SECTION DLK
DOOR & LOCK

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012250300

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

WARNING:

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

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

WARNING:

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

Precaution for Servicing Doors and Locks

INFOID:0000000011935322

WARNING:

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

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.
- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

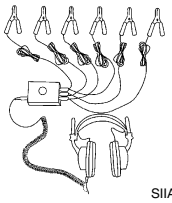
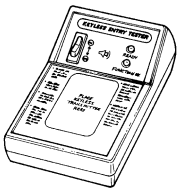
PREPARATION

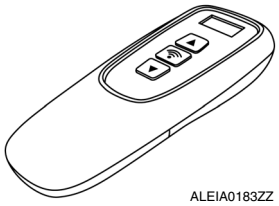
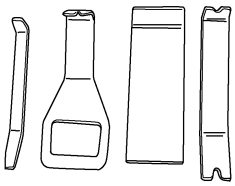
PREPARATION

Special Service Tools

INFOID:0000000011935323

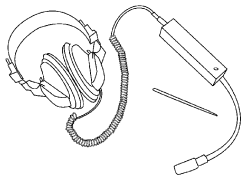
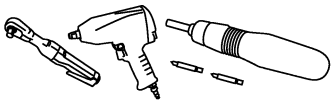
The actual shape of the tools may differ from those illustrated here.

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 • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength • Compatible with future sensors • Equipped with a display

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

Commercial Service Tools

INFOID:0000000011935324

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

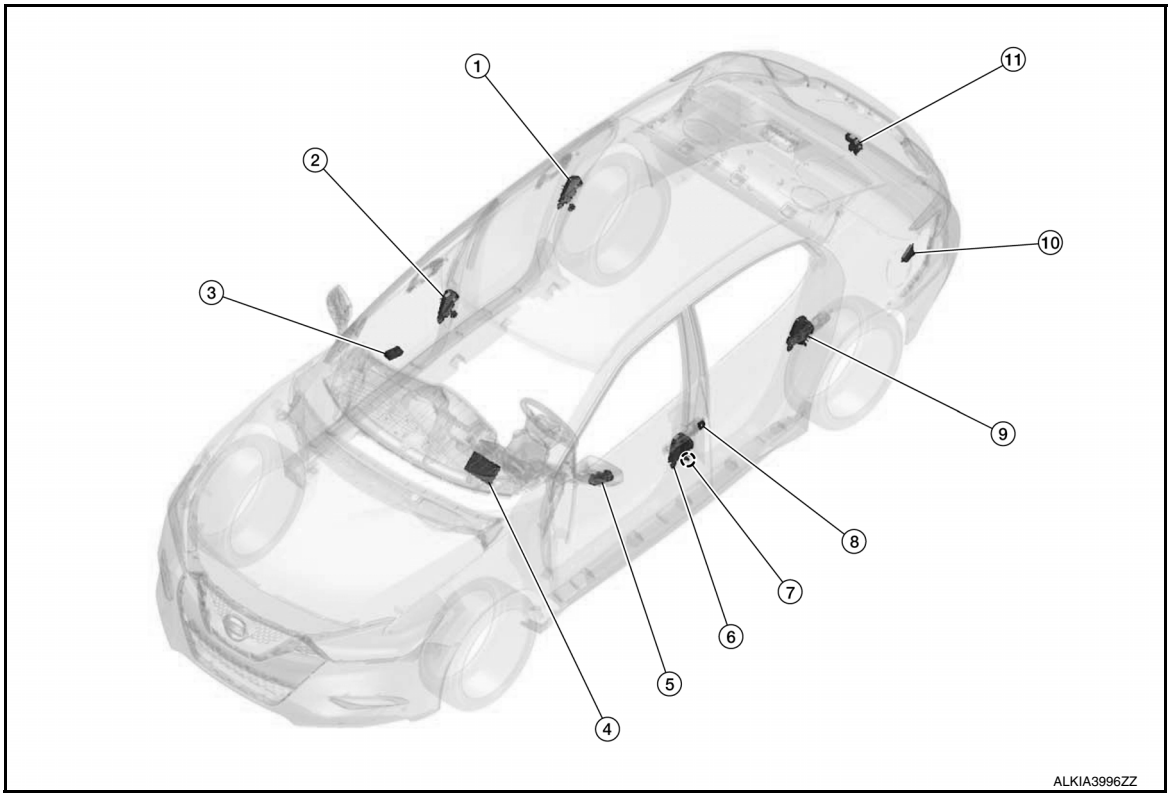
SYSTEM DESCRIPTION

COMPONENT PARTS

POWER DOOR LOCK SYSTEM

POWER DOOR LOCK SYSTEM : Component Parts Location

INFOID:0000000012227505

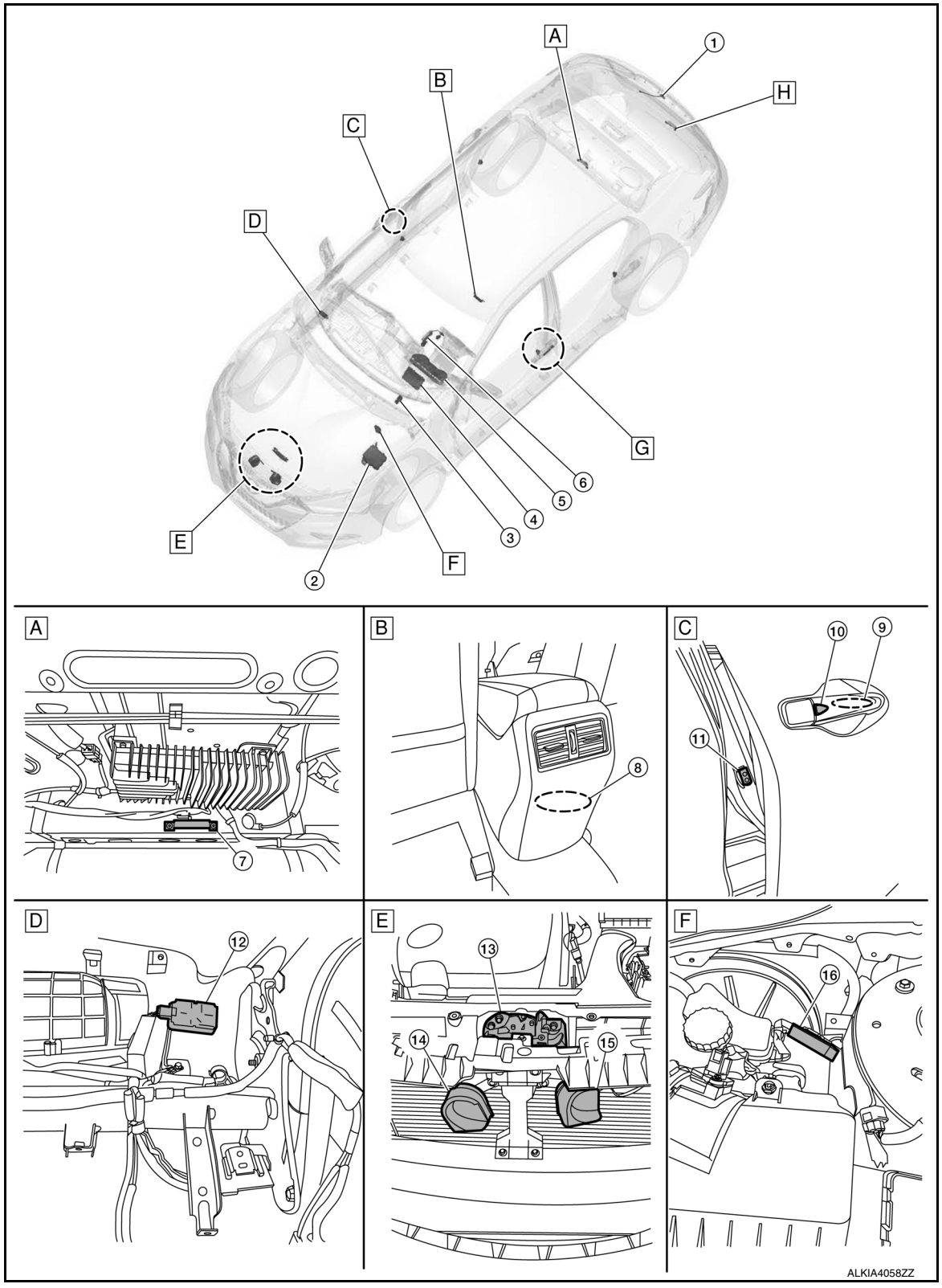


No.	Component	Function
1.	Rear door lock actuator RH	Rear door lock actuator locks/unlocks the rear door latch assembly.
2.	Front door lock actuator RH	Front door lock actuator locks/unlocks the front door latch assembly.
3.	Power window and door lock/unlock switch RH	DLK-15, "Door Lock and Unlock Switch (Passenger Side)"
4.	BCM	• BCM controls the door lock system. • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
5.	Main power window and door lock/unlock switch	DLK-14, "Door Lock and Unlock Switch (Driver Side)"
6.	Front door lock assembly LH	DLK-17, "Front Door Lock Assembly (LH)"
7.	Front door switch LH	DLK-17, "Front Door Switch"
8.	Key cylinder switch	Key cylinder switch transmits the lock/unlock request signal to the BCM.
9.	Rear door lock actuator LH	Rear door lock actuator locks/unlocks the rear door latch assembly.
10.	Fuel door lid actuator	Fuel door lid actuator unlocks the fuel door lid.
11.	Trunk lid opener actuator	Trunk lid opener actuator opens the trunk lid with a request signal from the BCM.

INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM : Component Parts Location

INFOID:0000000012227506


A
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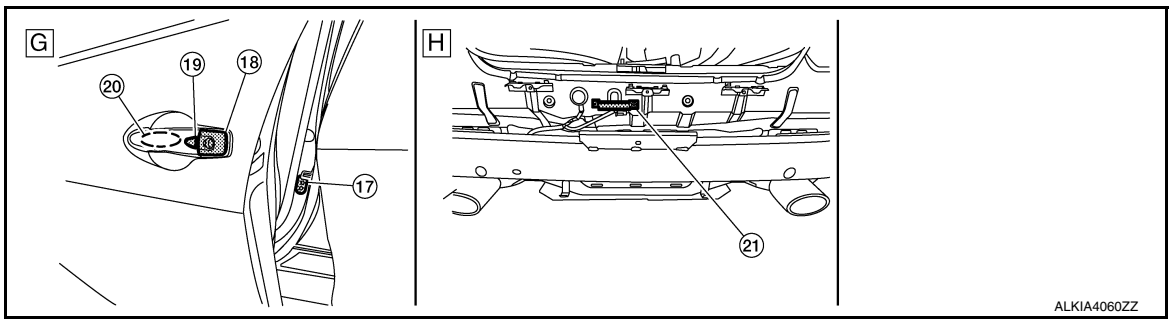
ALKIA4058ZZ



A. View of under the rear parcel shelf
B. View of rear center console
C. View of right front door
D. View of right side of dash with instrument panel removed
E. View with front grille removed
F. View of left side of the engine compartment
G. View of left front door
H. View with rear bumper fascia removed

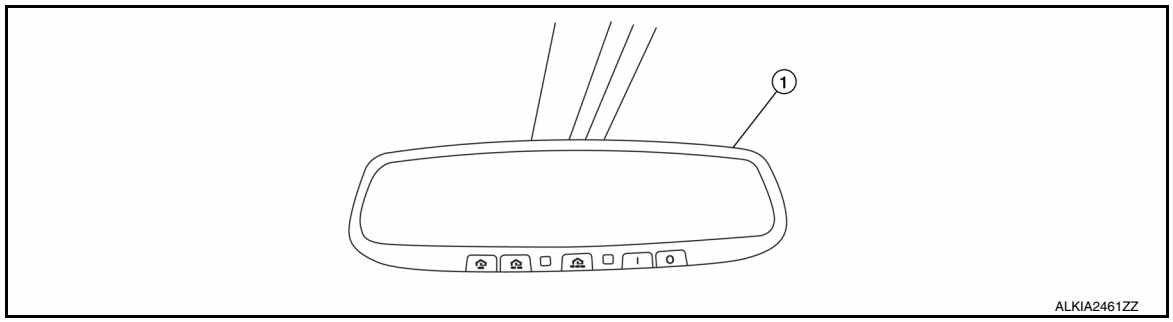
No.	Component	Function
1.	Trunk opener request switch	Trunk opener request switch transmits door lock/unlock request signal to the BCM.
2.	IPDM E/R	• IPDM E/R detects push-button ignition switch (push switch) status, and transmits push-button ignition switch status signal (CAN) to BCM. • Refer to PCS-5, "Component Parts Location".
3.	Stop lamp switch	• Stop lamp switch detects that brake pedal is depressed, and transmits the signal to BCM. • Refer to BRC-178, "Component Parts Location".
4.	BCM	• BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM. • BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna and push-button ignition switch is pressed. If the ID verification result is OK, ignition switch operation is available. • Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine. • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
5.	Combination meter	• Combination meter transmits the vehicle speed signal to BCM via CAN communication. • BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed. • Security indicator lamp is located on combination meter. • Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board. • Refer to MWI-5, "METER SYSTEM : Component Parts Location".
6.	CVT shift selector	• CVT shift selector detects shift lever status, transmits detention switch signal to BCM. • Refer to TM-12, "CVT CONTROL SYSTEM : Component Parts Location".
7.	Inside key antenna (parcel shelf)	Inside key antenna (parcel shelf) detects whether Intelligent Key is inside the vehicle or not and then transmits the signal to the BCM.
8.	Inside key antenna (console)	• Inside key antenna (console) detects whether Intelligent Key is inside the vehicle or not and then transmits the signal to the BCM. • Refer to DLK-15, "Inside Key Antenna (Console)".
9.	Outside key antenna RH	• Outside key antenna (RH) detects whether Intelligent Key is outside the vehicle or not and then transmits the signal to the BCM. • Refer to DLK-16, "Outside Key Antenna (LH)".

No.	Component	Function
10.	Door request switch RH	Door request switch transmits door lock/unlock request signal to the BCM.
11.	Door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
12.	Remote keyless entry receiver	• Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM. • Refer to DLK-15, "Remote Keyless Entry Receiver".
13.	Hood switch	Hood switch detects hood open/close condition and then transmits ON/OFF signal to BCM.
14.	Horn	IPDM E/R energizes the horns when the security system is activated after door lock.
15.	Horn	IPDM E/R energizes the horns when the security system is activated after door lock.
16.	Intelligent Key warning buzzer	Intelligent Key warning buzzer warns the user, who is outside the vehicle, of operation confirmation according to Intelligent Key operation and door request switch operation or of an inappropriate operation.
17.	Door switch LH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
18.	Key switch	Key switch detects door lock/unlock condition and then transmits lock/unlock signal to BCM.
19.	Door request switch LH	Door request switch transmits door lock/unlock request signal to the BCM.
20.	Outside key antenna LH	• Outside key antenna (LH) detects whether Intelligent Key is outside the vehicle or not, and then transmits the signal to the BCM. • Refer to DLK-16, "Outside Key Antenna (RH)".
21.	Outside key antenna (rear bumper)	• Outside key antenna (rear bumper) detects whether Intelligent Key is outside the vehicle or not and then transmits the signal to the BCM. • Refer to DLK-15, "Outside Key Antenna (Rear Bumper)".

INTEGRATED HOMELINK TRANSMITTER

INTEGRATED HOMELINK TRANSMITTER : Component Parts Location

INFOID:0000000012227507

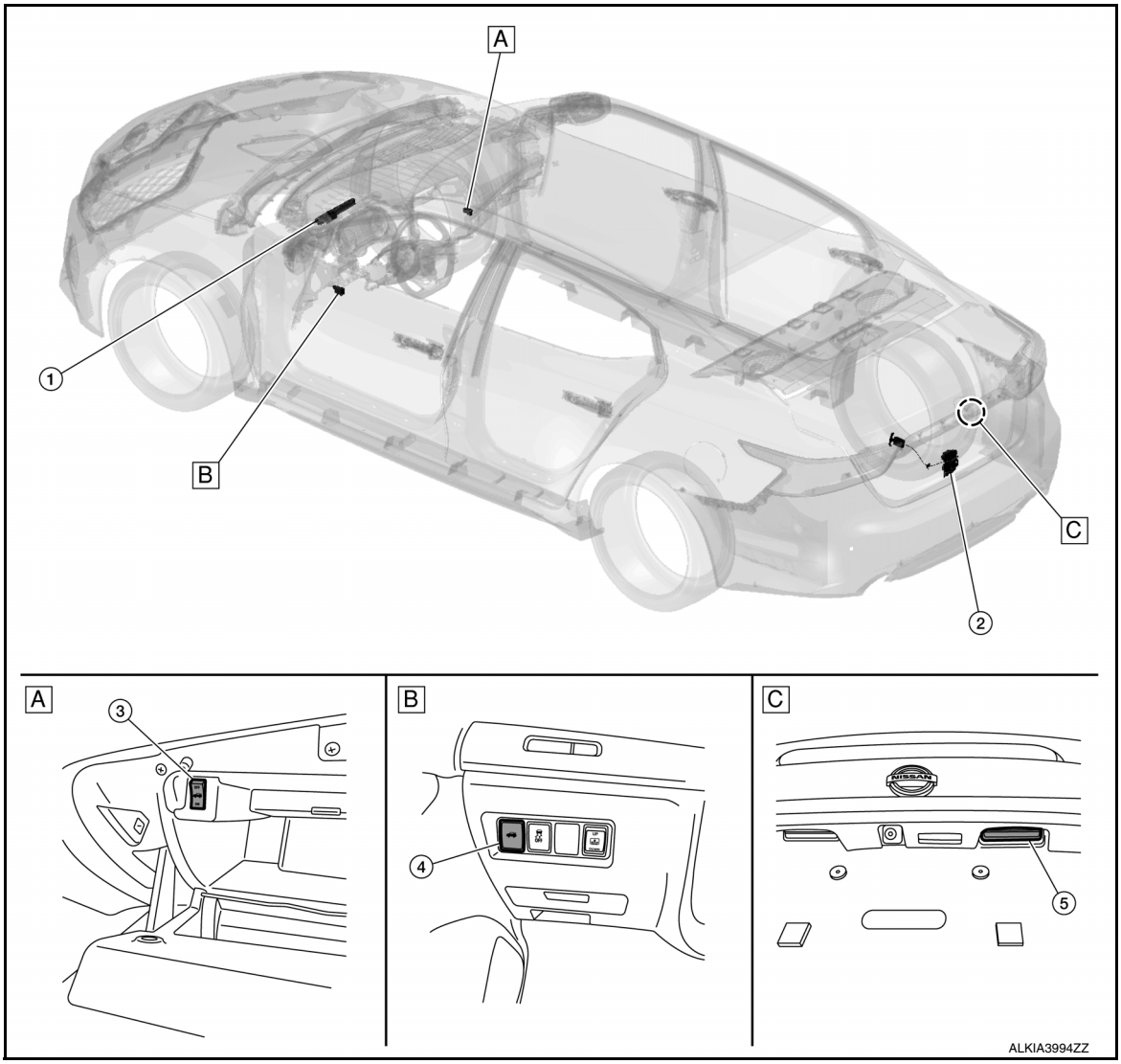


No.	Component	Function
1.	Auto anti-dazzling inside mirror	DLK-18, "Integrated Homelink Transmitter"

TRUNK LID OPENER SYSTEM

TRUNK LID OPENER SYSTEM : Component Parts Location

INFOID:0000000012239935



A. View of inside glove box
B. View of left side of the instrument panel
C. View of trunk lid

No.	Component	Function
1.	BCM	BCM controls the door lock system. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
2.	Trunk lamp switch and trunk release solenoid (trunk release solenoid)	Opens the trunk with the open signal from the BCM.
3.	Trunk lid opener cancel switch	Cancels the trunk open operation.
4.	Trunk lid opener switch	Transmits the trunk open operation to the BCM.
5.	Trunk lid opener request switch	Rear door lock actuator locks/unlocks the rear door latch assembly.

Door Lock and Unlock Switch (Driver Side)

INFOID:0000000012227519

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

Door Lock and Unlock Switch (Passenger Side)

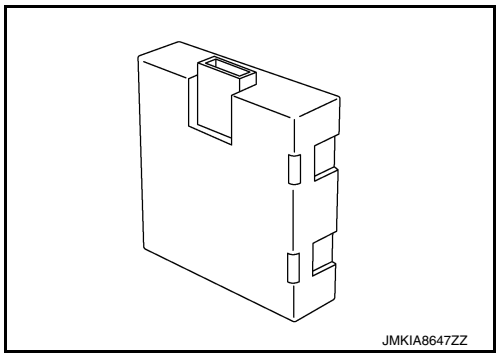
INFOID:0000000012227520

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

Remote Keyless Entry Receiver

INFOID:0000000012227521

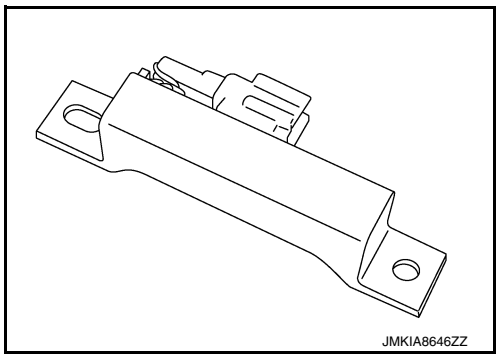
- Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM.
- Remote keyless entry receiver is installed behind the glove box.



Inside Key Antenna (Parcel shelf)

INFOID:0000000012227522

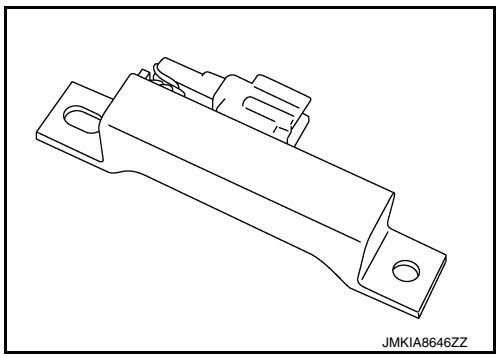
- Inside key antenna (parcel shelf) detects that Intelligent Key is within the inside detection area and then transmits detection status to BCM.



Inside Key Antenna (Console)

INFOID:0000000012227523

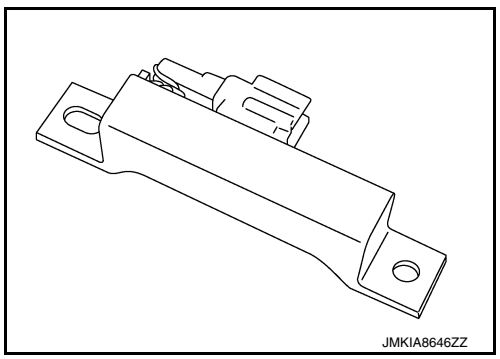
- Inside key antenna (console) detects that Intelligent Key is within the inside detection area and then transmits detection status to BCM.



Outside Key Antenna (Rear Bumper)

INFOID:0000000012227524

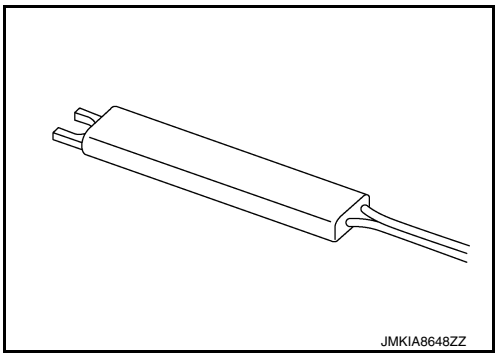
- Outside key antenna (rear bumper) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (rear bumper) is installed in the rear of rear bumper.



Outside Key Antenna (LH)

INFOID:0000000012227525

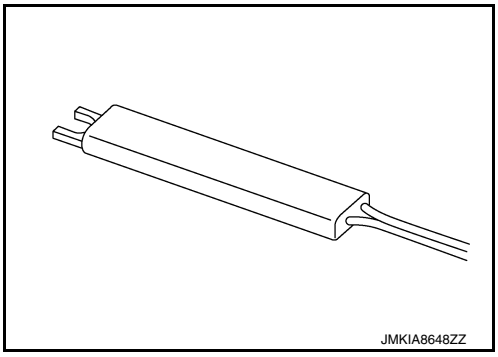
- Outside key antenna (LH) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (LH) is installed in driver side outside handle.



Outside Key Antenna (RH)

INFOID:0000000012227526

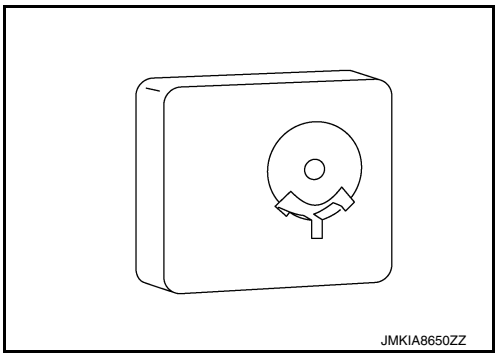
- Outside key antenna (RH) detects that Intelligent Key is within the outside detection area and then transmits detection status to BCM. Request signal is transmitted simultaneously to Intelligent Key.
- Outside key antenna (RH) is installed in passenger side outside handle.



Intelligent Key Warning Buzzer

INFOID:0000000012227527

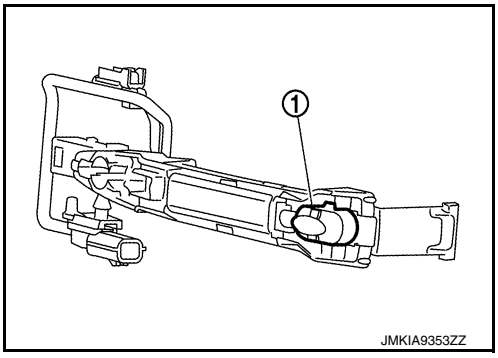
- Intelligent Key warning buzzer warns the user, who is outside the vehicle, of operation confirmation according to Intelligent Key operation and door request switch operation or of an inappropriate operation.
- Intelligent Key warning buzzer is installed in the left strut tower area.



Front Door Request Switch (LH)

INFOID:0000000012227528

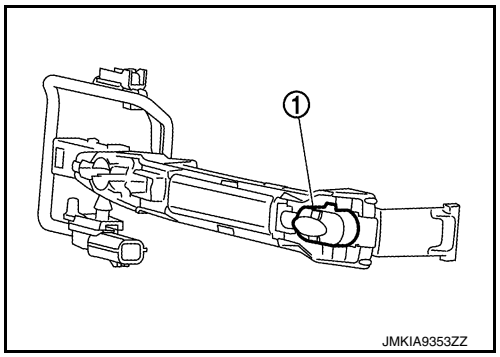
- Front door request switch (LH) transmits door request switch signal to BCM.
- Front door request switch (LH) (1) is integrated into driver side outside handle.



Front Door Request Switch (RH)

INFOID:0000000012227529

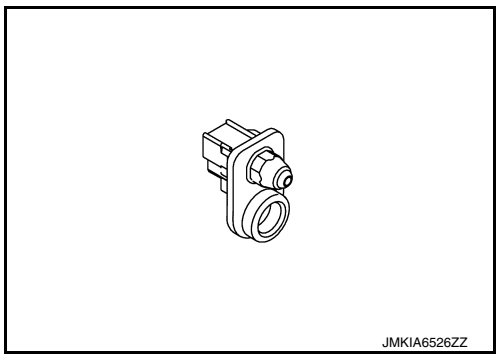
- Front door request switch (RH) transmits door request switch signal to BCM.
- Front door request switch (RH) (1) is integrated into passenger side outside handle.



Front Door Switch

INFOID:0000000012227530

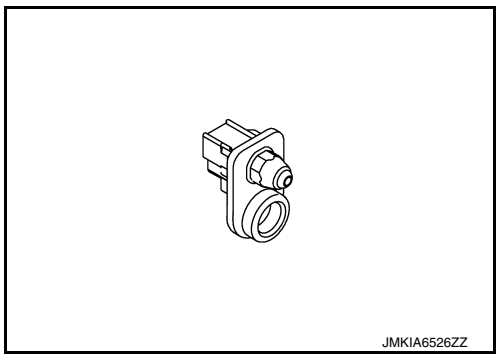
Door switch detects open/close status of door and transmits door switch signal to BCM.



