWITCH INPUT SIGNAL

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

(Back door r	(+) Back door request switch		Voltage (V) (Approx.)
Connector	Terminal		
D506	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK BACK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and back door request switch harness connector.

B	BCM		Back door request switch	
Connector	Terminal	Connector	Terminal	Continuity
M100	51	D506	1	Yes

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Connector Terminal		Continuity	
M100	51		No	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> Repair harness or connector.

 $\mathbf{3}$.CHECK BACK DOOR REQUEST SWITCH GROUND CIRCUIT

BACK DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Yes

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

 Back door request switch
 Continuity

 Connector
 Terminal
 Ground

2

D506 Is the inspection result normal?

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

CHECK BACK DOOR REQUEST SWITCH

Refer to DLK-97, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace back door request switch. Refer to <u>DLK-176, "OUTSIDE HANDLE : Removal and Instal-</u> <u>lation"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK BACK DOOR REQUEST SWITCH

1. Turn ignition switch OFF.

- 2. Disconnect back door request switch connector.
- 3. Check continuity between back door request switch terminals.

	Continuity	Condition		Back door request switch Terminal	
J	Continuity				
	Yes	Pressed	Dook door roquot quitab	2	1
DLK	No	Released	Back door request switch	2	I

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace back door request switch. Refer to <u>DLK-176, "OUTSIDE HANDLE : Removal and Instal-</u> <u>lation"</u>.

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DOOR SWITCH

Component Function Check

INFOID:000000012430037

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

Monitor item		Condition		
	Front door LH	Open	ON	
DOOR SW-DR		Closed	OFF	
DOOR SW-AS	Front door DU	Open	ON	
	Front door RH	Closed	OFF	
DOOR SW-RL	Rear door LH	Open	ON	
		Closed	OFF	
DOOR SW-RR	Rear door RH	Open	ON	
		Closed	OFF	

Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-98, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000012430038

Regarding Wiring Diagram information, refer to DLK-36. "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)
Con	nector	Terminal		(,
Front door switch LH	B8	3		(V) 15
Front door switch RH	B16	3	Ground	
Rear door switch LH	B6	3		++ 10ms ∔
Rear door switch RH	B17	3		PKIB4960J 7.0 - 8.0 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.

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

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	Door switch			B	СМ	Operation 11
Conn	ector	Terminal	Connee	ctor	Terminal	
Front door switch LH	B8				47	
Front door switch RH	B16		MAO	45		Vez
Rear door switch LH	B6	3	M10	0	48	Yes
Rear door switch RH	B17	_			46	
Check continuit	y between door	switch harness cor	nector and	d groun	ıd.	
	Door sw	itch				Continuity
(Connector	Terr	minal			Continuity
Front door switch LH	l B8				Ground	
Front door switch RI	H B16		3		Cround	No
Rear door switch LH	B6					
Rear door switch RH	H B17					
efer to <u>GI-42, "Inte</u> >> Inspecti component Insp .CHECK DOOR S	4. e malfunctioning ITTENT INCIDE mittent Incident on End. Dection	INT				INFOID:000000012430
	functioning door y between door s	switch connector. switch terminals.				
	Door switch Terminal			Con	dition	Continuity
					Pressed	No
Front door switch LH					Released	Yes
Front door switch					Pressed	No
RH		Ground part of door			Released	Yes
Rear door switch	3	Ground part of door switch	Door sw	vitch	Pressed	No

Is the inspection result normal?

Revision: August 2015

Rear door switch

LH

RH

Yes

No

Yes

Released

Pressed

Released

- YES >> Inspection End.
- NO >> Replace malfunction door switch.

HAZARD FUNCTION	А
Component Function Check	A
1.CHECK FUNCTION	В
 Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "FLASHER" in "Active Test. Touch "LH" or "RH" to check that it works normally. Is the inspection result normal? 	С
YES >> Hazard warning lamp circuit is OK. NO >> Refer to <u>DLK-101, "Diagnosis Procedure"</u> .	D
Diagnosis Procedure	
1. CHECK HAZARD SWITCH CIRCUIT	Ε
Refer to EXL-85. "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness.	F
2. CHECK INTERMITTENT INCIDENT	G
Refer to GI-42, "Intermittent Incident".	
>> Inspection End.	Н
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< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY WARNING BUZZER

Component Function Check

1.CHECK FUNCTION

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "OUTSIDE BUZZER" in "ACTIVE TEST" mode.

3. Touch "On" or "Off" to check that it works normally.

Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.

NO >> Refer to <u>DLK-102</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012542554

INFOID:000000012542553

Regarding Wiring Diagram information, refer to DLK-46, "Wiring Diagram".

1.CHECK FUSE

1. Turn ignition switch OFF.

2. Check 10 A fuse [No. 8, located in fuse block (J/B)].

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

- 1. Disconnect Intelligent Key warning buzzer connector.
- 2. Check voltage between Intelligent Key warning buzzer harness connector and ground.

(+) Intelligent Key warning buzzer		(-)	Voltage (Approx.)	
Connector	Terminal		V FF - 7	
E70	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.check intelligent key warning buzzer circuit

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and Intelligent Key warning buzzer harness connector.

BCM		Intelligent Key	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M98	93	E70	3	Yes

3. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Terminal	Ground	Continuity
M98	M98 93		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK INTELLIGENT KEY WARNING BUZZER

INTELLIGENT KEY WARNING BUZZER

[WITH INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > Refer to DLK-103, "Component Inspection". А Is the inspection result normal? YES >> Replace BCM. Refer to BCS-74, "Removal and Installation". >> Replace Intelligent Key warning buzzer. Refer to DLK-186, "Removal and Installation". NO В Component Inspection INFOID:000000012542555 1. CHECK INTELLIGENT KEY WARNING BUZZER 1. Turn ignition switch OFF. 2. Disconnect Intelligent Key warning buzzer connector. 3. Connect battery power supply directly to Intelligent Key warning buzzer terminals and check the opera-D tion. Intelligent Key warning buzzer Е Terminal Operation (+) (-) 1 3 Buzzer sounds F Is the inspection result normal? YES >> Inspection End. NO >> Replace Intelligent Key warning buzzer. Refer to DLK-186, "Removal and Installation".

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

Monitor item	Condition
RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.

Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to <u>DLK-104</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 II User Guide for additional information.

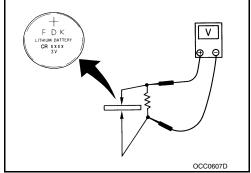
- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.
- **1.**CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA. Refer to <u>DLK-188</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.



INFOID:000000012430042

INFOID:000000012430043

KEY WARNING LAMP А **Component Function Check** INFOID:000000012430044 **1.**CHECK FUNCTION В 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "INDICATOR" in "Active Test". Touch "KEY IND" or "KEY ON" to check that it works normally. 3. Is the inspection result normal? YES >> Key warning lamp is OK. NO >> Refer to DLK-105, "Diagnosis Procedure". D **Diagnosis** Procedure INFOID:000000012430045 Е 1.CHECK KEY WARNING LAMP Refer to DLK-27, "WARNING FUNCTION : System Description". Is the inspection result normal? F YES >> GO TO 2. NO >> Repair or replace harness. 2. CHECK INTERMITTENT INCIDENT Refer to GI-42, "Intermittent Incident". Н >> Inspection End.

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< DTC/CIRCUIT DIAGNOSIS >

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

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating Intelligent Key.

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO for USA >>Refer to <u>DLK-106</u>, "<u>Diagnosis Procedure (For USA)</u>". NO for Canada>>Refer to <u>DLK-107</u>, "<u>Diagnosis Procedure (For Canada)</u>".

Diagnosis Procedure (For USA)

INFOID:000000012430047

Regarding Wiring Diagram information, refer to DLK-46, "Wiring Diagram".

1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

	(+) BCM		Condition	Signal (Reference value)
Connector	Terminal			()
M97	38	Ground	Push-button igni- tion OFF or ACC	0 – 0.5 V
10197	50	Giouna	Push-button igni- tion ON	Battery voltage

Is the inspection result normal?

```
YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.
```

NO >> GO TO 2.

2. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT

1. Disconnect BCM and remote keyless entry receiver connectors.

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

BCM		Remote keyles	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M97	38	M94	2	Yes

3. Check continuity between BCM harness connector and ground.

(+)			Continuity	
BCM		(-)		
Connector	Terminal			
M97	38	Ground	No	

Is the inspection result normal?

INFOID:000000012430046

REMOTE KEYLESS ENTRY RECEIVER [WITH INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > NO >> Repair or replace harness. **3.**CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY А Check voltage between remote keyless entry receiver harness connector and ground. В (+) Voltage Remote keyless entry receiver (-) Approx. Connector Terminal M94 1 Ground Battery voltage Is the inspection result normal? D >> GO TO 4. YES NO-1 >> Check 10A fuse No. 10 located in fuse block J/B. NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 10. Ε ${f 4}.$ CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT Check continuity between remote keyless entry receiver harness connector and ground. Remote keyless entry receiver Continuity Connector Terminal Ground M94 4 Yes Is the inspection result normal? YES >> Replace remote keyless entry receiver. Refer to <u>DLK-187, "Removal and Installation"</u>. NO >> Repair or replace harness. Н Diagnosis Procedure (For Canada) INFOID:000000012430048 Regarding Wiring Diagram information, refer to <u>DLK-46, "Wiring Diagram"</u>. 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL DLK 1. Turn ignition switch OFF. Check signal between remote keyless entry receiver connector and ground with oscilloscope. 2. L

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REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

Terminals					
(+)			Condition	Signal	
Remote keyless entry re- ceiver connector	Terminal	(-)		(Reference value)	
M90	2	Ground	Waiting (All doors closed.)	(V) 15 10 5 0 111111111111111111111111	
			When signal is received. (All doors closed.)	(V) 15 10 5 0 WW/JW/W/W/W/W/W/W/W/W///// 5 0 WW/JW/W/W/W/W/W/W/W/W///// 5 0 JMKIA3841GB	

Is the inspection result normal?

YES >> GO TO 7.

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.

	Terminals			
(+)			Signal	
Remote keyless entry receiv- er connector	Terminal	()	(Reference value)	
M90	4	Ground	(V) 15 10 5 0 1111111111111111111111111111	

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
M97	19	M90	4	Yes

3. Check continuity between BCM connector and ground.

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM connector		Terminal	Ground	Continuity
M97		19	Ciouna	No
NO >> Repair or	t BCM, GO TO 4 replace harness	between BCM and remote ke Y RECEIVER GROUND CIR		er.
heck continuity betw	een remote keyle	ess entry receiver connector a	nd ground.	
Remote keyless entry connector	receiver	Terminal	Ground	Continuity
M90 the inspection resul		1		Yes
	KEYLESS ENTR	Y RECEIVER CIRCUIT 2 tor and remote keyless entry	receiver connecto	or.
BCM	Terminal	Remote keyless entry receive	r Terminal	Continuity
connector	Terrinia	connector	Terrinida	Continuity
M97 the inspection resul YES >> GO TO 6. NO >> Repair or	18 t normal? replace harness	between BCM and remote ke	1	Yes
M97 the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE . Check continuity B BCM	18 <u>t normal?</u> replace harness I KEYLESS ENTR	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive	yless entry receiv	er.
M97 the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE . Check continuity B BCM connector	18 t normal? replace harness KEYLESS ENTR petween BCM con Terminal	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive connector	yless entry receiv ntry receiver conr	er. hector.
M97 S the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE . Check continuity B BCM connector M97	18 t normal? replace harness KEYLESS ENTR between BCM con Terminal 20	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive	yless entry receiv	er.
M97 S the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE . Check continuity B BCM connector M97	18 t normal? replace harness KEYLESS ENTR between BCM con Terminal 20	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive connector M90 nnector and ground.	yless entry receiver conrections of the second seco	er. hector.
M97 S the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE . Check continuity B BCM connector M97 . Check continuity B BCM connector M97	18 t normal? replace harness KEYLESS ENTR between BCM con Terminal 20 between BCM con	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive connector M90 nnector and ground.	yless entry receiv ntry receiver conr	er. Continuity Yes
M97 S the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE Check continuity B BCM connector M97 Check continuity B BCM connector M97 Check continuity B Check continuity B CHECK REMOTE Disconnect BCM Check continuity B	18 t normal? replace harness KEYLESS ENTR between BCM con Terminal 20 between BCM con t normal? replace harness KEYLESS ENTR KEYLESS ENTR KEYLESS ENTR connector.	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless e Remote keyless entry receive connector M90 nnector and ground.	1 yless entry receiver ntry receiver conr r Terminal 2 Ground yless entry. CIRCUIT xeyless entry receiver	er. Prector. Continuity Yes Continuity No
M97 S the inspection resul YES >> GO TO 6. NO >> Repair or CHECK REMOTE Check continuity B BCM connector M97 Check continuity B BCM connector M97 Check continuity B Check continuity B CHECK REMOTE Disconnect BCM Check continuity B	18 t normal? replace harness KEYLESS ENTR Detween BCM condition 20 Detween BCM condition KEYLESS ENTR Connector. Detween BCM hard	M90 between BCM and remote ke Y RECEIVER CIRCUIT 3 nnector and remote keyless entry receive connector M90 nnector and ground. Terminal 20 between BCM and remote keyless I SIGNAL rness connector and remote keyless	1 yless entry receiver ntry receiver conr r Terminal 2 Ground yless entry. CIRCUIT xeyless entry receiver	er. Pector. Continuity Yes Continuity No

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BCM			Continuity	
Connector	Connector Terminal		Continuity	
M97	22		No	

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness between BCM and remote keyless entry.

 $\mathbf{8}$. CHECK REMOTE KEYLESS ENTRY RECEIVER RSSI SIGNAL

1. Reconnect remote keyless entry receiver connector.

2. Check signal between remote keyless entry receiver harness connector and ground using oscilloscope.

(+) Remote keyless entry receiver		(-)	Condition	Signal (Reference value)
Connector	Terminal			
M90	3	Ground	During waiting	(V) 6 4 2 0 100 ms JMKIA5952GB
W90		Ground	When pressing and holding either button on Intelli- gent Key.	(V) 6 4 2 0 100 ms JMKIA5953GB

Is the inspection result normal?

YES >> GO TO 9.

NO >> Replace remote keyless entry receiver. Refer to <u>DLK-187, "Removal and Installation"</u>.

9.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

SHIFT P WARNING LAMP А **Component Function Check** INFOID:000000012430049 **1.**CHECK FUNCTION В 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT. 2. Select "LCD" in "Active Test". 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-111, "Diagnosis Procedure". D **Diagnosis** Procedure INFOID:000000012430050 Е 1.CHECK SHIFT P WARNING LAMP Refer to TM-220, "Component Parts Function Inspection". Is the inspection result normal? F YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK INTERMITTENT INCIDENT Refer to GI-42, "Intermittent Incident". Н >> Inspection End.

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

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

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

ALL DOOR : Description

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

ALL DOOR : Diagnosis Procedure

1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

Refer to DLK-89, "Component Function Check".

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 LH. Refer to DLK-79, "DRIVER SIDE : 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 <u>BCS-74, "Removal and Installation"</u>.
- 2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

DRIVER SIDE

DRIVER SIDE : Description

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

DRIVER SIDE : Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR

Check front door lock assembly LH.

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE BCM

1. Replace BCM. Refer to BCS-74, "Removal and Installation".

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>.

PASSENGER SIDE

INFOID:000000012430053

INFOID:000000012430051

INFOID:000000012430052

INFOID:000000012430054

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

<pre>< SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]</pre>	
PASSENGER SIDE : Description	
Passenger side door does not lock/unlock using door lock and unlock switch.	А
PASSENGER SIDE : Diagnosis Procedure	В
1. CHECK DOOR LOCK ACTUATOR	D
Check front door lock actuator RH.	С
Refer to <u>DLK-80, "PASSENGER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	D
2.REPLACE BCM	
1. Replace BCM. Refer to BCS-74, "Removal and Installation".	Е
 Confirm the operation after replacement. Is the result normal? 	
YES >> Inspection End.	F
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . REAR LH	
REAR LH : Description	G
Rear LH side door does not lock/unlock using door lock and unlock switch.	
REAR LH : Diagnosis Procedure	Н
1. CHECK DOOR LOCK ACTUATOR	
Check rear door lock actuator LH.	
Refer to DLK-81, "REAR LH : Component Function Check".	
<u>Is the inspection result normal?</u> YES >> GO TO 2.	J
NO >> Repair or replace the malfunctioning parts.	
2.REPLACE BCM	DLk
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 	
Is the result normal?	L
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	Μ
REAR RH	IVI
REAR RH : Description	N
Rear RH side door does not lock/unlock using door lock and unlock switch.	IN
REAR RH : Diagnosis Procedure	0
1. CHECK DOOR LOCK ACTUATOR	0
Check rear door lock actuator RH.	Р
Refer to <u>DLK-82, "REAR RH : Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.REPLACE BCM	
REPLACE BCM I. Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u> .	
. Replace Dom. Refer to Doo 74, Removal and installation.	

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

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

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

DOOR KEY CYLINDER	
< SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]	
DOOR DOES NOT LOCK/UNLOCK WITH DRIVER SIDE DOOR LOCK	
KNOB OR DOOR KEY CYLINDER	A
Diagnosis Procedure	В
1.CHECK POWER DOOR LOCK OPERATION	
Check power door lock operation.	С
Does door lock/unlock with door lock and unlock switch?	0
YES >> GO TO 2. NO >> Refer to <u>DLK-112, "ALL DOOR : Diagnosis Procedure"</u> .	
2.CHECK UNLOCK SENSOR	D
Check unlock sensor. Refer to DLK-92, "Component Function Check".	E
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	F
3.REPLACE BCM	
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 	G
Is the result normal?	
YES >> Inspection End.	Н
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	

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DOOR DOES NOT LOCK/UNLOCK WITH DOOR RI	
< SYMPTOM DIAGNOSIS > [WITH	INTELLIGENT KEY SYSTEM]
DOOR DOES NOT LOCK/UNLOCK WITH DOOR RE	QUEST SWITCH
ALL DOOR REQUEST SWITCHES	
ALL DOOR REQUEST SWITCHES : Description	INFOID:000000012430062
All doors do not lock/unlock using all door request switches.	
ALL DOOR REQUEST SWITCHES : Diagnosis Procedure	INFOID:000000012430063
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function.	
Does door lock/unlock with Intelligent Key button?	
YES >> GO TO 2. NO >> Refer to <u>DLK-22, "INTELLIGENT KEY SYSTEM : System Descrip</u>	ation"
2.CHECK LOCK/UNLOCK BY I-KEY SETTING IN WORK SUPPORT	<u>5001</u> .
 Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "LOCK/UNLOCK BY I-KEY" in "Work support". 	
Check "LOCK/UNLOCK BY I-KEY" setting in "Work support".	
Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTE</u>	<u>ELLIGENT KEY)"</u> .
Is the inspection result normal?	
YES >> GO TO 3. NO >> Set "ON" in "LOCK/UNLOCK BY I-KEY".	
3. CHECK DOOR SWITCH	
Check door switch.	
Refer to <u>DLK-98, "Component Function Check"</u> .	
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 <u>DLK-65, "DTC Logic"</u>. 	
Console: Refer to <u>DLK-67</u> , " <u>DTC Logic</u> ".	
 Trunk room: Refer to <u>DLK-69, "DTC Logic"</u>. 	
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5. CHECK OUTSIDE KEY ANTENNA	
Check outside key antenna.	
LH side: Refer to <u>DLK-73, "DTC Logic"</u> .	
RH side: Refer to <u>DLK-71, "DTC Logic"</u> .	
Rear bumper: Refer to <u>DLK-75, "DTC Logic"</u> .	
<u>Is the inspection result normal?</u> YES >> GO TO 6.	
NO >> Repair or replace the malfunctioning parts.	
6.REPLACE BCM	
1. Replace BCM. Refer to <u>BCS-74, "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-42, "Intermittent Incident"</u>	

DRIVER SIDE DOOR REQUEST SWITCH

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SW < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT]	
DRIVER SIDE DOOR REQUEST SWITCH : Description	INFOID:000000012430064
All doors do not lock/unlock using door request switch LH.	
DRIVER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure	INFOID:000000012430065
1.CHECK DOOR REQUEST SWITCH LH	
Check door request switch LH. Refer to DLK-94, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.CHECK OUTSIDE KEY ANTENNA	
Check outside key antenna LH.	
Refer to <u>DLK-73, "DTC Logic"</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-74, "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-42, "Intermittent Incident"</u>. 	
PASSENGER SIDE DOOR REQUEST SWITCH	
PASSENGER SIDE DOOR REQUEST SWITCH : Description	INFOID:000000012430066
All doors do not lock/unlock using door request switch RH.	
PASSENGER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure	INFOID:000000012430067
1. CHECK DOOR REQUEST SWITCH RH	
Check door request switch RH. Refer to DLK-94, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts. 2.CHECK OUTSIDE KEY ANTENNA	
Check outside key antenna RH.	
Refer to <u>DLK-71, "DTC Logic"</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-74, "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-42, "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

INFOID:000000012430068

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-112</u>, "ALL DOOR : Diagnosis Procedure".

2.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.

Refer to DLK-106. "Component Function Check".

Is the inspection result normal?

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

3.CHECK INTELLIGENT KEY

Check Intelligent Key.

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-98. "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.REPLACE BCM

- 1. Replace BCM. Refer to <u>BCS-74, "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-42, "Intermittent Incident"</u>.

IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]	
IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE	А
Diagnosis Procedure	A
1. CHECK POWER DOOR LOCK OPERATION	В
Check power door lock operation.	
Does door lock/unlock with driver side door lock knob and door key cylinder?	С
YES >> GO TO 2. NO >> Refer to <u>DLK-115, "Diagnosis Procedure"</u> .	
2.CHECK DOOR SWITCH	D
Check door switch. Refer to <u>DLK-98, "Component Function Check"</u> .	
Is the inspection result normal?	Е
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3. REPLACE BCM	F
1. Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u> .	
 Confirm the operation after replacement. <u>Is the result normal?</u> 	G
YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	Н

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AUTO DOOR LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000012430070

[WITH INTELLIGENT KEY SYSTEM]

1. CHECK AUTO LOCK SET SETTING IN WORK SUPPORT

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "AUTO LOCK SET" in "Work support".
- Check "AUTO LOCK SET" setting in "Work support". Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "MODE 2", "MODE 3", "MODE 4", "MODE 5", "MODE 6" or "MODE 7" in "AUTO LOCK SET". 2.REPLACE BCM

1. Replace BCM. Refer to BCS-74, "Removal and Installation".

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>.

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-ATE

Diagnosis Procedure	INFOID:000000012430071	В
1. CHECK AUTOMATIC LOCK/UNLOCK SELECT SETTING IN WORK SUPPORT		
 Select "DOOR LOCK" of "BCM" using CONSULT. Select "AUTOMATIC LOCK/UNLOCK SELECT" in "Work support". Check "AUTOMATIC LOCK/UNLOCK SELECT" setting in "Work support". Refer to <u>BCS-18</u>, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)". 		С
Is the inspection result normal?		D
YES >> GO TO 2. NO >> Set "Lock Only" or "Lock/Unlock" in "Work support". 2.CHECK AUTOMATIC DOOR LOCK SELECT SETTING IN WORK SUPPORT		Е
 Select "DOOR LOCK" of "BCM" using CONSULT. Select "AUTOMATIC DOOR LOCK SELECT" in "Work support". Check "AUTOMATIC DOOR LOCK SELECT" setting in "Work support". Refer to <u>BCS-18, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>. 		F
Is the inspection result normal? YES >> GO TO 3. NO >> Set "VH SPD" in "AUTOMATIC DOOR LOCK SELECT".		G
3.REPLACE BCM		Н
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 		
Is the result normal?		
 YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. 		J

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IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000012430072

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".

Check "AUTOMATIC LOCK/UNLOCK SELECT" setting in "Work support". 3. Refer to BCS-18, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "Unlock Only" or "Lock/Unlock" in "AUTOMATIC LOCK/UNLOCK SELECT".

2.check automatic door unlock select setting in work support

- 1. Select "DOOR LOCK" of "BCM" using CONSULT.
- Select "AUTOMATIC DOOR UNLOCK SELECT" in "Work support". 2.
- Check "AUTOMATIC DOOR UNLOCK SELECT" setting in "Work support". 3. Refer to BCS-18, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "MODE 1" or "MODE 3" in "AUTOMATIC DOOR UNLOCK SELECT".

3.REPLACE BCM

- Replace BCM. Refer to BCS-74, "Removal and Installation". 1.
- Confirm the operation after replacement. 2.

Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

HAZARD AND BUZZER REMINDER DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KE	Y SYSTEM]
HAZARD AND BUZZER REMINDER DOES NOT OPERATE	А
Diagnosis Procedure	NFOID:000000012430073
1. CHECK HAZARD ANSWER BACK SETTING IN WORK SUPPORT	В
 Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "HAZARD ANSWER BACK" in "Work support". Check the "HAZARD ANSWER BACK" setting in "Work support". Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>. 	С
Is the inspection result normal?	
YES >> GO TO 2. NO >> Set the "Lock Only", "Unlock Only" or "Lock/Unlock" in "HAZARD ANSWER BACK".	D
2. CHECK ANS BACK I-KEY LOCK SETTING IN WORK SUPPORT	
 Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "ANS BACK I-KEY LOCK" in "Work support. Check the "ANS BACK I-KEY LOCK" setting in "Work support". Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>. 	F
Is the inspection result normal? YES >> GO TO 3. NO >> Set the "Horn Chirp" or "Buzzer" in "ANS BACK I-KEY LOCK".	G
3. CHECK ANS BACK I-KEY UNLOCK SETTING IN WORK SUPPORT	
 Select "INTELLIGENT KEY" of "BCM" using CONSULT. Select "ANS BACK I-KEY UNLOCK" in "Work support". Check the "ANS BACK I-KEY UNLOCK" setting in "Work support". Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)</u>". 	Н
Is the inspection result normal?	
YES >> GO TO 4. NO >> Set the "On" in "ANS BACK I-KEY UNLOCK".	I
4.CHECK HAZARD FUNCTION	0
Check hazard function. Refer to <u>DLK-101. "Component Function Check"</u> . Is the inspection result normal?	DLK
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	L
5. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to <u>DLK-102. "Component Function Check"</u> .	M
<u>Is the inspection result normal?</u> YES >> GO TO 6.	Ν
NO >> Repair or replace the malfunctioning parts. 6.REPLACE BCM	1.4
1. Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u> .	0
 Confirm the operation after replacement. Is the result normal? 	
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	Р

KEY REMINDER FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEY REMINDER FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000012430074

[WITH INTELLIGENT KEY SYSTEM]

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

- 1. Select "INTELLIGENT KEY" of "BCM" using CONSULT.
- 2. Select "ANTI KEY LOCK IN FUNCTI" in "Work support".
- Check "ANTI KEY LOCK IN FUNCTI" setting in "Work support". Refer to <u>BCS-22, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

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-98, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Instrument center: Refer to DLK-65, "DTC Logic".
- Console: Refer to <u>DLK-67, "DTC Logic"</u>.
- Trunk room: Refer to <u>DLK-69, "DTC Logic"</u>.

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-92, "Component Function Check".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace the malfunctioning parts.

5.REPLACE BCM

- 1. Replace BCM. Refer to BCS-74, "Removal and Installation".
- 2. Confirm the operation after replacement.

Is the result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

OFF POSITION WARNING DOES N	
< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
OFF POSITION WARNING DOES NOT OPERA	ATE
Diagnosis Procedure	INFOID:000000012430075
1.снеск отс with всм	
Check that DTC is not detected with BCM.	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Perform trouble diagnosis relevant to DTC indicated.	
2. CHECK DTC WITH COMBINATION METER	
Check that DTC is not detected with combination meter.	
Is the inspection result normal?	
YES >> GO TO 3. NO >> Perform trouble diagnosis relevant to DTC indicated.	
3.CHECK DOOR SWITCH	
Check front door switch LH. Refer to <u>DLK-98, "Component Function Check"</u> .	
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-78, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	
5. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer.	

		DLK-102, "Component Function Check".		
Is the inspection result normal?				
		>> GO TO 6.		
	NO	>> Repair or replace the malfunctioning parts.		
	-	PLACE BCM		
	U.REP			
		place BCM. Refer to BCS-74, "Removal and Installation".		
	2. Co	nfirm the operation after replacement.		
	lo tho r	acult normal?		

<u>Is the result normal?</u> YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>.

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< SYMPTOM DIAGNOSIS >

P POSITION WARNING DOES NOT OPERATE

F FOSITION WARNING DOES NOT OF LIVELE	
Diagnosis Procedure	INFOID:000000012430076
1.снеск отс with всм	
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 WARNING BUZZER	
Check Intelligent Key warning buzzer.	
Refer to <u>DLK-102, "Component Function Check"</u> .	
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-78, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5.CHECK DOOR SWITCH	
Check front door switch LH. Refer to <u>DLK-98, "Component Function Check"</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-105, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 7.	
NO >> Repair or replace the malfunctioning parts.	
7.CHECK SHIFT P WARNING LAMP	
Check shift P warning lamp.	
Refer to DLK-111, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 8.	
NO >> Repair or replace the malfunctioning parts.	
8.REPLACE BCM	
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 	
Is the result normal?	

YES >> Inspection End.

P POSITION	WARNING DOES NOT OPERATE
< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
NO >> Check intermittent incident	Pofer to CL 42 "Intermittent Insident"

NO	>> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
		A
		В
		С
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[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430077

ACC WARNING DOES NOT OPERATE

Diagnosis Procedure

1. CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Perform trouble diagnosis relevant to DTC indicated.

2. CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK COMBINATION METER BUZZER

Check combination meter buzzer. Refer to <u>DLK-78, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.REPLACE BCM

1. Replace BCM. Refer to <u>BCS-74, "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-42, "Intermittent Incident"</u>.

TAKE AWAY WARNING DOES NOT OPERATE

IAKE AWAY WARNING DOES N < SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
TAKE AWAY WARNING DOES NOT OPERATE	
Diagnosis Procedure	INFOID:000000012430078
1.снеск отс with всм	
Check that DTC is not detected with BCM.	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Perform trouble diagnosis relevant to DTC indicated. 2.CHECK DTC WITH COMBINATION METER	
Check that DTC is not detected with combination meter.	
Is the inspection result normal? YES >> GO TO 3.	
NO >> Perform trouble diagnosis relevant to DTC indicated.	
3. CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	
 Instrument center: Refer to <u>DLK-65, "DTC Logic"</u>. Console: Refer to <u>DLK-67, "DTC Logic"</u>. 	
Trunk room: Refer to <u>DLK-69, "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 <u>DLK-98, "Component Function Check"</u> .	
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 <u>DLK-78, "Component Function Check"</u> .	
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-102, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 7.	
NO >> Repair or replace the malfunctioning parts.	
CHECK KEY WARNING LAMP	
Check key warning lamp. Refer to <u>DLK-105, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 8.	
NO >> Repair or replace the malfunctioning parts.	
8.REPLACE BCM	

Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.
 Confirm the operation after replacement.

TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

	A
Diagnosis Procedure	INFOID:000000012430079
1.снеск отс with всм	В
Check that DTC is not detected with BCM.	
Is the inspection result normal?	0
YES >> GO TO 2.	C
NO >> Perform trouble diagnosis relevant to DTC indicated. 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 LO- BATT OF KEY FOB WARN SETTING IN WORK SUPPORT	
1. Select "INTELLIGENT KEY" of BCM.	——— F
 Select "LO- BATT OF KEY FOB WARN" in "Work support". Check "LO- BATT OF KEY FOB WARN" setting in "Work support". 	
Refer to <u>BCS-22</u> , "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".	G
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Set "ON" in "LO- BATT OF KEY FOB WARN".	Н
4.CHECK INTELLIGENT KEY	
Check Intelligent Key. Refer to <u>DLK-104, "Component Function Check"</u> .	I
Is the inspection result normal?	
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	0
5. CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	DLK
 Instrument center: Refer to <u>DLK-65, "DTC Logic"</u>. Console: Refer to <u>DLK-67, "DTC Logic"</u>. 	
Trunk room: Refer to <u>DLK-69, "DTC Logic"</u> .	L
Is the inspection result normal?	
YES >> GO TO 6.	
NO >> Repair or replace the malfunctioning parts.	Μ
6.CHECK KEY WARNING LAMP	
Check key warning lamp. Refer to <u>DLK-105, "Component Function Check"</u> .	Ν
Is the inspection result normal?	
YES >> GO TO 7.	0
NO >> Repair or replace the malfunctioning parts.	0
7.REPLACE BCM	
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 	P
Confirm the operation after replacement.Is the result normal?	
YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> .	

