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< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 or batteries, and wait at least three minutes before performing any service.

Procedure without Cowl Top Cover

INFOID:000000012783050

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



Precaution for Servicing Doors and Locks

INFOID:0000000012783051

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.



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: | А |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| - Water soluble dirt: | |
| Dip a solit 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: | В |
| Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area. | С |
| 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. | D |
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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 |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (J-39570) Chassis Ear | SIIA0993E | Locating the noise |
| (J-50397) NISSAN Squeak and Rattle Kit | ALIJA 1232ZZ | Repairing the cause of noise |
| (J-43241) Remote Keyless Entry Tester | The second secon | Used to test keyfobs |
| (J-50190) Signal Tech II | ALEIA0131ZZ | Activate and display TPMS transmitter IDs Display tire pressure reported by the TPMS transmitter Read TPMS DTCs Register TPMS transmitter IDs Test remote keyless entry keyfob rela- tive signal strength Compatible with future sensors Equipped with a display Check Intelligent Key relative signal strength Confirm vehicle Intelligent Key anten- na signal strength |

PREPARATION

[WITH INTELLIGENT KEY SYSTEM]

| Tool number (TechMate No.) Tool name | | Description | А |
|----------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|----|
| KV48105501 (J-45295-A) Transmitter activation tool | | Activate TPMS transmitter IDs Compatible with future sensors Equipped with a display (KV48105501 only) | E |
| | ALEIA0183ZZ | | C |
| | | Removing trim components | E |
| | AWJIA0483ZZ | | F |
| Commercial Service Tools | | INFOID:000000012783053 | G |
| (TechMate No.) Tool name | | Description | |
| (J-39565) Engine Ear | | Locating the noise | ŀ |
| | SIIA0995E | | J |
| (—) Power tool | | Loosening nuts, screws and bolts | DL |
| | | | L |
| | PIIB1407E | | |
| (—) Torsion bar wrench | | Removing trunk lid torsion bar | N |
| | | | Ν |
| | AWKIA3594ZZ | | С |

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< PREPARATION >

CLIP LIST

Descriptions for Clips

INFOID:000000012783054

Replace any clips which are damaged during removal or installation.



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< PREPARATION >

[WITH INTELLIGENT KEY SYSTEM]

| Symbol No. | Shapes | Removal & Installation | A |
|-----------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------|
| CE103 | | Removal: | B C |
| CF110 7 9 | Clip A Clip B | Removal: Finisher Flat-bladed screwdrivers Clip B | E |
| CF118 | Clip A Clip B (Grommet) | Removal: Flat-bladed screwdrivers Body panel Clip A Clip B (Grommet) | G H I |
| CR103 | | Removal: Holder portion of clip must be spread out to remove rod. | J DLK L |
| CS101 | | Removal: 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver. | M N O |

SIIA0316E

| Symbol No. | Shapes | Removal & Installation |
|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CG101 | | Removal: Rotate 45° to remove Removal: |
| CS102 | | |
| CS113 | | Removal: Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip. |
| C111 | | |

SIIA0317E

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

CLIP LIST

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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS

POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM : Component Parts Location



COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

12. Power window and door lock/unlock

switch RH

- 1. BCM (view with instrument panel re- 2. Front door switch LH 3. Front door lock actuator LH moved) Front door lock assembly LH 5. Front door switch RH 6. Front door lock actuator RH 4. 8. Rear door lock actuator RH 9. Rear door lock switch LH
- 7. Rear door switch RH
- 10. Rear door lock actuator LH
- 11. Main power window and door lock/
- unlock switch
- **POWER DOOR LOCK SYSTEM : Component Description**
- С INFOID:000000012783056

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

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM : Component Parts Location



< SYSTEM DESCRIPTION >

COMPONENT PARTS [WITH INTELLIGENT KEY SYSTEM]



1.

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- 13. Combination meter
- 16. Inside key antenna (console) (view with center console removed)
- 19. Outside key antenna (rear bumper) (view with rear bumper fascia removed)
- 22. Intelligent Key warning buzzer

- 11. Push-button ignition switch
- 14. IPDM E/R
- 17. Inside key antenna (trunk room)
- 20. Horn relay

- 12. Remote keyless entry receiver (view with instrument panel removed)
- 15. Inside key antenna (instrument center)
- 18. Trunk lid opener assembly
- 21. Horn

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INTELLIGENT KEY SYSTEM : Component Description

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

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

TRUNK LID OPENER SYSTEM

TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:000000012783059



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

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

4. Trunk opener request switch

TRUNK LID OPENER SYSTEM : Component Description

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



SYSTEM (POWER DOOR LOCK SYSTEM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

SYSTEM (POWER DOOR LOCK SYSTEM)

System Diagram



System Description

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| Input | Single | Function | Actuator |
|--------------------------|-------------------------|-------------------------------------|-------------------------|
| Door lock/unlock switch | Developly wheel sizes | | |
| Door key cylinder switch | Door lock/unlock signal | | Each door lock actuator |
| Each door switch | Door open/close signal | Kay reminder function | |
| | Warning buzzer signal | | |
| Combination meter | Vehicle speed signal | Automatic door lock/unlock function | |

DOOR LOCK FUNCTION

• The door lock and unlock switch (driver side) is built into main power window and door lock/unlock switch.

• The door lock and unlock switch (passenger side) is built into power window and door lock/unlock switch RH.

- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors are unlocked.

Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the driver side door lock actuator; turning it to "UNLOCK" again within 60 seconds after the first unlock operation unlocks all of the other doors. - (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-36. "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 (POWER DOOR LOCK SYSTEM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

Setting change of Automatic Door Locks (LOCK) Function

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

(B) With CONSULT

The ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the automatic door locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to <u>DLK-36</u>, <u>"DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Without CONSULT

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

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

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

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

AUTOMATIC DOOR LOCKS (UNLOCK OPERATION)

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

IGN OFF Interlock Door Unlock^{*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.

Setting change of Automatic Door Locks (UNLOCK) Function

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

() With CONSULT

The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic door locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to <u>DLK-</u><u>36, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Without CONSULT

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

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

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

^{*1}: This function is set to ON before delivery.

INTELLIGENT KEY SYSTEM : System Description

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 verifica-Ν tion using two-way communication between the Intelligent Key and the vehicle (BCM). NOTE:
 - The driver should always carry the Intelligent Key
- The settings for each function can be changed with CONSULT.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with CONSULT.
- · For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the onscreen instructions.

| Function | Description | Refer |
|------------|------------------------------------------------------------------------------------------------------|---------------|
| Door lock | Lock/unlock can be performed by pressing the request switch | <u>DLK-24</u> |
| Trunk open | The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener switch | DLK-26 |

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Revision: December 2015

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

| Function | Description | Refer |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Remote keyless entry | Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key | <u>DLK-27</u> |
| Key reminder | The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle | <u>DLK-29</u> |
| 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 | <u>DLK-30</u> |
| Engine start | The engine can be turned on while carrying the Intelligent Key | DLK-23 |
| Interior room lamp control | Interior room lamp is controlled according to door lock/unlock state | <u>INL-8</u> |

DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Description

INFOID:000000012783064

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: 2 times, 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.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

| Each request switch operation | Operation condition | A |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 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 | В |
| 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 * | C |

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

Door lock function can be changed using "LOCK/UNLOCK BY I-KEY" mode in "WORK SUPPORT". Refer to <u>DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

OUTSIDE KEY ANTENNA DETECTION AREA

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



HAZARD AND BUZZER REMINDER FUNCTION

For the operation check, BCM blinks hazard warning lamps (lock: 2 times, unlock: 1 time) and sounds Intelligent Key warning buzzer (lock: 2 times, 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 DLK-36, "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 | Door switch is ON (door is open) BCM receives lock signal Push switch is pressed | N | | | | | |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---|--|--|--|--|--|
| ute deer leek mede een he ehenged huthe "ALITO LOCK SET" mede in "MODK SUPPORT". Defer te DLK | | | | | | | |

Auto door lock mode can be changed by the "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-</u> <u>36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

LIST OF OPERATION RELATED PARTS

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

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

| < SYSTEM DESCRIPTION | 1 > |
|----------------------|-----|
|----------------------|-----|

| 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 |
|-------------------------------------|-----------------|-------------------------------|-------------|---------------------|--------------------|--------------------|---------------------|--------------------------------|--------------------------|-----|---------------------|-----------------------------|-------------------|
| Door lock/unlock function | × | × | × | × | × | × | × | | | × | | | |
| Hazard and buzzer reminder function | | | | | | | | × | × | × | × | | × |
| Auto door lock function | × | × | × | × | × | | × | | | × | | × | |

TRUNK OPEN FUNCTION

TRUNK OPEN FUNCTION : System Description

INFOID:000000012783065

System Diagram



TRUNK LID OPENER OPERATION

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

OPERATION CONDITION

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

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

OUTSIDE KEY ANTENNA DETECTION AREA

< SYSTEM DESCRIPTION >

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

[WITH INTELLIGENT KEY SYSTEM]



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LIST OF OPERATION RELATED PARTS

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

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

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Description

SYSTEM DIAGRAM



REMOTE KEYLESS ENTRY OPERATION

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

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

< SYSTEM DESCRIPTION >

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

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

TRUNK OPEN FUNCTION

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

OPERATION CONDITION

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

*: Pattern of trunk open button can be selected using CONSULT. Refer to <u>DLK-36, "INTELLIGENT KEY :</u> <u>CONSULT Function (BCM - INTELLIGENT KEY)</u>".

PANIC ALARM FUNCTION

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

The horn sounds intermittently.

The alarm automatically turns off.

After 25 seconds

When BCM receives any signal from Intelligent Key

How to Change Panic Alarm Operation Mode

Refer to DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

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 DLK-36, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

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

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

| Operating condition Operating condition Operating condition Operating condition Push switch is pressed | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------|-------------------------------|-----------------------|--------------------|-----------------------------|--------------------------------|--------------------------|-----|---------------------|---------------------|---------------------------|------------------|-----------|-----------|
| uto door lock mode can be char 6, "INTELLIGENT KEY : CONS | nged by t <u>ULT Fun</u> e | :he "/ ction | AUTO (BCI |) LO <u>M - IN</u> | CK S ITEL | ET" I LIGE | mode NT k | e in "\ (EY)' | NOR | K SL | JPPC | DRT". | Refe | er to | DLK- |
| IST OF OPERATION RELATIon relation $RELAT$ | ED PAR | TS to op | eratio | on. | | | | | | | | | | | |
| Remote keyless entry functions | S | Intelligent Key | Remote keyless entry receiver | Door switch | Door lock actuator | Push-button ignition switch | Intelligent Key warning buzzer | CAN communication system | BCM | Combination meter | Hazard warning lamp | Trunk lid opener actuator | Trunk lid switch | IPDM E/R | Horn |
| Door lock/unlock function by remote con | trol button | х | × | × | × | × | | | × | | | | | | |
| Trunk open function | | × | × | | | × | × | × | × | | | × | × | | |
| Hazard and buzzer reminder function | | × | × | | | | × | × | × | × | × | | | | |
| Auto door lock function | | × | × | × | × | × | | | × | | | | | | |
| Panic alarm function | | × | | | | | | × | × | | | | | × | × |
| System Diagram | ION : S | yste | em l | Des | crip | tion | | | | | | | INFOID | :00000000 | 012783067 |
| Remote keyless entry receiver | Key ID signa | al | _ | | | | | | | | | | | | |
| Key ID signal Intelligent Key | | | | | | | | | E | ach doo | or lock a | ctuator | | | |
| Key ID signal Intelligent Key Signal Each inside key antenna | Each inside key antenna Each door switch signa | signal | _ → | | ВСМ | | | > | E | ach doo runk lid | or lock a | actuator | r | | |
| Key ID signal Intelligent Key Signal Each inside key antenna Each door switch Trunk lid switch | Each inside key antenna Each door switch signa Trunk lid opd status signal | signal I en/close I or | | | всм | | | | T | ach doo runk lid | or lock a opener | actuator actuato | ır zzer | | |

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

< SYSTEM DESCRIPTION >

| 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 |
| Trunk is closed | Right after trunk is closed under the following conditions Intelligent Key is inside trunk room All doors are closed All doors are locked | Trunk open Honk Intelligent Key warn- ing buzzer |

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

NOTE:

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

WARNING FUNCTION

WARNING FUNCTION : System Description

INFOID:000000012783068

OPERATION DESCRIPTION

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

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

OPERATION CONDITION

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

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

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

| Warning/Inforr | nation functions | Operation procedure |
|----------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OFF position warning | For internal | 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 external* | OFF position warning (For internal) is in active mode, driver side door has been closed. NOTE: OFF position (For external) active only when each of the sequence has occurred as below: P position warning \rightarrow ACC warning \rightarrow OFF position warning (For internal) \rightarrow OFF position warning (For internal) |
| | For internal | 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 ON 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 | Door status is open | Ignition switch: Other than LOCK and OFF Door switch: ON (Door is open) Registered Intelligent Key is not detected inside the vehicle during Key ID verification for 5 seconds |
| | Push-button ignition switch operation | 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 is ON po- sition | Ignition switch: ON position Shift position: P Engine is stopped |
| Engine start information | Ignition switch is other than ON position | 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 batter | y warning | BCM detects that Intelligent Key is low battery, after ignition switch is turned ON |
| Key ID warning | | Push-button ignition switch is pressedRegistered Intelligent Key is not detected inside the vehicle |

*: M/T models do not apply.

WARNING METHOD

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

SYSTEM (INTELLIGENT KEY SYSTEM) ON > [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

| Warning/Information functions | | | Shift D | Warning | g chime | Engine start operation in- dicator lamp | |
|-------------------------------------|-------------------------------------|-----------------------|-----------------|--------------------------|----------------------------------------|-----------------------------------------------|--|
| | | "KEY" warning lamp | warning lamp | Combination meter buzzer | Intelligent Key warn- ing buzzer | | |
| Intelligent Key system n | nalfunction | Indicate | _ | — | _ | _ | |
| OFF position warning | For internal | _ | _ | Activate | _ | _ | |
| OFF position warning | For external | | _ | _ | Activate | _ | |
| P position worping | For internal | Plink (vollow) | Indicate | Activate | _ | _ | |
| P position warning | For external | Billik (yellow) | _ | — | Active | _ | |
| ACC warning | | | _ | Activate | _ | _ | |
| | Door is open to close | | _ | Activate | Activate | _ | |
| Take away warning | Door is open | Blink (vellow) | _ | _ | _ | _ | |
| | Push-ignition switch oper- ation | (jonot) | _ | Activate | _ | _ | |
| Door lock operation warning | | _ | _ | _ | Activate | _ | |
| Engine start information | | — | _ | — | — | Indicate | |
| Intelligent Key low battery warning | | Blink (green) | — | — | — | _ | |
| Key ID warning | | Blink (yellow) | | — | _ | _ | |

LIST OF OPERATION RELATED PARTS

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

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

SYSTEM (TRUNK LID OPENER SYSTEM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

SYSTEM (TRUNK LID OPENER SYSTEM)



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

OPERATION CONDITION

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

| Trunk lid opener switch operation | Operation condition | |
|-----------------------------------|------------------------------------------------------------------------------------------------------|---|
| Trunk lid open | Trunk lid opener switch is ON Vehicle speed is less than 5 km/h (3 MPH) | J |

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

SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

System Description

| Item | Function |
|---------------------------------------------------|---------------------------------------------------------------------------------------------|
| Integrated Homelink [®] transmit- ter | A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc. |

< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000013370564

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. | L |
| Data Monitor | The BCM input/output data is displayed in real time. | |
| Active Test | The BCM activates outputs to test components. | E |
| Work support | The settings for BCM functions can be changed. | |
| Configuration | The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM. | F |
| CAN DIAG SUPPORT MNTR | The result of transmit/receive diagnosis of CAN communication is displayed. | |

SYSTEM APPLICATION

BCM can perform the following functions.

| | | | | Direct [| Diagnosti | c Mode | | | |
|--------------------------------------|----------------------|--------------------|------------------------|--------------|-------------|--------------|---------------|-----------------------|------|
| System | Sub System | ECU Identification | Self Diagnostic Result | Data Monitor | Active Test | Work support | Configuration | CAN DIAG SUPPORT MNTR | J |
| Door lock | DOOR LOCK | | | × | × | × | | | DLN |
| Rear window defogger | REAR DEFOGGER | | | × | × | | | | - |
| Warning chime | BUZZER | | | × | × | | | | L |
| Interior room lamp timer | INT LAMP | | | × | × | × | | | |
| Exterior lamp | HEAD LAMP | | | × | × | × | | | р. / |
| Wiper and washer | WIPER | | | × | × | × | | | IVI |
| Turn signal and hazard warning lamps | FLASHER | | | × | × | × | | | - |
| Air conditioner | AIR CONDITIONER | | | × | | | | | Ν |
| Intelligent Key system | INTELLIGENT KEY | | × | × | × | × | | | |
| Combination switch | COMB SW | | | × | | | | | |
| BCM | BCM | × | × | | | × | × | × | 0 |
| Immobilizer | IMMU | | × | × | | × | | | - |
| Interior room lamp battery saver | BATTERY SAVER | | | × | × | × | | | Р |
| Trunk open | TRUNK | | | × | | | | | |
| Vehicle security system | THEFT ALM | | | × | × | × | | | |
| RAP system | RETAINED PWR | | | × | | | | | - |
| Signal buffer system | SIGNAL BUFFER | | | | × | | | | |
| TPMS | AIR PRESSURE MONITOR | | × | × | × | × | | | |

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) [WITH INTELLIGENT KEY SYSTEM]

INFOID:000000013370565

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

DATA MONITOR

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

ACTIVE TEST

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

WORK SUPPORT

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

*: Initial setting

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000013370566

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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

А

DATA MONITOR

| Monitor Item [Unit] | Main | Description | |
|-------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|
| REQ SW -DR [On/Off] | × | Indicates condition of door request switch LH. | |
| REQ SW -AS [On/Off] | × | Indicates condition of door request switch RH. | |
| REQ SW -BD/TR [On/Off] | × | Indicates condition of trunk open switch. | |
| PUSH SW [On/Off] | | Indicates condition of push-button ignition switch. | |
| CLUCH SW [On/Off] | × | Indicates condition of clutch switch. | |
| BRAKE SW 1 [On/Off] | × | Indicates condition of brake switch. | |
| BRAKE SW 2 [On/Off] | | Indicates condition of brake switch. | |
| DETE/CANCL SW [On/Off] | × | Indicates condition of P (park) position. | |
| SFT PN/N SW [On/Off] | × | Indicates condition of P (park) or N (neutral) position. | |
| UNLK SEN -DR [On/Off] | × | Indicates condition of driver door unlock sensor. | |
| PUSH SW -IPDM [On/Off] | | Indicates condition of push-button ignition switch received from IPDM E/R on CAN communication line. | |
| IGN RLY1 -F/B [On/Off] | | Indicates condition of ignition relay 1 received from IPDM E/R on CAN commu- nication line. | |
| DETE SW -IPDM [On/Off] | | Indicates condition of detent switch received from TCM on CAN communication line. | |
| SFT PN -IPDM [On/Off] | | Indicates condition of P (park) or N (neutral) position from TCM on CAN com- munication line. | |
| SFT P -MET [On/Off] | | Indicates condition of P (park) position from TCM on CAN communication line. | |
| SFT N -MET [On/Off] | | Indicates condition of N (neutral) position from IPDM E/R on CAN communica- tion line. | |
| ENGINE STATE [Stop/Start/Crank/Run] | × | Indicates condition of engine state from ECM on CAN communication line. | |
| VEH SPEED 1 [mph/km/h] | × | Indicates condition of vehicle speed signal received from ABS on CAN commu- nication line. | |
| VEH SPEED 2 [mph/km/h] | × | Indicates condition of vehicle speed signal received from combination meter on CAN communication line. | |
| DOOR STAT-DR [LOCK/READY/UNLK] | × | Indicates condition of driver side door status. | |
| DOOR STAT-AS [LOCK/READY/UNLK] | × | Indicates condition of passenger side door status. | |
| ID OK FLAG [Set/Reset] | | Indicates condition of Intelligent Key ID. | |
| PRMT ENG STRT [Set/Reset] | | Indicates condition of engine start possibility. | |
| RKE OPE COUN1 [0-19] | × | When remote keyless entry receiver receives the signal transmitted while oper- ating on Intelligent Key, the numerical value start changing. | |
| RKE OPE COUN2 [0-19] | × | When remote keyless entry receiver receives the signal transmitted while oper- ating on Intelligent Key, the numerical value start changing. | |
| TRNK/HAT MNTR [On/Off] | | Indicates condition of trunk lid switch. | |
| RKE-LOCK [On/Off] | | Indicates condition of lock signal from Intelligent Key. | |
| RKE-UNLOCK [On/Off] | | Indicates condition of unlock signal from Intelligent Key. | |
| RKE-TR/BD [On/Off] | | Indicates condition of trunk open signal from Intelligent Key. | |
| RKE-PANIC [On/Off] | | Indicates condition of panic signal from Intelligent Key. | |
| RKE-MODE CHG [On/Off] | | Indicates condition of mode change signal from Intelligent Key. | |

ACTIVE TEST

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

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

WORK SUPPORT

| Support Item | Setting | | Description | | |
|------------------------|--------------|----------|----------------------------------------------------------------------------------------------------------|--|--|
| | On* | | Door lock/unlock function from Intelligent Key ON. | | |
| LUCK/UNLOCK BY I-KET | Off | | Door lock/unlock function from Intelligent Key OFF. | | |
| | On* | | Buzzer reminder function from trunk opener switch. | | |
| TRUNK GLASS HATCH OPEN | Off | | No buzzer reminder function from trunk opener switch. | | |
| | On* | | Anti lock out setting ON. | | |
| ANTI KET LOCK IN FONCT | Off | | Anti lock out setting OFF. | | |
| | Off | | No buzzer reminder when doors are unlocked with request switch. | | |
| ANS BACK I-RET 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. | | |
| HOPN WITH KEYLESS LOCK | | | Horn chirp reminder when doors are locked with Intelligent Key. | | |
| HORN WITH RETLESS LOCK | On* | | No horn chirp reminder when doors are locked with Intelligent Key. | | |
| | Lock/Unlock* | | Hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch. | | |
| | Unlock Only | | Hazard warning lamp activation when doors are unlocked with Intel- ligent Key or request switch. | | |
| HAZARD ANSWER BACK | Lock Only | | Hazard warning lamp activation when doors are locked with Intelli- gent Key or request switch. | | |
| | Off | | No hazard warning lamp activation when doors are locked/unlocked with Intelligent Key or request switch. | | |
| INSIDE ANT DIAGNOSIS | - | _ | This function allows inside key antenna self-diagnosis. | | |
| CONFIRM KEY FOB ID | <u> </u> | | Intelligent Key ID code can be checked. | | |
| | | 70 msec | | | |
| | Start | 100 msec | Starter motor operation duration time setting. | | |
| SHOKT CRAINKING OUTPUT | | 200 msec | | | |
| | End | | | | |

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

| Support Item | Set | tting | Description | ٨ |
|-------------------------|---------|---------|---------------------------------------------|---|
| | MODE 3 | 1.5 sec | | A |
| PANIC ALARM SET | MODE 2 | OFF | Intelligent Key panic alarm button setting. | |
| | MODE 1* | 0.5 sec | | В |
| | On* | | Intelligent Key low battery warning ON. | |
| LO-BATT OF KET FOB WARN | Off | | Intelligent Key low battery warning OFF. | |
| AUTO LOCK SET | MODE7 | 5 min | | С |
| | MODE6 | 4 min | | |
| | MODE5 | 3 min | | D |
| | MODE4 | 2 min | Auto door lock time setting. | |
| | MODE3* | 1 min | | |
| | MODE2 | 30 sec | | E |
| | MODE1 | Off | | |
| | MODE 3 | 1.5 sec | | |
| TRUNK OPEN DELAY | MODE 2 | OFF | Intelligent Key trunk open button setting. | Γ |
| | MODE 1* | 0.5 sec | | |
| *: Initial Setting | 1 | 1 | | G |

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

DATA MONITOR

| Monitor Item [Unit] | Description | |
|------------------------|-----------------------------------------------------------------------------|-----|
| PUSH SW [On/Off] | Indicates condition of push-button ignition switch. | |
| UNLK SEN -DR [On/Off] | Indicates condition of driver door unlock sensor. | J |
| VEH SPEED 1 [km/h] | Indicates vehicle speed signal received from ABS on CAN communication line. | |
| TR/BD OPEN SW [On/Off] | Indicates condition of trunk open switch. | אוס |
| TRNK/HAT MNTR [On/Off] | Indicates condition of trunk lid switch. | |
| RKE-TR/BD [On/Off] | Indicates condition of trunk open signal from Intelligent Key. | |

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< ECU DIAGNOSIS INFORMATION > ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

INFOID:000000012783076

| ECU | Reference |
|-----|-----------------------------------------|
| | BCS-30, "Reference Value" |
| PCM | BCS-48. "Fail-safe" |
| | BCS-49. "DTC Inspection Priority Chart" |
| | BCS-50, "DTC Index" |

[WITH INTELLIGENT KEY SYSTEM]

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POWER DOOR LOCK SYSTEM - WITH INTELLIGENT KEY SYSTEM



ABKWA3185GB

| < WIRING DIAGR | AM > | [WITH INTELLIGENT KEY SYSTE | :M |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| WIRE | Signal Name | | |
| STEM Connector No. M8 Connector Name WIRE TO Connector Color WHITE | Terminal No. Color of Wire | | |
| LLIGENT KEY SY | Signal Name | Signal A Bigginal A Bi | |
| tS - WITH INTE Connector No. M5 Connector Name WIF Connector Color WH | Terminal No. Color of Wire 12 0 | Terminal No.Color of Wire3CSB3CSB4CO13CB48CL48CL49CK51CB52CBR | |
| WER DOOR LOCK SYSTEM CONNECTOR Connector No. M2 Connector Name WIRE TO WIRE Connector Color WHITE | 110 10 20 34 56 110 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 | Terminat No. Color of Wire Signal Name 10G V | |

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POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

Signal Name Signal Name 81G80G79G78G77G76G75G74G73G72G71G 90G89G88G87G86G85G84G83G82G 21G20G19G18G17G16G15G14G13G12G1 30G29G28G27G26G25G24G23G22G 4164063963863763863463463363263 506496486476466456446436426 61 G80 G 59 G 59 G 57 G 56 G 55 G 54 G 53 G 52 G 5 70 G 69 G 68 G 67 G 66 G 65 G 64 G 62 G 62 G Т L I. Т ī I Connector Name WIRE TO WIRE 95G94G93G92G 91G 100G99G98G97G 96G 56 46 36 26 16 106 96 86 76 66 Connector Color WHITE Color of Wire Color of Ε4 Wire SB GЯ ВВ ര 0 ш Connector No. Terminal No. Terminal No. 42A 12A 52A 10G 4A ЗA H.S.H. 佢 36A37A38A39A40A41A42A43A4445A46A 47A48A499A50A51A52A53A54A55A 15A 6A 7A 8A 9A 10A 11A 12A 13A 14A BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM) BATTERY (FUSE) DOOR UNLOCK OUTPUT (AS) DOOR UNLOCK COMMON (DR) BATTERY (F/L) DOOR LOCK OUTPUT (ALL) GND (POWER) Signal Name 89 88 87 86 85 84 83 82 81 95 94 93 92 91 90 Connector Name WIRE TO WIRE 164174184194204214224234234254264 274284294304314324334334354 Connector Color WHITE Connector Color WHITE M74 M85 ξA Color of Wire BG SB SB ≻ ш 1A 2A 3A 4A 0 Connector Name Connector No. Connector No. Ferminal No. 88 6 93 95 86 94 H.S. H.S. 佢 E
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 BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM) DOOR LOCK STATUS SW (DR) Connector Name JOINT CONNECTOR-M05
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 KEY CYLINDER LOCK SW CENTRAL DOOR LOCK SW CENTRAL DOOR UNLOCK SW KEY CYLINDER UNLOCK SW Signal Name Signal Name CAN-H CAN-L I. I Connector Color BLACK BLUE M71 Color of Wire M84 Color of Wire ш ш > GВ ΒВ с _ ۲ _ Connector Color Connector Name Connector No. Connector No. Terminal No. Terminal No. 4 16 40 42 13 39 \sim ω 31 H.S. H.S.H

POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]

Revision: December 2015

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| | POWER DOOR LOCK STSTEM |
|--------------------|-------------------------------|
| < WIRING DIAGRAM > | [WITH INTELLIGENT KEY SYSTEM] |
| | |

| Connector No. B8 Connector No. B20 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE | Image: 10 minute | Terminal No. Color of Wire Signal Name 10 V - 5 Y - | Connector No. B24 Connector Name BCM (BODY CONTROL Connector Name BCM (BODY CONTROL Connector Name Connector Name MODULE) (WITH INTELLIGENT KEY SYSTEM) Connector Name Connector Color BLACK Connector Name MODULE) (MITH | Terminal No. Color of Wire Signal Name 97 GR DOOR SW (RL) 98 Y DOOR SW (DR) 99 P DOOR SW (RR) 100 R DOOR SW (RR) 105 G DOOR SW (AS) 105 G DOOR SW (RR,L) |
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| ector No. B4 Connector No. B8 Connector Name WIRE TO WIRE ector Name WIRE TO WIRE ector Color WHITE Connector Color WHITE | $\begin{bmatrix} 1 & 2 & 3 & \hline 1 & 4 & 5 & 6 & 7 \\ \hline 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16 \\ \hline \textbf{H.S.} \end{bmatrix}$ | Ial No. Color of Wire Signal Name 12 SB - | ector No. B21 ector Name FRONT DOOR SWITCH LH ector Color WHITE ector Color WHITE T 1 etor Color B24 BCM (BODV CONTROL Connector Name BCM (BODV CONTROL CONNECTOR BCM (BODV (BODV CONTROL CONNECTOR BCM (BODV CONTROL CONNECTOR BCM (BODV (BODV CONTROL CONNECTOR BCM (BODV CONTROL CONNECTOR BCM (BODV (BODV (BODV (BODV (BODV CONTROL CONNECTOR BCM (BODV (B | nal No. Color of Signal Name 3 Y – 97 GR DOOR SW (RL) 98 Y DOOR SW (RL) 99 P DOOR SW (RR) 100 R DOOR SW (AS) 105 G DOOR UNLOCK 105 G DUTPUT (RR, RL) |

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Revision: December 2015

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| | RE TO WIRE | ITE | 8 7 6 5 | Signal Name | I | - |
| . B31 | IMe WIE | lor WH | 4 3 10 9 | Color of Wire | SB | ۵. |
| Connector No | Connector Na | Connector Co | 际 H.S. | Terminal No. | Ţ | 5 |

| Connector No. | B28 |
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| Connector Name | FRONT DOOR SWITCH RH |
| Connector Color | WHITE |
| 雨 H.S. | 1234 |

| Signal Name | I |
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| Color of Wire | н |
| Terminal No. | З |

| | Color of Wire | SB |
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| Terminal No | - | L |
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| Signal Name | I | I | I | I | I | I | 1 | I |
|------------------|----|----|-----|-----|-----|-----|-----|-----|
| Color of Wire | Γ | BR | В | Γ | Y | н | Ν | BR |
| Terminal No. | 3C | 4C | 13C | 42C | 48C | 49C | 51C | 52C |

| Connector Name | WIRE TO WIRE |
|---------------------------------------|--------------------------------------------------------------------------------------------|
| Connector Color | WHITE |
| 际可 H.S. | |
| | |
| 15C 14C 13C 12C | : 11C 10C 9C 8C 7C 6C 5C 4C 3C 2C 1C |
| 460450440430420410 550540530520510 | 40059659665702660 2602526241028001901170160 50049044670 2502541023022521028001901170160 |
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Connector No.

[WITH INTELLIGENT KEY SYSTEM]

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| WIRE | M 84 74 64 54 Asset EachEstAbstratest EachEstAbstratest EachEstAbstratest Signal Name - - - | 8 0 10 10 KRE | Signal Name |
| WIRE TO WHITE | 111A 10A 14 11A 10A 15 10A 15 11A 10A 15 11A 1 | WIRE TO WHITE | |
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| ctor Name | | ctor No. ctor Name ctor Color | a No. |
| Connee Connee H.S. | 6 5 5 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Connec Connec | 6 6 |
| | | | |
| NDOW NDOW | Aame SW KSW | | Aame |
| OR LOCK | Signal h GNI LOCK UNLOC | MINDOW DCK/UNL RH 1011112 | Signal 7 |
| D5 MAIN PO SWITCH WHITE | | D104 D000ER SWITCH WHITE | |
| No. Color | | Color Color | |
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< WIRING DIAGRAM >

POWER DOOR LOCK SYSTEM [WITH INTELLIGENT KEY SYSTEM]

Revision: December 2015

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Connector No. D301

Connector No. D202

| Signal Name | I | I |
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| Color of Wire | > | ŋ |
| Terminal No. | - | 5 |

| Connector Né | ame RE/ AC1 | AR DOOR LOCK UATOR LH |
|--------------|------------------|--------------------------|
| Connector Co | olor GR/ | ٩٢ |
| 际 H.S. | 1 2 | 3 4 5 6 |
| Terminal No. | Color of Wire | Signal Name |
| - | ^ | I |

| Signal Name | I | Ι |
|------------------|---|---|
| Color of Wire | ٨ | ŋ |
| minal No. | 1 | 2 |

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[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM

Wiring Diagram



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[WITH INTELLIGENT KEY SYSTEM]





INTELLIGENT KEY SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



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|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| lor WF | 8 7 | Color of |
| Connector CC | 雨 H.S. | Terminal No. |

| 7 6 5 4 3 2 1 7 16 15 14 13 12 11 10 | Signal Name | I | I | 1 | I |
|-----------------------------------------|------------------|---|---|----|----|
| 9 8 20 19 18 1 | Color of Wire | Ч | Р | _ | _ |
| H.S. | Terminal No. | - | 8 | 10 | 17 |



M60

Connector No.



Signal Name L T

Color of Wire

Terminal No.

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Connector Name JOINT CONNECTOR-M03

Connector Name CVT SHIFT SELECTOR

Connector Name JOINT CONNECTOR-M01

M31

Connector No.

BLUE

Connector Color

M38

Connector No.