Rear Door Switch

INFOID:0000000012227531

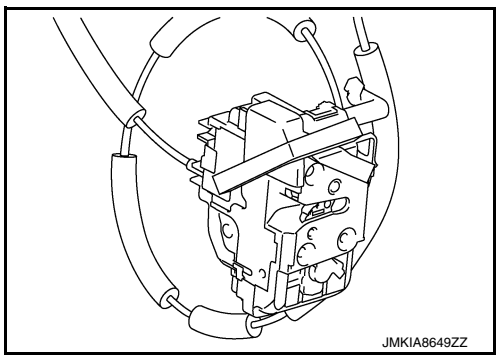
Door switch detects open/close status of door and transmits door switch signal to BCM.



Front Door Lock Assembly (LH)

INFOID:0000000012227532

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



Integrated Homelink Transmitter

INFOID:0000000012227534

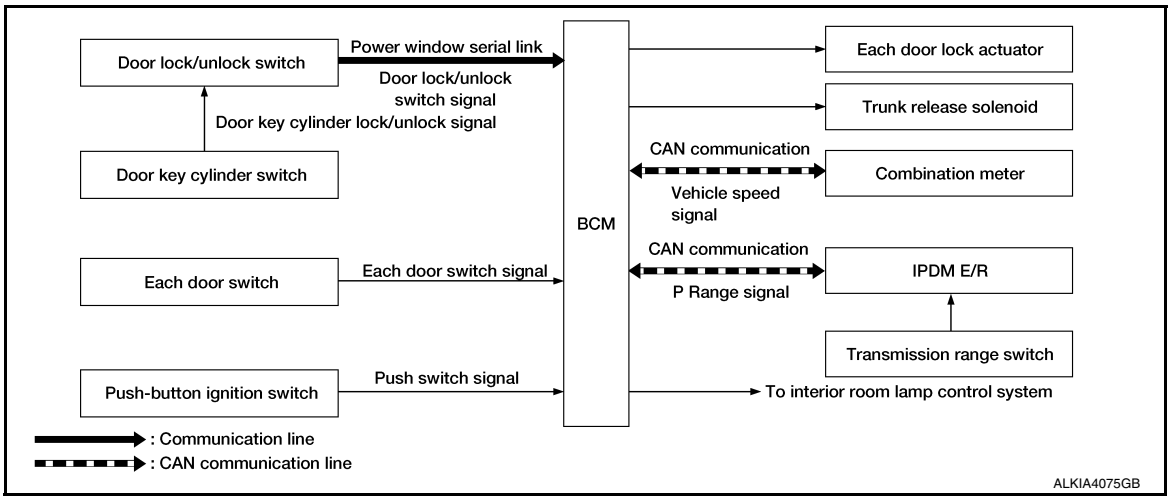
Within the Homelink transmitter, a maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

SYSTEM (POWER DOOR LOCK SYSTEM)

System Description

INFOID:0000000012227535

SYSTEM DIAGRAM



DOOR LOCK FUNCTION

Door Lock and Unlock Switch

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

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

Selective unlock operation mode can be changed using CONSULT.
Refer to BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

IGNITION POSITION WARNING FUNCTION

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

INTERIOR ROOM LAMP CONTROL FUNCTION

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

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (LOCK OPERATION)

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

Vehicle Speed Sensing Auto Door Lock

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

P Range Interlock Door Lock

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

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

Setting change of Automatic Door Lock/Unlock Function

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

With CONSULT

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

Without CONSULT

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

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

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNLOCK OPERATION)

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

IGN OFF Interlock Door Unlock

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

P Range Interlock Door Unlock

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

Setting change of Automatic Door Lock/Unlock Function

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

With CONSULT

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

Without CONSULT

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

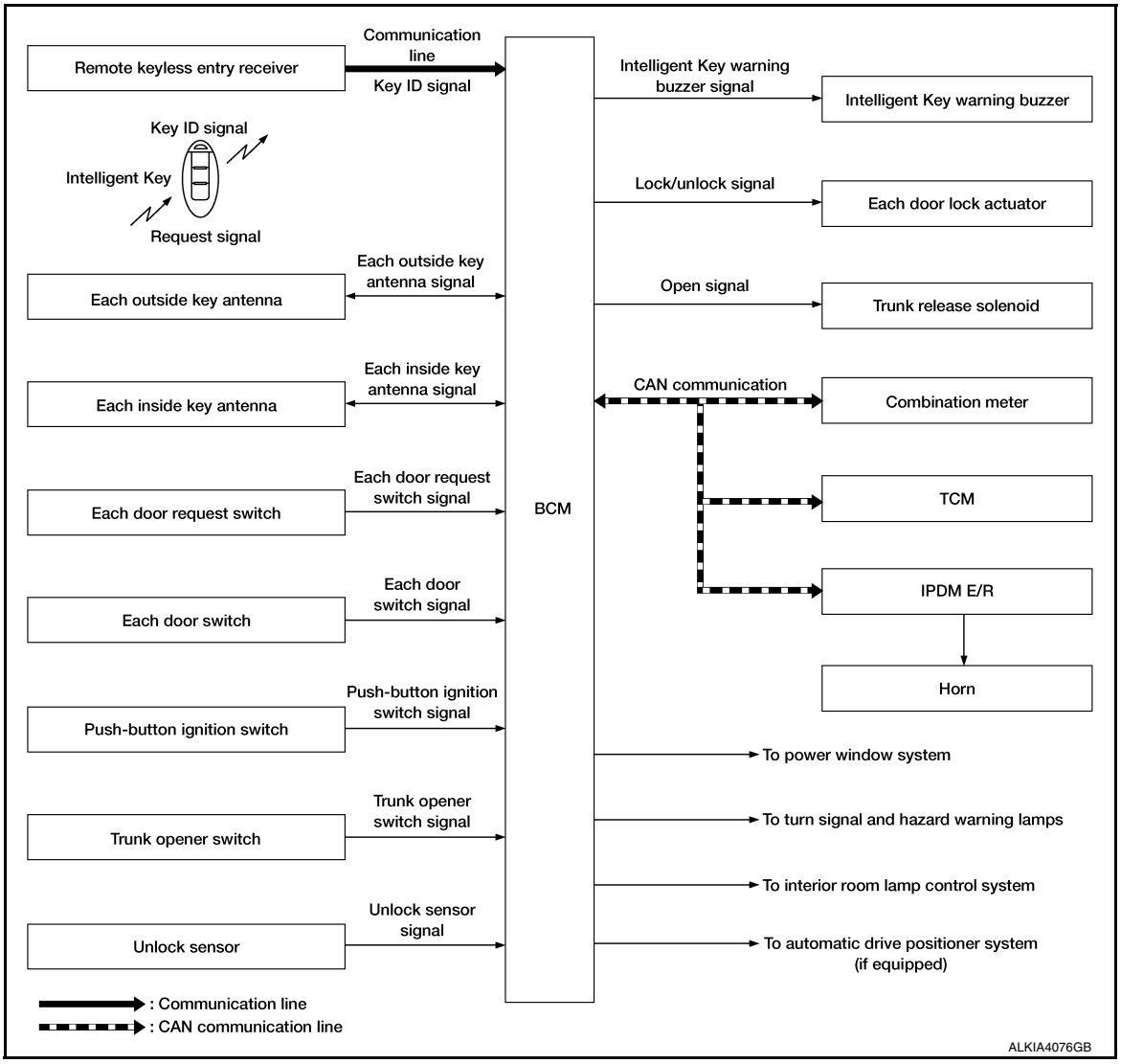
1. Close all doors. (door switch OFF)
2. Ignition switch: OFF→ON
3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
4. The switching is complete when the hazard lamp blinks:

OFF → ON	: 2 blinks
ON → OFF	: 1 blink

SYSTEM (INTELLIGENT KEY SYSTEM)
INTELLIGENT KEY SYSTEM
INTELLIGENT KEY SYSTEM : System Description

INFOID:0000000012227536

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communication between the Intelligent Key and the vehicle (BCM).
  CAUTION:
  The driver should always carry the Intelligent Key.
- The settings for each function can be changed with CONSULT.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with CONSULT.
- For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Function	Description	Reference
Door lock	Lock/unlock can be performed by pressing the request switch.	DLK-21
Trunk lid opener	The trunk lid can be opened by carrying the Intelligent Key and pressing the trunk lid opener switch.	DLK-34

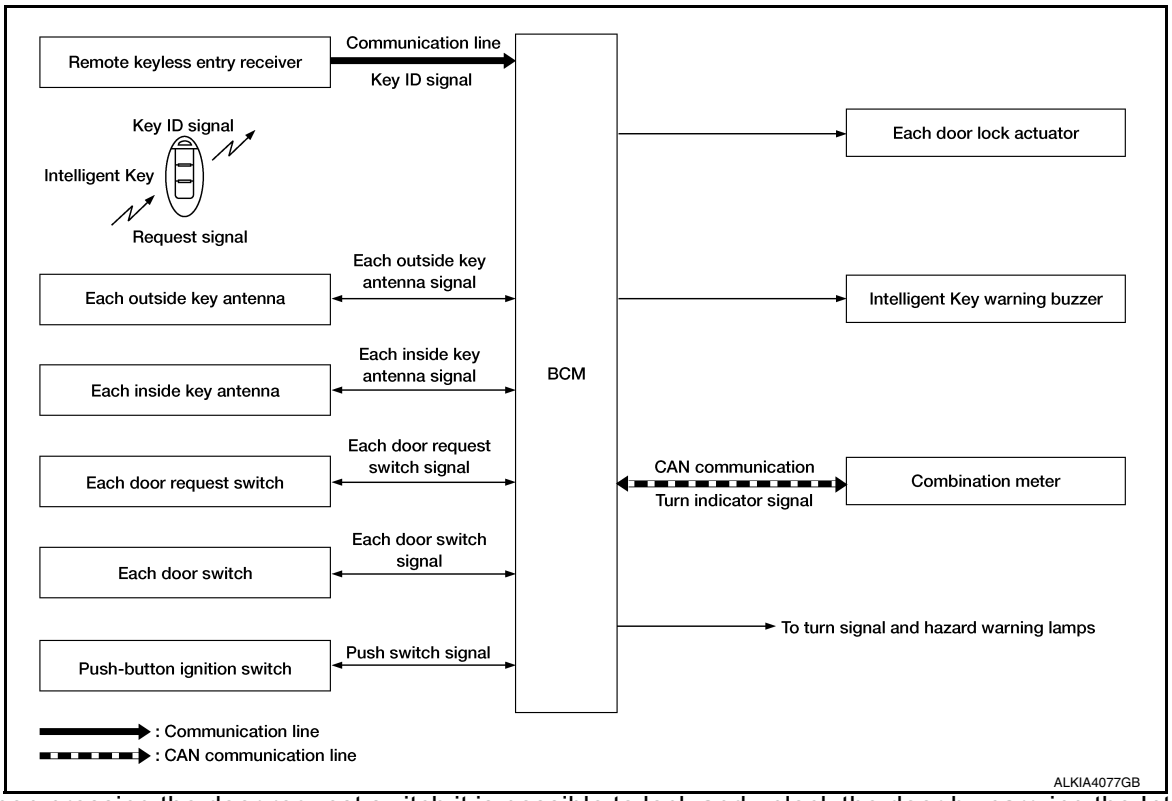
Function	Description	Reference
Remote keyless entry	Lock/unlock can be performed by pressing the remote control button of the Intelligent Key.	DLK-22
Key reminder	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	DLK-26
Warning	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer sounds to inform the driver.	DLK-26
Interior room lamp control	Interior room lamp is controlled according to door lock/unlock state.	DLK-21
Panic alarm	When Intelligent Key panic alarm button is pressed, horn sounds.	DLK-26

DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Description

INFOID:0000000012227537

SYSTEM DIAGRAM



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

OPERATION DESCRIPTION

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

OPERATION CONDITION

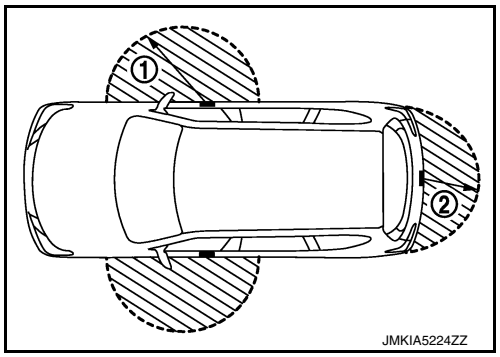
If the following conditions are satisfied, door lock/unlock operation is performed if the door request switch is operated:

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

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

OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver and passenger door handles (1) and trunk lid handle (2). However, this operating range depends on the ambient conditions.



SELECTIVE UNLOCK FUNCTION

Lock Operation

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

Unlock Operation

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

How To Change Selective Unlock Operation Mode

Selective unlock operation mode can be changed using CONSULT.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

HAZARD AND BUZZER REMINDER FUNCTION

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

Operating Function of Hazard and Buzzer Reminder

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

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

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

How To Change Hazard And Buzzer Reminder Mode

Hazard and buzzer reminder mode can be changed using CONSULT.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

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

Operating condition	• Door switch is ON (door is open). • Door is locked. • Push switch is pressed.

How To Change Auto Door Lock Operation Mode

Auto door lock operation mode can be changed using CONSULT.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

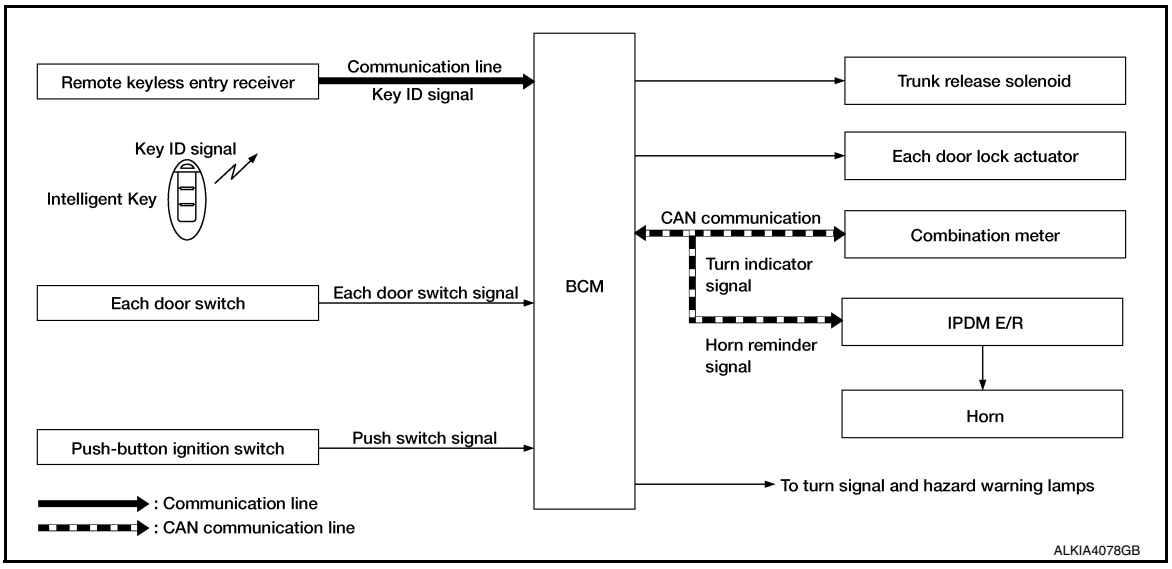
Function	Intelligent Key	Door switch	Door request switch	Door lock actuator	Inside key antenna	Outside key antenna	CAN communication system	BCM	Hazard warning lamp	Intelligent Key warning buzzer	Push-button ignition switch
Door lock/unlock function	×	×	×	×	×	×		×			
Hazard reminder function							×	×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

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:0000000012227539

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

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

OPERATION

Remote keyless entry system controls operation of the following items:
- Door lock/unlock function

- Selective unlock function
- Auto door lock function
- Hazard and horn reminder function
- Trunk opener function
- Remote engine start

OPERATION AREA

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

DOOR LOCK/UNLOCK FUNCTION

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

OPERATION CONDITION

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

Remote control operation	Operation condition
Lock	• Panic alarm is not activated. • P (Park) position warning is not activated.
Unlock	Panic alarm is not activated.

SELECTIVE UNLOCK FUNCTION

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

How To Change Selective Unlock Operation Mode.

Selective unlock operation mode can be changed using CONSULT.

Refer to BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

AUTO DOOR LOCK FUNCTION

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

Operating condition	• Door switch is ON (door is open). • Door is locked. • Push switch is pressed.

How To Change Auto Door Lock Operation Mode.

Auto door lock mode can be changed using CONSULT.

Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

HAZARD AND HORN REMINDER FUNCTION

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

Operating Function of Hazard and Horn Reminder

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

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

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

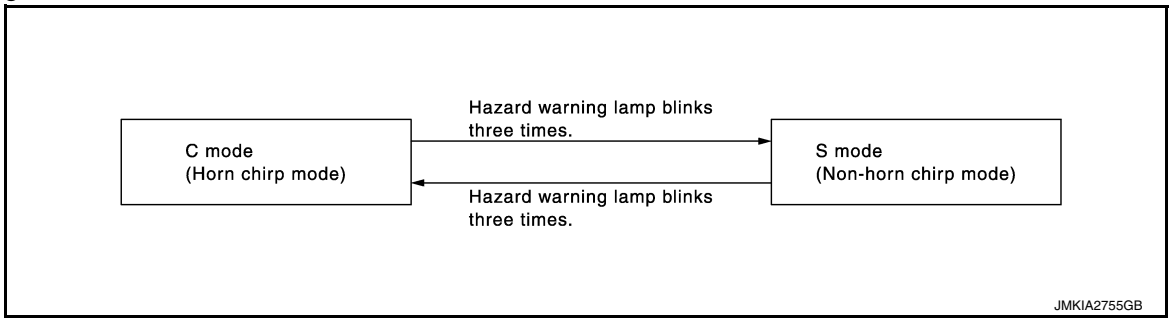
How to Change Hazard and Horn Reminder Mode

With CONSULT

Hazard and horn reminder operation mode can be changed using CONSULT.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Without CONSULT

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



TRUNK OPENER FUNCTION

When trunk button of Intelligent Key is pressed for 0.4 seconds or more, trunk opens. For detailed description, refer to DLK-34, "System Description".

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

Function	Intelligent Key	Door switch	Door lock actuator	Push-button ignition switch	CAN communication system	BCM	IPDM E/R	Horn	Combination meter	Hazard warning lamp	Trunk lock assembly
Door lock/unlock function	×	×	×			×					
Selective unlock function	×	×	×			×					
Auto door lock function	×	×	×	×		×					
Hazard and horn reminder function					×	×	×	×	×	×	
Trunk opener function	×					×					×

WARNING FUNCTION

WARNING FUNCTION : System Description

INFOID:0000000012227540

OPERATION DESCRIPTION

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

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

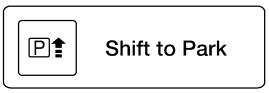
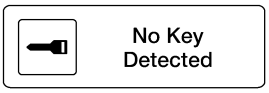
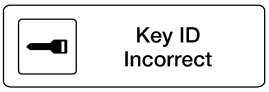
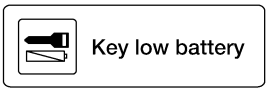
OPERATION CONDITION

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

Warning/Information functions		Operation procedure
Intelligent Key system malfunction		When a malfunction is detected on BCM, “KEY” warning lamp illuminates.
OFF position warning	For internal	When condition A, B or C is satisfied: • Condition A - Ignition switch: ACC position - Door switch (driver side): ON (Door is open.) • Condition B - Turn ignition switch from ON to OFF while door is open. • Condition C - Intelligent Key backside is contacted to ignition switch while brake pedal is depressed and ignition switch is in LOCK or OFF (when the Intelligent Key battery is discharged.) - Door switch (driver side): ON (Door is open.)
	For external	OFF position warning (for internal) is in active mode and driver side door is closed. **NOTE:** OFF position (for external) active only when each of the sequence occurs as below: P position warning → ACC warning → OFF position warning (for internal) → OFF position warning (for internal)
P position warning	For internal	• Shift position: Except P (Park) position • Engine is running to stopped (ignition switch is ON to OFF.)
	For external	Warning is activated when driver door is closed from the open position while the P (Park) position warning (for inside vehicle) is ON.
ACC warning		• When P (Park) position warning is in active mode, shift position changes P (Park) position. • Ignition switch: ACC position
Take away warning	Door is open to closed	• Ignition switch: Except Lock position • Door switch: ON to OFF (Door is open to close.) • Intelligent Key cannot be detected inside the vehicle.
	Door is open.	• Ignition switch: Except Lock position • Door switch: ON (Door is open.) • Key ID verification every 5 seconds when registered Intelligent Key cannot be detected inside the vehicle.
	Push-button ignition switch operation	• Ignition switch: Except Lock position • Press push-button ignition switch. • Intelligent Key cannot be detected inside the vehicle.
Door lock operation warning		When door lock operation is requested while door lock operating conditions of door request switch or Intelligent Key are not satisfied.
Engine start information	Ignition switch is in ON position.	• Ignition switch: ON position • Shift position: P (Park) position • Engine is stopped.
	Ignition switch is in except ON position.	• Ignition switch: Except ON position • Shift position: P (Park) position • Intelligent Key is inserted in key slot or Intelligent Key can be detected inside the vehicle.
Intelligent Key low battery warning		When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON.
Key ID warning		When registered Intelligent Key cannot be detected inside the vehicle after ignition switch is turned ON.
Key ID verification information		• When registered Intelligent Key cannot be detected inside the vehicle • Intelligent Key battery is discharged • When NATS antenna amp. cannot detect NATS ID.

WARNING METHOD

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

Warning/Information functions		"KEY" warning lamp	Information display (combination meter)	Warning chime	
				Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key system malfunction		Indicate	—	—	—
OFF position warning	For internal	—	—	Activate	—
	For external	—	—	—	Activate
P position warning	For internal	—	 ALKIA2515GB	Activate	—
	For external			—	Active
Take away warning	Door is open to closed.	—	 ALKIA2517GB	Activate	Activate
	Door is open.			—	—
	Push-button ignition switch operation			Activate	—
Door lock operation warning	Request switch operation	—	—	—	Activate
	Intelligent Key	—	—	—	Activate
Key ID warning		—	 ALKIA2518GB	—	—
Intelligent Key low battery warning		—	 ALKIA2520GB	—	—
Key ID verification information		—	 ALKIA2521ZZ	—	—

LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

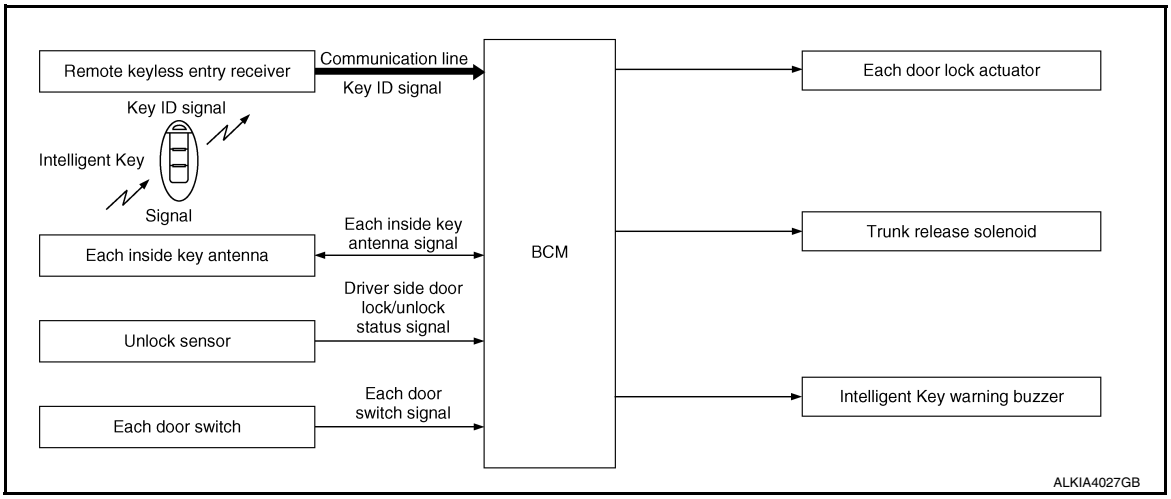
Warning function		Intelligent Key	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter buzzer	CAN communication system	BCM	Information display	"KEY" warning lamp
Intelligent Key system malfunction										×	×		×
OFF position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

KEY REMINDER FUNCTION

KEY REMINDER FUNCTION : System Description

INFOID:0000000012227541

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

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

Key reminder function	Operation condition	Operation
Driver door is closed*.	Right after driver door is closed under the following conditions: • Door lock operation is performed. • Driver side door is open. • Driver side door is in lock state.	All doors unlock.
Door is open or closed.	Right after all doors are closed under the following conditions: • Intelligent Key is inside the vehicle. • Any door is open. • All doors are locked by door lock and unlock switch or door lock knob.	• All doors unlock. • Honk Intelligent Key warning buzzer.
Trunk is closed.	Right after trunk is closed under the following conditions: • Intelligent Key is inside vehicle. • All doors are closed. • All doors are locked.	• All doors unlock. • Trunk can open with trunk opener switch. • Honk Intelligent Key warning buzzer.

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

CAUTION:

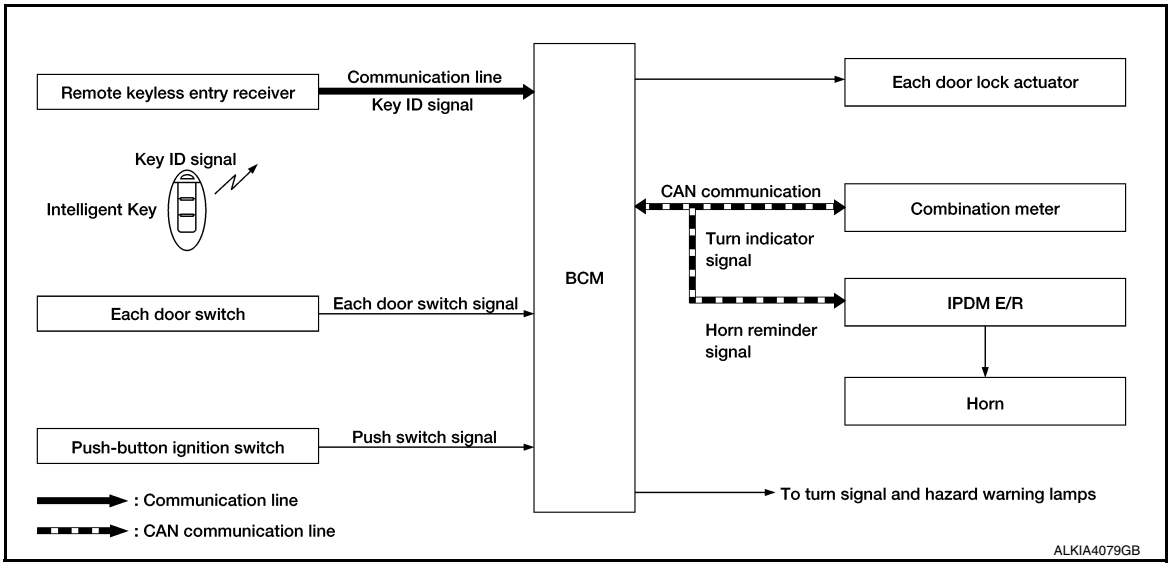
- **The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected. This function does not operate when the Intelligent Key is on the instrument panel, rear parcel shelf or in the glove box. Also, this system sometimes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

REMOTE ENGINE START FUNCTION

REMOTE ENGINE START FUNCTION : System Description

INFOID:0000000012227542

SYSTEM DIAGRAM



OPERATION

Remote keyless entry system controls operation of the following items:

- Door lock/unlock function
- Selective unlock function
- Auto door lock function
- Hazard and horn reminder function
- Trunk opener function
- Remote engine start

OPERATION AREA

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

REMOTE ENGINE START FUNCTION

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

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

HAZARD AND HORN REMINDER FUNCTION

When remote engine start is initiated by Intelligent Key, BCM blinks hazard warning lamps as a reminder. The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating Function of Hazard and Horn Reminder

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

Hazard and horn reminder does not operate in the following conditions:
- Ignition switch position is ON.
- Door is open (only lock operation).