DOOR LOCK OPERATION WARNING DOES NOT OPERATE

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430080

< SYMPTOM DIAGNOSIS >

DOOR LOCK OPERATION WARNING DOES NOT OPERATE

Diagnosis Procedure

1. CHECK DOOR LOCK FUNCTION

Check door lock function.

Does door lock/unlock using door request switch?

YES >> GO TO 2.

NO >> Refer to <u>DLK-116</u>, "ALL DOOR REQUEST SWITCHES : Diagnosis Procedure".

2. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer. Refer to <u>DLK-102, "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-74, "Removal and Installation"</u>.

2. Confirm the operation after replacement.

Is the result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

< SYMPTOM DIAGNOSIS > KEY ID WARNING DOES NOT OPERATE

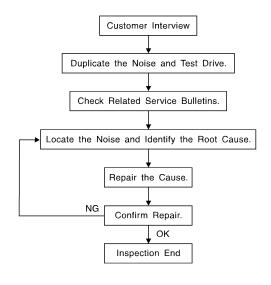
KET ID WARNING DOES NOT OPERATE		А
Diagnosis Procedure	INFOID:000000012430081	~
1. СНЕСК DTC WITH BCM		В
Check that DTC is not detected with BCM.		
Is the inspection result normal?		
YES >> GO TO 2.		C
NO >> Perform trouble diagnosis relevant to DTC indicated.		
2.CHECK DTC WITH COMBINATION METER		D
Check that DTC is not detected with combination meter.		
Is the inspection result normal?		
YES >> GO TO 3.		Е
NO >> Perform trouble diagnosis relevant to DTC indicated.		
3.CHECK INTELLIGENT KEY		E
Check Intelligent Key. Refer to DLK-104, "Component Function Check".		Γ
Is the inspection result normal?		
YES >> GO TO 4.		G
NO >> Repair or replace the malfunctioning parts.		
4. CHECK INSIDE KEY ANTENNA		Н
Check inside key antenna.		
Instrument center: Refer to <u>DLK-65, "DTC Logic"</u> .		
 Console: Refer to <u>DLK-67, "DTC Logic"</u>. Trunk room: Refer to <u>DLK-69, "DTC Logic"</u>. 		
Is the inspection result normal?		
YES >> GO TO 5.		1
NO >> Repair or replace the malfunctioning parts.		J
5. CHECK KEY WARNING LAMP		
Check key warning lamp.		DLK
Refer to DLK-105, "Component Function Check".		
Is the inspection result normal?		1
YES >> GO TO 6.		
NO >> Repair or replace the malfunctioning parts.		
6.REPLACE BCM		M
 Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>. Confirm the operation after replacement. 		
Is the result normal?		Ν
YES >> Inspection End.		
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .		
		0

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012430082

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



SBT842

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-138</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 duplicate the noise with the vehicle stopped by doing one or all of the following: 1) Close a door.	А
 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". 	В
 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. 	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. If a TSB relates to the symptom, follow the procedure to repair the noise.	D
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	
 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). Narrow down the noise to a more specific area and identify the cause of the noise by: 	F
 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. 	G
 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 	Η
 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-135</u>, "<u>Generic Squeak and Rattle Troubleshooting</u>". 	I
REPAIR THE CAUSE	J
 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 Depart- 	DL
ment. CAUTION:	L
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. 	Μ
 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. 	Ν
 SILICONE SPRAY: Use when grease cannot be applied. DUCT TAPE: Use to eliminate movement. 	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:	

Revision: August 2015

< 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: August 2015

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	SQUEAK AND RATTLE TROUBLE DIAG	NOSES
< S	< SYMPTOM DIAGNOSIS > [WITH	INTELLIGENT KEY SYSTEM]
3.	Loose screws at console attachment points.	
SE	SEATS	
the	When isolating seat noise it's important to note the position the seat is in and t the noise is present. These conditions should be duplicated when verifying noise.	
	Cause of seat noise include:	
1.	1. Headrest rods and holder	
2.	2. A squeak between the seat pad cushion and frame	
3.	3. The rear seatback lock and bracket	
diti	These noises can be isolated by moving or pressing on the suspected compo- ditions under which the noise occurs. Most of these incidents can be repaired or applying urethane tape to the contact area.	
UN	UNDERHOOD	
trar	Some interior noise may be caused by components under the hood or on th transmitted into the passenger compartment. Causes of transmitted underhood noise include:	e engine wall. The noise is then
1.	1. Any component installed to the engine wall	
2.	2. Components that pass through the engine wall	
3.	3. Engine wall mounts and connectors	
4.	4. Loose radiator installation pins	
5.	5. Hood bumpers out of adjustment	
6.	6. Hood striker out of adjustment	
me loa	These noises can be difficult to isolate since they cannot be reached from the method is to secure, move or insulate one component at a time and test drive load can be changed to isolate the noise. Repairs can usually be made by insulating the component causing the noise.	the vehicle. Also, engine rpm or

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

< SYMPTOM DIAGNOSIS > Diagnostic Worksheet

INFOID:000000012430084

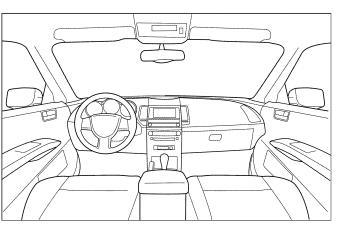
Dear Customer:

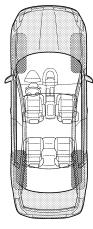
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

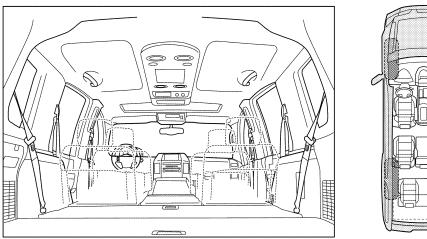
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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 >

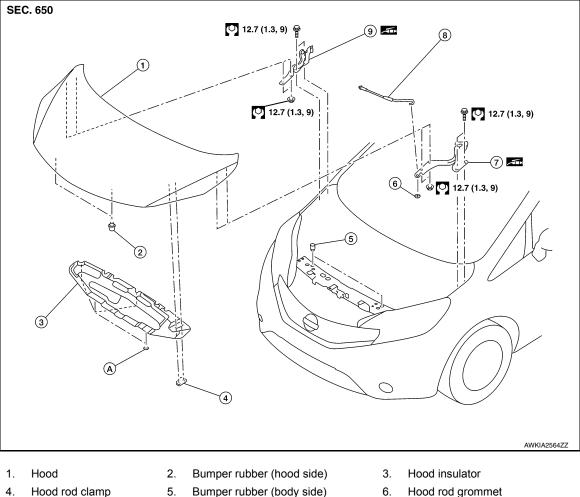
[WITH INTELLIGENT KEY SYSTEM]

Briefly describe the location where the no	oise occurs:	
		_
I. WHEN DOES IT OCCUR? (please ch	heck 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	□ 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 mi	nutes	
After driving miles or mi	nutes	-
TO BE COMPLETED BY DEALERSHIP		-
		-
TO BE COMPLETED BY DEALERSHIP		-
TO BE COMPLETED BY DEALERSHIP		-
TO BE COMPLETED BY DEALERSHIP		-
TO BE COMPLETED BY DEALERSHIP Test Drive Notes:	PERSONNEL YES NO Initials of person	-
TO BE COMPLETED BY DEALERSHIP	PERSONNEL YES NO Initials of person	-
TO BE COMPLETED BY DEALERSHIP Test Drive Notes:	PERSONNEL YES NO Initials of person performing	-
TO BE COMPLETED BY DEALERSHIP Test Drive Notes: /ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	PERSONNEL YES NO Initials of person performing	-
TO BE COMPLETED BY DEALERSHIP Test Drive Notes: Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confi	PERSONNEL YES NO Initials of person performing	-

< REMOVAL AND INSTALLATION > **REMOVAL AND INSTALLATION** HOOD

Exploded View

INFOID:000000012430085



- Hood rod clamp
- 7. Hood hinge (LH)
- Hood insulator clip Α.

HOOD ASSEMBLY

HOOD ASSEMBLY : Removal and Installation

8.

CAUTION:

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

Hood support rod

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

9.

Hood hinge (RH)

REMOVAL

1. Support hood assembly using a suitable tool.

WARNING:

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

- 2. Remove hood hinge nuts and hood assembly.
- 3. Remove clips and hood insulator (if necessary).

INSTALLATION

Revision: August 2015

DLK-140

2016 Versa Note

INFOID:000000012430086

[WITH INTELLIGENT KEY SYSTEM]

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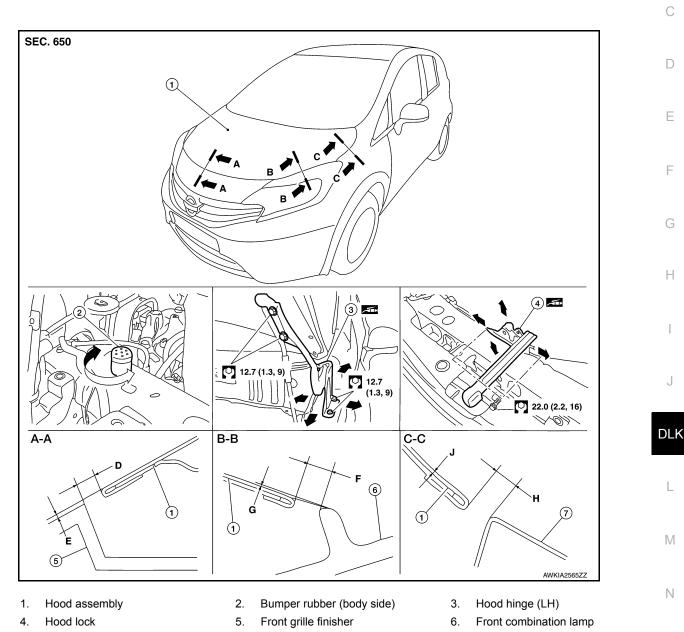
INFOID:000000012430087

Installation is in the reverse order of removal.

< REMOVAL AND INSTALLATION >

- Before installing hood assembly, apply anticorrosive agent to the surface of hood hinge.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-141, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.
- After installation, apply touch-up paint (body color) to the head of hood hinge nuts.

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 procedure.

Section	Item	Measurement	Standard	Parallelism	Equality
A – A	D	Clearance	$4.4\pm 2.0\;(0.17\pm 0.08)$	2.0 (0.08)	
A-A	E	Surface height	-0.5 +2.0, -1.5 (0.02 +0.08, -0.06)	2.0 (0.08)	—
B – B	F	Clearance	$4.0\pm 2.0\;(0.16\pm 0.08)$	2.0 (0.08)	3.0 (0.12)
D – D	G	Surface height	_	_	—

Front fender

7.

Unit: mm (in)

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HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

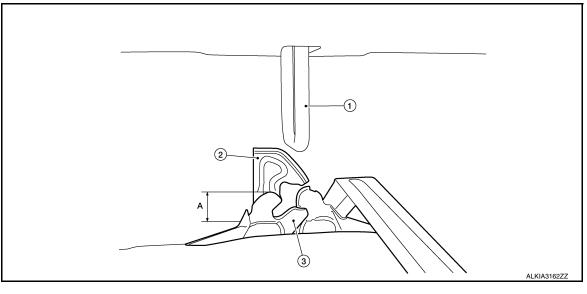
Section	ltem	Measurement	Standard	Parallelism	Equality
C – C	Н	Clearance	$3.5 \pm 1.0 \; (0.14 \pm 0.04)$	1.5 (0.06)	1.5 (0.06)
	J	Surface height	$0.0 \pm 1.5 \; (0.0 \pm 0.06)$	1.5 (0.06)	1.5 (0.06)

CLEARANCE ADJUSTMENT

- 1. Loosen hood hinge nuts and bolts.
- 2. Loosen hood lock assembly bolts.
- 3. Adjust the hood lock assembly so the clearance measurements are within the specifications provided.
- 4. Tighten hood hinge nuts and bolts to specified torque.
- 5. Tighten hood lock assembly bolts to specified torque.

HEIGHT ADJUSTMENT

- 1. Loosen hood lock assembly bolts.
- 2. Adjust the surface height of hood assembly to front upper grille, front fender and front combination lamp to the specified values by rotating hood bumper rubber.
- 3. Temporarily tighten hood lock assembly bolts.
- 4. Adjust (A) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.87 in) height or by pressing hood lightly [approximately 29 N (3.0 kg, 6.5 lb)].



1. Hood striker

2. Secondary latch

3. Primary latch

A. 20.0 mm (0.79 in)

5. After adjustment, tighten hood lock assembly bolts to specified torque. HOOD HINGE

HOOD HINGE : Removal and Installation

INFOID:000000012430088

REMOVAL

- 1. Remove hood assembly. Refer to DLK-140, "HOOD ASSEMBLY : Removal and Installation".
- 2. Remove front fender. Refer to <u>DLK-147, "Removal and Installation"</u>.
- 3. Remove cowl top side cover. Refer to EXT-36, "Exploded View".
- 4. Remove hood hinge bolts and hood hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

• Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.

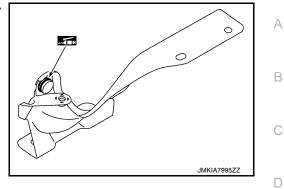
DLK-142

HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

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



HOOD SUPPORT ROD

HOOD SUPPORT ROD : Removal and Installation	INFOID:000000012430089
 REMOVAL 1. Support hood assembly using a suitable tool. WARNING: Bodily injury may occur if hood assembly is not supported properly when removir rod. 	ng hood support
 Rotate and remove hood support rod from grommet. Release tab and remove grommet from hood hinge (if necessary). 	
INSTALLATION Installation is in the reverse order of removal.	

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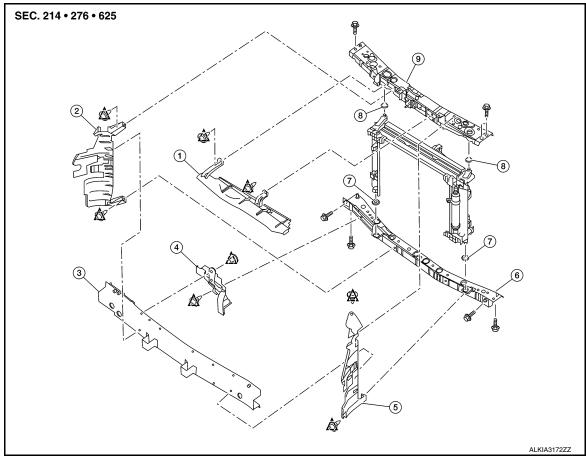
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< REMOVAL AND INSTALLATION >

RADIATOR CORE SUPPORT

Exploded View

INFOID:000000012430090



- 1. Upper air guide
- 2. Air guide (RH)
- Lower air guide 4.
- Lower grommet
- 5. Air guide (LH)
- 7.
- Clip

8. Upper grommet

- 3. Front bumper reinforcement
- 6. Radiator core lower support
- 9. Radiator core upper support

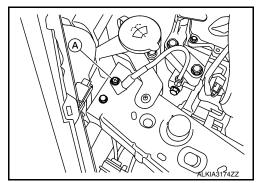
RADIATOR CORE SUPPORT UPPER

RADIATOR CORE SUPPORT UPPER : Removal and Installation

INFOID:000000012430091

REMOVAL

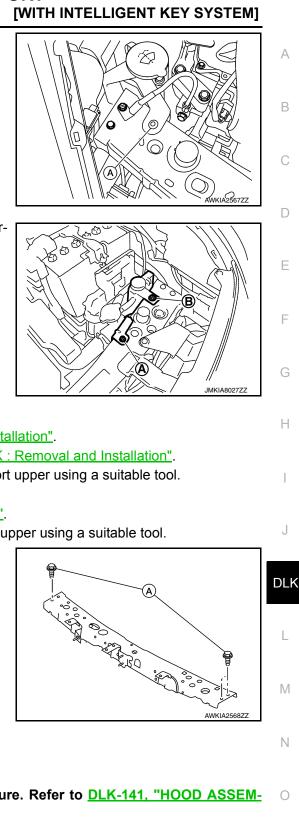
- 1. Remove front grille. Refer to EXT-32, "Removal and Installation".
- 2. Remove ground harness bolt (A).



RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

3. Remove washer tube inlet clip (A).



Remove radiator cap adapter bracket bolt (A) and radiator reservoir tank bolt (B).

- 5. Remove horn. Refer to HRN-6, "Removal and Installation".
- 6. Remove crash zone sensor. Refer to SR-24, "Removal and Installation".
- 7. Remove hood lock assembly. Refer to DLK-165, "HOOD LOCK : Removal and Installation".
- 8. Release hood lock release cable clips from radiator core support upper using a suitable tool.
- 9. Remove upper air guide. Refer to <u>DLK-144, "Exploded View"</u>.
- 10. Remove air guide (LH/RH). Refer to DLK-144, "Exploded View".
- 11. Release all harness connector clips from radiator core support upper using a suitable tool.
- 12. Remove bolts (A) and radiator core support upper.

INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-141, "HOOD ASSEM-</u> <u>BLY : Adjustment"</u>. RADIATOR CORE SUPPORT LOWER RADIATOR CORE SUPPORT LOWER : Removal and Installation REMOVAL 1. Remove radiator core support upper. Refer to <u>DLK-144, "RADIATOR CORE SUPPORT UPPER :</u> <u>Removal and Installation"</u>.

2. Reposition the radiator and condenser.

DLK-145

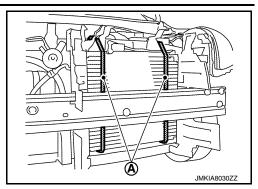
RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

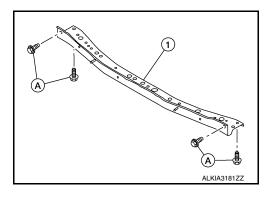
 Using a suitable tool (A), suspend radiator and condenser to prevent them from falling. CAUTION:

Use care to avoid damaging radiator and condenser.

[WITH INTELLIGENT KEY SYSTEM]



4. Remove bolts (A) and radiator core support lower (1).



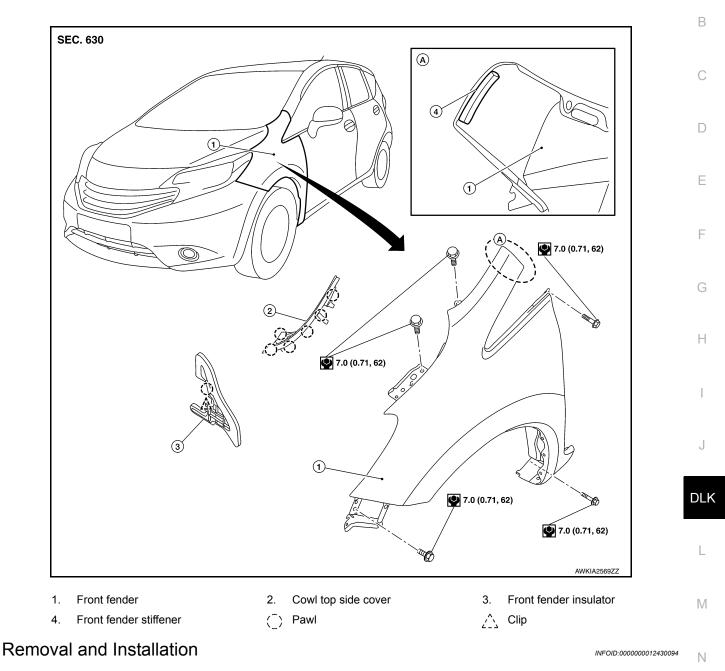
INSTALLATION Installation is in the reverse order of removal.

FRONT FENDER

Exploded View

INFOID:000000012430093

[WITH INTELLIGENT KEY SYSTEM]



CAUTION:

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

REMOVAL

- 1. Remove the front combination lamp. Refer to EXL-102. "Removal and Installation".
- 2. Remove cowl top side cover. Refer to <u>DLK-147, "Exploded View"</u>.
- 3. Remove front fender bolts.

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FRONT FENDER

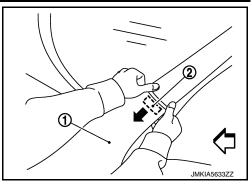
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

4. Remove front fender stiffener (2) by carefully pulling upper portion of front fender (1) away from body. <⊐: Front

CAUTION:

Use care when removing the front fender. The front fender stiffener foam adheres the front fender to the body. Carefully release the stiffener foam or damage to front fender may occur.



5. Remove front fender.

INSTALLATION

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

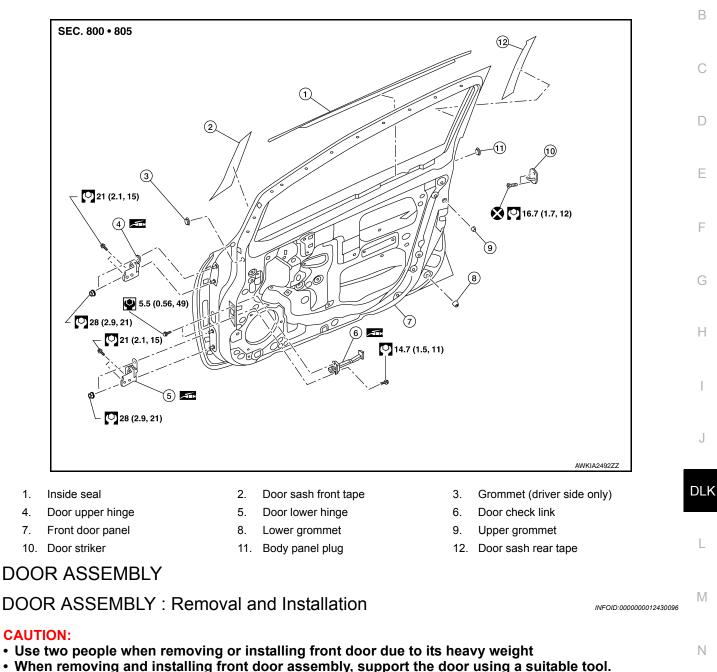
- After installation, apply touch-up paint (body color) to the head of front fender bolts.
- After installation, adjust the following components as necessary:
- Hood assembly: Refer to <u>DLK-141, "HOOD ASSEMBLY : Adjustment"</u>.
 Front door assembly: Refer to <u>DLK-150, "DOOR ASSEMBLY : Adjustment"</u>.

[WITH INTELLIGENT KEY SYSTEM]

FRONT DOOR Exploded View

INFOID:000000012430095

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- 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.

REMOVAL

- 1. Disconnect the battery positive and negative terminals and wait at least three minutes. Refer to <u>PG-70</u>, <u>"Removal and Installation (Battery)"</u>.
- 2. Remove dash side finisher. Refer to INT-24, "DASH SIDE FINISHER : Removal and Installation".
- 3. Disconnect the harness connectors from the front door.
- 4. Remove door check link bolt (body side).
- 5. Remove door hinge nuts (door side) and front door assembly.

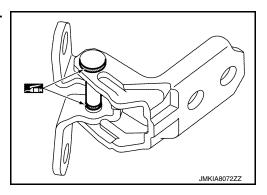
INSTALLATION

Revision: August 2015

DLK-149

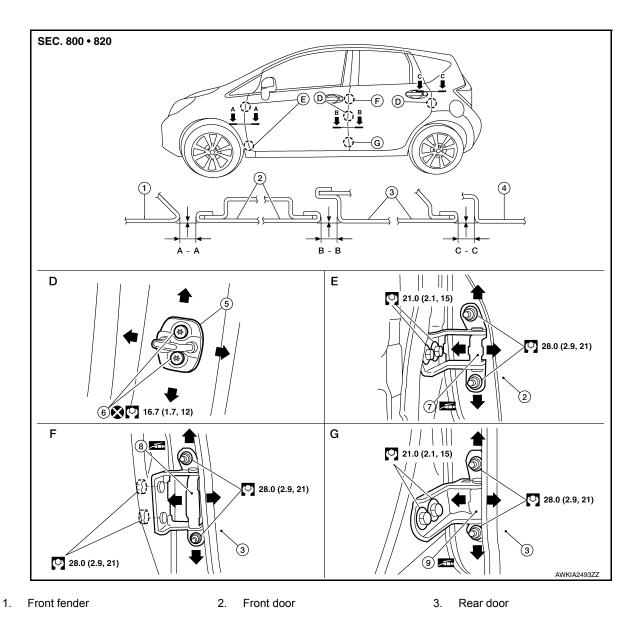
Installation is in the reverse order of removal. **CAUTION:**

- After installation, perform the front door adjustment procedure. Refer to <u>DLK-150, "DOOR ASSEM-</u> <u>BLY : Adjustment"</u>.
- Perform camera image calibration (if equipped with around view camera). Refer to <u>AV-179, "CALI-BRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description"</u>.
- Apply anticorrosive agent to the door hinge mating surface.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR ASSEMBLY : Adjustment

INFOID:000000012430097



FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- Body side outer
 Front door hinge
- Door striker
 Rear door upper hinge
- Striker bolt
 Rear door l

Rear 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.

 Standard	Measurement	Section
 4.6 ± 1.0 (0.18 ± 0.04)	Clearance	
 $0.0\pm1.0\;(0.0\pm0.04)$	Surface height	A – A
 $4.6\pm2.0\;(0.18\pm0.08)$	Clearance	B – B –
 $0.0 \pm 1.5 \ (0.0 \pm 0.06)$	Surface height	
 $4.6 \pm 1.0 \; (0.18 \pm 0.04)$	Clearance	C – C
 0.0 ± 1.0 (0.0 ± 0.04)	Surface height	C-C

- 1. Remove front fender. Refer to <u>DLK-147, "Removal and Installation"</u>.
- 2. Loosen front door hinge nuts (door side).
- 3. Adjust the surface height of front door according to the specifications provided.
- 4. Temporarily tighten front door hinge nuts (door side).
- 5. Loosen front door hinge bolts (body side).
- Raise or lower the front door at rear end to adjust clearance of the front door according to the specifications provided.
- After adjustment tighten bolts and nuts to the specified torque.
 CAUTION:
 Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose
- grease.8. Install front fender. Refer to refer to <u>DLK-147</u>, "<u>Removal and Installation</u>".

DOOR STRIKER

DOOR STRIKER : Removal and Installation

REMOVAL

Remove bolts and door striker.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Do not reuse door striker bolts.
- Tighten bolts to specification. Refer to DLK-149, "Exploded View".
- After installation, check front door open/close operation. If necessary, perform the door striker adjustment procedure. Refer to <u>DLK-151, "DOOR STRIKER : Adjustment"</u>.

DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

1. Loosen door striker bolts

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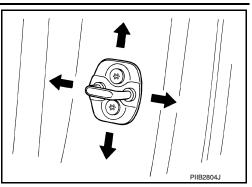
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FRONT DOOR

< REMOVAL AND INSTALLATION >

- [WITH INTELLIGENT KEY SYSTEM]
- 2. Adjust door striker so that it becomes parallel with front door lock insertion direction.



Tighten door striker bolts to specification. Refer to <u>DLK-149</u>, "Exploded View".

DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012430100

REMOVAL

CAUTION:

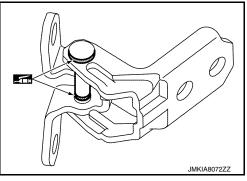
- · Use two people when removing or installing front door due to its heavy weight
- When removing and installing front door assembly, support the door using a suitable tool.
- Use shops cloths to protect surrounding components from damage during removal and installation of front door assembly.
- 1. Remove front fender. Refer to <u>DLK-147, "Removal and Installation"</u>.
- 2. Remove front door assembly. Refer to DLK-149, "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove front door hinge bolts (body side) and front door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent to the hinge mating surface.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-150</u>, "<u>DOOR ASSEM-</u> <u>BLY : Adjustment</u>".
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:000000012430101

REMOVAL

- 1. Remove front door speaker. Refer to <u>AV-54, "Removal and Installation"</u> (BASE AUDIO), <u>AV-114,</u> "Removal and Installation" (DISPLAY AUDIO) or <u>AV-243, "Removal and Installation"</u> (NAVIGATION).
- 2. Remove door check link bolt (body side).
- 3. Remove door check link bolts (door side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check rear door open/close, lock/unlock operation.

Revision: August 2015

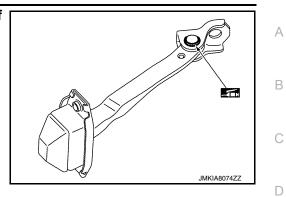
DLK-152

FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

• Check door check link rotating point for poor lubrication. If necessary, apply a multi-purpose grease.





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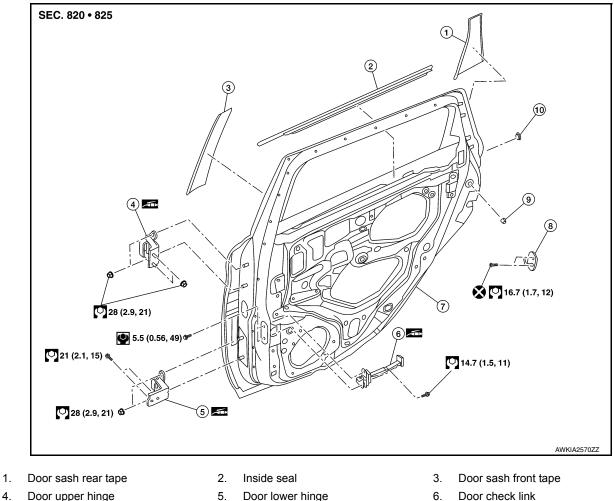
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REAR DOOR

Exploded View

INFOID:000000012430102



- 4. 7. Rear door panel
- 10. Body panel plug
- 5. Door lower hinge
- 8. Door striker

- Door check link 6.
- 9. Grommet

DOOR ASSEMBLY

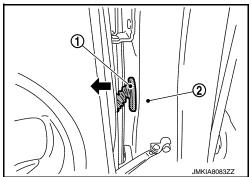
DOOR ASSEMBLY : Removal and Installation

CAUTION:

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

REMOVAL

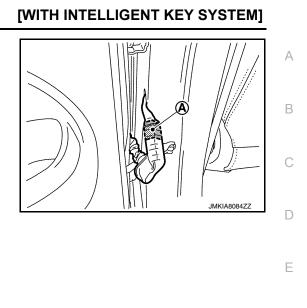
Remove rear door harness grommet (1) from body side outer 1. (2), then pull out rear door harness.



2016 Versa Note

< REMOVAL AND INSTALLATION >

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



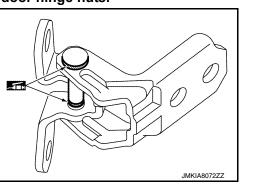
- 3. Remove door check link bolt (body side).
- 4. Remove door hinge nuts (door side) and rear door assembly.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent to the hinge mating surface.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-156, "DOOR ASSEMBLY</u> : <u>Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of door hinge nuts.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.