M53

Connector No.

| | | | 1 | 13A 14A 15A | 142A43A44A45A46A 152A53A54A55A55A | | | | |
|--------------|--------------|--------------|-----------|-------------------------|----------------------------------------------------------|------------------|-----|-----|-----|
| | RE TO WIRE | ITE | | 6A 7A 8A 9A 10A 11A 12A | A24A25A263 36A37A38A39A40A41A A34A35A 47A48A49A50A51A | Signal Name | T | I | I |
| . M74 | me WIF | lor WH | | 4A 5A |)A21A22A23)A31A32A33 | Color of Wire | BR | ≻ | GR |
| Connector No | Connector Na | Connector Co | 雨 H.S. | 1A 2A 3A | 16A17A18A19A20 27A28A29A30 | Terminal No. | 40A | 41A | 50A |
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< WIRING DIAGRAM >

BACK DOOR ANTENNA -

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BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)

Connector Name Connector No.

M83

Signal Name

Color of Wire

Terminal No.

[WITH INTELLIGENT KEY SYSTEM]

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CAN-L

DOOR LOCK STATUS SW (DR)

TRUNK OPENER SW

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Signal Name HAZARD SW

Color of Wire

Terminal No.

SB

29 30 31 SHIFT P POSITION, PARKING POSITION SW (WITH CVT) INTELLIGENT TUNER

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|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|-----------------------------------------|
| Connector No. | M84 | Terminal | No. Color o | f Signal Name |
| | BCM (BODY CONTROL | | Wire | |
| Connector Name | MODULE) (WITH INTELLIGENT KEY SYSTEM) | 2 | | KEY CYLINDER UNLOCK SW |
| Connector Color | BLACK | α | > | KEY CYLINDER |
| | | | | LOCK SW |
| | | 6 | н | BRAKE SW1 |
| H.S. | | 12 | GR | CENTRAL DOOR LOCK SW |
| 1 2 3 4 5 6 7 21 22 23 24 25 26 27 | 8 9 10 11 12 13 14 15 16 17 18 19 28 29 30 31 32 33 34 35 36 37 38 39 | 13 | BR | CENTRAL DOOR UNLOCK SW |
| | | <u></u> | > | KEYLESS TUNER, AUTO LIGHT SENSOR GND |



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Color of Wire ВΒ ≥ Terminal No. 82 84

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Connector Name INSIDE KEY ANTENNA (CONSOLE) BLUE M89 Connector Color Connector No. H.S. E



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Connector Name Connector Color

Connector No.

| INTELLIGENT KEY SYSTEM | |
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Terminal No.

H.S. E

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| A (BUDY CUNIRUL DULE) (WITH ELLIGENT KEY SYSTEM) | CK | 03 108 107 108 107 108 107 108 109 109 109 109 109 109 109 109 109 109 | Signal Name | LUGGAGE LAMP OUTPUT | DOOR SW (RL) | DOOR SW (DR) | DOOR SW (RR) | DOOR SW (AS) | TRUNK SW | DOOR UNLOCK OUTPUT (RR,RL) | TRUNK OPEN OUTPUT |
|--------------------------------------------------------|--------------|------------------------------------------------------------------------|------------------|------------------------|--------------|--------------|--------------|--------------|----------|-------------------------------|----------------------|
| | lor BLA | 110 | Color of Wire | ГG | GR | ≻ | ٩. | н | > | G | GR |
| Connector Na | Connector Co | 。 S.H | Terminal No. | 96 | 26 | 86 | 66 | 100 | 103 | 105 | 107 |



Connector No.

B24

Connector No.

| Signal Name | I |
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| Color of Wire | ۲ |
| Terminal No. | ю |

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INTELLIGENT KEY SYSTEM

Revision: December 2015

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INTELLIGENT KEY SYSTEM

< WIRING DIAGRAM >





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Signal Name

Color of Wire B

Ferminal No.

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TRUNK LID OPENER

Wiring Diagram





TRUNK LID OPENER

INFOID:000000012783079

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Revision: December 2015



< WIRING DIAGRAM >



TRUNK LID OPENER

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

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Connector Name TRUNK LID OPENER ASSEMBLY

B59

Connector No.

WHITE

Connector Color



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< WIRING DIAGRAM >

| | Signal Name | I | 1 |
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| | Color of Wire | œ | <u>م</u> |
| 石石 H.S. | Terminal No. | - | ~ |

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HOMELINK UNIVERSAL TRANSCEIVER

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JOINT CONNECTOR-M02

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JOINT CONNECTOR-M07

M41

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AUTO ANTI-DAZZLING INSIDE MIRROR (R15)

M41 R1

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JOINT CONNECTOR-M01

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BATTERY

IGNITION SWITCH ON OR START

Wiring Diagram

INFOID:000000012783080



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HOMELINK UNIVERSAL TRANSCEIVER [WITH INTELLIGENT KEY SYSTEM]

Connector Name JOINT CONNECTOR-M07 a UTO ANTI-DAZZLING INSIDE MIRROR (WITH HOMELINK UNIVERSAL TRANSCEIVER)
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 Signal Name Signal Name I. T T Т T 5 4 3 2 1 10 9 8 7 6 Connector Color GREEN BLACK R15 M54 Color of Wire Color of Wire ВВ ŋ ВВ ш 0 Connector Name Connector Color Connector No. Connector No. Terminal No. Terminal No. 9 ∞ 9 N 4 H.S. H.S. 佢 佢 -~ 9 20 Signal Name Signal Name ŝ 19 2 æ Т T I. T I. ī 13 თ 4 Connector No. M41 Connector Name WIRE TO WIRE co 4 Connector Name | WIRE TO WIRE ₽ 15 10 11 12 15 16 17 12 11 17 16 Connector Color WHITE Connector Color WHITE 4 HOMELINK UNIVERSAL TRANSCEIVER CONNECTORS ო 9 14 13 18 Color of Wire Color of Wire Е BG ~ œ ВВ ഹ 19 BHB ш 0 20 -2 Connector No. 9 Terminal No. Terminal No. 42 13 13 \sim H.S. H.S. 偃 佢 Connector Name JOINT CONNECTOR-M02 Connector Name JOINT CONNECTOR-M01
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 Signal Name Signal Name T I. Т Т Connector Color WHITE Connector Color BLUE M78 Color of Wire Color of Wire M31 G ŋ ŋ ŋ Connector No. Connector No. Terminal No. **Terminal No.** 18 16 20 20 H.S. H.S.

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< WIRING DIAGRAM >

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BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012783081 B

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[WITH INTELLIGENT KEY SYSTEM]

OVERALL SEQUENCE



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DETAILED FLOW

Revision: December 2015

< 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-41, "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-41, "Intermittent Incident"</u> . | г |
| ${f \delta}$.REPAIR OR REPLACE THE MALFUNCTIONING PART | E |
| Repair or replace the malfunctioning part. Reconnect parts or connectors disconnected during Diagnosis ment. | Procedure again after repair and replace- |
| 3. Check DTC. If DTC is detected, erase it. | |
| >> GO TO 9. 9.FINAL CHECK | E |
| When DTC is detected in step 2, perform DTC CONFIRMATION PRO malfunction is repaired securely. | OCEDURE again, and then check that the |
| symptom is not detected. | F |
| 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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DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

Refer to LAN-26, "CAN COMMUNICATION SYSTEM : System Description".

DTC Logic

DTC DETECTION LOGIC

NOTE:

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

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

Diagnosis Procedure

1. PERFORM SELF DIAGNOSTIC RESULT

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

2. Check "SELF- DIAG RESULTS".

Is "CAN COMM CIRCUIT" displayed?

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

NO >> Refer to <u>GI-41, "Intermittent Incident"</u>.

INFOID:000000012783083

INFOID:000000012783084

INFOID:000000012783082
[WITH INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > U1010 CONTROL UNIT (CAN) А **DTC** Logic INFOID:000000012783085 DTC DETECTION LOGIC В CONSULT Display **DTC Detection Condition** Possible Cause С CONTROL UNIT (CAN) BCM detected internal CAN communication cir-BCM [U1010] cuit malfunction. **Diagnosis** Procedure INFOID:000000012783086 D **1.**REPLACE BCM When DTC "U1010" is detected, replace BCM. Ε >> Replace BCM. Refer to BCS-78, "Removal and Installation". F Н J DLK L Μ Ν 0 Ρ

U1010 CONTROL UNIT (CAN)

B2621 INSIDE ANTENNA

DTC Logic

NOTE:

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

· Check Intelligent Key relative signal strength

· Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-74, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (instrument center) is OK.

Diagnosis Procedure

NOTE:

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

- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "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.

INFOID:000000012783088

B2621 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| | (- | •) | | | | | Signal |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------|
| | BC | CM | (-) | Co | ndition | (Refe | erence value) |
| Co | onnector | Terminal | | | | | |
| M02 | 16 | | When Intelligen tenna detection | nt Key is in the an- n area | (V) 15 10 5 0 | → → ↓ → ↓ S JMKIA3839GB | |
| | WOO | 40 47 | Cround | When Intelligen antenna detecti | nt Key is not in the tion area | | · · · · · · · · · · · · · · · · · · · |
| | | | | | | | |
| the ir ES O | nspectior >> Rep >> GO | n result norm blace BCM. TO 2. | al? Refer to <u>BCS-</u> | 78, "Removal | and Installation | <u>"</u> . | JMKIA5951GB |
| h <u>e ir</u> ES O CHE Tur Dis Ch cor | nspectior >> Rep >> GO ECK INSI rn ignition sconnect sconnect neck cont nnector. | n result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwe | nal? Refer to <u>BCS-</u> ITENNA CIRC F. ector and inside en BCM harn | 78, "Removal UIT e key antenna ess connecto | and Installation (instrument ce r and inside ke | <u>"</u> . nter) connector. y antenna (instr | JMKIA5951GB |
| he ir ES O CHE Tur Dis Ch cor | nspectior >> Rep >> GO ECK INSI rn ignition sconnect neck cont nnector. | n result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwe | h <u>al?</u> Refer to <u>BCS-</u> ITENNA CIRC F. Sector and inside en BCM harn | 78, "Removal UIT e key antenna ess connecto | and Installation a (instrument ce r and inside ke key antenna (instru | nter) connector. y antenna (instr | Tument center) harness |
| he ir ES O CHE Tur Dis Ch cor | nspection >> Rep >> GO ECK INSI rn ignition sconnect neck cont nnector. | n result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwe BCM | nal? Refer to <u>BCS-</u> ITENNA CIRC F. Sector and inside een BCM harn | 78, "Removal UIT e key antenna ess connecto | and Installation a (instrument ce r and inside ke key antenna (instru | nter) connector. y antenna (instr ment center) Terminal | Tument center) harness |
| ihe ir ES O CHE Tur Dis Ch cor | nspectior >> Rep >> GO ECK INSI rn ignition sconnect neck cont nnector. Connect | n result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwee BCM | nal? Refer to <u>BCS-</u> ITENNA CIRC F. ector and inside en BCM harn Terminal | 78, "Removal UIT e key antenna ess connecto Inside Conn | and Installation | nter) connector. y antenna (instr ment center) Terminal | Tument center) harness |
| he ir ES O CHE Tur Dis Ch cor | nspectior >> Rep >> GO ECK INSI connect ieck cont nnector. Connect M83 | n result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwee BCM | Terminal | 78, "Removal UIT e key antenna ess connecto Inside Conn Mt | and Installation | nter) connector. y antenna (instr ment center) Terminal 1 2 | Tument center) harness Continuity Yes |
| he ir ES O CHE Dis Ch cor Ch | nspectior >> Rep >> GO ECK INSI rn ignition sconnect nnector. Connect M83 neck cont | In result norm place BCM. TO 2. IDE KEY AN IDE KEY AN I | Terminal 47 46 en BCM harne | 78, "Removal UIT e key antenna ess connecto Inside Conn Ma ess connector | and Installation a (instrument ce r and inside ke key antenna (instru ector 36 and ground. | nter) connector. y antenna (instr ment center) Terminal 1 2 | Tument center) harness Continuity Yes |
| he ir ES O CHE Tur Dis Ch cor | nspectior >> Rep >> GO ECK INSI rn ignition sconnect nnector. Connect M83 neck cont | in result norm place BCM. TO 2. IDE KEY AN n switch OFI BCM conne inuity betwee BCM or inuity betwee | Anal? Refer to <u>BCS-</u> ITENNA CIRC F. Sector and inside en BCM harn 47 46 en BCM harne | 78, "Removal UIT e key antenna ess connecto Inside Conn Ma ess connector | and Installation (instrument ce r and inside ke key antenna (instru ector 36 and ground. | nter) connector. y antenna (instr ment center) Terminal 1 2 | Tument center) harness |
| the ir ES O CHE Tur Dis Ch cor | nspection >> Rep >> GO ECK INSI rn ignition sconnect neck cont nector. Connect M83 neck cont | n result norm place BCM. I TO 2. IDE KEY AN n switch OFI BCM conne inuity betwee BCM or inuity betwee Enector | Aal? Refer to <u>BCS-</u> ITENNA CIRC F. Sector and inside en BCM harn 47 46 en BCM harne 3CM | 78, "Removal UIT e key antenna ess connecto Inside Conn ess connector | and Installation a (instrument ce r and inside ke key antenna (instru ector 36 and ground. Ground | nter) connector. y antenna (instr ment center) Terminal 1 2 | Tument center) harness Continuity Yes Continuity |
| the ir ES IO .CHE Tur Dis Ch cor Ch | nspection >> Rep >> GO ECK INSI rn ignition sconnect ieck cont nnector. Connect M83 ieck cont | in result norm place BCM. In TO 2. IDE KEY AN IDE KEY A | Terminal 47 46 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | 78, "Removal UIT e key antenna ess connecto Inside Conn Ma ess connector | and Installation a (instrument ce r and inside ke key antenna (instru ector 36 and ground. Ground | nter) connector. y antenna (instr ment center) Terminal 1 2 | Tument center) harness Continuity Yes Continuity No |

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.

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B2621 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (+) BCM | | () | Condition | Signal (Reference value) | |
|------------|----------|--------|------------------------------------------------------------|-------------------------------------------------------|--|
| Connector | Terminal | | | | |
| M83 47 | 47 | Ground | When Intelligent Key is in the an- tenna detection area | (V) 15 10 5 0 1 s JMKIA3839GB | |
| | 46 | | When Intelligent Key is not in the antenna detection area | (V) 15 10 5 0 14 1 s JMKIA5951GB | |

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-78. "Removal and Installation"</u>.

B2622 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2622 INSIDE ANTENNA

DTC Logic

NOTE:

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

Check Intelligent Key relative signal strength

· Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-77, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (console) is OK.

Diagnosis Procedure

NOTE:

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

- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch ON.

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

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B2622 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

| (+) BCM | | (-) | Condition | Signal (Reference value) |
|------------|----------|--------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connector | Terminal | | | |
| M92 | 45 | | When Intelligent Key is in the anten- na detection area | (V) 15 0 5 0 1 s JMKIA3839GB |
| | 44 | Cround | When Intelligent Key is not in the an- tenna detection area | (V) 15 10 5 0 11 1 5 0 11 1 5 0 11 1 5 0 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 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 15 10 15 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 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 BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.
- NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

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

| BCM | | Inside key ant | Continuity | |
|-----------|----------|----------------|------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M83 | 45 | M8Q | 1 | Ves |
| | 44 | MOS | 2 | 163 |

4. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity | |
|-----------|--------------------|--------|------------|--|
| Connector | Connector Terminal | | Continuity | |
| M83 | 45 | Ground | No | |
| | 44 | | INO | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

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

B2622 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (+) BCM | | (–) Condition | | Signal (Reference value) | |
|------------|----------|---------------|----------------------------------------------------------------|-------------------------------------------------|--|
| Connector | Terminal | - | | | |
| M92 | 45 | Ground | When Intelligent Key is in the anten- na detection area | (V) 15 10 5 0 1 s JMKIA3839GB | |
| M63 | 44 | Ground | When Intelligent Key is not in the an- tenna detection area | (V) 15 10 10 0 0 0 0 0 | |
| | | | | JMKIA5951GB | |

Is the inspection result normal?

YES >> Replace inside key antenna (console).

NO >> Replace BCM. Refer to BCS-78, "Removal and Installation".

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B2623 INSIDE ANTENNA

DTC Logic

NOTE:

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

· Check Intelligent Key relative signal strength

· Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC detecting condition | Possible cause |
|-------|--------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 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) Harness between BCM and inside key antenna (trunk room) BCM |

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-80, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (trunk room) is OK.

Diagnosis Procedure

NOTE:

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

- · Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49. "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

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B2623 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (+) BCM | | () | Condition | Signal | |
|------------|---------------|--------------|----------------------------------------------------------------|-----------------------------------------------------------------------------|--|
| Connector | Terminal | - | | (Reference value) | |
| | | Grand | When Intelligent Key is in the anten- na detection area | (V) 15 10 5 0 1 s JMKIA3839GB | |
| M83 | 42 | Ground | When Intelligent Key is not in the an- tenna detection area | (V) 15 10 15 10 10 11 11 10 11 11 11 11 | |
| | | | | JMKIA5951GB | |
| inspectior | n result norn | nal? | | l | |
| >> Rep | place BCM. | Refer to BCS | S-78, "Removal and Installation". | | |

2. CHECK INSIDE KEY ANTENNA CIRCUIT

- 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.

| BCM | | Inside key ante | nna (trunk room) | Continuity | J |
|-----------|----------|-----------------|------------------|------------|----|
| Connector | Terminal | Connector | Terminal | Continuity | |
| M83 | 43 | P40 | 1 | Vaa | |
| | 42 | D49 | 2 | Tes | DL |

4. Check continuity between BCM harness connector and ground.

| E | BCM | | Continuity | L |
|-----------|----------|--------|------------|---|
| Connector | Terminal | Cround | Continuity | |
| Mea | 43 | Giouna | No | M |
| MOS | 42 | | INO | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace inside key antenna (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.

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B2623 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (+) BCM | | () | Condition | Signal (Reference value) |
|------------|----------|----|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connector | Terminal | | | |
| M83 | 43 | | When Intelligent Key is in the anten- na detection area | (V) 15 0 1 s JMKIA3839GB |
| Mee | 42 | | When Intelligent Key is not in the an- tenna detection area | (V) 15 10 5 0 11 1 1 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 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 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 15 10 15 10 15 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).

NO >> Replace BCM. Refer to <u>BCS-78. "Removal and Installation"</u>.

B2626 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2626 OUTSIDE ANTENNA

DTC Logic

NOTE:

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

Check Intelligent Key relative signal strength

Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC detecting condition | Possible cause |
|-------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| B2627 | OUTSIDE ANTENNA 2 | An excessive high or low voltage from outside key antenna (driver side) is sent to BCM | Outside key antenna (driver side) Harness between BCM and outside key antenna (driver side) BCM |
| DTC CONF | IRMATION PROC | EDURE | |
| 1.PERFOR | M DTC CONFIRMA | TION PROCEDURE | |
| 1. Turn ign | ition switch ON. | | |
| 2. Check "S | Self Diagnostic Resu | ilt" mode of "BCM" using CONSULI. | |
| YES >> I | Refer to <u>DLK-83, "D</u> | agnosis Procedure". | |
| NO >> (| Outside key antenna | a (driver side) is OK. | |
| Diagnosis | Procedure | | INFOID:000000012783094 |
| | | | |
| I ne Signal I I User Guide | ech II 100I [– (J-501 e for additional inforr | 90)] can be used to perform the following f nation. | unctions. Refer to the Signal Tech |
| Check Inte | lligent Key relative s | ignal strength | |
| | | | |
| Regarding W | /iring Diagram inforr | nation, refer to DLK-49, "Wiring Diagram". | |
| | | | |
| 1. снеск с | OUTSIDE KEY ANTE | ENNA INPUT SIGNAL 1 | |
| 1. Turn ign | ition switch ON. | | |
| 2. Check s | ignal between BCM | harness connector and ground using oscille | oscope. |

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B2626 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

| (+) BCM Connector Terminal | | () | Condition | | Signal (Reference value) | |
|----------------------------------|----|--------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| | 53 | | When the driver door | 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 | |
| M83 | 52 | Ground | erated 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 0 500 ms JMKIA5954GB | |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-78, "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 (driver side) connector.
- Check continuity between BCM harness connector and outside key antenna (driver side) harness connector.

| В | СМ | Outside key ante | Continuity | | |
|-----------|----------|------------------|------------------|-----|--|
| Connector | Terminal | Connector | nnector Terminal | | |
| M83 | 53 | De | 1 | Yes | |
| IVIOS | 52 | DO | 2 | | |

4. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity | |
|-----------|--------------------|--------|------------|--|
| Connector | Connector Terminal | | Continuity | |
| M83 | 53 | Ground | No | |
| | 52 | | 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 (driver side). (New antenna or other antenna)
- 2. Connect BCM connector and outside key antenna (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check signal between BCM harness connector and ground using oscilloscope.

B2626 OUTSIDE ANTENNA

[WITH INTELLIGENT KEY SYSTEM]

| (+) BCM Connector Terminal | | | | | Signal | |
|----------------------------------|----------|--------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--|
| | | (-) | Condit | ion | (Reference value) | |
| M83 | 52 53 | Ground | When the driver door request switch is operated with igni- tion 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 0 500 ms JMKIA5954GB | |

Is the inspection result normal?

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

>> Replace BCM. Refer to BCS-78, "Removal and Installation". NO

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B2627 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2627 OUTSIDE ANTENNA

DTC Logic

NOTE:

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

· Check Intelligent Key relative signal strength

· Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC detecting condition | Possible cause |
|-------|--------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| B2626 | OUTSIDE ANTENNA 1 | An excessive high or low voltage from outside key antenna (passenger side) is sent to BCM | Outside key antenna (passenger side) Harness between BCM and out- side key antenna (passenger side) BCM |

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

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

Is outside key antenna DTC detected?

YES >> Refer to <u>DLK-86</u>, "Diagnosis Procedure".

NO >> Outside key antenna (passenger side) is OK.

Diagnosis Procedure

NOTE:

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

- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

INFOID:000000012783095

INFOID:000000012783096

B2627 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (| +) | | | | 0.1 | 1 |
|------------------------------------------------|---------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------|----------------------|
| B | CM | (-) | Condition | | Signal (Reference value) | |
| Connector | Terminal | | | | , , , , , , , , , , , , , , , , , , , | , |
| M83 | 51 | Ground | When Intelli- gent Key is in the antenna de- tection area (The distance between Intelli- gent Key and antenna: 80 cm or less) | | (V) 15 10 5 0 | JMKIA5955GB |
| ^{INI83} 50 | | 50 | with ignition switch OFF | When Intelli- gent Key is not in the antenna detection area | (V) 15 10 11 | |
| | | | gent Ko antenn prox. 2 | | 0 500 ms | JMKIA5954GB |
| e inspect | ion result r | normal? | | | | |
| S >> F) >> C CHECK O | Replace BC GO TO 2. UTSIDE KI | M. Refer t | o <u>BCS-78, "Remov</u> INA CIRCUIT | al and Installati | ion". | |
| Turn ignit Disconne Check co connecto | tion switch tect BCM co pontinuity be r. | OFF. onnector ar etween BC | nd outside key antei M harness connec | nna (passenge tor and outside | r side) connector. e key antenna (pass | senger side) harnes: |
| | BC | M | Outs | side key antenna (| passenger side) | Continuity |
| Conn | ector | Term | iinal Coi | nnector | Terminal | Continuity |
| N // | 23 | 5 | 1 r | 108 | 1 | Vec |
| M83 | | 50 | | 5100 | • | 162 |

| В | CM | | Continuity | • |
|-----------|--------------------|--|------------|---|
| Connector | Connector Terminal | | Continuity | |
| M02 | 51 | | No | |
| | 50 | | NO | _ |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace outside key antenna (passenger side). (New antenna or other antenna)

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

3. Turn ignition switch ON.

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

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B2627 OUTSIDE ANTENNA

[WITH INTELLIGENT KEY SYSTEM]

| (+) | | | | | Signal | |
|-----------|----------|--------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| B | BCM | | Condition | | (Reference value) | |
| Connector | Terminal | | | | | |
| | 51 | | When the passenger | When Intelli- gent Key is in the antenna de- tection area (The distance between Intelli- gent Key and antenna: 80 cm or less) | (V) 15 0 500 ms JMKIA5955GB | |
| INIOS | 50 | Giouna | switch is operated with ignition switch OFF | When Intelli- gent Key is not in the antenna detection area (The distance between Intelli- gent Key and antenna: Ap- prox. 2 m) | (V) 15 10 5 0 500 ms JMKIA5954GB | |

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.

B2628 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

B2628 OUTSIDE ANTENNA

DTC Logic

NOTE:

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

· Check Intelligent Key relative signal strength

Confirm vehicle Intelligent Key antenna signal strength

DTC DETECTION LOGIC

| | DTC | CONSULT display description | DTC detecting condition | Possible cause | |
|---------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---|
| _ | B2628 | OUTSIDE ANTENNA 3 | An excessive high or low voltage from outside key antenna (rear bumper) is sent to BCM | Outside key antenna (rear bumper) Harness between BCM and out- side key antenna (rear bumper) BCM | |
| DT | C CONFI | RMATION PROC | EDURE | | |
| 1. | PERFORM | M DTC CONFIRMA | TION PROCEDURE | | (|
| 1. 2. | Turn igni Check Se | tion switch ON. elf Diagnostic Resu | It mode of BCM using CONSULT. | | |
| <u>ls o</u> YE NC | utside key ES >> F D >> (| <u>y antenna DTC dete</u> Refer to <u>DLK-89, "D</u> Dutside key antenna | <u>ected?</u> iagnosis Procedure". a (rear bumper) is OK. | | ŀ |
| Dia | ignosis | Procedure | | INFOID:000000012783098 | |
| NO The II U • C • C | TE: Signal Te ser Guide heck Intel onfirm vel | ech II Tool [– (J-501 for additional inforr ligent Key relative s hicle Intelligent Key | 90)] can be used to perform the following f mation. signal strength antenna signal strength | unctions. Refer to the Signal Tech | D |
| Reg | arding W | iring Diagram inforr | nation, refer to <u>DLK-49, "Wiring Diagram"</u> . | | |
| 1.0 | CHECK O | UTSIDE KEY ANTE | ENNA INPUT SIGNAL 1 | | |
| 1. 2. | Turn igni Check si | tion switch ON. gnal between BCM | harness connector and ground using oscille | oscope. | [|
| | | | | | ľ |
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INFOID:000000012783097

B2628 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

| (+) BCM Connector Terminal | | () | Condition | | Signal (Reference value) | |
|----------------------------------|-------|--------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--|
| M83 | 48,49 | Ground | When the trunk opener request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the an- tenna detection area (The dis- tance between Intelligent Key and antenna: 80 cm or less) When Intelligent Key is not in the antenna detec- tion area (The distance be- tween Intelli- gent Key and antenna: Ap- prox. 2 m) | (V) 50 500 ms JMKIA5955GB (V) 15 10 500 ms JMKIA5954GB | |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-78, "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 (rear bumper) connector.
- Check continuity between BCM harness connector and outside key antenna (rear bumper) harness connector.

| E | СМ | Outside key ante | Outside key antenna (rear bumper) | | |
|-----------|----------|------------------|-----------------------------------|------------|--|
| Connector | Terminal | Connector | Terminal | Continuity | |
| M83 | 49 | B70 | 1 | Vec | |
| IVIOJ | 48 | | 2 | Yes | |

4. Check continuity between BCM harness connector and ground.

| B | CM | | |
|-----------|----------|--------|------------|
| Connector | Terminal | Cround | Continuity |
| M83 | 49 | Ground | No |
| | 48 | | 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 (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.

B2628 OUTSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| (+ BC | ⊦) CM | (–) Condition | | dition | Signal |
|-----------|----------|---------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Connector | Terminal | () | | | (Reference value) |
| Mea | 10.48 | Ground | When the trunk opener 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 5 5 5 5 5 5 5 5 5 5 5 5 |
| Mos | 49,40 | Ground | 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- | (V) 15 10 5 0 → ◀ 500 ms |
| | | | | antenna: Ap- prox. 2 m) | 500 ms |

Is the inspection result normal?

YES >> Replace outside key antenna (rear bumper).

NO >> Replace BCM. Refer to <u>BCS-78. "Removal and Installation"</u>.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000013372790

Regarding Wiring Diagram information, refer to BCS-53. "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. |
|--------------|----------------------|----------------------------|
| 88 | Battery power supply | 12 (10A) |
| 90 | Dattery power suppry | G (40A) |

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. Disconnect BCM connector M85.

2. Check voltage between BCM connector M85 and ground.

| BCM | | Ground | Voltage |
|-----------|----------|----------------|-----------------|
| Connector | Terminal | Ground Voltage | |
| M85 | 88 | | Rattery voltage |
| 1000 | 90 | — | Dattery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector M85 and ground.

| B | CM | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M85 | 93 | — | Yes |

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

| < DTC/CIRCUIT DIAGNOSIS > | [WITH INTELLIGENT KEY SYSTEM] | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|
| COMBINATION METER BUZZER | | Δ |
| Component Function Check | INFOID:000000012783100 | A |
| 1.CHECK FUNCTION | | В |
| Select INTELLIGENT KEY of BCM using CONSULT. Select INSIDE BUZZER in ACTIVE TEST mode. Touch Key, Knob or Take Out to check that it works normally. | | С |
| Is the inspection result normal? | | |
| Yes >> Combination meter buzzer is OK. No >> Refer to <u>DLK-93. "Diagnosis Procedure"</u> . | | D |
| Diagnosis Procedure | INFOID:000000012783101 | |
| 1.CHECK METER BUZZER CIRCUIT | | Е |
| Refer to WCS-35. "Component Function Check". | | |
| Is the inspection result normal? | | F |
| Yes >> GO TO 2. | | |
| 2.CHECK INTERMITTENT INCIDENT | | G |
| Refer to GI-41 "Intermittent Incident" | | |
| >> Inspection End. | | Η |
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DOOR LOCK ACTUATOR DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:000000012783102

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select DOOR LOCK in ACTIVE TEST mode.
- 3. Touch ALL LOCK or ALL UNLK to check that it works normally.

Is the inspection result normal?

- YES >> Door lock actuator is OK.
- NO >> Refer to <u>DLK-94, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000012783103

Regarding Wiring Diagram information, refer to DLK-41, "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 lock actuator LH | | (—) | Condition | | Voltage (Approx.) |
| Connector | Terminal | | | | |
| | 1 | Ground | Door lock and unlock switch Lock Unlock | | Battery voltage |
| | 2 | Ground | | | ballery vollage |

Is the inspection result normal?

YES >> Replace front door lock actuator LH .

NO >> GO TO 2.

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.

| B | СМ | Front door loo | ck actuator LH | Continuity |
|-----------|----------|----------------|----------------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M85 | 95 | 0 | 1 | Vec |
| MOJ | 94 | 59 | 2 | 165 |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Cround | Continuity |
| M85 | 95 | Ground | No |
| COM | 94 | | NO |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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1. Connect BCM connector.

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

| _ | (- | +) | | | | Voltago |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------|------------------------|
| | BC | CM | (-) | Condition | | (Approx.) |
| | Connector | Terminal | | | | |
| | M85 | 95 | Ground | Door lock and unlock switch | Lock | Battery voltage |
| | NOU | 94 | Ground | Door lock and unlock switch | Unlock | Dattery voltage |
| <u>s tr</u> | e inspection | result norma | 12 | | | |
| YE | S >> Che | ck for interna | I short of each | n door lock actuator. | | |
|) 7V | >> Kep | | eter to <u>BCS-7</u> | 8, "Removal and Installat | <u>ion"</u> . | |
| A | SSLINGL | | | | | |
| PA | SSENGE | 2 2 1 1 2 1 C | | | | |
| | 002.102. | | omponent | Function Check | | INFOID:000000012783104 |
| 1 / | | | omponent | Function Check | | INFOID:000000012783104 |
| 1.0 | | | omponent | Function Check | | INFOID:000000012783104 |
| 1 .(| CHECK FUN Select DOO | CTION R LOCK of B | CM using CO | NSULT. | | INFOID:000000012783104 |
| 1 .(1. 2. | CHECK FUN Select DOO Select DOO Touch ALL | CTION R LOCK of B R LOCK in A OCK or Al I | CM using CO CTIVE TEST UNI K to chee | NSULT. mode. | | INFOID:000000012783104 |
| 1. (1. 2. 3. s.tr | CHECK FUN Select DOO Select DOO Touch ALL L | CTION R LOCK of B R LOCK in A -OCK or ALL result norma | CM using CO CTIVE TEST UNLK to chea | NSULT. mode. ck that it works normally. | | INFOID:000000012783104 |
| 1. (1. 2. 3. <u>s th</u> YE | CHECK FUN Select DOO Select DOO Touch ALL L he inspection | CTION R LOCK of B R LOCK in A OCK or ALL result norma | CM using CO CTIVE TEST UNLK to cheo 12 or is OK. | NSULT. mode. ck that it works normally. | | INFOID:000000012783104 |
| 1 .(2. 3. <u>s th</u> YE NC | CHECK FUN Select DOO Select DOO Touch ALL L the inspection S >> Doo D >> Refe | CTION R LOCK of B R LOCK in A OCK or ALL result norma r lock actuato er to <u>DLK-95,</u> | CM using CO CTIVE TEST UNLK to cheo I? or is OK. "PASSENGE | FUNCTION CNECK NSULT. mode. ck that it works normally. R SIDE : Diagnosis Proce | edure". | INFOID:000000012783104 |
| 1 .(1. 2. 3. <u>s th</u> YE NC >A | CHECK FUN Select DOO Select DOO Touch ALL L the inspection S >> Doo >> Refe SSENGEF | CTION R LOCK of B R LOCK in A OCK or ALL result norma r lock actuato r to <u>DLK-95,</u> R SIDE : D | CM using CO CTIVE TEST UNLK to cheo <u>u?</u> or is OK. <u>"PASSENGE</u> Diagnosis P | FUNCTION CRECK NSULT. mode. ck that it works normally. <u>R SIDE : Diagnosis Proc</u> | edure". | INFOID:000000012783104 |
| 1 .(1. 2. 3. S th YE NC PA | CHECK FUN Select DOO Select DOO Touch ALL L ie inspection S >> Doo >> Refe SSENGE | CTION R LOCK of B R LOCK in A OCK or ALL result norma r lock actuato r to <u>DLK-95,</u> R SIDE : D | CM using CO CTIVE TEST UNLK to cheo 12 or is OK. "PASSENGE Diagnosis P | FUNCTION CRECK NSULT. mode. ck that it works normally. R SIDE : Diagnosis Proc Procedure | <u>edure"</u> . | INFOID:000000012783104 |

Regarding Wiring Diagram information, refer to DLK-41, "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.

| (| +) | | | | | I |
|--------------|---------------------|--------|-----------------------------|--------|----------------------|------|
| Front door I | lock actuator RH | () | Condition | | Voltage (Approx.) | |
| Connector | Terminal | | | | | M |
| D107 | 5 | Cround | Door look and unlook owitch | Lock | Potton / voltage | |
| D107 | 6 | Ground | Door lock and unlock switch | Unlock | Ballery vollage | |
| | | | | | | N.I. |

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.

| В | СМ | Front door lock actuator RH | | Continuity |
|-----------|----------|-----------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M85 | 95 | D107 | 5 | Vec |
| NO5 | 86 | | 6 | 165 |

3. Check continuity between BCM harness connector and ground.

< DTC/CIRCUIT DIAGNOSIS >

| BCM | | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| MAE | 95 | Ground | No |
| COM | 86 | | INU |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

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

| (+) BCM | | () | Condition | | Voltage | |
|------------|----------|--------|------------------------------------|------|-----------------|--|
| Connector | Terminal | | Contanton | | (Approx.) | |
| M85 | 95 | Ground | Door lock and unlock switch | Lock | Batteny voltage | |
| COINI | 86 | Giounu | 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-78</u>, "Removal and Installation".