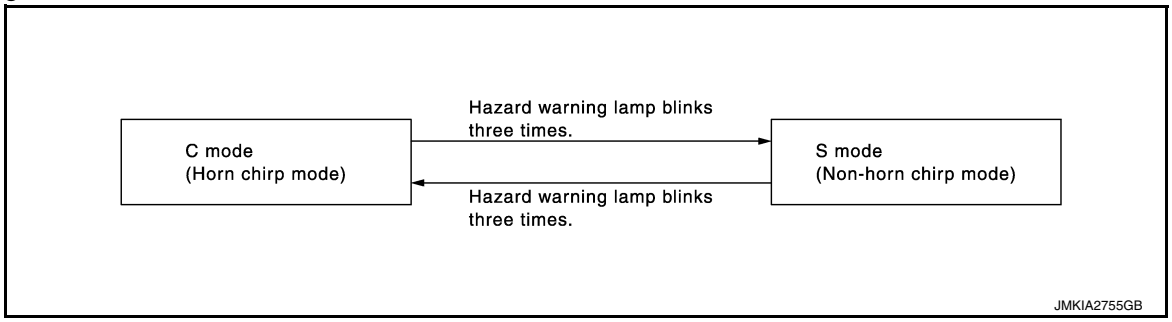
How to Change Hazard and Horn Reminder Mode

With CONSULT

Hazard and horn reminder operation mode can be changed using CONSULT.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Without CONSULT

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



LIST OF OPERATION RELATED PARTS

Parts marked with × are the parts related to operation.

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

SYSTEM (INTEGRATED HOMELINK TRANSMITTER)

System Description

INFOID:0000000012227544

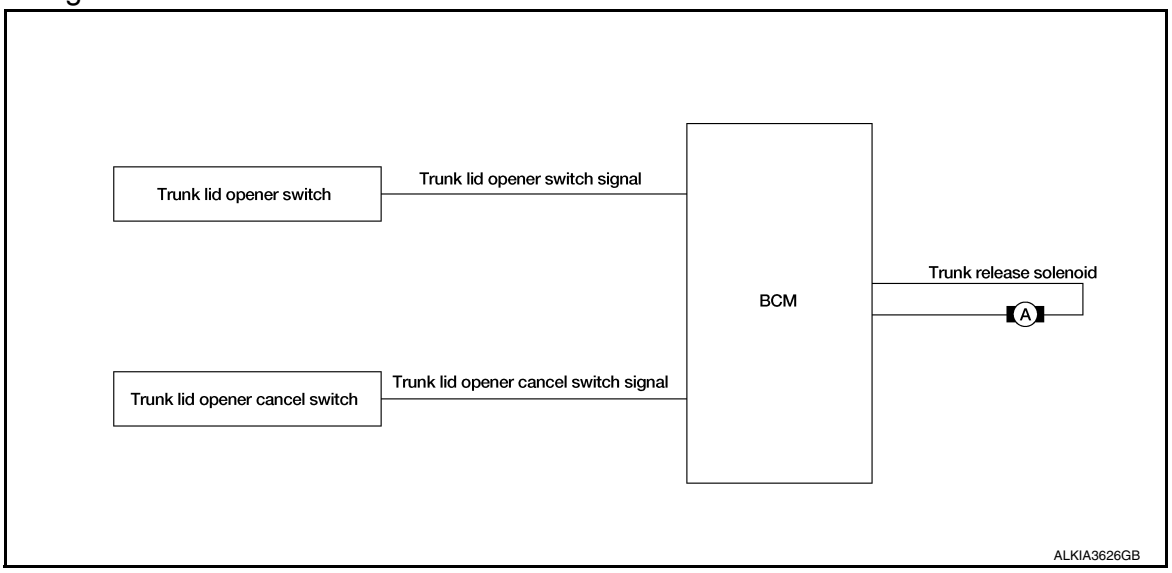
Item	Function
Integrated Homelink® transmitter	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

SYSTEM (TRUNK LID OPENER SYSTEM)

System Description

INFOID:0000000012239938

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 cancel switch is ON. • Vehicle speed is less than 5 km/h (3 MPH).

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012248755

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:

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*).
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK”*to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Vehicle is stopped and selector lever is in P position.)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK” (Ignition switch OFF)*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

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

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000012248756

SELF DIAGNOSTIC RESULT

Refer to BCS-53, "DTC Index".

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 opener request switch
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of 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 LCK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTO UNLOCK TYPE	MODE2	Driver door only unlocks automatically.
	MODE1*	All doors unlock automatically.
AUTO LOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors lock automatically when shifted out of P (park).
	MODE1*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
	Off	—
AUTO UNLOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors unlock automatically when shifted into P (park).
	MODE1*	Doors unlock automatically when ignition is switched from ON to OFF.
	Off	—
SIGNATURE LIGHT SETTING	On*	Signature light setting ON.
	Off	Signature light setting OFF.

* : Initial setting

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000012248757

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

Monitor Item [Unit]	Main	Description
REQ SW -BD/TR [On/Off]	×	Indicates condition of trunk opener request switch
PUSH SW [On/Off]		Indicates condition of push button ignition switch
SHFTLCK SLNID PWR SPLY [On/Off]		Indicates condition of shiftlock solenoid power supply
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 position
SFT PN/N SW [On/Off]	×	Indicates condition of P or N position
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor
PUSH SW -IPDM [On/Off]		Indicates condition of push button ignition switch received from IPDM E/R on CAN communication line
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line
DETE SW -IPDM [On/Off]		Indicates condition of detent switch received from TCM on CAN communication line
SFT PN -IPDM [On/Off]		Indicates condition of P or N position from TCM on CAN communication line
SFT P -MET [On/Off]		Indicates condition of P position from TCM on CAN communication line
SFT N -MET [On/Off]		Indicates condition of N position from IPDM E/R on CAN communication line
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
ID OK FLAG [Set/Reset]		Indicates condition of intelligent key ID
PRMT ENG START [Set/Reset]		Indicates condition of engine start possibility from intelligent key
I-KEY OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
ID AUTHENT CANCEL TIMER [under a stop]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [under a stop]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.
SHORT CRANK		Indicates condition of condition of short crank from intelligent key
ST RLY -REQ		Indicates condition of starter relay.
IGN RLY 1 -REQ		Indicates condition of ignition 1 relay.
IGN RLY 2 -REQ		Indicates condition of ignition 2 relay.
DETE SW PWR [On/Off]		Indicates condition of park position switch voltage.
IGN RLY 3 -REQ		Indicates condition of ignition 3 relay.
ACC RLY -REQ		Indicates condition of ACC relay.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk lid.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.

Monitor Item [Unit]	Main	Description
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.
RKE PBD		Indicates condition of trunk signal from Intelligent Key.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.

ACTIVE TEST

Test Item	Description
INTELLIGENT KEY LINK (CAN)	This test is able to check Intelligent Key identification number [Off/ID No1/ID No2/ID No3/ID No4/ID No5].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
HORN	This test is able to check horn operation [On].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
TRUNK/BACK DOOR	This test is able to check trunk actuator operation [Open].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
IGN CONT2	This test is able to check ignition relay-2 control operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].
ACC CONT	This test is able to check accessory relay control operation [On/Off].
IGN CONT1	This test is able to check ignition relay-1 control operation [On/Off].
ST CONT LOW	This test is able to check starter control relay operation [On/Off].
IGNITION RELAY	This test is able to check ignition relay operation [On/Off].
REVERSE LAMP TEST	This test is able to check reverse lamp illumination operation [On/Off].
DOOR HANDLE LAMP TEST	This test is able to check door handle lamp illumination operation [On/Off].
DR SEAT LAMP TEST	This test is able to check driver seat lamp operation [On/Off].
AS SEAT LAMP TEST	This test is able to check passenger seat lamp operation [On/Off].
SHIFT SPOT LAMP TEST	This test is able to check shift spot lamp operation [On/Off].
TRUNK/LUGGAGE LAMP TEST	This test is able to check cargo lamp illumination operation [On/Off].
KEYFOB PW TEST	This test is able to check power window operation using the Intelligent Key [P/W up/down OFF/Send P/W down ON/Send P/W up ON].
SHIFTLOCK SOLENOID TEST	This test is able to check shift lock solenoid operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.
	Off	Battery saver function OFF.
REMOTE ENGINE STARTER	On*	Remote engine start function ON.
	Off	Remote engine start function OFF.

Support Item	Setting		Description
ANSWERBACK I-KEY LOCK UNLOCK	BUZZER*		Buzzer reminder function by door lock/unlock request switch ON.
	HORN		Horn chirp reminder function by door lock request switch ON.
	Off		No reminder function by door lock/unlock request switch.
	INVALID		This mode is not used.
ANSWERBACK KEYLESS LOCK UNLOCK	On*		Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
	Off		No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.
ANSWER BACK	On*		Horn chirp reminder when doors are locked with Intelligent Key.
	Off		No horn chirp reminder when doors are locked with Intelligent Key.
RETRACTABLE MIRROR SET	On		Retractable mirror set ON.
	Off*		Retractable mirror set OFF.
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function from Intelligent Key ON.
	Off		Door lock/unlock function from Intelligent Key OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
	Off		Engine start function from Intelligent Key OFF.
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function by trunk request switch ON.
	Off		Buzzer reminder function by trunk request switch OFF.
CONFIRM KEY FOB ID	—		Intelligent Key ID code can be checked.
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End		—
INSIDE ANT DIAGNOSIS	—		This function allows inside key antenna self-diagnosis.
AUTO LOCK SET	MODE7	5 min	Auto door lock time can be set in this mode.
	MODE6	4 min	
	MODE5	3 min	
	MODE4	2 min	
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	Off	

*: Initial Setting

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000012248758

DATA MONITOR

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

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:0000000012227788

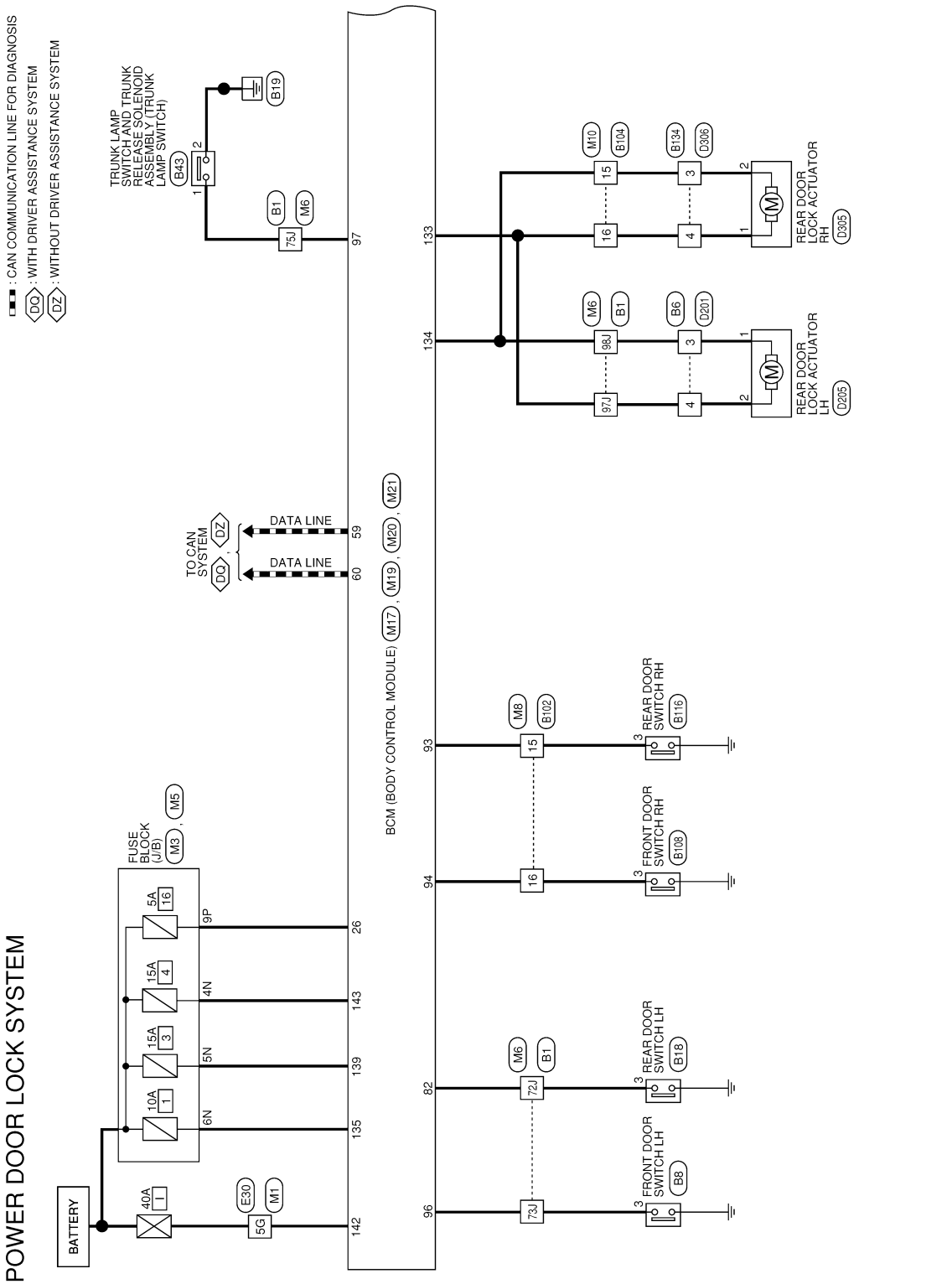
ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-51, "Fail Safe"
	BCS-52, "DTC Inspection Priority Chart"
	BCS-53, "DTC Index"

WIRING DIAGRAM

POWER DOOR LOCK SYSTEM

Wiring Diagram

INFOID:0000000012227563



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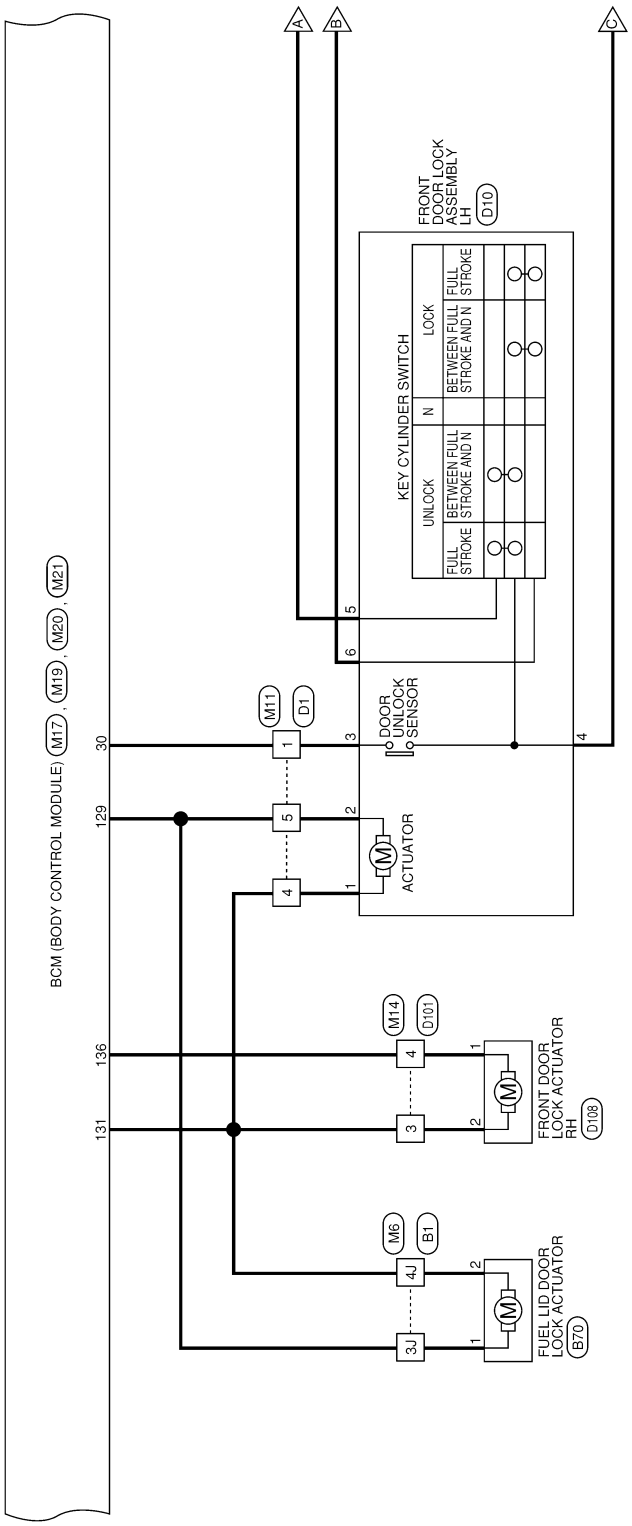

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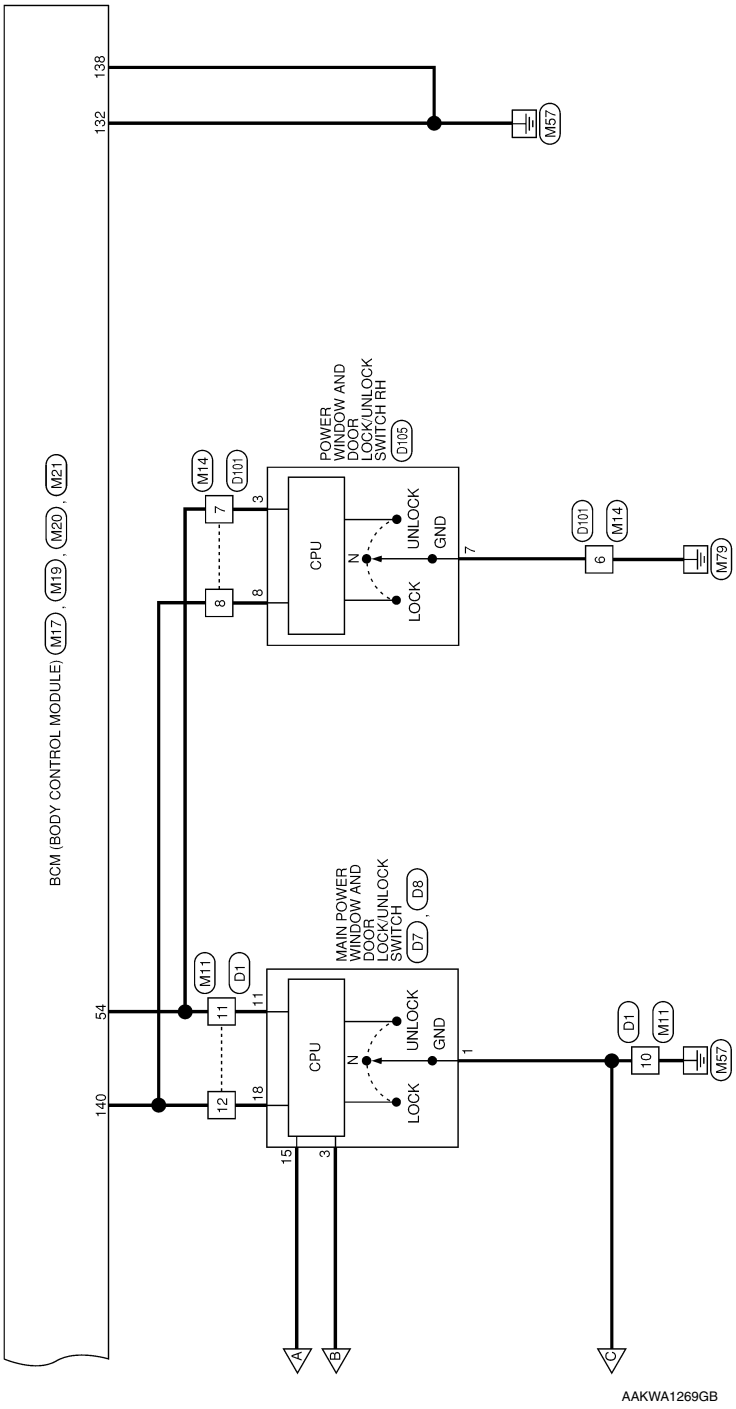
BCM (BODY CONTROL MODULE) M17, M19, M20, M21
138
132
M57
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH D105
M14
D101
7
3
8
8
CPU
N
UNLOCK
LOCK
GND
7
D101
M14
6
M79
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH D7, D8
M11
D1
11
11
54
12
18
140
CPU
N
UNLOCK
LOCK
GND
1
D1
M11
10
M57
15
3
A
B
C
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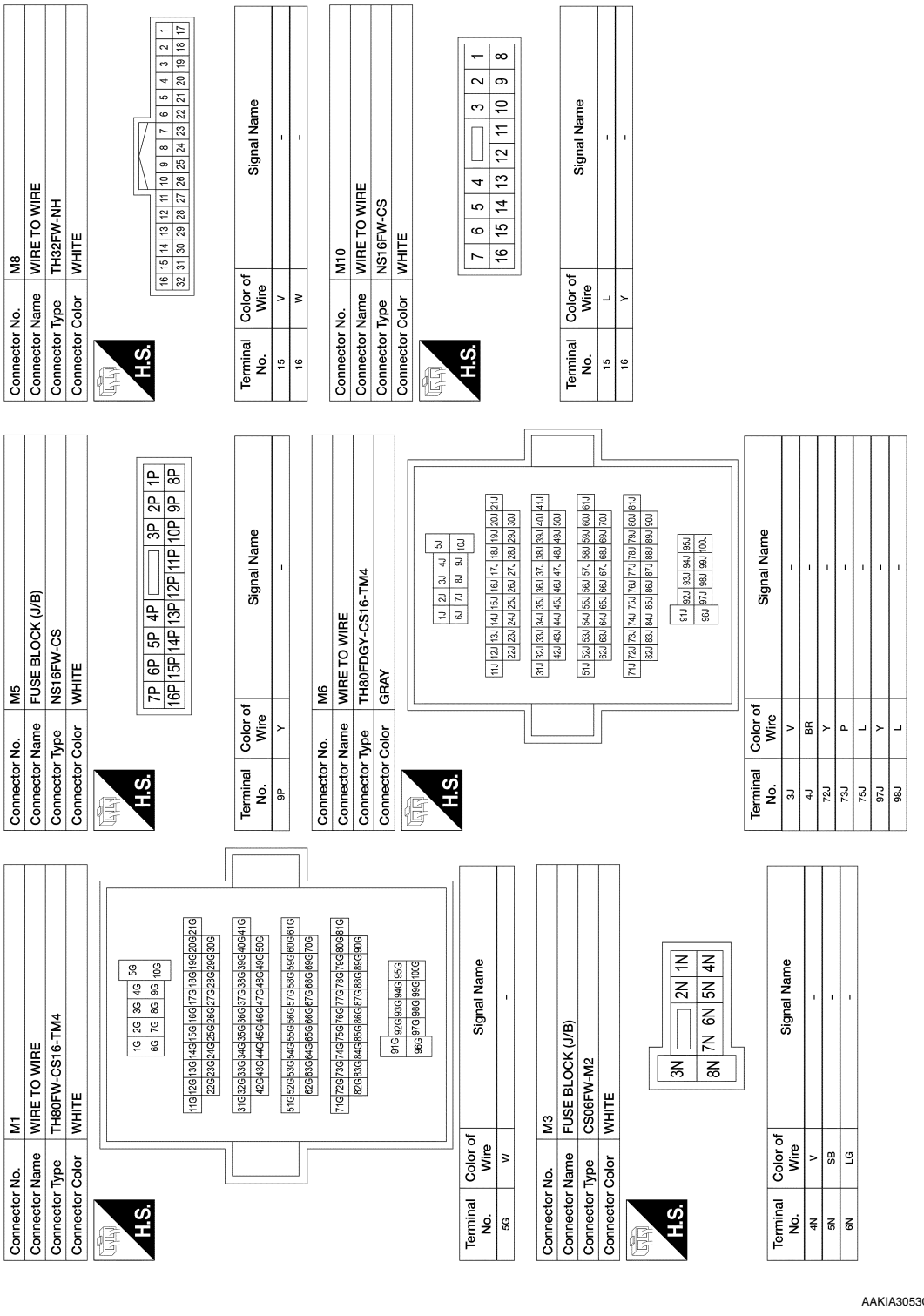
POWER DOOR LOCK SYSTEM CONNECTORS



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Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	P	–
4	BR	–
5	V	–
10	B	–
11	P	–
12	V	–

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
3	BR	–
4	SB	–
6	GR	–
7	P	–
8	V	–

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

H.S.

129	130	131	132	133	134	135	136	137
	138		139		140		141		142		143

Terminal No.	Color of Wire	Signal Name
129	V	DOOR UNLOCK DR/AS/FL
131	BR	DOOR LOCK DR/AS/FL
132	B	GND2
133	Y	DOOR UNLOCK AS/RR/RL
134	L	DOOR LOCK AS/RR/RL
135	LG	BAT BCM FUSE
136	SB	DOOR UNLOCK AS
138	B	GND1
139	SB	BAT FRONT DOOR
140	V	P/W POWER SUPPLY BAT
142	W	BAT-POWER F/L
143	V	BAT REAR DOOR

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY

H.S.