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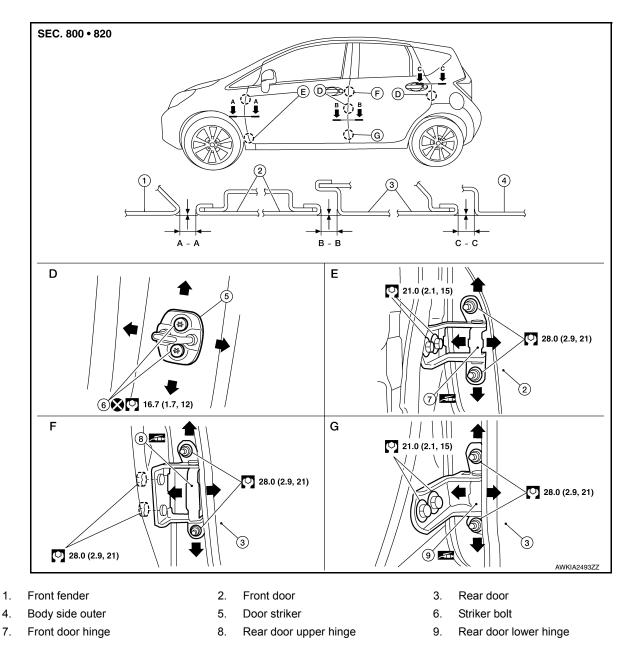
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< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

DOOR ASSEMBLY : Adjustment

INFOID:000000012430104



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.

Section	Measurement	Standard
A A	Clearance	4.6 ± 1.0 (0.18 ± 0.04)
A – A	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
	Clearance	4.6 ± 2.0 (0.18 ± 0.08)
B – B	Surface height	0.0 ± 1.5 (0.0 ± 0.06)
0.0	Clearance	4.6 ± 1.0 (0.18 ± 0.04)
C – C	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

1. Remove center pillar lower finisher. Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER : Removal</u> and Installation".

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DLK-156

< REMOVAL AND INSTALLATION >

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- 2. Loosen door hinge nuts (door side).
- 3. Adjust the surface height of rear door according to the specifications provided.
- 4. Temporarily tighten door hinge nuts (door side).
- 5. Loosen door hinge nuts and bolts (body side).
- 6. Raise rear door at rear end to adjust clearance of rear door according to the specifications provided.
- 7. After adjustment tighten bolts and nuts to the specified torque.
 - **CAUTION:**
 - Apply touch-up paint (body color) to the head of hinge bolts and nuts.
 - Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- Install center pillar lower finisher. Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER : Removal and</u> <u>Installation"</u>.

DOOR STRIKER

DOOR STRIKER : Removal and Installation

REMOVAL

Remove bolts and rear door striker.

INSTALLATION

Installation is in the reverse order of removal.

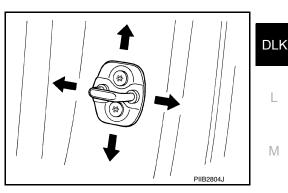
CAUTION:

- Do not reuse door striker bolts.
- Tighten door striker bolts to specification. Refer to <u>DLK-154, "Exploded View"</u>.
- After installation, check front door open/close operation. If necessary, adjust the door striker. Refer to <u>DLK-157, "DOOR STRIKER : Adjustment"</u>.

DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts.
- 2. Adjust door striker so that it becomes parallel with rear door lock insertion direction.



3. Tighten door striker bolts to specification. Refer to <u>DLK-154, "Exploded View"</u> .
DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012430107

REMOVAL

CAUTION:

- Use two people when removing or installing front door due to its heavy weight
- When removing and installing front door assembly, support the door using a suitable tool.
- Use shops cloths to protect surrounding components from damage during removal and installation of front door assembly.
- 1. Remove rear door assembly. Refer to <u>DLK-154, "DOOR ASSEMBLY : Removal and Installation"</u>.
- 2. Remove center pillar lower finisher. Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER : Removal</u> <u>and Installation"</u>.

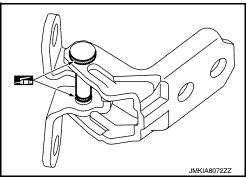
< REMOVAL AND INSTALLATION >

3. Remove rear door hinge bolts and nuts (body side) and rear door hinge.

INSTALLATION

Installation is in the reverse order of removal.

- CAUTION:
- Apply anticorrosive agent to the door hinge mating surface.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-156, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of door hinge bolts and nuts.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

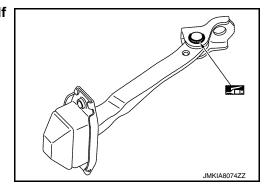
- 1. Remove rear door speaker. Refer to <u>AV-55, "Removal and Installation"</u> (BASE AUDIO), <u>AV-115, "Removal and Installation"</u> (DISPLAY AUDIO) or <u>AV-244, "Removal and Installation"</u> (NAVIGATION).
- 2. Remove door check link bolt (body side).
- 3. Remove door check link bolts (door side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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



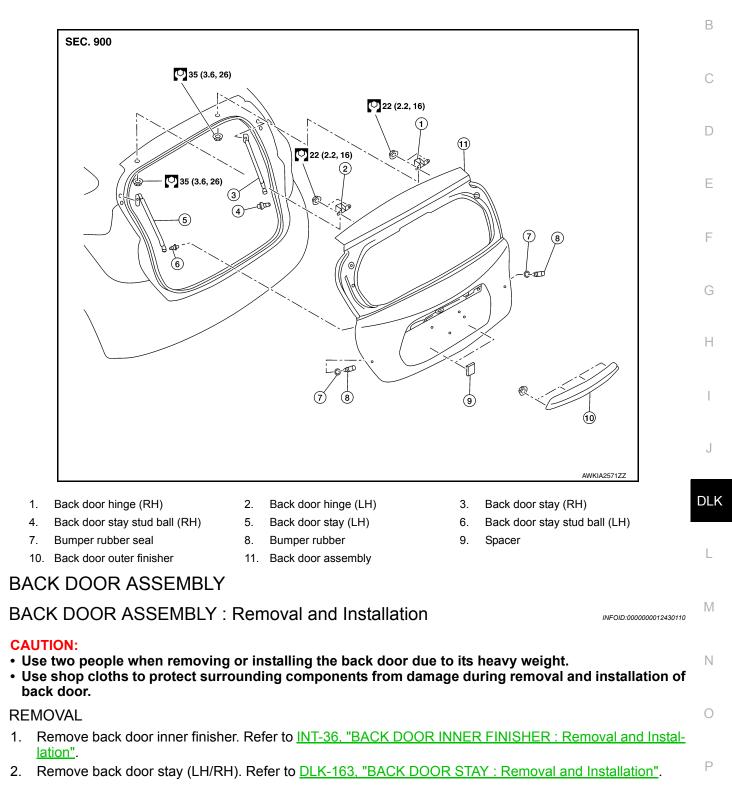
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< REMOVAL AND INSTALLATION > BACK DOOR

Exploded View

INFOID:000000012430109

[WITH INTELLIGENT KEY SYSTEM]

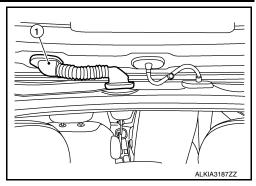


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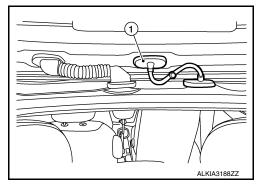
< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

3. Remove back door harness grommet (1), then pull harness from the back door.



- 4. Disconnect washer tube from rear wiper.
- 5. Remove washer tube grommet (1), then pull washer tube from the back door.



6. Support the back door assembly using a suitable tool.

WARNING:

Bodily injury may occur if back door assembly is not supported properly when removing the back door spindle unit.

7. Remove back door hinge nuts (door side) and remove.

INSTALLATION

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

- Apply anticorrosive agent onto the surface between hinge and door side.
- When reusing stud ball, always apply locking sealant before installing stud ball to back door.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-161, "BACK</u> <u>DOOR ASSEMBLY : Adjustment"</u>.
- Perform camera image calibration (if equipped with around view camera). Refer to <u>AV-179, "CALI-BRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Description"</u>.

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

BACK DOOR ASSEMBLY : Adjustment

INFOID:000000012430111

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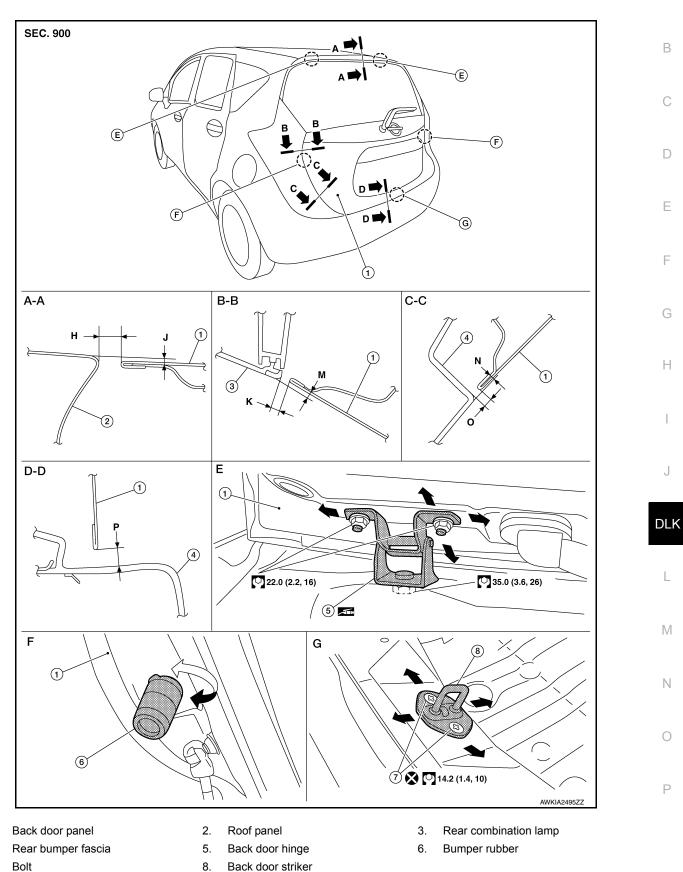
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7. Bolt

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DLK-161

< REMOVAL AND INSTALLATION >

Check the clearance and the surface height between back 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)
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[WITH INTELLIGENT KEY SYSTEM]

Portion	Section	Item	Measurement	Standard
Back door panel – Roof panel	A – A	Н	Clearance	$6.0 \pm 1.0 \; (0.24 \pm 0.04)$
	A-A	Ι	Surface height	0.0 +0.5, -1.5 (0.00 +0.02, -0.06)
Rear combination lamp – Back door panel	B – B	J	Clearance	$5.0\pm2.0\;(0.20\pm0.08)$
	в-в	К	Surface height	$-2.0\pm2.0\;(-0.08\pm0.08)$
Rear bumper fascia – Back-door panel	C – C	L	Clearance	$5.0\pm2.0\;(0.20\pm0.08)$
	0-0	М	Surface height	0.0 +0.5, -2.0 (0.0 +0.02, -0.08)
	D – D	М	Clearance	$7.0\pm2.0\;(0.28\pm0.08)$

1. Loosen back door hinge nuts (door side).

- 2. Lift up back door approximately 100 150 mm (3.94 5.91 in) height then close it lightly and check that it is engaged firmly with back door closed.
- 3. Check the clearance and surface height and adjust back door as necessary.
- 4. Tighten back door hinge nuts to specified torque.

CAUTION:

- After installation, check back door open/close, lock/unlock operation.
- Check back 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 hinge bolts and nuts. BACK DOOR STRIKER

BACK DOOR STRIKER : Removal and Installation

REMOVAL

- 1. Remove back door kicking plate using a suitable tool.
- 2. Remove bolts and back door striker.

INSTALLATION

Installation is in the reverse order of removal.

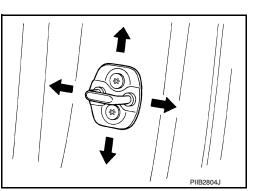
CAUTION:

- Do not reuse back door striker bolts.
- After installation, check back door open/close, lock/unlock operation.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-161, "BACK</u> <u>DOOR ASSEMBLY : Adjustment"</u>.

BACK DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts.
- Adjust door striker so that it becomes parallel with back door lock insertion direction.



3. Tighten door striker bolts to specification. Refer to DLK-159, "Exploded View".

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BACK DOOR HINGE

BACK DOOR HINGE : Removal and Installation

REMOVAL

- 1. Remove back door assembly. Refer to <u>DLK-159</u>, "BACK DOOR ASSEMBLY : Removal and Installation".
- Partially remove back door weatherstrip. Refer to <u>DLK-164</u>, "BACK DOOR WEATHER-STRIP : Removal and Installation".
- Remove back door hinge nuts and bolts (body side) and then remove back door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent onto the surface between hinge and body side.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-161, "BACK</u> DOOR ASSEMBLY : Adjustment".
- BACK DOOR STAY

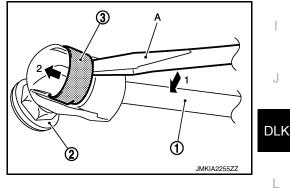
BACK DOOR STAY : Removal and Installation

REMOVAL

1. Support the back door with a suitable tool too prevent it from falling. WARNING:

Body injury may occur if no supporting rod is holding the back door open when removing the Н back door stay.

- 2. Remove the metal clip (3) located on the connection between the back door stay (1) and the stud ball (2) (back door side) by using a flat blade screwdriver (A).
- 3. Remove the back door stay (back door side).



4. In the same way, remove the back door stay from the body side.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Check the back door open/close operation after installation.

BACK DOOR STAY : Disposal

BACK DOOR STAY DISPOSAL

WARNING:

When performing disposal procedure, wear protective gloves and glasses.

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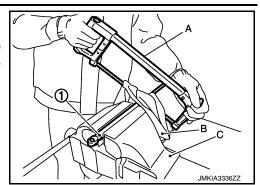
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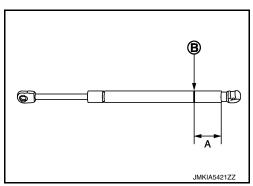
< REMOVAL AND INSTALLATION >

 Secure back door stay (1) using a vice (C). CAUTION: When cutting back door stay, always cover suitable tool (A) using a shop cloth (B) to avoid scattering metal fragments or oil.

[WITH INTELLIGENT KEY SYSTEM]



Slowly cut a hole in back door stay and drain the gas using a hacksaw at position (B) as shown.
 A: 20 mm (0.79 in)



BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP : Removal and Installation

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REMOVAL

- 1. Support back door using a suitable tool.
- 2. Carefully remove back door weather-strip from opening door joint.

INSTALLATION

- 1. Beginning with upper section, align weather-strip mark with vehicle center position mark and install weather strip to the vehicle.
- 2. For the lower section, align weather-strip seam with center of back door striker.

NOTE:

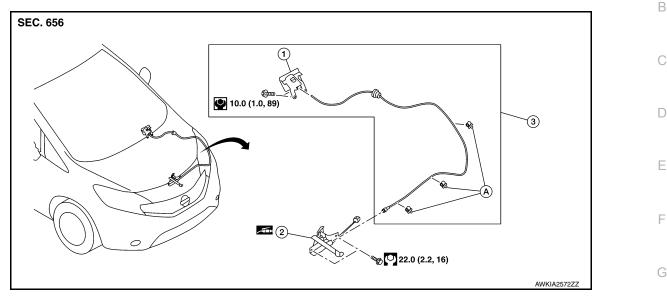
Pull weather-strip gently to make sure that there are no loose sections.

< REMOVAL AND INSTALLATION > HOOD LOCK

Exploded View

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[WITH INTELLIGENT KEY SYSTEM]



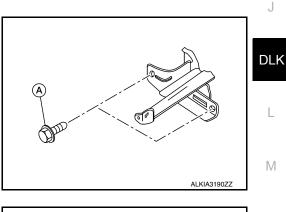
Hood lock/fuel filler lid release handle
 Hood lock assembly
 Hood lock release cable assembly
 Clip

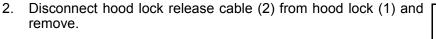
HOOD LOCK

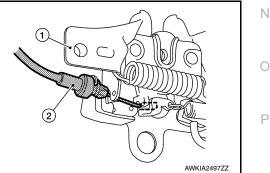
HOOD LOCK : Removal and Installation

REMOVAL

1. Remove hood lock bolts (A).







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

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HOOD LOCK

- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-141, "HOOD ASSEM-</u> <u>BLY : Adjustment"</u>.
- After adjustment, perform hood lock control inspection. Refer to <u>DLK-166, "HOOD LOCK : Inspection"</u>.

HOOD LOCK : Inspection

HOOD LOCK INSPECTION

NOTE:

If hood lock cable is bent or deformed, replace it. Refer to <u>DLK-165, "HOOD LOCK : Removal and Installa-</u>tion".

- 1. Check that secondary latch is properly engage with secondary striker with hoods own weight.
- 2. While operating hood lock release lever, carefully check that the front end of hood assembly is raised by approximately 20.0 mm (0.79 in). Also check that hood lock release lever returns to original position.
- 3. Check that hood lock release lever operates at 49 N (5.0 kg-m, 11.0 ft-lb) or below.
- 4. Install so that static closing force of hood is 315-490 N (32.1-50.0 kg-m, 70.8-110.2 ft-lb).
- 5. Check hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease.

HOOD LOCK RELEASE CABLE

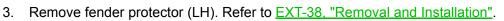
HOOD LOCK RELEASE CABLE : Removal and Installation

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REMOVAL

- 1. Disconnect hood lock release cable from hood lock. Refer to DLK-165, "Exploded View".
- Remove radiator cap adapter bracket bolt (A) and radiator reservoir tank bolt (B).



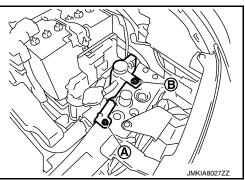
- 4. Release hood lock control cable clips using a suitable tool.
- 5. Remove hood lock/fuel filler door release handle. Refer to <u>DLK-167, "HOOD LOCK RELEASE HANDLE :</u> <u>Removal and Installation"</u>.
- 6. Remove dash side finisher (LH). Refer to INT-24, "DASH SIDE FINISHER : Removal and Installation".
- Remove grommet on the lower dash 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

Installation is in the reverse order of removal.

- Be careful not to bend cable too much, keep the radius 100 mm (3.94 in) or more.
- Check that hood lock release cable is properly engaged with hood lock.

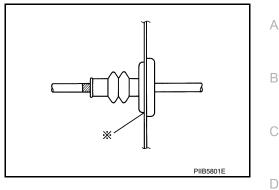


HOOD LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

• Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at * mark).

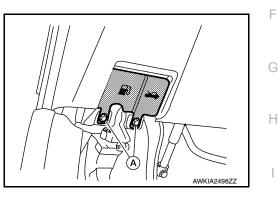


HOOD LOCK RELEASE HANDLE

HOOD LOCK RELEASE HANDLE : Removal and Installation

REMOVAL

1. Remove hood lock/fuel filler door release handle bolts (A).



2. Disconnect hood lock release cable from hood lock/fuel filler door release handle and remove.

INSTALLATION

Installation is in the reverse order of removal.

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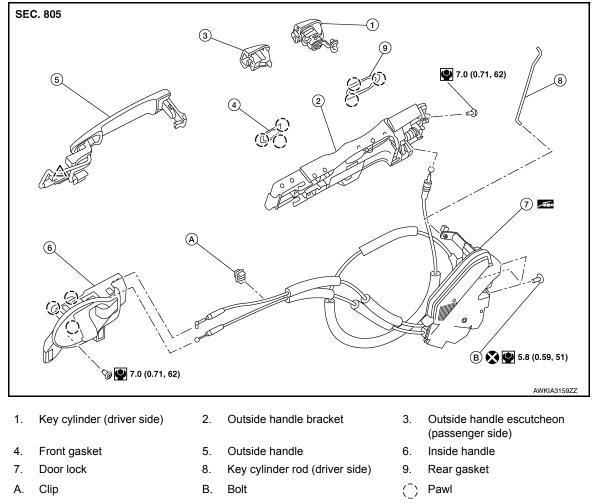
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FRONT DOOR LOCK

Exploded View

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DOOR LOCK

DOOR LOCK : Removal and Installation

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REMOVAL

- 1. Remove inside handle. Refer to <u>DLK-169</u>, "INSIDE HANDLE : Removal and Installation".
- 2. Remove outside handle. Refer to <u>DLK-170. "OUTSIDE HANDLE : Removal and Installation"</u>.
- 3. Disconnect the harness connector from the door lock actuator.
- 4. Remove front door glass rear run. Refer to <u>GW-21, "Exploded View"</u>.
- 5. Remove bolts and door lock.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Do not reuse door lock bolts.
- After installation, check door open/close, lock/unlock operation.
- Check door lock cables are properly engaged to inside handle and outside handle bracket.
- When installing key cylinder on front door, be sure to rotate key cylinder rod holder until a click is felt.

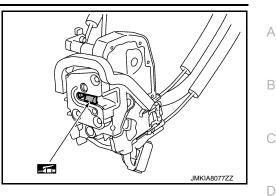
DLK-168

FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

 Check door lock for poor lubrication. Apply a suitable multipurpose grease to door lock if necessary.

[WITH INTELLIGENT KEY SYSTEM]



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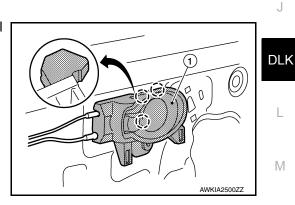
INSIDE HANDLE

INSIDE HANDLE : Removal and Installation

REMOVAL

- 1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 2. Partially remove vapor barrier. Refer to GW-21, "Exploded View".
- 3. Release lock knob (2) and inside handle cable (3) from clip (1) using a suitable tool.

- 4. Remove inside handle bolt.
- 5. Release inside handle (1) from door panel using a suitable tool and remove.
 - (_): Pawl



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6. Release inside handle cable (3) and lock cable (2) from inside handle (1) and remove.

INSTALLATION Installation is in the reverse order of removal. CAUTION: IMKIA588577

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[WITH INTELLIGENT KEY SYSTEM]

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

OUTSIDE HANDLE : Removal and Installation

REMOVAL

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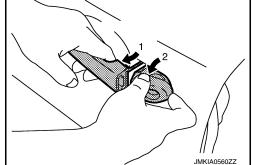
- 1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 2. Partially remove vapor barrier. Refer to GW-21, "Exploded View".
- Open rod holder (1) by pulling downward and separate key rod (3) from door lock assembly (2) (driver side only).

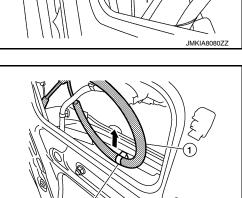
Release outside handle cable (1) from cable clip (A).

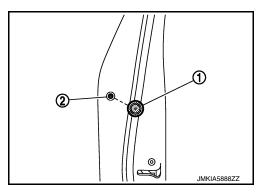
5. Remove door grommet (1) and bolt from grommet hole (2).

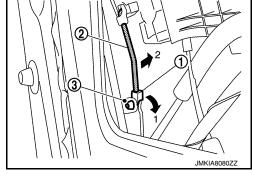
6. While pulling outside handle, remove outside handle escutcheon.

DLK-170









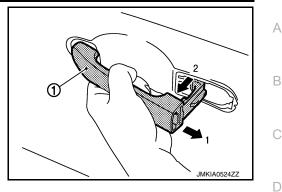
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FRONT DOOR LOCK

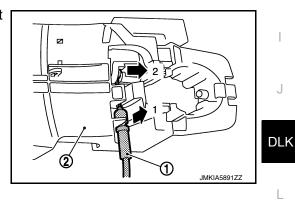
< REMOVAL AND INSTALLATION >

7. While pulling outside handle (1), slide toward rear of vehicle.



- 8. Disconnect the harness connectors from the outside handle and remove.
- 9. Remove front gasket and rear gasket.
- 10. Slide outside handle bracket toward rear of vehicle to remove. \triangleleft : Front

11. Disconnect outside handle cable (1) from outside handle bracket (2) as shown.



INSTALLATION

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

- Check that door lock cables are properly engaged with outside handle bracket.
- After installation, check door open/close, and lock/unlock operation.

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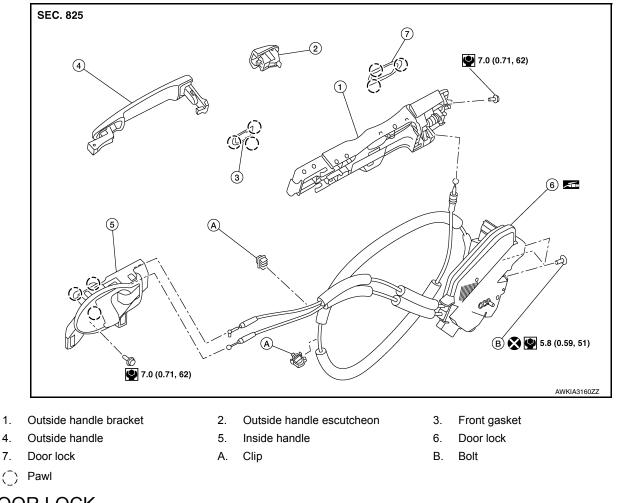
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< REMOVAL AND INSTALLATION > REAR DOOR LOCK

[WITH INTELLIGENT KEY SYSTEM]

Exploded View

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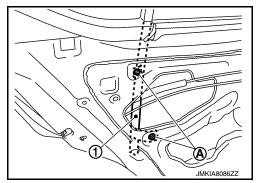
DOOR LOCK

DOOR LOCK : Removal and Installation

INFOID:000000012430128

REMOVAL

- 1. Remove inside handle. Refer to <u>DLK-173, "INSIDE HANDLE : Removal and Installation"</u>.
- 2. Remove outside handle. Refer to <u>DLK-174, "OUTSIDE HANDLE : Removal and Installation"</u>.
- 3. Remove bolts (A) from rear door glass rear run (1).



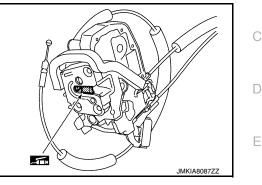
- 4. Disconnect the harness connector from door lock actuator.
- 5. Remove bolts and door lock.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Do not reuse door lock assembly bolts.
- After installation, check door open/close, lock/unlock operation.
- Check door lock cable is properly engaged with inside handle and outside handle bracket.
- Check door lock assembly for poor lubrication. If necessary, apply a suitable multi-purpose grease.



INSIDE HANDLE

INSIDE HANDLE : Removal and Installation

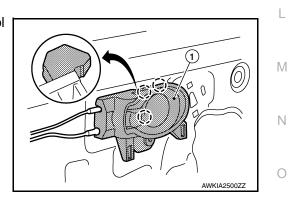
REMOVAL

- 1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
- 2. Remove upper portion of vapor barrier. Refer to GW-25, "Exploded View".
- 3. Release lock knob (2) and inside handle cable (3) from clip (1) using a suitable tool.



Remove inside handle bolt.
 Release inside handle (1) from door panel using a suitable tool and remove.

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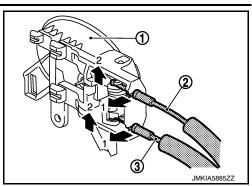
Revision: August 2015

REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

6. Release inside handle cable (3) and lock cable (2) from inside handle (1) and remove.

[WITH INTELLIGENT KEY SYSTEM]



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

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

OUTSIDE HANDLE : Removal and Installation

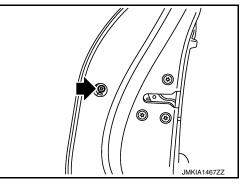
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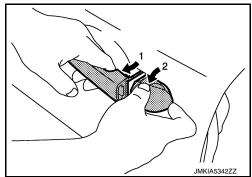
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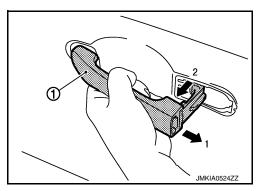
- 1. Remove inside handle. Refer to DLK-173, "INSIDE HANDLE : Removal and Installation"
- 2. Remove door grommet and bolt from grommet hole.



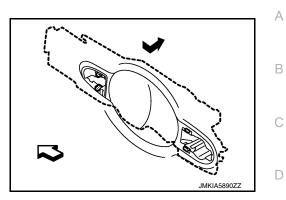


4. While pulling outside handle (1), slide towards rear of vehicle to remove.

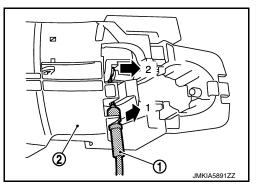
While pulling outside handle, remove outside handle escutch-



- 5. Remove front gasket and rear gasket.



 Disconnect outside handle cable (1) from outside handle bracket (2) as shown.



INSTALLATION

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

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

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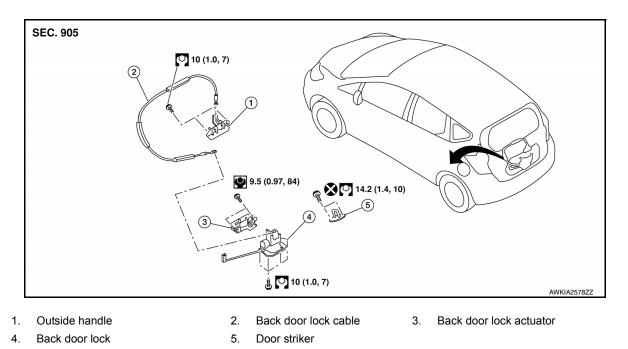
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BACK DOOR LOCK

Exploded View

INFOID:000000012430131



BACK DOOR LOCK

BACK DOOR LOCK : Removal and Installation

REMOVAL

- 1. Remove back door inner finisher. Refer to <u>INT-36</u>, "BACK DOOR INNER FINISHER : Removal and Installation".
- 2. Remove back door outer finisher. Refer to EXT-48, "Removal and Installation".
- 3. Disconnect lock rod from key cylinder (if equipped).
- 4. Disconnect the harness connectors from the back door lock.
- 5. Disconnect door lock cable from handle.
- 6. Remove back door lock bolts and back door lock.

INSTALLATION

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

• Tighten back door bolts to specification.

After installation, check back door open/close and lock/unlock operation.

OUTSIDE HANDLE

OUTSIDE HANDLE : Removal and Installation

REMOVAL

- 1. Remove back door outer finisher. Refer to EXT-48. "Removal and Installation".
- 2. Release the back door lock cable from the outside handle.
- 3. Remove outside handle bolts and outside handle.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
 Tighten outside handle bolts to specification. Refer to DLK-176, "Exploded View".

INFOID:000000012430133

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BACK DOOR LOCK

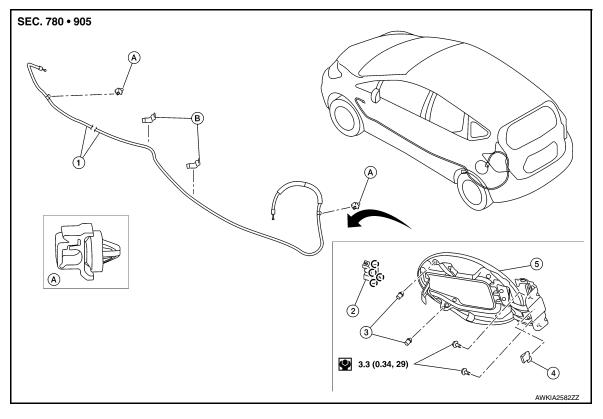
< REMOVAL AND INSTALLATION >

 After installation, check back door open/close and lock/unlock operation. 	^
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FUEL FILLER LID OPENER

Exploded View

INFOID:000000012430134



- 1. Fuel filler lid lock release cable
- 4. Fuel filler lid spring
- B. Cable protector

Fuel filler lid lock
 Fuel filler lid

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- 3. Fuel filler lid bumper
- A. Clip

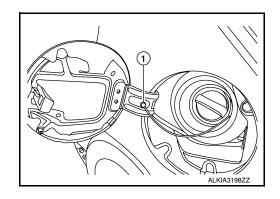
FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

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1. Remove fuel cap pin (1).



FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

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



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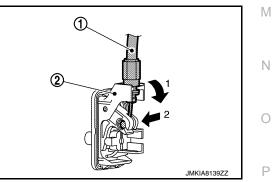
INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation, check fuel filler lid assembly open/close and lock/unlock operation. FUEL FILLER OPENER CABLE FUEL FILLER OPENER CABLE : Removal and Installation

REMOVAL

- Remove hood lock/fuel filler lid lock release handle. Refer to <u>DLK-167, "HOOD LOCK RELEASE HAN-</u> <u>DLE : Removal and Installation"</u>.
- 2. Disconnect fuel filler lid opener cable (2) from hood lock/fuel filler lid lock release handle (1).



- 4. Remove center pillar lower finisher (LH). Refer to <u>INT-25. "CENTER PILLAR LOWER FINISHER :</u> <u>Removal and Installation"</u>.
- 5. Remove luggage side lower finisher (LH). Refer to <u>INT-34</u>, "LUGGAGE SIDE LOWER FINISHER : <u>Removal and Installation</u>".
- 6. 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. FUEL FILLER LID LOCK

Revision: August 2015

FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

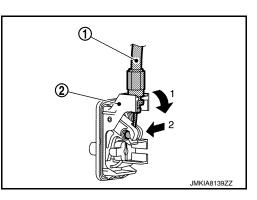
FUEL FILLER LID LOCK : Removal and Installation

INFOID:000000012430137

REMOVAL

- 1. Fully open fuel filler lid.
- 2. Remove luggage side lower finisher (LH). Refer to <u>INT-34</u>, "LUGGAGE SIDE LOWER FINISHER : <u>Removal and Installation"</u>.
- 3. Disconnect the harness connector from the fuel filler lid lock assemby.
- Release pawls (A) and remove fuel filler lid lock assembly (1).
 CAUTION: Be careful not to damage gasket (2) when removing.

5. 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.

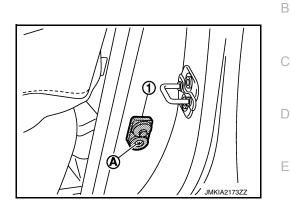
< REMOVAL AND INSTALLATION >

DOOR SWITCH

Removal and Installation

REMOVAL

- 1. Remove the door switch bolt (A).
- 2. Disconnect the harness connector and remove door switch (1).



INSTALLATION Installation is in the reverse order of removal.

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< REMOVAL AND INSTALLATION >

INSIDE KEY ANTENNA INSTRUMENT CENTER

INSTRUMENT CENTER : Removal and Installation

REMOVAL

- 1. Remove center console lower. Refer to IP-20, "Removal and Installation".
- 2. Disconnect the harness connector from the inside key antenna (instrument center).
- 3. Remove screws (A) and the inside key antenna (instrument center) (1).

INSTALLATION Installation is in the reverse order of removal. CONSOLE

CONSOLE : Removal and Installation

REMOVAL

REMOVAL

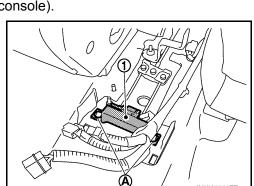
- Remove center console assembly. Refer to <u>IP-18, "Removal and Installation"</u>.
- 2. Disconnect the harness connector from the inside key antenna (console).
- 3. Release clips (A) and remove inside key antenna (console) (1).

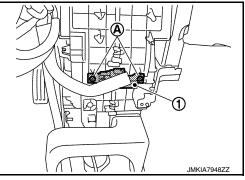
INSTALLATION Installation is in the reverse order of removal. LUGGAGE ROOM

LUGGAGE ROOM : Removal and Installation

1. Remove rear seat cushion. Refer to SE-26, "SEAT CUSHION : Removal and Installation".

2. Disconnect the harness connector from the inside key antenna (luggage room).





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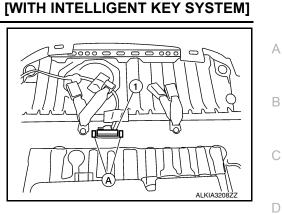
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INSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

3. Release clips (A) and remove inside key antenna (luggage room) (1).



INSTALLATION Installation is in the reverse order of removal.



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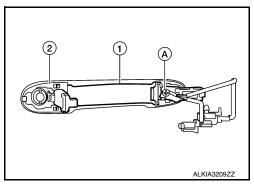
OUTSIDE KEY ANTENNA OUTSIDE HANDLE

OUTSIDE HANDLE : Removal and Installation

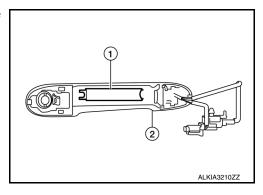
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REMOVAL

- 1. Remove outside handle. Refer to <u>DLK-170, "OUTSIDE HANDLE : Removal and Installation"</u>.
- 2. Remove screw (A) and outside handle finisher (1) from outside handle (2).



3. Remove outside key antenna (outside handle) (1) from outside handle (2).



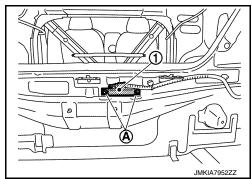
INSTALLATION Installation is in the reverse order of removal. REAR BUMPER

REAR BUMPER : Removal and Installation

INFOID:000000012430143

REMOVAL

- 1. Remove the rear bumper fascia. Refer to EXT-29, "Removal and Installation".
- 2. Disconnect the harness connector from the outside key antenna (rear bumper)
- 3. Release clips (A) and remove outside key antenna (rear bumper) (1).



INSTALLATION Installation is in the reverse order of removal.

DOOR REQUEST SWITCH

	211
< REMOVAL AND INSTALLATION >	[WITH INTELLIGENT KEY SYSTEM]
DOOR REQUEST SWITCH DRIVER SIDE	
DRIVER SIDE : Removal and Installation	INFOID:000000012430144
The door request switch (driver side) is serviced as an assembly with <u>"OUTSIDE HANDLE : Removal and Installation"</u> . PASSENGER SIDE	
PASSENGER SIDE : Removal and Installation	INFOID:000000012430145
The door request switch (passenger side) is serviced as an assembly <u>170, "OUTSIDE HANDLE : Removal and Installation"</u> .	
BACK DOOR : Removal and Installation	INFOID:000000012430146
	l la stallation "
 Remove back door outer finisher. Refer to <u>EXT-48</u>, <u>"Removal and</u> Remove screws (A) and back door request switch (1) from back door outer finisher (2). 	
	2
	AWKIA2584ZZ

INSTALLATION Installation is in the reverse order of removal.

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INTELLIGENT KEY WARNING BUZZER LATION > [WITH INTELLIGENT KEY SYSTEM]

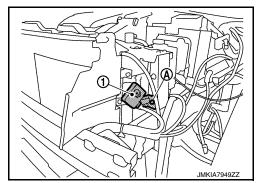
< REMOVAL AND INSTALLATION >

INTELLIGENT KEY WARNING BUZZER

Removal and Installation

REMOVAL

- 1. Remove front combination lamp (LH). Refer to EXL-102, "Removal and Installation"
- 2. Remove bolt (A) and Intelligent Key warning buzzer (1).



INSTALLATION Installation is in the reverse order of removal.

REMOTE KEYLESS ENTRY RECEIVER

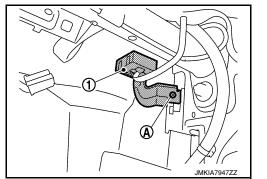
< REMOVAL AND INSTALLATION >

REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

REMOVAL

- 1. Remove glove box assembly. Refer to IP-25, "Removal and Installation".
- 2. Remove remote keyless entry receiver bolt (A).
- 3. Disconnect the harness connector and remove remote keyless entry receiver (1)



INSTALLATION Installation is in the reverse order of removal.

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INTELLIGENT KEY BATTERY

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

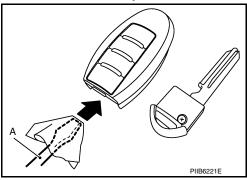
INTELLIGENT KEY BATTERY

Removal and Installation

- 1. Release the lock knob at the back of the Intelligent Key and remove the mechanical 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 touch the circuit board or battery terminal.
- The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.

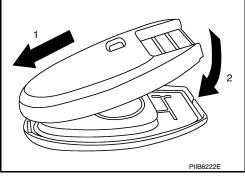


3. Replace the battery with new one.

Battery replacement

:Coin-type lithium battery (CR2025)

- Align the tips of the upper and lower parts, and then push them together until it is securely closed.
 CAUTION:
 - When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
 - After replacing the battery, check that all Intelligent Key functions work normally.



< 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. to prevent damage to the windshield.

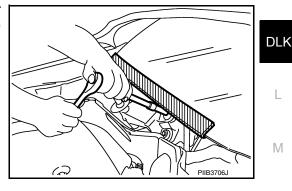
Precaution for Servicing Doors and Locks

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-189



INFOID:000000012430152

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.

Precaution for Work

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

PREPARATION

PREPARATION

Special Service Tools

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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	All all and a second		G
	ALJIA1232ZZ		Н
 (J-43241) Remote Keyless Entry Tester	Contraction of the second seco	Used to test keyfobs	
	LEL946A		J
 (J-50190)		Activate and display TPMS transmitter IDs	DLK
Signal Tech II		 Display tire pressure reported by the TPMS transmitter Read TPMS DTCs Register TPMS transmitter IDs 	L
		 Test remote keyless entry keyfob relative signal strength Compatible with future sensors Equipped with a display 	Μ
	ALEIA0131ZZ	 Check Intelligent Key relative signal strength Confirm vehicle Intelligent Key anten- na signal strength 	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	 Activate TPMS transmitter IDs Compatible with future sensors Equipped with a display (KV48105501 only)
 (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	

COMPONENT PARTS

[WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS

REMOTE KEYLESS ENTRY SYSTEM

REMOTE KEYLESS ENTRY SYSTEM : Component Parts Location



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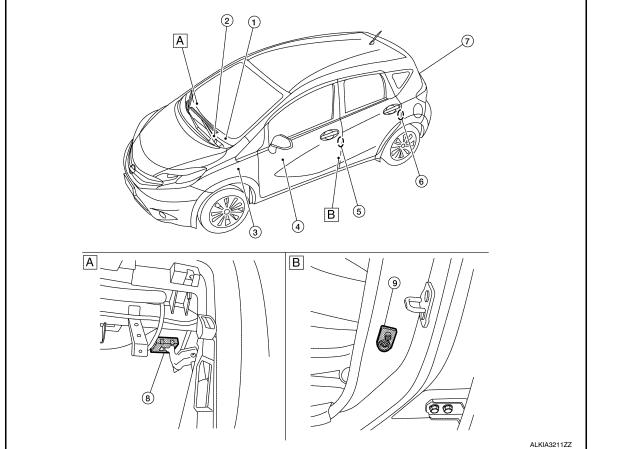
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A. View with glove box door removed

B. View of LH door switch (RH similar)

No.	Component	Function
1.	Combination meter	Combination meter transmits the vehicle speed sig- nal to BCM via CAN communication. BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to de- tect the vehicle speed. Security indicator lamp is located on combination meter. Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NIS- SAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. Refer to <u>MWI-9, "METER SYSTEM : Combination</u> <u>Meter"</u> (Type A) or <u>MWI-59, "METER SYSTEM : Combination Meter"</u> (Type B).
2.	Ignition switch	Ignition switch transmits ON/OFF signal to BCM. BCM maintains the ignition switch position status.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

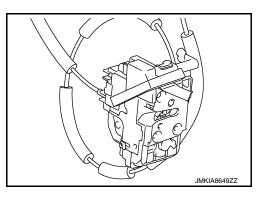
[WITHOUT INTELLIGENT KEY SYSTEM]

No.	Component	Function
3.	ВСМ	Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. Refer to <u>BCS-77</u> , " <u>BODY CONTROL SYSTEM</u> : <u>Component Parts Location</u> " for detailed installation location.
4.	Main power window and door lock/unlock switch	Door lock and unlock switch is integrated into the main power window and door lock/unlock switch. Door lock and unlock switch transmits door lock/un- lock operation signal to BCM. Refer to <u>PWC-7</u> , " <u>Main Power Window And Door</u> <u>Lock/Unlock Switch</u> ".
5.	Front door lock assembly LH	Door key cylinder switch is integrated into front door lock assembly (driver side). Door key cylinder switch detects door LOCK/UN- LOCK operation using mechanical key, and then transmits the operation signal to BCM. Refer to <u>DLK-194, "REMOTE KEYLESS ENTRY</u> <u>SYSTEM : Front Door Lock Assembly (Driver</u> <u>Side)"</u> .
6.	Rear door lock actuator LH	Rear door lock actuator locks/unlocks the rear door latch assembly.
7.	Back door lock actuator	Back door lock actuator locks/unlocks the back door latch assembly. Refer to <u>DLK-195</u> , "REMOTE KEY- <u>LESS ENTRY SYSTEM</u> : Back Door Lock Assem- <u>bly</u> ".
8.	Remote keyless entry receiver	Remote keyless entry receiver receives button op- eration signal and key ID signal of Intelligent Key, and them transmits them to the BCM. Refer to <u>DLK-195, "REMOTE KEYLESS ENTRY</u> <u>SYSTEM : Remote Keyless Entry Receiver"</u> .
9.	Door switch	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM. Refer to <u>DLK-195, "REMOTE KEYLESS ENTRY SYSTEM :</u> <u>Door Switch"</u> .

REMOTE KEYLESS ENTRY SYSTEM : Front Door Lock Assembly (Driver Side)

INFOID:000000012430156

- Door lock actuator and unlock sensor are Integrated in front door lock assembly LH.
- Door lock actuator receives lock/unlock signal from BCM, and then locks/unlocks driver door.
- Only front door lock assembly LH integrates unlock sensor. Unlock sensor transmits lock/unlock status of driver door to BCM.



COMPONENT PARTS

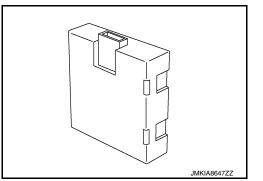
[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY SYSTEM : Remote Keyless Entry Receiver INFOID:000000012430157

• Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key, and then transmits them to BCM.

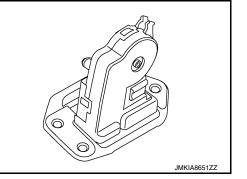
< SYSTEM DESCRIPTION >

· Remote keyless entry receiver is installed in the rear of glove box lid.



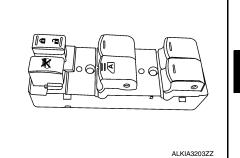
REMOTE KEYLESS ENTRY SYSTEM : Back Door Lock Assembly

- · Back door lock assembly integrates door lock actuator and back door latch.
- · Door lock actuator locks/unlocks the back door according to the door lock/unlock signal from BCM.



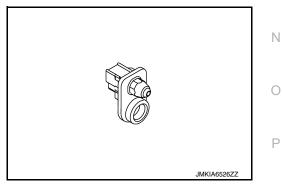
REMOTE KEYLESS ENTRY SYSTEM : Door Lock and Unlock Switch

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



REMOTE KEYLESS ENTRY SYSTEM : Door Switch

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



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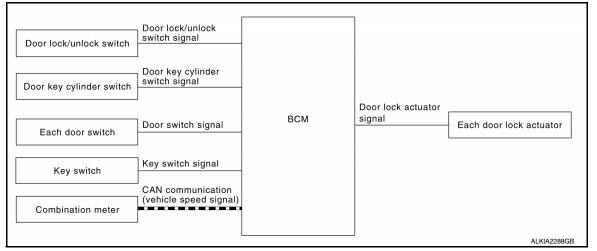
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SYSTEM AUTOMATIC DOOR LOCK/UNLOCK FUNCTION

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Diagram

INFOID:000000012430161



AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Description

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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	
	Warning buzzer signal			
Combination meter	Vehicle speed signal	Automatic door lock/unlock function		

DOOR LOCK FUNCTION

- The door lock and unlock switch (LH) is built into main power window and door lock/unlock switch.
- The door lock and unlock switch (RH) 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 "DOOR LOCK-UNLOCK SET" mode in "Work support". Refer to <u>BCS-90, "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^{*1}

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 DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

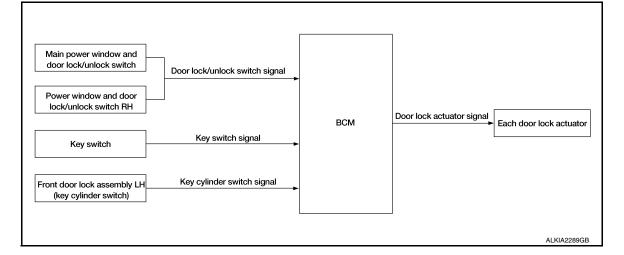
If a door is opened and closed at any time during one ignition cycle (OFF \rightarrow ON), even after initial auto door lock operation has taken place, the BCM will relock all doors when the vehicle speed reaches 24 km/h (15 MPH) or more again.	A
Setting change of Automatic Door Locks (LOCK) Function	
The LOCK operation setting of the automatic door locks function can be changed.	В
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". Refer to <u>BCS-90, "DOOR LOCK : CON-</u> <u>SULT Function (BCM - DOOR LOCK)"</u> .	С
🕱 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).	D
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.	Е
4. The switching is completed when the hazard lamp blinks.	
	F
$OFF \rightarrow ON$: 2 blinks	
$ON \rightarrow OFF$: 1 blink	
5. The ignition switch must be turned OFF and ON again between each setting change.	G
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.	Н
IGN OFF Interlock Door Unlock ^{*1}	
All doors are unlocked when the power supply position is changed from ON to OFF. BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.	I
Setting change of Automatic Door Locks (UNLOCK) Function	1
The UNLOCK operation setting of the automatic door locks function can be changed.	J
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". Refer to <u>BCS-90, "DOOR LOCK :</u> <u>CONSULT Function (BCM - DOOR LOCK)</u> ".	DLK
Without CONSULT	
The automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following operation:	L
1. Close all doors (door switch OFF).	
2. Place the ignition switch in the ON position.	Μ
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.	IVI
The switching is completed when the hazard lamp blinks.	Ν
	IN
OFF \rightarrow ON : 2 blinks ON \rightarrow OFF : 1 blink	
	0
5. The ignition switch must be turned OFF and ON again between each setting change.	
^{*1} : This function is set to ON before delivery. POWER DOOR LOCK SYSTEM	Ρ

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER DOOR LOCK SYSTEM : System Diagram





POWER DOOR LOCK SYSTEM : System Description

INFOID:000000012430164

Switch	Input/output signal to BCM	BCM function	Actuator
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
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" in "Work support". Refer to <u>BCS-90, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYI	LESS ENTRY SYST	TEM : System	Diagram	INFOID:000	0000012430165
	Keyfob (i) (i) (i) (i) (i) (i) (i) (i) (i) (i)	y ID nal entry receiver Key ID signal			
			Door lock actuator signal	Each door lock actuator Interior lamps	
Key sw	itch Key switch signal	ВСМ	Hazard lamp signal Headlamps signal CAN	Hazard lamps Headlamps	
Each door	switch	_	communication	IPDM E/R ↓ Horn ALKIA2290GB	

REMOTE KEYLESS ENTRY SYSTEM : System Description

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

With CONSULT

Hazard and horn reminders can be changed using "Work support" 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

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< SYSTEM DESCRIPTION >

Horn reminder setting	ON		OFF	-
Keyfob operation	Lock	Unlock	Lock	Unlock
Horns sound	Once	—	—	—

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN). Hazard reminder can be changed using "HAZARD LAMP SET" in "Work support". Horn reminder can be changed using "HORN CHIRP SET" in "Work support". Refer to <u>BCS-92, "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)</u>".

Without CONSULT

Refer to Owner's Manual for instructions.

AUTO DOOR LOCK OPERATION

When all doors are locked, ignition switch is OFF and key switch is OFF (mechanical key is removed from the ignition cylinder), doors are unlocked with keyfob button. When BCM does not receive the following signals within 1 minute, all doors are locked:

- Door switch is ON (door is opened).
- Door is locked.

• Ignition switch is ON.

• Key switch is ON (mechanical key is inserted in the ignition cylinder).

Auto door lock mode can be changed by "AUTO LOCK SET" in "Work support". Refer to <u>BCS-92, "MULTI</u> <u>REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)"</u>.

PANIC ALARM OPERATION

When key switch is OFF (mechanical key is removed from the ignition cylinder), BCM turns ON and OFF horn and headlamp intermittently with input of PANIC ALARM signal from keyfob.

BCM outputs to headlamps and IPDM E/R for panic alarm signal (horn signal) via CAN communication lines. The alarm automatically turns OFF after 25 seconds or when BCM receives any signal from keyfob. Panic alarm operation mode can be changed using "PANIC ALARM SET" in "Work support".

Refer to BCS-92, "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)".

INTERIOR LAMP TIMER OPERATION

When the following conditions occur, remote keyless entry system turns on interior lamp for 15 seconds with input of UNLOCK signal from keyfob: For detailed description, refer to <u>INL-7</u>, "INTERIOR ROOM LAMP CON-TROL SYSTEM : System Description".

• Interior room lamp switch is in the DOOR position.

• Door switch OFF (when all the doors are closed).

DIAGNOSIS SYSTEM (BCM) [WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description	
ECU Identification	The BCM part number is displayed.	
Self Diagnostic Result	The BCM self diagnostic results are displayed.	
Data Monitor	The BCM input/output data is displayed in real time.	
Active Test	The BCM activates outputs to test components.	
Work support	The settings for BCM functions can be changed.	
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.	
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			- H
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR	J J
Door lock	DOOR LOCK			×	×	×			DLN
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			×	×				N
Air conditioner	AIR CONDITIONER			×					-
Combination switch	COMB SW			×					-
BCM	BCM	×	×			×	×	×	0
Immobilizer	IMMU		×		×	×			-
Interior room lamp battery saver	BATTERY SAVER			×	×	×			Р
Vehicle security system	THEFT ALM			×		×			
RAP system	RETAINED PWR			×		×			-
Signal buffer system	SIGNAL BUFFER			×					=
TPMS	AIR PRESSURE MONITOR		×	×	×	×			-
Panic alarm system	PANIC ALARM				×				-

Revision: August 2015

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) [WITHOUT INTELLIGENT KEY SYSTEM]

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:000000012542560

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.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
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	Automoatic 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 MULTI REMOTE ENT

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)

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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.	C
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.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.	E
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.	
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.	
DOOR SW-BK [On/Off]	Indicates condition of back door switch.	F
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.	0
KEYLESS PANIC [On/Off]	Indicates condition of panic signal from keyfob.	

ACTIVE TEST

Test Item	Description	
HORN	This test is able to check the door lock tone.	
INT LAMP	This test is able to check interior room lamp operation [On/Off].	
FLASHER	This test is able to check hazard reminder operation [Off/LH/RH].	

WORK SUPPORT

Support Item	Setting		Description	
REMO CONT ID REGIST	ł		Keyfob ID code can be registered.	
REMO CONT ID ERASUR	_		Keyfob ID code can be erased.	
REMO CONT ID CONFIR	_		Keyfob ID code registration is displayed.	-
HORN CHIRP SET	Off On*		Liens chim function can be changed in this mode	-
HORN CHIRP SET			Horn chirp function can be changed in this mode.	
	MODE4*	Lock and Unlock	-	
	MODE3	Lock Only		
HAZARD LAMP SET	MODE2	Unlock Only	Hazard warning lamp function can be changed in this mode.	
	MODE1	OFF		
	MODE3	1.5 sec		-
PANIC ALRM SET	MODE2	OFF	Panic alarm operation can be changed in this mode.	
	MODE1*	0.5 sec		

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Support Item		Setting	Description
	MODE7	5 min	
	MODE6	4 min	
	MODE5	3 min	
AUTO LOCK SET	MODE4	2 min	Auto locking function can be changed in this mode.
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	OFF	

*: Initial setting

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

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ECU	Reference	
	BCS-101, "Reference Value"	
	BCS-117, "Wiring Diagram"	
BCM	BCS-115, "Fail-safe"	
	BCS-115. "DTC Inspection Priority Chart"	
	BCS-115, "DTC Index"	
	PCS-13, "Reference Value"	
IPDM E/R	PCS-21, "Wiring Diagram"	
	PCS-19, "Fail-safe"	
	PCS-20, "DTC Index"	

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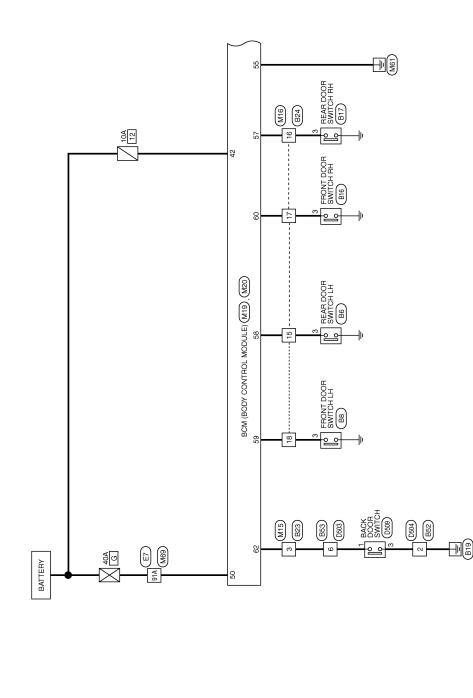
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WIRING DIAGRAM POWER DOOR LOCK SYSTEM

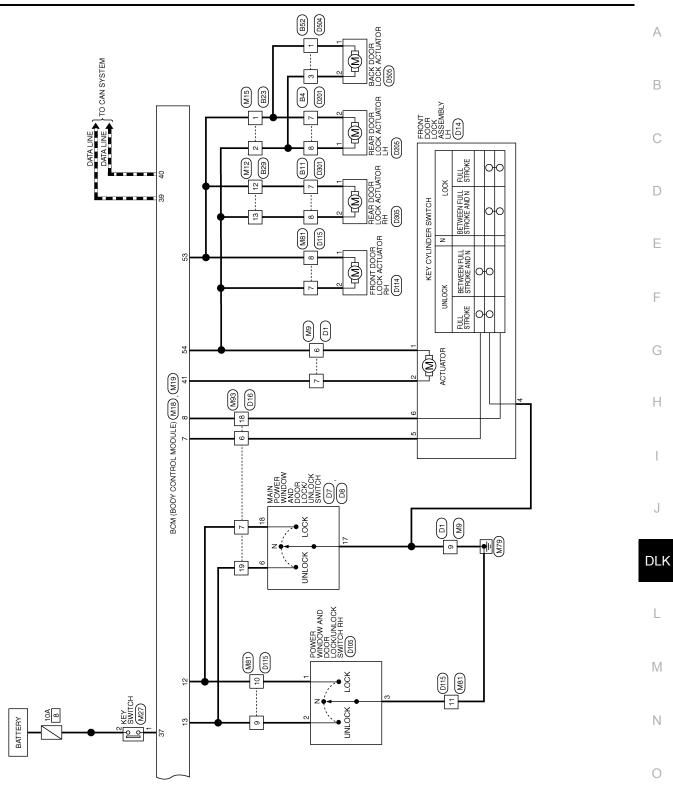
Wiring Diagram

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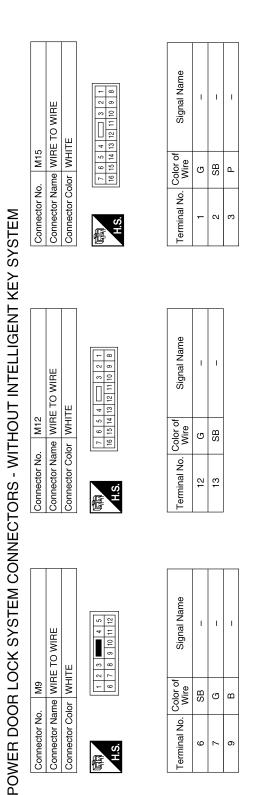
POWER DOOR LOCK SYSTEM - WITHOUT INTELLIGENT KEY SYSTEM



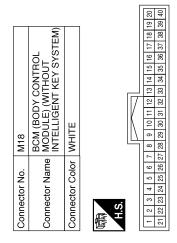
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[WITHOUT INTELLIGENT KEY SYSTEM]



Signal Name	KEY CYLINDER UNLOCK SW	KEY CYLINDER LOCK SW	CENTRAL DOOR LOCK SW	CENTRAL DOOR UNLOCK SW	KEY SW	CAN-H	CAN-L
Color of Wire	×	GR	GR	BR	Y	_	٩
Terminal No. Color o	7	8	12	13	37	39	40



	16 15 14 3 16 15 14 13	Signal Name			
ITE	22 21 20 19 18 17 16 15 14				•
lor WH	12 11 10 9 24 23 22 21	Color of Wire	≥	BR	BG
Connector Color WHITE	。 Fi H·S·H	Terminal No.	15	16	17

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Connector Name WIRE TO WIRE

M16

Connector No.

POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]

Signal Name

Color of Wire G

Terminal No. 91A

ame WIRE TO WIRE

M69

WHITE

Signal Name	DOOR SW (RL)	DOOR SW (DR)	DOOR SW (AS)	TRUNK/BACK DOOR OPEN OUTPUT
Color of Wire	Μ	SB	BG	٩
Terminal No. Color of Wire	58	59	09	62

Connector Na	ame BCM INTE	Connector Name MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color BLACK	olor BLA	X
原则 H.S.	56157 65 66	56 57 58 58 56 57 58 56 57 58 56 57 58 56 70 10
Terminal No. Color of Wire	Color of Wire	Signal Name

M20

Connector No.

BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM)

Connector Name

M19

Connector No.

H.S. Color of Terminal No. Color of	10101	
L	50 51	41 42 43 44 45 46 47 48 48 50 51 52 53 54 55
	color of Wire	Signal Name
41 G		DOOR UNLOCK OUTPUT (DR)
42 Y		BATTERY (FUSE)
50 G		BATTERY (F/L)
53 G		DOOR UNLOCK OUTPUT (AS, RR, RL)
54 SB		DOOR LOCK OUTPUT
55 B		GND

DOOR SW (RR)

ВВ

57

_	-	
Connector Name	Connector Color	面 H.S.
0	0	
KEY SWITCH	BROWN	
Connector Name	Connector Color	.S.H
	Connector Name KEY SWITCH Connector Name V	

Signal Name	I	I	
Color of Wire	≻	ГG	
Terminal No.	-	2	

21A 20A 19A 18A 17A 16A 15A 14A 13A 12A 11A 30A 29A 28A 27A 26A 25A 24A 23A 22A

 5A
 4A
 3A
 2A
 1A

 10A
 9A
 8A
 7A
 6A

41A 40A 39A 38A 37A 36A 35A 34A 33A 32A 31A 50A 49A 48A 47A 46A 45A 44A 43A 42A

ABKI	A70	82G	B

81A 80A 79A 78A 77A 76A 75A 74A 73A 72A 71A 90A 89A 88A 87A 88A 85A 84A 83A 82A

95A 94A 93A 92A 91A 100A 99A 98A 97A 96A

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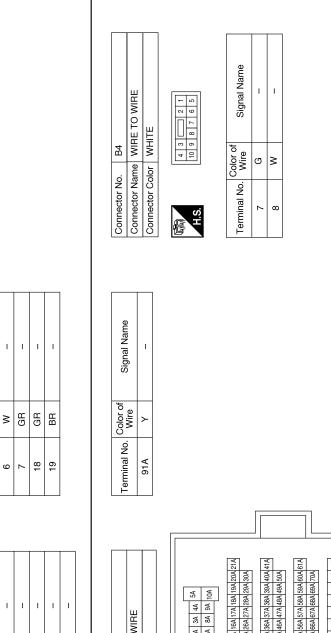
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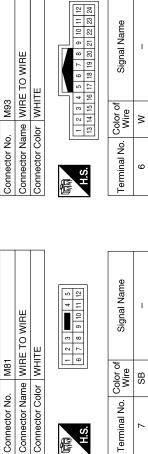
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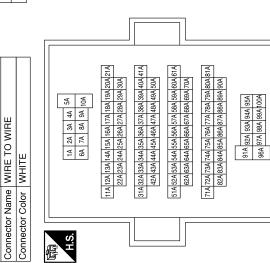




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Signal Name	I	I	I	I	I
Color of Wire	SB	J	BR	GR	В
Terminal No. Color of Wire	7	8	6	10	11



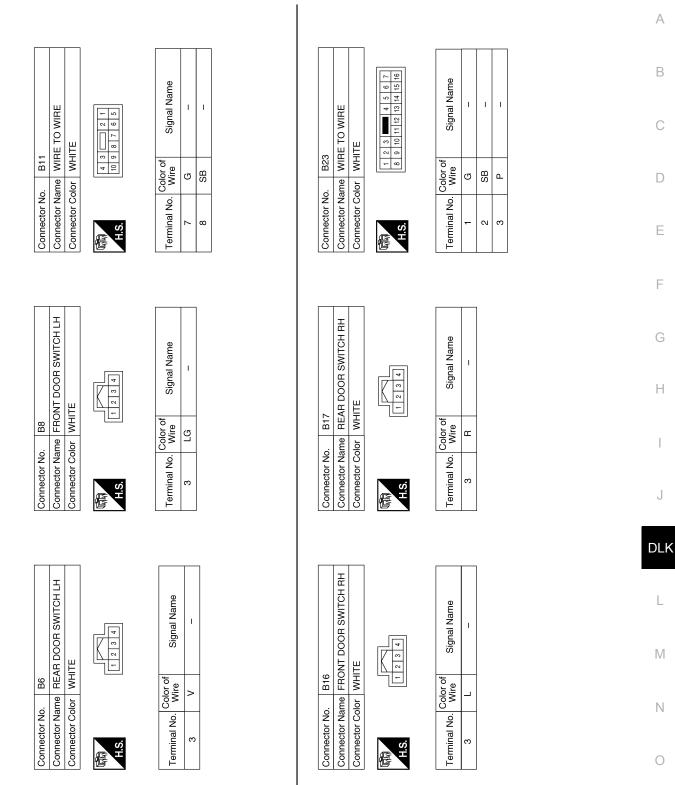
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Revision: August 2015

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Connector No.