REAR LH

REAR LH : Component Function Check

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.

2. Select DOOR LOCK in ACTIVE TEST mode.

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

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

REAR LH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-41. "Wiring Diagram".

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.

| (| +) | | | | | |
|----------------------------|----------|--------|-----------------------------|--------|-------------------|-----------|
| Rear door lock actuator LH | | () | Condition | | Condition Voltage | (Approx.) |
| Connector | Terminal | | | | () | |
| D202 | 1 | Ground | Door lock and unlock switch | Lock | Battery voltage | |
| 0202 | 2 | Cround | Door lock and unlock switch | Unlock | Dattery voltage | |

Is the inspection result normal?

YES >> Replace rear door lock actuator LH.

NO >> GO TO 2.

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INFOID:000000012783107

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

 $\overline{2.}$ 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 Continuity Connector Terminal Connector Terminal M85 95 1 D202 Yes 2 B24 105 Check continuity between BCM harness connector and ground. 3. D BCM Continuity Connector Terminal Ground Ε M85 95 No B24 105 Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace harness. 3.CHECK BCM OUTPUT SIGNAL Connect BCM connector. 1. 2. Check voltage between rear door lock actuator LH harness connector and ground. Н (+) Voltage BCM (-) Condition (Approx.) Connector Terminal M85 95 Lock Ground Door lock and unlock switch Battery voltage B24 105 Unlock Is the inspection result normal? YES >> Check for internal short of each door lock actuator. DLK NO >> Replace BCM. Refer to BCS-78, "Removal and Installation". REAR RH **REAR RH**: Component Function Check INFOID:000000012783108 1. CHECK FUNCTION 1. Select DOOR LOCK of BCM using CONSULT. M Select DOOR LOCK in ACTIVE TEST mode. 2. Touch ALL LOCK or ALL UNLK to check that it works normally. 3. Is the inspection result normal? Ν YES >> Door lock actuator is OK. NO >> Refer to <u>DLK-97, "REAR RH : Diagnosis Procedure"</u>. REAR RH : Diagnosis Procedure INFOID:000000012783109 Ρ Regarding Wiring Diagram information, refer to DLK-41, "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.

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< DTC/CIRCUIT DIAGNOSIS >

| (- | +) | | | | Veltere | | Mallara |
|----------------------------|----------|--------|-----------------------------|--------|----------------------|--|---------|
| Rear door lock actuator RH | | () | Condition | | Voltage (Approx.) | | |
| Connector | Terminal | | | | | | |
| 0302 | 5 | Ground | Door lock and unlock switch | Lock | Battenyvoltage | | |
| D302 | 6 | Ground | Door lock and unlock Switch | Unlock | Dattery voltage | | |

Is the inspection result normal?

YES >> Replace rear door lock actuator RH.

NO >> GO TO 2.

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 RH harness connector.

| В | СМ | Rear door lock actuator RH | | Continuity |
|-----------|----------|----------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M85 | 95 | D302 | 5 | Vec |
| B24 | 105 | 5502 | 6 | 105 |

3. Check continuity between BCM harness connector and ground.

| BCM | | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M85 | 95 | Ground | No |
| B24 | 105 | | NU |

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 RH harness connector and ground.

| (+) BCM | | (-) | Condition | | Voltage | |
|------------|----------|--------|-----------------------------|--------|-----------------|--|
| Connector | Terminal | | | | (Approx.) | |
| M85 | 95 | Cround | Door look and unlook switch | Lock | Patton voltago | |
| B24 | 105 | Ground | Door lock and unlock switch | Unlock | Ballery vollage | |

Is the inspection result normal?

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

NO >> Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.

| Monitor item | Con | dition | Status |
|----------------------------------------------------------------------|-------------------------------------------------------------------------|---------------|--------|
| CDL LOCK SW Main power window and do | | LOCK | ON |
| | UNLOCK | OFF | |
| | lock/unlock switch | LOCK | OFF |
| CDL UNLOCK SW | | UNLOCK | ON |
| | | | |
| the inspection result no | ormal? | | |
| the inspection result no (ES >> Main power) IO >> Refer to DLk | ormal? window and door lock/unlock s (-99, "Diagnosis Procedure". | switch is OK. | |

Regarding Wiring Diagram information, refer to <u>DLK-41, "Wiring Diagram"</u>.

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.

| | | Circuit | |
|------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------|--|
| oor lock/unlock switch | () | Signal (Reference value) | |
| Terminal | | | |
| 15 | | | |
| 3 | Ground | (V) 15 10 5 0 10 ms JPMIA0012GB | |
| | | 1.0 - 1.5 V | |
| mal? | | | |
| | | | |
| | oor lock/unlock switch Terminal 15 3 mal? | Door lock/unlock switch (-) Terminal 15 3 Ground 3 mal? | |

Disconnect BCM connector. 1.

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

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000012783110

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Component Function Check

1.CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- 2. Select CDL LOCK SW, CDL UNLOCK SW in DATA MONITOR mode.

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

< DTC/CIRCUIT DIAGNOSIS > DOOR LOCK AND UNLOCK SWITCH

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

BCM Main power window and door lock/unlock switch

| | | | | Continuity |
|-----------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | Continuity |
| M84 | 12 | D5 | 3 | Yes |
| MO- | 13 | 00 | 15 | 100 |

3. Check continuity between BCM harness connector and ground.

| ВС | BCM | | Continuity |
|-----------------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| Mga | 12 | Ground | No |
| WO 4 | 13 | | NO |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-78, "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 | d door lock/unlock switch | | Continuity |
|-----------------------|---------------------------|--|------------|
| Connector | Connector Terminal | | Continuity |
| D5 | 1 | | 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-100, "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-69</u>, "<u>Removal and Instal-</u> lation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:000000012783112

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 door lock/unlock switch | | Condition | | Continuity |
|-----------------------------------------------|--|-------------------|--------|------------|
| Terminal | | | | |
| 15 | | | LOCK | No |
| 15 | | Main power window | UNLOCK | Yes |
| 3 | | switch | LOCK | Yes |
| | | | 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-69</u>, "<u>Removal and Instal-</u><u>lation</u>".

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UNLOCK SENSOR

Component Function Check

INFOID:000000012783113

[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 | |
|--------------|------------------|--------|--------|--|
| | Driver side door | Lock | OFF | |
| | | Unlock | ON | |

Is the inspection result normal?

- YES >> Unlock sensor is OK.
- NO >> Refer to <u>DLK-102</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783114

Regarding Wiring Diagram information, refer to DLK-41, "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 | +) < assembly LH Terminal | () | Signal (Reference value) |
|------------------------------------|---------------------------------|--------|--------------------------------------------------|
| D9 | 3 | Ground | (V) 15 10 5 0 ++10ms PKIB4960J |

Is the inspection result normal?

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

2.CHECK UNLOCK SENSOR CIRCUIT

1. Disconnect BCM connector.

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

| B | СМ | Front door loc | k assembly LH | Continuity | |
|-----------|----------|--------------------|---------------|------------|--|
| Connector | Terminal | Connector Terminal | | Continuity | |
| M84 | 31 | D9 | 3 | Yes | |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M84 | 31 | | No |

UNLOCK SENSOR

IWITH INTELLIGENT KEY SYSTEM1

| | [WITH INTELLIGENT KEY SYSTEM] | | |
|---------------------------------------------------------|----------------------------------------|------------------------|--|
| s the inspection result normal? | | | |
| YES >> Replace BCM. Refer to <u>BCS-78, "Removal ar</u> | nd Installation". | | |
| NO >> Repair or replace harness. | | | |
| 3. CHECK UNLOCK SENSOR GROUND CIRCUIT | | | |
| Check continuity between front door lock assembly LH ha | rness connector and gro | ound. | |
| | | | |
| Front door lock assembly LH | Front door lock assembly LH Continuity | | |
| Connector Terminal | Ground | | |
| D9 4 | | Yes | |
| s the inspection result normal? | | | |
| YES >> GO TO 4. | | | |
| NO >> Repair or replace harness. | | | |
| +.CHECK UNLOCK SENSOR | | | |
| Refer to DLK-103, "Component Inspection". | | | |
| s the inspection result normal? | | | |
| YES >> GO TO 5. | | | |
| NO >> Replace front door lock assembly LH. Refer | to DLK-174, "FRONT D | OOR LOCK : Removal and | |
| Installation". | | | |
| CHECK INTERMITTENT INCIDENT | | | |
| Refer to GI-41, "Intermittent Incident". | | | |
| | | | |
| >> Inspection End. | | | |
| Component Inspection | | | |
| | | INFOID:000000012783115 | |
| 1.CHECK UNLOCK SENSOR | | | |
| 1 Turn ignition switch OFF | | | |
| 2. Disconnect front door lock assembly LH connector. | | | |
| 3. Check continuity between front door lock assembly LI | H terminals. | | |
| Front door lock assembly LH | | | |
| | Condition | Continuity | |
| | | | |
| 3 4 Driver side doc | Unlock or | Yes | |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to DLK-174, "FRONT DOOR LOCK : Removal and Installation".

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KEY CYLINDER SWITCH

Description

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

Component Function Check

INFOID:000000012783117

INFOID:000000012783116

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to <u>DLK-36</u>, "DOOR LOCK : <u>CONSULT Function (BCM - DOOR LOCK)</u>".

| Monitor item | Co | ondition | |
|---------------|------------------|----------|--|
| KEY CYLLK SW | Lock | : ON | |
| REFORE LR-SW | Neutral / Unlock | : OFF | |
| KEY CYLLIN SW | Unlock | : ON | |
| KET CTE UN-SW | Neutral / Lock | : OFF | |

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>DLK-104, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000012783118

Regarding Wiring Diagram information, refer to <u>DLK-41, "Wiring Diagram"</u>.

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

| Terminals | | | | | |
|---------------|----------|--------|------------------|-------------|--|
| (+) | | () | Key position | (Approx.) | |
| BCM connector | Terminal | (-) | | , , , | |
| M84 | 8 | | Lock | 0 | |
| | G | Ground | Neutral / Unlock | 7.0 - 8.0 V | |
| | 7 | Ground | Unlock | 0 | |
| | 1 | | Neutral / Lock | 7.0 - 8.0 V | |

Is the inspection result normal?

YES >> Front door lock key cylinder switch LH is OK.

2. CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

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

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

Is the inspection result normal?

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| 1. Disconnect E | BCM connecto | r M84. | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------|
| 2. Check contir | nuity between | front door lock k | ey cylinde | er switch LH | I connector and BCM connector M84. | В |
| Front door lock key der switch LH conr | r cylin- nector | BCM connector | Terminal | Continuity | | С |
| D9 | 6 5 | – M84 | 8 7 | Yes | | D |
| 3. Check contir | uity between | front door lock k | ey cylinde | er switch LH | I connector and ground. | D |
| Front door lock key der switch LH conn | cylin- ector | nal | | Continuity | | Ε |
| D9 | 6 5 | Groun | d | No | | F |
| Is the inspection YES >> GO NO >> Repa | <u>result normal?</u> TO 4 air or replace h R KEY CYLIN | narness. DER SWITCH | | | | G |
| Check door key of Refer to DLK-108 | cylinder switch 5, "Componen | t Inspection". | | | | Η |
| Is the inspection | result normal? |) | | | | |
| YES >> Cheo NO >> Repl | ck intermittent ace front door | <u>.</u> incident. Refer t lock kev cvlinde | o <u>GI-41, "</u> r switch L | <u>'Intermitten</u> .H. | t Incident". | I |
| YES >> Chec NO >> Repl Component I | ck intermittent ace front door nspection | incident. Refer t lock key cylinde | o <u>GI-41, "</u> r switch L | ' <u>Intermitten</u> .H. | t Incident". | l J |
| YES >> Chec NO >> Repl Component II | ck intermittent ace front door nspection | incident. Refer t lock key cylinde | o <u>GI-41, "</u> r switch L | ' <u>Intermitten</u> .H. | <u>t Incident"</u> . INFOID:000000012783119 | J |
| YES $>>$ Chec NO $>>$ Repl Component II COMPONENT 1.CHECK DOO | result normality ace front door nspection INSPECTION R KEY CYLIN | incident. Refer t lock key cylinde J DER SWITCH | o <u>GI-41, "</u> er switch L | ' <u>Intermitten</u> .H. | <u>t Incident"</u> . INFOID:000000012783119 | J |
| YES >> Check front door | ck intermittent ace front door INSPECTION R KEY CYLIN lock key cyline | incident. Refer t lock key cylinde J DER SWITCH der switch LH. | o <u>GI-41, "</u> r switch L | <u>'Intermitten</u> .H. | <u>t Incident"</u> . INFOID:000000012783119 | J |
| YES >> Check NO >> Repl Component II COMPONENT 1.CHECK DOO Check front door | ck intermittent ace front door INSPECTION R KEY CYLIN lock key cyline | incident. Refer t lock key cylinde J DER SWITCH der switch LH. | o <u>GI-41, "</u> r switch L | <u>'Intermitten</u> .H. | <u>t Incident"</u> . INFOID:000000012783119 | |
| YES >> Check NO >> Repl Component In COMPONENT 1.CHECK DOO Check front door Check front door Termin Front door lock k switch LH co | A contract of the contract of | incident. Refer t lock key cylinde DER SWITCH der switch LH. | o <u>GI-41, "</u> r switch L | <u>'Intermitten</u> .H. Continuity | <u>t Incident"</u> . <i>INFOID:000000012783119</i> | I J DLH |
| YES >> Chec NO >> Repl Component II COMPONENT 1.CHECK DOO Check front door Check front door Front door lock k switch LH co | ck intermittent ace front door INSPECTION R KEY CYLIN lock key cyline al rey cylinder nnector | incident. Refer t lock key cylinde J DER SWITCH der switch LH. Key position | o <u>GI-41, "</u> | <u>'Intermitten</u> .H. Continuity Yes | <u>t Incident"</u> . INFOID:000000012783119 | I J DLł M |
| YES >> Chec NO >> Repl Component II COMPONENT 1.CHECK DOO Check front door Check front door Termin Front door lock k switch LH co | ck intermittent ace front door INSPECTION R KEY CYLIN lock key cyline al key cylinder nnector | incident. Refer t lock key cylinde N DER SWITCH der switch LH. Key position Lock Neutral / Unlock | o <u>GI-41, "</u> r switch L | <u>'Intermitten</u> .H. Continuity Yes No | <u>t Incident"</u> . INFOID:000000012783119 | I J DLł M |
| YES >> Check NO >> Repl Component II COMPONENT 1.CHECK DOO Check front door Check front door Front door lock k switch LH co | ck intermittent ace front door INSPECTION R KEY CYLIN lock key cyline al eey cylinder nnector | incident. Refer t lock key cylinde DER SWITCH der switch LH. Key position Lock Neutral / Unlock | o <u>GI-41, "</u> er switch L | Continuity Yes No Yes | <u>t Incident"</u> . INFOID:000000012783119 | I J DLł M N |

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

DOOR REQUEST SWITCH

Component Function Check

1.CHECK FUNCTION

1. Select INTELLIGENT KEY of CM using CONSULT.

2. Select REQ SW-DR, REQ SW-AS in DATA MONITOR mode.

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

| Monitor item | Condition | Status | |
|--------------|------------------------|----------|-----|
| | | | ON |
| | Door request switch En | Released | OFF |
| DEO SW AS | | Pressed | ON |
| REQ 3W -AS | Door request switch Kh | Released | OFF |

Is the inspection result normal?

YES >> Front door request switch is OK.

NO >> Refer to DLK-106, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783121

INFOID:000000012783120

Regarding Wiring Diagram information, refer to DLK-49. "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 | | | (-) | Voltage | |
|----------------------------------|------|----------|--------|-----------------|--|
| Connector Terminal | | Terminal | - | (Αρριολ.) | |
| Left side | D15 | 2 | Cround | Batteny voltage | |
| Right side | D115 | 1 | Ground | Ballery vollage | |

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 | | | BCM | | Continuity |
|---------------------------|--------|----------|-----------|----------|------------|
| Conr | nector | Terminal | Connector | Terminal | Continuity |
| Left side | D15 | 2 | Mea | 56 | Voc |
| Right side | D115 | 1 | IVIOS | 71 | 165 |

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

DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

| Front door request switch | | | | Continuity | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--|
| Connector | | Terminal | Ground | Continuity | |
| Left side | D15 | 2 | Clound | No | |
| Right side | D115 | 1 | | 110 | |
| <u>s the inspection result</u> YES >> Replace B NO >> Repair or I 3. CHECK DOOR RE | <u>: normal?</u> CM. Refer to <u>BCS</u> replace harness. QUEST SWITCH (| -78. "Removal and Inst GROUND CIRCUIT | <u>allation"</u> . | | |
| Check continuity betwe | een malfunctioning | front door request swi | tch harness conne | ctor and ground. | |
| | Front door request sv | vitch | | Continuity | |
| Con | nector | Terminal | Ground | Continuity | |
| Left side | D15 | 1 | Giouna | Vac | |
| Right side | D115 | 2 | | 100 | |
| YES >> GO TO 4. NO >> Repair or i | replace harness. QUEST SWITCH | | | | |
| YES >> GO TO 4. NO >> Repair or in CHECK DOOR REC Refer to <u>DLK-107, "Co</u> the inspection result YES >> GO TO 5. NO >> Replace m CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection | replace harness. QUEST SWITCH mponent Inspectio normal? nalfunctioning front TENT INCIDENT nittent Incident". | <u>n"</u> . door request switch. | | | |
| YES >> GO TO 4. NO >> Repair or in CHECK DOOR REC Refer to <u>DLK-107, "Co</u> s the inspection result YES >> GO TO 5. NO >> Replace m D.CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection | replace harness. QUEST SWITCH mponent Inspectio normal? halfunctioning front TENT INCIDENT hittent Incident". | <u>n"</u> . door request switch. | | WEOID-0000000122881 | |
| YES >> GO TO 4. NO >> Repair or i CHECK DOOR REC Refer to <u>DLK-107. "Co</u> the inspection result YES >> GO TO 5. NO >> Replace m CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection COMPONENT INSPE | replace harness. QUEST SWITCH <u>mponent Inspectio</u> <u>normal?</u> nalfunctioning front TENT INCIDENT <u>nittent Incident"</u> . End. ction | <u>n"</u> . door request switch. | | INFOID:0000000127831 | |
| YES >> GO TO 4. NO >> Repair or n CHECK DOOR REC Refer to <u>DLK-107, "Co</u> the inspection result YES >> GO TO 5. NO >> Replace m CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection COMPONENT INSPE .CHECK DOOR REC . Turn ignition switch Disconnect malfur Check continuity b | replace harness. QUEST SWITCH mponent Inspectio normal? halfunctioning front TENT INCIDENT hittent Incident". End. ction QUEST SWITCH h OFF. notioning front door between malfunctio | n". door request switch. request switch connect | tor. switch terminals. | INFOID:0000000127831 | |
| YES >> GO TO 4. NO >> Repair or n CHECK DOOR REC Refer to <u>DLK-107. "Co</u> the inspection result YES >> GO TO 5. NO >> Replace m CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection COMPONENT Inspection COMPONENT Inspection CHECK DOOR REC . Turn ignition switc Disconnect malfur S. Check continuity b | replace harness. QUEST SWITCH mponent Inspection normal? halfunctioning front TENT INCIDENT hittent Incident". End. ction QUEST SWITCH h OFF. notioning front door between malfunctio | n". door request switch. request switch connect ning front door request | tor. switch terminals. | INFOID:0000000127831 | |
| YES >> GO TO 4. NO >> Repair or n CHECK DOOR REC Refer to <u>DLK-107, "Co</u> is the inspection result YES >> GO TO 5. NO >> Replace m D.CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection COMPONENT I | replace harness. QUEST SWITCH mponent Inspectio normal? halfunctioning front TENT INCIDENT hittent Incident". End. ction QUEST SWITCH h OFF. h OFF. h OFF. h off. h off. h off. h off. | n". door request switch. request switch connect ning front door request | tor. switch terminals. | INFOID:0000000127831 | |
| YES >> GO TO 4. NO >> Repair or in CHECK DOOR REG Refer to <u>DLK-107, "Co</u> s the inspection result YES >> GO TO 5. NO >> Replace m D.CHECK INTERMIT Refer to <u>GI-41, "Interm</u> >> Inspection COMPONENT INSPE .CHECK DOOR REG . Turn ignition switc Disconnect malfur Check continuity b Front door in Ter | replace harness. QUEST SWITCH mponent Inspectio normal? halfunctioning front TENT INCIDENT hittent Incident". End. ction QUEST SWITCH h OFF. hotfoning front door between malfunctio | n". door request switch. request switch connec ning front door request Co Door request switch | etor. switch terminals. | INFOID:0000000127831 | |

YES >> Inspection ⊨nd. NO >> Replace malfunctioning front door request switch.

Revision: December 2015

DOOR SWITCH

Component Function Check

INFOID:000000012783123

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK FUNCTION

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

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

Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-108</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783124

Regarding Wiring Diagram information, refer to DLK-49. "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) | |
| Connector | | Terminal | | (| |
| Front door switch LH | B21 | 3 | | (V) 15 | |
| Front door switch RH | B28 | 3 | Ground | | |
| Rear door switch LH | B26 | 3 | | → ← 10ms | |
| Rear door switch RH | B41 | 3 | | 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 | | | BCM | | Continuity | Α | |
|----------|-----------------------------|---------------------------------------------|----------------------------------------|----------------|---------|------------|-----------------------|-----|
| - | Conn | ector | Terminal | Connect | or | Terminal | Continuity | |
| - | Front door switch LH | B21 | | | | 98 | | В |
| | Front door switch RH | B28 | 3 | B24 | | 100 | Ves | |
| | Rear door switch LH | B26 | | 524 | | 97 | 105 | С |
| | Rear door switch RH | B41 | | | | 99 | | D |
| 3. | Check continuity | / between door s | witch harness cor | nector and | groun | d. | | |
| - | Door switch | | ch | | | | Continuity | E |
| - | C | Connector | Terr | ninal | | | , | |
| - | Front door switch LH | B21 | | | | Ground | | F |
| - | Front door switch RF | 1 B28 | | 3 | | | No | |
| - | Rear door switch PH | B20 | | | | | | |
| le i | the inspection res | ult normal? | | | | | | G |
| Y N | ES >> Replace | BCM. Refer to <u>F</u> or replace harnes | <u>3CS-78, "Remova</u> i s . | l and Installa | ation". | | | Н |
| 3. | CHECK DOOR S | WITCH | | | | | | |
| Re | fer to <u>DLK-109, "(</u> | Component Inspe | ection". | | | | | - |
| ls ' | the inspection res | ult normal? | | | | | | I |
| Y | ES >> GO TO | 4. | | | | | | |
| л Л | | | door switch. | | | | | J |
| 4. | | | NI | | | | | - |
| Re | efer to <u>GI-41, "Inte</u> | rmittent Incident | | | | | | DLł |
| | >> Inspecti | on End | | | | | | |
| <u> </u> | | | | | | | | |
| | Smponent insp | Dection | | | | | INFOID:00000001278312 | 5 |
| 1. | CHECK DOOR S | WITCH | | | | | | |
| 1. | Turn ignition swi | itch OFF. | | | | | | M |
| 2. | Disconnect malf | unctioning door | switch connector. | | | | | |
| 3. | Check continuity | / between door s | witch terminals. | | | | | NI |
| • | | Door switch | | | | | | IN |
| - | | Terminal | | | Cond | dition | Continuity | |
| - | Front door switch | | | | | Pressed | No | 0 |
| | LH | | | | + | Released | Yes | |
| - | Front door switch | | | | + | Pressed | No | D |
| | RH | 2 | Ground part of door | Door ouit | tch | Released | Yes | Г |
| - | Rear door switch | 3 | switch | DOOL SMI | ICH - | Pressed | No | |
| | LH | | | | İ | Released | Yes | |
| - | Rear door switch | loor switch | | | ļ | Pressed | No | |
| | RH | | | | ļ | Released | Yes | |

Is the inspection result normal?

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< DTC/CIRCUIT DIAGNOSIS >

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

| HAZARD FUNCTION | ٨ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Component Function Check | A |
| 1.CHECK FUNCTION | В |
| Select INTELLIGENT KEY of BCM using CONSULT. Select FLASHER in ACTIVE TEST mode. 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-111, "Diagnosis Procedure"</u> . | D |
| Diagnosis Procedure | |
| 1. CHECK HAZARD SWITCH CIRCUIT | Ε |
| Refer to EXL-113. "Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace barness | F |
| 2. CHECK INTERMITTENT INCIDENT | G |
| Refer to GI-41, "Intermittent Incident". | |
| >> Inspection End. | Н |
| | I |

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< DTC/CIRCUIT DIAGNOSIS >

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-112</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000013399311

INFOID:000000013399310

Regarding Wiring Diagram information, refer to DLK-49, "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 v |) varning buzzer | () | Voltage (Approx.) | |
|-------------------------|---------------------|--------|----------------------|--|
| Connector Terminal | | | (| |
| 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 | Connector Terminal | | Terminal | Continuity |
| M83 | 78 | E70 | 3 | Yes |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M83 | 78 | | 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-113, "Component Inspection". А Is the inspection result normal? YES >> Replace BCM. Refer to BCS-78, "Removal and Installation". NO >> Replace Intelligent Key warning buzzer. Refer to DLK-192, "Removal and Installation". В Component Inspection INFOID:000000013399312 1. CHECK INTELLIGENT KEY WARNING BUZZER Turn ignition switch OFF. 1. 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 Ε Terminal Operation (+) (-) 1 3 Buzzer sounds F Is the inspection result normal? YES >> Inspection End. NO >> Replace Intelligent Key warning buzzer. Refer to DLK-192, "Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

INTELLIGENT KEY

Component Function Check

NOTE:

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

- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.

1.CHECK FUNCTION

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

| Monitor item | Condition |
|---------------|------------------------------------------------------------------------------------|
| 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-114</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-194</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:000000012783128

INFOID:000000012783129

KEY WARNING LAMP А **Component Function Check** INFOID:000000012783130 **1.**CHECK FUNCTION В 1. Select INTELLIGENT KEY of BCM using CONSULT. 2. Select INDICATOR in ACTIVE TEST mode. 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-115, "Diagnosis Procedure". D **Diagnosis** Procedure INFOID:000000012783131 Ε 1.CHECK KEY WARNING LAMP Refer to DLK-30, "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-41, "Intermittent Incident". Н >> Inspection End.

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< DTC/CIRCUIT DIAGNOSIS >

< 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 mode.
- 3. Check that the function operates normally according to the following conditions.

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

Is the inspection result normal?

- YES >> Remote keyless entry receiver is OK.
- NO >> Refer to <u>DLK-116</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783133

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

| (+) BCM | | (-) | Condition | | Signal (Reference value) |
|------------|----------|--------|-------------------|------------|-----------------------------|
| Connector | Terminal | | | | (|
| M94 | 20 | Cround | Push-button igni- | OFF or ACC | 0 V |
| 1/104 | 30 | Giouna | tion switch | ON | Battery voltage |