92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
82	Y	RL DOOR SW
93	V	RR DOOR SW
94	W	AS DOOR SW
96	P	DR DOOR SW
97	L	TRUNK SW

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
54	P	PW LIN
59	P	CAN-L
60	L	CAN-H

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
26	Y	SHORTING INPUT
30	P	DR DOOR LOCK STATUS

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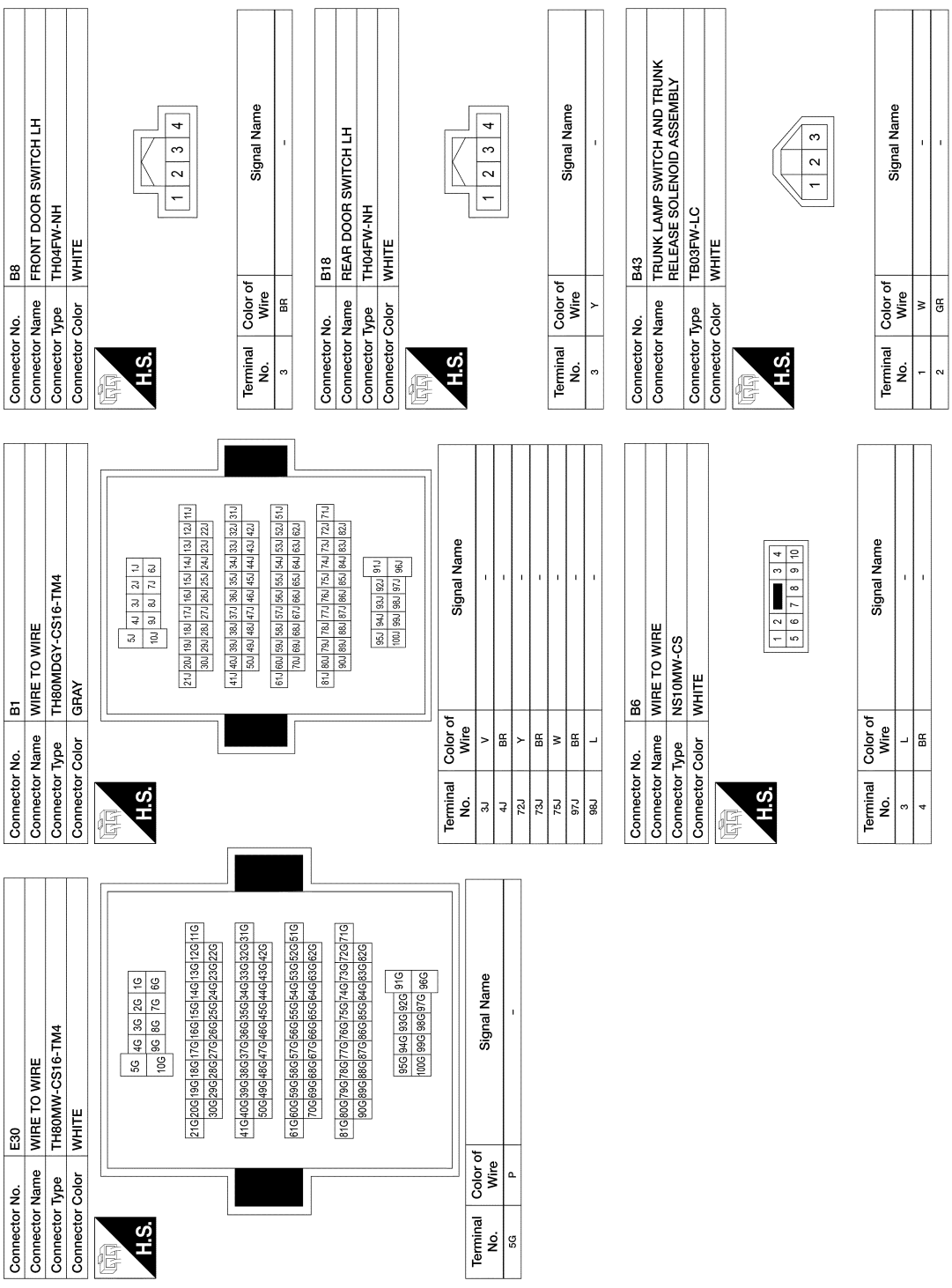

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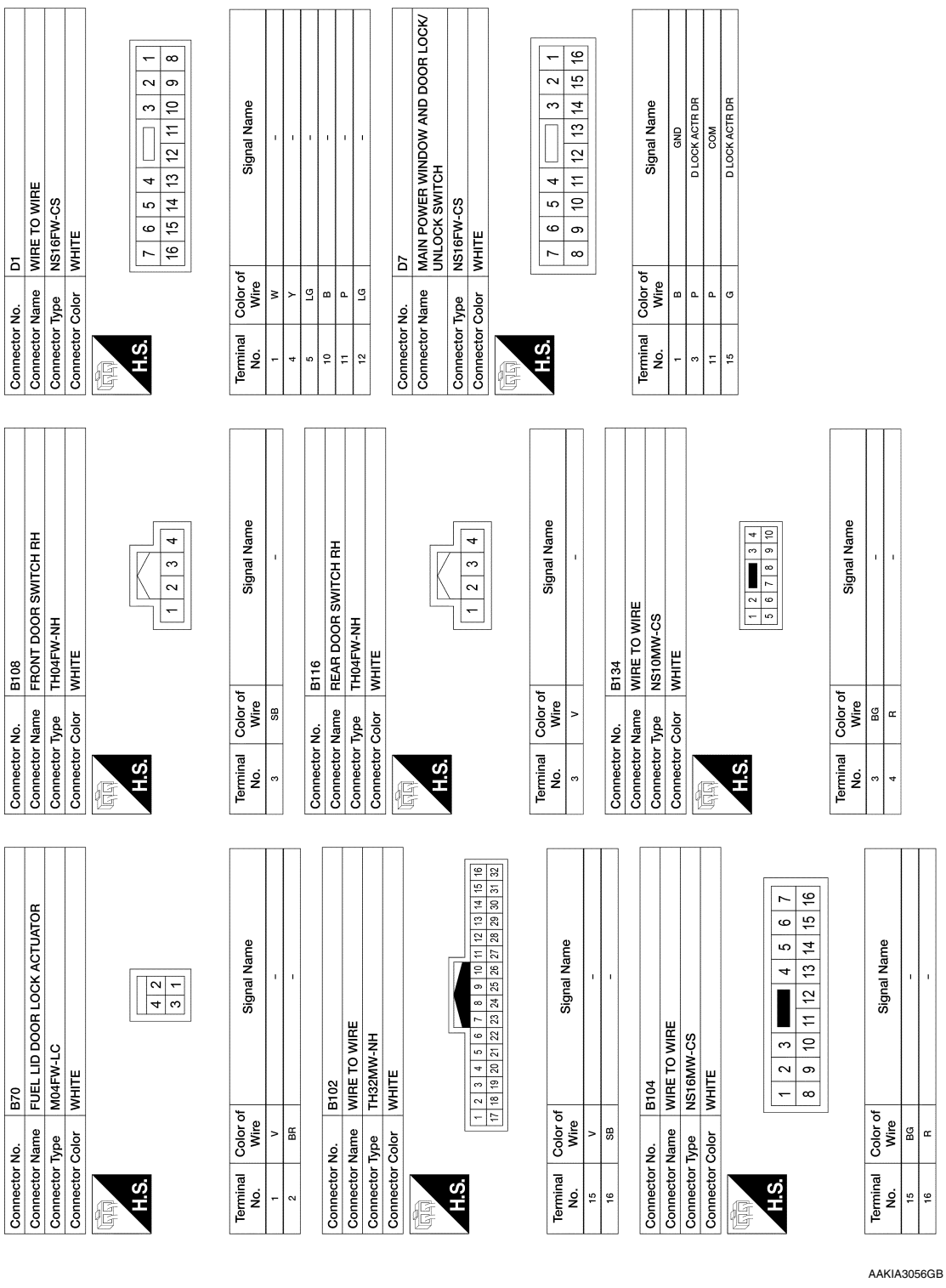


Connector No.	B70
Connector Name	FUEL LID DOOR LOCK ACTUATOR
Connector Type	M04FW-LC
Connector Color	WHITE

H.S.

4	2
3	1

Terminal No.	Color of Wire	Signal Name
1	V	–
2	BR	–

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
15	V	–
16	SB	–

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
15	BG	–
16	R	–

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
3	SB	–

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
3	V	–

Connector No.	B134
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
3	BG	–
4	R	–

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7	6	5	4		3	2	1
16	15	14	13	12	11	10	9	8

Terminal No.	Color of Wire	Signal Name
1	W	–
4	Y	–
5	LG	–
10	B	–
11	P	–
12	LG	–

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

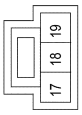
7	6	5	4		3	2	1
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B	GND
3	P	D LOCK ACTR DR
11	P	COM
15	G	D LOCK ACTR DR

AAKIA3056GB

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS03FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
18	LG	BAT

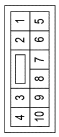
Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	LG	–
3	W	–
4	B	–
5	G	–
6	P	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

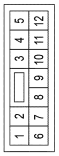
H.S.



Terminal No.	Color of Wire	Signal Name
3	Y	–
4	LG	–
6	B	–
7	P	–
8	LG	–

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH RH
Connector Type	NS12FW-CS
Connector Color	WHITE

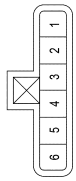
H.S.



Terminal No.	Color of Wire	Signal Name
3	P	COM
7	B	GND
8	LG	BAT

Connector No.	D108
Connector Name	FRONT DOOR LOCK ACTUATOR RH
Connector Type	E06FGY-RS
Connector Color	GRAY

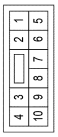
H.S.



Terminal No.	Color of Wire	Signal Name
1	LG	–
2	Y	–

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

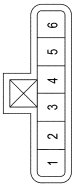
H.S.



Terminal No.	Color of Wire	Signal Name
3	SB	–
4	L	–

Connector No.	D205
Connector Name	REAR DOOR LOCK ACTUATOR LH
Connector Type	E06FGY-RS
Connector Color	GRAY

H.S.

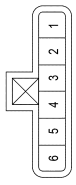


Terminal No.	Color of Wire	Signal Name
1	SB	–
2	L	–

AAKIA3057GB

Connector No.	D305
Connector Name	REAR DOOR LOCK ACTUATOR RH
Connector Type	E06FGY-RS
Connector Color	GRAY

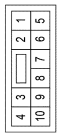
H.S.



Terminal No.	Color of Wire	Signal Name
1	L	-
2	SB	-

Connector No.	D306
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.



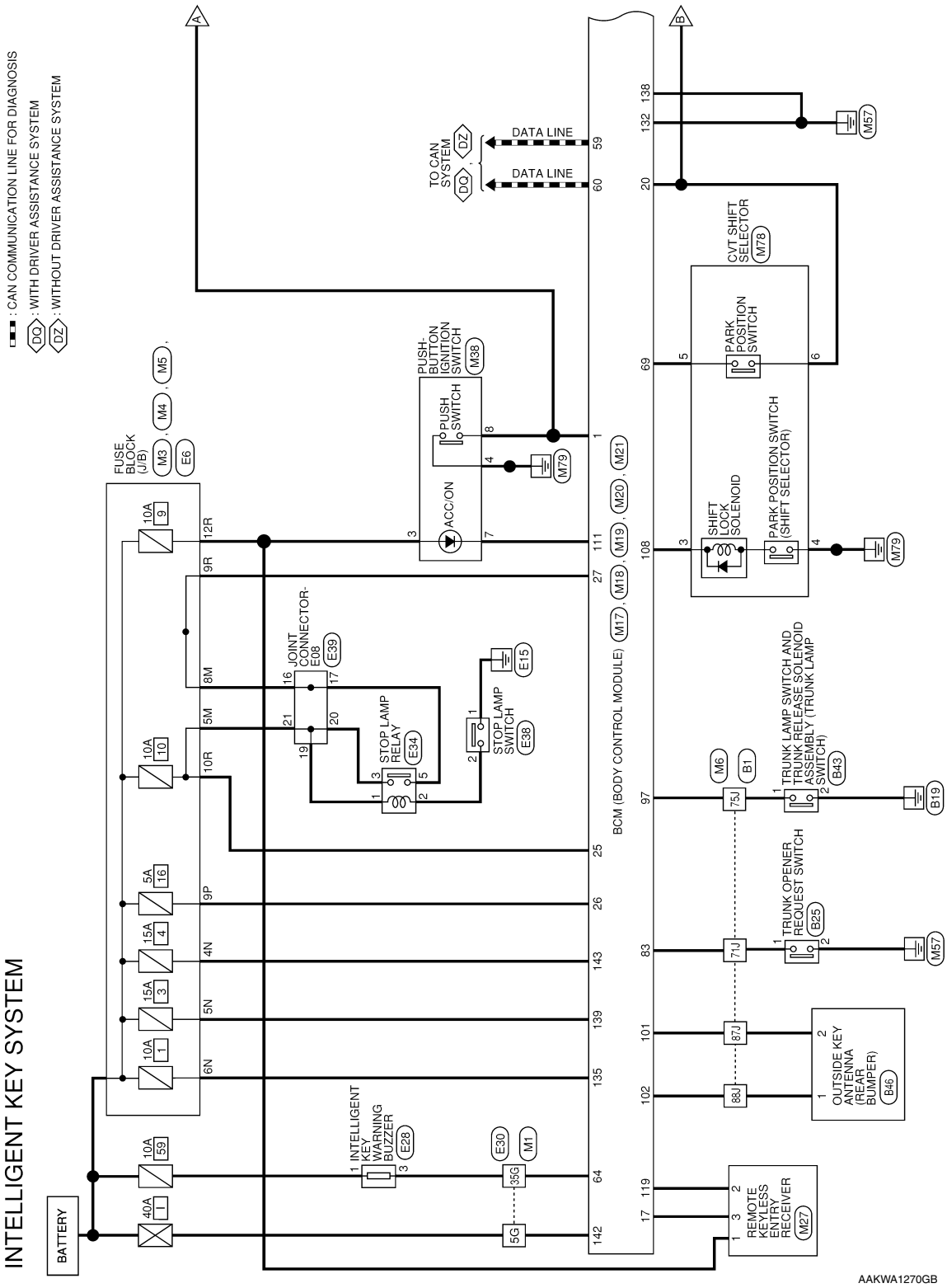
Terminal No.	Color of Wire	Signal Name
3	SB	-
4	L	-

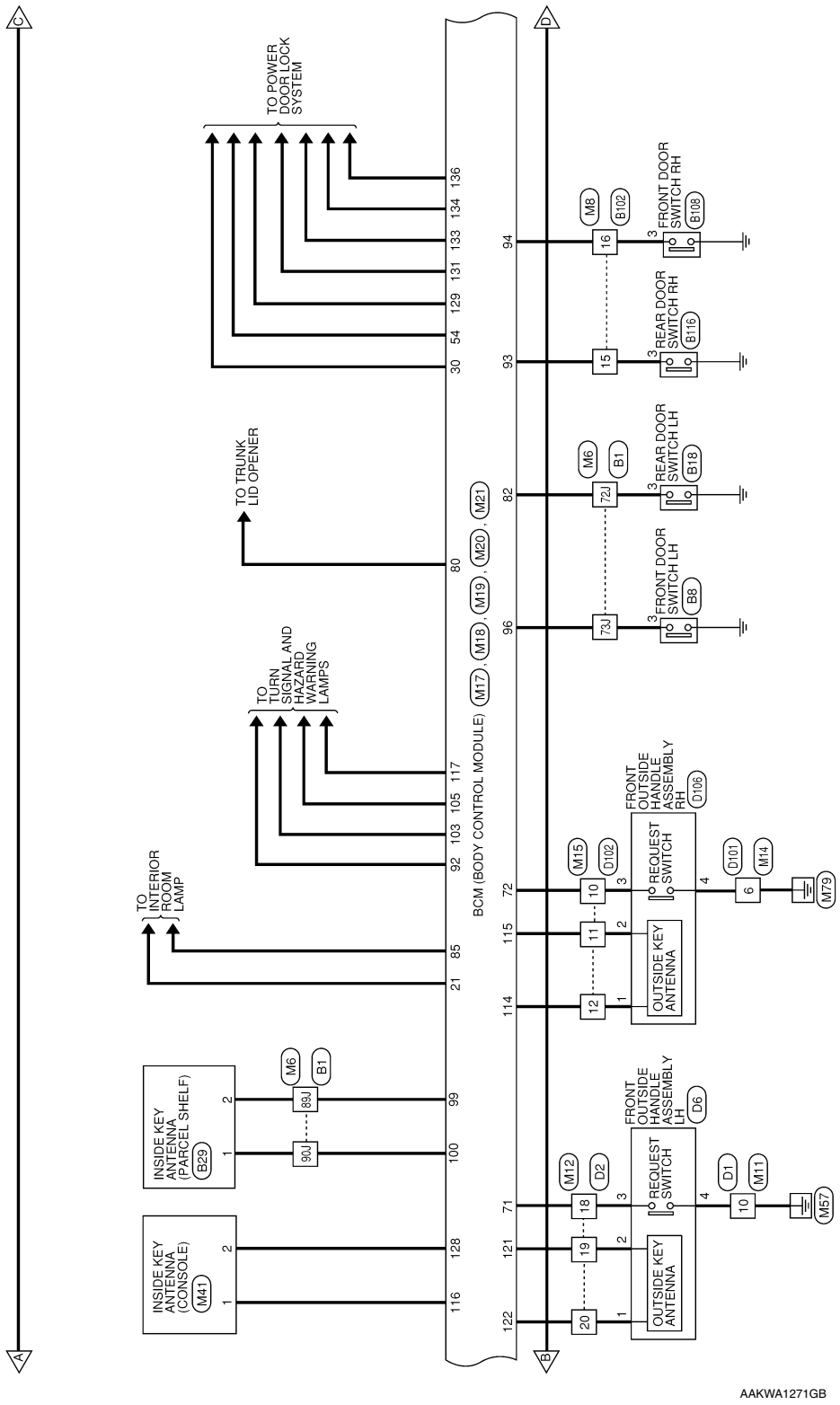
AAKIA3058GB

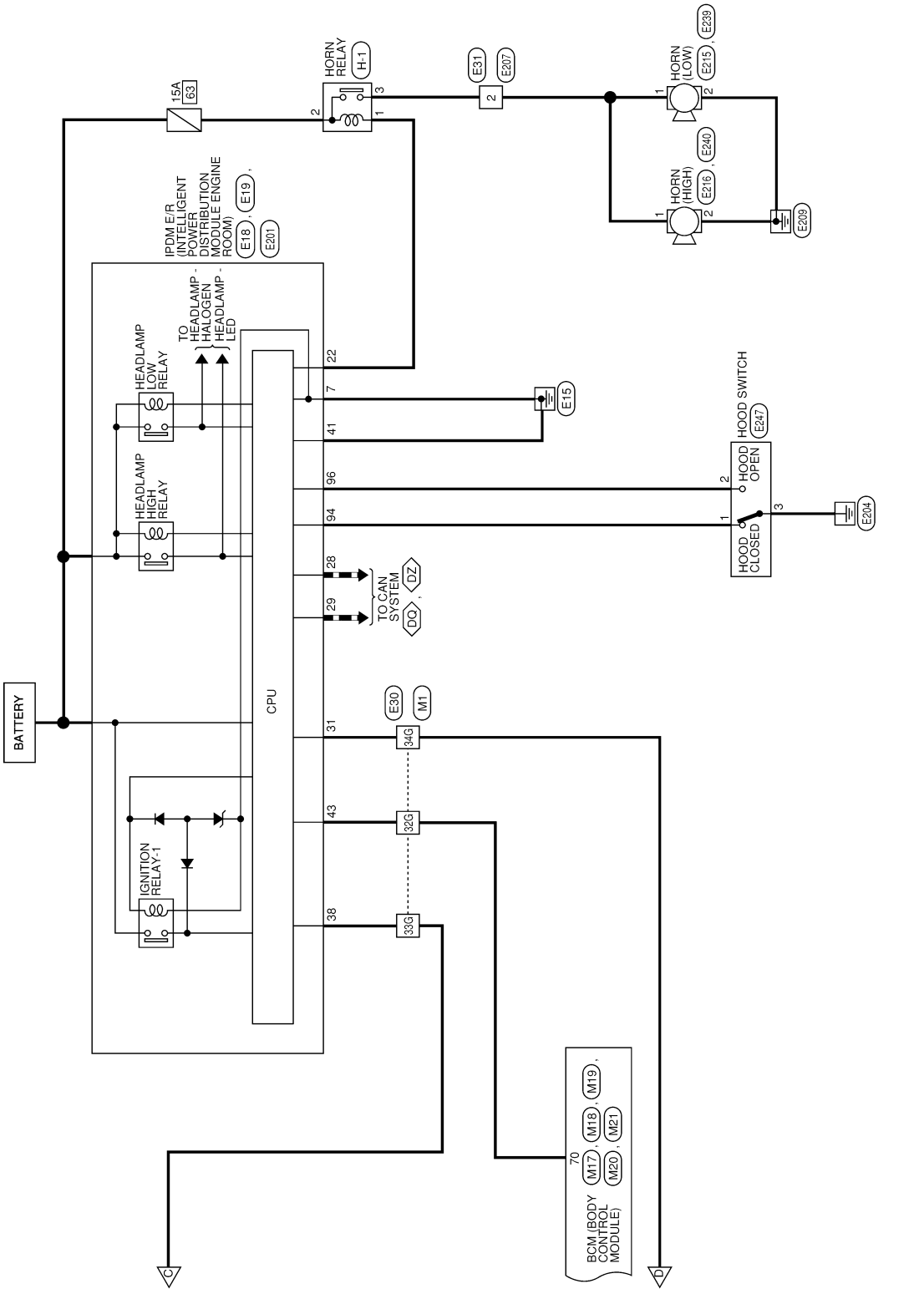
INTELLIGENT KEY SYSTEM

Wiring Diagram

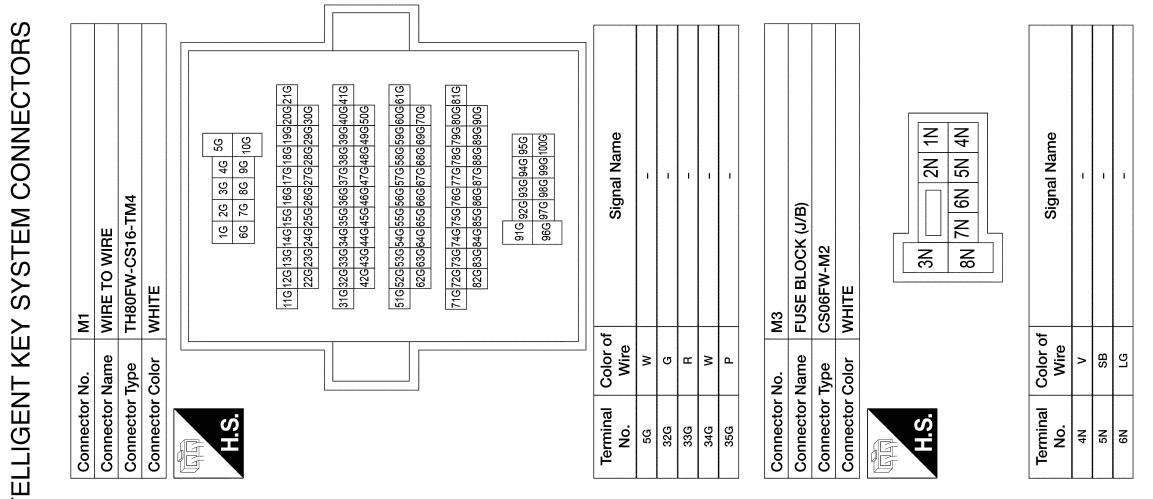
INFOID:0000000012227564




C
A
D
B
TO POWER DOOR LOCK SYSTEM
TO TRUNK LID OPENER
TO TURN SIGNAL AND HAZARD WARNING LAMPS
TO INTERIOR ROOM LAMP
BCM (BODY CONTROL MODULE) M17, M18, M19, M20, M21
136 134 133 131 129 54 30
117 105 103 92
85 21
99 100
128 116
94 93 82 96 80
72 115 114
71 121 122
INSIDE KEY ANTENNA (CONSOLE) M41
INSIDE KEY ANTENNA (PARCEL SHELF) B29
89J 90J M6 B1
FRONT OUTSIDE HANDLE ASSEMBLY RH D106
FRONT OUTSIDE HANDLE ASSEMBLY LH D6
REQUEST SWITCH
OUTSIDE KEY ANTENNA
M15 D102 M12 D2
D101 M14 D1 M11
M79 M57
FRONT DOOR SWITCH RH B108
REAR DOOR SWITCH RH B116
REAR DOOR SWITCH LH B18
FRONT DOOR SWITCH LH B8
M8 B102 M6 B1
16 15 72J 73J
AAKWA1271GB


HORN RELAY H-1
15A 63
E31 E207
HORN (LOW) E239, E215
HORN (HIGH) E240, E216
E209
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E18, E19, E201
TO HEADLAMP - HALOGEN, HEADLAMP - LED
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
IGNITION RELAY-1
CPU
BATTERY
E15
HOOD SWITCH E247
HOOD OPEN
HOOD CLOSED
E204
TO CAN SYSTEM DZ, DQ
E30 M1
34G
32G
33G
BCM (BODY CONTROL MODULE) M17, M18, M19, M20, M21
AAKWA1272GB

INTELLIGENT KEY SYSTEM CONNECTORS



AAKIA3059GB

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
10	B	–

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
18	V	–
19	R	–
20	P	–

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
6	GR	–

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name
10	Y	–
11	R	–
12	P	–

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

H.S.

129	130	131	132	133	134	135	136	137
138	139	140	141	142	143			

Terminal No.	Color of Wire	Signal Name
129	V	DOOR UNLOCK DR/AS/FL
131	BR	DOOR LOCK DR/AS/FL
132	B	GND2
133	Y	DOOR UNLOCK AS/RR/RL
134	L	DOOR LOCK AS/RR/RL
135	LG	BAT BCM FUSE
136	SB	DOOR UNLOCK AS
138	B	GND1
139	SB	BAT FRONT DOOR
142	W	BAT-POWER F/L
143	V	BAT REAR DOOR

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

H.S.

116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
105	Y	FR SR FLASHER
108	BG	SHIFT LOCK SOLENOID OUT
111	Y	ACC LED
114	P	AS DOOR ANT A
115	R	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	V	FL SL FLASHER
119	G	RF NIMOCO
121	R	DR DOOR ANT B
122	P	DR DOOR ANT A
128	BG	ROOM ANT 2 B

AAKIA3060GB

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY

H.S.

92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
82	Y	RL DOOR SW
83	SB	TRUNK REQUEST SW
85	BG	TRUNK LAMP CONT
92	LG	RR FLASHER
93	V	RR DOOR SW
94	W	AS DOOR SW
96	P	DR DOOR SW
97	L	TRUNK SW
99	G	ROOM ANT 3 B
100	R	ROOM ANT 3 A
101	G	TRUNK ANT B
102	W	TRUNK ANT A
103	Y	RL FLASHER

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
54	P	PW LIN
59	P	CAN-L
60	L	CAN-H
64	P	BUZZER OUT
69	L	AT DEVICE OUT
70	G	IGN USM OUT 1
71	V	DR REQUEST SW
72	Y	AS REQUEST SW
80	BR	TRUNK OPEN SW

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	R	ENG START SW NO ESCL
17	B	GND RF A/L
20	W	SHIFT P
21	W	STEP LAMP CONT
25	BG	BRAKE SW FUSE
26	Y	SHORTING INPUT
27	G	BRAKE SW LAMP
30	P	DR DOOR LOCK STATUS

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	AAC04FB
Connector Color	BLACK

H.S.

1	2	3	4

Terminal No.	Color of Wire	Signal Name
1	W	–
2	G	–
3	B	–

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE

H.S.

4		3
5	6	7	8

Terminal No.	Color of Wire	Signal Name
3	W	–
4	B	–
7	Y	–
8	R	–

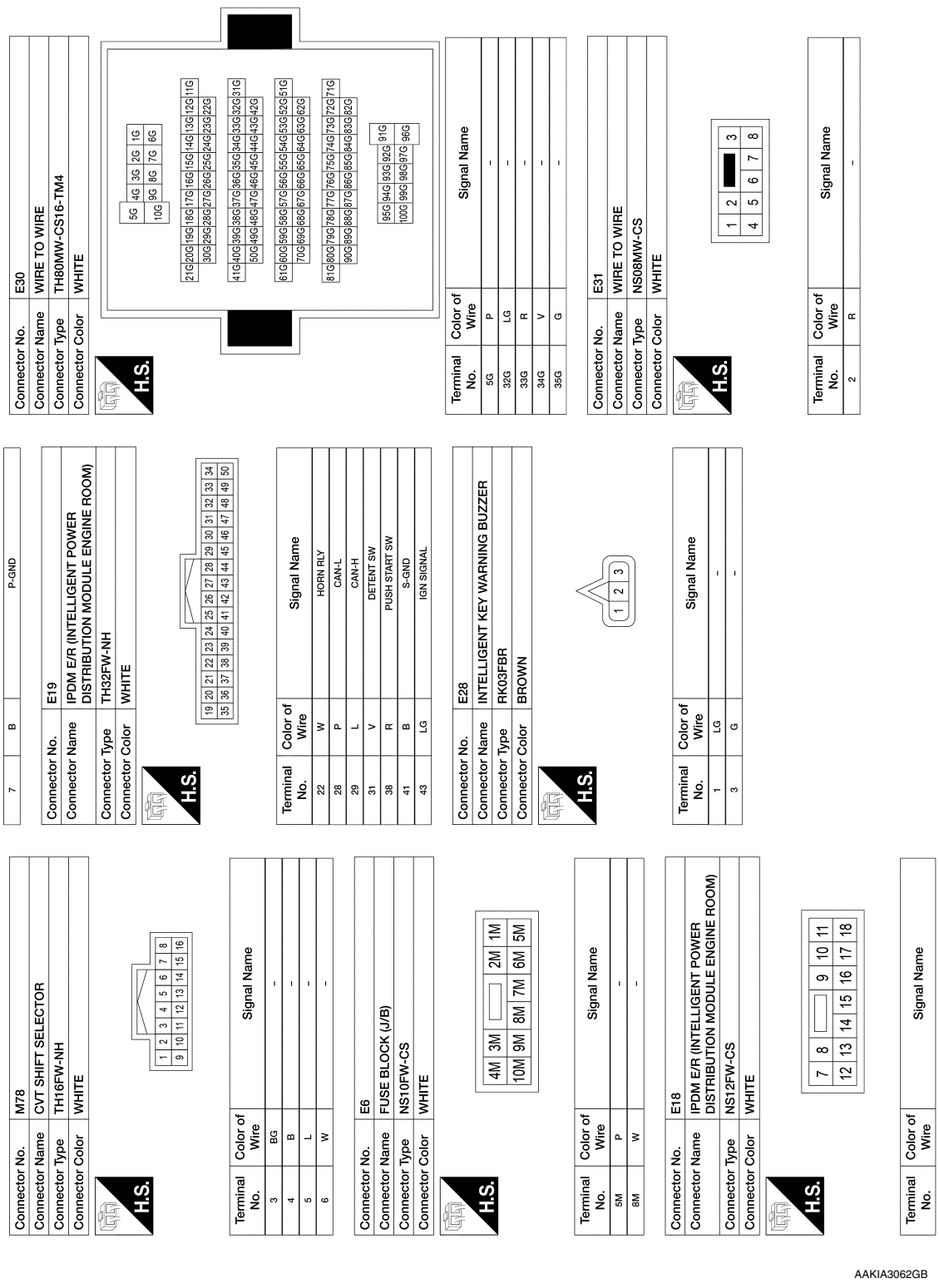
Connector No.	M41
Connector Name	INSIDE KEY ANTENNA (CONSOLE)
Connector Type	RK02FGY
Connector Color	GRAY

H.S.