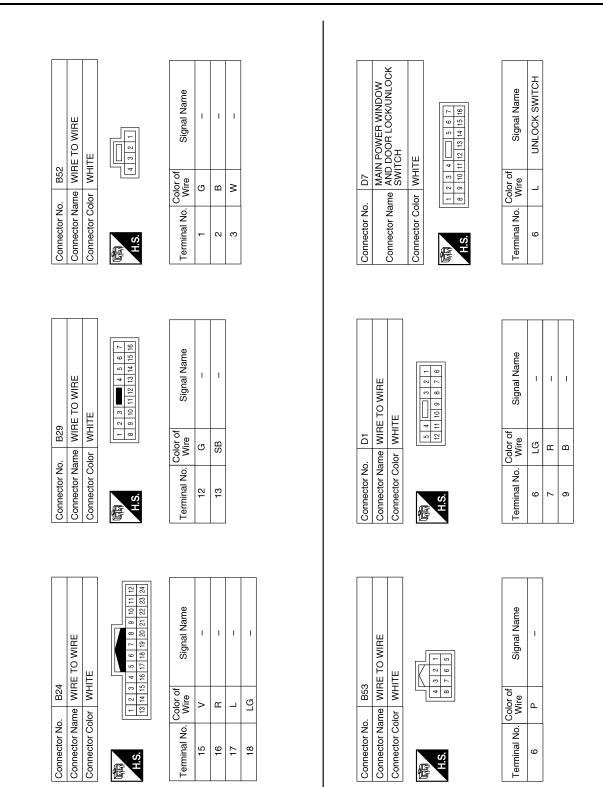
POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



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POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



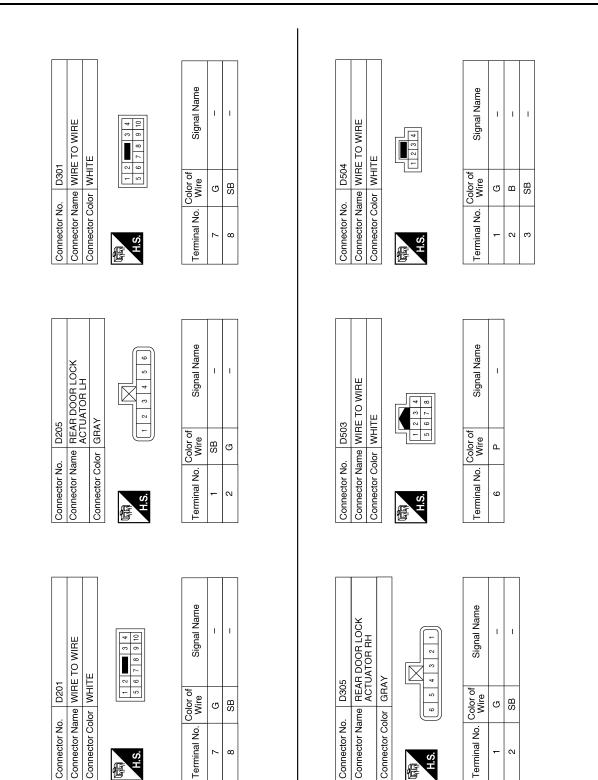
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< WIRING DIAGRAM >		1
CO WRE 8 7 8 7 19 18 19 17 16 18 19 17 16 18	15 IRE TO WIRE HITE 12 11 10 9 8 7 6 29 8 7 6 2010 Name	A B C
Connector No. D16 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Color of Signa 7 GR 7 GR 19 L	Connector No. D115 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Color of Signa 7 LG Signa 9 BR I 10 GR	D
		F
ATOR ASSEMBLY LH at a 5 6 Signal Name	D114 FRONT DOOR LOCK ACTUATOR RH GRAY e e signal Name	G H
Connector No. D14 Connector Name FRONT DOOR LOCK Connector Name FRONT DOOR LOCK Connector Color GRAY Terminal No. Write 1 LG 2 R 4 B 5 W 6 GR	Connector No. D114 Connector Name FRON Connector Color GRAY Terminal No. Color of 1 R 1 R 2 LG 2 LG 2	l
		DLK
D8 MAIN POWER WINDOW AND DOOR LOCKUNLOCK SWITCH WHITE r of Signal Name GND R LOCK SW	D105 POWER WINDOW AND DOOR LOCKUNLOCK SWITCH RH WHITE MHITE Ref R R R R R R R R R R R R R R R R R R	L
		N
Connector No. Connector Name Connector Color Terminal No. Wo 17 1 18 G	Connector No. Connector Name Connector Color Terminal No. 2 3 1	0

POWER DOOR LOCK SYSTEM

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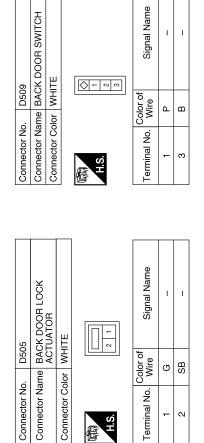
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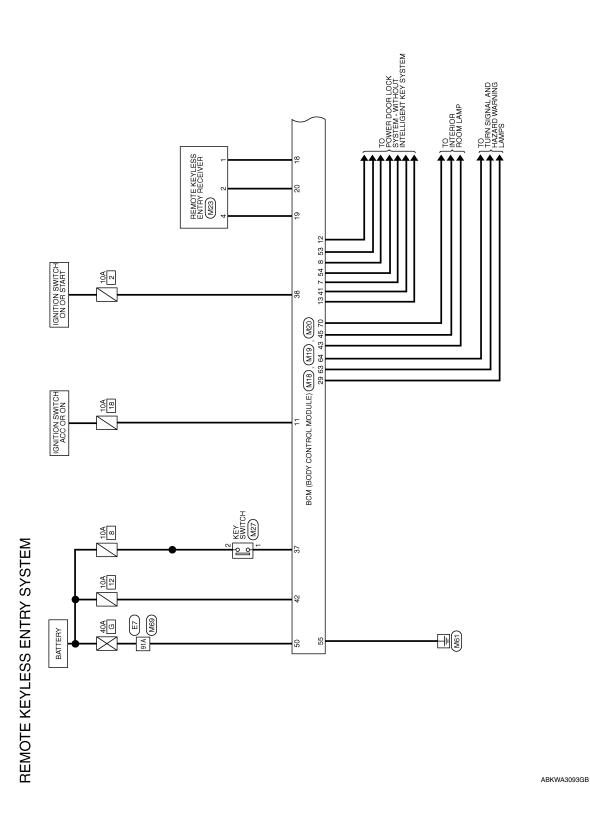
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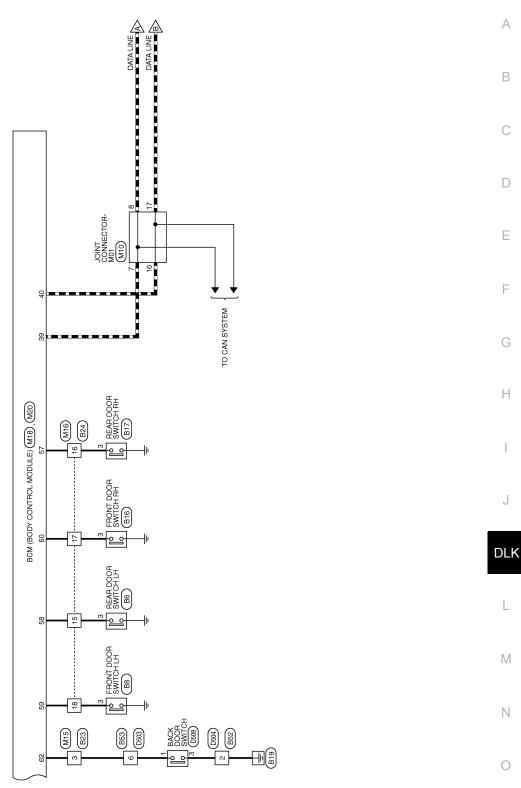
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[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY SYSTEM

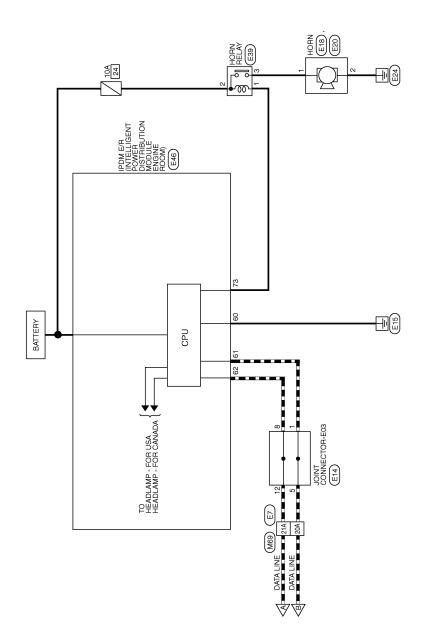
Wiring Diagram



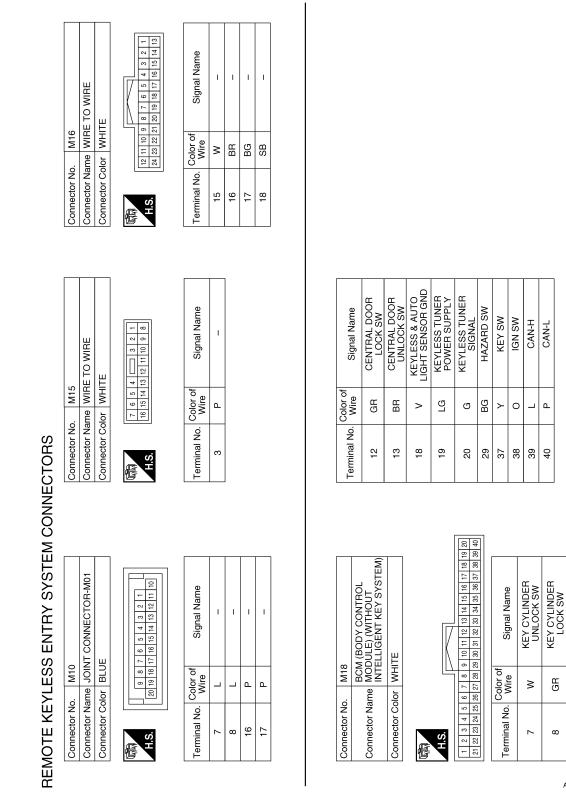


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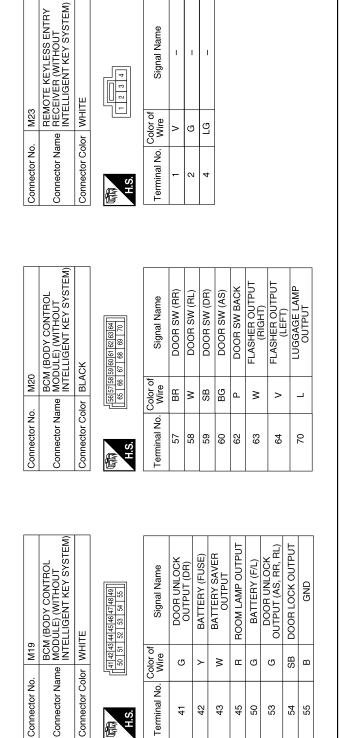
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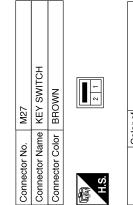
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< WIRING DIAGRAM >



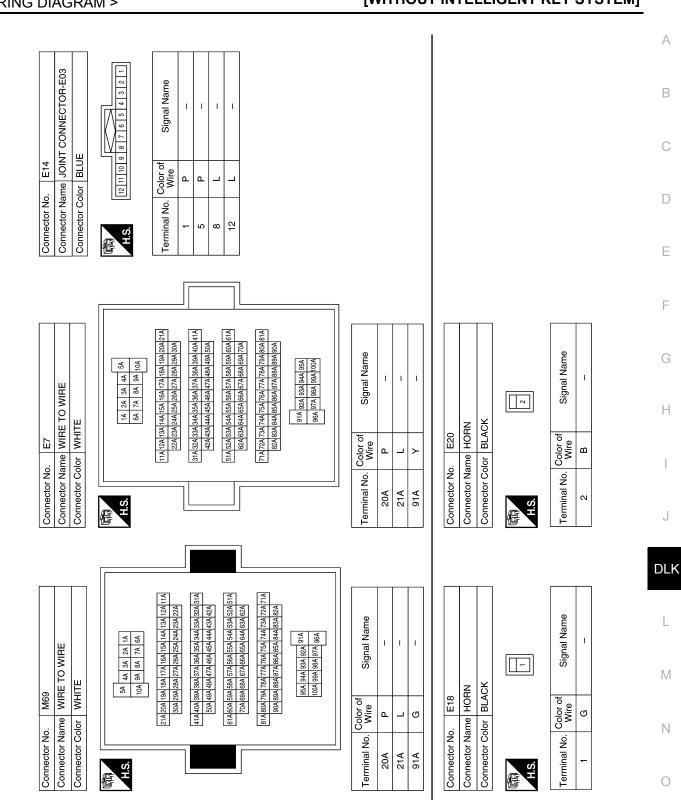
Signal Name I Т I

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Signal Name	I	I	
Color of Wire Si	7	LG	
Terminal No.	F	N	

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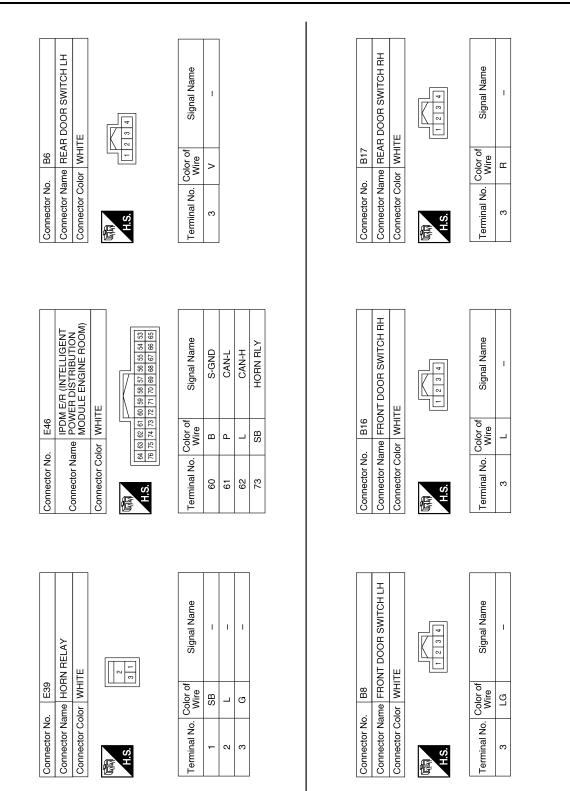
REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

Revision: August 2015

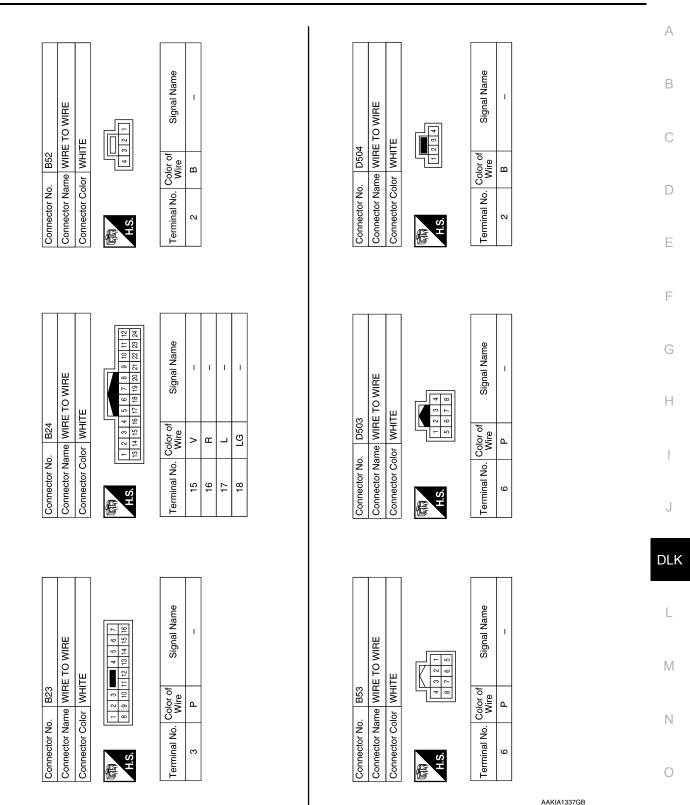
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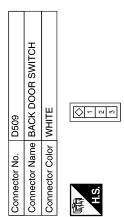
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REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



Revision: August 2015

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Signal Name	I	I
Color of Wire	Р	в
Terminal No.	1	С

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[WITHOUT INTELLIGENT KEY SYSTEM]

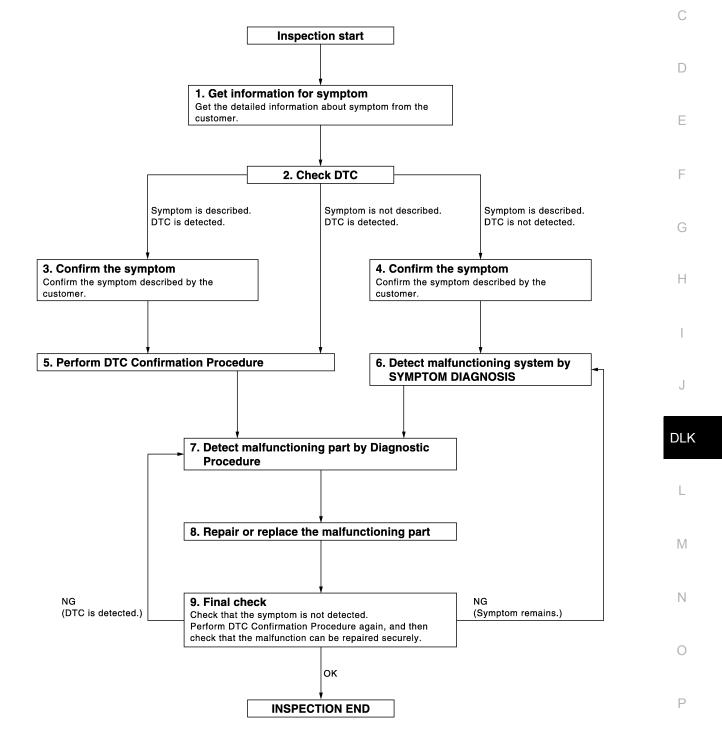
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000012430173 В

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OVERALL SEQUENCE



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1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC

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

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3. Symptom is described, DTC is not displayed>>GO TO 4. Symptom is not described, DTC is displayed>>GO TO 5.

3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT to the vehicle in "Data Monitor" and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT to the vehicle in "Data Monitor" and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-115</u>, "<u>DTC Inspection Priority Chart</u>" and determine trouble diagnosis order.

NOTE:

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

Is DTC detected?

Yes >> GO TO 7.

No >> Refer to <u>GI-42, "Intermittent Incident"</u>.

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

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

>> GO TO 7.

7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system. **NOTE:**

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.				
Is malfunctioning part detected?				
YES >> GO TO 8. NO >> Check voltage of related BCM terminals using CONSULT.	В			
8. REPAIR OR REPLACE THE MALFUNCTIONING PART				
 Repair or replace the malfunctioning part. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement. 	С			
3. Check DTC. If DTC is displayed, erase it.	D			
>> GO TO 9. 9.FINAL CHECK	Е			
When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been repaired securely. When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.	F			
Is the inspection result normal? NO (DTC is detected)>>GO TO 7. NO (Symptom remains)>>GO TO 6. YES >> Inspection End.	G			
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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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Perform the system initialization when replacing BCM, replacing keyfob or registering an additional keyfob. ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

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

U1000 CAN COMM

[WITHOUT INTELLIGENT KEY SYSTEM]

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 Diagnostic Result" of "BCM" using CONSULT.

Is "CAN COMM CIRCUIT" displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT Operation Manual.

NO >> Refer to GI-42, "Intermittent Incident".

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INFOID:000000012430176

INFOID:000000012430177

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

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000012430179

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

INFOID:000000012430180

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to <u>BCS-137. "Removal and Installation"</u>.

BCM : Diagnosis Procedure

BCM

Regarding Wiring Diagram information, refer to BCS-117. "Wiring Diagram".

1.CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.	F
37		8 (10A)	L
42	Battery power supply	12 (10A)	
50		G (40A)	F
11	Ignition switch ACC or ON	18 (10A)	
38	Ignition switch ON or START	2 (10A)	

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.

3. Check voltage between BCM connector and ground.

В	CM	Ground		Ignition switch position	on	J
Connector	Terminal		OFF	ACC	ON	_
	11		0 V	5		
M18	37		Battery voltage	Battery voltage		DLK
	38	—	0 V	0 V	Battery voltage	
1440	42	-	Detter weltere	Detter wellere		L
M19	50		Battery voltage	Battery voltage		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

${\it 3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

BCM		Ground	Continuity	
Connector	Terminal	Terminal		
M19	55	_	Yes	D

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector. А

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< DTC/CIRCUIT DIAGNOSIS >

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".

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

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-232</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012430184

Regarding Wiring Diagram information, refer to DLK-206, "Wiring Diagram".

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

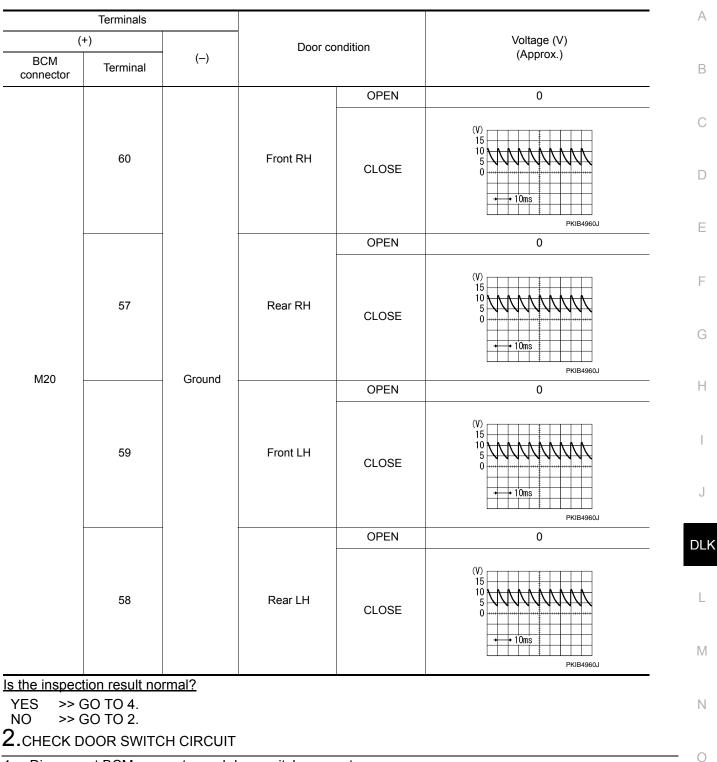
2. Check signal between BCM connector and ground with oscilloscope.

INFOID:000000012430182

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.

BCM connector	Terminal	Door switch connector	Terminal	Continuity	
M20 60 57 59 58	60	B16 (Front RH)	3		
	57	B17 (Rear RH)		Yes	
	59	B8 (Front LH)			
	58	B6 (Rear LH)			

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M20	60	Ground	
	57		No
	59		NO
	58		

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-234, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK DOOR SWITCH

1. Turn ignition switch OFF.

2. Disconnect door switch connector.

3. Check door switch.

Terminal Door switch		Door switch condition	Continuity
			Continuity
2	3 Ground part of door switch	Pressed	No
5		Released	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch.

< DTC/CIRCUIT [DOOR LOCK DIAGNOSIS >	AND UNLO		 TELLIGENT KEY SYSTEM]
DOOR LOCK DRIVER SIDE	K AND UNLOCK SW	ITCH		
DRIVER SIDE	: Description			INFOID:000000012430186
Transmits door loc	k/unlock operation to BCM.			
	: Component Functior	n Check		INFOID:000000012430187
1.CHECK FUNC				
With CONSULT Check "CDL LOCK	r < SW", "CDL UNLOCK SW" ir	n "Data Monitor".		
	Monitor item		Conditio	n
CDL LOCK SW		LOC	K	: ON
		UNLO	-	: OFF
CDL UNLOCK SW	V	LOC		: OFF : ON
-				
 CHECK POWE Turn ignition s Check voltage side) is turned 	e at the main power window a I to "LOCK" or "UNLOCK".	UT SIGNAL and door lock/un		nector when the switch (driver
 CHECK POWE Turn ignition s Check voltage side) is turned 	R WINDOW SWITCH OUTP witch ON. at the main power window a	UT SIGNAL		nector when the switch (driver Voltage (Approx.)
1. CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7	R WINDOW SWITCH OUTP witch ON. e at the main power window a to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock	UT SIGNAL and door lock/un llock 1 6	ock switch con	Voltage
1.CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7 D8	R WINDOW SWITCH OUTP witch ON. at the main power window a to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock Neutral → Lock	UT SIGNAL and door lock/un	ock switch con	Voltage (Approx.)
1. CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7 D8 Is the inspection regression of the system of the	R WINDOW SWITCH OUTP witch ON. a at the main power window a to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock Neutral → Lock esult normal? O 5. O 2. R WINDOW SWITCH GROU	UT SIGNAL and door lock/uni llock 1 6 18 ND	ock switch con	Voltage (Approx.) Battery voltage → 0
1. CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7 D7 D8 Is the inspection regy S YES YES S GO TO OR 2. CHECK POWE 1. Turn ignition s 2. Disconnect mage 3. Check continue	R WINDOW SWITCH OUTP witch ON. e at the main power window at to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock Neutral → Lock esult normal? O 5. O 2. R WINDOW SWITCH GROU switch OFF. ain power window and door loc ity between main power wind	UT SIGNAL and door lock/un llock 1 6 18 ND ND	Fock switch cont Ferminal Ground	Voltage (Approx.) Battery voltage → 0 connector and ground.
1. CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7 D8 Is the inspection reveal YES YES > GO TO NO 2. CHECK POWE 1. Turn ignition s 2. Disconnect mag 3. Check continue	R WINDOW SWITCH OUTP witch ON. at the main power window at to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock Neutral → Lock esult normal? O 5. O 2. R WINDOW SWITCH GROU switch OFF. ain power window and door lock	UT SIGNAL and door lock/uni llock 1 6 18 ND	Fock switch cont Ferminal Ground	Voltage (Approx.) Battery voltage → 0
1. CHECK POWE 1. Turn ignition s 2. Check voltage side) is turned Connector D7 D7 D8 Is the inspection regime YES YES Souther Connect regime 1. Turn ignition s 2. CHECK POWE 1. Turn ignition s 2. Disconnect mag 3. Check continue	R WINDOW SWITCH OUTP witch ON. at the main power window at to "LOCK" or "UNLOCK". Main power window and door lock/un switch state Neutral → Unlock Neutral → Lock esult normal? O 5. O 2. R WINDOW SWITCH GROU switch OFF. ain power window and door loc uity between main power wind	UT SIGNAL and door lock/un llock 1 6 18 ND ND	Fock switch cont Ferminal Ground	Voltage (Approx.) Battery voltage → 0 connector and ground.

3. CHECK POWER WINDOW SWITCH

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

Main power window and door lock/unlock switch state	Terminals	Continuity
Lock	17 - 18	Yes
Unlock	6 - 17	Tes
Neutral/Lock	6 - 17	No
Neutral/Unlock	17 - 18	NO

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-55</u>, "<u>Removal and Instal-</u> lation".

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
M18	12	D8	18	Yes
UT IVI	13	D7	6	165

3. Check continuity between BCM connector and ground.

BCM connector	Terr	minal	Continuity
M18	12	Ground	No
	13	Cround	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "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".

Monitor item	(Condition	
CDL LOCK SW	LOCK	: ON	<u> </u>
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNLOCK SW	UNLOCK	: ON	

INFOID:000000012430189

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS > Is the inspection result normal? YES >> Door lock and unlock switch is OK. NO >> Refer to DLK-237, "PASSENGER SIDE : Diagnosis Procedure". PASSENGER SIDE : Diagnosis Procedure INFOID:000000012430191 Regarding Wiring Diagram information, refer to <u>DLK-206, "Wiring Diagram"</u>. 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL Turn ignition switch ON. Check voltage at the power window and door lock/unlock switch RH connector when the switch (passen-

ger side) is turned to "LOCK" or "UNLOCK". Ε Voltage Power window and door lock/unlock Connector Terminal switch RH state (Approx.) $\text{Neutral} \rightarrow \text{Lock}$ 1 D105 Ground Battery voltage $\rightarrow 0$ Neutral \rightarrow Unlock 2 Is the inspection result normal? YES >> GO TO 5. NO >> GO TO 2.

2. CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.

1 2.

Disconnect power window and door lock/unlock switch RH connector. 2.

Check continuity between power window and door lock/unlock switch RH connector and ground. 3.

Power window and door lock/unlock switch RH con- nector	Terminal		Continuity	
D105	3	Ground	Yes	
the inspection result normal?				
YES >> GO TO 3.				
NO >> Repair or replace harness.				
.CHECK POWER WINDOW SWITCH heck continuity between power window and	door lock/unlock	switch RH terminals.		
		switch RH terminals.	als Continuity	
heck continuity between power window and		Ι	3	
heck continuity between power window and Power window and door lock/unlock		Termir	3 Yes	
heck continuity between power window and Power window and door lock/unlock Lock		Termir 1 - 3	3 Yes	

NO >> Replace power window and door lock/unlock switch RH. Refer to PWC-56, "Removal and Installation".

4.CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.

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

Revision: August 2015

[WITHOUT INTELLIGENT KEY SYSTEM]

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< DTC/CIRCUIT DIAGNOSIS >

DOOR LOCK AND UNLOCK SWITCH S > [WITHOUT INTELLIGENT KEY SYSTEM]

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M18	12	D105	1	Yes
IVITO	13	B105	2	165

3. Check continuity between BCM connector and ground.

BCM connector	Terr	Continuity	
M18	12	Ground	No
in to	13	Cround	NO

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

< 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 В transmits the LOCK or UNLOCK signal directly to the BCM.