Is the inspection result normal?

```
YES >> Replace BCM. Refer to <u>BCS-78, "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 | Connector Terminal | | Terminal | Continuity |
| M84 | 38 | M91 | 2 | Yes |

3. Check continuity between BCM harness connector and ground.

| (B(| +) CM | (-) | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M84 | 38 | Ground | No |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

INFOID:000000012783132

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

| | | | | A |
|--------------------|-------------------|--------|--------------------|---|
| | (+) | | | |
| Remote keyles | ss entry receiver | (-) | Voltage Approx. | |
| Connector Terminal | | | | В |
| M91 | 1 | Ground | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 4.

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

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

4.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

| | | | | E |
|-------------|--------------------|--------|------------|---|
| Remote keyl | ess entry receiver | | Continuity | |
| Connector | Terminal | Ground | Continuity | |
| M91 | 4 | | Yes | F |

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-193, "Removal and Installation"</u>.

NO >> Repair or replace harness.

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SHIFT P WARNING LAMP

Component Function Check

1.CHECK FUNCTION

- 1. Select INTELLIGENT KEY of BCM using CONSULT.
- 2. Select LCD in ACTIVE TEST mode.
- 3. Touch SET P to check that it works normally.

Is the inspection result normal?

- YES >> Shift P warning lamp is OK.
- NO >> Refer to <u>DLK-118</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK SHIFT P WARNING LAMP

Refer to TM-244, "Component Parts Function Inspection".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

INFOID:000000012783134

INFOID:000000012783135

| RUNK LID OPEN | NER A | CTUATOR | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| component Functio | n Chec | ж | | | INFOID:00000001278313 |
| | | | | | |
| Select INTELLIGENT Select TRUNK/GLAS Touch OPEN to checl | KEY of B S HATCH | CM using CONS I in ACTIVE TES orks normally. | ULT. 「mode. | | |
| the inspection result no YES >> Trunk lid oper NO >> Refer to DLK | <u>rmal?</u> ner actuat -119 "Dia | or is OK. | ," | | |
|)iagnosis Procedur | <u></u> | ghoolo r roocdure | <u>.</u> . | | |
| | 6 | | | | INFOID:00000001278313 |
| egarding Wiring Diagran | n informat | tion, refer to <u>DLK-</u> NPUT SIGNAL | 63, "Wiring Dia | agram". | |
| |)FF. | | | | |
| Turn ignition switch C Disconnect trunk lid o Check voltage betwee | opener ass en trunk lie | sembly connector d opener assemb | ly harness con | nector and gro | und. |
| Turn ignition switch C Disconnect trunk lid o Check voltage betwee (+) | opener ass en trunk lie | sembly connector d opener assemb | iy harness con | nector and gro | und. |
| . Turn ignition switch C Disconnect trunk lid o Check voltage betwee (+) Trunk lid opener asser | opener ass en trunk lie mbly | sembly connector d opener assemb | Iy harness con | dition | und. Voltage (Approx.) |
| . Turn ignition switch C . Disconnect trunk lid c . Check voltage betwee (+) Trunk lid opener asser Connector Ter | mbly | (-) | Iy harness con Con | dition | Voltage (Approx.) |
| . Turn ignition switch C Disconnect trunk lid c Check voltage betwee (+) Trunk lid opener asser Connector Ter B59 the inspection result no | mbly minal 3 rmal? | sembly connector d opener assemb (–) Ground | Iy harness con Con | dition | und. Voltage (Approx.) Battery voltage |
| . Furn ignition switch C Disconnect trunk lid c Check voltage betwee (+) Trunk lid opener asser Connector Ter B59 s the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM cont Check continuity betw | opener ass en trunk liv mbly minal 3 rmal? PENER A nector. veen BCM | sembly connector d opener assemt (–) Ground | Iy harness con Con Trunk lid open UIT | dition | voltage (Approx.) Battery voltage |
| . Turn ignition switch C Disconnect trunk lid c Check voltage betwee (+) Trunk lid opener asser Connector Ter B59 the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM cont Check continuity betw | opener ass en trunk liv mbly minal 3 rmal? PENER A nector. veen BCM | (-) Ground | Iy harness con Con Trunk lid open UIT | d opener assembly | voltage (Approx.) Battery voltage |
| . Turn ignition switch C . Disconnect trunk lid c . Check voltage between (+) Trunk lid opener assen Connector Ter B59 . the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. . CHECK TRUNK LID O . Disconnect BCM cont . Check continuity betw BCM Connector | opener ass en trunk liv mbly minal 3 vrmal? PENER A nector. veen BCM | (-) Ground | Iy harness con Con Trunk lid opend UIT tor and trunk lid Trunk lid opene | d opener assen d opener assen r assembly | und. Voltage (Approx.) Battery voltage nbly harness connector. Continuity |
| Turn ignition switch C Disconnect trunk lid c Check voltage betweet (+) Trunk lid opener asset Connector Ter B59 the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM continuity betweet BCM Connector B24 | ppener ass en trunk liv mbly minal 3 vrmal? PENER A nector. veen BCM | sembly connector d opener assemt (–) Ground ACTUATOR CIRC 1 harness connec | UIT | dition dition er switch is ON d opener assen er assembly Terminal 3 | und. Voltage (Approx.) Battery voltage nbly harness connector. Continuity Yes |
| Turn ignition switch C Disconnect trunk lid c Check voltage betweet (+) Trunk lid opener asset Connector Ter B59 Sthe inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM control Check continuity betweet BCM Connector B24 Check continuity betweet | PPENER A nector. veen BCM | (-) Ground ACTUATOR CIRC I harness connec | Iy harness con Con Trunk lid opend UIT tor and trunk lid Trunk lid opend onnector B59 tor and ground | d opener assen r assembly Terminal 3 | und. Voltage (Approx.) Battery voltage nbly harness connector. Continuity Yes |
| Turn ignition switch C Disconnect trunk lid c Check voltage betweet (+) Trunk lid opener asset Connector Ter B59 s the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM control Check continuity betweet BCM Connector B24 Check continuity betweet | opener ass en trunk liv mbly minal 3 vrmal? PENER A nector. veen BCM Termin 107 veen BCM | sembly connector d opener assemt (–) Ground ACTUATOR CIRC 1 harness connec | Iy harness con Con Trunk lid opend Con UIT tor and trunk lid Trunk lid opend onnector B59 tor and ground | dition dition er switch is ON er assembly Terminal 3 | und. Voltage (Approx.) Battery voltage nbly harness connector. Continuity Yes |
| Turn ignition switch C Disconnect trunk lid c Check voltage betweet (+) Trunk lid opener asset Connector Ter B59 a the inspection result no YES >> GO TO 3. NO >> GO TO 3. NO >> GO TO 2. CHECK TRUNK LID O Disconnect BCM control Check continuity betweet BCM Connector B24 Check continuity betweet Connector | opener ass en trunk liv mbly minal 3 ormal? OPENER A nector. veen BCM Termin 107 veen BCM | sembly connector d opener assemt (-) Ground ACTUATOR CIRC 1 harness connec nal 7 1 harness connec Terminal | IV harness con Con Trunk lid opend Con UIT Trunk lid opend Trunk lid opend Tru | d opener assembly Terminal 3 | und. Voltage (Approx.) Battery voltage nbly harness connector. Continuity Yes Continuity |

TRUNK LID OPENER ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

| Trunk lid ope | ner assembly | | Continuity |
|---------------|--------------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| B59 | 2 | | Yes |
| | | | |

Is the inspection normal?

YES >> Replace trunk lid opener assembly.

NO >> Repair or replace harness.

TRUNK LID OPENER SWITCH

Component Function Check

1.CHECK FUNCTION

- 1. Select TRUNK of BCM using CONSULT.
- 2. Select TR/BD OPEN SW in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

| Monitor item | C | condition | Status | |
|----------------------------|-------------------------|-----------|--------|---|
| | Trunk lid opopor owitch | Pressed | On | |
| TR/DD OPEN SW | Trunk lid opener switch | Released | Off | |
| is the inspection result r | normal? | | | |
| YES >> Trunk lid op | ener switch is OK. | | | l |

NO >> Refer to <u>DLK-121</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-63, "Wiring Diagram".

1. CHECK TRUNK LID OPENER INPUT SIGNAL

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

| (- | -) | | |
|--------------|-------------|--------|------------------------------------------------------|
| Trunk lid op | ener switch | () | Signal (Reference value) |
| Connector | Terminal | - | |
| M15 | 1 | Ground | (V) 15 10 5 0 10 ms JPMIA0012GB |

Is the inspection result normal?

YES >> GO TO 3.

2. CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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

| B | СМ | Trunk lid opener switch | | Continuity | |
|-----------|----------|-------------------------|----------|------------|--|
| Connector | Terminal | Connector | Terminal | Continuity | |
| M84 | 30 | M15 | 1 | Yes | |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M84 | 30 | | No |

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TRUNK LID OPENER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER SWITCH GROUND CIRCUIT

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

| Trunk lid oper | ner switch | | Continuity |
|----------------------------------|------------------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M15 | 2 | _ | Yes |
| Is the inspection result normal | ? | | |
| YES >> GO TO 4. | | | |
| NO >> Repair or replace | harness. | | |
| 4. CHECK TRUNK LID OPEN | IER SWITCH | | |
| Refer to DLK-122, "Componer | t Inspection". | | |
| Is the inspection result normal | <u>?</u> | | |
| YES >> GO TO 5. | | | |
| NO >> Replace trunk lid of | opener switch. | | |
| 5. CHECK INTERMITTENT II | NCIDENT | | |
| Refer to GI-41, "Intermittent In | <u>cident"</u> . | | |
| | | | |
| >> Inspection End. | | | |

Component Inspection

1. CHECK TRUNK LID OPENER SWITCH

1. Turn ignition switch OFF.

- 2. Disconnect trunk lid opener switch connector.
- 3. Check continuity between trunk lid opener switch terminals.

| Trunk lid opener switch | | Condition | | Continuity | |
|-------------------------|-------|--------------------------|---------|------------|--|
| Terr | minal | Condition | | Continuity | |
| 1 | 2 | Trunk lid opopor, switch | Pressed | Yes | |
| I | 2 | Turk in opener switch | Release | No | |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace trunk lid opener switch.

INFOID:000000012783140

TRUNK LAMP SWITCH

IWITH INTELLIGENT KEY SYSTEM1

| ndition : ON : OFF | NFOID:000000012783141 |
|----------------------------------------------------|------------------------|
| IA IA IA IA IA IA IA IA IA | NFOID:000000012783141 |
| ndition : ON : OFF | NFCID:000000012783142 |
| ndition : ON : OFF | NFOID:000000012783142 |
| ndition : ON : OFF | NFOID:000000012783143 |
| ndition : ON : OFF | NFOID:000000012783143 |
| ndition : ON : OFF | NFCID:000000012783143 |
| : ON : OFF | NFOID:0000000012783143 |
| : OFF | NFCID:0000000012783143 |
| ΙΛ | NFOID:0000000012783143 |
| ιΛ | NFOID:000000012783143 |
| | |
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| | |
| _ t | bly connector. |

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

3. Check continuity between BCM connector and ground.

TRUNK LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|---------|------------|
| B24 | 103 | Crodina | No |

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and trunk lid opener assembly.

3. CHECK TRUNK LID SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener assembly connector and ground.

| Trunk lid opener as- sembly connector | Terminal | Ground | Continuity |
|------------------------------------------|----------|--------|------------|
| B59 | 2 | | Yes |

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace trunk lid opener assembly ground circuit.

4.CHECK BCM OUTPUT SIGNAL

1. Ensure trunk lid remains closed during this step.

2. Connect BCM connector.

3. Check voltage between BCM connector and ground.

| Terminals | | | | |
|---------------|----------|--------|-----------------------------------------------------|--|
| (+ | +) | | Voltage (V) | |
| BCM connector | Terminal | (-) | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| B24 | 103 | Ground | (V) 15 0 + 10ms PKIB4960J 7.0 - 8.0V | |

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.

5.CHECK TRUNK LID SWITCH

Refer to DLK-124, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace trunk lid opener assembly.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK TRUNK LID SWITCH

1. Turn ignition switch OFF.

2. Disconnect trunk lid opener assembly connector.

3. Check trunk lid switch.

INFOID:000000012783144

TRUNK LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Terminal | | Trunk condition | Continuity |
|------------------|---|-----------------|------------|
| Trunk lid switch | | | |
| 1 | 2 | OPEN | Yes |
| I | 2 | CLOSE | No |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace trunk lid opener assembly.

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SYMPTOM DIAGNOSIS INTELLIGENT KEY SYSTEM SYMPTOMS

Diagnosis Procedure

INFOID:000000013372757

NOTE:

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

SYMPTOM TABLE 1 (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| No. | Door lock operation (remote keyless en- try) | Door lock operation (request switch) or trunk open operation (opener switch) | Engine started with push-button ignition switch operation (reg- istered Intelligent Key is within the detection area of inside key an- tenna) | Engine started with push-button ignition switch operation (reg- istered Intelligent Key placed next to push- button ignition switch) | Symptom |
|-----|----------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1 | OK | OK | No start | No start | <u>SEC-134</u> |
| 2 | OK | NG | OK | OK | DLK-127 |
| 3 | OK | NG | No crank, No start | OK | DLK-129 |
| 4 | NG | NG | No crank, No start | OK | DLK-131 |
| 5 | NG | NG | No start | No start | DLK-132 |
| 6 | OK | OK | No crank, No start | OK | <u>SEC-135</u> |
| 7 | NG | OK | OK | OK | DLK-134 |
| 8 | NG | NG | OK | OK | DLK-135 |
| 9 | Poor range | OK | OK | OK | DLK-136 |

SYMPTOM TABLE 2 (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NORMALLY)

| No. | Door lock operation (remote keyless en- try) | Door lock operation (request switch) or trunk open operation (opener switch) | Engine started with push-button ignition switch operation (In- telligent Key is within the detection area of inside key antenna) | Engine started with push-button ignition switch operation (reg- istered Intelligent Key placed next to push- button ignition switch) | Symptom |
|-----|----------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1 | NG | OK | OK | OK | <u>DLK-138</u> |
| 2 | NG | NG | No crank, No start | OK | DLK-139 |
| 3 | NG | NG | No crank, No start | No crank, No start | <u>DLK-141</u> |
| 4 | OK | OK | No crank, No start | No crank, No start | <u>SEC-137</u> |
| 5 | OK | NG | No crank, No start | OK | <u>SEC-138</u> |
| 6 | Poor range | OK | OK | OK | <u>DLK-143</u> |

ALL DOORS DO NOT LOCK/UNLOCK OR TRUNK/BACK DOOR DO NOT OPEN WITH REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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INFOID:000000013372758

ALL DOORS DO NOT LOCK/UNLOCK OR TRUNK/BACK DOOR DO NOT OPEN WITH REQUEST SWITCH

Description

All doors do not lock/unlock using front door request switch or trunk lid does not open using trunk lid opener request switch.

NOTE:

Before starting diagnosis check that vehicle condition is as shown in "Conditions of vehicle", and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| Door lock o key | operation (remote less entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| | OK | NG | ОК | ОК |
| CONDITION • "LOCK/UNI • Registered | IS OF VEHICI LOCK BY I-KEY Intelligent Key | E (OPERATING COND (" setting in "Work support" is within the detection area | ITIONS) ' mode of "INTELLIGENT I a of outside key antenna. | KEY" of "BCM" is ON. |
| DIAGNOSIS | | E Des se shurs " | | |
| Refer to <u>DLK</u> | -127, "Diagnosi | <u>s Procedure"</u> . | | |
| Diagnosis | Procedure | | | INFOID:000000013372759 |
| 1.CHECK IN | NTELLIGENT K | EY SYSTEM SYMPTOM 1 | TABLE | |
| Check Intellic | ent Key systen | n symptom table. | | |
| Refer to DLK | -126, "Diagnos | s Procedure" | | |
| | | | | |
|) << 1 | 30 10 2. | | | |
| | M SELF-DIAGN | | | |
| Select "Self E | Diagnostic Resu | ilt" mode of "BCM", and ch | eck if DTC is detected. | |
| | <u>Red :</u> Perform the trou | ible diagnosis for detected | DTC | |
| NO >> (| GO TO 3. | | DTC. | |
| 3. СНЕСК О | UTSIDE KEY A | NTENNA | | |
| Use SIGNAL | TECH II to che | ck each outside key anten | na. For the inspection met | hod and how to use SIGNAL |
| TECH II, refe | r to "NISSAN/II | NFINITI SIGNAL TECH II U | JSER GUIDE". | |
| Is the inspect | tion result norm | <u>al?</u> | | |
| YES >>(NO >>(| GO TO 4. GO TO 5. | | | |
| 4.CHECK IN | NTELLIGENT K | EY OUTPUT SIGNAL | | |
| Use SIGNAL | TECH II to che | eck Intelligent Kev outside | signal. For the inspection r | method and how to use SIG- |
| NAL TECH II | , refer to "NISS | AN/INFINITI SIGNAL TEC | H II USER GUIDE". | |
| Is the inspect | tion result norm | <u>al?</u> | | |
| YES >> (NO >> F | GO TO 6. Replace the ma and Installation" ger side) and <u>DI</u> | lfunctioning outside key a (Drive side), <u>DLK-190, "P4</u> _K-190, "REAR BUMPER : | ntenna. Refer to <u>DLK-190</u> ASSENGER SIDE : Remov Removal and Installation |), "DRIVER SIDE : Removal val and Installation" (Passen- (Rear bumper). |
| 5.CHECK D | OOR REQUES | ST SWTICH | | |

ALL DOORS DO NOT LOCK/UNLOCK OR TRUNK/BACK DOOR DO NOT OPEN WITH REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check each door request switch.

• Front door: Refer to DLK-106, "Component Function Check".

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Repair or replace the malfunctioning parts. Refer to <u>DLK-168, "FRONT DOOR HANDLE :</u> <u>Removal and Installation - Outside Handle"</u>.

6.REPLACE BCM

- 1. Replace BCM. Refer to BCS-78, "Removal and Installation".
- 2. Check operation after replacement.

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/ PUSH SW) (ALL KEYS)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/PUSH SW) (ALL KEYS)

Description

INFOID:000000013372760

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All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key. **NOTE:**

Before starting diagnosis check that vehicle condition is as shown in "Conditions of vehicle", and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| _ | Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) | E |
|-------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| - | OK | NG | No crank, No start | ОК | F |
| CC • " • " | NDITIONS OF VEHICI LOCK/UNLOCK BY I-KEY ENGINE START BY I-KEY | LE (OPERATING COND Y" setting in "Work support Y" setting in "Work support | ITIONS) " mode of "INTELLIGENT I " mode of "INTELLIGENT | KEY" of "BCM" is ON. KEY" of "BCM" is ON. | G |
| DI/ Re | AGNOSIS PROCEDUR fer to <u>DLK-129, "Diagnos</u> i | E is Procedure". | | | Н |
| Di | agnosis Procedure | | | INFOID:000000013372761 | |
| 1. | CHECK INTELLIGENT K | EY SYSTEM SYMPTOM | TABLE | | I |
| Ch Re | eck Intelligent Key systen fer to <u>DLK-126, "Diagnosi</u> | n symptom table. is Procedure". | | | J |
| _ | >> GO TO 2. | | | | |
| 2. | CHECK OUTSIDE KEY A | ANTENNA AND INSIDE KI | EY ANTENNA | | DLK |
| Us | e SIGNAL TECH II to che | eck each outside key anter | nna and inside key antenna | a. For the inspection method | |
| and Is f | he inspection result norm | CH II, refer to INISSAN/INI al? | FINITI SIGNAL TECH II US | SER GUIDE . | L |
| <u>10 (</u> | ES >> GO TO 3. | | | | |
| N | O >> Repair or replac | e the malfunctioning parts | | | M |
| 3. | REGISTER INTELLIGEN | IT KEY | | | |
| 1. | Register the Intelligent k | Key again. | | | |
| z. Is f | he inspection result norm | al? | | | Ν |
| Y | ES >> Inspection End. | <u></u> | | | |
| N | 0 >> GO TO 4. | | | | 0 |
| 4. | REPLACE INTELLIGENT | Γ KEY | | | |
| 1. 2. | Replace the Intelligent k Check operation after re | Key and perform registratio eplacement. | n again. | | Ρ |
| <u>ls t</u> | he inspection result norm | al? | | | |
| Y N | ES >> Inspection End. O >> O TO 5 | | | | |
| 5. | REPLACE BCM | | | | |
| 4 | Deplace DOM Defer to | | telletien" | | |

Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (REQ SW/ PUSH SW) (ALL KEYS)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ALL I-KEY/REQ SW/PUSH SW)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ALL I-KEY/REQ SW/PUSH SW)

Description

INFOID:000000013372762

А

В

С

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, Intelligent Key, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| _ | Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|-------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| | NG | NG | No crank, No start | OK |
| | NDITIONS OF VEHICI | | | |
| EN | GINE START BY I-KEY | setting in "work support" i | mode of INTELLIGENT K | EY OF BUM IS UN. |
| DIA Rof | GNOSIS PROCEDUR | E s Procedure" | | |
| | anocie Procoduro | <u>stroccure</u> . | | |
| Dia | | | | INFOID:000000013372763 |
| 1.0 | CHECK INTELLIGENT K | EY SYSTEM SYMPTOM 1 | ſABLE | |
| Che | eck Intelligent Key systen | n symptom table. | | |
| Ref | er to <u>DLK-126, "Diagnosi</u> | <u>s Procedure"</u> . | | |
| | >> GO TO 2 | | | |
| 2 🖬 | PERFORM SELE-DIAGN | OSIS RESULT | | |
| Sele | ect "Self Diagnostic Resu | It" mode of "BCM" and ch | eck if DTC "B26FF" is dete | acted |
| Is D | TC "B26FF" detected? | | | |
| YE | S >> Perform the trou | ble diagnosis for detected | DTC. | |
| NC 2 |) >> GO TO 3. | | | |
| 3 .0 | CHECK INTELLIGENT K | EY BATTERY | | |
| Che | eck Intelligent Key battery | /. ent Eurotion Check" | | |
| Is th | ne inspection result norm | al? | | |
| YE | S >> GO TO 4. | | | |
| NC | >> Repair or replac | e the malfunctioning parts. | Refer to <u>DLK-194, "Remo</u> | oval and Installation". |
| 4.0 | CHECK REMOTE KEYLE | ESS ENTRY RECEIVER | | |
| Che | eck remote keyless entry | receiver. | | |
| | er to <u>DLK-116, "Diagnosi</u> a inspection result porm | <u>s Procedure"</u> . al2 | | |
| <u>יס ו</u> אר | = 1000000000000000000000000000000000000 | <u>aı:</u> | | |
| | >> Repair or replac | e the malfunctioning parts. | Refer to <u>DLK-193, "Remo</u> | val and Installation". |
| 5.F | REPLACE BCM | | | |
| 1. | Replace BCM. Refer to | BCS-78, "Removal and Ins | stallation". | |
| 2. | Check operation after re | placement. | | |
| <u>Is th</u> | ne inspection result norm | al? | | |
| YE | :> >> Inspection End. >> Check intermitted | nt incident Defer to CL 11 | "Intermittent Incident" | |

DLK-131

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ALL KEYS) < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ALL KEYS)

Description

INFOID:000000013372764

INFOID-000000013372765

Intelligent Key system all functions cannot operate (door lock and engine start).

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|--------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NG | NG | No start | No start |

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

"ENGINE START BY I-KEY" setting in "Work support" mode of "INTELLIGENT KEY" of "BCM" is ON.

DIAGNOSIS PROCEDURE

Refer to <u>DLK-132</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table. Refer to <u>DLK-126, "Diagnosis Procedure"</u>.

>> GO TO 2.

2. CHECK INTELLIGENT KEY-1

For both Intelligent Key that cannot be used for door lock and unlock, check that the Intelligent Key belongs to the vehicle to be checked.

• Check if the Intelligent Key that is checked is the Intelligent Key for a different NISSAN/INFINITI vehicle that the user owns.

Check that the Intelligent Key buttons match the vehicle specifications.

Does the Intelligent Key belong to the vehicle to be checked?

YES >> GO TO 3.

NO >> Check Intelligent Key button operation using a registered Intelligent Key that belongs to the vehicle.

3.CHECK INTELLIGENT KEY-2

Check the inside of the both Intelligent Keys for rust or corrosion by water. Simultaneously check the internal circuits for damage.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace Intelligent Key.

4.REGISTER INTELLIGENT KEY

- 1. Register the Intelligent Key again.
- 2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 5.

5.REPLACE INTELLIGENT KEY

1. Replace the Intelligent Key and perform registration again.

2. Check operation after replacement.

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ALL KEYS)

| < SYMPTOM DIAGNOSIS > |
|-----------------------|
|-----------------------|

[WITH INTELLIGENT KEY SYSTEM]

| Is the inspection result normal? | |
|-------------------------------------------------------------------------------------|---|
| YES >> Inspection End. | A |
| NO >> GO TO 6. | |
| 6 .REPLACE BCM | D |
| 1. Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u> . | D |
| 2. Check the operation after replacement. | |
| Is the inspection result normal? | C |
| YES >> Inspection End | 0 |
| NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . | |
| | D |
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COOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Description

INFOID:000000013372766

INFOID:000000013372767

All doors do not lock/unlock using Intelligent Key button.

NOTE:

Before starting diagnosis check that vehicle condition is as shown in "Conditions of vehicle", and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|--------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NG | OK | ОК | ОК |

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

Registered Intelligent Key is within the detection area of remote keyless entry receiver.

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

Diagnosis Procedure

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table. Refer to <u>DLK-126, "Diagnosis Procedure"</u>.

>> GO TO 2.

2.CHECK INTELLIGENT KEY OUTPUT SIGNAL

Use SIGNAL TECH II to check Intelligent Key output signal. For the inspection method and how to use SIG-NAL TECH II, refer to "NISSAN/INFINITI SIGNAL TECH II USER GUIDE".

Is the inspection result normal?

- YES >> Replace BCM. Refer to <u>BCS-78, "Removal and Installation"</u>.
- NO >> Replace Intelligent Key.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH AND IN-TELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH AND INTELLIGENT KEY

Description

INFOID:000000013372768

А

В

С

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch or Intelligent Key button.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| _ | Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) | D |
|---------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| | NG | NG | ОК | OK | |
| DIA Ref | GNOSIS PROCEDUR er to <u>DLK-135. "Diagnosi</u> | E is Procedure". | | | F |
| Dia | ignosis Procedure | | | INFOID:000000013372769 | |
| 1.0 | CHECK INTELLIGENT K | EY SYSTEM SYMPTOM | TABLE | | G |
| Che Ref | eck Intelligent Key systen er to <u>DLK-126, "Diagnosi</u> | n symptom table. <u>s Procedure"</u> . | | | Н |
| 2.0 | >> GO TO 2. CHECK POWER DOOR | LOCK OPERATION | | | I |
| Che | eck door lock/unlock using | g door lock and unlock swi | itch. | | |
| Doe | es door lock/unlock using | door lock and unlock swite | ch? | | J |
| YE | S >> GO TO 3. | | | | |
| ло 3.г | D >> Refer to [DOOR REPLACE BCM | DOES NOT LOCK/UNLO | CK WITH DOOR LOCK AI | ND UNLOCK SWITCHJ. | DLK |
| 1. | Replace BCM. Refer to | BCS-78, "Removal and Ins | stallation". | | |
| 2. <u>Is t</u> ł | Check operation after re the inspection result norm | placement. <u>al?</u> | | | L |
| YE | S >> Inspection End. | | | | |
| N | > >> Check intermitte | ent incident. Refer to <u>GI-41</u> | <u>, "Intermittent Incident"</u> . | | Μ |
| | | | | | |
| | | | | | Ν |
| | | | | | |
| | | | | | 0 |

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INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ALL KEYS) < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ALL KEYS)

Description

INFOID:000000013372770

Intelligent Key button operation has poor range.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key is within the detection area of in- side key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|--------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Poor range | OK | ОК | ОК |

DIAGNOSIS PROCEDURE Refer to <u>DLK-136, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000013372771

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table. Refer to <u>DLK-126, "Diagnosis Procedure"</u>.

>> GO TO 2.

2. CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning operates.

Is the Intelligent Key low battery warning operated?

YES >> GO TO 3.

NO >> Replace Intelligent Key battery. Refer to <u>DLK-194, "Removal and Installation"</u>.

3.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery.

Refer to DLK-114, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace Intelligent Key battery. Refer to <u>DLK-194</u>, "Removal and Installation".

4.PERFORM SELF-DIAGNOSIS RESULT-1

Select "Self Diagnostic Result" mode of "BCM", and check if DTC "B26FF" is detected.

Is DTC "B26FF" detected?

- YES >> Perform the trouble diagnosis for detected DTC.
- NO >> GO TO 5.

5.REMOTE AFTERMARKET DEVICE

- 1. If the vehicle is equipped with any interference-generating aftermarket device such as a vehicle security system, charger and remote engine starter etc., remove them.
- Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 6.

6.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver.

Refer to DLK-116, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 7.

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ALL KEYS)

| < SYMPTOM DIAGNOSIS > | [WITH INTELLIGENT KEY SYSTEM] | |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---|
| NO >> Repair or replace the malfunctioning parts. | | |
| 7.REPLACE BCM | | А |
| Replace BCM. Refer to <u>BCS-78</u>, "<u>Removal and Installation</u>". Check operation after replacement. | | В |
| <u>Is the inspection result normal?</u> YES >> Inspection End. | | |
| NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent</u> | Incident". | С |

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

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY (ONE KEY)

Description

INFOID:000000013372772

All doors do not lock/unlock using Intelligent Key button. (One Intelligent Key has the symptom, other keys operate normally.)

NOTE:

Before starting diagnosis check that vehicle condition is as shown in "Conditions of vehicle", and check each symptom.

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NOR-MALLY)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (Intelligent Key is within the detection area of inside key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|--------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NG | OK | OK | OK |

DIAGNOSIS PROCEDURE

Refer to DLK-138, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000013372773

1.CHECK INTELLIGENT KEY SYSTEM SYMPTOM TABLE

Check Intelligent Key system symptom table. Refer to <u>DLK-126. "Diagnosis Procedure"</u>.

>> GO TO 2.

2.CHECK INTELLIGENT KEY OUTPUT SIGNAL

Use SIGNAL TECH II to check Intelligent Key output signal. For the inspection method and how to use SIG-NAL TECH II, refer to "NISSAN/INFINITI SIGNAL TECH II USER GUIDE".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace Intelligent Key.

3.REGISTER INTELLIGENT KEY

- 1. Register the Intelligent Key again.
- 2. Check operation after replacement.

Is the inspection result normal?

YES >> Inspection End.

4.REPLACE INTELLIGENT KEY

- 1. Replace the Intelligent Key and perform registration again.
- 2. Check operation after replacement.
- Is the inspection result normal?
- YES >> Inspection End.

NO >> GO TO 5.

5.REPLACE BCM

- 1. Replace BCM. Refer to BCS-78, "Removal and Installation".
- 2. Check operation after replacement.
- Is the inspection result normal?
- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

DLK-138

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ONE I-KEY/REQ SW/PUSH SW)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ONE I-KEY/REQ SW/PUSH SW)

Description

INFOID:000000013372774

А

В

D

All doors do not lock/unlock using door request switch or trunk lid does not open using trunk lid opener request switch, Intelligent Key, and engine does not start when push-button ignition switch is pressed while carrying Intelligent Key. (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NOR-MALLY)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (Intelligent Key is within the detection area of inside key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NG | NG | No crank, No start | OK |
| DIAGNOSIS PROCEDUR | E | | |
| Refer to DLK-139, "Diagnos | is Procedure". | | |
| Diagnosis Procedure | | | INFOID:000000013372775 |
| 1.CHECK INTELLIGENT K | EY SYSTEM SYMPTOM | FABLE | |
| Check Intelligent Key systen | n symptom table. | | |
| Refer to DLK-126, "Diagnosi | is Procedure". | | |
| >> GO TO 2 | | | |
| | FY | | |
| for damage. Squeeze, twist operating normally? <u>Is the inspection result norm</u> YES >> GO TO 3. NO >> Replace Intellige 3. CHECK INTELLIGENT K Check the Intelligent Key ba Is the inspection result norm YES >> GO TO 4. | al? al? EY BATTERY ttery. al? | and check the functionalit | y again. Is the Intelligent Key |
| NO >> Replace Intellige | ent Key battery. Refer to <u>D</u> | LK-194, "Removal and Ins | tallation". |
| 1. Register the Intelligent k 2. Check operation after re Is the inspection result norm YES >> Inspection End. NO >> GO TO 5. | key again. placement. <u>al?</u> | | |
| 5.REPLACE INTELLIGENT | T KEY | | |
| Replace the Intelligent k Check operation after result norm Is the inspection result norm YES >> Inspection End. NO >> GO TO 6. | Key and perform registratio placement. <u>al?</u> | n again. | |

DOOR DOES NOT LOCK/UNLOCK AND ENGINE DOES NOT START (ONE I-KEY/REQ SW/PUSH SW)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

6.REPLACE BCM

- 1. Replace BCM. Refer to BCS-78, "Removal and Installation".
- 2. Confirm the operation after replacement.

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ONE KEY) < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ONE KEY)

Description

INFOID:000000013372776

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Intelligent Key system all functions cannot operate (door lock and engine start). (One Intelligent Key has the symptom, other keys operate normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NOR-CMALLY)

| Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (Intelligent Key is within the detection area of inside key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) |
|------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| NG | NG | No crank, No start | No crank, No start |
| DIAGNOSIS PROCEDUR Refer to <u>DLK-141, "Diagnosi</u> | E is Procedure". | | |
| Diagnosis Procedure | | | INFOID:000000013372777 |
| 1.CHECK INTELLIGENT K | EY SYSTEM SYMPTOM 7 | TABLE | |
| Check Intelligent Key systen | n symptom table. | | |
| Refer to <u>DLK-126, "Diagnosi</u> | is Procedure". | | |
| >> GO TO 2. | | | |
| 2. CHECK INTELLIGENT K | EY-1 | | |
| For Intelligent Key that cann | ot be used for door lock a | nd unlock, check that the | Intelligent Key belongs to the |
| vehicle to be checked. | | | |
| Does the Intelligent Key bein | ong to the vehicle to be che | ecked? | |
| NO >> Check Intelligen | it Key button operation usi | ng a registered Intelligent | Key that belongs to the vehi- |
| cle. | | | |
| 3.CHECK INTELLIGENT K | EY-2 | | |
| Check the inside of the Intell | ligent Key for rust or corros | sion by water. Simultaneou | sly check the internal circuits |
| for damage. | al? | | |
| YES >> GO TO 4. | | | |
| NO >> Replace Intellige | ent Key. | | |
| 4 .REGISTER INTELLIGEN | IT KEY | | |
| 1. Register the Intelligent H | Key again. | | |
| 2. Check the operation after the inspection result norm | er replacement. | | |
| YES >> Inspection End | <u>ai :</u> | | |
| NO $>>$ GO TO 5. | | | |
| 5.REPLACE INTELLIGENT | ſĸĔŶ | | |
| 1. Replace the Intelligent k | Key and perform registratio | n again. | |
| 2. Check operation after re | placement. | | |
| VES >> Inspection Fed | <u>ar (</u> | | |
| NO $>>$ GO TO 6. | | | |

INTELLIGENT KEY SYSTEM ALL FUNCTIONS CANNOT OPERATE (ONE KEY)

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

6.REPLACE BCM

- 1. Replace BCM. Refer to BCS-78, "Removal and Installation".
- 2. Check operation after replacement.

Is the inspection result normal?

- YES >> Inspection End.
- >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ONE KEY) < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY BUTTON OPERATION HAS POOR RANGE (ONE KEY)

Description

INFOID:000000013372778

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Intelligent Key button operation has poor range. (One Intelligent Key has the symptom, other keys operate $_{\sf B}$ normally.)

SYMPTOM TABLE (ONE INTELLIGENT KEY HAS THE SYMPTOM, OTHER KEYS OPERATE NOR-MALLY)

| - | Door lock operation (remote keyless entry) | Door lock operation (request switch) or trunk open opera- tion (opener switch) | Engine started with push-but- ton ignition switch operation (Intelligent Key is within the detection area of inside key antenna) | Engine started with push-but- ton ignition switch operation (registered Intelligent Key placed next to push-button ig- nition switch) | D |
|-------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| - | Poor range | ОК | ОК | ОК | E |
| DI/ Re | AGNOSIS PROCEDUR fer to <u>DLK-143, "Diagnosi</u> | E i <u>s Procedure"</u> . | | | F |
| Di | agnosis Procedure | | | INFOID:00000001337277 | 79 |
| 1. | CHECK INTELLIGENT K | EY SYSTEM SYMPTOM 1 | TABLE | | G |
| Ch Re | eck Intelligent Key systen fer to <u>DLK-126, "Diagnos</u> i | n symptom table. is Procedure". | | | Н |
| ~ | >> GO TO 2. | | | | |
| 2. | CHECK INTELLIGENT K | EY LOW BATTERY WARN | NING | | |
| Ch | eck that the Intelligent Ke | y low battery warning oper | ates. | | _ |
| <u>ls t</u> | he Intelligent Key low bat | tery warning operated? | | | J |
| Y N | ES >> Replace Intellige 0 >> GO TO 3. | ent Key battery. Refer to D | LK-194, "Removal and Ins | tallation". | |
| 3. | CHECK INTELLIGENT K | EY BATTERY | | | אוס |
| Ch | eck the Intelligent Key ba | ttery. | | | |
| <u>ls t</u> | he inspection result norm | al? | | | |
| Y | ES >> Replace Intellige | ent Key and register new Ir | ntelligent Key. | telletion" | L |
| IN | O >> Replace Intellige | ent Key Dattery. Refer to D | LK-194, Removal and ins | | |
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< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION > HOOD HOOD ASSEMBLY HOOD ASSEMBLY : Exploded View

INFOID:000000012783184



HOOD ASSEMBLY : Removal and Installation

INFOID:000000012783185

CAUTION:

- Use two people when removing or installing hood assembly due to its heavy weight.
- Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of hood assembly.

REMOVAL

1. Support the hood assembly using a suitable tool.

WARNING:

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

2. Disconnect front washer nozzle and tube.
< REMOVAL AND INSTALLATION >

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



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INFOID:000000012783186

INSTALLATION

Installation is in the reverse order of removal.

Tighten hood hinge to hood nuts to specified torque. Refer to <u>DLK-144, "HOOD ASSEMBLY : Exploded View"</u>. E CAUTION:

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-145</u>, "HOOD <u>ASSEMBLY : Adjustment"</u>.

HOOD ASSEMBLY : Adjustment



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

| Unit: mm (i | | | | | |
|-------------|------|----------------|-----------------------|-------------|----------|
| Section | Item | Measurement | Standard | Parallelism | Equality |
| A – A | D | Clearance | 6.2 ±2.3 (0.24 ±0.09) | <2.0 | — |
| В – В | F | Clearance | 3.5 ±2.4 (0.14 ±0.09) | <2.0 | <3.0 |
| | G | Surface height | 0.7 ±2.0 (0.03 ±0.08) | <2.0 | <2.0 |