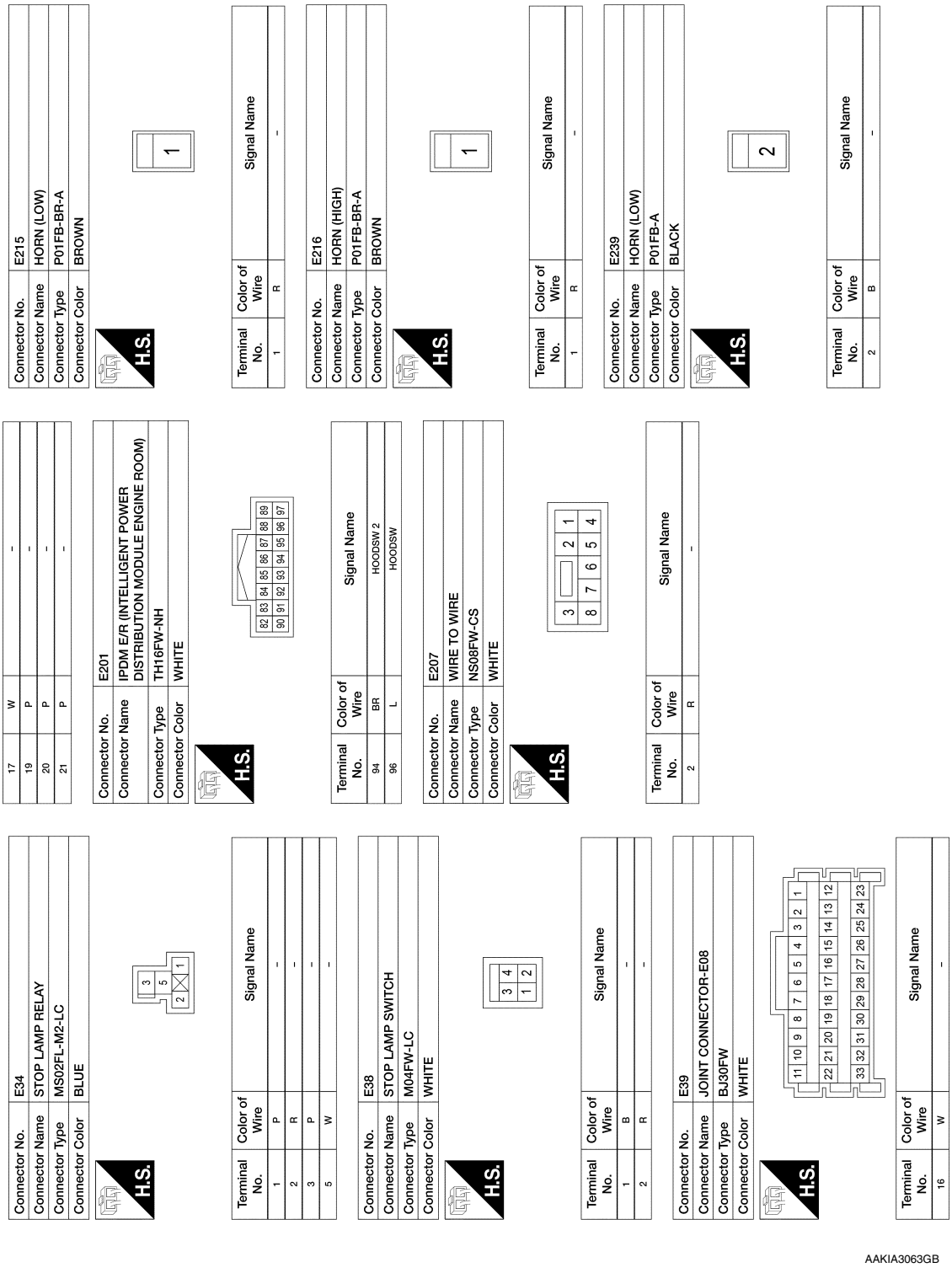
1	2

Terminal No.	Color of Wire	Signal Name
1	W	–
2	BG	–

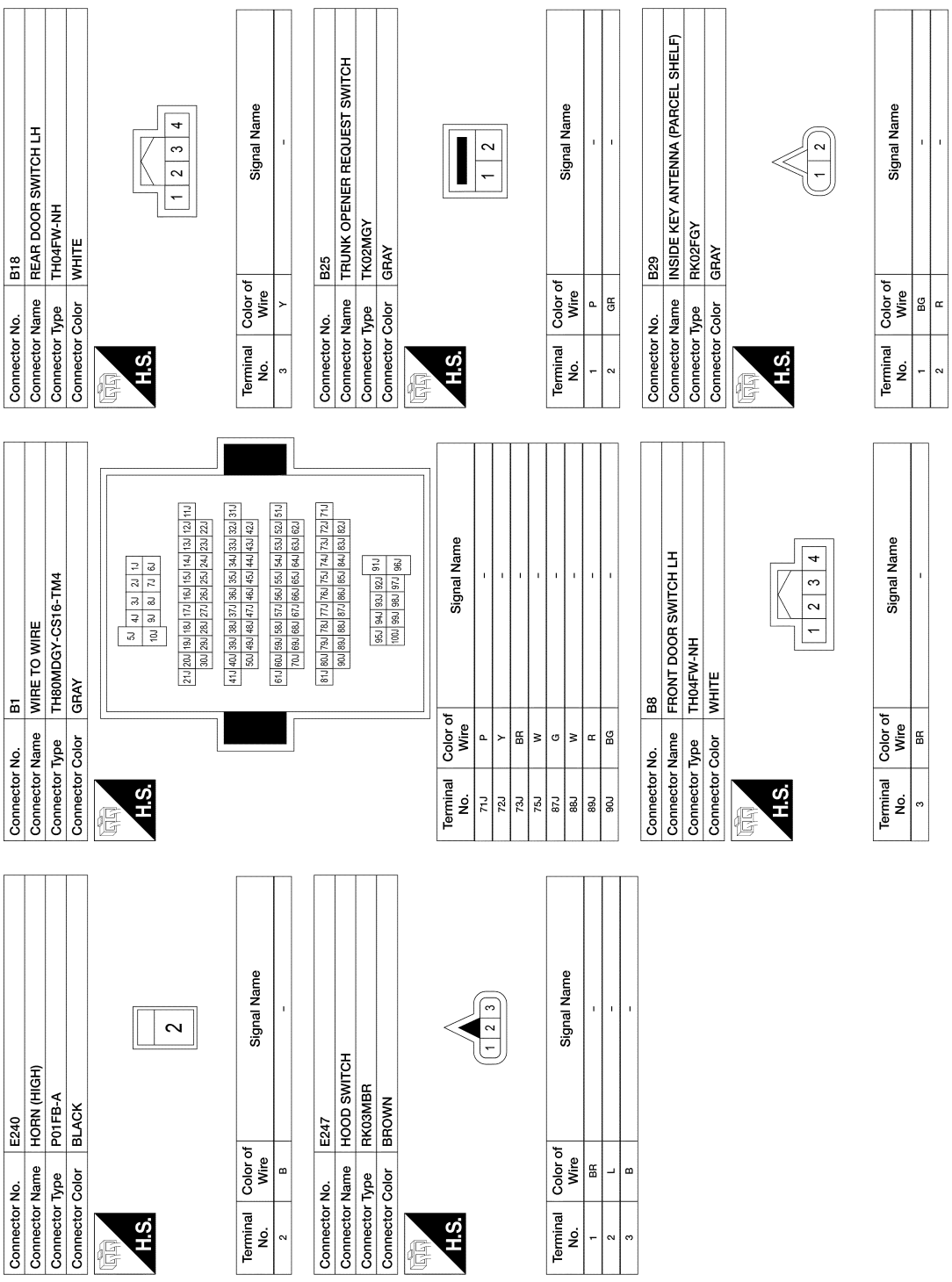
AAKIA3061GB



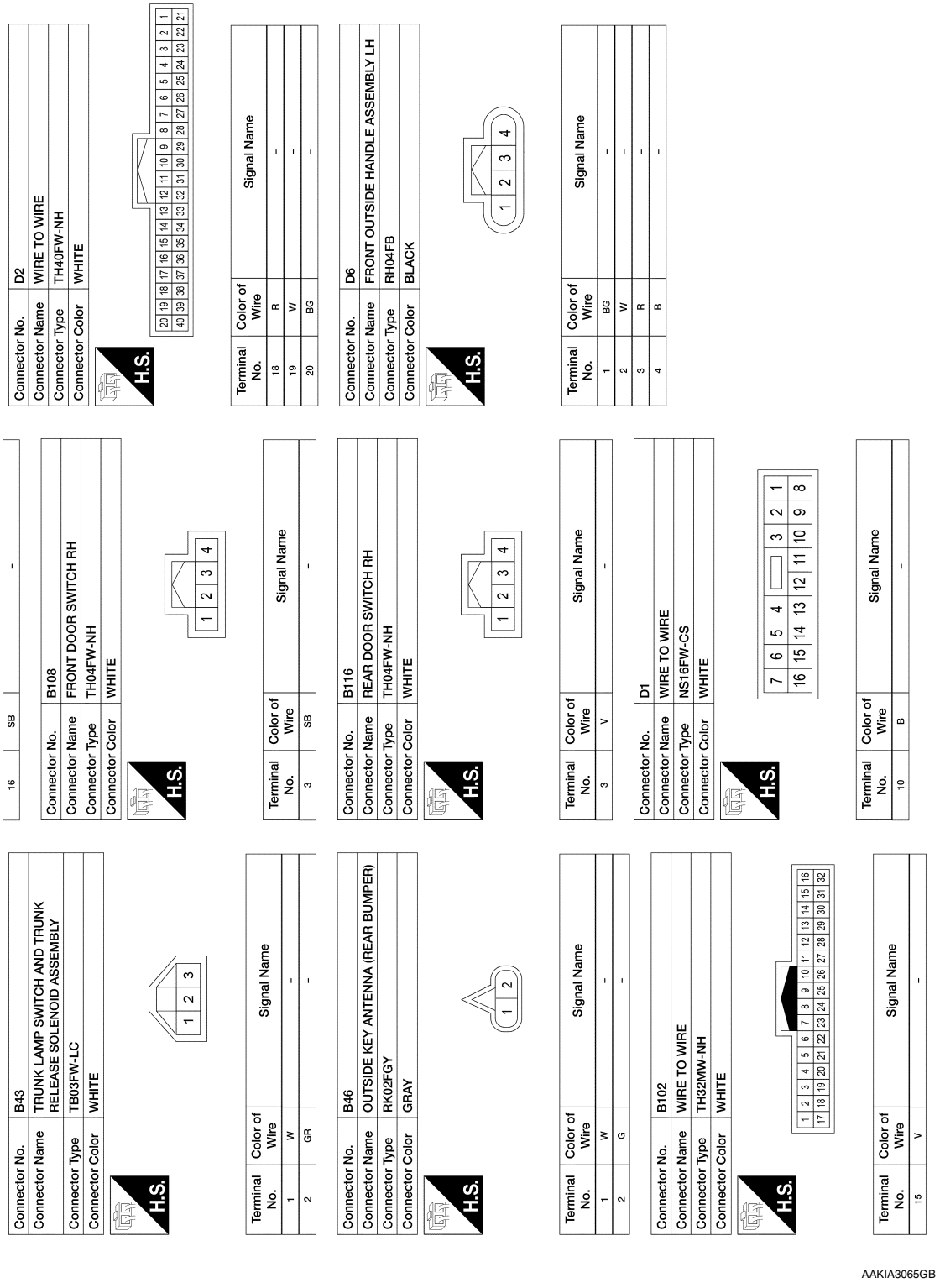
AAKIA3062GB



AAKIA3063GB



AAKIA3064GB

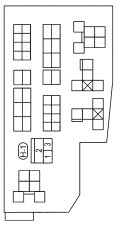


AAKIA3065GB

4	B	-

Connector No.	H-1
Connector Name	FUSE, FUSIBLE LINK AND RELAY BOX (HORN RELAY)
Connector Type	24381-7990A
Connector Color	-

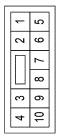
T.S.



Terminal No.	Color of Wire	Signal Name
1	W	-
2	W	-
3	R	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
6	B	-

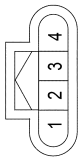
Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10	SB	-
11	W	-
12	BG	-

Connector No.	D106
Connector Name	FRONT OUTSIDE HANDLE ASSEMBLY RH
Connector Type	RH04FB
Connector Color	BLACK

H.S.



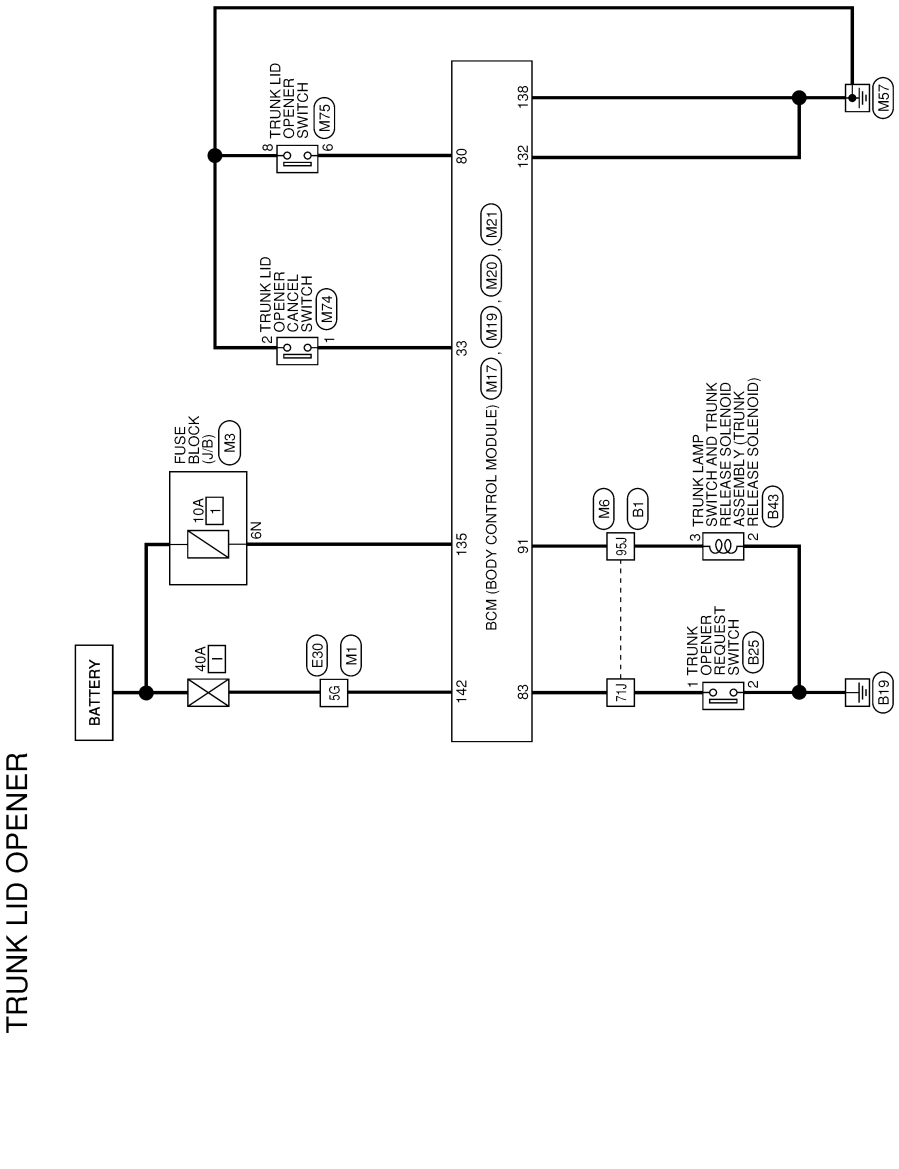
Terminal No.	Color of Wire	Signal Name
1	BG	-
2	W	-
3	SB	-

AAKIA3066GB

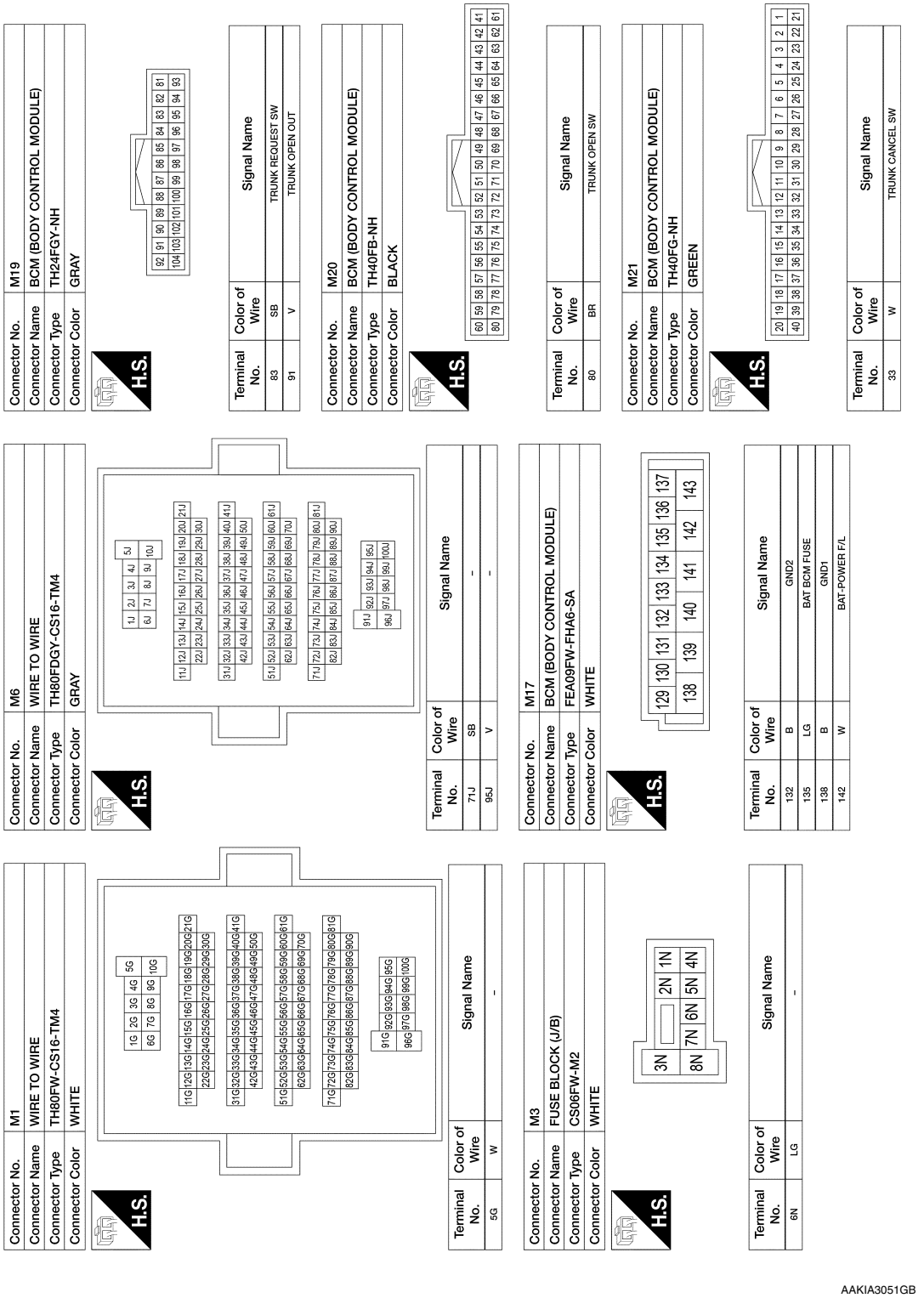
TRUNK LID OPENER SYSTEM

Wiring Diagram

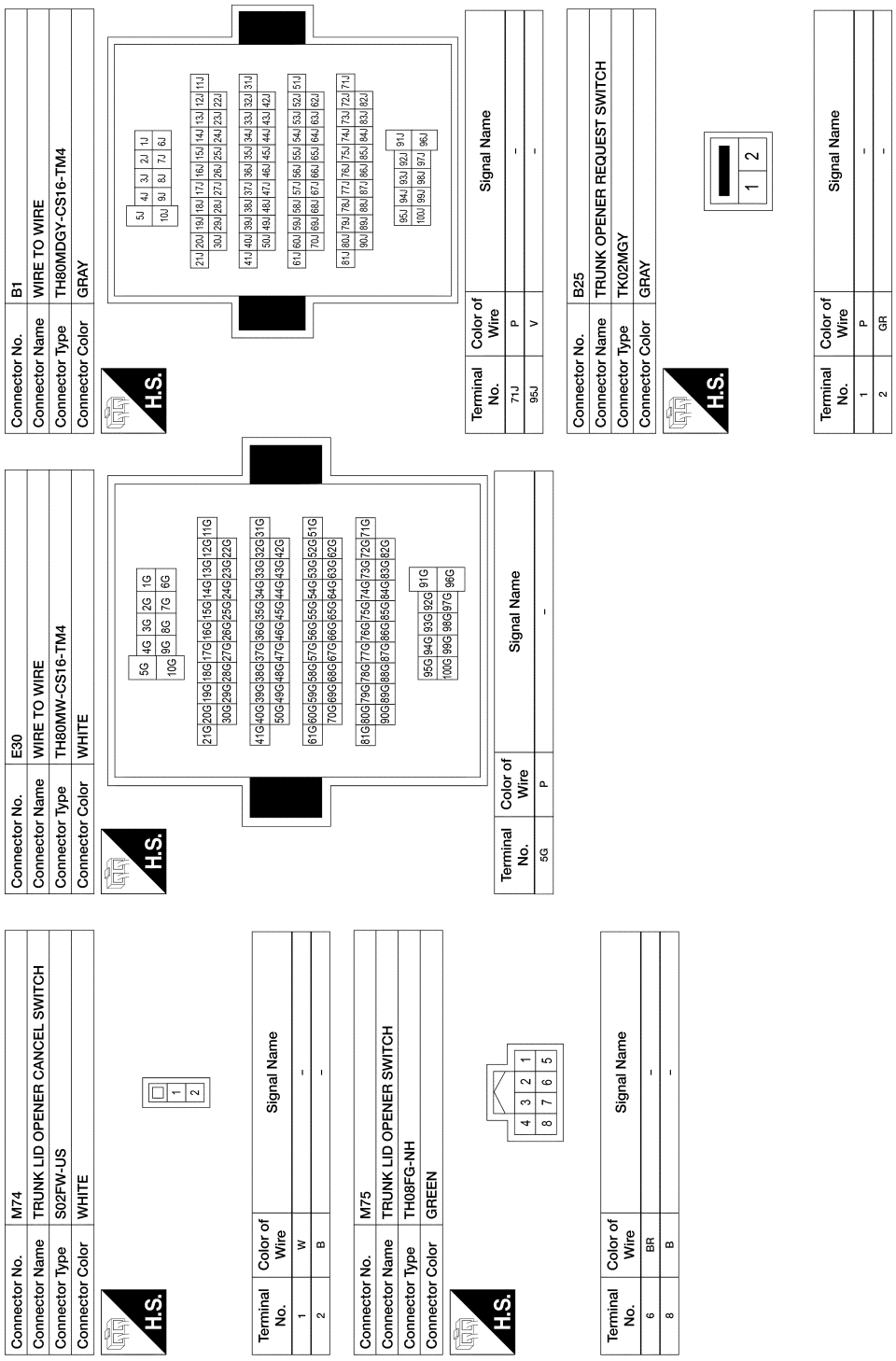
INFOID:0000000012227565



TRUNK LID OPENER CONNECTORS



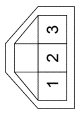
AAKIA3051GB



AAKIA3052GB

Connector No.	B43
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID ASSEMBLY
Connector Type	TB03FW-LC
Connector Color	WHITE

H.S.



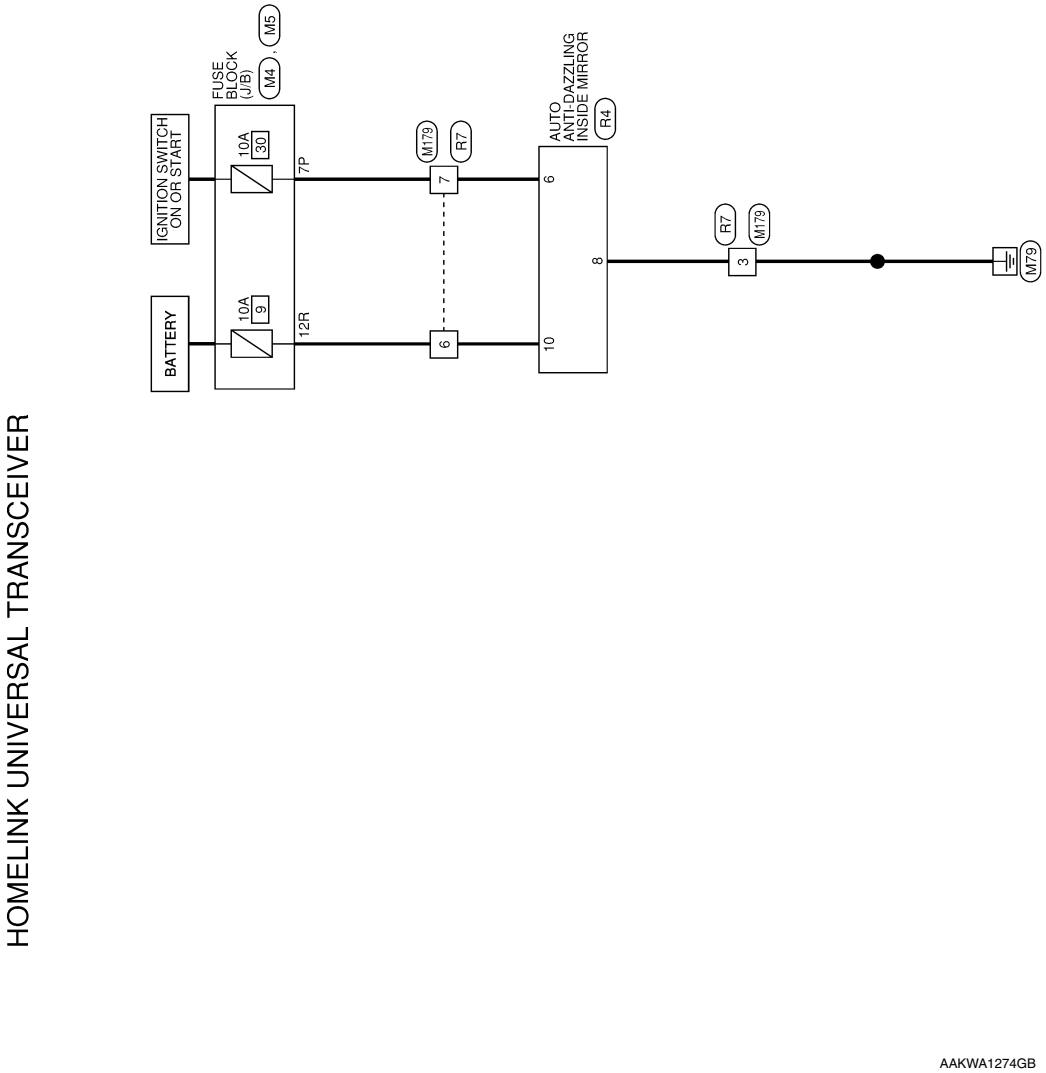
Terminal No.	Color of Wire	Signal Name
2	GR	-
3	V	-

AAKIA3166GB

HOMELINK UNIVERSAL TRANSCEIVER

Wiring Diagram

INFOID:0000000012227566



HOMELINK UNIVERSAL TRANSCEIVER CONNECTORS

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

7R	6R	5R	4R		3R	2R	1R
16R	15R	14R	13R	12R	11R	10R	9R	8R

Terminal No.	Color of Wire	Signal Name
12R	W	–

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7P	6P	5P	4P		3P	2P	1P
16P	15P	14P	13P	12P	11P	10P	9P	8P

Terminal No.	Color of Wire	Signal Name
7P	BG	–

Connector No.	M179
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name
3	B	–
6	W	–
7	BG	–

Connector No.	R4
Connector Name	AUTO ANTI-DAZZLING INSIDE MIRROR
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.