Component Function Check

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

D Check "KEY CYL UN-SW", "KEY CYL UN-SW" in "Data Monitor" of "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to BCS-90, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Mon	itor item		Condi	tion	
		L	.ock	: ON	
KEY CYL LK-SW		Neutra	Neutral / Unlock : OFF		
KEY CYL UN-SW		U	nlock	: ON	
KET CTL UN-SW		Neutr	al / Lock	: OFF	
ne inspection result	normal?				
	er switch is OK.	Droooduro"			
	LK-239, "Diagnosis	Procedure.			
ignosis Proced	ure				INFOID:000000012430
arding Wiring Diag	ram information, refe	er to DLK-206. "Wi	ring Diagram".		
······································	· · · · · · · · · · · · · · · · · · ·				
	CYLINDER SWITC	CH INPUT SIGNAL			
Turn ignition switcl	n ON.		. <u></u>		
Turn ignition switcl					
Turn ignition switcl	n ON.				
Turn ignition switcl	n ON. ween BCM connecto Terminals	or and ground.	Key position	۰ ۱	Voltage (V)
Turn ignition switcl Check voltage bet	n ON. ween BCM connecto Terminals			1	Voltage (V) (Approx.)
Turn ignition switch Check voltage bet	n ON. ween BCM connecto Terminals Terminal	or and ground.		۱ ۱	• • •
Turn ignition switch Check voltage betw (+) BCM connector	n ON. ween BCM connecto Terminals	or and ground.	Key position		(Approx.)
Turn ignition switch Check voltage bet	n ON. ween BCM connecto Terminals Terminal 8	or and ground.	Key position		(Approx.)
Turn ignition switch Check voltage bet (+) BCM connector	n ON. ween BCM connecto Terminals Terminal	or and ground.	Key position Lock Neutral / Unlo	ock	(Approx.) 0 7.0 - 8.0
Turn ignition switch Check voltage betw (+) BCM connector M18	n ON. ween BCM connecto Terminals Terminal 8 7	or and ground.	Key position Lock Neutral / Unlo Unlock	ock	(Approx.) 0 7.0 - 8.0 0
Turn ignition switcl Check voltage bet (+) BCM connector M18 <u>me inspection result</u> ES >> Front door	n ON. ween BCM connecto Terminals Terminal 8 7	or and ground.	Key position Lock Neutral / Unlo Unlock	ock	(Approx.) 0 7.0 - 8.0 0
Turn ignition switcl Check voltage bet (+) BCM connector M18 <u>he inspection result</u> S >> Front door D >> GO TO 2.	n ON. ween BCM connector Terminals Terminal 8 7 normal? lock key cylinder sw	or and ground. (-) Ground	Key position Lock Neutral / Unlock Neutral / Loc	ock	(Approx.) 0 7.0 - 8.0 0
Turn ignition switch Check voltage bet (+) BCM connector M18 <u>he inspection result</u> ES >> Front door D >> GO TO 2.	n ON. ween BCM connecto Terminals Terminal 8 7 normal?	or and ground. (-) Ground	Key position Lock Neutral / Unlock Neutral / Loc	ock	(Approx.) 0 7.0 - 8.0 0
Turn ignition switch Check voltage bet (+) BCM connector M18 <u>he inspection result</u> S >> Front door D >> GO TO 2. CHECK DOOR KEY Turn ignition switch	n ON. ween BCM connector Terminals Terminal 8 7 normal? lock key cylinder sw	or and ground. (–) Ground witch LH is OK. CH GROUND CIRC	Key position Lock Neutral / Unlock Neutral / Loc	ock	(Approx.) 0 7.0 - 8.0 0

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Front door lock key cylinder switch LH connector	Terminal	Ground	Continuity
D14	4	Ground	Yes

Is the inspection result normal?

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

3. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M18.

2. Check continuity between front door lock key cylinder switch LH connector and BCM connector M18.

Front door lock key cylinder switch LH con- nector	Terminal	BCM connector	Terminal	Continuity
D14	6	M18	8	Yes
014	5	WI TO	7	163

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

Front door lock key cylinder switch LH connector	Terminal		Continuity
D14	6	Ground	No
D14	5		UNI

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch. Refer to DLK-240, "Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Replace front door lock key cylinder switch LH. Refer to <u>DLK-295</u>, "DOOR LOCK : Removal and <u>Installation"</u>.

Component Inspection

INFOID:000000012430195

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

Term	inal	Key position	Continuity
Front door lock key cylind	ler switch LH connector	- Key position	
6		Lock	Yes
0	4	Neutral / Unlock	No
E	4	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. Refer to <u>DLK-295, "DOOR LOCK : Removal and</u> Installation".

KEY SWITCH (BCM INPUT)

[WITHOUT INTELLIGENT KEY SYSTEM]

	DIAGNOSIS >			INTELLIGENT KEY SYSTEM]
EY SWITC	H (BCM IN	NPUT)		
iagnosis Pro	cedure			INFOID:00000001243019
egarding Wiring	Diagram inform	mation, refer to <u>DI</u>	LK-206, "Wiring Diagram".	
.CHECK KEY S		T SIGNAL		
With CONSUL		///		
<u> BCM - DÓOR LO</u>	<u> (CK)"</u> .		or". Refer to <u>BCS-90, "DO</u>	OR LOCK : CONSULT Function
When key is ins	erted to ignition	n key cylinder:		
KEY ON S	W	: ON		
When key is ren	noved from ign	ition key cylinder:	:	
KEY ON S	w	: OFF		
Without CONS heck voltage bet		nnector M18 term	ninal 37 and ground.	
Connector	Terminal		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M18	37	Ground	Key is inserted.	Battery voltage
s the inspection r	ooult normal?		Key is removed.	0
YES >> Key s	witch (insert) c	ircuit is OK.		
NO >> GO T				
CHECK KEY S		RT)		
	ey switch CFF.	ector.		
. Check continu	uity between ke	ey switch terminal	ls.	
Terminals		Со	ndition	Continuity
1 – 2		Key is inserted.		Yes
1 – 2		Key is	removed.	No
the inspection r				
	r or replace ha			

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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. Perform "DOOR LOCK" in "Active Test" using CONSULT.

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-242, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-206, "Wiring Diagram".

1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

Front door I	+) ock actuator H	()	Condition		(-) Condition Voltage (Approx.)	Voltage (Approx.)
Connector	Terminal					
D14	1	Ground	Door lock and unlock switch	Lock	Battery voltage	
D14	2	Giounu	DOUT TOOK AND UTTOOK SWITCH	Unlock	Dattery voltage	

Is the inspection result normal?

YES >> Replace front door lock actuator LH. Refer to <u>DLK-295. "DOOR LOCK : Removal and Installa-</u> tion".

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector and all door lock actuator connectors.

2. Check continuity between BCM harness connector and front door lock actuator LH harness connector.

В	СМ	Front door lock actuator LH		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M19	54	D14	1	Yes	
10119	41		2	Tes	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground		
M19	54	Ground	No	
	41		NO	

Is the inspection result normal?

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< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

	ES >> GO O >> Rep	TO 3. air or replace	harness.				А
3.	CHECK BCM	OUTPUT SIG	GNAL				
1. 2.		M connector. ge between fr	ont door lock	actuator LH harness con	nector and grou	und.	В
•	(+	-)				V /- II	0
-	BC	CM	(-)	Condition		Voltage (Approx.)	С
-	Connector	Terminal					
	M19	54 41	Ground	Door lock and unlock switch	Lock Unlock	Battery voltage	D
Y N		ck for internal lace BCM. Re	short of each	door lock actuator. 37, "Removal and Installa	ation".		E
PA	SSENGE	R SIDE : D	escription			INFOID:000000012430200	
Lo	cks/unlocks th	e door with th	ne signal from	BCM.			G
PA	SSENGE	R SIDE : C	omponent	Function Check		INFOID:000000012430201	0
1.	CHECK FUN	CTION					Н
1. 2. <u>Is t</u>	Perform "DC Touch "ALL the inspection	LOCK" or "AL	L UNLOCK" t	ing CONSULT. o check that it works nor	mally.		I
-		r lock actuato er to DLK-243		ER SIDE : Diagnosis Pro	cedure".		
	SSENGE			-		INFOID:000000012430202	J
				er to <u>DLK-206, "Wiring Di</u>	<u>agram"</u> .		DLK
	CHECK DOO		UATOR INPL	JT SIGNAL			
1. 2. 3.	Disconnect		< actuator RH ont door lock	connector. actuator RH harness cor	nector and gro	und.	M
_		(+)					Ν
	Front doc	r lock actuator RH	(-)	Conditio	n	Voltage (Approx.)	14
-	Connector	Terminal					0
-	D114	2	Ground	Door lock and unlock swit	ch Lock Unlock	Battery voltage	0
ls i	the inspection	result normal	?			1	Ρ
Y N	tion'		or lock actuat	or RH. Refer to <u>DLK-29</u>	5. "DOOR LOC	K : Removal and Installa-	
2.	CHECK DOO	R LOCK ACT	UATOR CIRC	CUIT			
1.				r lock actuators.			

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

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

В	СМ	Front door loo	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M19	54	D114	2	Yes	
10113	53	0114	1	165	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground		
M19	54	Ground	No	
MT9	53		INO	

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 front door lock actuator RH harness connector and ground.

	+) CM	()	Condition		Voltage (Approx.)	
Connector	Terminal				(1.1)	
M19	54	Ground	Door lock and unlock switch	Lock	Battery voltage	
1119	53		Door lock and unlock switch	Unlock	Dattery voltage	

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-137, "Removal and Installation"</u>.

REAR LH

REAR LH : Description

Locks/unlocks the door with the signal from BCM.

REAR LH : Component Function Check

1.CHECK FUNCTION

1. Perform "DOOR LOCK" in "Active Test" using CONSULT.

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-244, "REAR LH : Diagnosis Procedure"</u>.

REAR LH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-206, "Wiring Diagram"</u>.

1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

DLK-244

2016 Versa Note

INFOID:000000012430203

INFOID:000000012430204

< DTC/CIRCUIT DIAGNOSIS >

DOOR LOCK ACTUATOR

[WITHOUT INTELLIGENT KEY SYSTEM]

(+	+)					Mallana		
Rear door loc	k actuator LH	(-)		Condition		Voltage (Approx.)		
Connector	Terminal							
D205	1	Ground	Door lock an	d unlock switch	Lock Unlock	Battery voltage		
the inspection	result norma	1?						
NO >> GO	TO 2. PR LOCK AC	TUATOR CIR	CUIT			: Removal and Installation".		
		tor and all doo n BCM harnes				or LH harness connector.		
	BCM			Rear door lock a	ctuator LH	Continuity		
Connecto	or	Terminal	Conr	nector	Terminal	Continuity		
M19		54	D2	205	1	Yes		
		53			2			
Check contir	nuity betweer	n BCM harnes	s connector	and ground.				
	BC					Continuity		
Conne	ector	-	Terminal Ground No					
M1	9							
the inspection								
CHECK BCM	air or replace OUTPUT SI	GNAL						
	M connector. ge between r	ear door lock	actuator LH	harness coni	nector and gr	ound.		
(+	+)							
BC	CM	(-)		Condition		Voltage (Approx.)		
Connector	Terminal					,		
M19	54 53	- Ground	Door lock an	d unlock switch	Lock Unlock	Battery voltage		
the inspection	result norma	1?	1		1			
		l short of each efer to <u>BCS-1</u>			ation".			
EAR RH : C	Description	I				INFOID:000000012430206		
ocks/unlocks th	e door with th	he signal from	BCM.					
EAR RH : C		-				INFOID:00000001243020		
.CHECK FUN	CTION							
. Perform "DC	OR LOCK" i	n "Active Test	' usina CON	ISULT.				

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

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Door lock actuator is OK. NO >> Refer to DLK-246, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:000000012430208

[WITHOUT INTELLIGENT KEY SYSTEM]

Regarding Wiring Diagram information, refer to DLK-206, "Wiring Diagram".

1. CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)						
Rear door loo	k actuator RH	(—)	Condition		Condition Voltage (Approx.)		Voltage (Approx.)
Connector	Terminal				()		
D305	2	Ground	Door lock and unlock switch	Lock	Battery voltage		
0305	1 Ground		DOOL LOCK AND UNIOCK SWITCH	Unlock	Dallery vollage		

Is the inspection result normal?

YES >> Replace rear door lock actuator RH. Refer to DLK-299, "DOOR LOCK : Removal and Installation". NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

Disconnect BCM connector and all door lock actuator connectors. 1.

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

B	BCM		Rear door lock actuator RH	
Connector	Terminal	Connector	Terminal	Continuity
M19	54	D305	2	Yes
101 9	53	2303	1	103

Check continuity between BCM harness connector and ground. 3.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M19	54	Ground	No	
	53		NO	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

Check voltage between rear door lock actuator RH harness connector and ground. 2.

(+) BCM		()	Condition		Voltage (Approx.)	
Connector	Terminal				()))))))))))))))))))	
M19	54	Ground	Door lock and unlock switch	Lock	Battery voltage	
10119	53	Ground	Door lock and unlock switch	Unlock	Dattery voltage	

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-137</u>, "Removal and Installation".

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".

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 <u>DLK-247</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-216. "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	minals				
(+)			Condition	Signal	
Remote keyless entry re- ceiver connector	Terminal	(-)		(Reference value)	
			Waiting (All doors closed)	(V) 6 4 2 0 • • • • 1.0ms 1 9 1 9 1 9 1 9 1 1 1 1 1 1 1 1 1 1 1	
M23	2	Ground	When signal is received (All doors closed)	(V) 6 4 2 0	
ne inspection result	normal2			++1.0ms PIIB7729J	

YES >> GO TO 7. NO >> GO TO 2. INFOID:000000012430209

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REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

$\overline{2.}$ 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.

	Terminals			
(+)			Signal	
Remote keyless entry receiver connector	Terminal	(–)	(Reference value)	
M23	4	Ground	(V) 6 4 2 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	

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
M18	19	M23	4	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M18	19	Ground	No

Is the inspection result normal?

YES >> Reconnect BCM, GO TO 4.

NO >> Repair or replace harness between BCM and remote keyless entry receiver.

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
M23	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.

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
M18	18	M23	1	Yes

Is the inspection result normal?

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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	-
M18	20	M23	2	Yes	-

2. Check continuity between BCM connector and ground.

BCM connector M18	Terminal 20	Ground	Continuity No	D
	e harness between BCM a	nd remote keyless entry.		E
7.CHECK INTERMITTENT Refer to <u>GI-42</u> , "Intermittent				F
>> Inspection End.				G

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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 head-lamp 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

(I) With CONSULT

Check remote keyless entry receiver "KEYLESS LOCK", "KEYLESS UNLOCK", and "KEYLESS PANIC" in "Data Monitor".

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-250, "Diagnosis Procedure".

Diagnosis Procedure

NOTE:

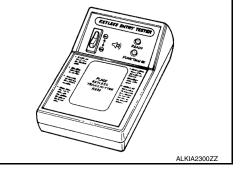
The Signal Tech II Tool [- (J-50190)] can be used to perform the following functions: Refer to the Signal Tech II User Guide for additional information.

- 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

INFOID:000000012430212

INFOID:000000012430213

KEYFOB BATTERY AND FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

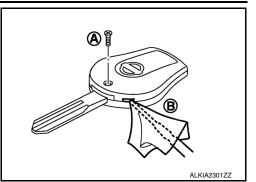
- Remove the screw (A). 1.
- 2. Insert a small screwdriver into the slit of the corner (B) and twist it to separate the upper part from the power part. Use a cloth to protect the casing.

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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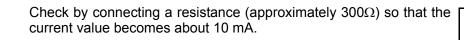
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Standard : Approx. 2.5 - 3.0V

Is the measurement value within specification?

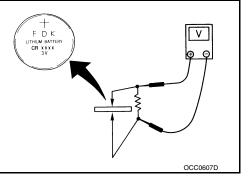
- >> Keyfob battery is OK. Check remote keyless entry YES Refer DLK-247. receiver. to "Component Function Check" NO >> GO TO 4.

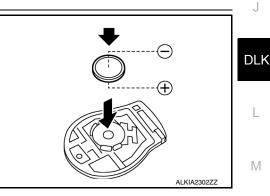
REPLACE KEYFOB BATTERY

- 1. Replace the keyfob battery with a new one. **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.
- 2. Align the tips of the upper and lower parts, and then push them together until it is securely closed.
- 3. After replacing the battery, check that all keyfob functions work properly.

Is the inspection result normal?

- YES >> Kevfob is OK.
- NO >> Check remote keyless entry receiver. Refer to DLK-247. "Component Function Check".





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< DTC/CIRCUIT DIAGNOSIS >

HORN FUNCTION

Description

Perform answer-back for each operation with horn.

Component Function Check

1.CHECK FUNCTION

1. Select "HORN" in "Active Test" using 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-252</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-216, "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" using CONSULT.
- 3. Using an oscilloscope or analog voltmeter to check voltage between IPDM E/R connector and ground.

IPDM E/R		Ground		Test item	Voltage (V)	
Connector	Terminal	Ground	lestitem		(Approx.)	
E46 73	Ground	HORN	ON	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage		
	75	Ground	HONN	Other than above	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R. Refer to PCS-30, "Removal and Installation".

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.

IPDM E/R		Horn	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
E46	73	E39	1	Yes	

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

INFOID:000000012430215

INFOID:000000012430216

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

IPDM	E/R	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
E46	73	Ground	No	-
s the inspection result norma	<u> ?</u>			•
YES >> GO TO 4.				
NO >> Repair or replace				
CHECK INTERMITTENT				
Refer to <u>GI-42, "Intermittent Ir</u>				
s the inspection result norma				
YES >> Replace IPDM E/ NO >> Repair or replace	R. Refer to <u>PCS-30, "Remo</u> the malfunctioning part.	val and Installation".		
	the manufictioning part.			

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< DTC/CIRCUIT DIAGNOSIS >

WARNING CHIME FUNCTION

Description

Performs operation method guide and warning with buzzer.

Component Function Check

1.CHECK FUNCTION

With CONSULT

1. Check the operation of "BUZZER" in "Active Test".

2. Touch "IGN KEY WARN ALM", "SEAT BELT WARN TEST" or "LIGHT WARN ALM" on screen.

Is the inspection result normal?

- YES >> Warning buzzer into combination meter is OK.
- NO >> Refer to <u>DLK-254, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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 <u>MWI-54, "Removal and Installation"</u> (Type A) or <u>MWI-115,</u> <u>"Removal and Installation"</u> (Type B).

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

INFOID:000000012430218

INFOID:000000012430219

INFOID:000000012430220

HAZARD FUNCTION

[WITHOUT INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >	[WITHOUT INTELLIGENT KEY SYSTEM]
HAZARD FUNCTION	A
Description	INFOID:000000012430221
Perform answer-back for each operation with number of blinks	В
Component Function Check	INFOID:000000012430222
1.CHECK FUNCTION	С
Check hazard warning lamp "FLASHER" in "Active Test".	
<u>Is the inspection result normal?</u> YES >> Hazard warning lamp circuit is OK. NO >> Refer to <u>DLK-255, "Diagnosis Procedure"</u> .	D
Diagnosis Procedure	INFOID:000000012430223
1. CHECK HAZARD SWITCH CIRCUIT	
Operate the hazard lights by turning ON the hazard warning sv Is the inspection result normal?	vitch. F
YES >> GO TO 2. NO >> Repair or replace hazard warning switch circuit. Re	efer to EXL-108, "Removal and Installation".
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-42, "Intermittent Incident".	F
>> Inspection End.	1

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KEYFOB ID SET UP WITH CONSULT

ID Code Entry Procedure

INFOID:000000012430224

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
 - 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.

KEYFOB ID SET UP WITHOUT CONSULT					
< DTC/CIRCUIT DIAGNOSIS >	[WITHOUT INTELLIGENT KEY SYSTEM]				
KEYFOB ID SET UP WITHOUT CONSULT					

ID Code Entry Procedure

KEYFOB ID SET UP WITHOUT CONSULT

INFOID:000000012430225

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Close all door	·	
Hazard warni	and remove it from ignition key cylinder more than six times within 10 seconds. g lamps will then flash twice.)	
	y completely from ignition key cylinder each time. is performed too fast, system will not enter registration mode.	
nsert key into	nition key cylinder and turn to ACC position.	
	n on keyfob once. (Hazard warning lamps will then flash twice.) ne oldest ID code is erased and the new ID code is entered.	(
A maximum f	enter any additional keyfob ID codes? ve ID codes can be entered. If more than five ID codes are entered, the 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.	
		D
		D
	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).	

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

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< DTC/CIRCUIT DIAGNOSIS >

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.

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.

- 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.
- If you need to activate more than two additional new keyfobs, repeat the procedure "Additional ID code entry" for each new keyfob <u>DLK-256, "ID Code Entry Procedure"</u> (with CONSULT), <u>DLK-257, "ID Code Entry</u> <u>Procedure"</u> (without CONSULT).
- A maximum amount of five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- 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.

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

POWER DOOR LOCK SYSTEM SYMPTOMS

Symptom Table

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INFOID:000000012430226

[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR LOCK/UNLOCK FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-225</u>, "Work <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 F			Reference page
	1. Check door switch.		DLK-232	
Key reminder door function does not operate properly.		Check key switch.	DLK-241	
		Check Intermittent Incident.		<u>GI-42</u>
		Check BCM power supply and	ground circuit.	BCS-129
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-235
and door lock/unlock switch or power window and door lock/unlock switch RH.	3.	Check power window and door	lock and unlock switch RH.	DLK-236
	4.	Check Intermittent Incident.		<u>GI-42</u>
			Front LH	DLK-242
Specific door lock actuator does not operate.	1.	Check door lock actuator.	Front RH	DLK-243
	1. OI		Rear LH	DLK-244
			Rear RH	DLK-245
		Check Intermittent Incident.	<u>GI-42</u>	
Power door locks do not operate with front	1.	Check key cylinder switch.		DLK-239
door lock key cylinder switch LH.	2.	2. Replace BCM.		BCS-137
	1.	Ensure automatic door lock/unlock function (lock operation) is enabled.		<u>DLK-196</u>
Vehicle speed sensing auto door LOCK oper- ation does not operate.		. Check combination meter vehicle speed signal.		<u>MWI-40</u> (Type A) <u>MWI-95</u> (Type B)
		3. Check intermittent incident.		<u>GI-42</u>
Ignition OFF interlock auto door UNLOCK	1.	1. Ensure automatic door lock/unlock function (unlock opera- tion) is enabled.		DLK-196
function does not operate.	2.	Check BCM for DTCs.		BCS-115
	3.	Check intermittent incident.	<u>GI-42</u>	

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS NOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000012430227

REMOTE KEYLESS ENTRY SYSTEM

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)]). NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	DLK-250
	2. Check BCM and remote keyless entry receiver.	DLK-247
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)]). NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	<u>DLK-250</u>
	2. Door switch check.	DLK-232
	3. Replace BCM.	BCS-137
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)]). NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	DLK-250
	2. Replace BCM.	BCS-137
Hazard and horn reminder does not activate properly when pressing lock or unlock button of keyfob.	 Check hazard and horn reminder mode with CONSULT NOTE: Hazard and horn reminder mode can be changed. First check the hazard and horn reminder mode setting. 	<u>DLK-199</u>
	2. Door switch check	DLK-232
	3. Replace BCM.	BCS-137
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob.	 Check hazard reminder mode with CONSULT NOTE: Hazard reminder mode can be changed. First check the hazard reminder mode setting. 	<u>DLK-199</u>
(Horn reminder OK)	2. Check hazard function with hazard switch	_
	3. Replace BCM.	BCS-137
Horn reminder does not activate properly when pressing lock or unlock button of keyfob.	1. Check horn reminder mode with CONSULT NOTE: Horn reminder mode can be changed. First check the horn reminder mode setting.	<u>DLK-199</u>
(Hazard reminder OK)	2. Check horn function with horn switch	_
	3. IPDM E/R operation check	PCS-10
	4. Replace BCM.	BCS-137
	1. Room lamp operation check	<u>INL-7</u>
Room lamp illumination does not operate properly.	2. Door switch check	<u>DLK-232</u>
	3. Replace BCM.	<u>BCS-137</u>
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)]). NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning.	DLK-250
	2. Replace BCM.	BCS-137

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Symptom	Diagnoses/service procedure	Reference page	А
Auto door lock operation does not activate properly. (All other remote keyless entry functions OK.)	1. Check auto door lock operation mode with CONSULT NOTE: Auto door lock operation mode can be changed. First check the auto door lock operation mode setting.	DLK-196	В
	2. Replace BCM.	BCS-137	
		<u>.</u>	С

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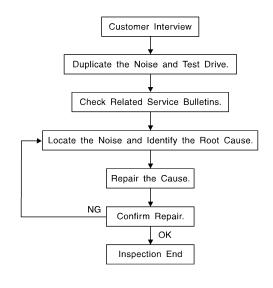
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< SYMPTOM DIAGNOSIS >

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



SBT842

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-266</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.

DLK-262

[WITHOUT INTELLIGENT KEY SYSTEM]

< 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.	А
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). 	В
 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. 	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.	E
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	
 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). Narrow down the noise to a more specific area and identify the cause of the noise by: 	F
 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. 	G
 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 	Η
 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-263, "Generic Squeak and Rattle Troubleshooting"</u>. 	
REPAIR THE CAUSE	J
If the cause is a loose component, tighten the component securely.	0
- 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. 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. 	M
 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. 	Ν
 SILICONE SPRAY: Use when grease cannot be applied. DUCT TAPE: Use to eliminate movement. 	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.

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< SYMPTOM DIAGNOSIS >

[WITHOUT 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 < SYMPTOM DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

Diagnostic Worksheet

INFOID:000000012430230

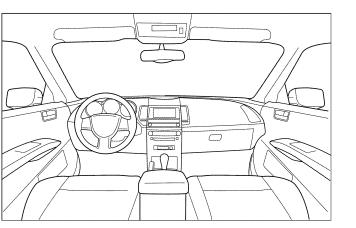
Dear Customer:

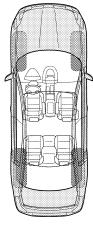
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

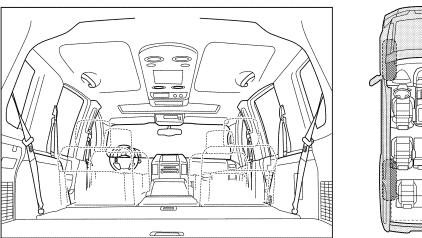
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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 >

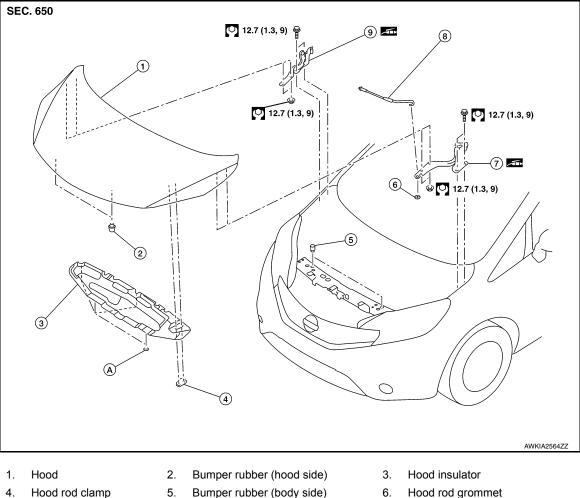
[WITHOUT INTELLIGENT KEY SYSTEM]

Briefly describe the location where the	noise occurs:	:		
I. WHEN DOES IT OCCUR? (please	check the box	xes that app	oly)	
☐ Anytime	🗆 Aft	ter sitting ou	ut in the rai	'n
☐ 1st time in the morning		hen it is rair	ning or wet	
Only when it is cold outside		y or dusty c	onditions	
Only when it is hot outside	🛛 Ot	her:		
II. WHEN DRIVING:	IV. WI		OF NOISE	:
Through driveways	🔲 Sq	jueak (like t	ennis shoe	s on a clean floor)
Over rough roads			-	n old wooden floor)
Over speed bumps		ttle (like sha	•	-
Only about mph		ock (like a k		
On acceleration		k (like a clo		
Coming to a stop		ump (heavy		
 On turns: left, right or either (circle) With passengers or cargo) 🗆 Bu	ızz (like a bı	imble bee)	
Other:				
After driving miles or	- minutes			
<u> </u>				
O BE COMPLETED BY DEALERSH	P PERSONN	EL		
est Drive Notes:				
		YES	NO	Initials of person performing
/ehicle test driven with customer				
- Noise verified on test drive				
- Noise verified on test drive - Noise source located and repaired	nfirm repair			
/ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to co /IN:		Omer Name		

< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION HOOD

Exploded View

INFOID:000000012430231



- 4. Hood rod clamp
- 7. Hood hinge (LH)
- A. Hood insulator clip

HOOD ASSEMBLY

HOOD ASSEMBLY : Removal and Installation

8.

INFOID:000000012430232

CAUTION:

• Use two people when removing or installing hood assembly due to its heavy weight.

Hood support rod

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

9.

Hood hinge (RH)

REMOVAL

1. Support hood assembly using a suitable tool.

WARNING:

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

- 2. Remove hood hinge nuts and hood assembly.
- 3. Remove clips and hood insulator (if necessary).

INSTALLATION

Revision: August 2015

DLK-268

[WITHOUT INTELLIGENT KEY SYSTEM]

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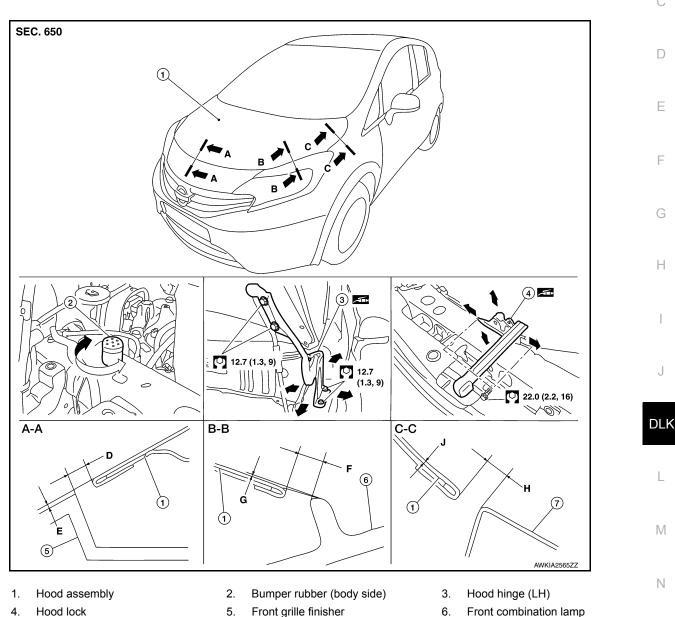
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Installation is in the reverse order of removal.

< REMOVAL AND INSTALLATION >

- Before installing hood assembly, apply anticorrosive agent to the surface of hood hinge.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-269, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.
- After installation, apply touch-up paint (body color) to the head of hood hinge nuts.

HOOD ASSEMBLY : Adjustment



Trood lock
 Front fondout

7. Front fender

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 procedure.