| C – C | Н | Clearance | 3.7 ±1.0 (0.15 ±0.04) | <2.0 | <2.0 |
| | J | Surface height | 0.0 ±1.0 (0.00 ±0.04) | _ | — |

CLEARANCE ADJUSTMENT

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

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

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



- 3. Loosen the hood lock assembly bolts.
- 4. Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to <u>DLK-144</u>, "HOOD ASSEMBLY : <u>Exploded View</u>".
- 5. Tighten the hood lock assembly bolts to specified torque. Refer to <u>DLK-149</u>, "HOOD LOCK CONTROL : <u>Exploded View</u>".
- 6. Install the radiator core support upper cover.

HEIGHT ADJUSTMENT

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



2. Loosen the hood lock assembly bolts.

< REMOVAL AND INSTALLATION >

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

Only one hood bumper rubber shown for clarity.



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[WITH INTELLIGENT KEY SYSTEM]

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



- After adjustment, tighten hood hinge nuts and bolts to the specified torque. Refer to <u>DLK-144, "HOOD</u> <u>ASSEMBLY : Exploded View"</u>. CAUTION:
 - Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.
 - After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.
- 7. Tighten the hood lock assembly bolts to specified torque.
- 8. Install the radiator core support upper cover.
- If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to <u>DLK-155</u>, "Adjustment".

HOOD HINGE

HOOD HINGE : Removal and Installation

REMOVAL

- 1. Remove the fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation -Front Fender Protector".
- 2. Remove the core support upper cover. Refer to <u>HA-39</u>, "Exploded View".
- 3. Remove the front fascia. Refer to EXT-17, "Removal and Installation".
- 4. Remove the front combination lamp. Refer to <u>EXL-127</u>, "Removal and Installation" (HALOGEN), <u>EXL-257</u>, "Removal and Installation" (LED).
- 5. Remove the front fender. Refer to <u>DLK-154, "Removal and Installation"</u>.

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< REMOVAL AND INSTALLATION >

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

[WITH INTELLIGENT KEY SYSTEM]



INSTALLATION

Installation is in the reverse order of removal.

Tighten bolts to specified torque. Refer to <u>DLK-144</u>, "HOOD ASSEMBLY : Exploded View". **CAUTION:**

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform hood assembly adjustment procedure. Refer to <u>DLK-145</u>, "HOOD ASSEM-<u>BLY : Adjustment"</u>.

HOOD SUPPORT ROD

HOOD SUPPORT ROD : Removal and Installation

INFOID:000000012783188

REMOVAL

1. Support hood assembly using a suitable tool.

WARNING:

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

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

INSTALLATION

Installation is in the reverse order of removal.

HOOD LOCK CONTROL

[WITH INTELLIGENT KEY SYSTEM]

HOOD LOCK CONTROL : Exploded View

< REMOVAL AND INSTALLATION >

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A. Hood lock release cable clip $\bigwedge_{L=2}^{\wedge}$ Clip

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HOOD LOCK CONTROL : Removal and Installation

REMOVAL

1.

- 1. Remove the fender protector (LH). Refer to <u>EXT-28. "FENDER PROTECTOR : Removal and Installation -</u> <u>Front Fender Protector"</u>.
- 2. Remove the radiator core support upper cover clips (A) and remove.



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< REMOVAL AND INSTALLATION >

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

[WITH INTELLIGENT KEY SYSTEM]



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



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

INSTALLATION

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

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

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



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

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



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

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

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



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- 7. Perform hood fitting adjustment. Refer to <u>DLK-145, "HOOD ASSEMBLY : Adjustment"</u>.
- 8. Perform the hood lock control inspection.

INSPECTION

NOTE:

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

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



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



< REMOVAL AND INSTALLATION >

RADIATOR CORE SUPPORT

[WITH INTELLIGENT KEY SYSTEM]

Exploded View

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

Removal and Installation

INFOID:000000012783192

REMOVAL

CAUTION:

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

- 1. Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to <u>PG-74.</u> <u>"Removal and Installation (Battery)"</u>.
- 2. Remove crash zone sensor. Refer to SR-27. "Removal and Installation".
- 3. Remove radiator. Refer to CO-15, "Removal and Installation".
- 4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
- 5. Remove the horns. Refer to HRN-6, "Removal and Installation".
- 6. Remove air guides (LH/RH).
- 7. Remove the hood lock support bolts and hood lock support.
- 8. Remove the core support lower stay bolts and core support lower stay.
- 9. Remove the core support lower bolts and core support lower.
- 10. Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

INSTALLATION

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RADIATOR CORE SUPPORT

| < REMOVAL AND INSTALLATION > | [WITH INTELLIGENT KEY SYSTEM] | |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---|
| Installation is in the reverse order of removal. Tighten bolts to specification. Refer to <u>DLK-152</u> , "Exploded View". CAUTION: | | А |
| After installation, perform hood fitting adjustment. Refer to | DLK-145, "HOOD ASSEMBLY : Adjust- | |
| ment". | | В |
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< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

FRONT FENDER Exploded View

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1. Front fender

Removal and Installation

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REMOVAL

- 1. Remove the front combination lamp. Ref to <u>EXL-127</u>, "Removal and Installation" (HALOGEN), <u>EXL-257</u>, "Removal and Installation" (LED).
- 2. Remove the front bumper fascia. Refer to EXT-17, "Removal and Installation".
- 3. Remove the front fender protector. Refer to <u>EXT-28</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".
- Remove the front fender bolts and the front fender.
 CAUTION: Use shop cloths to protect the body from being damaged during removal and installation.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform fender adjustment procedure. Refer to DLK-155, "Adjustment".

FRONT FENDER

< REMOVAL AND INSTALLATION >

Adjustment

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[WITH INTELLIGENT KEY SYSTEM]



Hood assembly 4.

1.

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

| | | | Unit: mm (in) |
|------------|------|----------------|----------------------------------|
| Section | Item | Measurement | Standard |
| A A | F | Clearance | $1.5 \pm 1.3 \; (0.06 \pm 0.05)$ |
| A-A | G | Surface height | 0.7 ± 1.3 (0.03 ± 0.05) |
| | н | Surface height | 0.7 ± 1.0 (0.03 ± 0.04) |
| В – В | J | Clearance | 0.0 ± 1.0 (0.00 ± 0.04) |
| <u> </u> | К | Clearance | 3.7 ± 1.0 (0.15 ± 0.04) |
| 0-0 | М | Surface height | 0.0 ± 1.0 (0.00 ± 0.04) |
| | N | Surface height | 0.0 ± 1.0 (0.00 ± 0.04) |
| D – D | 0 | Clearance | $3.0 \pm 1.0 \; (0.12 \pm 0.04)$ |
| F F | Р | Surface height | |
| E-E | Q | Clearance | $3.8 \pm 1.0 \; (0.15 \pm 0.04)$ |

Adjustment

- Remove front bumper fascia. Refer to EXT-17, "Removal and Installation". 1.
- Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation -2. Front Fender Protector".

DLK-155

FRONT FENDER

< REMOVAL AND INSTALLATION >

- 3. Loosen the front fender bolts.
- 4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
- 5. Tighten the rear upper and lower front fender bolts.
- 6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
- 7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
- 8. Tighten the inner front fender bolts.
- 9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
- 10. Tighten the front fender to front fascia and bracket screws.
- 11. Install front bumper fascia. Refer to <u>EXT-17, "Removal and Installation"</u>.
- 12. Install front combination lamp.Refer to <u>EXL-127</u>, "<u>Removal and Installation</u>" (HALOGEN), <u>EXL-257</u>, <u>"Removal and Installation"</u> (LED).
- 13. Install the front fender protector. Refer to <u>EXT-28</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".

CAUTION:

- If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.
- Hood assembly: Refer to <u>DLK-145, "HOOD ASSEMBLY : Adjustment"</u>.
- Front door: Refer to <u>DLK-159, "DOOR ASSEMBLY : Adjustment"</u>.
- After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.

< REMOVAL AND INSTALLATION > FRONT DOOR

DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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CAUTION:

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

NOTE:

LH side shown; RH side similar.

REMOVAL

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



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



4. Remove check link bolt (body side).

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< REMOVAL AND INSTALLATION >

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

[WITH INTELLIGENT KEY SYSTEM]



INSTALLATION

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

- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-159</u>, <u>"DOOR ASSEM-BLY : Adjustment"</u>.

NOTE:

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

[WITH INTELLIGENT KEY SYSTEM]

DOOR ASSEMBLY : Adjustment

< REMOVAL AND INSTALLATION >

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- Front door striker
- F. Front door striker bolts
- 7.

4.

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

| Section | Item | Measurement | Standard | |
|---------|------|----------------|----------------------------------|--|
| | G | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ | |
| A-A | Н | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) | |
| R R | Н | Clearance | $4.2 \pm 1.0 \; (0.17 \pm 0.04)$ | |
| D – D | J | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) | |
| 0.0 | J | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ | |
| 0-0 | К | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) | |

LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to <u>DLK-154, "Removal and Installation"</u>.

Unit: mm (in)

< REMOVAL AND INSTALLATION >

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

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

4. Install the front fender. Refer to <u>DLK-154</u>, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

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

Front door hinge nuts

28.0 N·m (2.9 kg-m, 21 ftlb)



CAUTION:

- Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.
- If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.
- Front fender: Refer to DLK-155, "Adjustment".
- Rear door: Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".

DOOR STRIKER ADJUSTMENT

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

DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012783198

REMOVAL

- 1. Remove front door fender. Refer to DLK-154, "Removal and Installation".
- 2. Remove front door assembly (2). Refer to DLK-157. "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove bolt (A) and door hinge (1).

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

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



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INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.<u>DLK-159, "DOOR ASSEMBLY : Adjustment"</u> CAUTION:

- Apply anticorrosive agent onto the front door hinge mating surface.
- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-159, "DOOR ASSEM-BLY : Adjustment"</u>.

DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

- 1. Fully close the front door glass.
- Remove front door speaker. Refer to <u>AV-58, "Removal and Installation"</u> (BASE AUDIO), <u>AV-119, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM), <u>AV-323, "Removal and Installation"</u> (NAVIGA-TION WITH BOSE) and <u>AV-212, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

🚮: Grease

[WITH INTELLIGENT KEY SYSTEM]



[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > REAR DOOR

DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

CAUTION:

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

REMOVAL

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

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



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

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< REMOVAL AND INSTALLATION >

INSTALLATION

Installation is in the reverse order of removal.

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

CAUTION:

- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-164, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.

DOOR ASSEMBLY : Adjustment

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ADJUSTMENT



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

REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

22 N·m (2.2 kg-m, 16 ft-lb)

24.5 N·m (2.5 kg-m, 18 ft-lb)

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| | | Unit: | mm (in) |
|------|-------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Item | Measurement | Standard | |
| G | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ | |
| Н | Surface height | $0.0\pm1.0\;(0.0\pm0.04)$ | |
| Н | Clearance | $4.2 \pm 1.0 \; (0.17 \pm 0.04)$ | |
| J | Surface height | $0.0\pm1.0\;(0.0\pm0.04)$ | |
| J | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ | |
| К | Surface height | $0.0 \pm 1.0 \; (0.0 \pm 0.04)$ | |
| | Item G H J J K | ItemMeasurementGClearanceHSurface heightHClearanceJSurface heightJClearanceKSurface height | Unit: Unit: Item Measurement Standard G Clearance 4.0 ± 1.0 (0.16 ± 0.04) H Surface height 0.0 ± 1.0 (0.0 ± 0.04) H Clearance 4.2 ± 1.0 (0.17 ± 0.04) J Surface height 0.0 ± 1.0 (0.0 ± 0.04) J Clearance 4.0 ± 1.0 (0.16 ± 0.04) K Surface height 0.0 ± 1.0 (0.16 ± 0.04) |

LONGITUDINAL CLEARANCE

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

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

Rear door lower hinge bolts

6. Tighten the upper hinge nuts to specification.

Rear door upper hinge nuts

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

SURFACE HEIGHT ADJUSTMENT

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

28.0 N·m (2.9 kg-m, 21 ft-lb)



CAUTION:

- Check rear door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After adjusting, apply touch-up paint (body color) to the head of rear door assembly hinge bolts and nuts.

REAR DOOR

< REMOVAL AND INSTALLATION >

• If the clearance measurements cannot be corrected by adjusting the rear door, adjust the front door. Refer to <u>DLK-159</u>, "DOOR ASSEMBLY : Adjustment".

DOOR STRIKER ADJUSTMENT

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

DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:000000012783202

CAUTION:

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

REMOVAL

- 1. Remove rear door assembly. Refer to DLK-163, "DOOR ASSEMBLY : Removal and Installation".
- 2. Remove center pillar upper finisher (upper hinge only). Refer to <u>INT-28, "CENTER PILLAR UPPER FIN-ISHER : Removal and Installation"</u>.
- 3. Remove rear door assembly upper hinge nuts (A) and remove.



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



INSTALLATION

Installation is in the reverse order of removal.

Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to <u>DLK-164, "DOOR ASSEMBLY :</u> <u>Adjustment"</u>

CAUTION:

- Apply anticorrosive agent onto the hinge mating surface.
- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-164, "DOOR ASSEMBLY</u> <u>: Adjustment"</u>.

DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

INFOID:000000012783203

REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- 1. Fully close the rear door glass.
- Remove rear door speaker. Refer to <u>AV-59</u>, "Removal and Installation" (BASE AUDIO), <u>AV-119</u>, "Removal and Installation" (DISPLAY AUDIO SYSTEM), <u>AV-324</u>, "Removal and Installation" (NAVIGATION WITH BOSE) and <u>AV-213</u>, "Removal and Installation" (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



INSTALLATION

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

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



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DOOR HANDLE FRONT DOOR HANDLE

FRONT DOOR HANDLE : Exploded View

INFOID:000000012783204



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

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

INFOID:000000012783205

REMOVAL

4.

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

FRONT DOOR HANDLE : Removal and Installation - Outside Handle



REMOVAL

- 1. Fully close front door glass.
- 2. Remove front door finisher. Refer to <u>INT-15, "Removal and Installation"</u>.
- 3. Remove front door vapor barrier.

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DLK-168

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< REMOVAL AND INSTALLATION >

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

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

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

9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.







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< REMOVAL AND INSTALLATION >

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

[WITH INTELLIGENT KEY SYSTEM]



11. Slide outside handle bracket toward rear of vehicle to remove. <⊐: Front</p>



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



INSTALLATION

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

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

REAR DOOR HANDLE

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

REAR DOOR HANDLE : Exploded View

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REAR DOOR HANDLE : Removal and Installation - Inside Handle

REMOVAL

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



| INSTALLATION Installation is in the reverse order of removal. CAUTION: • Check rear door lock cables are properly engaged to inside handle. • After installation, check rear door open/close, lock/unlock operation. | N | 1 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|
| REAR DOOR HANDLE : Removal and Installation - Outside Handle | 3209 C |) |
| REMOVAL 1. Fully close rear door glass. | P | C |

- Remove rear door finisher. Refer to <u>INT-19, "Removal and Installation"</u>.
- 3. Remove rear door vapor barrier.

< REMOVAL AND INSTALLATION >

escutcheon.

remove outside handle.

<⊐: Front

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

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

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

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









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< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

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



INSTALLATION

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

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

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< REMOVAL AND INSTALLATION > DOOR LOCK

FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

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9. Outside handle escutcheon

Inside handle
 Rear gasket

- Door striker
 Door request switch

INFOID:000000012783211

FRONT DOOR LOCK : Removal and Installation

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

REMOVAL

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- 1. Remove the front door outside handle. Refer to <u>DLK-168</u>, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".
- 2. Remove the rear glass run.
- 3. Disconnect the harness connector from the front door lock actuator.

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DOOR LOCK

< REMOVAL AND INSTALLATION >

4. Remove screws and the front door lock assembly.

[WITH INTELLIGENT KEY SYSTEM]



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

INSTALLATION

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

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

CAUTION:

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

REAR DOOR LOCK

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DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

REAR DOOR LOCK : Exploded View

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- Door lock assembly 4.
 - Rear gasket

- 5. Outside handle
- 6. Outside handle escutcheon

7.

REAR DOOR LOCK : Removal and Installation

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REMOVAL

1.

- 1. Remove the rear door outside handle. Refer to DLK-171, "REAR DOOR HANDLE : Removal and Installation - Outside Handle".
- 2. Disconnect the harness connector from the rear door lock actuator.
- 3. Remove the screws and the rear door lock assembly.



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

| Rear door lock screws: | 5.8 Nm (0.59 kg-m, 51 in-lb) | А |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| CAUTION: Do not reuse rear door lock assen Check rear door lock cables are p After installation, check rear door Check rear door lock assembly | nbly screws. Always replace screws with new ones when removed. roperly engaged to inside handle and outside handle bracket. open/close, lock/unlock operation. for poor lubrication. If necessary apply a suitable multi-purpose | В |
| grease. | | С |
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< REMOVAL AND INSTALLATION >

TRUNK LID TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

INFOID:000000012783214



12. Rear spoiler (if equipped)

 \triangle Clip

TRUNK LID ASSEMBLY : Removal and Installation

CAUTION:

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13.

License lamp finisher

Weatherstrip

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

Clip

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

REMOVAL

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

11.

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INFOID:000000012783215

TRUNK LID

< REMOVAL AND INSTALLATION >

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

3. Remove the bolts (A) and remove the trunk lid assembly (1).

INSTALLATION Installation is in the reverse order of removal. **CAUTION:** After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK

LID ASSEMBLY : Adjustment".

Revision: December 2015

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TRUNK LID

[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > TRUNK LID ASSEMBLY : Adjustment

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TRUNK LID

[WITH INTELLIGENT KEY SYSTEM]

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< REMOVAL AND INSTALLATION >

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

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

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|---------|------|----------------|-----------------------|-------------------|--------------------------------|
| Section | Item | Measurement | Standard | Parallelism (MAX) | Right/Left Difference (MAX) |
| A – A | Е | Clearance | 3.5 ±1.0 (0.14 ±0.04) | 2.5 (0.10) | 2.0 (0.08) |
| | F | Surface height | 0.0 ±1.0 (0.00 ±0.04) | 1.5 (0.06) | 1.5 (0.06) |
| В – В | G | Clearance | 3.5 ±1.0 (0.14 ±0.04) | 2.5 (0.10) | 2.0 (0.08) |
| | Н | Surface height | 0.0 ±1.0 (0.00 ±0.04) | 1.5 (0.06) | 1.5 (0.06) |
| C – C | J | Clearance | 4.5 ±1.9 (0.18 ±0.07) | 2.0 (0.08) | 3.0 (0.12) |
| D – D | K | Clearance | 7.0 ±2.0 (0.28 ±0.08) | 2.0 (0.08) | — |

LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

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

Trunk Lid Hinge Removed From Vehicle

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

SURFACE HEIGHT ADJUSTMENT

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

TRUNK LID HINGE

TRUNK LID HINGE : Removal and Installation

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- 1. Remove trunk lid assembly. Refer to <u>DLK-178, "TRUNK LID ASSEMBLY : Removal and Installation"</u>.
- 2. Remove torsion bar. Refer to DLK-182, "TORSION BAR : Removal and Installation".
- 3. Remove rear parcel shelf finisher. Refer to INT-33. "Removal and Installation".
- 4. Remove trunk lid hinge bolts (body side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

REMOVAL

- Check trunk lid open/close, lock/unlock operation after installation.
- After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-180, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

TRUNK LID

< REMOVAL AND INSTALLATION >

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





TORSION BAR

TORSION BAR : Removal and Installation

INFOID:000000012783218

REMOVAL

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

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

3. Apply suitable tool (A) to torsion bar (1) and lift torsion bar to remove it.



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

TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

REMOVAL

- 1. Remove the trunk lid finisher (if equipped). Refer to INT-45. "Removal and Installation".
- 2. Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
- 3. Remove the trunk lid lock bolts (A) and remove.



INSTALLATION

EMERGENCY LEVER

< REMOVAL AND INSTALLATION >

Installation is in the reverse order of removal.

EMERGENCY LEVER : Removal and Installation

REMOVAL

CAUTION:

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



TRUNK LID STRIKER : Removal and Installation

REMOVAL

INSTALLATION

CAUTION:

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



Installation is in the reverse order of removal.

LID ASSEMBLY : Adjustment".

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK





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After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-180, "TRUNK

< REMOVAL AND INSTALLATION >

FUEL FILLER LID OPENER

Exploded View

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- 1. Fuel filler lid
- 4. Fuel filler lid lock
- C. Cable protector

FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

A. Clip

INFOID:000000012783223

REMOVAL

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



В. Bolt

< REMOVAL AND INSTALLATION >

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



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Unit: mm (in)

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INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

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

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

FUEL FILLER OPENER CABLE

FUEL FILLER OPENER CABLE : Removal and Installation

REMOVAL

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



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

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

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< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

- 5. Remove rear seat bolster (LH). Refer to <u>SE-37, "Removal and Installation Rear Seat Bolster"</u>.
- 6. Remove trunk side finisher (LH). Refer to INT-43, "TRUNK SIDE FINISHER : Removal and Installation".
- 7. Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to <u>DLK-186, "FUEL FILLER</u> <u>LID LOCK : Removal and Installation"</u>.



< ⇒ Front

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

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

FUEL FILLER LID LOCK

FUEL FILLER LID LOCK : Removal and Installation

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REMOVAL

1. Fully open fuel filler lid.

< REMOVAL AND INSTALLATION >

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

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

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

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



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[WITH INTELLIGENT KEY SYSTEM]

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< REMOVAL AND INSTALLATION >

DOOR SWITCH

Removal and Installation

REMOVAL

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



[WITH INTELLIGENT KEY SYSTEM]

INSTALLATION

Installation is in the reverse order of removal.

< REMOVAL AND INSTALLATION >

INSIDE KEY ANTENNA CONSOLE

CONSOLE : Removal and Installation

REMOVAL

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



INSTALLATION Installation is in the reverse order of removal.

LUGGAGE ROOM

LUGGAGE ROOM : Removal and Installation

REMOVAL

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

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

INSTRUMENT CENTER : Removal and Installation

REMOVAL

- Remove the A/C switch assembly (automatic air conditioner). Refer to <u>HAC-104, "Removal and Installa-</u> O tion".
- 2. Remove the A/C switch assembly (manual air conditioner). Refer to HAC-189, "Removal and Installation"
- 3. Disconnect the harness connector from the inside key antenna (instrument center).
- 4. Remove the inside key antenna (instrument center) screws and inside key antenna (instrument center).

INSTALLATION

Installation is in the reverse order of removal.

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OUTSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

OUTSIDE KEY ANTENNA DRIVER SIDE

DRIVER SIDE : Removal and Installation

The driver side outside key antenna and driver side outside handle are serviced as an assembly. Refer to <u>DLK-168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle"</u>. **PASSENGER SIDE**

PASSENGER SIDE : Removal and Installation

The passenger side outside key antenna and passenger side outside handle are serviced as an assembly. Refer to <u>DLK-168</u>, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".

Installation is in the reverse order of removal.

REAR BUMPER

REAR BUMPER : Removal and Installation

REMOVAL

- 1. Remove rear bumper fascia. Refer to EXT-20, "Removal and Installation".
- 2. Disconnect the harness connector (B) from the rear bumper key antenna (1).
- 3. Remove the nuts (A) that retain the rear bumper key antenna (1) to the body.





[WITH INTELLIGENT KEY SYSTEM]

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| DOOR REQUEST SWITCH | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| < REMOVAL AND INSTALLATION > [WITH INTELLIGENT KEY SYSTEI | M] |
| DOOR REQUEST SWITCH DRIVER SIDE | A |
| DRIVER SIDE : Removal and Installation | ⁸³²³³ B |
| The driver side door request switch and driver side outside handle are serviced as an assembly. Refer to <u>DL 168, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle"</u> . PASSENGER SIDE | <u>_K-</u> C |
| PASSENGER SIDE : Removal and Installation | 83234 |
| The passenger side door request switch and passenger side outside handle are serviced as an assemble refer to <u>DLK-168</u> , "FRONT DOOR HANDLE : Removal and Installation - Outside Handle". TRUNK LID FINISHER | oly. ⊨ |
| TRUNK LID FINISHER : Removal and Installation | 83235 |
| REMOVAL | |
| 1. Remove the license lamp finisher. Refer to EXT-44, "Removal and Installation". | G |
| 2. Release the pawls and remove the trunk lid request switch (1). | Н |
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| Installation is in the reverse order of removal. | |
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< REMOVAL AND INSTALLATION >

INTELLIGENT KEY WARNING BUZZER

Removal and Installation

REMOVAL

NOTE:

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

- 1. Remove the washer tank inlet. Refer to <u>WW-53. "Exploded View"</u>.
- 2. Remove the nut (B) and the Intelligent Key warning buzzer (1).
- 3. Disconnect the harness connector (A) from the Intelligent Key warning buzzer (1) and remove.



INSTALLATION Installation is in the reverse order of removal.

Removal and Installation INFOLD-00000012783237 REMOVAL 1. Remove glove box assembly. Refer to IP-22, "Removal and Installation". 2. Disconnect the harness connector from the remote keyless entry receiver. 3. Remove the screw and remote keyless entry receiver. INSTALLATION Installation is in the reverse order or removal.

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INTELLIGENT KEY BATTERY

< REMOVAL AND INSTALLATION >

INTELLIGENT KEY BATTERY

Removal and Installation

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

CAUTION:

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

Battery replacement

:Coin-type lithium battery (CR2032)

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





< REMOVAL AND INSTALLATION >

TRUNK LID OPENER SWITCH

Removal and Installation

REMOVAL

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

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

INSTALLATION Installation is in the reverse order of removal.





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[WITH INTELLIGENT KEY SYSTEM]

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PRECAUTION PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 or batteries, and wait at least three minutes before performing any service.

Procedure without Cowl Top Cover

INFOID:000000012783241

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



Precaution for Servicing Doors and Locks

INFOID:000000012783242

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-196

PRECAUTIONS

< PRECAUTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

| 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: | А |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Water soluble dift. 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. Oilv dirt: | В |
| 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 | С |
| Do not use organic solvent such as thinner, benzene, alcohol or gasoline. For genuine leather seats, use a genuine leather seat cleaner. | D |
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PREPARATION

PREPARATION

Special Service Tools

INFOID:000000012783243

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

| Tool number (TechMate No.) Tool name | | Description |
|------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (J-39570) Chassis Ear | SIIA0993E | Locating the noise |
| — (J-50397) NISSAN Squeak and Rattle Kit | ALJIA1232ZZ | Repairing the cause of noise |
| (J-43241) Remote Keyless Entry Tester | LEL946A | Used to test key fobs |
| (J-50190) Signal Tech II | ALEIA0131ZZ | Activate and display TPMS transmitter IDs Display tire pressure reported by the TPMS transmitter Read TPMS DTCs Register TPMS transmitter IDs Test remote keyless entry keyfob rela- tive signal strength Compatible with future sensors Equipped with a display Check Intelligent Key relative signal strength Confirm vehicle Intelligent Key anten- na signal strength |

PREPARATION

[WITHOUT INTELLIGENT KEY SYSTEM]

| Tool number (TechMate No.) Tool name | | Description | 1 |
|----------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|---|
| KV48105501 (J-45295-A) Transmitter activation tool | | Activate TPMS transmitter IDs Compatible with future sensors Equipped with a display (KV48105501 only) | |
| | ALEIA0183ZZ | | (|
| (J-46534) Trim Tool Set | | Removing trim components | |
| | AWJIA0483ZZ | | |
| Commercial Service Tools | | INFOID:000000012783244 | |
| (TechMate No.) Tool name | | Description | |
| (J-39565) Engine Ear | | Locating the noise | |
| (—) Power tool | SIIA0995E | Loosening nuts, screws and bolts | П |
| | | | |
| | PIIB1407E | | |
| (—) Torsion bar wrench | | Removing trunk lid torsion bar | I |
| | | | l |
| | AWKIA3594ZZ | | (|

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< PREPARATION >

CLIP LIST

Descriptions for Clips

INFOID:000000012783245

Replace any clips which are damaged during removal or installation.



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< PREPARATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

| Symbol No. | Shapes | Removal & Installation | A |
|------------|----------------------------|-----------------------------------------------------------------------------------------------------------|---------------|
| CE103 | | Removal: | B |
| CF110 | Clip A Clip B | Removal: Finisher Clip A Flat-bladed screwdrivers Clip B | E F |
| CF118 | Clip A Clip B (Grommet) | Removal: Flat-bladed Finisher screwdrivers Body panel Clip A Clip B (Grommet) | G H I |
| CR103 | | Removal: Holder portion of clip must be spread out to remove rod. | J DLK L |
| CS101 | | Removal: 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver. | M N O |

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| Symbol No. | Shapes | Remov | al & Installation |
|------------|--------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| CG101 | | Removal: Rotate 45° to remove Removal: | Installation: |
| CS102 | (X) | | |
| CS113 | | Removal: Disconnect uppe with a flat-blade then remove clip flat-bladed screv body panel and | er connection of clip d screwdriver, o while inserting a wdriver between clip. |
| C111 | | (| |

SIIA0317E

CLIP LIST

- Clip A

Clip B (Grommet)

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Shapes

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Symbol No.

CG104

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CE114

CF118

[WITHOUT INTELLIGENT KEY SYSTEM]

Removal & Installation

Remove by bending up with flat-bladed screwdrivers.

Body panel

Finisher

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Radiator

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grille

Removal:

I

Removal:

Flat-bladed

screwdrivers

ŧs

Clip A

Body

panel





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Clip B (Grommet)

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SYSTEM DESCRIPTION

COMPONENT PARTS AUTOMATIC DOOR LOCK/UNLOCK FUNCTION

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Parts Location

INFOID:000000012783246



1. BCM (view with instrument panel removed)

Rear door lock actuator LH

(RH similar)

7.

- 4. Front door lock key cylinder switch LH
- 2. Main power window and door lock/un- 3. lock switch
- 5. Front door lock actuator LH (RH similar)
- 8. Rear door switch LH (RH similar)

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

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : Component Description

INFOID:000000012783247

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

POWER DOOR LOCK SYSTEM

COMPONENT PARTS

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER DOOR LOCK SYSTEM : Component Parts Location

INFOID:000000012783248

А



- 4. Front door lock key cylinder switch LH
- 7. Rear door lock actuator LH (RH similar)

1.

- Front door lock actuator LH (RH similar)
 Rear door switch LH
 - Rear door switch LH (RH similar)

POWER DOOR LOCK SYSTEM : Component Description

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

REMOTE KEYLESS ENTRY SYSTEM

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Front door switch LH

(RH similar)

Key switch

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COMPONENT PARTS

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY SYSTEM : Component Parts Location

INFOID:000000012783250



- 1. BCM (view with instrument panel removed)
- Front door switch LH (RH similar)
- 7. Horn relay

- 5. Rear door switch LH (RH similar)
- 8. Horn

REMOTE KEYLESS ENTRY SYSTEM : Component Description

INFOID:000000012783251

(view with instrument panel removed)

6.

Key switch

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

TRUNK LID OPENER SYSTEM

Revision: December 2015

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:000000012783253

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1. Trunk lid opener switch

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

TRUNK LID OPENER SYSTEM : Component Description

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| | | H |