5	4	3	2	1
10	9	8	7	6

Terminal No.	Color of Wire	Signal Name
6	B/Y	–
8	B	–
10	B/W	–

Connector No.	R7
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE

H.S.

12	11	10	9	8	7	6	5	4	3	2	1	13
24	23	22	21	20	19	18	17	16	15	14		

Terminal No.	Color of Wire	Signal Name
3	B	–
6	B/W	–
7	B/Y	–

AAKIA3070GB

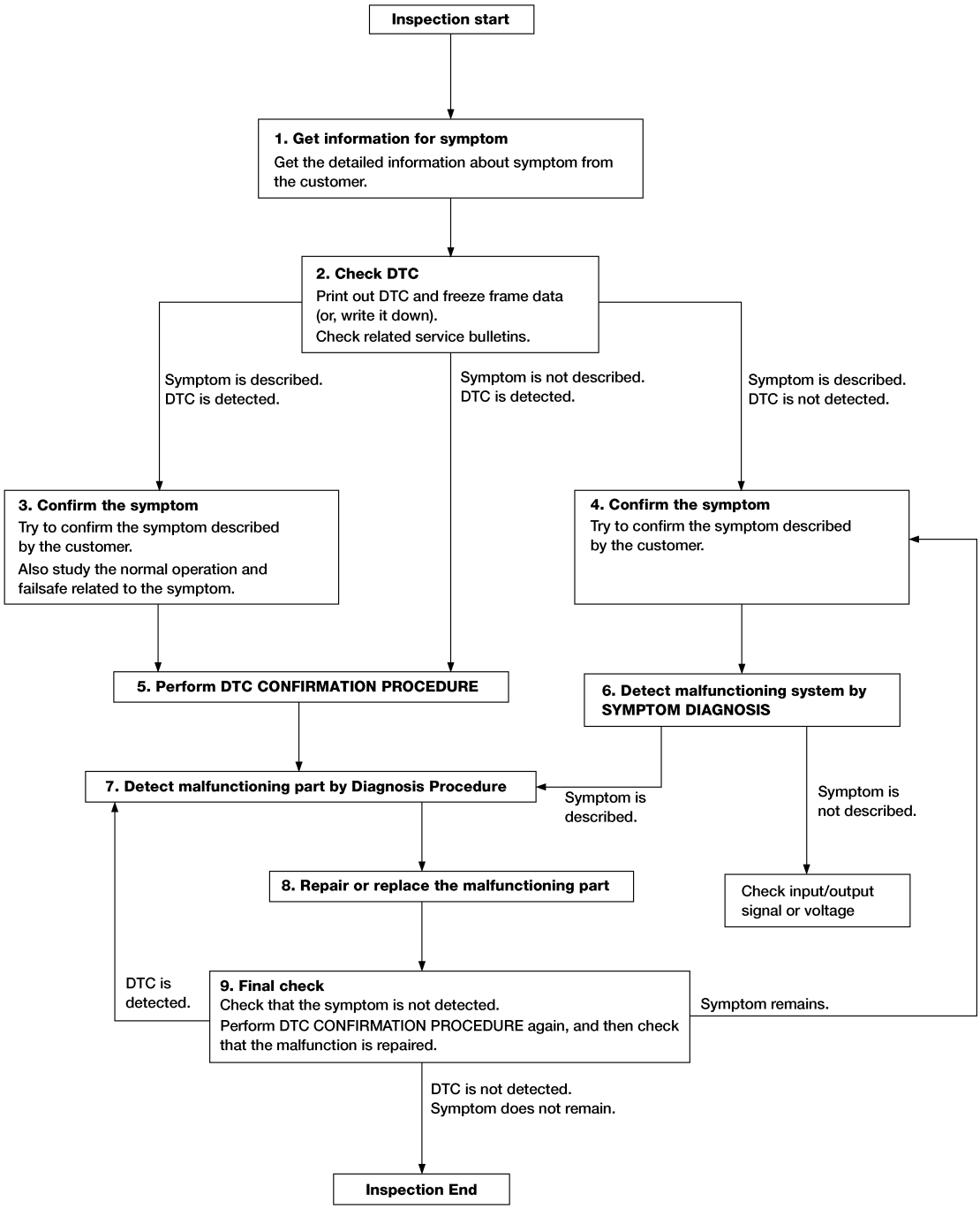
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012227772

OVERALL SEQUENCE



ALAIA0158GB

DETAILED FLOW

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 is any DTC detected?

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

3.CONFIRM THE SYMPTOM

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

>> GO TO 5.

4.CONFIRM THE SYMPTOM

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

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle and check self diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-52, "DTC Inspection Priority Chart" (BCM) and determine trouble diagnosis order.

NOTE:

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

Is DTC detected?

YES >> GO TO 7.
NO >> Check according to GI-41, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

Is the symptom described?

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

7.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check according to GI-41, "Intermittent Incident".

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

ADDITIONAL SERVICE WHEN REPLACING BCM

Description

INFOID:0000000012227775

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

Work Procedure

INFOID:0000000012227776

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

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000012269676

Description

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN high line, CAN low line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-32, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000012269677

1. SELF DIAGNOSTIC RESULT

CONSULT

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

Is DTC “U1000” displayed?

YES >> Refer to LAN-17, "Trouble Diagnosis Flow Chart".
NO–1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:0000000012269678

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

BCM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000012269679

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

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

B261B REMOTE ENGINE START

DTC Description

INFOID:0000000012227609

DTC DETECTION LOGIC

NOTE:

- If DTC B261B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B261B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

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

POSSIBLE CAUSE

- ECM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000012227610

1. CHECK ECM IGNITION, POWER AND GROUND CIRCUITS

Check ECM ignition power and ground circuits. Refer to EC-190, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace ECM. Refer to EC-586, "Removal and Installation". GO TO 2.
NO >> Repair or replace harness or connectors.

2. INSPECTION

CONSULT

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

Does DTC B261B return?

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

B2622 INSIDE ANTENNA

DTC Description

INFOID:0000000012227613

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

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

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

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

Is inside key antenna DTC detected?

YES >> Refer to DLK-75, "Diagnosis Procedure".
NO >> Inside key antenna (console) is OK.

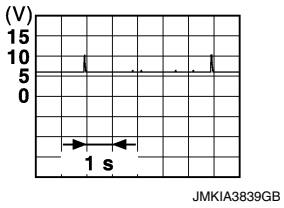
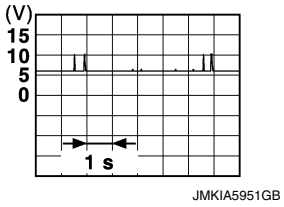
Diagnosis Procedure

INFOID:0000000012227614

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition	Signal (Reference value)
M18	116, 128	Ground	When Intelligent Key is in the antenna detection area.	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area.	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

BCM Connector	BCM Terminal	Inside key antenna (console) Connector	Inside key antenna (console) Terminal	Continuity
M18	116	M41	1	Yes
	128		2	

3. Check continuity between BCM harness connector and ground.

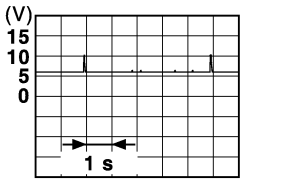
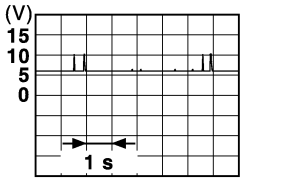
BCM Connector	BCM Terminal	Ground	Continuity
M18	116		No
	128		

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition	Signal (Reference value)
M18	116, 128	Ground	When Intelligent Key is in the antenna detection area.	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area.	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to DLK-198, "FRONT CONSOLE ANTENNA : Removal and Installation".

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

B2623 INSIDE ANTENNA

DTC Description

INFOID:0000000012227615

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

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

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

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

Is inside key antenna DTC detected?

YES >> Refer to DLK-78, "Diagnosis Procedure".
NO >> Inside key antenna (parcel shelf) is OK.

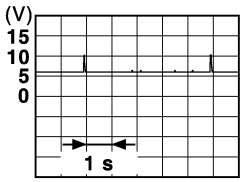
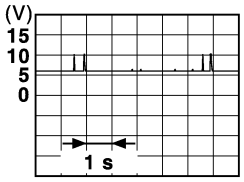
Diagnosis Procedure

INFOID:0000000012227616

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition	Signal (Reference value)
M19	100, 99	Ground	When Intelligent Key is in the antenna detection area.	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area.	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK INSIDE KEY ANTENNA CIRCUIT

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

BCM Connector	BCM Terminal	Inside key antenna (parcel shelf) Connector	Inside key antenna (parcel shelf) Terminal	Continuity
M19	100	B29	1	Yes
	99		2	

3. Check continuity between BCM harness connector and ground.

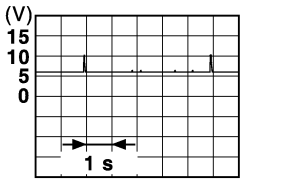
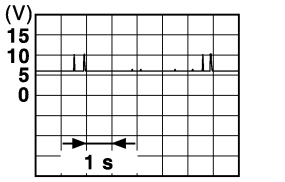
BCM Connector	BCM Terminal	Ground	Continuity
M19	100		No
	99		

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 (parcel shelf) (New antenna or other antenna).
2. Connect BCM connector and inside key antenna (parcel shelf) connector.
3. Check signal between BCM harness connector and ground using oscilloscope.

(+) BCM Connector	(+) BCM Terminals	(–)	Condition	Signal (Reference value)
M19	100, 99	Ground	When Intelligent Key is in the antenna detection area.	 JMKIA3839GB
			When Intelligent Key is not in the antenna detection area.	 JMKIA5951GB

Is the inspection result normal?

YES >> Replace inside key antenna (parcel shelf).
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

B26FD SHIFT LOCK SOLENOID

DTC Description

INFOID:0000000012227617

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B26FD	SHIFT LOCK SOLENOID	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	BCM terminals 108
		Threshold	BCM shift lock solenoid output control is OFF, but shift lock solenoid output feedback is ON
		Diagnosis delay time	1 second

POSSIBLE CAUSE

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

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-81, "Diagnosis Procedure".
NO >> Shift lock solenoid is OK.

Diagnosis Procedure

INFOID:0000000012227618

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK HARNESS BETWEEN BCM AND CVT SHIFT SELECTOR FOR OPEN

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

BCM		CVT shift selector		Continuity
Connector	Terminal	Connector	Terminal	
M18	108	M78	3	Yes

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace damaged parts.

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

Check continuity between BCM and ground.

BCM		Ground	Continuity
Connector	Terminal		
M18	108		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3. CHECK GROUND CIRCUIT (CVT SHIFT SELECTOR)

Check continuity between CVT shift selector and ground.

CVT shift selector		Ground	Continuity
Connector	Terminal		
M78	4		Yes

Is the inspection result normal?

YES >> Replace shift lock solenoid. Refer to TM-185, "Exploded View".
NO >> Repair or replace damaged parts.

B26FE HOOD SWITCH

DTC Description

INFOID:0000000012227619

DTC DETECTION LOGIC

NOTE:

- If DTC B26FE is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B26FE is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

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

POSSIBLE CAUSE

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

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-83, "Diagnosis Procedure".
NO >> Hood switch is OK.

Diagnosis Procedure

INFOID:0000000012227620

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK HOOD SWITCH SIGNAL CIRCUITS

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

(+)		(–)	Voltage (Approx.)
Hood switch			
Connector	Terminal		
E247	1	Ground	Battery voltage
	2		

Is the inspection result normal?

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

2.CHECK HOOD SWITCH SIGNAL CIRCUITS

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

IPDM E/R		Hood switch		Continuity
Connector	Terminal	Connector	Terminal	
E201	94	E247	1	Yes
	96		2	

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E201	94		No
	96		

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK HOOD SWITCH GROUND CIRCUIT

Check continuity between hood switch harness connector and ground.

Hood switch		Ground	Continuity
Connector	Terminal		
E247	3		Yes

Is the inspection result normal?

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

4.CHECK HOOD SWITCH

Refer to DLK-84, "Component Inspection".

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace hood switch. Refer to DLK-176, "HOOD LOCK : Removal and Installation".

Component Inspection

INFOID:0000000012227621

1.CHECK HOOD SWITCH

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

Hood switch		Condition		Continuity
Terminals				
1	3	Hood switch	Press	Yes
			Release	No
2			Press	No
			Release	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace hood switch. Refer to DLK-176, "HOOD LOCK : Removal and Installation".

B26FF REMOTE KEYLESS ENTRY RECEIVER

DTC Description

INFOID:0000000012227622

DTC DETECTION LOGIC

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

POSSIBLE CAUSE

- Remote keyless entry receiver
- Harness or connector
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-85, "Diagnosis Procedure".
NO >> Inspection End.

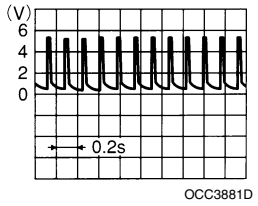
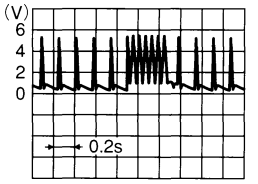
Diagnosis Procedure

INFOID:0000000012227623

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

(+)		(–)	Condition	Signal (Reference value)
BCM				
Connector	Terminal			
M18	119	Ground	Standby state	 OCC3881D
			Press the Intelligent Key lock or unlock button.	 OCC3880D

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

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 keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M18	119	M27	2	Yes

3. Check continuity between BCM harness connector and ground.

(+)		(–)	Continuity
BCM			
Connector	Terminal		
M18	119	Ground	No

Is the inspection result normal?

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

3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

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

(+)		(–)	Voltage (Approx)
Remote keyless entry receiver			
Connector	Terminal		
M27	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.
NO-1 >> Check 10A fuse No. 9 [located in fuse block J/B].
NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 9.

4.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

Remote keyless entry receiver		Ground	Continuity
Connector	Terminal		
M27	3		Yes

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to DLK-202, "Removal and Installation".
NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT
BCM
BCM : Diagnosis Procedure

INFOID:0000000012241179

Regarding Wiring Diagram information, refer to BCS-56, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuses or fusible link are blown.

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

Is the fuse or fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector M17.
3. Check voltage between BCM harness connector M17 and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM		Ground	
Connector	Terminal		
M17	135		Battery voltage
	142		

Is the measurement normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector M17 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	138		Yes
	132		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness.

B2626 OUTSIDE ANTENNA

DTC Description

INFOID:0000000012325502

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2626	OUTSIDE ANTENNA (Outside antenna)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	An excessive high or low voltage from outside key antenna RH is sent to BCM
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM
- Outside key antenna RH
- Harness or connector (Outside key antenna RH circuit is open or shorted.)

FAIL-SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-89, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

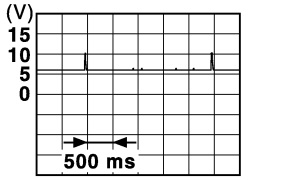
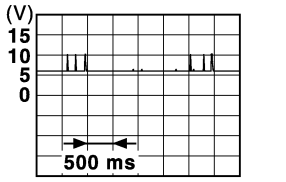
Diagnosis Procedure

INFOID:0000000012227627

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M18	114, 115	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

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

BCM		Outside key antenna (RH)		Continuity
Connector	Terminal	Connector	Terminal	
M18	114	D106	1	Yes
	115		2	

3. Check continuity between BCM harness connector and ground.

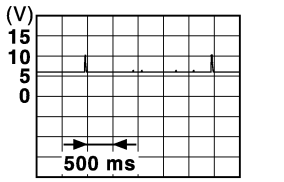
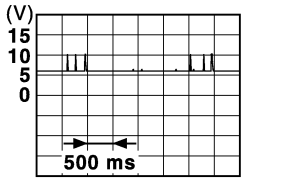
BCM		Ground	Continuity
Connector	Terminal		
M18	114		No
	115		

Is the inspection result normal?

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

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M18	114, 115	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (RH). Refer to DLK-199, "PASSENGER SIDE : Removal and Installation".

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

B2627 OUTSIDE ANTENNA

DTC Description

INFOID:0000000012325503

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2627	OUTSIDE ANTENNA	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	An excessive high or low voltage from outside key antenna LH is sent to BCM
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM
- Outside key antenna LH
- Harness or connector (Outside key antenna LH circuit is open or shorted.)

FAIL-SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-92, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

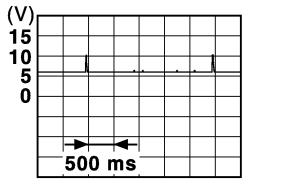
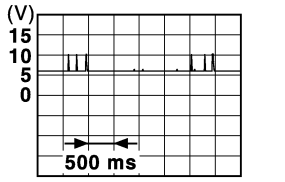
Diagnosis Procedure

INFOID:0000000012227629

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M18	121, 122	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM connector and outside key antenna (LH) connector.
2. Check continuity between BCM harness connector and outside key antenna (LH) harness connector.

BCM		Outside key antenna (LH)		Continuity
Connector	Terminal	Connector	Terminal	
M18	122	D6	1	Yes
	121		2	

3. Check continuity between BCM harness connector and ground.

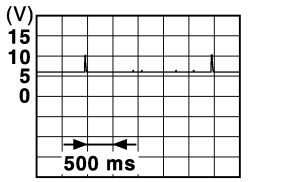
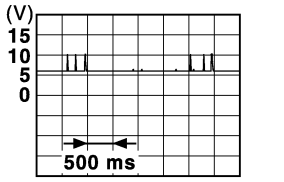
BCM		Ground	Continuity
Connector	Terminal		
M18	122		No
	121		

Is the inspection result normal?

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

3.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 2

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M18	122, 121	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (LH). Refer to DLK-199, "DRIVER SIDE : Removal and Installation".
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

B2628 OUTSIDE ANTENNA

DTC Description

INFOID:0000000012325504

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2628	OUTSIDE ANTENNA	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	An excessive high or low voltage from outside key antenna rear bumper is sent to BCM
		Diagnosis delay time	—

POSSIBLE CAUSE

- BCM
- Outside key antenna rear bumper
- Harness or connector (Outside key antenna rear bumper circuit is open or shorted.)

FAIL-SAFE

–

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to DLK-95, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

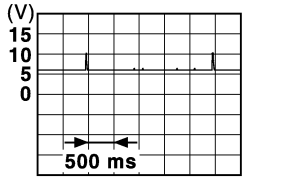
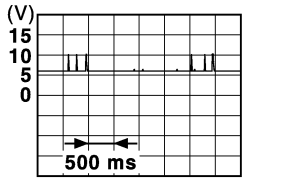
Diagnosis Procedure

INFOID:0000000012227631

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M19	102, 101	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

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

BCM		Outside key antenna (rear bumper)		Continuity
Connector	Terminal	Connector	Terminal	
M19	102	B46	1	Yes
	101		2	

3. Check continuity between BCM harness connector and ground.

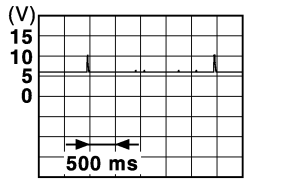
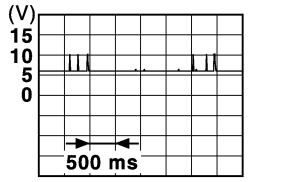
BCM		Ground	Continuity
Connector	Terminal		
M19	102		No
	101		

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

(+) BCM Connector	(+) BCM Terminals	(–)	Condition		Signal (Reference value)
M19	102, 101	Ground	When the driver door request switch is operated with ignition switch OFF.	When Intelligent Key is in the antenna detection area.	 JMKIA5955GB
				When Intelligent Key is not in the antenna detection area.	 JMKIA5954GB

Is the inspection result normal?

YES >> Replace outside key antenna (rear bumper). Refer to DLK-199, "REAR BUMPER : Removal and Installation".

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

DOOR SWITCH

Component Function Check

INFOID:0000000012227632

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR SW-DR”, “DOOR SW-AS”, “DOOR SW-RL” or “DOOR SW-RR” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
DOOR SW-DR	Front door LH	Open	On
		Closed	Off
DOOR SW-AS	Front door RH	Open	On
		Closed	Off
DOOR SW-RL	Rear door LH	Open	On
		Closed	Off
DOOR SW-RR	Rear door RH	Open	On
		Closed	Off

Is the inspection result normal?

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

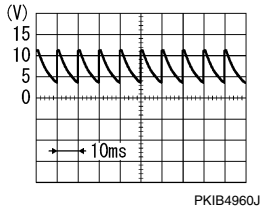
Diagnosis Procedure

INFOID:0000000012227633

Regarding Wiring Diagram information, refer to DLK-51, "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.

(+)			(–)	Signal (Reference value)
Door switch				
Connector		Terminal		
Front LH	B8	3	Ground	
Front RH	B108			
Rear LH	B18			
Rear RH	B116			

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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			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Front LH	B8	3	M19	96	Yes
Front RH	B108			94	
Rear LH	B18			82	
Rear RH	B116			93	

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

Door switch			Ground	Continuity
Connector		Terminal		
Front LH	B8	3	Ground	No
Front RH	B108			
Rear LH	B18			
Rear RH	B116			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to DLK-99, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace malfunctioning door switch. Refer to DLK-197, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012227634

1.CHECK DOOR SWITCH

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

Door switch		Condition		Continuity
Terminal				
3	Ground contact is part of the switch.	Door switch	Pressed	No
			Released	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunctioning door switch. Refer to DLK-197, "Removal and Installation".

DOOR LOCK AND UNLOCK SWITCH

DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012227640

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “CDL LOCK SW” or “CDL UNLOCK SW” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
CDL LOCK SW	Door lock and unlock switch	Lock	ON
		Unlock	OFF
CDL UNLOCK SW		Lock	OFF
		Unlock	ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.
NO >> Refer to DLK-100, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012227641

1.CHECK POWER WINDOW SWITCH

1. Turn ignition switch ON.
2. Check power window operation.

Does power window operate?

YES >> Replace power window main switch. Refer to PWC-67, "Removal and Installation".
NO >> Refer to PWC-50, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012227642

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “CDL LOCK SW” or “CDL UNLOCK SW” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
CDL LOCK SW	Door lock and unlock switch	Lock	ON
		Unlock	OFF
CDL UNLOCK SW		Lock	OFF
		Unlock	ON

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.
NO >> Refer to DLK-100, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012227643

1.CHECK POWER WINDOW SWITCH

1. Turn ignition switch ON.
2. Check power window operation.

Does power window operate?

YES >> Replace front power window switch (passenger side). Refer to PWC-68, "Removal and Installation".

NO >> Refer to PWC-52, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

DOOR LOCK ACTUATOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012227644

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR LOCK” in “Active Test” mode.
3. Touch “ALL LOCK” or “ALL UNLK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-102, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012227645

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

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Front door lock assembly LH					
Connector	Terminal				
D10	1	Ground	Door lock and unlock switch	Lock	Battery voltage
	2			Unlock	

Is the inspection result normal?

YES >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM and all door lock actuators.
2. Check continuity between BCM harness connector and front door lock assembly LH harness connector.

BCM		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	
M17	131	D10	1	Yes
	129		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	131		No
	129		

Is the inspection result normal?

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

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M17	131	Ground	Door lock and unlock switch	Lock	Battery voltage
	129			Unlock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012227646

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR LOCK” in “Active Test” mode.
3. Touch “ALL LOCK” or “ALL UNLK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-103, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012227647

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

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+) Front door lock actuator RH		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
D108	1	Ground	Door lock and unlock switch	Unlock	Battery voltage
	2			Lock	

Is the inspection result normal?

YES >> Replace front door lock actuator RH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Front door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M17	136	D108	1	Yes
	131		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	136		No
	131		

Is the inspection result normal?

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

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM harness connector and ground.

(+) BCM		(–)	Condition		Voltage (Approx.)
Connector	Terminal				
M17	136	Ground	Door lock and unlock switch	Unlock	Battery voltage
	131			Lock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

REAR LH

REAR LH : Component Function Check

INFOID:0000000012227648

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR LOCK” in “Active Test” mode.
3. Touch “ALL LOCK” or “ALL UNLK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-104, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000012227649

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

(+)		(–)	Condition		Voltage (Approx.)
Rear door lock actuator LH					
Connector	Terminal				
D205	1	Ground	Door lock and unlock switch	Lock	Battery voltage
	2			Unlock	

Is the inspection result normal?

YES >> Replace rear door lock actuator LH. Refer to DLK-183, "DOOR LOCK : Removal and Installation".
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Rear door lock actuator LH		Continuity
Connector	Terminal	Connector	Terminal	
M17	133	D205	2	Yes
	134		1	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	133		No
	134		

Is the inspection result normal?

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

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M17	133	Ground	Door lock and unlock switch	Unlock	Battery voltage
	134			Lock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

REAR RH

REAR RH : Component Function Check

INFOID:0000000012227650

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR LOCK” in “Active Test” mode.
3. Touch “ALL LOCK” or “ALL UNLK” to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.
NO >> Refer to DLK-106, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012227651

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

1.CHECK DOOR LOCK ACTUATOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Rear door lock actuator RH					
Connector	Terminal				
D305	1	Ground	Door lock and unlock switch	Unlock	Battery voltage
	2			Lock	

Is the inspection result normal?

YES >> Replace rear door lock actuator RH. Refer to DLK-183, "DOOR LOCK : Removal and Installation".
NO >> GO TO 2.

2.CHECK DOOR LOCK ACTUATOR CIRCUIT

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

BCM		Rear door lock actuator RH		Continuity
Connector	Terminal	Connector	Terminal	
M17	133	D305	1	Yes
	134		2	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	133		No
	134		

Is the inspection result normal?

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

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM harness connector and ground.

(+)		(–)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M17	133	Ground	Door lock and unlock switch	Unlock	Battery voltage
	134			Lock	

Is the inspection result normal?

YES >> Check for internal short of each door lock actuator.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

UNLOCK SENSOR

Component Function Check

INFOID:0000000012227652

1.CHECK FUNCTION

CONSULT
1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “UNLK SEN-DR” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Unlock sensor is OK.
NO >> Refer to DLK-107, "Diagnosis Procedure".

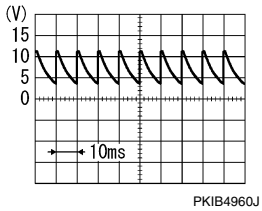
Diagnosis Procedure

INFOID:0000000012227653

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

(+)		(–)	Signal (Reference value)
Front door lock assembly LH			
Connector	Terminal		
D10	3	Ground	

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Is the inspection result normal?

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

2.CHECK UNLOCK SENSOR CIRCUIT

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

BCM		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	
M21	30	D10	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M21	30		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK UNLOCK SENSOR GROUND CIRCUIT

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

Front door lock assembly LH		Ground	Continuity
Connector	Terminal		
D10	4		Yes

Is the inspection result normal?

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

4.CHECK UNLOCK SENSOR

Refer to DLK-108, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012227654

1.CHECK UNLOCK SENSOR

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

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

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

DOOR KEY CYLINDER SWITCH

Component Function Check

INFOID:0000000012227655

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “KEY CYL LK-SW” or “KEY CYL UN-SW” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
KEY CYL LK-SW	Driver side door key cylinder	Lock	ON
		Neutral / Unlock	OFF
KEY CYL UN-SW		Unlock	ON
		Neutral / Lock	OFF

Is the inspection result normal?

YES >> Door key cylinder switch is OK.
NO >> Refer to DLK-109, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227656

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

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (Approx.)
Front door lock assembly LH			
Connector	Terminal		
D10	5	Ground	5 V
	6		

Is the inspection result normal?

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

2.CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

1. Disconnect main power window and door lock/unlock switch connector.
2. Check continuity between main power window and door lock/unlock switch harness connector and front door lock assembly LH harness connector.