Section	Item	Measurement	Standard	Parallelism	Equality
A – A	D	Clearance	$4.4\pm2.0\;(0.17\pm0.08)$	2.0 (0.08)	
A-A	E	Surface height	-0.5 +2.0, -1.5 (0.02 +0.08, -0.06)	2.0 (0.08)	
R R	F	Clearance	$4.0\pm 2.0\;(0.16\pm 0.08)$	2.0 (0.08)	3.0 (0.12)
B – B	G	Surface height		_	—

Unit: mm (in)

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HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

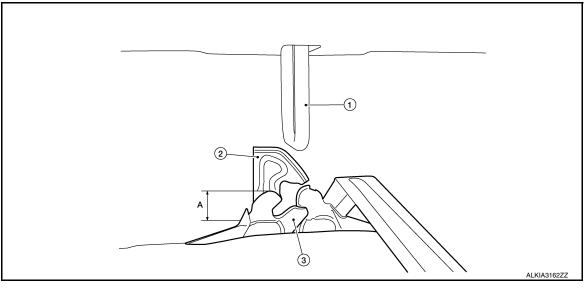
Section	Item	Measurement	Standard	Parallelism	Equality
C – C	Н	Clearance	$3.5 \pm 1.0 \; (0.14 \pm 0.04)$	1.5 (0.06)	1.5 (0.06)
	J	Surface height	$0.0 \pm 1.5 \; (0.0 \pm 0.06)$	1.5 (0.06)	1.5 (0.06)

CLEARANCE ADJUSTMENT

- 1. Loosen hood hinge nuts and bolts.
- 2. Loosen hood lock assembly bolts.
- 3. Adjust the hood lock assembly so the clearance measurements are within the specifications provided.
- 4. Tighten hood hinge nuts and bolts to specified torque.
- 5. Tighten hood lock assembly bolts to specified torque.

HEIGHT ADJUSTMENT

- 1. Loosen hood lock assembly bolts.
- 2. Adjust the surface height of hood assembly to front upper grille, front fender and front combination lamp to the specified values by rotating hood bumper rubber.
- 3. Temporarily tighten hood lock assembly bolts.
- 4. Adjust (A) as shown to the following value with hood's own weight by dropping it from approximately 200 mm (7.87 in) height or by pressing hood lightly [approximately 29 N (3.0 kg, 6.5 lb)].



1. Hood striker

2. Secondary latch

3. Primary latch

A. 20.0 mm (0.79 in)

5. After adjustment, tighten hood lock assembly bolts to specified torque. HOOD HINGE

HOOD HINGE : Removal and Installation

INFOID:000000012430234

REMOVAL

- 1. Remove hood assembly. Refer to <u>DLK-268, "HOOD ASSEMBLY : Removal and Installation"</u>.
- 2. Remove front fender. Refer to <u>DLK-275, "Removal and Installation"</u>.
- 3. Remove cowl top side cover. Refer to EXT-36, "Exploded View".
- 4. Remove hood hinge bolts and hood hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

• Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.

DLK-270

HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

· Check hood hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease. А 0 \mathcal{O} В JMKIA7995ZZ HOOD SUPPORT ROD D HOOD SUPPORT ROD : Removal and Installation INFOID:0000000012430235 Е REMOVAL 1. Support hood assembly using a suitable tool. F 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. Release tab and remove grommet from hood hinge (if necessary). **INSTALLATION** Н Installation is in the reverse order of removal.

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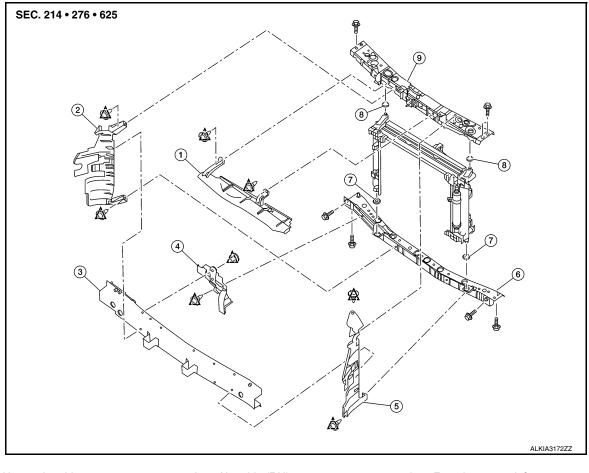
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< REMOVAL AND INSTALLATION >

RADIATOR CORE SUPPORT

Exploded View

INFOID:000000012430236



- 1. Upper air guide
- 2. Air guide (RH)
- Lower air guide 4.
- 5. Air guide (LH)
- Lower grommet
- 7.
- Clip

8. Upper grommet

- 3. Front bumper reinforcement 6. Radiator core lower support
- 9. Radiator core upper support

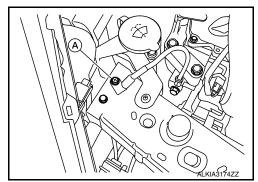
RADIATOR CORE SUPPORT UPPER

RADIATOR CORE SUPPORT UPPER : Removal and Installation

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REMOVAL

- 1. Remove front grille. Refer to EXT-32, "Removal and Installation".
- 2. Remove ground harness bolt (A).

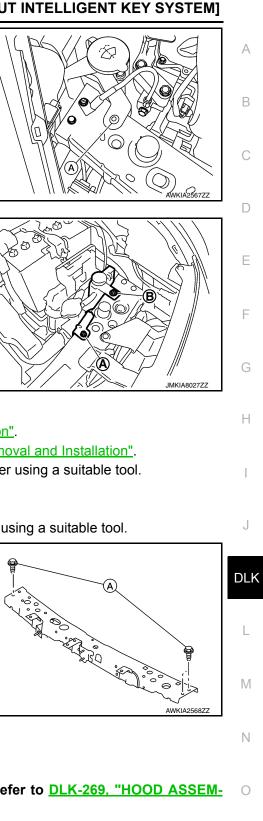


RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

3. Remove washer tube inlet clip (A).

[WITHOUT INTELLIGENT KEY SYSTEM]



Remove radiator cap adapter bracket bolt (A) and radiator reser-4. voir tank bolt (B).

- 5. Remove horn. Refer to HRN-6, "Removal and Installation".
- Remove crash zone sensor. Refer to <u>SR-24, "Removal and Installation"</u>.
- 7. Remove hood lock assembly. Refer to <u>DLK-292, "HOOD LOCK : Removal and Installation"</u>.
- Release hood lock release cable clips from radiator core support upper using a suitable tool.
- Remove upper air guide. Refer to <u>DLK-272, "Exploded View"</u>.
- 10. Remove air guide (LH/RH). Refer to DLK-272, "Exploded View".
- 11. Release all harness connector clips from radiator core support upper using a suitable tool.
- 12. Remove bolts (A) and radiator core support upper.

INSTALLATION Installation is in the reverse order of removal. CAUTION: After installation, perform hood assembly adjustment procedure. Refer to DLK-269, "HOOD ASSEM-BLY : Adjustment". RADIATOR CORE SUPPORT LOWER Ρ RADIATOR CORE SUPPORT LOWER : Removal and Installation INFOID:000000012430238 REMOVAL Remove radiator core support upper. Refer to DLK-272, "RADIATOR CORE SUPPORT UPPER : 1. Removal and Installation".

2. Reposition the radiator and condenser.

DLK-273

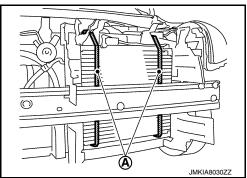
RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

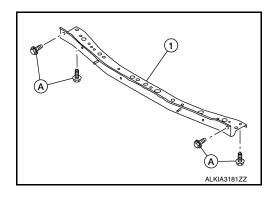
 Using a suitable tool (A), suspend radiator and condenser to prevent them from falling. CAUTION:

Use care to avoid damaging radiator and condenser.

[WITHOUT INTELLIGENT KEY SYSTEM]



4. Remove bolts (A) and radiator core support lower (1).



INSTALLATION Installation is in the reverse order of removal.

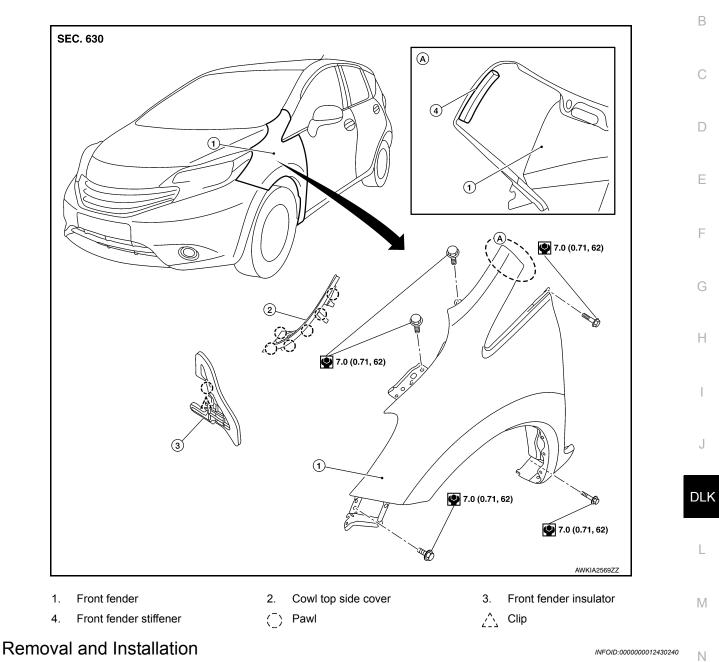
< REMOVAL AND INSTALLATION >

FRONT FENDER

Exploded View

INFOID:000000012430239

[WITHOUT INTELLIGENT KEY SYSTEM]



CAUTION:

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

REMOVAL

- 1. Remove the front combination lamp. Refer to EXL-102. "Removal and Installation".
- 2. Remove cowl top side cover. Refer to <u>DLK-275, "Exploded View"</u>.
- 3. Remove front fender bolts.

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FRONT FENDER

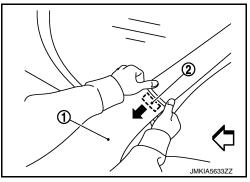
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

4. Remove front fender stiffener (2) by carefully pulling upper portion of front fender (1) away from body. <⊐: Front

CAUTION:

Use care when removing the front fender. The front fender stiffener foam adheres the front fender to the body. Carefully release the stiffener foam or damage to front fender may occur.



5. Remove front fender.

INSTALLATION

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

- After installation, apply touch-up paint (body color) to the head of front fender bolts.
- After installation, adjust the following components as necessary:
- Hood assembly: Refer to <u>DLK-269, "HOOD ASSEMBLY : Adjustment"</u>.
 Front door assembly: Refer to <u>DLK-278, "DOOR ASSEMBLY : Adjustment"</u>.

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

12. Door sash rear tape

FRONT DOOR

Exploded View

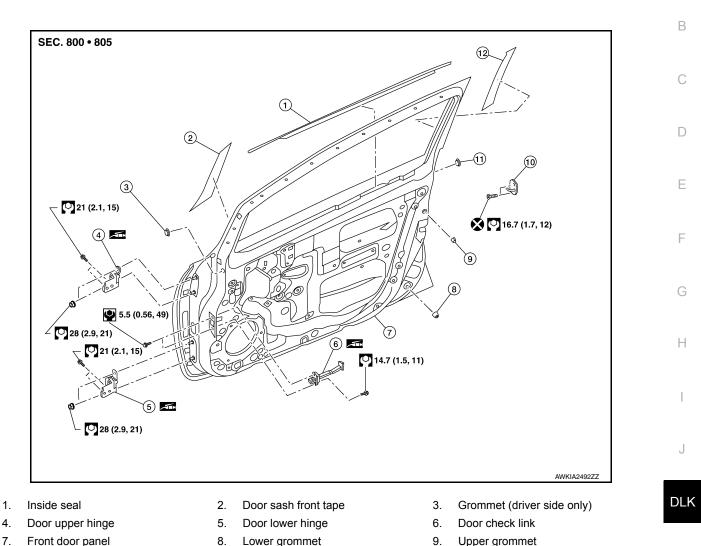
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DOOR ASSEMBLY

10. Door striker

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DOOR ASSEMBLY : Removal and Installation

CAUTION:

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

11. Body panel plug

- 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.

REMOVAL

- Disconnect the battery positive and negative terminals and wait at least three minutes. Refer to <u>PG-70</u>, <u>PG-70</u>.
- 2. Remove dash side finisher. Refer to INT-24, "DASH SIDE FINISHER : Removal and Installation".
- 3. Disconnect the harness connectors from the front door.
- 4. Remove door check link bolt (body side).
- 5. Remove door hinge nuts (door side) and front door assembly.

INSTALLATION

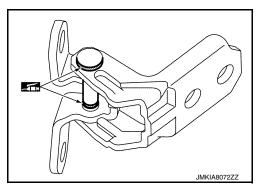
Revision: August 2015

DLK-277

< REMOVAL AND INSTALLATION >

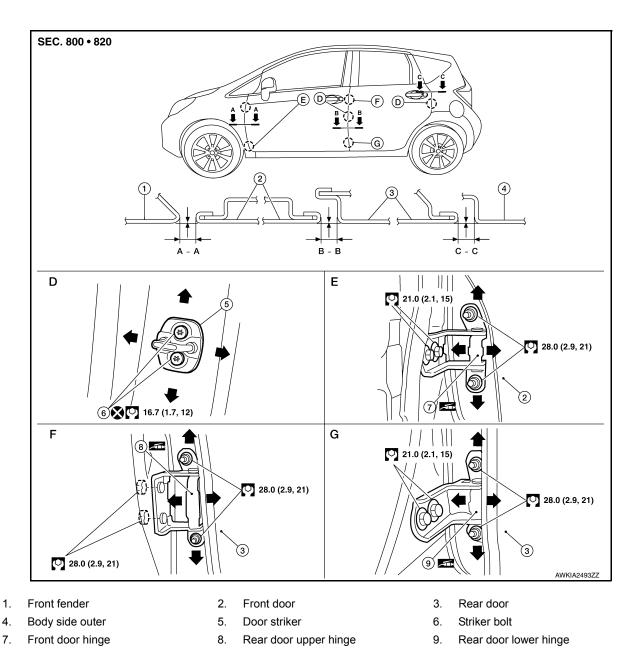
Installation is in the reverse order of removal. **CAUTION:**

- After installation, perform the front door adjustment procedure. Refer to <u>DLK-278, "DOOR ASSEM-BLY : Adjustment"</u>.
- Apply anticorrosive agent to the door hinge mating surface.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR ASSEMBLY : Adjustment

INFOID:000000012430243



Revision: August 2015

DLK-278

FRONT DOOR

< REMOVAL AND INSTALLATION >

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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 procedure.

	Unit: mm (in)	
Measurement	Standard	
Clearance	4.6 ± 1.0 (0.18 ± 0.04)	
Surface height	0.0 ± 1.0 (0.0 ± 0.04)	
Clearance	$4.6\pm 2.0\;(0.18\pm 0.08)$	
Surface height	0.0 ± 1.5 (0.0 ± 0.06)	
Clearance	4.6 ± 1.0 (0.18 ± 0.04)	
Surface height	0.0 ± 1.0 (0.0 ± 0.04)	
	Clearance Surface height Clearance Surface height Clearance	

- 1. Remove front fender. Refer to <u>DLK-275, "Removal and Installation"</u>.
- 2. Loosen front door hinge nuts (door side).
- 3. Adjust the surface height of front door according to the specifications provided.
- 4. Temporarily tighten front door hinge nuts (door side).
- 5. Loosen front door hinge bolts (body side).
- Raise or lower the front door at rear end to adjust clearance of the front door according to the specifications provided.
- After adjustment tighten bolts and nuts to the specified torque.
 CAUTION:

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

8. Install front fender. Refer to refer to <u>DLK-275, "Removal and Installation"</u>.

DOOR STRIKER

DOOR STRIKER : Removal and Installation

REMOVAL

Remove bolts and door striker.

INSTALLATION

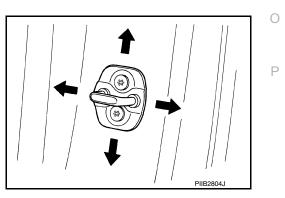
Installation is in the reverse order of removal.

- Do not reuse door striker bolts.
- Tighten bolts to specification. Refer to DLK-277, "Exploded View".
- After installation, check front door open/close operation. If necessary, perform the door striker adjustment procedure. Refer to <u>DLK-279, "DOOR STRIKER : Adjustment"</u>.

DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts
- 2. Adjust door striker so that it becomes parallel with front door lock insertion direction.



Tighten door striker bolts to specification. Refer to <u>DLK-277, "Exploded View"</u>.
 DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012430246

REMOVAL

CAUTION:

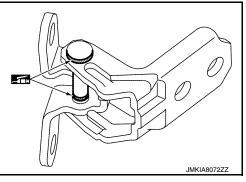
- · Use two people when removing or installing front door due to its heavy weight
- When removing and installing front door assembly, support the door using a suitable tool.
- Use shops cloths to protect surrounding components from damage during removal and installation of front door assembly.
- 1. Remove front fender. Refer to <u>DLK-275, "Removal and Installation"</u>.
- 2. Remove front door assembly. Refer to DLK-277, "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove front door hinge bolts (body side) and front door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent to the hinge mating surface.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-278</u>, <u>"DOOR ASSEM-BLY : Adjustment"</u>.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:000000012430247

REMOVAL

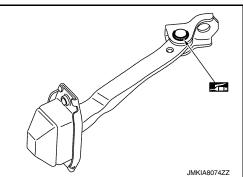
- 1. Remove front door speaker. Refer to <u>AV-54, "Removal and Installation"</u> (BASE AUDIO), <u>AV-114,</u> <u>"Removal and Installation"</u> (DISPLAY AUDIO) or <u>AV-243, "Removal and Installation"</u> (NAVIGATION).
- 2. Remove door check link bolt (body side).
- 3. Remove door check link bolts (door side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

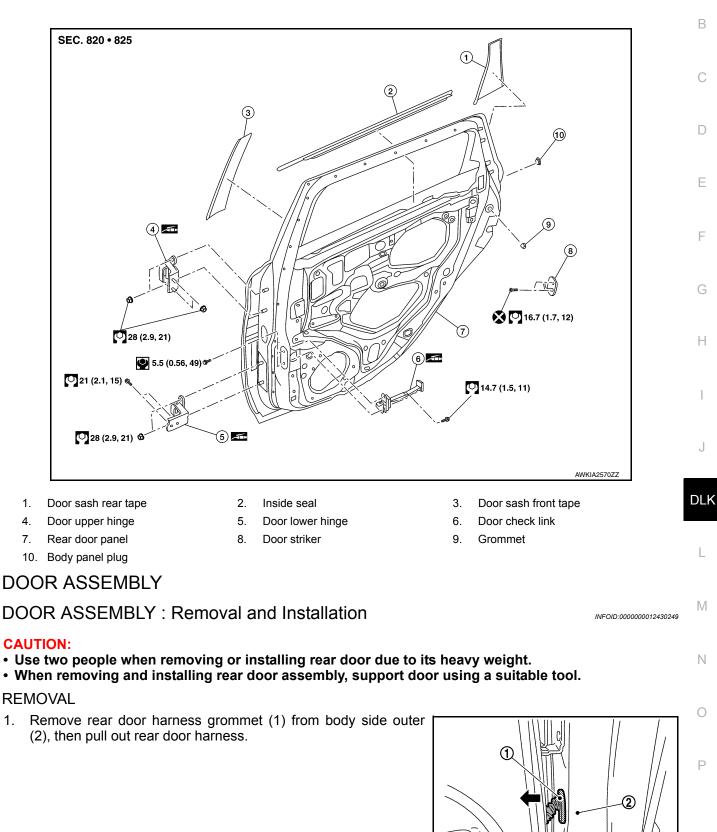
- After installation, check rear door open/close, lock/unlock operation.
- Check door check link rotating point for poor lubrication. If necessary, apply a multi-purpose grease.



< REMOVAL AND INSTALLATION >

REAR DOOR

Exploded View



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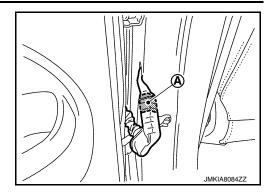
[WITHOUT INTELLIGENT KEY SYSTEM]

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< REMOVAL AND INSTALLATION >

- [WITHOUT INTELLIGENT KEY SYSTEM]
- 2. Disconnect the harness connector (A) from rear door.



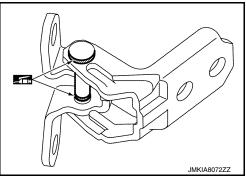
- 3. Remove door check link bolt (body side).
- 4. Remove door hinge nuts (door side) and rear door assembly.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent to the hinge mating surface.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-283, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of door hinge nuts.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR ASSEMBLY : Adjustment

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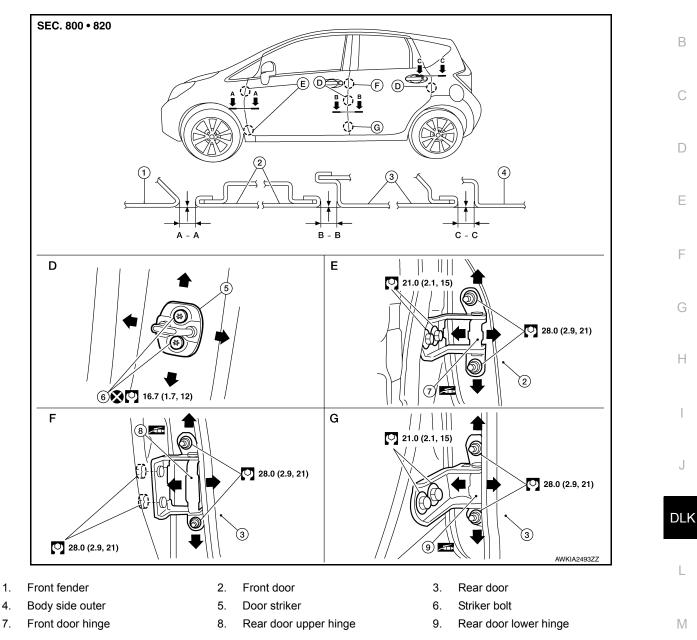
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Check the clearance and surface height between rear door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure. Unit[.] mm (in)

Section	Measurement	Standard	
A – A	Clearance	4.6 ± 1.0 (0.18 ± 0.04))
	Surface height	$0.0 \pm 1.0 \; (0.0 \pm 0.04)$	
В – В	Clearance	4.6 ± 2.0 (0.18 ± 0.08)	Ρ
	Surface height	0.0 ± 1.5 (0.0 ± 0.06)	
C – C –	Clearance	4.6 ± 1.0 (0.18 ± 0.04)	
	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	

Remove center pillar lower finisher. Refer to INT-25, "CENTER PILLAR LOWER FINISHER : Removal 1. and Installation".

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< REMOVAL AND INSTALLATION >

- 2. Loosen door hinge nuts (door side).
- 3. Adjust the surface height of rear door according to the specifications provided.
- 4. Temporarily tighten door hinge nuts (door side).
- 5. Loosen door hinge nuts and bolts (body side).
- 6. Raise rear door at rear end to adjust clearance of rear door according to the specifications provided.
- After adjustment tighten bolts and nuts to the specified torque. CAUTION:
 - Apply touch-up paint (body color) to the head of hinge bolts and nuts.
 - Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- 8. Install center pillar lower finisher. Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER : Removal and</u> <u>Installation"</u>.

DOOR STRIKER

DOOR STRIKER : Removal and Installation

INFOID:000000012430251

REMOVAL

Remove bolts and rear door striker.

INSTALLATION

Installation is in the reverse order of removal.

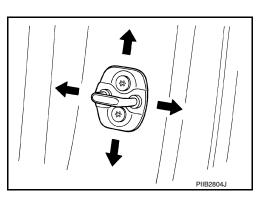
CAUTION:

- Do not reuse door striker bolts.
- Tighten door striker bolts to specification. Refer to <u>DLK-281, "Exploded View"</u>.
- After installation, check front door open/close operation. If necessary, adjust the door striker. Refer to <u>DLK-284, "DOOR STRIKER : Adjustment"</u>.

DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts.
- 2. Adjust door striker so that it becomes parallel with rear door lock insertion direction.



Tighten door striker bolts to specification. Refer to <u>DLK-281, "Exploded View"</u>.
 DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012430253

REMOVAL

CAUTION:

- Use two people when removing or installing front door due to its heavy weight
- When removing and installing front door assembly, support the door using a suitable tool.
- Use shops cloths to protect surrounding components from damage during removal and installation of front door assembly.
- 1. Remove rear door assembly. Refer to DLK-281, "DOOR ASSEMBLY : Removal and Installation".
- 2. Remove center pillar lower finisher. Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER : Removal</u> <u>and Installation"</u>.

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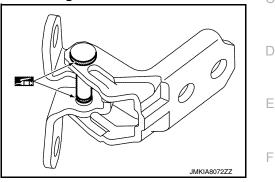
< REMOVAL AND INSTALLATION >

3. Remove rear door hinge bolts and nuts (body side) and rear door hinge.

INSTALLATION

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

- Apply anticorrosive agent to the door hinge mating surface.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-283, "DOOR ASSEMBLY</u>: <u>Adjustment</u>".
- After adjusting, apply touch-up paint (body color) to the head of door hinge bolts and nuts.
- Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.



DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

- 1. Remove rear door speaker. Refer to <u>AV-55, "Removal and Installation"</u> (BASE AUDIO), <u>AV-115, "Removal and Installation"</u> (DISPLAY AUDIO) or <u>AV-244, "Removal and Installation"</u> (NAVIGATION).
- 2. Remove door check link bolt (body side).
- 3. Remove door check link bolts (door side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

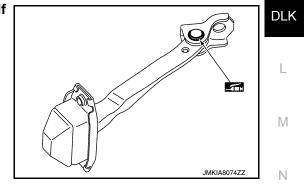
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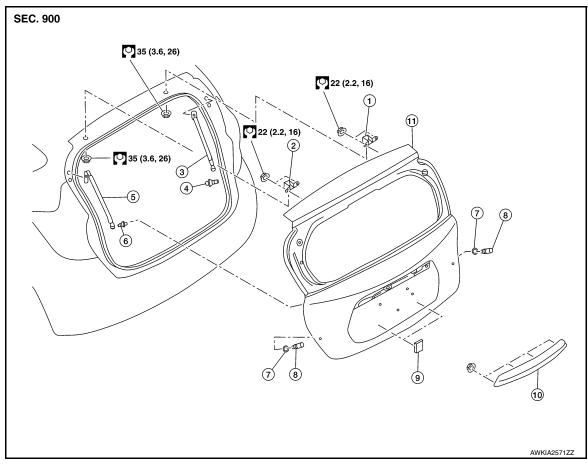


< REMOVAL AND INSTALLATION > BACK DOOR

Exploded View

INFOID:000000012430255

[WITHOUT INTELLIGENT KEY SYSTEM]



- 1. Back door hinge (RH)
- 4. Back door stay stud ball (RH)
- 7. Bumper rubber seal
- 10. Back door outer finisher
- 2. Back door hinge (LH)
- Back door stay (LH)
 Bumper rubber
 - 8. Bumper rubber
 - 11. Back door assembly
- 3. Back door stay (RH)
- 6. Back door stay stud ball (LH)
- 9. Spacer

BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY : Removal and Installation

CAUTION:

- Use two people when removing or installing the back door due to its heavy weight.
- Use shop cloths to protect surrounding components from damage during removal and installation of back door.

REMOVAL

- Remove back door inner finisher. Refer to <u>INT-36</u>, "BACK DOOR INNER FINISHER : Removal and Installation".
- 2. Remove back door stay (LH/RH). Refer to DLK-163, "BACK DOOR STAY : Removal and Installation".

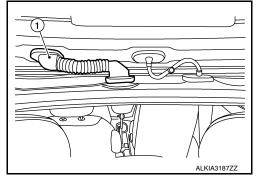
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BACK DOOR

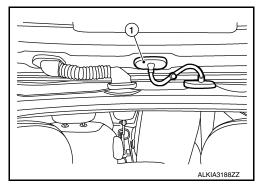
< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

3. Remove back door harness grommet (1), then pull harness from the back door.



- 4. Disconnect washer tube from rear wiper.
- 5. Remove washer tube grommet (1), then pull washer tube from the back door.



6. Support the back door assembly using a suitable tool.

WARNING:

Bodily injury may occur if back door assembly is not supported properly when removing the back door spindle unit.

7. Remove back door hinge nuts (door side) and remove.

INSTALLATION

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

- Apply anticorrosive agent onto the surface between hinge and door side.
- When reusing stud ball, always apply locking sealant before installing stud ball to back door.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-288, "BACK</u> <u>DOOR ASSEMBLY : Adjustment"</u>.

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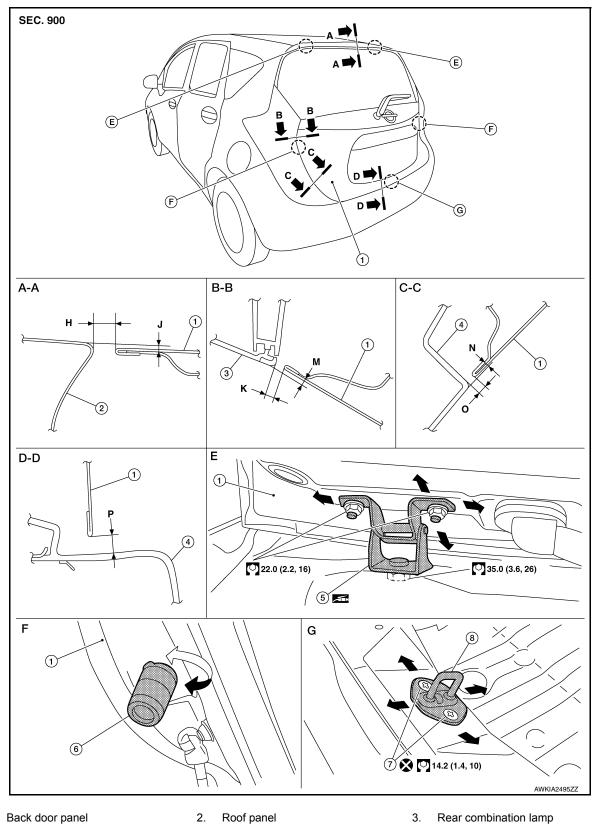
BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

BACK DOOR ASSEMBLY : Adjustment

INFOID:000000012430257



- 1. 4. Rear bumper fascia
- 7. Bolt

- 5. Back door hinge
- 8. Back door striker

- Bumper rubber 6.

BACK DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Check the clearance and the surface height between back 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)	
Portion	Section	Item	Measurement	Standard	В
Back door panel – Roof panel	A – A	Н	Clearance	$6.0\pm1.0\;(0.24\pm0.04)$	
		I	Surface height	0.0 +0.5, -1.5 (0.00 +0.02, -0.06)	С
Rear combination lamp – Back door panel	B – B	J	Clearance	$5.0\pm2.0\;(0.20\pm0.08)$	
		К	Surface height	$-2.0\pm 2.0 \; (-0.08\pm 0.08)$	
	C – C	L	Clearance	$5.0\pm2.0\;(0.20\pm0.08)$	D
Rear bumper fascia – Back-door panel		М	Surface height	0.0 +0.5, -2.0 (0.0 +0.02, -0.08)	
	D – D	М	Clearance	$7.0\pm2.0\;(0.28\pm0.08)$	_

1. Loosen back door hinge nuts (door side).

- Lift up back door approximately 100 150 mm (3.94 5.91 in) height then close it lightly and check that it is engaged firmly with back door closed.
- 3. Check the clearance and surface height and adjust back door as necessary.
- 4. Tighten back door hinge nuts to specified torque.

CAUTION:

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

 After adjust 	ing, apply touch-up p	paint (body color) to	the head of rear	door hinge bolts and nuts.	
BACK DOC	OR STRIKER				

BACK DOOR STRIKER : Removal and Installation

REMOVAL

- 1. Remove back door kicking plate using a suitable tool.
- 2. Remove bolts and back door striker.

INSTALLATION

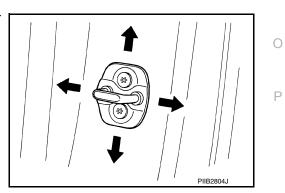
Installation is in the reverse order of removal. **CAUTION:**

- Do not reuse back door striker bolts.
- After installation, check back door open/close, lock/unlock operation.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-288, "BACK</u> <u>DOOR ASSEMBLY : Adjustment"</u>.

BACK DOOR STRIKER : Adjustment

DOOR STRIKER ADJUSTMENT

- 1. Loosen door striker bolts.
- Adjust door striker so that it becomes parallel with back door lock insertion direction.