|---------------------------|-------------------------------------------------------|---|
| Item | Function | |
| BCM | Controls the trunk lid opener system. | |
| Trunk lid opener actuator | Releases the mechanical latch to open the trunk lid. | |
| Trunk lid opener switch | Inputs the trunk open request to the BCM. | |
| Trunk lid switch | Inputs the trunk lid open/close condition to the BCM. | |
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< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

SYSTEM (POWER DOOR LOCK SYSTEM) AUTOMATIC DOOR LOCK/UNLOCK FUNCTION

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Diagram



AUTOMATIC DOOR LOCK/UNLOCK FUNCTION : System Description

INFOID:000000012783255

INFOID:000000012783254

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

DOOR LOCK FUNCTION

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

Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the driver side door lock actuator; turning it to "UNLOCK" again within 60 seconds after the first unlock operation unlocks all of the other doors. (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>BCS-93, "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. | А |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Setting change of Automatic Door Locks (LOCK) Function The LOCK operation setting of the automatic door locks function can be changed. | В |
| The ON/OFF switching of the automatic door locks (LOCK) function and the type selection of the automatic door locks (LOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to <u>BCS-93</u> , <u>"DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u> . | С |
| Without CONSULT The automatic door locks (LOCK) function can be switched ON/OFF by performing the following operation. | D |
| 1. Close all doors (door switch OFF) | D |
| 2. Push the ignition switch to the ON position | |
| 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. | Ε |
| 4. The switching is completed when the hazard lamp blinks. | |
| $OFF \rightarrow ON$: 2 blinks | F |
| $ON \rightarrow OFF$: 1 Dilfk | |
| 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 The UNLOCK operation setting of the automatic door locks function can be changed. | J |
| With CONSULT The ON/OFF switching of the automatic door locks (UNLOCK) function and the type selection of the automatic door locks (UNLOCK) function can be performed at the WORK SUPPORT setting of CONSULT. Refer to BCS- 93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)". | DLK |
| The automatic door locks (UNLOCK) function can be switched ON/OFF by performing the following operation. | L |
| 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 | M |
| seconds after turning the power supply position ON. | |
| 4. The switching is completed when the hazard lamp blinks. | Ν |
| $OFF \rightarrow ON$: 2 blinks | |
| $ON \rightarrow OFF$: 1 blink | \bigcirc |
| 5. The ignition switch must be turned OFF and ON again between each setting change. | 0 |
| ^{*1} : This function is set to ON before delivery. | |
| POWER DOOR LOCK SYSTEM | Ρ |
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< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER DOOR LOCK SYSTEM : System Diagram



POWER DOOR LOCK SYSTEM : System Description

INFOID:000000012783257

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| 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 mode in "WORK SUP-PORT". Refer to <u>BCS-93, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

REMOTE KEYLESS ENTRY SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY SYSTEM : System Diagram INFOID:000000012783258 А Keyfob Key ID signal A Remote keyless entry receiver В Kev ID signal Door lock actuator signal Each door lock actuator Interior lamp signal Interior lamps Hazard lamp signal Hazard lamps Key switch signal Kev switch D BCN Headlamps signal Headlamps CAN communication IPDM E/R Door switch signal Each door switch Ε Horn AWKIA3626G

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

(B) With CONSULT

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

| Hazard reminder setting | Мо | de 1 | Mode 2 | | e 2 Mode 3 | | Mode 4 | |
|---------------------------|------|--------|--------|--------|------------|--------|--------|--------|
| Keyfob operation | Lock | Unlock | Lock | Unlock | Lock | Unlock | Lock | Unlock |
| Hazard warning lamp blink | — | — | _ | Once | Twice | _ | Twice | Once |

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INFOID:000000012783259

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| 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" mode in "WORK SUPPORT". Horn reminder can be changed using "HORN CHIRP SET" mode in "WORK SUPPORT". Refer to <u>BCS-95</u>, "<u>MULTI REMOTE ENT</u> : <u>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" mode in "WORK SUPPORT". Refer to <u>BCS-95,</u> "MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)".

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" mode in "WORK SUPPORT". Refer to <u>BCS-95</u>, "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>DLK-210, "POWER DOOR LOCK SYS-TEM : System Description"</u>.

· Interior room lamp switch is in the DOOR position

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

SYSTEM (TRUNK LID OPENER SYSTEM) [WITHOUT INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SYSTEM (TRUNK LID OPENER SYSTEM)

System Description

System Diagram



TRUNK LID OPENER OPERATION

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

OPERATION CONDITION

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

| Trunk lid opener switch operation | Operation condition |
|-----------------------------------|---------------------------------------------------------------------------------------------------|
| Trunk lid open | Trunk lid opener switch is ONVehicle speed is less than 5 km/h (3 MPH) |

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

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000013374008

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:000000013374013

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. | г |
| CDL UNLOCK SW [On/Off] | Indicates condition of unlock signal from door lock and unlock switch. | L |
| 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. | |
| ACC ON SW [On/Off] | Indicates condition of ignition switch ACC position. | F |
| KEYLESS LOCK [On/Off] | Indicates condition of lock signal from keyfob. | |
| KEYLESS UNLOCK [On/Off] | Indicates condition of unlock signal from keyfob. | C |
| 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. | ŀ |
| | | |

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 | DUK |
|----------------------------|--------------|------------------------------------------------------------------------------|-----|
| | On* | Automatic door locks function ON. | DLK |
| DOOR LOCK-ONLOCK SET | Off | Automatic door locks function OFF. | |
| | P RANGE | Doors lock automatically when shifted out of Park (P). | L |
| 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). | M |
| 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. | N |
| | 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. | 0 |
| AUTOMATIC LOCK/UNLOCK | Lock Only | Automatic door locks function operates in lock only. | |
| SELECT | Unlock Only | Automatic door locks function operates in unlock only. | D |
| | Off | Automatic door locks function OFF. | Г |

* : Initial setting TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000013374014

DATA MONITOR

Revision: December 2015

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DIAGNOSIS SYSTEM (BCM)

[WITHOUT INTELLIGENT KEY SYSTEM]

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

List of ECU Reference

INFOID:000000012783264 B

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[WITHOUT INTELLIGENT KEY SYSTEM]

| ECU | Reference |
|-----|------------------------------------------|
| | BCS-103, "Reference Value" |
| DOM | BCS-114, "Fail-safe" |
| BCM | BCS-115. "DTC Inspection Priority Chart" |
| | BCS-115, "DTC Index" |

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[WITHOUT INTELLIGENT KEY SYSTEM]

WIRING DIAGRAM REMOTE KEYLESS ENTRY SYSTEM

Wiring Diagram

INFOID:000000012783265



ABKWA3168GB

REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



ABKWA3169GB

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Revision: December 2015



ABKWA3170GB

REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



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ABKIA7279GB



ABKIA7405GB

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< WIRING DIAGRAM >

REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



REMOTE KEYLESS ENTRY SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]

| H.S. [1121314] | Terminal No. Color of Wire Signal Name - 3 P - | Connector No. B59 Connector No. B59 CONTROL THOUT Connector Name TRUNK LID OPENER Connector Name WIRE TO WIRE Connector Name TRUNK LID OPENER Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name MITE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Image: Set Name MITE Image: Set Name MIRE TO WIRE Connector Name WIRE TO WIRE Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name Image: Set Name | ASHER UT (LEFT) 2 B |
|----------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 2 3 4 | Signal Name - | M (BODY CONTROL DULE) (WITHOUT ELLIGENT KEY SYSTEI ACK 33 22 51 50 Signal Name | FLASHER OUTPUT (LEFT) FLASHER OUTPUT (REHT) DOOR SW (AS) DOOR SW (AS) DOOR SW (RR) LUGGAGE LAMP OUTPUT TRUNK OPEN OUTPU |
| | lire A | B57 BCA MOI INTI BLA BLA BLA | |

Connector Name REAR DOOR SWITCH RH Connector Color WHITE Connector No. E Connector Name FRONT DOOR SWITCH RH Connector Color WHITE B28 Connector No.

B41



K

| Signal Name | Ι | |
|------------------|---|--|
| Color of Wire | Н | |
| Terminal No. | £ | |

| Connector No. | B57 |
|-----------------|------------------------------------------------------------------|
| Connector Name | BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM) |
| Connector Color | BLACK |
| | |

| | 4 | ß | | 1 |
|---|------|-----|---|--------|
| | 8 42 | | | |
| | 4 | 5 | | 0 |
| | 4 | 52 | | |
| | 16 4 | 53 | | |
| | 47 4 | 2 | | of |
| | 9 48 | 52 | | P D |
| L | 14 | ш.) | J | ပိ |
| | | | | |
| | | | | 2 |
| | | | | |

H.S.

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| Signal Name | FLASHER OUTPUT (LEFT) | FLASHER OUTPUT (RIGHT) | DOOR SW (AS) | DOOR SW (DR) | DOOR SW (RL) | DOOR SW (RR) | LUGGAGE LAMP OUTPUT | TRUNK SW | TRUNK OPEN OUTF | |
|------------------|--------------------------|---------------------------|--------------|--------------|--------------|--------------|------------------------|----------|-----------------|--|
| Color of Wire | ГG | BG | В | Y | GR | Ρ | ГG | > | GR | |
| erminal No. | 41 | 42 | 45 | 46 | 47 | 48 | 50 | 51 | 55 | |

ABKIA7281GB

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POWER DOOR LOCK SYSTEM

Wiring Diagram

INFOID:000000012783266





ABKWA3186GB

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ABKWA3163GB



ABKIA5378GB

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|---------------|----------------------------------------------|---------------|-----------------------------|--------------------------------------------|------------------|--------------|------------------------|------------------------|------------------------------|--------------|--------|-------|-------|--------------|--------------|---------------|---|-------------------------------------------------------------------------------------------------------------------------|---|-------------------|-------|-------|-----|---|
| | WITCH | | 3 4 5 6 | | Signal Name | 1 | I | | | | | | | | | | | | | | | | | |
| M50 | ne KEY S or GRAY | | 1 2 | | Color of Wire | GR | HA | | | | | | | | | | | | | | | | | |
| Connector No. | Connector Nam Connector Colo | | H.S. | | Ferminal No. | - | 2 | | | | | | | | | | | | | | | | | |
| | | | | | | <u> </u> | | | | | | | | | | | | | | | | | | |
| | L STEM) | | | 5 17 18 19 20 6 37 38 39 4 | | ш, | н. | ЭВ | OR / | | | | | | 105 | | F | | 1 | | | Γ |] | |
| | BODY CONTRO LE) (WITHOUT LIGENT KEY SY | | ſ | 0 11 12 13 14 15 11 30 31 32 33 34 35 3 | Signal Name | KEY CYLINDE | KEY CYLINDE LOCK SW | CENTRAL DOC LOCK SW | CENTRAL DOG UNLOCK SM | KEY SW | IGN SW | CAN-H | CAN-L | | CONNECTOR-N | | | 5 4 3 2 1 6 15 14 13 12 11 10 | | Signal Name | I | 1 | | |
| M21 | ne BCM (MODU INTEL | or WHITE | | 5 7 8 9 6 27 28 29 3 | Color of Wire | | > | GR | BR | GR | щ | L | ٩ | M71 | INIOL PL | or BLUE | | 9 8 7 (0 19 18 17 1 | | Color of Wire | 8 | 8 | | |
| onnector No. | onnector Nan | onnector Cold | H.S. | 1 2 3 4 5 4 1 22 23 24 25 2 | erminal No. | 7 | 8 | 12 | 13 | 37 | 38 | 39 | 40 | onnector No. | onnector Nan | onnector Colo | | H.S. | | erminal No. | 14 | 16 | | |
| 0 | 0 | 0 | 1 | | <u> </u> | | | | | | | | | | Õ | ŏ | ľ | Γ | | F | | | | |
| | (W | | | | | | | <u> </u> | <u> </u> | | | | | | | | | | | | | | 1 | |
| | DY CONTROL (WITHOUT ENT KEY SYSTE | | 59 58 57 56 7 66 65 | | Signal Name | TTERY (FUSE) | OUT UNLUCK | GND R LOCK OUTPL | OOR UNLOCK FPUT (AS,RR,RL | ATTERY (F/L) | | | | | NNECTOR-M06 | | F | 4 3 2 1 14 13 12 11 10 | | Signal Name | I | 1 | | |
| M20 | BCM (BOI MODULE) NTELLIGE | WHITE | 163/62/61/60/5 0 69 68 6 | | r of e | BA | | DOO | e DUD | ш — | | | | 160 | OINT COP | VHITE | | 8 7 6 5 8 17 16 15 | | of | | | | |
| r No. | r Name | r Color | | | No. Colo | BG | i SE | | SE | > | | | | No. | Name J | Color V | | 20 19 1 | | do. Color Wire | BB | × | - | |
| Connecto | Connecto | Connecto | E H.S. | | Terminal | 63 | 64 | 65 66 | 67 | 70 | | | | Connector | Connector | Connector | e | H.S. | | Terminal N | ∞ | 6 | | |
| | | | | | | | | | | | | | | | | | | | | | ABKIA | A7266 | 6GB | |

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Revision: December 2015

Connector Name WIRE TO WIRE

В4

Connector No.

Connector Color WHITE

POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



G

Connector No.

Connector Name WIRE TO WIRE

B8

Connector No.

Connector Color WHITE



| 同词 H.S. | Terminal No. | - | |
|-----------------------------------------------------------------------------------------------------|------------------|----|---|
| | [| | 1 |
| 3 9 10 11 12 3 9 10 11 12 | Signal Name | I | |
| <u>+</u> <u>6</u> <u>7</u> <u>8</u> | Color of Wire | > | |
| 品 H.S. | Terminal No. | 10 | |

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POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]



ABKIA7328GB

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POWER DOOR LOCK SYSTEM [WITHOUT INTELLIGENT KEY SYSTEM]

| Connector No. D2 | | | Tominol No. | Color of | Cianol Nome | Connector N | o. D5 | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------|------------------|---------------------|-------------------------------|--------------|-----------------------|-------------------|---|
| Connector Name WIRE TO WIR | E | | l erminal No | ⁰ . Wire | signal Name | | MAIL | N POWER WINDOW | |
| Connector Color WHITE | | | ЗС | | I | Connector N | ame AND | | |
| | | | 4C | BR | 1 | | | | |
| (The second seco | | 1 | 13C | B | 1 | | | <u>–</u> | _ |
| С. Н | | | 42C | ſ | 1 | | 7 0 2 | | |
| | | | 48C | ≻ | I | | / 0 J 8 9 10 | 11 12 13 14 15 16 | |
| | | \square | 49C | В | 1 | о́ц | | | |
| 15C 14C 13C 12C 11C 10C 9C 8C | 7C 6C 5C 4C 3C 2C | 10 | 52C | BR | I | Tominan | Color of | Cincle Inc. | |
| 460450440430420410400390380370360 | 260250240230220210200190180 | 170160 | | | | | Wire | | |
| 550540530520510500480480470 | 1354344334324314304294284 | | | | | - m | | I OCK SW | |
| | _ | | | | | 15 | BB | UNLOCK SW | |
| | | | | | | | | | |
| | | | | | | | | | |
| Connector No. D9 | | Connector No | . D101 | | | Connector N | o. D10 ² | | |
| Connector Name FRONT DOOF | LOCK | Connector Na | me WIRE 1 | TO WIRE | | Notococco N | POM | | |
| Connector Color GRAY | | Connector Co | lor WHITE | | | | | | |
| | | | | | | Connector C | olor WHI ⁻ | TE | |
| | ſ | | | | | | | | |
| H.S. (1 2 3 4 5 | 9 | e E | | | | NHA | 1 2 8 7 8 | a 10 11 12 | |
| |]] | | | | | H.S. | 0 / 0 | 71 11 01 6 | |
| (| | 15A 14A 13/ | A 12A 11A 10A | 9A 8A 7A | 6A 5A 4A 3A 2A 1A | | 1 | | _ |
| Terminal No. Wire Sign | ial Name | 46A45A44A43A4 | 24414404394384 | 37A36A 26A25A | 24A23A22A21A20A19A113A117A16A | Terminal No. | Wire | Signal Name | |
| 1 BR | 1 | 55A54A53A5 | 2A51A50A49A48A | 47A 35A | 34A33A32A31A30A29A28A27A | - | ≻ | I | |
| 2 L | | | | | | N | BR | I | |
| 4 B | 1 | | | | | ო | m | I | |
| 5 Y | 1 | Terminal No. | Color of Wire | Signal Nar | me | | | | 7 |
| 9 | 1 | 3A | ~ | I | | | | | |
| | | 4A | > | 1 | | | | | |
| | | 12A | в | Т | | | | | |
| | | 42A | ٢ | I | | | | | |
| | | 52A | ВВ | 1 | | | | | |

ABKIA7329GB

Revision: December 2015



ABKIA7330GB

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[WITHOUT INTELLIGENT KEY SYSTEM]

TRUNK LID OPENER

Wiring Diagram

INFOID:000000012783267





TRUNK LID OPENER

ABKWA3187GB



< WIRING DIAGRAM >

[WITHOUT INTELLIGENT KEY SYSTEM]

Revision: December 2015

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< WIRING DIAGRAM >

[WITHOUT INTELLIGENT KEY SYSTEM]

Connector Color WHITE e c, -H.S Termi E

> H.S E

9 2

4

| Signal Name | I | Ι | Ι |
|------------------|---|---|----|
| Color of Wire | щ | В | GR |
| Terminal No. | - | 2 | 3 |

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Connector Color

Connector No.

| | | _ | | | | |
|----|----|---|----------------|----|----|--|
| ç | Ŋ | | e | | | |
| ç | 2 | | Nan | | . | |
| 13 | 18 | | Jal | ' | 1 | |
| 12 | 17 | | Sign | | | |
| Ξ | 16 | | | | | |
| 9 | 15 | | | | | |
| 6 | 14 | | - | | | |
| ~ | | | olor o Wire | œ | ≻ | |
| ٢ | - | | Ŭ, | | | |
| | | | ninal No. | 13 | 18 | |

| | 4 15 16 17 18 ¹³ ²⁰ | Signal Name | Ι | Ι | Ι | - |
|---|-------------------------------------------|------------------|---|---|----|---|
| c | ° | Color of Wire | щ | ≻ | GR | ш |

19 20

[WITHOUT INTELLIGENT KEY SYSTEM]

BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012783268

OVERALL SEQUENCE



JMKIA8652GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

| I.GET INFORMATION FOR SYMPTOM | Λ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs). | A |
| 2. Check operation condition of the function that is malfunctioning. | В |
| >> GO TO 2. | |
| 2.CHECK DTC | С |
| 1. Check DTC. | |
| Perform the following procedure if DTC is detected. Record DTC and freeze frame data (Print them out using CONSULT.) Erase DTC. | D |
| Study the relationship between the cause detected by DTC and the symptom described by the customer.Check related service bulletins for information. | Е |
| Are any symptoms described and any DTC detected? | |
| Symptom is described, DTC is detected>>GO TO 3. Symptom is described, DTC is not detected>>GO TO 4. Symptom is not described, DTC is detected>>GO TO 5. | F |
| 3. CONFIRM THE SYMPTOM | |
| Try to confirm the symptom described by the customer. Also study the normal operation and fail-safe related to the symptom. Verify relation between the symptom and the condition when the symptom is detected. | G |
| >> 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. | I |
| | J |
| 5 DEDEORM DTC CONFIDMATION PROCEDURE | |
| Deferm DTC CONFIRMATION PROCEDURE | DLK |
| again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-115</u> , " <u>DTC Inspection Priority Chart</u> " and determine trouble diagnosis order. | L |
| 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 | Μ |
| If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIR- MATION PROCEDURE. | Ν |
| Is DTC detected? | |
| YES >> GO TO 7. | \bigcirc |
| 6 DETECT MALEUNCTIONING SYSTEM BY SYMPTOM DIACNOSIS | 0 |
| | |
| A, and determine the trouble diagnosis order based on possible causes and symptom. | Ρ |
| $\frac{15 \text{ the symptom described }}{\text{YES}} > \text{GO TO 7}$ | |
| NO >> Monitor input data from related sensors or check voltage of related module terminals using CON- SULT. | |
| 7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE | |

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to <u>GI-41, "Intermittent Incident"</u>.

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

9.FINAL CHECK

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

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

Is DTC detected and does symptom remain?

- YES-1 >> DTC is detected: GO TO 7.
- YES-2 >> Symptom remains: GO TO 4.

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

KEYFOB ID REGISTRATION

< BASIC INSPECTION > **KEYFOB ID REGISTRATION**

| | А |
|---------------------------------------------------------------------------------------------------------------------|------------------------|
| Description | INFOID:000000012783269 |
| Perform the following procedure after BCM is replaced or when new keyfob ID is registered | В |
| When registering the keyfob ID, perform only one procedure to simultaneously register both LIZER ID and keyfob ID). | ID (IMMOBI- |
| Work Procedure | INFOID:000000012783270 |
| 1 .STEP 1 | D |
| Close all doors. | |
| | F |
| 2 .STEP 2 | |
| Perform lock operation by door lock and unlock switch. | F |
| | |
| 3 -STEP 3 | G |
| 1. Remove and insert the key into the ignition key cylinder 6 times within 10 seconds (turning | |
| the key switch from OFF to ON counts as 1 time). | Н |
| NOTE: | |
| On the sixth key insertion, keep the key in the ignition key cylinder with the key switch ON. | 1 |
| YES >> GO TO 4. | |
| NO >> GO TO 1. | .1 |
| 4. STEP 4 | 0 |
| Turn ignition switch to ACC within 3 seconds after all doors unlock and perform lock operation and unlock switch. | by door lock |
| >> GO TO 5. | |
| 5 .STEP 5 | L |
| 1. Press the lock or unlock button of the keyfob to be added. | |
| All doors unlock simultaneously. Key ID is registered. | Μ |
| Is key ID registered? | |
| YES-1 >> When adding a keyfob: GO TO 6. | N |
| NO $>>$ GO TO 1. | IN IN |
| 6 .STEP 6 | |
| Perform lock operation by door lock and unlock switch. | 0 |
| >> GO TO 7. | P |
| 7 .STEP 7 | I |
| 1. Press the lock or unlock button of the keyfob to be added. | |
| All doors unlock simultaneously. Key ID is registered. | |
| Is key ID registered? | |

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

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

Open the driver door.

>> REGISTRATION END

U1000 CAN COMM

[WITHOUT INTELLIGENT KEY SYSTEM]

Description Refer to LAN-26, "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) | F (|

Diagnosis Procedure

1. PERFORM SELF DIAGNOSTIC RESULT

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

2. Check "SELF- DIAG RESULTS".

Is "CAN COMM CIRCUIT" displayed?

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

>> Refer to GI-41, "Intermittent Incident". NO

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INFOID:000000012783271

INFOID:000000012783272

INFOID:000000012783273



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

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000012783274

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:000000012783275

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to <u>BCS-135. "Removal and Installation"</u>.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Diagnosis Procedure

POWER SUPPLY AND GROUND CIRCUIT

| .CHECK FUSES | AND FUSIBLE LIN | IK | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|------------------------------------------------------------------|-----------------------------|
| heck that the follo | wing fuses and fus | ible link are not bl | own. | | |
| Termin | al No. | Signal | name | Fuses and fu | isible link No. |
| 63 | 3 | Battery po | wer supply | 12 (| 10A) |
| 70 |) | Dattery por | | G (40A) 18 (10A) | |
| 11 | | Ignition switch | n ACC or ON | | |
| 38 | 3 | Ignition switch | ON or START | 4 (1 | 0A) |
| YES >> Replac NO >> GO TC .CHECK POWER | e the blown fuse or 2. R SUPPLY CIRCUI | fusible link after i T | repairing the affecte | ed circuit. | |
| YES >> Replac NO >> GO TC .CHECK POWER Turn ignition sy Disconnect BC Check voltage | e the blown fuse or 2. R SUPPLY CIRCUI witch OFF. M connectors. between BCM conr | fusible link after r T nector and ground | repairing the affecte | ed circuit. | |
| YES >> Replac NO >> GO TC .CHECK POWER Turn ignition sv Disconnect BC Check voltage | e the blown fuse or 2. R SUPPLY CIRCUI vitch OFF. M connectors. between BCM conn | fusible link after r T nector and ground | repairing the affecte | ed circuit. | n |
| YES >> Replac NO >> GO TC .CHECK POWER Turn ignition sv Disconnect BC Check voltage BC Connector | e the blown fuse or 2. R SUPPLY CIRCUI vitch OFF. M connectors. between BCM conn | fusible link after r T nector and ground Ground | repairing the affecte | ed circuit. Ignition switch positic | on ON |
| YES >> Replac NO >> GO TC .CHECK POWER Turn ignition sy Disconnect BC Check voltage BC Connector | e the blown fuse or 2. R SUPPLY CIRCUI witch OFF. M connectors. between BCM conn CM Terminal 63 | fusible link after n T nector and ground Ground | OFF | ed circuit. Ignition switch positic ACC | on ON |
| YES >> Replac NO >> GO TC .CHECK POWEF Turn ignition sv Disconnect BC Check voltage BC Connector M20 | e the blown fuse or 2. R SUPPLY CIRCUI vitch OFF. M connectors. between BCM conn CM Terminal 63 70 | fusible link after n T nector and ground Ground | OFF | ed circuit. Ignition switch positic ACC Battery voltage | on ON Battery voltage |
| YES >> Replac NO >> GO TC .CHECK POWER . Turn ignition sv Disconnect BC . Check voltage BC Connector M20 M21 | e the blown fuse or 2. R SUPPLY CIRCUI witch OFF. M connectors. between BCM connectors. CM Terminal 63 70 11 | fusible link after n T nector and ground Ground | OFF | ed circuit. Ignition switch positio ACC Battery voltage | on ON Battery voltage |

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

| B | CM | Ground | Continuity | n n |
|--------------------|----|--------|------------|-----|
| Connector Terminal | | Ground | Continuity | |
| M20 | 65 | _ | Yes | |

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

[WITHOUT INTELLIGENT KEY SYSTEM]

INFOID:000000013374463

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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 mode with CONSULT.

| Monitor item | Condition |
|--------------|-----------|
| DOOR SW-DR | |
| DOOR SW-AS | |
| DOOR SW-RL | |
| DOOR SW-RR | |
| | |

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-246</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-218, "Wiring Diagram"</u>.

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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

Revision: December 2015

INFOID:000000012783277

INFOID:000000012783278

INFOID:000000012783279

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]



1. Disconnect BCM connector and door switch connector.

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

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| BCM connector | Terminal | Door switch connector | Terminal | Continuity |
|---------------|----------|--------------------------|----------|------------|
| | 45 | B28 (Front RH) | | Yes |
| P57 | 48 | B41 (Rear RH) | 2 | |
| 857 | 46 | B21 (Front LH) | 5 | 165 |
| | 47 | B26 (Rear LH) | | |

3. Check continuity between BCM connector and ground.

| BCM connector | Terminal | | Continuity | |
|---------------|----------|--------|------------|--|
| | 45 | | | |
| P57 | 48 | Ground | No | |
| 637 | 46 | | | |
| | 47 | | | |

Is the inspection result normal?

YES >> GO TO 3

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

3.CHECK DOOR SWITCH

Refer to DLK-248, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK DOOR SWITCH

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

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch.

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| | | DOOR | LOCK A | ND UNLOCK S | WITCH | |
|------------------------------------------|-------------------------------------------------------------------------------------|----------------------|-----------------------------|---------------------------------|-------------------------------|------------------------|
| < DTC/CII | RCUIT DIAGNOSI | S > | | [WITH | OUT INTELLIGEN | T KEY SYSTEM] |
| DOOR | LOCK AND L | JNLO | CK SWIT | ГСН | | |
| DRIVEF | R SIDE | | | | | |
| | R SIDE : Descri | ption | | | | INFOID:000000012783281 |
| Francmita | door look/uplook or | oration | | | | |
| | | | Eupotion | Chook | | |
| | | Jient | FUNCTION | CHECK | | INFOID:000000012783282 |
| 1.CHEC | K FUNCTION | | | | | |
| With Contract Check CD | DNSULT L LOCK SW, CDL I | JNLOCH | SW in Data | a Monitor mode with C | CONSULT. | |
| | Monitor item | | | | Condition | |
| | | | | LOCK | : ON | |
| CDL LO | UN 311 | | | UNLOCK | : OFF | |
| CDL UN | ILOCK SW | | | LOCK | : OFF | |
| | | | | UNLOCK | : ON | |
| s the insp | ection result norma | <u> ?</u> | | | | |
| YES > | Door lock and un Refer to DI K-240 | | Chis OK. | liagnosis Procedure" | | |
| | | · - | | <u>agnosio i roccure</u> . | | |
| .CHECk . Turn i . Check side) i | K POWER WINDOW gnition switch ON. k voltage at the main s turned to "LOCK" | N SWIT(| window and OCK". | SIGNAL | itch connector wher | n the switch (driver |
| Connector | door lock/unlock swite state | ch | Terminal | Voltage | | |
| D5 | Neutral \rightarrow Unlock Neutral \rightarrow Lock | 15 | Ground | Battery voltage $\rightarrow 0$ | | |
| s the insp YES > NO > 2.CHECP | ection result norma > GO TO 5 > GO TO 2 < POWER WINDO | <u>12</u> N SWITC | CH GROUN | D | | |
| 1. Turn i 2. Disco 3. Check | gnition switch OFF. nnect main power v c continuity betweer | vindow a n main p | nd door locl ower windov | w and door lock/unloc | ctor. k switch connector a | and ground. |
| Main power lock/unlock | r window and door < switch connector | Ter | minal | Continuity | | |
| | D5 | 1 | Ground | Yes | | |
| s the insp | ection result norma | 1? | | | | |
| YES > NO > | > GO TO 3 > Repair or replace | harnes | S. | | | |

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK POWER WINDOW SWITCH

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

| Main power window and door lock/unlock switch state | Terminals | Continuity |
|-----------------------------------------------------|-----------|------------|
| Lock | 1 - 3 | Ves |
| Unlock | 15 - 1 | 165 |
| Neutral/Lock | 15 - 1 | No |
| Neutral/Unlock | 1 - 3 | NO |

Is the inspection result normal?

YES >> GO TO 4

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

4.CHECK POWER WINDOW SWITCH CIRCUITS

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

| BCM connector | Terminal | Main power window and door lock/unlock switch connector | Terminal | Continuity |
|---------------|----------|---------------------------------------------------------------|----------|------------|
| M21 | 12 | D5 | 3 | Vec |
| | 13 | D5 | 15 | 165 |

3. Check continuity between BCM connector and ground.

| BCM connector | Terr | Continuity | | |
|---------------|------|------------|----|--|
| M21 | 12 | Ground | No | |
| IVIZ I | 13 | Ground | NO | |

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End. PASSENGER SIDE

PASSENGER SIDE : Description

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE : Component Function Check

1.CHECK FUNCTION

With CONSULT

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

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DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| | Monitor item | | | Condition | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------|---------------------|---------------|------------------------|
| | | | | LOCK | | : ON | | |
| CDL LOCK SW | | | | UNLOCK | | : OFF | | |
| | | | | | LOCK | | : OFF | |
| CDL UN | CDL UNLOCK SW | | | | UNLOCK | | : ON | |
| the insp | ection result norm | <u>al?</u> | · | | | | | |
| YES > | > Door lock and u | nlock switch is | s OK. | | | | | |
| NO > | > Refer to <u>DLK-25</u> | <u>1, "PASSEN(</u> | <u>JER SIL</u> | <u> </u> | agnosis Pro | cedure" | | |
| PASSE | NGER SIDE : [| Diagnosis I | Proce | dure | | | | INFOID:000000012783286 |
| | | | | | | | | |
| Regarding | ı Wiring Diagram ir | formation. re | fer to D | LK-226 | 6. "Wirina D | iaaram". | | |
| | , | , | | | | | | |
| | | | יו וסדו ור | | | | | |
| | | | | | 171L | | | |
| 2. Check | k voltage at the pov | wer window a | nd dooi | r lock/u | Inlock switc | h RH co | nnector when | the switch (passen- |
| ger si | de) is turned to "LO | OCK" or "UNL | OCK". | | | | | , i |
| | 1 | | | | | | | |
| Connector | Power window and | Termin | al | ` | Voltage | | | |
| Connector | switch RH state | | | | voltage | | | |
| D104 | Neutral \rightarrow Lock | 1 | Oraciand | Detter | | | | |
| D104 | Neutral \rightarrow Unlock | 2 | Ground | Battery voltage $\rightarrow 0$ | | | | |
| | oction recult norm | | | | | | | |
| <u>s the insp</u> | | <u>al (</u> | | | | | | |
| <u>s the insp</u> YES > | > GO TO 5 | | | | | | | |
| s the insp YES > NO > | > GO TO 5 > GO TO 2 | | | | | | | |
| s the insp YES > NO > 2.CHECH | > GO TO 5 > GO TO 2 < POWER WINDO | W SWITCH (| BROUN | D | | | | |
| s the insp YES > NO > 2.CHECP | > GO TO 5 > GO TO 2 < POWER WINDO gnition switch OFF | W SWITCH (| GROUN | D | | actor | | |
| s the insp YES > NO > CHECP . Turn i Disco . Check | > GO TO 5 > GO TO 2 COVER WINDO Goition switch OFF nnect power windo continuity betweet | W SWITCH (w and door k n power winc | GROUN | D ock swit | tch RH con | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > 2.CHECH I. Turn i 2. Disco 3. Chech | > GO TO 5 > GO TO 2 < POWER WINDO gnition switch OFF nnect power windo < continuity betweet | W SWITCH (w and door lo n power winc | GROUN bck/unic | D ock swit door l | tch RH coni | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECF I. Turn i 2. Disco 3. Checf Power wir | > GO TO 5 > GO TO 2 < POWER WINDO gnition switch OFF nnect power windox continuity betwee | W SWITCH (w and door k n power wind Termina | GROUN bck/unlo low and | D ock swit door l | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco B. Chech Power wir unlock sv | > GO TO 5 > GO TO 2 C POWER WINDO gnition switch OFF nnect power windo c continuity betwee Indow and door lock/ vitch RH connector | W SWITCH (w and door lo n power winc Termina | BROUN bck/unic low and | D ock swii I door le Ca | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco . Chech Power wir unlock sv | > GO TO 5 > GO TO 2 < POWER WINDO gnition switch OFF nnect power windo < continuity betwee ndow and door lock/ vitch RH connector D104 | W SWITCH (w and door k n power wind Termina | GROUN bock/unic low and l Ground | D ock swir door l Ca | tch RH coni ock/unlock ontinuity Yes | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH I. Turn i Disco B. Chech Power wir unlock sv | > GO TO 5 > GO TO 2 C POWER WINDO gnition switch OFF nnect power windo continuity betwee ndow and door lock/ vitch RH connector D104 ection result normatication > CO TO 2 | W SWITCH (w and door lo n power winc Termina 3 al? | Ground | D ock swii door li Ca | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECF I. Turn i 2. Disco 3. Checf Power wir unlock sv s the insp YES > NO > | > GO TO 5 > GO TO 2 C POWER WINDO gnition switch OFF nnect power windox continuity betwee ndow and door lock/ witch RH connector D104 ection result normation > GO TO 3 > Repair or replace | W SWITCH (w and door lo n power wind Termina 3 al? e harness. | GROUN bock/unic low and l Ground | D ock swit door l Ca | tch RH coni ock/unlock ontinuity Yes | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco . Chech Power wir unlock sv Sthe insp YES > NO > CHECH | > GO TO 5 > GO TO 2 <li< td=""><td>W SWITCH (w and door lo n power winc Termina 3 al? e harness.</td><td>GROUN bock/unic low and</td><td>D ock swii door li Ca</td><td>tch RH coni ock/unlock ontinuity Yes</td><td>nector. switch R</td><td>H connector a</td><td>nd ground.</td></li<> | W SWITCH (w and door lo n power winc Termina 3 al? e harness. | GROUN bock/unic low and | D ock swii door li Ca | tch RH coni ock/unlock ontinuity Yes | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH I. Turn i Disco 3. Chech Power wir unlock sv s the insp YES > NO > CHECH | > GO TO 5 > GO TO 2 C POWER WINDO gnition switch OFF nnect power windox continuity betwee ndow and door lock/ witch RH connector D104 ection result normative > GO TO 3 > Repair or replace C POWER WINDO Tinuity between point | W SWITCH (w and door lo n power winc Termina 3 al? e harness. W SWITCH | GROUN bock/unic low and I Ground | D ock swit door l Ca | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco . Chech Power wir unlock sv YES > NO > CHECH Check cor | > GO TO 5 > GO TO 2 <li< td=""><td>W SWITCH (w and door lo n power wind Termina 3 al? e harness. W SWITCH</td><td>GROUN bock/unic low and I Ground</td><td>D ock swii door l Ca</td><td>tch RH coni ock/unlock ontinuity Yes</td><td>nector. switch R</td><td>H connector a</td><td>nd ground.</td></li<> | W SWITCH (w and door lo n power wind Termina 3 al? e harness. W SWITCH | GROUN bock/unic low and I Ground | D ock swii door l Ca | tch RH coni ock/unlock ontinuity Yes | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco . Chech Power wir unlock sv Sthe insp YES > NO > CHECH Check cor | > GO TO 5 > GO TO 2 <li< td=""><td>W SWITCH (w and door lo m power winc Termina 3 al? e harness. W SWITCH wer window a</td><td>GROUN</td><td>D ock swit door l Ca or lock/u</td><td>tch RH coni ock/unlock</td><td>nector. switch R</td><td>H connector a</td><td>nd ground.</td></li<> | W SWITCH (w and door lo m power winc Termina 3 al? e harness. W SWITCH wer window a | GROUN | D ock swit door l Ca or lock/u | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH . Turn i Disco . Chech Power wir unlock sv Sthe insp YES > NO > CHECH Check cor | Solution result from the solution result from the solution for the solution is solution for the solution of the solution is solution for the solution for th | W SWITCH (w and door lo n power wind Termina 3 al? e harness. W SWITCH wer window a ock switch RH sta | GROUN | D ock switt door li co or lock/i | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH I. Turn i Disco B. Chech Power wir unlock sv S the insp YES > NO > CHECH Check cor | Solution result from the solution result from the solution is solution for the solution is solution in the solution is solution is solution in the solution is solution. Solution is solution is solution is solution is solution is solution. Solution is solution in the solution is solution. Solution is solution is solution in the solution is solution. Solution is solution in the solution in the solution in the solution is solution. Solution is solution in the solution in the solution in the solution is solution. Solution is solution in the solution in the solution in the solution in the solution is solution. Solution is solution in the solutin the solution in the solution in the solution in | W SWITCH (w and door lo m power winc Termina 3 al? e harness. W SWITCH wer window a ock switch RH sta | GROUN | D ock swit door l c or lock/u minals 1 - 3 2 - 3 | tch RH confock/unlock | hector. switch R | H connector a | nd ground. |
| s the insp YES > NO > CHECH I. Turn i Disco 3. Chech Power wir unlock sv s the insp YES > NO > CHECH Check cor | Section result from the section result from the section result from the section result norm is section result n | W SWITCH (w and door lo n power wind Termina 3 al? e harness. W SWITCH wer window a ock switch RH sta | GROUN | D ock swin door li c c or lock/i minals 1 - 3 2 - 3 1 - 3 | tch RH coni ock/unlock | nector. switch R | H connector a | nd ground. |

NO

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

< DTC/CIRCUIT DIAGNOSIS >

4. CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.

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

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

3. Check continuity between BCM connector and ground.

| BCM connector | Terr | Continuity | | |
|---------------|------|------------|----|--|
| M21 | 12 | Ground | No | |
| | 13 | Ground | NO | |

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
KEY CYLINDER SWITCH

Description

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

Component Function Check