Main power window and door lock/unlock switch		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	3	D10	6	Yes
	15		5	

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

Main power window and door lock/unlock switch		Ground	Continuity
Connector	Terminal		
D7	3		No
	15		

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

Front door lock assembly LH		Ground	Continuity
Connector	Terminal		
D10	4		Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Refer to DLK-110, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012227657

1.CHECK DOOR KEY CYLINDER SWITCH

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

Front door lock assembly LH		Condition		Continuity
Terminals				
5	4	Driver side door key cylinder	Unlock	Yes
			Neutral / Lock	No
6			Lock	Yes
			Neutral / Unlock	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

REMOTE KEYLESS ENTRY RECEIVER

Component Function Check

INFOID:0000000012227658

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.
NO >> Refer to DLK-111, "Diagnosis Procedure".

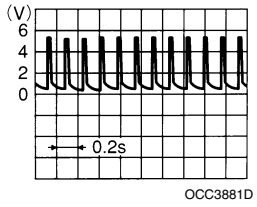
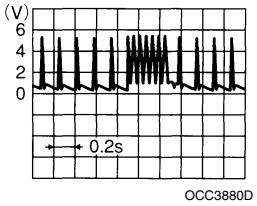
Diagnosis Procedure

INFOID:0000000012227659

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

1.CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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

(+) BCM Connector	(+) BCM Terminal	(–)	Condition	Signal (Reference value)
M18	119	Ground	Standby state	 OCC3881D
			Press the Intelligent Key lock or unlock button.	 OCC3880D

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 2.

2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

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 keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	
M18	119	M27	2	Yes

3. Check continuity between BCM harness connector and ground.

(+)		(–)	Continuity
BCM			
Connector	Terminal		
M18	119	Ground	No

Is the inspection result normal?

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

3. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

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

(+)		(–)	Voltage (Approx.)
Remote keyless entry receiver			
Connector	Terminal		
M27	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.
NO-1 >> Check 10A fuse No. 9 [located in fuse block J/B].
NO-2 >> Repair or replace harness between remote keyless entry receiver and 10A fuse No. 9.

4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

Remote keyless entry receiver		Ground	Continuity
Connector	Terminal		
M27	3		Yes

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to DLK-202, "Removal and Installation".
NO >> Repair or replace harness.

DOOR REQUEST SWITCH

Component Function Check

INFOID:0000000012227660

1.CHECK FUNCTION

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

Monitor Item	Condition		Status
REQ SW -DR	LH door request switch	Pressed	ON
		Released	OFF
REQ SW -AS	RH door request switch	Pressed	ON
		Released	OFF

Is the inspection result normal?

YES >> Front door request switch is OK.
NO >> Refer to DLK-113, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227661

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

(+)			(–)	Voltage (Approx.)
Front door request switch				
Connector		Terminal		
LH	D6	3	Ground	Battery voltage
RH	D106			

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
Connector		Terminal	Connector	Terminal	
LH	D6	3	M20	71	Yes
RH	D106			72	

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

Front door request switch			Ground	Continuity
Connector		Terminal		
LH	D6	3		No
RH	D106			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

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

Front door request switch			Ground	Continuity
Connector		Terminal		
LH	D6	4		Yes
RH	D106			

Is the inspection result normal?

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

4.CHECK DOOR REQUEST SWITCH

Refer to DLK-114, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace malfunctioning front outside handle assembly. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation" or DLK-180, "OUTSIDE HANDLE : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012227662

1.CHECK DOOR REQUEST SWITCH

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

Front door request switch		Condition		Continuity
Terminals				
3	4	Door request switch	Pressed	Yes
			Released	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunctioning front door request switch. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation" or DLK-180, "OUTSIDE HANDLE : Removal and Installation".

INTELLIGENT KEY WARNING BUZZER

Component Function Check

INFOID:0000000012227669

1.CHECK FUNCTION

CONSULT
1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “OUTSIDE BUZZER” in “Active Test” mode.
3. Touch “On” or “Off” to check that it works normally.

Is the inspection result normal?

YES >> Intelligent Key warning buzzer is OK.
NO >> Refer to DLK-115, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227670

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.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 warning buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M20	64	E28	3	Yes

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	64		No

Is the inspection result normal?

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

2.CHECK INTELLIGENT KEY WARNING BUZZER

Refer to DLK-115, "Component Inspection".

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Replace Intelligent Key warning buzzer. Refer to DLK-201, "Removal and Installation".

Component Inspection

INFOID:0000000012227671

1.CHECK INTELLIGENT KEY WARNING BUZZER

1. Turn ignition switch OFF.
2. Disconnect Intelligent Key warning buzzer connector.
3. Connect battery power supply directly to Intelligent Key warning buzzer terminals and check the operation.

Intelligent Key warning buzzer		Operation
Terminals		
(+)	(–)	
1	3	Buzzer sounds

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace Intelligent Key warning buzzer. Refer to DLK-201, "Removal and Installation".

INTELLIGENT KEY

Component Function Check

INFOID:0000000012227672

NOTE:
The Signal Tech II Tool [- (J-50190)] can be used to perform the following functions: Refer to the Signal Tech II User Guide for additional information.
- Check Intelligent Key relative signal strength.
- Confirm vehicle Intelligent Key antenna signal strength.

1.CHECK FUNCTION

CONSULT
1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “RKE OPE COUN1” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

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

Is the inspection result normal?

YES >> Intelligent Key is OK.
NO >> Refer to DLK-117, "Diagnosis Procedure".

Diagnosis Procedure

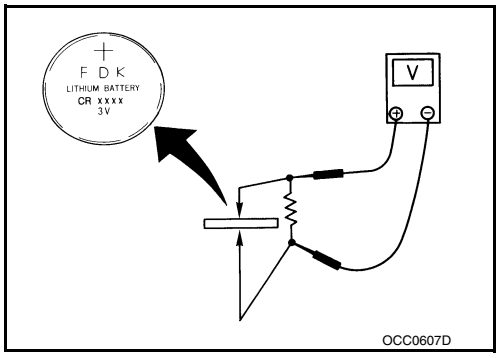
INFOID:0000000012227673

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 DLK-203, "Removal and Installation".

Standard : Approx. 2.5 - 3.0V



Is the measurement value within the standard?

YES >> Replace Intelligent Key. For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
NO >> Replace Intelligent Key battery.

KEY WARNING LAMP

Component Function Check

INFOID:0000000012227677

1.CHECK FUNCTION

CONSULT
1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “INDICATOR” in “Active Test” mode.
3. Touch “KEY IND” or “KEY ON” to check that it works normally.

Is the inspection result normal?

YES >> Key warning lamp is OK.
NO >> Refer to DLK-118, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227678

1.CHECK KEY WARNING LAMP

Refer to MWI-20, "CONSULT Function (METER/M&A)".

Is the inspection result normal?

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

2.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

HAZARD FUNCTION

Component Function Check

INFOID:0000000012227679

1.CHECK FUNCTION

CONSULT
1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “FLASHER” in “Active Test” mode.
3. Touch “LH” or “RH” to check that it works normally.

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.
NO >> Refer to DLK-119, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227680

1.CHECK HAZARD SWITCH CIRCUIT

Refer to DLK-119, "Component Function Check".

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.

HOOD SWITCH

Component Function Check

INFOID:0000000012227704

1.CHECK FUNCTION

CONSULT
1. Select “HOOD SW” in “Data Monitor” mode of “IPDM E/R”.
2. Check “HOOD SW” indication under the following conditions:

Monitor Item	Condition		Indication
HOOD SW	Hood	Open	ON
		Close	OFF

Is the indication normal?

YES >> Hood switch is OK.
NO >> Go to DLK-120, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012227705

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK HOOD SWITCH SIGNAL CIRCUITS

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

(+)		(–)	Voltage (V) (Approx.)
Hood switch			
Connector	Terminal		
E247	1	Ground	Battery voltage
	2		

Is the inspection result normal?

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

2.CHECK HOOD SWITCH SIGNAL CIRCUITS

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

IPDM E/R		Hood switch		Continuity
Connector	Terminal	Connector	Terminal	
E201	94	E247	1	Yes
	96		2	

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E201	94		No
	96		

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK HOOD SWITCH GROUND CIRCUIT

Check continuity between hood switch harness connector and ground.

Hood switch		Ground	Continuity
Connector	Terminal		
E247	3		Yes

Is the inspection result normal?

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

4.CHECK HOOD SWITCH

Refer to DLK-121, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace hood switch. Refer to DLK-176, "HOOD LOCK : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012227706

1.CHECK HOOD SWITCH

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

Hood switch		Condition		Continuity
Terminals				
1	3	Hood switch	Press	Yes
			Release	No
2			Press	No
			Release	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace hood switch. Refer to DLK-176, "HOOD LOCK : Removal and Installation".

INTEGRATED HOMELINK TRANSMITTER

Component Function Check

INFOID:0000000012227707

1.CHECK FUNCTION

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

Is the inspection result normal?

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

2.CHECK ILLUMINATION

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Refer to DLK-122, "Diagnosis Procedure".

3.CHECK TRANSMITTER

Check transmitter with Tool*.
*:For details, refer to Technical Service Bulletin.

Is the inspection result normal?

YES >> Receiver or hand-held transmitter malfunction, not vehicle related.
NO >> Replace auto anti-dazzling inside mirror (HomeLink® universal transceiver). Refer to MIR-20, "Removal and Installation".

Diagnosis Procedure

INFOID:0000000012227708

Regarding Wiring Diagram information, refer to DLK-66, "Wiring Diagram".

1.CHECK POWER SUPPLY

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

Auto anti-dazzling inside mirror (HomeLink® universal transceiver) connector	Terminal		Condition	Voltage (V) (Approx.)
R4	10	Ground	Ignition switch position: OFF	Battery voltage
	6		Ignition switch position: ON	

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check the following items:
- 10A fuse No. 30 located in the fuse block (J/B).
- 10A fuse No. 9 located in the fuse block (J/B).
- Harness for open or short between fuse and auto anti-dazzling inside mirror (HomeLink® universal transceiver).

2.CHECK GROUND CIRCUIT

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

Auto anti-dazzling inside mirror (HomeLink® universal transceiver) connector	Terminal	Ground	Continuity
R4	8		Yes

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

TRUNK LID OPENER SWITCH

Description

INFOID:0000000012269710

Transmits trunk lid open signal to BCM.

Component Function Check

INFOID:0000000012269711

1.CHECK FUNCTION

CONSULT
Select “TR/BD” in Data Monitor mode of BCM.
• When trunk lid opener switch is turned to “ON”.

Monitor item	Condition
TR/BD OPEN SW	Trunk lid opener switch is pressed: ON
	Trunk lid opener switch is released: OFF

Is the inspection result normal?

YES >> Trunk lid opener switch is OK.
NO >> Refer to DLK-124, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012269712

Regarding Wiring Diagram information, refer to DLK-62, "Wiring Diagram".

1.CHECK TRUNK LID OPEN INPUT SIGNAL

1. Press trunk lid opener switch.
2. Check voltage between BCM connector and ground.

Terminals			Condition of trunk lid opener switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M20	80	Ground	ON (press and hold)	0
			OFF (release)	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER SWITCH CIRCUIT

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

BCM connector	Terminal	Trunk lid opener switch connector	Terminal	Continuity
M20	80	M75	6	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M20	80		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK TRUNK LID OPENER SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch connector and ground.

Trunk lid opener switch	Terminal	Ground	Continuity
M75	8		Yes

Is the inspection result normal?

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

4.CHECK TRUNK LID OPENER SWITCH

Refer to DLK-125, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace trunk lid opener switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012269713

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 connector.

Terminals		Condition	Continuity
Trunk lid opener switch			
1	2	ON (press and hold)	Yes
		OFF (release)	No

Is the inspection result normal?

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

TRUNK LID OPENER CANCEL SWITCH

Description

INFOID:0000000012269714

Cancels trunk lid open operation.

Component Function Check

INFOID:0000000012269715

1.CHECK FUNCTION

CONSULT
Select “TR CANCEL SW” in Data Monitor mode of BCM.

Monitor item	Condition
TR CANCEL SW	Trunk lid opener cancel switch is turned to “ON”: ON
	Trunk lid opener cancel switch is turned to “OFF”: OFF

Is the inspection result normal?

YES >> Trunk lid opener cancel switch is OK.
NO >> Refer to DLK-126, "Diagnosis Procedure".

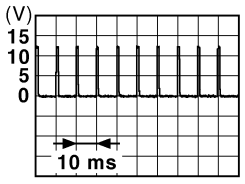
Diagnosis Procedure

INFOID:0000000012269716

Regarding Wiring Diagram information, refer to DLK-62, "Wiring Diagram".

1.CHECK TRUNK LID OPENER CANCEL SIGNAL

Check voltage between BCM connector and ground.

Terminals			Condition of trunk lid opener cancel switch	Voltage (V) (Approx.)
(+)		(–)		
BCM connector	Terminal			
M21	33	Ground	ON	0
			OFF	 JPMIA0012GB

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 2.

2.CHECK TRUNK LID OPENER CANCEL SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM connector and trunk lid opener cancel switch connector.

BCM connector	Terminal	Trunk lid opener cancel switch connector	Terminal	Continuity
M21	33	M74	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M21	33		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK TRUNK LID OPENER CANCEL SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch connector and ground.

Trunk lid opener cancel switch	Terminal	Ground	Continuity
M74	2		Yes

Is the inspection result normal?

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

4.CHECK TRUNK LID OPENER CANCEL SWITCH

Refer to DLK-127, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace trunk lid opener cancel switch.

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012269717

1.CHECK TRUNK LID OPENER CANCEL SWITCH

1. Disconnect trunk lid opener cancel switch connector.
2. Check continuity between trunk lid opener cancel switch terminals.

Terminal		Condition	Continuity
Trunk lid opener cancel switch			
1	2	ON	Yes
		OFF (cancel)	No

Is the inspection result normal?

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

TRUNK OPENER REQUEST SWITCH

Description

INFOID:0000000012269722

Performs trunk lid open request when it is pressed.

Component Function Check

INFOID:0000000012269723

1.CHECK FUNCTION

CONSULT
Select “REQ SW -BD/TR” in Data Monitor mode of BCM.

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

Is the inspection result normal?

YES >> Trunk opener request switch is OK.
NO >> Refer to DLK-128, "Diagnosis Procedure".

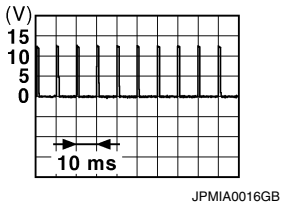
Diagnosis Procedure

INFOID:0000000012269724

Regarding Wiring Diagram information, refer to DLK-62, "Wiring Diagram".

1.CHECK TRUNK OPENER REQUEST SWITCH OUTPUT SIGNAL

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

Terminal (+) BCM	Terminal (+) Terminal	Terminal (–)	Trunk lid opener request switch condition	Voltage (V) (Approx.)
M19	83	Ground	Pressed	0
			Released	

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Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

2.CHECK TRUNK OPENER REQUEST SWITCH CIRCUIT

1. Disconnect BCM and trunk opener request switch connector.
2. Check continuity between BCM connector and trunk opener request switch connector.

BCM	Terminal	Trunk opener request switch	Terminal	Continuity
M19	83	B25	1	Yes

3. Check continuity between BCM connector and ground.

BCM	Terminal	Ground	Continuity
M19	83		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness between BCM and trunk opener request switch.

3.CHECK TRUNK OPENER REQUEST SWITCH GROUND CIRCUIT

Check continuity between trunk opener request switch connector and ground.

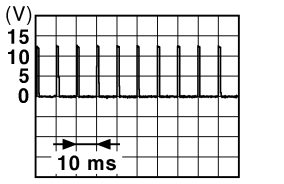
Trunk opener request switch	Terminal	Ground	Continuity
B25	2		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace trunk opener request switch ground circuit.

4.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM connector and ground.

Terminal			Voltage (V) (Approx.)
(+)		(–)	
BCM	Terminal		
M19	83	Ground	

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Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

5.CHECK TRUNK OPENER REQUEST SWITCH

Refer to DLK-129, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace trunk opener request switch.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012269725

1.CHECK TRUNK OPENER REQUEST SWITCH

Check trunk opener request switch.

Terminals		Trunk opener request switch condition	Continuity
Trunk opener request switch			
1	2	Pressed	Yes
		Released	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk opener request switch.

TRUNK LID OPENER ACTUATOR

Description

INFOID:0000000012269726

Performs trunk lid open with signal from BCM.

Component Function Check

INFOID:0000000012269727

1.CHECK FUNCTION

CONSULT

1. Select “TRUNK/GLASS HATCH” in "Active Test" mode of BCM.
2. Select “OPEN” and check that trunk lid opens.

Is the inspection result normal?

YES >> Trunk lid opener actuator is OK.
NO >> Refer to DLK-131, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012269728

Regarding Wiring Diagram information, refer to DLK-62, "Wiring Diagram".

1.CHECK OUTPUT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect trunk lamp switch and trunk release solenoid connector.
3. Check voltage between trunk lamp switch and trunk release solenoid assembly connector and ground.

Terminal			Condition of trunk lid opener switch	Voltage (V) (Approx.)
(+)		(–)		
Trunk lamp switch and trunk release solenoid assembly	Terminal			
B43	3	Ground	OFF → ON	0 → Battery voltage → 0

Is the inspection result normal?

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

2.CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminal			Condition of trunk lid opener switch	Voltage (V) (Approx.)
(+)		(–)		
BCM	Terminal			
M19	91	Ground	OFF → ON	0 → Battery voltage → 0

Is the inspection result normal?

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

3.CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector and trunk lamp switch and trunk release solenoid assembly connector.

BCM	Terminal	Trunk lamp switch and trunk release solenoid assembly	Terminal	Continuity
M19	91	B43	3	Yes

3. Check continuity between BCM connector and ground.

BCM	Terminal		Continuity
M19	91	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

4. CHECK TRUNK LID OPENER GROUND CIRCUIT

Check continuity between trunk lamp switch and trunk release solenoid assembly connector and ground.

Trunk lamp switch and trunk release solenoid assembly	Terminal		Continuity
B43	2	Ground	Yes

Is the inspection result normal?

YES >> Replace trunk lamp switch and trunk release solenoid assembly.
NO >> Repair or replace harness.

TRUNK LAMP SWITCH

Description

INFOID:0000000012326202

Detects trunk open/close condition.

Component Function Check

INFOID:0000000012326203

1.CHECK FUNCTION

CONSULT
Select “TRNK/HAT MNTR” in “Data Monitor” mode of BCM.

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

Is the inspection result normal?

YES >> Trunk lamp switch is OK.
NO >> Refer to DLK-133, "Diagnosis Procedure".

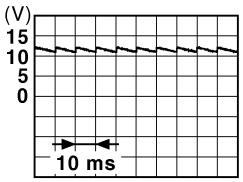
Diagnosis Procedure

INFOID:0000000012326204

Regarding Wiring Diagram information, refer to DLK-62, "Wiring Diagram".

1.CHECK TRUNK LAMP SWITCH INPUT SIGNAL

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

Terminal (+) BCM connector	Terminal (+) Terminal	Terminal (–)	Trunk condition	Voltage (V) (Approx.)
M19	97	Ground	OPEN	0
			CLOSE	

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Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

2.CHECK TRUNK LAMP SWITCH CIRCUIT

1. Disconnect BCM and trunk lamp switch and trunk release solenoid connectors.
2. Check continuity between BCM connector and trunk lamp switch and trunk release solenoid assembly connector.

BCM connector	Terminal	Trunk lamp switch and trunk release solenoid assembly connector	Terminal	Continuity
M19	97	B43	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M19	97		No

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness between BCM and trunk lamp switch and trunk release solenoid assembly.

3.CHECK TRUNK LAMP SWITCH GROUND CIRCUIT

Check continuity between trunk lid lock assembly connector and ground.

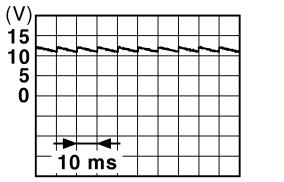
Trunk lamp switch and trunk release solenoid assembly connector	Terminal	Ground	Continuity
B43	2		Yes

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace trunk lamp switch and trunk release solenoid assembly ground circuit.

4.CHECK BCM OUTPUT SIGNAL

1. Insure trunk remains closed during this step.
2. Connect BCM connector.
3. Check voltage between BCM connector and ground.

Terminals			Voltage (V) (Approx.)
(+)		(–)	
BCM connector	Terminal		
M19	97	Ground	

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Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

5.CHECK TRUNK LAMP SWITCH

Refer to DLK-134, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace trunk lamp switch and trunk release solenoid assembly.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012326205

1.CHECK TRUNK LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect trunk lamp switch and trunk release solenoid assembly connector.

3. Check trunk lamp switch.

Terminal		Trunk condition	Continuity
Trunk lamp switch and trunk release solenoid assembly			
1	2	OPEN	Yes
		CLOSE	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace trunk lamp switch and trunk release solenoid assembly.

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000012227716

CAUTION:

CONSULT

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

Symptom	Inspection item
Door does not lock/unlock with door lock and unlock switch.	• All doors inoperative. Refer to DLK-137. • Drivers side door inoperative. Refer to DLK-137. • Passenger side door inoperative. Refer to DLK-138. • Rear LH door inoperative. Refer to DLK-138. • Rear RH door inoperative. Refer to DLK-138.
Door does not lock/unlock with door key cylinder operation.	Refer to DLK-140.
Door does not lock/unlock with door request switch.	• All door request switches. Refer to DLK-141. • Drivers side door request switch. Refer to DLK-141. • Passenger side door request switch. Refer to DLK-142. • Trunk request switch. Refer to DLK-142.
Door does not lock/unlock with Intelligent Key.	Refer to DLK-143.
Ignition position warning function does not operate.	Refer to DLK-144.
OFF position warning does not operate.	Refer to DLK-145.
Take away warning does not operate.	Refer to DLK-146.
Key ID warning does not operate.	Refer to DLK-148.
Intelligent Key low battery warning does not operate.	Refer to DLK-149.
Door lock operation warning does not operate.	Refer to DLK-150.
Integrated HomeLink® transmitter does not operate.	Refer to DLK-151.
Squeak and rattle trouble diagnosis.	Refer to DLK-153.

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

ALL DOOR

ALL DOOR : Description

INFOID:0000000012227717

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

ALL DOOR : Diagnosis Procedure

INFOID:0000000012227718

1. CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.
- Driver side: Refer to DLK-100, "DRIVER SIDE : Component Function Check".
- Passenger side: Refer to DLK-100, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR

Check front door lock assembly LH.
Refer to DLK-102, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3. REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012227719

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

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012227720

1. CHECK DOOR LOCK ACTUATOR

Check front door lock assembly LH.
Refer to DLK-102, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

2. REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012227721

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

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012227722

1.CHECK DOOR LOCK ACTUATOR

Check front door lock actuator RH.
Refer to DLK-102, "DRIVER SIDE : Component_Function_Check".

Is the inspection result normal?

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

2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

REAR LH

REAR LH : Description

INFOID:0000000012227723

Rear LH side door does not lock/unlock using door lock and unlock switch.

REAR LH : Diagnosis Procedure

INFOID:0000000012227724

1.CHECK DOOR LOCK ACTUATOR

Check rear door lock actuator LH.
Refer to DLK-104, "REAR LH : Component_Function_Check".

Is the inspection result normal?

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

2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

REAR RH

REAR RH : Description

INFOID:0000000012227725

Rear RH side door does not lock/unlock using door lock and unlock switch.

REAR RH : Diagnosis Procedure

INFOID:0000000012227726

1.CHECK DOOR LOCK ACTUATOR

Check rear door lock actuator RH.
Refer to DLK-105, "REAR RH : Component_Function_Check".

Is the inspection result normal?

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

2.REPLACE BCM

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

• Confirm the operation after replacement.

Is the result normal?

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

DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION

Diagnosis Procedure

INFOID:0000000012227727

1.CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.
NO >> Refer to DLK-137, "ALL DOOR : Diagnosis Procedure".

2.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.
Refer to DLK-109, "Component Function Check".

Is the inspection result normal?

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

3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

ALL DOOR REQUEST SWITCHES

ALL DOOR REQUEST SWITCHES : Description

INFOID:0000000012227728

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

ALL DOOR REQUEST SWITCHES : Diagnosis Procedure

INFOID:0000000012227729

1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.
NO >> Refer to DLK-117, "Component Function Check".

2. CHECK DOOR SWITCH

Check door switch.
Refer to DLK-98, "Component Function Check".

Is the inspection result normal?

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

3. CHECK INSIDE KEY ANTENNA

Check inside key antenna.
- Console: Refer to DLK-75, "DTC Description".
- Parcel shelf: Refer to DLK-78, "DTC Description".

Is the inspection result normal?

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

4. CHECK OUTSIDE KEY ANTENNA

Check outside key antenna.
- Driver side: Refer to DLK-89, "DTC Description".
- Passenger side: Refer to DLK-92, "DTC Description".
- Rear bumper: Refer to DLK-95, "DTC Description".

Is the inspection result normal?

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

5. REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

DRIVER SIDE DOOR REQUEST SWITCH

DRIVER SIDE DOOR REQUEST SWITCH : Description

INFOID:0000000012227730

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

DRIVER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000012227731

1. CHECK DOOR REQUEST SWITCH

Check front door request switch (driver side).
Refer to DLK-113, "Component Function Check".

Is the inspection result normal?

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

2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

PASSENGER SIDE DOOR REQUEST SWITCH

PASSENGER SIDE DOOR REQUEST SWITCH : Description

INFOID:0000000012227732

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

PASSENGER SIDE DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000012227733

1.CHECK DOOR REQUEST SWITCH

Check front door request switch (passenger side).
Refer to DLK-113, "Component Function Check".

Is the inspection result normal?

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

2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

TRUNK REQUEST SWITCH

TRUNK REQUEST SWITCH : Description

INFOID:0000000012227734

All doors do not lock/unlock using trunk request switch.

TRUNK REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000012227735

1.CHECK TRUNK REQUEST SWITCH

Check trunk request switch.
Refer to DLK-128, "Component Function Check".

Is the inspection result normal?

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

2.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Diagnosis Procedure

INFOID:0000000012227736

1.CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.
NO >> Refer to DLK-137, "ALL DOOR : Diagnosis Procedure".

2.CHECK INTELLIGENT KEY

Check Intelligent Key.
Refer to DLK-117, "Component Function Check".

Is the inspection result normal?

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

3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

IGNITION POSITION WARNING FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012227737

1.CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.
NO >> Refer to DLK-137, "ALL DOOR : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-98, "Component Function Check".

Is the inspection result normal?

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

3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

OFF POSITION WARNING DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012227738

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Perform trouble diagnosis relevant to DTC indicated.

2.CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK DOOR SWITCH

Check front door switch LH.
Refer to DLK-98, "Component Function Check".

Is the inspection result normal?

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

4.CHECK COMBINATION METER BUZZER

Check combination meter buzzer.
Refer to WCS-27, "Component Function Check".

Is the inspection result normal?

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

5.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.
Refer to DLK-115, "Component Function Check".

Is the inspection result normal?

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

6.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

TAKE AWAY WARNING DOES NOT OPERATE

Description

INFOID:0000000012227739

Take away warning function does not operate for vehicles with information display models.

NOTE:

Warning function operating condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-26, "WARNING FUNCTION : System Description".

Diagnosis Procedure

INFOID:0000000012227740

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Perform trouble diagnosis relevant to DTC indicated.

2.CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Console: Refer to DLK-75, "DTC Description".
- Parcel shelf: Refer to DLK-78, "DTC Description".

Is the inspection result normal?

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

4.CHECK DOOR SWITCH

Check front door switch LH.
Refer to DLK-98, "Component Function Check".

Is the inspection result normal?

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

5.CHECK COMBINATION METER BUZZER

Check combination meter buzzer.
Refer to WCS-27, "Component Function Check".

Is the inspection result normal?

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

6.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.
Refer to DLK-115, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace the malfunctioning parts.

7.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

KEY ID WARNING DOES NOT OPERATE

Description

INFOID:0000000012227741

Key ID warning function does not operate for vehicles with information display models.

NOTE:

Warning function operating condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-26, "WARNING FUNCTION : System Description".