3. Tighten door striker bolts to specification. Refer to DLK-286, "Exploded View".

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BACK DOOR HINGE

BACK DOOR HINGE : Removal and Installation

REMOVAL

- 1. Remove back door assembly. Refer to <u>DLK-286</u>, "BACK DOOR ASSEMBLY : Removal and Installation".
- 2. Partially remove back door weatherstrip. Refer to <u>DLK-291, "BACK DOOR WEATHER-STRIP : Removal</u> <u>and Installation"</u>.
- 3. Remove back door hinge nuts and bolts (body side) and then remove back door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent onto the surface between hinge and body side.
- After installation, perform the back door assembly adjustment procedure. Refer to <u>DLK-288, "BACK</u> <u>DOOR ASSEMBLY : Adjustment"</u>.

BACK DOOR STAY

BACK DOOR STAY : Removal and Installation

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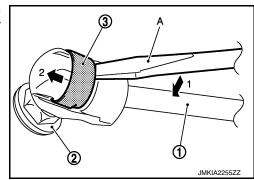
REMOVAL

1. Support the back door with a suitable tool too prevent it from falling.

WARNING:

Body injury may occur if no supporting rod is holding the back door open when removing the back door stay.

- 2. Remove the metal clip (3) located on the connection between the back door stay (1) and the stud ball (2) (back door side) by using a flat blade screwdriver (A).
- 3. Remove the back door stay (back door side).



4. In the same way, remove the back door stay from the body side.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Check the back door open/close operation after installation.

BACK DOOR STAY : Disposal

BACK DOOR STAY DISPOSAL

WARNING:

When performing disposal procedure, wear protective gloves and glasses.

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BACK DOOR

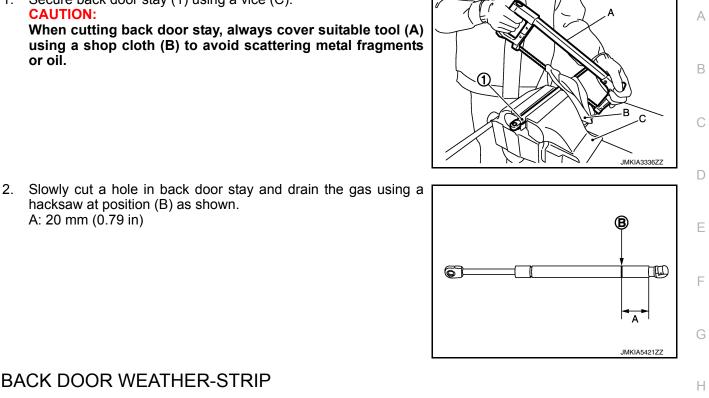
< REMOVAL AND INSTALLATION >

hacksaw at position (B) as shown.

A: 20 mm (0.79 in)

[WITHOUT INTELLIGENT KEY SYSTEM]

1. Secure back door stay (1) using a vice (C). CAUTION: When cutting back door stay, always cover suitable tool (A) using a shop cloth (B) to avoid scattering metal fragments or oil.



BACK DOOR WEATHER-STRIP : Removal and Installation

INFOID:000000012430263

REMOVAL

Support back door using a suitable tool. 1.

BACK DOOR WEATHER-STRIP

2. Carefully remove back door weather-strip from opening door joint.

INSTALLATION

- 1. Beginning with upper section, align weather-strip mark with vehicle center position mark and install DLK weather strip to the vehicle.
- For the lower section, align weather-strip seam with center of back door striker. 2.

NOTE:

Pull weather-strip gently to make sure that there are no loose sections.

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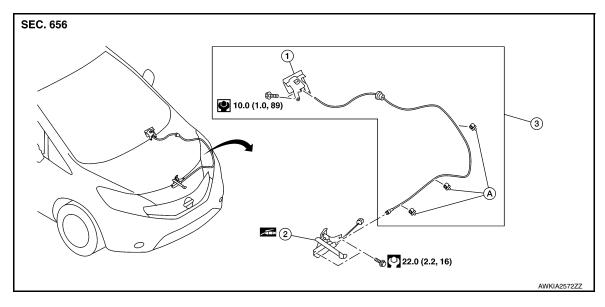
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< REMOVAL AND INSTALLATION > HOOD LOCK

Exploded View

INFOID:000000012430264



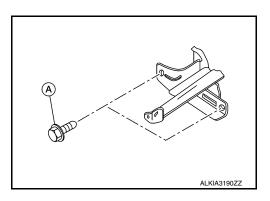
Hood lock/fuel filler lid release handle
 Hood lock assembly
 Hood lock release cable assembly
 Clip

HOOD LOCK

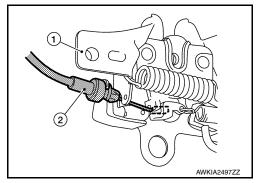
HOOD LOCK : Removal and Installation

REMOVAL

1. Remove hood lock bolts (A).



2. Disconnect hood lock release cable (2) from hood lock (1) and remove.



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

HOOD LOCK

< REMOVAL AND INSTALLATION >	
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- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-269</u>, "HOOD ASSEM-<u>BLY : Adjustment"</u>.
- After adjustment, perform hood lock control inspection. Refer to <u>DLK-293, "HOOD LOCK : Inspection"</u>.

HOOD LOCK : Inspection

HOOD LOCK INSPECTION

NOTE:

If hood lock cable is bent or deformed, replace it. Refer to <u>DLK-292, "HOOD LOCK : Removal and Installa-</u>tion".

- 1. Check that secondary latch is properly engage with secondary striker with hoods own weight.
- 2. While operating hood lock release lever, carefully check that the front end of hood assembly is raised by approximately 20.0 mm (0.79 in). Also check that hood lock release lever returns to original position.
- 3. Check that hood lock release lever operates at 49 N (5.0 kg-m, 11.0 ft-lb) or below.
- 4. Install so that static closing force of hood is 315-490 N (32.1-50.0 kg-m, 70.8-110.2 ft-lb).
- 5. Check hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease.

HOOD LOCK RELEASE CABLE

HOOD LOCK RELEASE CABLE : Removal and Installation

REMOVAL

- 1. Disconnect hood lock release cable from hood lock. Refer to DLK-292, "Exploded View".
- 2. Remove radiator cap adapter bracket bolt (A) and radiator reservoir tank bolt (B).

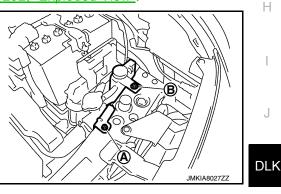
- 3. Remove fender protector (LH). Refer to EXT-38. "Removal and Installation".
- 4. Release hood lock control cable clips using a suitable tool.
- 5. Remove hood lock/fuel filler door release handle. Refer to <u>DLK-167, "HOOD LOCK RELEASE HANDLE :</u> <u>Removal and Installation"</u>.
- 6. Remove dash side finisher (LH). Refer to INT-24, "DASH SIDE FINISHER : Removal and Installation".
- Remove grommet on the lower dash 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

Installation is in the reverse order of removal. CAUTION:

- Be careful not to bend cable too much, keep the radius 100 mm (3.94 in) or more.
- Check that hood lock release cable is properly engaged with hood lock.



[WITHOUT INTELLIGENT KEY SYSTEM]

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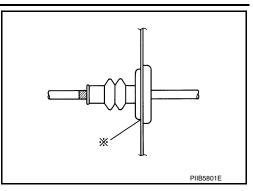
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HOOD LOCK

< REMOVAL AND INSTALLATION >

• Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at * mark).



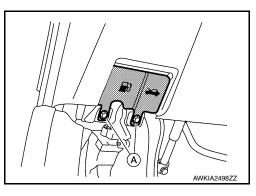
HOOD LOCK RELEASE HANDLE

HOOD LOCK RELEASE HANDLE : Removal and Installation

INFOID:000000012430268

REMOVAL

1. Remove hood lock/fuel filler door release handle bolts (A).



2. Disconnect hood lock release cable from hood lock/fuel filler door release handle and remove.

INSTALLATION

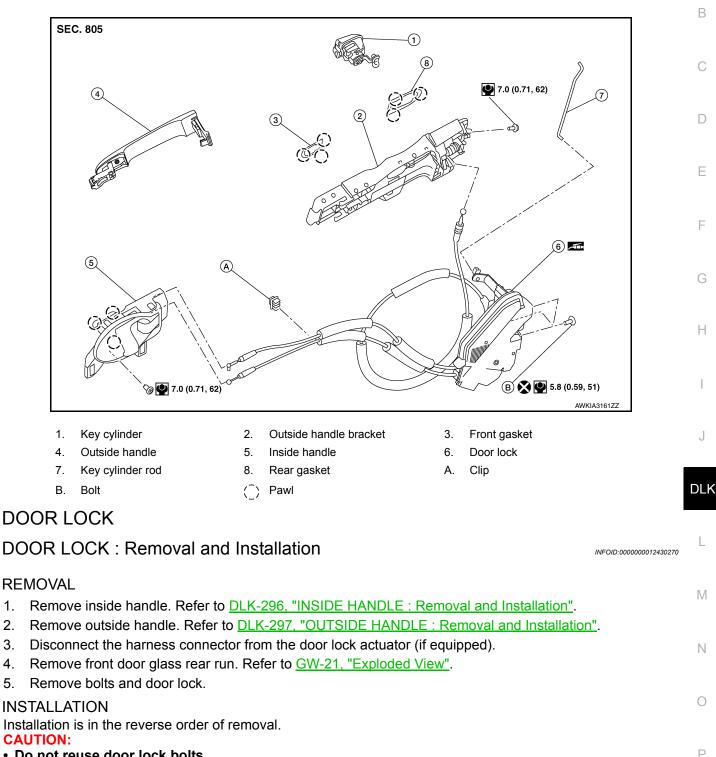
Installation is in the reverse order of removal.

FRONT DOOR LOCK

Exploded View

INFOID:000000012430269

[WITHOUT INTELLIGENT KEY SYSTEM]



- Do not reuse door lock bolts.
- After installation, check door open/close, lock/unlock operation.
- Check door lock cables are properly engaged to inside handle and outside handle bracket.
- · When installing key cylinder on front door, be sure to rotate key cylinder rod holder until a click is felt.

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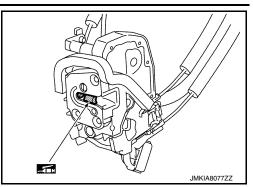
5.

FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

• Check door lock for poor lubrication. Apply a suitable multipurpose grease to door lock if necessary.



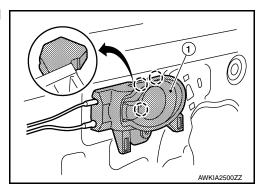
INSIDE HANDLE

INSIDE HANDLE : Removal and Installation

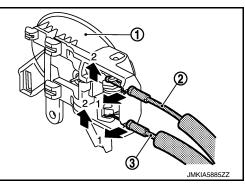
REMOVAL

- 1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 2. Partially remove vapor barrier. Refer to GW-21, "Exploded View".
- 3. Release lock knob (2) and inside handle cable (3) from clip (1) using a suitable tool.

- 4. Remove inside handle bolt.
- 5. Release inside handle (1) from door panel using a suitable tool and remove.
 - (_): Pawl



6. Release inside handle cable (3) and lock cable (2) from inside handle (1) and remove.



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

FRONT DOOR LOCK

[WITHOUT INTELLIGENT KEY SYSTEM]

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· Check that door lock cables are properly engaged to inside handle. • After installation, check door open/close, lock/unlock operation. **OUTSIDE HANDLE**

OUTSIDE HANDLE : Removal and Installation

< REMOVAL AND INSTALLATION >

REMOVAL

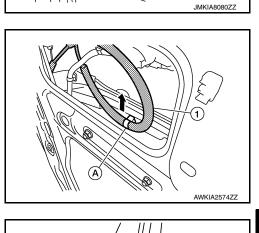
- 1. Remove front door finisher. Refer to INT-15, "Removal and Installation".
- 2. Partially remove vapor barrier. Refer to GW-21, "Exploded View".
- 3. Open rod holder (1) by pulling downward and separate key rod (3) from door lock assembly (2) (driver side only).

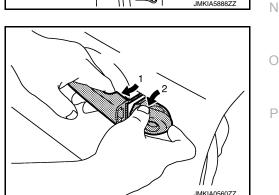
4. Release outside handle cable (1) from cable clip (A).

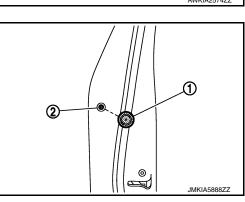
5. Remove door grommet (1) and bolt from grommet hole (2).

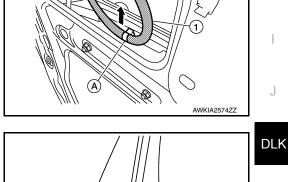
6. While pulling outside handle, remove outside handle escutcheon.

DLK-297





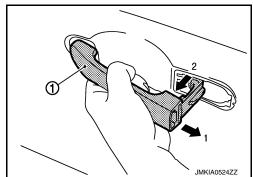




FRONT DOOR LOCK [WITHOUT INTELLIGENT KEY SYSTEM]

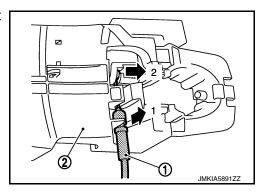
< REMOVAL AND INSTALLATION >

7. While pulling outside handle (1), slide toward rear of vehicle to remove.



- 8. Remove front gasket and rear gasket.
- 9. Slide outside handle bracket toward rear of vehicle to remove. <□: Front

10. Disconnect outside handle cable (1) from outside handle bracket (2) as shown.



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INSTALLATION

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

- Check that door lock cables are properly engaged with outside handle bracket.
- After installation, check door open/close, and lock/unlock operation.

REAR DOOR LOCK

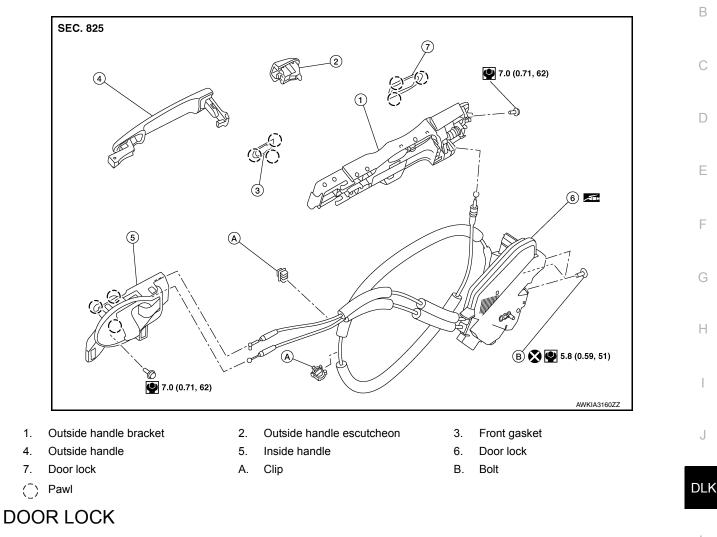
< REMOVAL AND INSTALLATION > REAR DOOR LOCK

[WITHOUT INTELLIGENT KEY SYSTEM]

Exploded View

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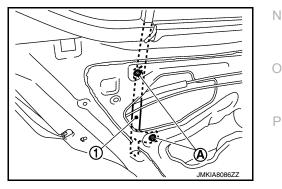
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DOOR LOCK : Removal and Installation

REMOVAL

- 1. Remove inside handle. Refer to <u>DLK-300, "INSIDE HANDLE : Removal and Installation"</u>.
- 2. Remove outside handle. Refer to DLK-301, "OUTSIDE HANDLE : Removal and Installation".
- 3. Remove bolts (A) from rear door glass rear run (1).



- Disconnect the harness connector from door lock actuator (if equipped).
- 5. Remove bolts and door lock.

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REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

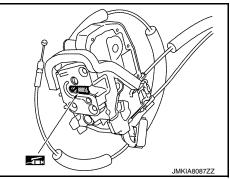
[WITHOUT INTELLIGENT KEY SYSTEM]

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Do not reuse door lock assembly bolts.
- After installation, check door open/close, lock/unlock operation.
- Check door lock cable is properly engaged with inside handle and outside handle bracket.
- Check door lock assembly for poor lubrication. If necessary, apply a suitable multi-purpose grease.



INSIDE HANDLE

INSIDE HANDLE : Removal and Installation

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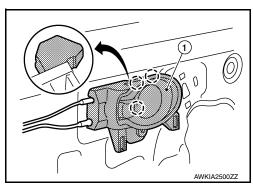
REMOVAL

- 1. Remove rear door finisher. Refer to INT-18, "Removal and Installation".
- 2. Remove upper portion of vapor barrier. Refer to GW-25, "Exploded View".
- 3. Release lock knob (2) and inside handle cable (3) from clip (1) using a suitable tool.



5. Release inside handle (1) from door panel using a suitable tool and remove.

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(3) Installation is in the reverse order of removal. • Check that door lock cables are properly engaged to inside handle. • After installation, check door open/close, lock/unlock operation. OUTSIDE HANDLE **OUTSIDE HANDLE : Removal and Installation** 1. Remove inside handle. Refer to DLK-300, "INSIDE HANDLE : Removal and Installation" 2. Remove door grommet and bolt from grommet hole. 3. While pulling outside handle, remove outside handle escutch-

4. While pulling outside handle (1), slide towards rear of vehicle to remove.

2016 Versa Note

REAR DOOR LOCK

[WITHOUT INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >

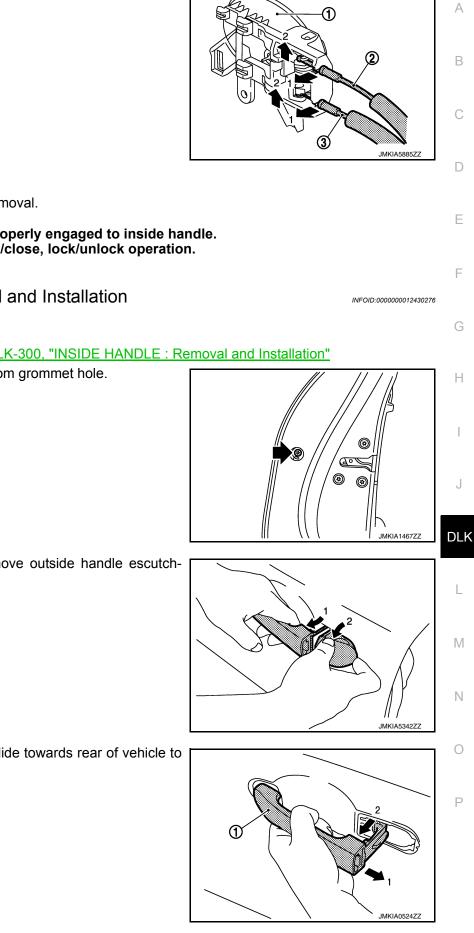
INSTALLATION

CAUTION:

REMOVAL

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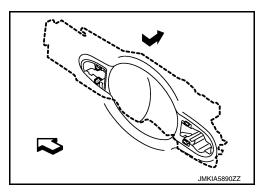
6. Release inside handle cable (3) and lock cable (2) from inside handle (1) and remove.



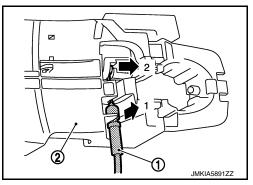
REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

- 5. Remove front gasket and rear gasket.



7. Disconnect outside handle cable (1) from outside handle bracket (2) as shown.



INSTALLATION

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

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

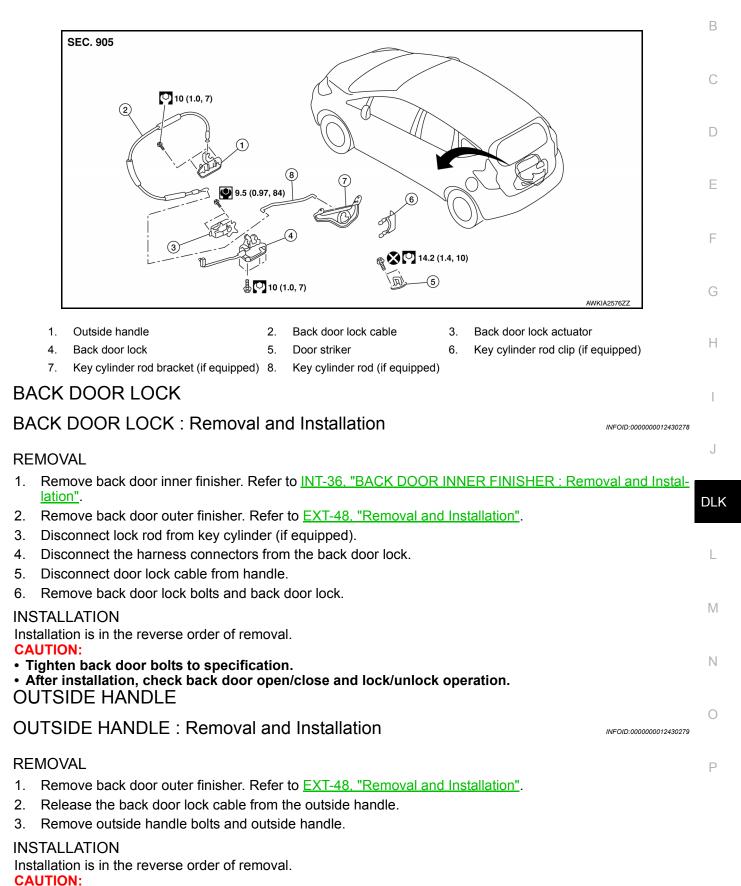
BACK DOOR LOCK

[WITHOUT INTELLIGENT KEY SYSTEM]

Exploded View

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Revision: August 2015

Tighten outside handle bolts to specification. Refer to <u>DLK-303</u>, "Exploded View".
After installation, check back door open/close and lock/unlock operation.

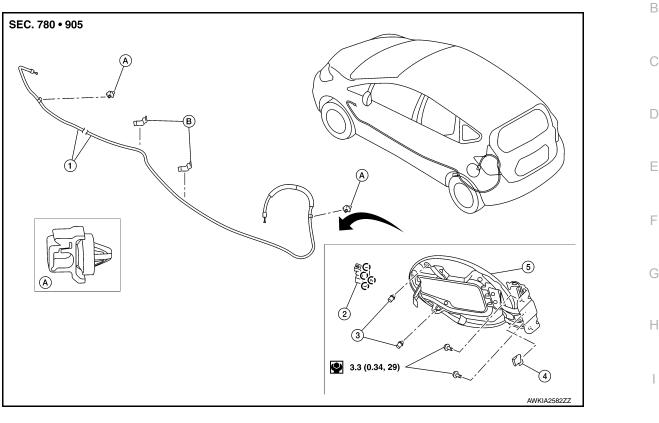
FUEL FILLER LID OPENER

Exploded View

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[WITHOUT INTELLIGENT KEY SYSTEM]



- 1. Fuel filler lid lock release cable
- 4. Fuel filler lid spring
- B. Cable protector

Fuel filler lid lock
 Fuel filler lid

Pawl

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- 3. Fuel filler lid bumper
- A. Clip

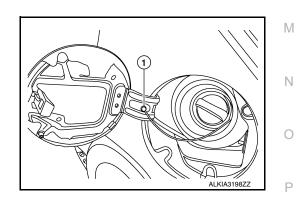
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FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

REMOVAL

1. Remove fuel cap pin (1).

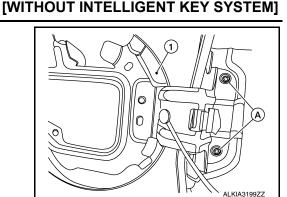


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FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

2. 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 and lock/unlock operation.

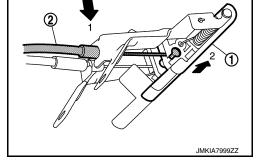
FUEL FILLER OPENER CABLE

FUEL FILLER OPENER CABLE : Removal and Installation

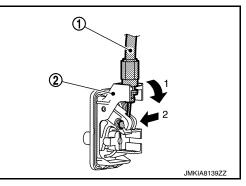
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REMOVAL

- 1. Remove hood lock/fuel filler lid lock release handle. Refer to <u>DLK-167, "HOOD LOCK RELEASE HAN-DLE : Removal and Installation"</u>.
- 2. Disconnect fuel filler lid opener cable (2) from hood lock/fuel filler lid lock release handle (1).



- 3. Remove dash side finisher (LH). Refer to INT-24, "DASH SIDE FINISHER : Removal and Installation".
- Remove center pillar lower finisher (LH). Refer to <u>INT-25, "CENTER PILLAR LOWER FINISHER :</u> <u>Removal and Installation"</u>.
- 5. Remove luggage side lower finisher (LH). Refer to <u>INT-34</u>, "LUGGAGE SIDE LOWER FINISHER : <u>Removal and Installation"</u>.
- 6. 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. FUEL FILLER LID LOCK

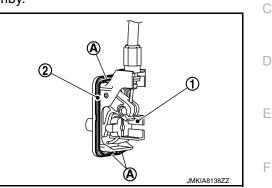
FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

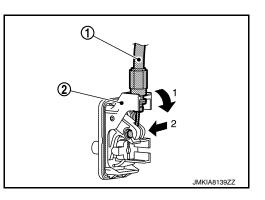
FUEL FILLER LID LOCK : Removal and Installation

REMOVAL

- 1. Fully open fuel filler lid.
- 2. Remove luggage side lower finisher (LH). Refer to <u>INT-34, "LUGGAGE SIDE LOWER FINISHER :</u> <u>Removal and Installation"</u>.
- 3. Disconnect the harness connector from the fuel filler lid lock assemby.
- Release pawls (A) and remove fuel filler lid lock assembly (1).
 CAUTION: Be careful not to damage gasket (2) when removing.



5. 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.

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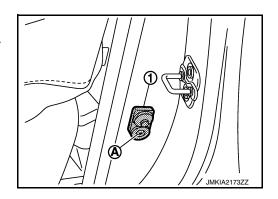
[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR SWITCH

Removal and Installation

REMOVAL

- 1. Remove the door switch bolt (A).
- 2. Disconnect the harness connector and remove door switch (1).



INSTALLATION Installation is in the reverse order of removal.

REMOTE KEYLESS ENTRY RECEIVER

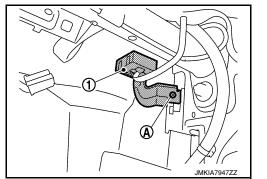
< REMOVAL AND INSTALLATION >

REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

REMOVAL

- 1. Remove glove box assembly. Refer to IP-25, "Removal and Installation".
- 2. Remove remote keyless entry receiver bolt (A).
- 3. Disconnect the harness connector and remove remote keyless entry receiver (1)



INSTALLATION Installation is in the reverse order of removal.

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[WITHOUT INTELLIGENT KEY SYSTEM]

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KEYFOB BATTERY

Removal and Installation

INFOID:000000012430286

[WITHOUT INTELLIGENT KEY SYSTEM]

REPLACEMENT

- 1. Remove screw from the rear of keyfob.
- Place the key with the lower case facing up. Use a suitable tool wrapped with tape between upper case and lower case and separate the lower case from the upper case.
 CAUTION:
 - Do not touch the circuit board or battery terminal. Doing so could cause the keyfob to malfunction
 - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- When replacing the circuit board assembly, remove circuit board assembly from the upper case. [Circuit board assembly: Switch rubber + Board surface] CAUTION:

Do not touch the printed circuits directly.

4. Remove the battery from the lower case and replace it.

Battery replacement : Coin-type lithium battery (CR1620)

CAUTION:

When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.

5. After replacement, fit the lower and upper cases together and tighten with the screw. **CAUTION:**

After replacing the battery, Be sure to check that door locking operates normally using the keyfob. Refer to <u>DLK-247</u>, "Component Function Check".

STEERING LOCK UNIT

< REMOVAL AND INSTALLATION >

STEERING LOCK UNIT

Exploded View

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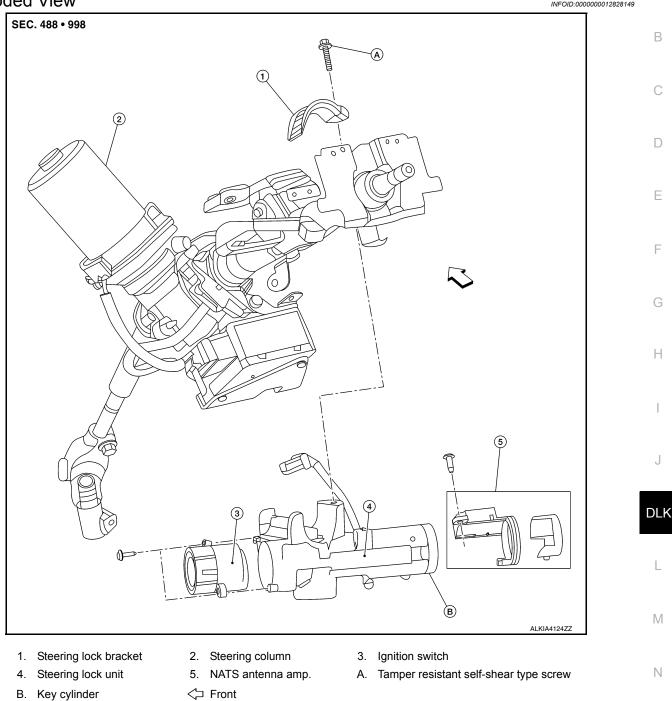
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[WITHOUT INTELLIGENT KEY SYSTEM]



NOTE:

Steering lock unit and key cylinder are serviced as an assembly. Ignition switch is available separately.

Removal and Installation - Steering lock unit

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- REMOVAL
- Disconnect battery cables. Refer to PG-70, "Removal and Installation (Battery)". 1.
- 2. Remove combination switch. Refer to BCS-138, "Removal and Installation".
- 3. Remove cluster lid A. Refer to IP-21, "Removal and Installation".
- Disconnect the harness connector from the spiral cable. 4.
- 5. Disconnect the harness connector from the ignition switch.

Revision: August 2015

DLK-311

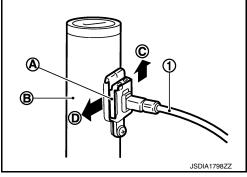
2016 Versa Note

STEERING LOCK UNIT

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- 6. Disconnect the harness connector from the key switch.
- 7. For models with CVT but without intelligent key system, perform the following steps to separate key interlock cable from steering lock unit:
- a. Lift lock plate (A) in the direction of the arrow (←C) and remove in the direction of the arrow (←D).
 - (1) :Key interlock cable
 - (B) :Steering lock unit
- b. Disconnect the key interlock cable from the steering lock unit.



8. Using suitable tool, remove tamper resistant self-shear type screw. **CAUTION:**

Do not reuse screw. Replace with new tamper resistant self-shear type screw.

- 9. Remove steering lock bracket and steering lock unit.
- 10. Remove NATS antenna amp. (if necessary). Refer to SEC-159, "Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Do not reuse screw. Replace with new tamper resistant self-shear type screw.
- Tighten tamper resistant self-shear type screw until head breaks off.
- Adjust the neutral position of the steering angle sensor. Refer to <u>BRC-55, "ADJUSTMENT OF STEERING</u> <u>ANGLE SENSOR NEUTRAL POSITION : Description"</u>.
- For initialization and registration of mechanical keys, refer to CONSULT Immobilizer mode and follow the onscreen instructions.

Removal and Installation - Ignition switch

REMOVAL

- 1. Remove steering column cover. Refer to IP-17, "Removal and Installation".
- 2. Disconnect ignition switch harness connector.
- 3. Remove ignition switch screws and ignition switch.

INSTALLATION

Installation is in the reverse order of removal.

Adjust the neutral position of the steering angle sensor. Refer to <u>BRC-55</u>, "ADJUSTMENT OF STEERING <u>ANGLE SENSOR NEUTRAL POSITION : Description</u>".