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" Distribution with CONSULT. Refer to <u>DLK-215, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

| | Monitor it | em | | C | ondition | | Ε |
|-------------------|---------------------|-----------------------------|---------------------------|------------------|----------|------------------------|--------|
| | 0.44 | | | Lock | : ON | | |
| KEY CYLLK- | 500 | | | Neutral / Unlock | : OFF | | _ |
| | 0.04 | | | Unlock | : ON | | - |
| KEY CYL UN | -570 | | | Neutral / Lock | : OFF | | |
| Is the inspection | on result nor | mal? | | | | | G |
| YES >> Ke | y cylinder s | witch is OK | ζ. | | | | |
| NO >> Re | efer to <u>DLK-</u> | <u>253, "Diagr</u> | <u>nosis Procedure"</u> . | | | | |
| Diagnosis F | rocedure | ; | | | | INFOID:000000012783289 | H |
| | | | | | | | |
| Pegarding Wiri | ing Diagram | informatio | n refer to DLK 21 | | | | |
| Regarding win | ny Diayran | Innormatio | II, TETET TO $DLR-22$ | | | | |
| 4 | | | | | | | |
| I.CHECK DO | OR KEY C | LINDER S | SWITCH INPUT S | IGNAL | | | J |
| 1. Turn ignitio | on switch Of | N. | | | | | |
| 2. Check volt | age betwee | n BCM con | nector and groun | id. | | | DLk |
| | Terminals | | | | | | |
| (+) | | | Key position | Voltage (V) | | | |
| | Torminal | (-) | Rey position | (Approx.) | | | L |
| | Terminal | | Lock | 0 | | | |
| | 8 | - | Neutral / Unlock | | | | М |
| M21 | | Ground | Linlock | 0 | | | |
| | 7 | | Neutral / Lock | | | | |
| | | | Neutral / LOCK | 7.0 - 0.0 V | | | Ν |
| | on result nor | <u>mar:</u> k kov ovline | har awitab I H ia C | | | | |
| NO >> G(| D TO 2 | k key cyllic | | л | | | \sim |
| 2 CHECK DO | | | | | | | 0 |
| | | | | | | | |
| | | | | | | | |
| 1. Turn ignitic | on switch Of | F. | linder switch I H (| | | | Р |

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

Is the inspection result normal?

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С

KEY CYLINDER SWITCH

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YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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

| Front door lock key cylin- der switch LH connector | Terminal | BCM connector | Terminal | Continuity |
|-------------------------------------------------------|----------|---------------|----------|------------|
| ٥٩ | 6 | M21 | 8 | Vos |
| D9 | 5 | IVIZ I | 7 | 165 |

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

| Front door lock key cylin- der switch LH connector | Terminal | | Continuity |
|-------------------------------------------------------|----------|--------|------------|
| מח | 6 | Ground | No |
| 59 | 5 | | NO |

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch. Refer to <u>DLK-254</u>, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

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

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock key cylinder switch LH.

| Term | ninal | | |
|-----------------------------|-----------------------------|------------------|------------|
| Front door loc switch LH | k key cylinder connector | Key position | Continuity |
| 6 | | Lock | Yes |
| 0 | 1 | Neutral / Unlock | No |
| 5 | | Unlock | Yes |
| | | Neutral / Lock | No |

Is the inspection result normal?

YES >> Key cylinder switch is OK.

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

KEY SWITCH (BCM INPUT)

[WITHOUT INTELLIGENT KEY SYSTEM]

| KEY SV | VITCH | (BCM | INPUT) | | | ^ |
|-------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|--------------------|--------------------------------------------|-----|
| Diagnos | is Proce | edure | | | INFOID:000000012783291 | A |
| Regarding | Wiring D | iagram inf | ormation, refer to <u>[</u> | DLK-218, "Wiring D | agram". | В |
| 1. CHECK | KEY SW | /ITCH INF | PUT SIGNAL | | | С |
| With CC Check key CONSUL When ke | DNSULT switch "k <u>T Functio</u> y is inser | KEY ON S <u>n (BCM -</u> ted to igni | W" in DATA MONI <u>DOOR LOCK)"</u> . tion key cylinder: | TOR mode with CC | NSULT. Refer to <u>DLK-215, "DOOR LOCK</u> | D |
| KE | Y ON SW | 1 | : ON | | | E |
| • When ke | y is remo | ved from i | gnition key cylinde | er: | | |
| KE | Y ON SW | I | : OFF | | | F |
| Without Check volt | : CONSUI age betwo | LT een BCM | connector M21 ter | minal 37 and groun | d. | G |
| Connector | Terr | minal | Condition | Voltage (V) | - | Н |
| | (+) | () | | | - | |
| M21 | 37 | Ground | Key is inserted. | Battery voltage | - | |
| Is the insp | ection res | ult norma | ? | 0 | - | |
| YES > | > Key swi | tch (inser |) circuit is OK. | | | J |
| | | 2 //TCLL//N/ | | | | |
| | | | SERI) | | | DLK |
| Discor Check | nect key continuit | switch co y betweer | nnector. ı key switch termin | als. | | L |
| Termina | als | С | ondition | Continuity | - | |
| 1_2 | , | Key | is inserted. | Yes | _ | M |
| 1-2 | | Key | s removed. | No | _ | |
| Is the insp | ection res | ult norma | <u>?</u> | | | NI |
| 1E5 > NO > | Repair (Replace | e key swite | namess or tuse. ch. | | | 1 N |
| | | | | | | 0 |

< DTC/CIRCUIT DIAGNOSIS >

Ρ

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

DRIVER SIDE : Description

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-256, "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-226, "Wiring Diagram"</u>.

1.CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

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

Is the inspection result normal?

YES >> GO TO 2

NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

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

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

| BCM connector | Terminal | Door lock actuator connector | Terminal | Continuity |
|---------------|----------|---------------------------------|----------|------------|
| M20 | 64 | ٩٩ | 2 | Ves |
| WIZ0 | 66 | 53 | 1 | 163 |

Is the inspection result normal?

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

3. CHECK DOOR LOCK ACTUATOR HARNESS

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

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| Connector | | Termin | als | Conti | nuity | | А |
|--------------------------------------------------|-------------------------------------------------|---------------------------------------------|--------------------------------------------|-----------------------|----------------------------|------------------------|----|
| | 64 | Terrinin | | Conta | laity | | |
| M20 | 66 | | Ground | No |) | | В |
| Is the inspect YES >> R NO >> R PASSENC | ion result eplace B epair or r GER SII | <u>normal?</u> CM. Ref eplace f DE | 2 er to <u>BCS-1</u> narness. | 1 <u>35, "Remova</u> | l and Installa | ation". | С |
| PASSENG | ER SID | E : De | escription | | | INFOID:000000012783295 | D |
| Locks/unlocks | s the door | with the | e signal fron | n BCM. | | | |
| PASSENG | ER SID | E : Co | mponent | t Function | Check | INFOID:000000012783296 | Е |
| 1.CHECK FU | JNCTION | l | | | | | _ |
| 1. Use CON | ISULT to | perform | Active Test | ("DOOR LOO | K"). | | F |
| 2. Touch "A | LL LOCK | or ALL | UNLOCK" | to check that | It works nor | mally. | |
| YES >> D | oor lock a | actuator | is OK. | | | | G |
| NO >> R | tefer to D | <u>LK-257,</u> | "PASSENG | <u> SER SIDE : Di</u> | agnosis Pro | <u>cedure"</u> . | |
| PASSENG | ER SID | E : Dia | agnosis F | Procedure | | INFOID:000000012783297 | Н |
| Regarding W | ring Diag | ram info | rmation, ref | er to <u>DLK-226</u> | 6, "Wiring Di | agram". | I |
| I.CHECK D | OOR LOO | | JATOR SIG | INAL | | | J |
| Check voltage | e betweer | n BCM c | onnector ar | nd ground. | | | |
| Т | erminals | | | | | - | DL |
| (+) | | | Condition door lock a | of Volt | age (V) | • | |
| BCM connector | Terminal | () | unlock swi | tch (A) | oprox.) | | L |
| | 66 | | Lock | 0 → Batter | Ty voltage $\rightarrow 0$ | - | |
| M20 - | 67 | Ground | Unlock | 0 → Batter | ry voltage $\rightarrow 0$ | - | М |
| Is the inspect | ion result | normal? | 2 | | | - | |
| YES >> G | O TO 2 | | | | | | N |
| 2.CHECK D | OOR LOC | | JATOR CIR | CUIT | | | IN |
| 1. Turn ignit | ion switch | n OFF. | door look a | etuator PH or | nnectors | | 0 |
| 3. Check co | ntinuity b | etween | BCM conne | ector and front | door lock a | ctuator RH. | |
| BCM connec- tor | Termi | nal | ront door lock actuator RH connector | Terminal | Continuity | | Ρ |
| M20 | 66 | | D107 | 5 | Yes | | |
| | 67 | | | 6 | | | |
| Is the inspect | ion result | normal? | <u>}</u> | 5.1 | | | |

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

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

| Ter | minals | Continuity |
|-----|--------|------------|
| 66 | Ground | No |
| 67 | Cround | NO |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-135, "Removal and Installation"</u>. NO >> Repair or replace harness.

REAR LH

REAR LH : Description

Locks/unlocks the door with the signal from BCM.

REAR LH : Component Function Check

1.CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.
- Is the inspection result normal?
- YES >> Door lock actuator is OK.
- NO >> Refer to <u>DLK-258</u>, "REAR LH : <u>Diagnosis Procedure</u>".
- **REAR LH** : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>DLK-226. "Wiring Diagram"</u>.

1. CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

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

Is the inspection result normal?

YES >> GO TO 2

NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

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

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

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INFOID:000000012783298

INFOID:000000012783299

DOOR LOCK ACTUATOR

[WITHOUT INTELLIGENT KEY SYSTEM]

| BCM connector Terminal Door lock actuator connector Terminal Continuity M20 66 D202 1 Yes Is the inspection result normal? YES >> Replace rear door lock actuator LH. | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| M20 66 67 D202 1 2 Yes Is the inspection result normal? YES >> Replace rear door lock actuator LH. | |
| <u>Is the inspection result normal?</u> YES >> Replace rear door lock actuator LH. | |
| YES >> Replace rear door lock actuator LH. | |
| NO >> Repair or replace harness. | |
| Turn ignition switch OFF. Disconnect BCM and rear door lock actuator LH connectors. Check continuity between BCM connector M20 terminals 66, 67 and ground. | |
| Terminals | |
| 66 No 67 Ground | |
| YES >> Replace BCM. Refer to <u>BCS-135, "Removal and Installation"</u> . NO >> Repair or replace harness. REAR RH | |
| REAR RH : Description | INFOID:00000001 |
| Locks/unlocks the door with the signal from BCM. REAR RH : Component Function Check | INFOID:00000001: |
| 1.CHECK FUNCTION | |
| Use CONSULT to perform Active Test ("DOOR LOCK"). 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-259</u>, "REAR RH : Diagnosis Procedure". | |
| REAR RH : Diagnosis Procedure | INFOID:000000011 |
| | |

1. CHECK DOOR LOCK ACTUATOR SIGNAL

Check voltage between BCM connector and ground.

| | Terminals | | A 1111 A | |
|------------------|-----------|--------|-------------------------------|-------------------------------------------------|
| (+ | -) | | Condition of door lock and | Voltage (V) |
| BCM connector | Terminal | (–) | unlock switch | (Approx.) |
| M20 | 66 | Ground | Lock | $0 \rightarrow Battery \ voltage \rightarrow 0$ |
| IVIZ0 | 67 | Giouna | Unlock | $0 \rightarrow Battery \ voltage \rightarrow 0$ |

Is the inspection result normal?

YES >> GO TO 2 NO >> GO TO 3 Ν

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< DTC/CIRCUIT DIAGNOSIS >

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

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

| BCM connector | Terminal | Door lock actuator connector | Terminal | Continuity |
|---------------|----------|---------------------------------|----------|------------|
| M20 | 66 | D302 | 5 | Ves |
| IVIZO | 67 | 0302 | 6 | 165 |

Is the inspection result normal?

- YES >> Replace rear door lock actuator RH.
- NO >> Repair or replace harness.

3. CHECK DOOR LOCK ACTUATOR HARNESS

1. Turn ignition switch OFF.

2. Disconnect BCM and rear door lock actuator RH.

3. Check continuity between BCM connector M20 terminals 66, 67 and ground.

| Ter | minals | Continuity |
|-----|--------|------------|
| 66 | Ground | No |
| 67 | Ground | 110 |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-135, "Removal and Installation"</u>.

NO >> Repair or replace harness.

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

REMOTE KEYLESS ENTRY RECEIVER

Description

Receives keyfob operation and transmits to BCM.

Component Function Check

1.CHECK FUNCTION

With CONSULT

Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

| Monitor item | Condition |
|----------------|--------------------------------------------------------------------------------------|
| KEYLESS LOCK | Checks whether value changes from "Off" to "On" when operating keyfob lock button. |
| KEYLESS UNLOCK | Checks whether value changes from "Off" to "On" when operating keyfob unlock button. |
| KEYLESS PANIC | Checks whether value changes from "Off" to "On" when operating keyfob panic button. |

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to DLK-261, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-218. "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 | | | | DLF |
|--------------------------------------------|----------|--------|-----------------------------------------|--------------------------------------------------------------|--------|
| (+) | | - | Condition | Signal | |
| Remote keyless entry receiver connector | Terminal | () | | (Relefence value) | L |
| | | | Key inserted into ignition key cylinder | 0 V | |
| M131 | 2 | Ground | Waiting | (V) 6 4 2 0 ••••••••••••••••••••••••••••••••• | M N |
| | | | When signal is received | (V) 6 2 0 •••••1.0ms PIIB7729J | Ρ |

Is the inspection result normal?

YES >> GO TO 7

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REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

NO >> GO TO 2

2. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

- 1. Disconnect remote keyless entry receiver connector.
- 2. Check signal between remote keyless entry receiver connector and ground with oscilloscope.

| Т | erminals | | | |
|---------------------------------------------------|----------|--------|-------------------------------------------------------------|------------------------------------------------------|
| (+) | | | | Signal |
| Remote keyless en- try receiver connec- tor | Terminal | (-) | Condition | (Reference value) |
| | | | Key inserted into ignition key cylinder | 0 V |
| | | | Key removed from ignition key cylinder (Any door open) | 5 V |
| M131 | 4 | Ground | Key removed from ignition key cylinder (Any door closed) | (V) 6 4 2 0 • • • 0.2 s JPMA0338JP |

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 3

3.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

1. Disconnect BCM connector.

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

| BCM connector | Terminal | Remote keyless entry receiver connector | Terminal | Continuity |
|---------------|----------|-----------------------------------------------|----------|------------|
| M21 | 19 | M131 | 4 | Yes |

3. Check continuity between BCM connector and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|----------|------------|
| M21 | 19 | Globalia | No |

Is the inspection result normal?

YES >> Reconnect BCM, GO TO 4

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

 ${f 4}.$ CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver connector and ground.

| Remote keyless entry receiver connector | Terminal | Ground | Continuity |
|-----------------------------------------------|----------|--------|------------|
| M131 | 1 | | Yes |

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

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

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| BCM connector | Terminal | Remote keyless entry receiver connector | Terminal | Continuity |
|------------------|----------|-----------------------------------------------|----------|------------|
| M21 | 18 | M131 | 1 | Yes |

Is the inspection result normal?

YES >> GO TO 7

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

6.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 3

1. Check continuity between BCM connector and remote keyless entry receiver connector.

| BCM connector | Terminal | Remote keyless entry receiver connector | Terminal | Continuity |
|------------------|----------|-----------------------------------------------|----------|------------|
| M21 | 20 | M131 | 2 | Yes |

2. Check continuity between BCM connector and ground.

| BCM connector Terminal Ground | Continuity |
|-------------------------------|------------|
| M21 20 | No |

Is the inspection result normal?

YES >> GO TO 7

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

7. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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KEYFOB BATTERY AND FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

KEYFOB BATTERY AND FUNCTION

Description

The following functions are available when having and carrying the keyfob.

- Door lock/unlock
- Panic mode (horn and headlamp operation)
- Remote control entry function and panic alarm function are available when operating the remote buttons.

Component Function Check

NOTE:

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

- · Check keyfob relative signal strength
- · Confirm vehicle antenna signal strength

1.CHECK FUNCTION

With CONSULT

Check remote keyless entry receiver KEYLESS LOCK, KEYLESS UNLOCK, and KEYLESS PANIC in Data Monitor mode with CONSULT.

| Monitor item | Condition |
|----------------|--------------------------------------------------------------------------------------|
| KEYLESS LOCK | Checks whether value changes from "Off" to "On" when operating keyfob lock button. |
| KEYLESS UNLOCK | Checks whether value changes from "Off" to "On" when operating keyfob unlock button. |
| KEYLESS PANIC | Checks whether value changes from "Off" to "On" when operating keyfob panic button. |

Is the inspection result normal?

YES >> Keyfob is OK. NO >> Refer to DLK-264, "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:000000012783307

INFOID:000000012783308

KEYFOB BATTERY AND FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

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

CAUTION:

- Do not touch the circuit board or battery terminal.
- The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. Remove the keyfob battery.
 - CAUTION:
 - Keep dirt, grease, and other foreign materials off the electrode contact area.
- 4. Visually inspect keyfob internal components.
- Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace malfunctioning parts.

3.CHECK KEYFOB BATTERY



[WITHOUT INTELLIGENT KEY SYSTEM]

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ne ry 1. Occoeo7D

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

Standard : Approx. 2.5 - 3.0V

Is the measurement value within specification?

YES >> Keyfob battery is OK. Check remote keyless entry receiver. Refer to <u>DLK-261.</u> <u>"Component Function Check"</u>.

NO >> GO TO 4

4. REPLACE KEYFOB BATTERY

 Replace the keyfob battery with a new one (CR1620 or equivalent).

CAUTION:

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- Make sure that the + side faces the bottom of the case.Align the tips of the upper and lower parts, and then push them
- together until it is securely closed.
- After replacing the battery, check that all keyfob functions work properly.

Is the inspection result normal?

- YES >> Keyfob is OK.
- NO >> Check remote keyless entry receiver. Refer to <u>DLK-261, "Component Function Check"</u>.



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HORN FUNCTION

Description

Perform answer-back for each operation with horn.

Component Function Check

1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT.

2. Check the horn operation.

| Test item | | Description | |
|-----------|----|-------------|----------------|
| HORN | ON | Horn relay | ON (for 20 ms) |

Is the operation normal?

YES >> Inspection End. NO >> Refer to <u>DLK-266</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783312

Regarding Wiring Diagram information, refer to DLK-218, "Wiring Diagram".

1.CHECK HORN FUNCTION

Check horn function with horn switch.

Does the horn sound?

YES >> GO TO 2

NO >> Refer to <u>HRN-3, "Wiring Diagram"</u>.

2. CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.

2. Perform "ACTIVE TEST" ("HORN") with CONSULT.

3. Using an oscilloscope or analog voltmeter to check voltage between IPDM E/R connector and ground.

| IPD | M E/R | Ground | | Test item | Voltage (V) |
|-----------|----------|--------|---------|------------------|-------------------------------------------------------------|
| Connector | Terminal | Ciouna | leschem | | (Approx.) |
| E46 | 48 | Ground | HORN | ON | Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage |
| L40 | | Cround | HORN | Other than above | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace IPDM E/R. Refer to PCS-60, "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 relay | | Continuity |
|-----------|----------|--------------------|---|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| E46 | 48 | H-1 | 1 | Yes |

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

INFOID:000000012783310

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

| | IPD | M E/R | Ground | Continuity |
|-----------|------------------------------------|----------------------------|------------------|----------------|
| Co | nnector | Terminal | Ground | Continuity |
| | E46 | 48 | Ground | No |
| Is the ir | nspection i | result normal? | | |
| YES | >> GO T | 04 vir or roplage barne | | |
| | >> кера | | 55. Int | |
| | | | | |
| Refer to | 0 <u>GI-41, "li</u> concetion i | ntermittent Incident | <u>t"</u> . | |
| | S> Rook | result normal? | for to DCS 60 " | Pomoval and In |
| NO | >> Repa | ir or replace the m | alfunctioning pa | art. |
| | · | · | 2. | |
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TRUNK LID OPENER ACTUATOR

Component Function Check

1.CHECK FUNCTION

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

Is the inspection result normal?

- YES >> Trunk lid opener actuator is OK.
- NO >> Refer to <u>DLK-268</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783314

INFOID:000000012783313

Regarding Wiring Diagram information, refer to DLK-234, "Wiring Diagram".

1. CHECK TRUNK LID OPENER INPUT SIGNAL

1. Turn ignition switch OFF.

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

| (Trunk lid ope | (+) Trunk lid opener assembly (–) | | Condition | Voltage (Approx.) | |
|--------------------|--------------------------------------|--------|-------------------------------|----------------------|--|
| Connector | Terminal | | | , , , | |
| B59 | 3 | Ground | Trunk lid opener switch is ON | Battery voltage | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

1. Disconnect BCM connector.

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

| BC | BCM | | Trunk lid opener assembly | |
|-----------|----------|--------------------|---------------------------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| B57 | 55 | B59 | 3 | Yes |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity | |
|--------------------|----|--------|------------|--|
| Connector Terminal | | Ground | Continuity | |
| B57 55 | | | No | |

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-135, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK TRUNK LID OPENER ACTUATOR GROUND CIRCUIT

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

TRUNK LID OPENER ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| Trunk lid opener assembly | | | Continuity | A |
|---------------------------|----------|--------|------------|---|
| Connector | Terminal | Ground | Continuity | |
| B59 | 2 | - | Yes | 5 |
| Is the inspection normal? | | | | В |

YES >> Replace trunk lid opener assembly.

NO >> Repair or replace harness.

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TRUNK LID OPENER SWITCH

Component Function Check

1.CHECK FUNCTION

- 1. Select TRUNK of BCM using CONSULT.
- 2. Select TR/BD OPEN SW in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

| Monitor item | Со | Status | |
|---------------|-------------------------|----------|-----|
| TR/BD OPEN SW | Trunk lid opener switch | Pressed | On |
| | | Released | Off |

Is the inspection result normal?

- YES >> Trunk lid opener switch is OK.
- NO >> Refer to <u>DLK-270, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000012783316

Regarding Wiring Diagram information, refer to DLK-234, "Wiring Diagram".

1. CHECK TRUNK LID OPENER INPUT SIGNAL

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

| (Trunk lid oj Connector | +) pener switch Terminal | () | Signal (Reference value) |
|--------------------------------|--------------------------------|--------|-------------------------------|
| M15 | 1 | Ground | (V) 15 10 5 0 |

Is the inspection result normal?

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

2. CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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

| B | BCM | | Trunk lid opener switch | |
|-----------|----------|--------------------|-------------------------|------------|
| Connector | Terminal | Connector Terminal | | Continuity |
| M21 | 30 | M15 | 1 | Yes |

3. Check continuity between BCM harness connector and ground.

| B | CM | | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | Ground | Continuity |
| M21 | 30 | | No |

| | I RUNK LID OP | ENER SWITCH | |
|-------------------------------|---------------------------------|---------------------------|------------------------|
| < DTC/CIRCUIT DIAGNOS | SIS > | | ELLIGENT KEY SYSTEM] |
| Is the inspection result norm | al? | | |
| YES >> Replace BCM. F | Refer to <u>BCS-135, "Remov</u> | al and Installation". | |
| NO >> Repair or replac | e harness. | | |
| 3. CHECK TRUNK LID OPE | ENER SWITCH GROUND | CIRCUIT | |
| Check continuity between tr | unk lid opener switch harne | ess connector and ground. | |
| | | | |
| | | | Continuity |
| Connector | Ierminai | Ground | |
| M15 | 2 | | Yes |
| Is the inspection result norm | <u>al?</u> | | |
| YES >> GO TO 4. | | | |
| NO >> Repair or replac | e harness. | | |
| 4. CHECK TRUNK LID OPE | ENER SWITCH | | |
| Refer to DLK-271, "Compon | ent Inspection". | | |
| Is the inspection result norm | al? | | |
| YES >> GO TO 5. | | | |
| NO >> Replace trunk lie | d opener switch. | | |
| 5. CHECK INTERMITTENT | INCIDENT | | |
| Refer to GI-41, "Intermittent | Incident". | | |
| | | | |
| >> Inspection End. | | | |
| Component Inspection | n | | |
| Component mapeetion | 1 | | INFOID:000000012783317 |
| 1. CHECK TRUNK LID OPE | ENER SWITCH | | |
| 1. Turn ignition switch OFF | | | |
| 2. Disconnect trunk lid ope | ener switch connector. | orminala | |
| 3. Check continuity betwee | en trunk lid opener switch t | erminals. | |

| Trunk lid opener switch | | Conc | lition | Continuity | DLK |
|-------------------------|-------|---------------------------|---------|------------|-----|
| Terr | minal | | | Continuity | |
| 1 | 2 | Trupk lid opopor, owitch | Pressed | Yes | — |
| 1 | 2 | Trunk lid opener Switch - | Release | No | _ L |

Is the inspection result normal?

YES

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

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TRUNK LAMP SWITCH

Description

Detects trunk open/close condition.

Component Function Check

1.CHECK FUNCTION

With CONSULT

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

| Monitor item | Condition | | |
|--------------|-----------|-------|--|
| | OPEN | : ON | |
| | CLOSE | : OFF | |

Is the inspection result normal?

YES >> Trunk lid switch is OK.

NO >> Refer to <u>DLK-272</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012783320

Regarding Wiring Diagram information, refer to DLK-234. "Wiring Diagram".

1. CHECK TRUNK LID SWITCH INPUT SIGNAL

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

| Terminals | | | | | |
|------------------|----------|--------|-----------|-------------------------------------------------------------|--|
| (+) | | | Trunk | Voltage (V) | |
| BCM connector | Terminal | () | condition | (Approx.) | |
| | | | OPEN | 0 | |
| B57 | 51 | Ground | CLOSE | (V) 15 0 4 4 10ms FKIB4960J 7.0 - 8.0V | |

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

2. CHECK TRUNK LID SWITCH CIRCUIT

1. Disconnect BCM and trunk lid opener assembly connector.

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

| BCM connector | Terminal | Trunk lid opener as- sembly connector | Terminal | Continuity |
|---------------|----------|------------------------------------------|----------|------------|
| B57 | 51 | B59 | 1 | Yes |

3. Check continuity between BCM connector and ground.

INFOID:000000012783318

TRUNK LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| BCM connector | Terminal | | Continuity | |
|--------------------------------------|--------------------|------------------|------------------|------------------------|
| B57 | 51 | Ground | No | |
| Is the inspection resu | lt normal? | | | |
| YES >> GO TO 3 | ronlago hornog | hotwoon DCM | and trunk lid or | anar accombly |
| NO >> Repair or | | | and trunk lid op | Sener assembly. |
| J.CHECK TRUNK L | | | · · · | <u> </u> |
| Check continuity betw | een trunk lid op | ener assembly | connector and g | jround. |
| Trunk lid opener as- | - · · | | A 1 1 | |
| sembly connector | Ierminal | Ground | Continuity | |
| B59 | 2 | | Yes | |
| Is the inspection result | <u>lt normal?</u> | | | |
| YES >> GO TO 4 NO >> Repair or | replace trunk lic | l opener assem | bly around circu | uit |
| 4 CHECK BCM OUT | PUT SIGNAI | | biy ground on or | |
| 1 Ensure trunk lid r | | uring this stan | | |
| 2. Connect BCM co | nnector. | uning this step. | | |
| 3. Check voltage be | tween BCM con | nector and grou | und. | |
| | Tormina | | | |
| | (+) | | | Voltage (V) |
| BCM connector | Termin | al | – (–) (Approx.) | (Approx.) |
| | | | | |
| | | | | (V) 15 |
| | | | | |
| B57 | 51 | | Ground | 0 |
| | | | | → ◆ 10ms |
| | | | | PKIB4960J |
| | | | | 7.0 - 8.0V |
| Is the inspection resu | lt normal? | | | |
| NO >> Replace l | BCM. Refer to B | CS-135, "Remo | val and Installa | tion". |
| 5.CHECK TRUNK L | ID SWITCH | | | — |
| Refer to DLK-273, "C | omponent Inspe | ction". | | |
| Is the inspection result | It normal? | <u></u> . | | |
| YES >> GO TO 6 | | | | |
| NO >> Replace t | runk lid opener | assembly. | | |
| O. CHECK INTERMIT | TTENT INCIDEN | IT | | |
| Refer to GI-41, "Interr | nittent Incident". | | | |
| | - End | | | |
| >> Inspection | n End. | | | |
| Component Inspe | ection | | | INFOID:000000012783321 |
| 1. CHECK TRUNK L | ID SWITCH | | | |
| 1. Turn janition swite | ch OFF. | | | |
| 2. Disconnect trunk | lid opener asser | mbly connector. | | |
| Check trunk lid sv | witch. | | | |

| Terminal Trunk lid switch | | Trunk condition | Continuity | |
|------------------------------|---|-----------------|------------|--|
| | | | | |
| 1 | 2 | OPEN | Yes | |
| | 2 | CLOSE | No | |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace trunk lid opener assembly.

WARNING CHIME FUNCTION

[WITHOUT INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > WARNING CHIME FUNCTION А Description INFOID:000000012783322 Performs operation method guide and warning with buzzer. В **Component Function Check** INFOID:000000012783323 **1.**CHECK FUNCTION (R) With CONSULT 1. Check the operation with "BUZZER" in the Active Test. D Touch "IGN KEY WARN ALM", "SEAT BELT WARN TEST" or "LIGHT WARN ALM" on screen. 2. Is the inspection result normal? YES >> Warning buzzer into combination meter is OK. Е NO >> Refer to <u>DLK-275, "Diagnosis Procedure"</u>. **Diagnosis** Procedure INFOID:000000012783324 F 1.CHECK METER BUZZER CIRCUIT Operate the hazard lights by turning ON the hazard warning switch. Is the inspection result normal? YES >> GO TO 2 NO >> Replace combination meter. Refer to MWI-74, "Removal and Installation". 2. CHECK INTERMITTENT INCIDENT Н Refer to GI-41, "Intermittent Incident". >> Inspection End. DLK Μ Ν Ο Ρ

HAZARD FUNCTION

Description

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

Component Function Check

1.CHECK FUNCTION

Check hazard warning lamp ("FLASHER") in Active Test.

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-276, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1. CHECK HAZARD SWITCH CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace hazard warning switch circuit. Refer to EXL-138. "Removal and Installation".

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

INFOID:000000012783325

INFOID:000000012783326

KEYFOB ID SET UP WITH CONSULT

ID Code Entry Procedure

KEYFOB ID SET UP WITH CONSULT

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory when an additional code is registered, only the oldest code is erased. If less than five codes are stored in memory when an additional code is registered, the new ID code is added and no ID codes are erased.
- Entry of a maximum of five ID codes is allowed. When more than five codes are entered, the oldest ID code will be erased.
- Even if the same ID code that is already in memory is input, the same ID code can be entered. The code is counted as an additional code.
- 1. Turn ignition switch ON.
- 2. Select BCM.
- 3. Select MULTI REMOTE ENT.
- 4. Select WORK SUPPORT.
- 5. You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT instructions:
 - REMO CONT ID REGIST
 Use this mode to register a keyfob ID code.
 NOTE:
 Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.
 - REMO CONT ID ERASUR
 - Use this mode to erase a keyfob ID code. • REMO CONT ID CONFIR
 - Use this mode to confirm if a keyfob ID code is registered or not.

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INFOID:000000012783328

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[WITHOUT INTELLIGENT KEY SYSTEM]

KEYFOB ID SET UP WITHOUT CONSULT

ID Code Entry Procedure

INFOID:000000012783329

KEYFOB ID SET UP WITHOUT CONSULT

| Close all doors. | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | |
| Insert key into and remove it from ignition key cylinder more than six times within 10 seconds. (Hazard warning lamps will then flash twice.) NOTE • Withdraw key completely from ignition key cylinder each time. • If procedure is performed too fast, system will not enter registration mode. | |
| | |
| Insert key into ignition key cylinder and turn to ACC position. | |
| | |
| Push any button on keyfob once. (Hazard warning lamps will then flash twice.) At this time, the oldest ID code is erased and the new ID code is entered. | |
| | |
| by you want to enter any additional keyfob ID codes? A maximum five ID codes can be entered. If more than five ID codes are entered, the oldest ID code will be erased. | |
| No Yes | |
| | |
| ADDITIONAL ID CODE ENTRY Unlock the door, then lock again with lock/unlock switch driver side (in power window main switch). NOTE Perform this procedure even if the door is in the un-lock state. | |
| | |
| Push any button on keyfob once. (Hazard warning lamps will then flash twice). At this time. The oldest ID code is erased and the new ID code is entered. | |
| | |
| A maximum of five ID codes can be entered. If more than five ID codes are entered, the oldest ID code will be erased. | |
| Yes | |
| ADDITIONAL ID CODE ENTRY Unlock the door, then lock again with lock/unlock switch driver side (in power window main switch). | |
| ↓ Open driver side door. (END) After entering ID code, check operation of remote keyless entry system. | |

NOTE:

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If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT. However, when the ID code of a lost keyfob is not known, all controller

KEYFOB ID SET UP WITHOUT CONSULT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| 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-277. "ID Code Entry Procedure"</u> (with CONSULT), <u>DLK-278. "ID Code Entry 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. | A B C D |
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SYMPTOM DIAGNOSIS

POWER DOOR LOCK SYSTEM SYMPTOMS

Symptom Table

INFOID:000000012783330

DOOR LOCK/UNLOCK FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-238</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 | | Reference page | |
|-----------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------|-------------------------|----------------|
| | 1. | Check door switch. | | <u>DLK-246</u> |
| Key reminder door function does not operate | 2. | Check key switch. | <u>DLK-255</u> | |
| | 3. | Check Intermittent Incident. | | <u>GI-41</u> |
| Devier deer leek deer net energte with deer | 1. | Check BCM power supply and grour | d circuit. | BCS-128 |
| lock and unlock switch on main power window | 2. | Check main power window and door | lock and unlock switch. | DLK-249 |
| and door lock/unlock switch or power window | 3. | Check power window and door lock | and unlock switch RH. | DLK-250 |
| and door lock/unlock switch RH. | 4. | Check Intermittent Incident. | | <u>GI-41</u> |
| | | Check door lock actuator. | Driver side | DLK-256 |
| Specific door lock actuator does not operate. | 1 | | Passenger side | DLK-257 |
| | 1. | | Rear LH | DLK-258 |
| | | | Rear RH | <u>DLK-259</u> |
| | 2. | Check Intermittent Incident. | <u>GI-41</u> | |
| Power door locks do not operate with front | 1. | Check key cylinder switch. | DLK-253 | |
| door lock key cylinder switch LH. | 2. | Replace BCM. | BCS-135 | |
| Vehicle speed sensing auto door LOCK oper- | 1. | Ensure automatic door lock/unlock fu is enabled. | DLK-208 | |
| ation does not operate. | 2. | Check combination meter vehicle sp | <u>MWI-48</u> | |
| | 3. | Check intermittent incident. | <u>GI-41</u> | |
| Ignition OFF interlock auto door LINI OCK | | 1. Ensure automatic door lock/unlock function (unlock opera- tion) is enabled. | | <u>DLK-208</u> |
| function does not operate. | 2. | Check BCM for DTCs. | | BCS-115 |
| | | Check intermittent incident. | | <u>GI-41</u> |

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

< SYMPTOM DIAGNOSIS >

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000013374619

REMOTE KEYLESS ENTRY SYSTEM

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| Symptom | Diagnoses/service procedure | Reference page |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| All functions of remote keyless entry system do not operate. | 1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning. | <u>DLK-264</u> |
| | 2. Check BCM and remote keyless entry receiver. | DLK-261 |
| 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-264</u> F |
| | 2. Door switch check | DLK-246 |
| | 3. ACC power check | BCS-128 |
| | 4. Replace BCM. | BCS-135 |
| 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. | ⊢ <u>DLK-264</u> |
| | 2. Replace BCM. | BCS-135 |
| 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. | DLK-211 |
| | 2. Door switch check | DLK-246 |
| | 3. Replace BCM. | BCS-135 |
| Hazard reminder does not activate properly when pressing lock or unlock button of keyfob. | 1. Check hazard reminder mode with CONSULT NOTE: Hazard reminder mode can be changed. First check the hazard reminder mode setting. | DLK-211 |
| (Horn reminder OK) | 2. Check hazard function with hazard switch | _ |
| | 3. Replace BCM. | BCS-135 |
| Horn reminder does not activate properly when | Check horn reminder mode with CONSULT NOTE: Horn reminder mode can be changed. First check the horn reminder mode setting. | DLK-211 |
| (Hazard reminder OK) | 2. Check horn function with horn switch | _ |
| | 3. IPDM E/R operation check | PCS-38 |
| | 4. Replace BCM. | BCS-135 |
| | 1. Room lamp operation check | INL-8 |
| Room lamp illumination does not operate properly. | 2. Door switch check | DLK-246 |
| | 3. Replace BCM. | <u>BCS-135</u> |

REMOTE KEYLESS ENTRY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

| Symptom | Diagnoses/service procedure | Reference page |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Panic alarm (horn and headlamp) does not activate when panic alarm button is continuously pressed. | 1. Keyfob battery and function check (use Remote Keyless Entry Tester [– (J-43241)] or Signal Tech II Tool [– (J-50190)]) NOTE: If the result of keyfob function check is OK, keyfob is not malfunc- tioning. | <u>DLK-264</u> |
| | 2. ACC power check | BCS-128 |
| | 3. Replace BCM. | BCS-135 |
| 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-208 |
| | 2. Replace BCM. | <u>BCS-135</u> |

< SYMPTOM DIAGNOSIS >

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



[WITHOUT INTELLIGENT KEY SYSTEM]

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CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any H customer's comments; refer to <u>DLK-287</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

OK Inspection End

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak —(Like tennis shoes on a clean floor)
 Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
 = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping.
- Creak—(Like walking on an old wooden floor)
 Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle) Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door) Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand)
 Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise) Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumble bee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

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< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on CVT and A/T models).
- 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

- 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear: J-39565 and mechanic's stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
 - removing the components in the area that you suspect the noise is coming from.
 Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
 - tapping or pushing/pulling the component that you suspect is causing the noise.
 Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
 - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
 - placing a piece of paper between components that you suspect are causing the noise.
 - looking for loose components and contact marks. Refer to <u>DLK-284, "Generic Squeak and Rattle Troubleshooting"</u>.

REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A NISSAN Squeak and Rattle Kit (J-50397) is available through your authorized NISSAN Parts Department.

CAUTION:

Do not use excessive force as many components are constructed of plastic and may be damaged. NOTE:

- Always check with the Parts Department for the latest parts information.
- The materials contained in the NISSAN Squeak and Rattle Kit (J-50397) are listed on the inside cover of the kit; and can each be ordered separately as needed.
- The following materials not found in the kit can also be used to repair squeaks and rattles.
- SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months.
- SILICONE SPRAY: Use when grease cannot be applied.
- DUCT TAPE: Use to eliminate movement.

CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Generic Squeak and Rattle Troubleshooting

INFOID:000000012783333

Refer to Table of Contents for specific component removal and installation information.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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< SYMPTOM DIAGNOSIS >

1. Cluster lid A and the instrument panel А Acrylic lens and combination meter housing 3. Instrument panel to front pillar finisher Instrument panel to windshield 5. Instrument panel pins 6. Wiring harnesses behind the combination meter A/C defroster duct and duct joint These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring har-D ness. **CAUTION:** Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair. Ε CENTER CONSOLE Components to pay attention to include: Shift selector assembly cover to finisher 2. A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. DOORS Pay attention to the: Н Finisher and inner panel making a slapping noise Inside handle escutcheon to door finisher 2. Wiring harnesses tapping Door striker out of alignment causing a popping noise on starts and stops 4. Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-50397) to repair the noise. TRUNK DLK Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for: Trunk lid bumpers out of adjustment Trunk lid striker out of adjustment 2. 3. The trunk lid torsion bars knocking together 4. A loose license plate or bracket M Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise. Ν SUNROOF/HEADLINING Noises in the sunroof/headlining area can often be traced to one of the following: 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise 2. Sun visor shaft shaking in the holder Front or rear windshield touching headlining and squeaking 3. Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these P incidents. Repairs usually consist of insulating with felt cloth tape. OVERHEAD CONSOLE (FRONT AND REAR) Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for: 1. Loose harness or harness connectors.

2. Front console map/reading lamp lens loose.

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[WITHOUT INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

3. Loose screws at console attachment points.

SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES < SYMPTOM DIAGNOSIS > [WITHOUT INTELLIGENT KEY SYSTEM]

Diagnostic Worksheet

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Dear Customer:

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

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.







Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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< SYMPTOM DIAGNOSIS >

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II. WHEN DOES IT OCCUR? (please check the boxes that apply) Anytime After sitting out in the rain 1 st time in the morning When it is raining or wet Only when it is cold outside Dry or dusty conditions Other: Only when it is hot outside **III. WHEN DRIVING: IV. WHAT TYPE OF NOISE** Through driveways Squeak (like tennis shoes on a clean floor) Over rough roads Creak (like walking on an old wooden floor) Over speed bumps Rattle (like shaking a baby rattle) Only about mph Knock (like a knock at the door) On acceleration Tick (like a clock second hand) Coming to a stop Thump (heavy muffled knock noise) On turns: left, right or either (circle) Buzz (like a bumble bee) With passengers or cargo Other: After driving miles or minutes

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

| | YES | NO | Initials of person |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----|--------------------|
| Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repa | air | | |
| /IN: N.O.# | Customer Name Date: | | |

This form must be attached to Work Order

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< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION HOOD HOOD ASSEMBLY

HOOD ASSEMBLY : Exploded View



CAUTION:

- Use two people when removing or installing hood assembly due to its heavy weight.
- Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of hood assembly.

REMOVAL

1. Support the hood assembly using a suitable tool.

WARNING:

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

2. Disconnect front washer nozzle and tube.

HOOD

< REMOVAL AND INSTALLATION >

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



INSTALLATION

Installation is in the reverse order of removal.

Tighten hood hinge to hood nuts to specified torque. Refer to <u>DLK-144, "HOOD ASSEMBLY : Exploded View"</u>. CAUTION:

- Before installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle.
- After installation, perform the hood assembly adjustment procedure. Refer to <u>DLK-290, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.

HOOD ASSEMBLY : Adjustment

INFOID:000000012783337



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

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| | | | | | Unit. mini (in |) | |
|---------|------|----------------|-----------------------|-----------------------|----------------|------|--|
| Section | Item | Measurement | Standard | Parallelism | Equality | | |
| A – A | D | Clearance | 6.2 ±2.3 (0.24 ±0.09) | <2.0 | _ | | |
| B – B | в F | F | Clearance | 3.5 ±2.4 (0.14 ±0.09) | <2.0 | <3.0 | |
| | G | Surface height | 0.7 ±2.0 (0.03 ±0.08) | <2.0 | <2.0 | | |
| C – C | Н | Clearance | 3.7 ±1.0 (0.15 ±0.04) | <2.0 | <2.0 | | |
| | J | Surface height | 0.0 ±1.0 (0.00 ±0.04) | — | — | (| |

CLEARANCE ADJUSTMENT

 Loosen hood hinge (LH/RH) nuts and bolts. NOTE: The anticorrosive agent applied between the

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

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



- 3. Loosen the hood lock assembly bolts.
- Adjust the hood assembly so the clearance measurements are within specifications provided. Then tighten the hood hinge nuts and bolts to specified torque. Refer to <u>DLK-144</u>, "HOOD ASSEMBLY : <u>Exploded View</u>".
- Tighten the hood lock assembly bolts to specified torque. Refer to <u>DLK-149. "HOOD LOCK CONTROL</u>: J <u>Exploded View"</u>.
- 6. Install the radiator core support upper cover.

HEIGHT ADJUSTMENT

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



2. Loosen the hood lock assembly bolts.

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HOOD

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

Only one hood bumper rubber shown for clarity.



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



4. Secondary latch

- В. 6.8 mm (0.27 in)
- 6. After adjustment, tighten hood hinge nuts and bolts to the specified torgue. Refer to DLK-144, "HOOD ASSEMBLY : Exploded View".
 - **CAUTION:**
 - Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.
 - After adjusting, apply touch-up paint (body color) to the head of hood hinge bolts and nuts.
- 7. Tighten the hood lock assembly bolts to specified torque.
- 8. Install the radiator core support upper cover.
- 9. If the clearance measurements between the hood and fender cannot be corrected by adjusting the hood, the fender must be adjusted. Refer to DLK-155, "Adjustment".

HOOD HINGE

HOOD HINGE : Removal and Installation

INFOID-000000012783338

REMOVAL

- Remove the fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation -1. Front Fender Protector".
- 2. Remove the core support upper cover. Refer to HA-39, "Exploded View".
- 3. Remove the front fascia. Refer to EXT-17, "Removal and Installation".
- Remove the front combination lamp. Refer to EXL-127, "Removal and Installation" (HALOGEN), EXL-4. 257, "Removal and Installation" (LED).
- Remove the front fender. Refer to DLK-154, "Removal and Installation". 5.

HOOD

< REMOVAL AND INSTALLATION >

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



| INS | STALLATION | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Inst | tallation is in the reverse order of removal. | |
| Tig | hten bolts to specified torque. Refer to <u>DLK-144, "HOOD ASSEMBLY : Exploded View"</u> . | E |
| • B • A <u>B</u> | efore installing the hood hinge, apply anticorrosive agent onto the surface of the vehicle. fter installation, perform hood assembly adjustment procedure. Refer to <u>DLK-290, "HOOD ASSEM-</u> LY : Adjustment". | F |
| HC | OOD SUPPORT ROD | G |
| HC | OOD SUPPORT ROD : Removal and Installation | |
| RE | MOVAL | Н |
| 1. | Support hood assembly using a suitable tool. | |
| | WARNING: | |
| | rod. | |
| 2. | Rotate and remove hood support rod from grommet. | |
| 3. | Remove grommet from hood hinge using a suitable tool (if necessary). | J |
| INS | STALLATION | |
| Inst | tallation is in the reverse order of removal. | DL |
| НС | DOD LOCK CONTROL | |
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[WITHOUT INTELLIGENT KEY SYSTEM]

HOOD LOCK CONTROL : Exploded View

INFOID:000000012783340



HOOD

Hood lock assembly 1.

Hood lock release cable clip

- 2.
- Clip
- Hood lock release cable 3. Hood lock/fuel filler door release handle assembly
- HOOD LOCK CONTROL : Removal and Installation

INFOID:000000012783341

REMOVAL

Α.

- Remove the fender protector (LH). Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation -1. Front Fender Protector".
- 2. Remove the radiator core support upper cover clips (A) and remove.



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

[WITHOUT INTELLIGENT KEY SYSTEM]

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

 Remove the grommet from the dash assembly and pull the hood lock release cable into the passenger compartment.
 CAUTION:

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

INSTALLATION

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

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

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



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

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

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

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HOOD

< REMOVAL AND INSTALLATION >

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



- 7. Perform hood fitting adjustment. Refer to <u>DLK-290, "HOOD ASSEMBLY : Adjustment"</u>.
- 8. Perform the hood lock control inspection.

INSPECTION

NOTE:

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

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



- 4. Secondary latch
- A. 20 mm (0.8 in)
- Secondary striker
 6.8 mm (0.27 in)
- 2. While operating the hood lock release handle, carefully check that the front end of the hood assembly is raised and meets the specification provided (A). Also check that the hood lock release handle returns to the original position.
- 3. Check that the hood lock release handle operating force is 49 N (5.0 kg, 11 lb) or less.
- 4. Install so the static closing force of the hood assembly is 49 490 N (5.0 50 kg-f, 36 110.2 lb-f).
- 5. Check the hood lock assembly lubrication condition. If necessary, apply a suitable multi-purpose grease as shown.



RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

RADIATOR CORE SUPPORT

Exploded View

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Removal and Installation

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REMOVAL

CAUTION:

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

- Disconnect the battery negative and positive terminals then wait at least three minutes. Refer to <u>PG-74</u>. <u>"Removal and Installation (Battery)"</u>.
- 2. Remove crash zone sensor. Refer to SR-27. "Removal and Installation".
- 3. Remove radiator. Refer to CO-15, "Removal and Installation".
- 4. Remove the condenser (if equipped). Refer to HA-39, "CONDENSER : Removal and Installation".
- 5. Remove the horns. Refer to HRN-6, "Removal and Installation".
- 6. Remove air guides (LH/RH).
- 7. Remove the hood lock support bolts and hood lock support.
- 8. Remove the core support lower stay bolts and core support lower stay.
- 9. Remove the core support lower bolts and core support lower.
- Remove the core support side member nuts and bolts and remove the core support side member (if necessary).

INSTALLATION

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2016 Sentra NAM

[WITHOUT INTELLIGENT KEY SYSTEM]

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Installation is in the reverse order of removal. Tighten bolts to specification. Refer to <u>DLK-152</u>, "Exploded View". CAUTION:

After installation, perform hood fitting adjustment. Refer to <u>DLK-145, "HOOD ASSEMBLY : Adjust-ment"</u>.

FRONT FENDER

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

FRONT FENDER **Exploded View**

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FRONT FENDER

< REMOVAL AND INSTALLATION >

Adjustment

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[WITHOUT INTELLIGENT KEY SYSTEM]



Hood assembly 4.

1.

2.

5. Body side outer 6. Front door

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

| | | | Unit: mm (ii |
|---------|------|----------------|----------------------------------|
| Section | Item | Measurement | Standard |
| A A | F | Clearance | $1.5 \pm 1.3 \; (0.06 \pm 0.05)$ |
| A-A | G | Surface height | 0.7 ± 1.3 (0.03 ± 0.05) |
| D D | Н | Surface height | 0.7 ± 1.0 (0.03 ± 0.04) |
| В – В | J | Clearance | 0.0 ± 1.0 (0.00 ± 0.04) |
| 0 0 | К | Clearance | $3.7 \pm 1.0 \; (0.15 \pm 0.04)$ |
| 0-0 | М | Surface height | 0.0 ± 1.0 (0.00 ± 0.04) |
| | N | Surface height | 0.0 ± 1.0 (0.00 ± 0.04) |
| D-D | 0 | Clearance | $3.0 \pm 1.0 \; (0.12 \pm 0.04)$ |
| с с | Р | Surface height | |
| C – C | Q | Clearance | 3.8 ± 1.0 (0.15 ± 0.04) |

Adjustment

- Remove front bumper fascia. Refer to EXT-17, "Removal and Installation". 1.
- Remove the front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation -2. Front Fender Protector".

FRONT FENDER

< REMOVAL AND INSTALLATION > [W

- 3. Loosen the front fender bolts.
- 4. Adjust the clearance (Q) and surface height (P) between the front fender and the front door.
- 5. Tighten the rear upper and lower front fender bolts.
- 6. Adjust the clearance (K) and surface height (M) between the front fender and the hood.
- 7. Adjust the clearance (O) and surface height (N) between the front fender and the body side outer.
- 8. Tighten the inner front fender bolts.
- 9. Adjust the clearance (J) and the surface height (H) between the front fender and the front fascia.
- 10. Tighten the front fender to front fascia and bracket screws.
- 11. Install front bumper fascia. Refer to EXT-17, "Removal and Installation".
- 12. Install front combination lamp.Refer to <u>EXL-127</u>, "Removal and Installation" (HALOGEN), <u>EXL-257</u>, □ <u>"Removal and Installation"</u> (LED).
- 13. Install the front fender protector. Refer to <u>EXT-28</u>, "FENDER PROTECTOR : Removal and Installation <u>Front Fender Protector</u>".

CAUTION:

- If the clearance measurements cannot be corrected by adjusting the fender, adjust the following as necessary.
- Hood assembly: Refer to DLK-145, "HOOD ASSEMBLY : Adjustment".
- Front door: Refer to DLK-159, "DOOR ASSEMBLY : Adjustment".
- After adjusting, apply touch-up paint (body color) to the head of the front fender bolts.

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FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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CAUTION:

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

NOTE:

LH side shown; RH side similar.

REMOVAL

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



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



4. Remove check link bolt (body side).

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

FRONT DOOR [WITHOUT INTELLIGENT KEY SYSTEM]

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



 After installation, perform the front door adjustment procedure. Refer to <u>DLK-304, "DOOR ASSEM-</u> BLY : Adjustment".

NOTE:

CAUTION:

INSTALLATION

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

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FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR ASSEMBLY : Adjustment

INFOID:000000012783348



- Body side outer
- 5.
- Front door striker
- Front door upper hinge

- 4. 7.
- F. Front door striker bolts
- 6. Front door lower hinge
- Check the clearance and surface height between front door and each part by visual inspection and tactile feel. If the clearance and the surface height are out of specification, adjust them according to the adjustment procedure.

Unit: mm (in)

| Section | Item | Measurement | Standard |
|---------|------|----------------|----------------------------------|
| A – A | G | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ |
| | Н | Surface height | $0.0 \pm 1.0 \; (0.0 \pm 0.04)$ |
| B – B | Н | Clearance | $4.2 \pm 1.0 \; (0.17 \pm 0.04)$ |
| | J | Surface height | $0.0 \pm 1.0 \; (0.0 \pm 0.04)$ |
| C – C | J | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ |
| | К | Surface height | $0.0 \pm 1.0 \; (0.0 \pm 0.04)$ |

LONGITUDINAL CLEARANCE

1. Remove the front fender. Refer to DLK-154, "Removal and Installation".

FRONT DOOR

< REMOVAL AND INSTALLATION >

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

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

4. Install the front fender. Refer to <u>DLK-154</u>, "Removal and Installation".

SURFACE HEIGHT ADJUSTMENT

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

Front door hinge nuts

28.0 N·m (2.9 kg-m, 21 ftlb)



CAUTION:

- Check front door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
 After adjusting, apply touch-up paint (body color) to the head of front door hinge bolts and nuts.
- If the clearance measurements cannot be corrected by adjusting the front door assembly, adjust the following as necessary.
- Front fender: Refer to DLK-155, "Adjustment".
- Rear door: Refer to DLK-164, "DOOR ASSEMBLY : Adjustment".

DOOR STRIKER ADJUSTMENT

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

DOOR HINGE

DOOR HINGE : Removal and Installation

REMOVAL

- 1. Remove front door fender. Refer to <u>DLK-299, "Removal and Installation"</u>.
- 2. Remove front door assembly (2). Refer to <u>DLK-302, "DOOR ASSEMBLY : Removal and Installation"</u>.
- 3. Remove bolt (A) and door hinge (1).

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FRONT DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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



INSTALLATION

Installation is in the reverse order of removal.

Tighten front door hinge bolts to specified torque.<u>DLK-159, "DOOR ASSEMBLY : Adjustment"</u> CAUTION:

- Apply anticorrosive agent onto the front door hinge mating surface.
- After installation, check front door open/close, lock/unlock operation.
- After installation, perform the front door adjustment procedure. Refer to <u>DLK-304, "DOOR ASSEM-BLY : Adjustment"</u>.

DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

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REMOVAL

- 1. Fully close the front door glass.
- Remove front door speaker. Refer to <u>AV-58, "Removal and Installation"</u> (BASE AUDIO), <u>AV-118, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM) <u>AV-323, "Removal and Installation"</u> (NAVIGA-TION WITH BOSE) and <u>AV-212, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

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REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

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CAUTION:

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

REMOVAL

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





- 3. Remove the check link bolt from the body.
- 4. Remove rear door assembly hinge nuts (A) (door side) and the door assembly (1).



[WITHOUT INTELLIGENT KEY SYSTEM]

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INSTALLATION

Installation is in the reverse order of removal.

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

CAUTION:

- After installation, check rear door open/close, lock/unlock operation.
- After installation, perform the rear door adjustment procedure. Refer to <u>DLK-309</u>, "DOOR ASSEMBLY <u>: Adjustment"</u>.

DOOR ASSEMBLY : Adjustment

ADJUSTMENT



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

REAR DOOR

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Unit[·] mm (in)

| Section | Item | Measurement | Standard |
|---------|------|----------------|----------------------------------|
| A A | G | Clearance | $4.0 \pm 1.0 \; (0.16 \pm 0.04)$ |
| ~~~~ | Н | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) |
| B – B | Н | Clearance | 4.2 ± 1.0 (0.17 ± 0.04) |
| | J | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) |
| | J | Clearance | 4.0 ± 1.0 (0.16 ± 0.04) |
| 0-0 | К | Surface height | 0.0 ± 1.0 (0.0 ± 0.04) |

LONGITUDINAL CLEARANCE

- 1. Remove the center pillar upper finisher. Refer to <u>INT-28, "CENTER PILLAR UPPER FINISHER : Removal</u> and Installation".
- 2. Loosen the rear door upper hinge nuts.
- 3. Loosen the rear door lower hinge bolts.
- 4. Move the rear door forward or backward as necessary until within specifications provided.
- 5. Tighten the lower hinge bolts to specification.

Rear door lower hinge bolts

6. Tighten the upper hinge nuts to specification.

Rear door upper hinge nuts

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

SURFACE HEIGHT ADJUSTMENT

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

28.0 N·m (2.9 kg-m, 21 ft-lb)



CAUTION:

- Check rear door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.
- After adjusting, apply touch-up paint (body color) to the head of rear door assembly hinge bolts and nuts.

24.5 N·m (2.5 kg-m, 18 ft-lb)

22 N·m (2.2 kg-m, 16 ft-lb)



INSTALLATION Installation is in the reverse order of removal. Tighten rear door assembly hinge nuts and bolts to specified torque.Refer to <u>DLK-164</u>, "<u>DOOR ASSEMBLY</u> : <u>Adjustment"</u> <u>CAUTION:</u> • Apply anticorrosive agent onto the hinge mating surface. • After installation, check rear door open/close, lock/unlock operation. • After installation, perform the rear door adjustment procedure. Refer to <u>DLK-309</u>, "<u>DOOR ASSEMBLY</u> : <u>Adjustment"</u>. DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

REMOVAL

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REAR DOOR

< REMOVAL AND INSTALLATION >

- 1. Fully close the rear door glass.
- Remove rear door speaker. Refer to <u>AV-59, "Removal and Installation"</u> (BASE AUDIO), <u>AV-119, "Removal and Installation"</u> (DISPLAY AUDIO SYSTEM) <u>AV-213, "Removal and Installation"</u> (NAVIGATION WITH BOSE) and <u>AV-324, "Removal and Installation"</u> (NAVIGATION WITHOUT BOSE).
- 3. Remove door check link bolt from body.
- 4. Remove door check link bolts on door panel.
- 5. Remove door check link (1) through the hole in door panel (2).



INSTALLATION

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

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



[WITHOUT INTELLIGENT KEY SYSTEM]

А

< REMOVAL AND INSTALLATION > DOOR HANDLE

FRONT DOOR HANDLE

FRONT DOOR HANDLE : Exploded View



FRONT DOOR HANDLE : Removal and Installation - Inside Handle

REMOVAL

- Remove front door finisher. Refer to <u>INT-15, "Removal and Installation"</u>.
- 2. Remove inside handle assembly screws (A) and the inside handle assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

FRONT DOOR HANDLE : Removal and Installation - Outside Handle

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REMOVAL

- Fully close front door glass.
- Remove front door finisher. Refer to <u>INT-15, "Removal and Installation"</u>.
- Remove front door vapor barrier. 3.

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< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

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

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

9. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.







< REMOVAL AND INSTALLATION >

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

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

12. Disconnect the outside handle cable from the outside handle

[WITHOUT INTELLIGENT KEY SYSTEM]



INSTALLATION

bracket connection.

<⊐: Front

Installation is in the reverse order of removal. CAUTION:

- When installing do not reuse front door outside handle bracket screw. Always replace screw with new ones when removed.
- When installing door key cylinder rod on the LH front door, be sure to rotate door key cylinder rod M holder until a click is felt.
- Check front door lock cable is properly engaged to outside handle bracket.
- After installation, check front door open/close, lock/unlock operation.

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[WITHOUT INTELLIGENT KEY SYSTEM]

REAR DOOR HANDLE : Exploded View

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Outside handle escutcheon

- Outside door handle 4

Inside handle assembly 6.

REAR DOOR HANDLE : Removal and Installation - Inside Handle

REMOVAL

1

Remove rear door finisher. Refer to <u>INT-19, "Removal and Installation"</u>.

5.

Remove inside handle assembly screws (A) and inside handle 2. assembly (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

REAR DOOR HANDLE : Removal and Installation - Outside Handle

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REMOVAL

- 1. Fully close rear door glass.
- 2. Remove rear door finisher. Refer to INT-19, "Removal and Installation".
- 3. Remove rear door vapor barrier.

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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



6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



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



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< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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



INSTALLATION

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

- When installing do not reuse rear door outside handle bracket screw. Always replace screw with new ones when removed.
- Check rear door lock cable is properly engaged to outside handle bracket.
- After installation, check rear door open/close, lock/unlock operation.

[WITHOUT INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >

DOOR LOCK FRONT DOOR LOCK

FRONT DOOR LOCK : Exploded View

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FRONT DOOR LOCK : Removal and Installation

CAUTION:

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

REMOVAL

- 1. Remove the front door outside handle. Refer to <u>DLK-168</u>, "FRONT DOOR HANDLE : Removal and Installation - Outside Handle".
- 2. Remove the rear glass run.
- 3. Disconnect the harness connector from the front door lock actuator.

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DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

4. Remove screws, and the door lock assembly.



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

INSTALLATION

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

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

CAUTION:

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

REAR DOOR LOCK

DOOR LOCK [WITHOUT INTELLIGENT KEY SYSTEM]

REAR DOOR LOCK : Exploded View

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7. Rear gasket

REAR DOOR LOCK : Removal and Installation

REMOVAL

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- 1. Remove the rear door outside handle. Refer to <u>DLK-171, "REAR DOOR HANDLE : Removal and Installa-</u> tion - <u>Outside Handle</u>".
- 2. Disconnect the harness connector from the rear door lock actuator.
- 3. Remove the screws, and the door lock assembly.



INSTALLATION Installation is in the reverse order of removal. Tighten rear door lock screws to specified torque. INFOID:000000012783364

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Rear door lock screws: 5.8 N·m (0.59 kg-m, 51 in-lb)

CAUTION:

- Do not reuse rear door lock assembly screws. Always replace screws with new ones when removed.
- Check rear door lock cables are properly engaged to inside handle and outside handle bracket.
- After installation, check rear door open/close, lock/unlock operation.
- Check rear door lock assembly for poor lubrication. If necessary apply a suitable multi-purpose grease.

[WITHOUT INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >

TRUNK LID TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Exploded View

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TRUNK LID ASSEMBLY : Removal and Installation

CAUTION:

- · Use two people when removing or installing trunk lid assembly due to its heavy weight.
- Use protective tape or shop cloths to protect surrounding components from damage during removal and installation of trunk lid assembly.

REMOVAL

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

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TRUNK LID

< REMOVAL AND INSTALLATION >

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

[WITHOUT INTELLIGENT KEY SYSTEM]



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3. Remove the bolts (A) and remove the trunk lid assembly (1).

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

After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-325, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.
TRUNK LID

< REMOVAL AND INSTALLATION >

TRUNK LID ASSEMBLY : Adjustment

[WITHOUT INTELLIGENT KEY SYSTEM]



TRUNK LID

< REMOVAL AND INSTALLATION >

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

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

| Section | Item | Measurement | Standard | Parallelism (MAX) | Right/Left Difference (MAX) |
|---------|------|----------------|-----------------------|-------------------|--------------------------------|
| A – A | E | Clearance | 3.5 ±1.0 (0.14 ±0.04) | 2.5 (0.10) | 2.0 (0.08) |
| | F | Surface height | 0.0 ±1.0 (0.00 ±0.04) | 1.5 (0.06) | 1.5 (0.06) |
| B – B | G | Clearance | 3.5 ±1.0 (0.14 ±0.04) | 2.5 (0.10) | 2.0 (0.08) |
| | Н | Surface height | 0.0 ±1.0 (0.00 ±0.04) | 1.5 (0.06) | 1.5 (0.06) |
| C – C | J | Clearance | 4.5 ±1.9 (0.18 ±0.07) | 2.0 (0.08) | 3.0 (0.12) |
| D – D | К | Clearance | 7.0 ±2.0 (0.28 ±0.08) | 2.0 (0.08) | — |

LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

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

Trunk Lid Hinge Removed From Vehicle

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

SURFACE HEIGHT ADJUSTMENT

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

TRUNK LID HINGE

TRUNK LID HINGE : Removal and Installation

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REMOVAL

- 1. Remove trunk lid assembly. Refer to <u>DLK-323, "TRUNK LID ASSEMBLY : Removal and Installation"</u>.
- 2. Remove torsion bar. Refer to DLK-327, "TORSION BAR : Removal and Installation".
- 3. Remove rear parcel shelf finisher. Refer to <u>INT-33, "Removal and Installation"</u>.
- 4. Remove trunk lid hinge bolts (body side) and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- Check trunk lid open/close, lock/unlock operation after installation.
- After installation, perform the trunk lid assembly adjustment procedure. Refer to <u>DLK-325, "TRUNK</u> <u>LID ASSEMBLY : Adjustment"</u>.

TRUNK LID

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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



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TORSION BAR

TORSION BAR : Removal and Installation

REMOVAL

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

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

3. Apply suitable tool (A) to torsion bar (1) and lift torsion bar to remove it.



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

TRUNK LID LOCK

TRUNK LID LOCK : Removal and Installation

REMOVAL

- 1. Remove the trunk lid finisher (if equipped). Refer to INT-45. "Removal and Installation".
- 2. Disconnect the harness connector (B) and emergency release handle (2) from the trunk lid lock (1).
- 3. Remove the trunk lid lock bolts (A) and remove.



INSTALLATION

Installation is in the reverse order of removal.

< REMOVAL AND INSTALLATION >

EMERGENCY LEVER

EMERGENCY LEVER : Removal and Installation

REMOVAL

CAUTION:

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



TRUNK LID STRIKER : Removal and Installation

REMOVAL

INSTALLATION

CAUTION:

- 1. Remove the trunk kicking plate. Refer to <u>INT-42, "Exploded View"</u>.
- 2. Remove bolts (A) and striker (1).

Installation is in the reverse order of removal.

LID ASSEMBLY : Adjustment".

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK





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DLK-328

After installation, perform the trunk lid assembly adjustment procedure. Refer to DLK-325, "TRUNK

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< REMOVAL AND INSTALLATION >

FUEL FILLER LID OPENER

Exploded View

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[WITHOUT INTELLIGENT KEY SYSTEM]



- 1. Fuel filler lid
- 4. Fuel filler lid lock
- C. Cable protector

FUEL FILLER LID

FUEL FILLER LID : Removal and Installation

2. Bumper rubber

A. Clip

REMOVAL

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



3. Fuel filler lid opener cable

Bolts

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< REMOVAL AND INSTALLATION >

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



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

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

Unit: mm (in)

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

FUEL FILLER OPENER CABLE

FUEL FILLER OPENER CABLE : Removal and Installation

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REMOVAL

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



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



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

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- 5. Remove rear seat bolster (LH). Refer to <u>SE-37. "Removal and Installation Rear Seat Bolster"</u>.
- 6. Remove trunk side finisher (LH). Refer to <u>INT-43, "TRUNK SIDE FINISHER : Removal and Installation"</u>.
- Remove fuel filler lid opener cable (1) from fuel filler lid lock assembly. Refer to <u>DLK-330, "FUEL FILLER</u> <u>OPENER CABLE : Removal and Installation"</u>.



↓ Front

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

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

FUEL FILLER LID LOCK : Removal and Installation

REMOVAL

1. Fully open fuel filler lid.

< REMOVAL AND INSTALLATION >

remove fuel filler lid lock assembly (1).

CAUTION:

lid lock assembly (2).

2.

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

3. Release upper and lower pawls (A) using a suitable tool and

4. Disconnect fuel filler lid opener cable (1) by pulling downward

and then sliding cable end to the side to remove from fuel filler

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

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]

< REMOVAL AND INSTALLATION >

DOOR SWITCH

Removal and Installation

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.



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REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

REMOVAL

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

INSTALLATION

Installation is in the reverse order or removal.

< REMOVAL AND INSTALLATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Exploded View

KEYFOB BATTERY

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< REMOVAL AND INSTALLATION >

TRUNK LID OPENER SWITCH

Removal and Installation

REMOVAL

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



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



INSTALLATION Installation is in the reverse order of removal.

STEERING LOCK UNIT

< REMOVAL AND INSTALLATION >

STEERING LOCK UNIT

Exploded View



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[WITHOUT INTELLIGENT KEY SYSTEM]



- 4. Steering lock unit
- 5. NATS antenna amp.
- - A. Tamper resistant self-shear type screw

B. Key cylinder

NOTE:

Steering lock unit, ignition switch and key cylinder are serviced as an assembly. Ignition switch is also available separately.

Removal and Installation - Steering lock unit

REMOVAL

- Disconnect battery cables. Refer to PG-74, "Removal and Installation (Battery)". 1.
- Remove steering column. Refer to ST-13, "Removal and Installation". 2.
- Using suitable tool, remove tamper resistant self-shear type screw. 3. **CAUTION:**

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STEERING LOCK UNIT

< REMOVAL AND INSTALLATION >

Do not reuse screw. Replace with new tamper resistant self-shear type screw.

- 4. Remove steering lock bracket and steering lock unit.
- 5. Remove NATS antenna amp. (if necessary). Refer to SEC-197, "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.
- For initialization and registration of mechanical keys, refer to CONSULT Immobilizer mode and follow the onscreen instructions.

Removal and Installation - Ignition switch

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REMOVAL

- 1. Remove steering column cover. Refer to <u>IP-16, "Removal and Installation"</u>.
- 2. Disconnect ignition switch harness connector.
- 3. Remove ignition switch screws and ignition switch.

INSTALLATION

Installation is in the reverse order of removal.