Diagnosis Procedure

INFOID:0000000012227742

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Perform trouble diagnosis relevant to DTC indicated.

2.CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK INTELLIGENT KEY

Check Intelligent Key.
Refer to DLK-117, "Component Function Check".

Is the inspection result normal?

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

4.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Console: Refer to DLK-75, "DTC Description".
- Parcel shelf: Refer to DLK-78, "DTC Description".

Is the inspection result normal?

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

5.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description

INFOID:0000000012227743

Intelligent Key low battery warning does not operate for vehicles with information display models.

NOTE:

Warning function operating condition is extremely complicated. During operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-26, "WARNING FUNCTION : System Description".

Diagnosis Procedure

INFOID:0000000012227744

1.CHECK DTC WITH BCM

Check that DTC is not detected with BCM.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Perform trouble diagnosis relevant to DTC indicated.

2.CHECK DTC WITH COMBINATION METER

Check that DTC is not detected with combination meter.

Is the inspection result normal?

YES >> GO TO 3.
NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK “LO- BATT OF KEY FOB WARN” SETTING IN “WORK SUPPORT”

CONSULT

1. Select “INTELLIGENT KEY” of “BCM”.
2. Select “LO- BATT OF KEY FOB WARN” in “Work support” mode.
3. Check “LO- BATT OF KEY FOB WARN” setting in “Work support” mode.
   Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Set “ON” in “LO- BATT OF KEY FOB WARN”.

4.CHECK INTELLIGENT KEY

Check Intelligent Key.
Refer to DLK-117, "Component Function Check".

Is the inspection result normal?

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

5.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

- Console: Refer to DLK-75, "DTC Description".
- Parcel shelf: Refer to DLK-78, "DTC Description".

Is the inspection result normal?

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

6.REPLACE BCM

- Replace BCM. Refer to PCS-36, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

DOOR LOCK OPERATION WARNING DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012227745

1.CHECK DOOR LOCK FUNCTION

Check door lock function.

Does door lock/unlock using door request switch?

YES >> GO TO 2.
NO >> Refer to DLK-141, "ALL DOOR REQUEST SWITCHES : Diagnosis Procedure".

2.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.
Refer to DLK-115, "Component Function Check".

Is the inspection result normal?

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

3.REPLACE BCM

- Replace BCM. Refer to BCS-82, "Removal and Installation".
- Confirm the operation after replacement.

Is the result normal?

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

INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012227768

1.CHECK INTEGRATED HOMELINK® TRANSMITTER

Check integrated HomeLink® transmitter.
Refer to DLK-122, "Component Function Check".

Is the inspection result normal?

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

2.REPLACE AUTO ANTI-DAZZLING INSIDE MIRROR

Replace auto anti-dazzling inside mirror.
Refer to MIR-20, "Removal and Installation".

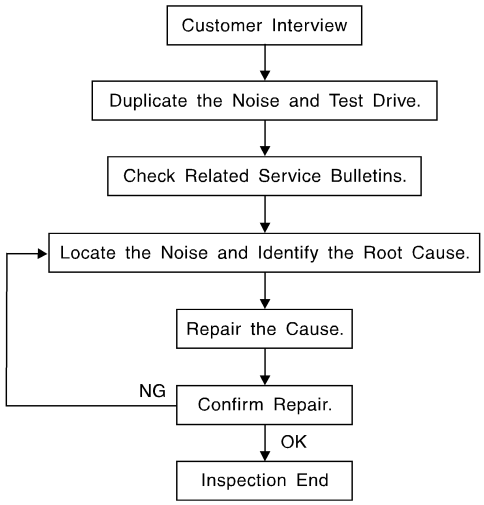
Is the result normal?

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

INFOID:0000000012227769



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CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to DLK-156, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak —(Like tennis shoes on a clean floor)
  Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping.
- Creak—(Like walking on an old wooden floor)
  Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle)
  Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door)
  Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand)
  Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise)
  Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumble bee)
  Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

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 DLK-153, "Generic Squeak and Rattle Troubleshooting".

REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
- separate components by repositioning or loosening and retightening the component, if possible.
- insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A NISSAN Squeak and Rattle Kit (J-50397) is available through your authorized NISSAN Parts Department.

CAUTION:
Do not use excessive force as many components are constructed of plastic and may be damaged.
NOTE:

- Always check with the Parts Department for the latest parts information.
- The materials contained in the NISSAN Squeak and Rattle Kit (J-50397) are listed on the inside cover of the kit; and can each be ordered separately as needed.
- The following materials not found in the kit can also be used to repair squeaks and rattles.
- SILICONE GREASE: Use instead of UHMW tape that will be visible or does not fit. The silicone grease will only last a few months.
- SILICONE SPRAY: Use when grease cannot be applied.
- DUCT TAPE: Use to eliminate movement.

CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Generic Squeak and Rattle Troubleshooting

INFOID:0000000012227770

Refer to Table of Contents for specific component removal and installation information.

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

CAUTION:

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

CENTER CONSOLE

Components to pay attention to include:

1. Shift selector assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

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

DOORS

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the NISSAN Squeak and Rattle Kit (J-50397) to repair the noise.

TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner.
In addition look for:

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

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

SUNROOF/HEADLINING

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

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

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

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage.
In addition look for:

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

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.

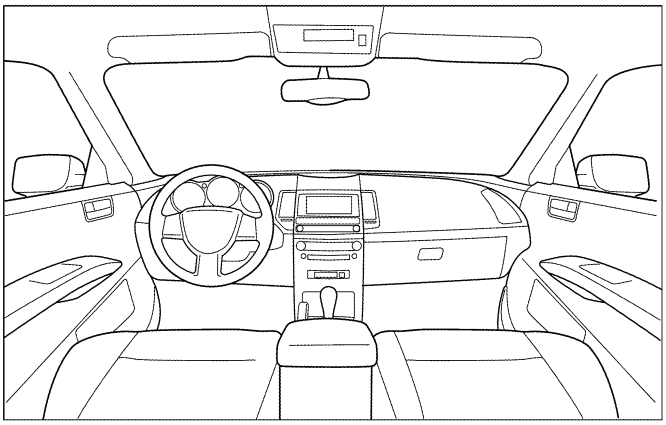
Diagnostic Worksheet

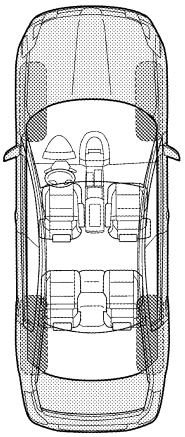
INFOID:0000000012227771

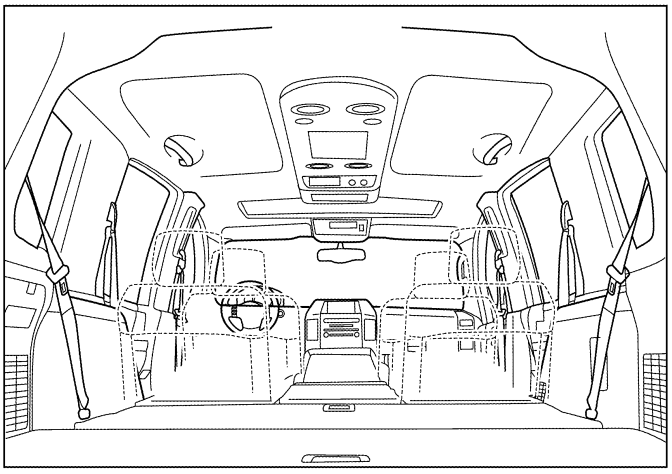
Dear Customer:
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions.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

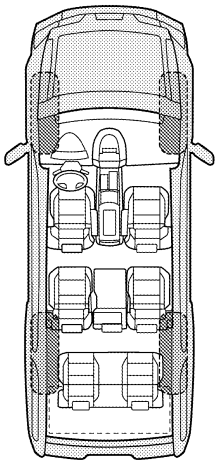
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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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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
- ☐ 1st time in the morning
- ☐ Only when it is cold outside
- ☐ Only when it is hot outside
- ☐ After sitting out in the rain
- ☐ When it is raining or wet
- ☐ Dry or dusty conditions
- ☐ Other:

III. WHEN DRIVING:

- ☐ Through driveways
- ☐ Over rough roads
- ☐ Over speed bumps
- ☐ Only about ____ mph
- ☐ On acceleration
- ☐ Coming to a stop
- ☐ On turns: left, right or either (circle)
- ☐ With passengers or cargo
- ☐ Other: _____
- ☐ After driving _____ miles or _____ minutes

IV. WHAT TYPE OF NOISE

- ☐ Squeak (like tennis shoes on a clean floor)
- ☐ Creak (like walking on an old wooden floor)
- ☐ Rattle (like shaking a baby rattle)
- ☐ Knock (like a knock at the door)
- ☐ Tick (like a clock second hand)
- ☐ Thump (heavy muffled knock noise)
- ☐ Buzz (like a bumble bee)

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

_____

_____

_____

	YES	NO	Initials of person performing
Vehicle test driven with customer	☐	☐	_____
- Noise verified on test drive	☐	☐	_____
- Noise source located and repaired	☐	☐	_____
- Follow up test drive performed to confirm repair	☐	☐	_____

VIN: _____ Customer Name _____

W.O.# _____ Date: _____

This form must be attached to Work Order

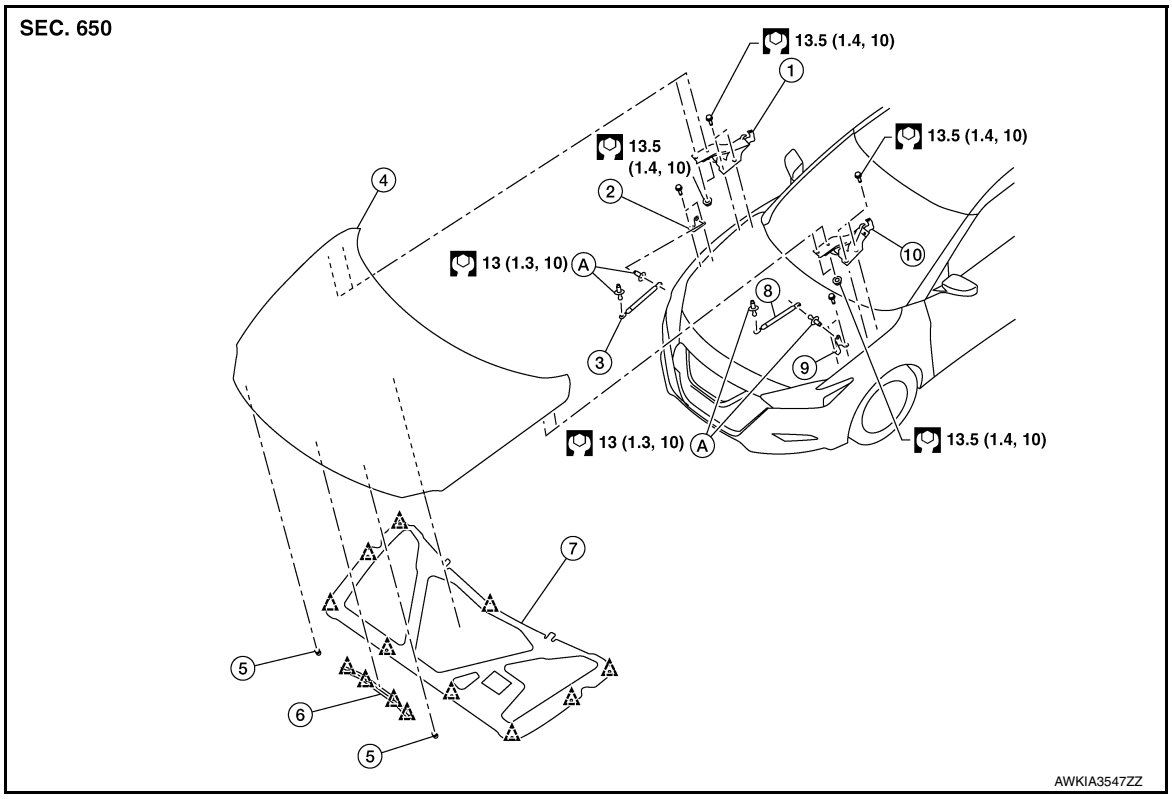
LAIA0071E

REMOVAL AND INSTALLATION

HOOD

Exploded View

INFOID:0000000011935497



1.	Hood hinge (RH)	2.	Stud ball bracket (RH)	3.	Hood stay (RH)
4.	Hood	5.	Bumper rubber (LH/RH)	6.	Hood seal
7.	Hood insulator	8.	Hood stay (LH)	9.	Stud ball bracket (LH)
10.	Hood hinge (LH)	A.	Hood stay stud ball (LH/RH)		Clip

HOOD ASSEMBLY

HOOD ASSEMBLY : Removal and Installation

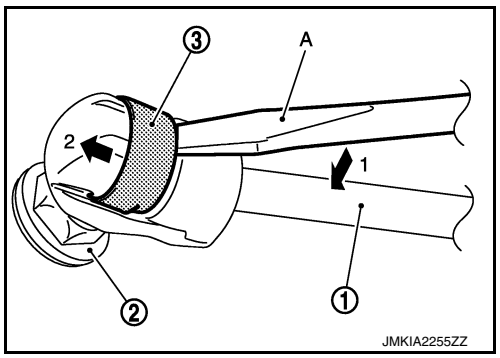
INFOID:0000000011935498

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

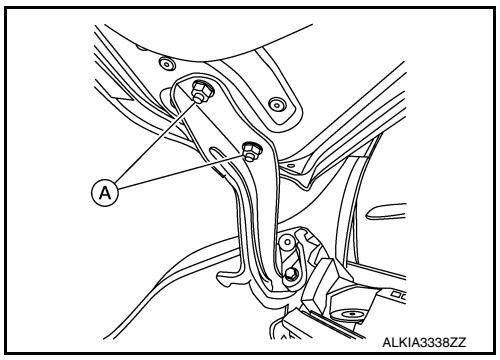
REMOVAL

1. Support hood using a suitable tool.
   WARNING:
   Bodily injury may occur if hood is not supported properly when removing hood.
2. Release clips using a suitable tool and remove hood insulator.
3. Disconnect front washer tube. Refer to WW-54, "Exploded View".

4. Remove metal clip (3) located on connection between hood stay (1) and stud ball (2) (hood side) by using a suitable tool (A) to release clip to side and then toward front.



5. Separate hood stay (hood side) (LH/RH) from ball stud.
6. Remove hood hinge to hood nuts (A) (LH/RH) and hood.
NOTE:
RH side shown; LH similar.



INSTALLATION

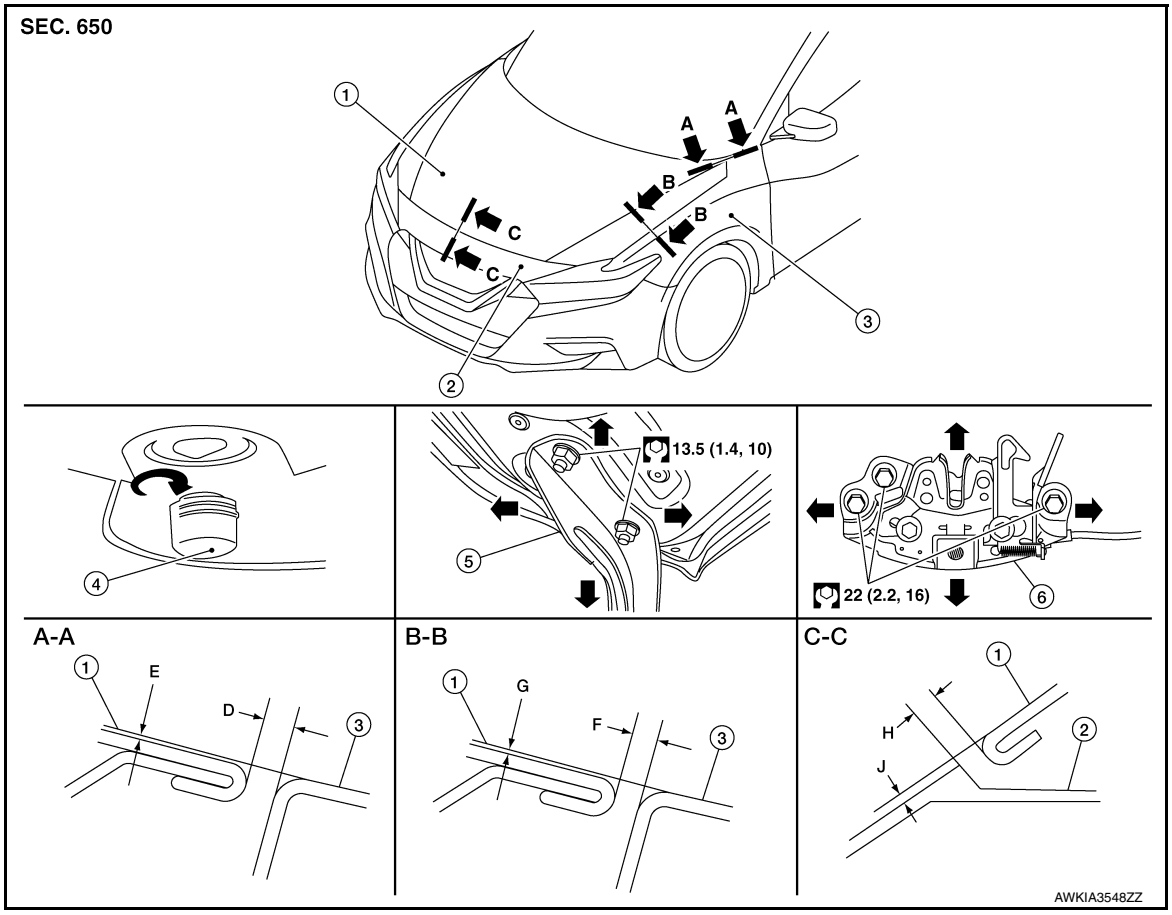
Installation is in the reverse order of removal.

CAUTION:

- **Before installing hood hinge, apply anticorrosive agent onto surface of vehicle.**
- **After installation, perform hood adjustment procedure. Refer to DLK-160, "HOOD ASSEMBLY : Adjustment".**

HOOD ASSEMBLY : Adjustment

INFOID:0000000011935499



1. Hood
2. Front fascia
3. Front fender
4. Bumper rubber
5. Hood hinge
6. Hood lock

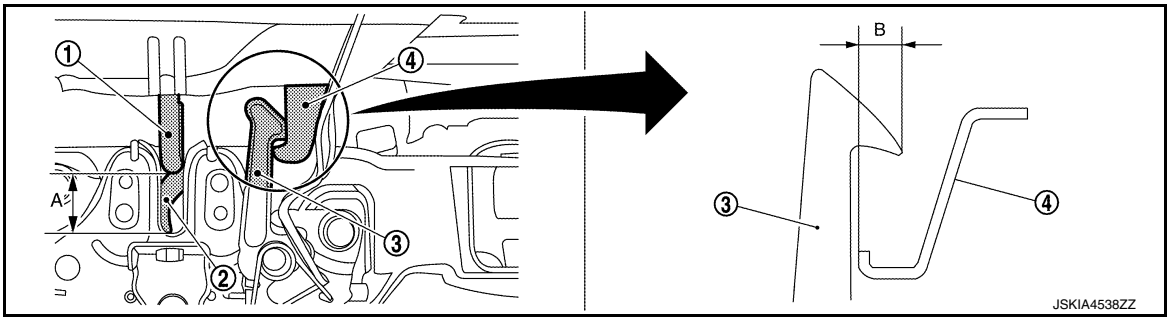
Check clearance and surface height between hood and each part by visual inspection and tactile feel.
If clearance and surface height are out of specification, adjust them according to adjustment procedures.

Unit: mm (in)

Portion	Section	Item	Measurement	Standard
Hood - Fender	A - A	D	Clearance	4.1 (0.16)
		E	Surface height	0.0 (0.00)
Hood - Fender	B - B	F	Clearance	3.5 (0.14)
		G	Surface Height	1.0 (0.04)
Hood - Front fascia	C - C	H	Clearance	4.1 (0.16)
		J	Surface Height	1.0 (0.04)

HEIGHT ADJUSTMENT

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



1.	Primary striker	2.	Primary latch	3.	Secondary latch
4.	Secondary striker	A.	21± 1 mm (0.83 ± 0.04 in)	B.	6.8 mm (0.27 in)

5. After adjustment, tighten hood hinge nuts and bolts to specified torque.
   CAUTION:
   - **Check hood hinge rotating part for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
   - **After adjusting, apply touch-up paint (body color) to heads of hood hinge bolts and nuts.**

CLEARANCE ADJUSTMENT

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

HOOD HINGE

HOOD HINGE : Removal and Installation

INFOID:0000000012250375

REMOVAL

1. Remove hood. Refer to DLK-158, "HOOD ASSEMBLY : Removal and Installation".
2. Remove hood hinge bolts, and then remove hood hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Before installing hood hinge, apply anticorrosive agent onto surface of vehicle.**
- **After installation, perform hood adjustment procedure. Refer to DLK-160, "HOOD ASSEMBLY : Adjustment".**

HOOD STAY

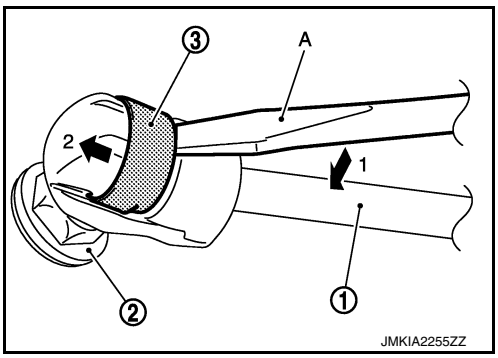
HOOD STAY : Removal and Installation

INFOID:0000000012250376

REMOVAL

1. Support hood using a suitable tool.
   WARNING:
   Bodily injury may occur if hood is not supported properly when removing hood stay.

2. Remove metal clip (3) located on connection between hood stay (1) and stud ball (2) by using a suitable tool (A) to release clip to side and then toward front.



3. Separate hood stay from stud ball (hood side).
4. Separate hood stay from stud ball (body side) then remove hood stay.

INSTALLATION

Installation is in the reverse order of removal.

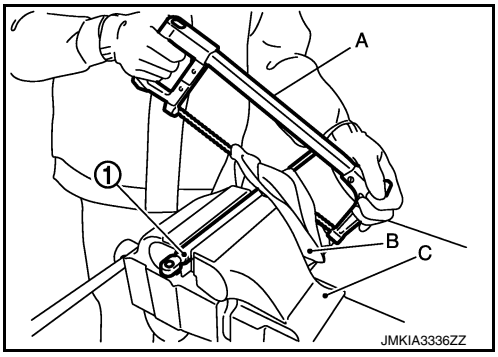
HOOD STAY : Disposal

INFOID:0000000012250377

1. Fix hood stay (1) using a vise (C).
2. Using a hacksaw (A), slowly make two holes in hood stay (1) in numerical order as shown in figure.

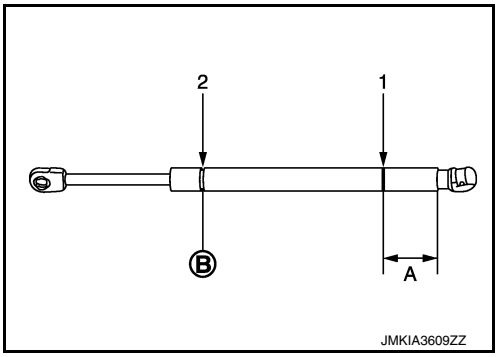
CAUTION:

- **When cutting a hole in hood stay (1), always cover hacksaw (A) with a shop cloth (B) to avoid scattering metal fragments or oil.**
- **Wear eye protection (safety glasses).**
- **Wear gloves.**



A: 20 mm (0.79 in)

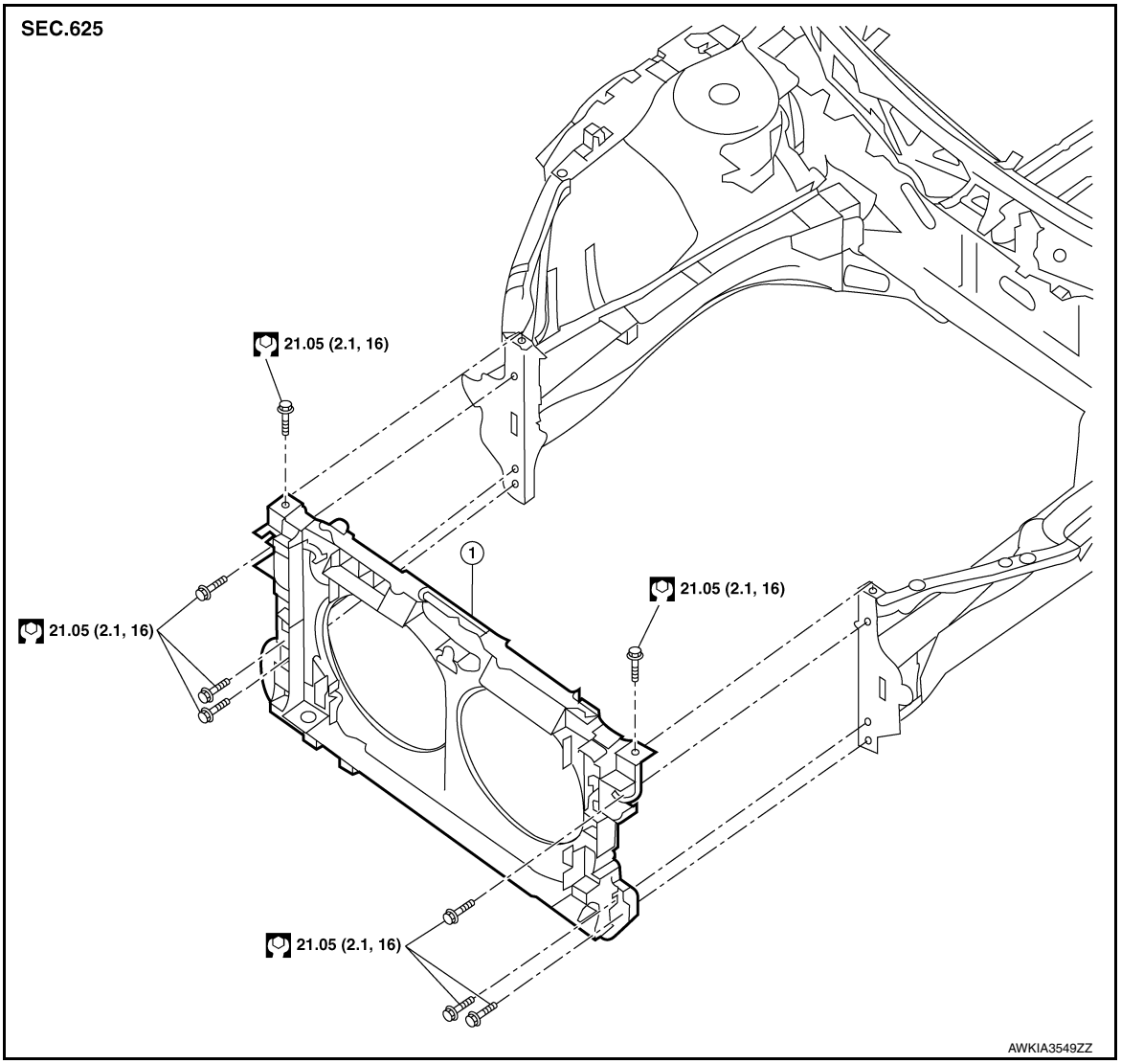
B: Cut at groove.



RADIATOR CORE SUPPORT

Exploded View

INFOID:0000000011935504



1. Radiator core support

Removal and Installation

INFOID:0000000011935505

REMOVAL

1. Remove crash zone sensor. Refer to SR-25, "Removal and Installation".
2. Remove the radiator. Refer to CO-14, "Removal and Installation".
3. Remove the hood lock. Refer to DLK-176, "HOOD LOCK : Removal and Installation".
4. Remove and disconnect all remaining harness connectors and clips from radiator core support and position aside.
5. Remove air guides (LH/RH).
6. Remove the bolts and the radiator core support.
7. If necessary, remove the radiator cooling fans. Refer to CO-16, "Removal and Installation".

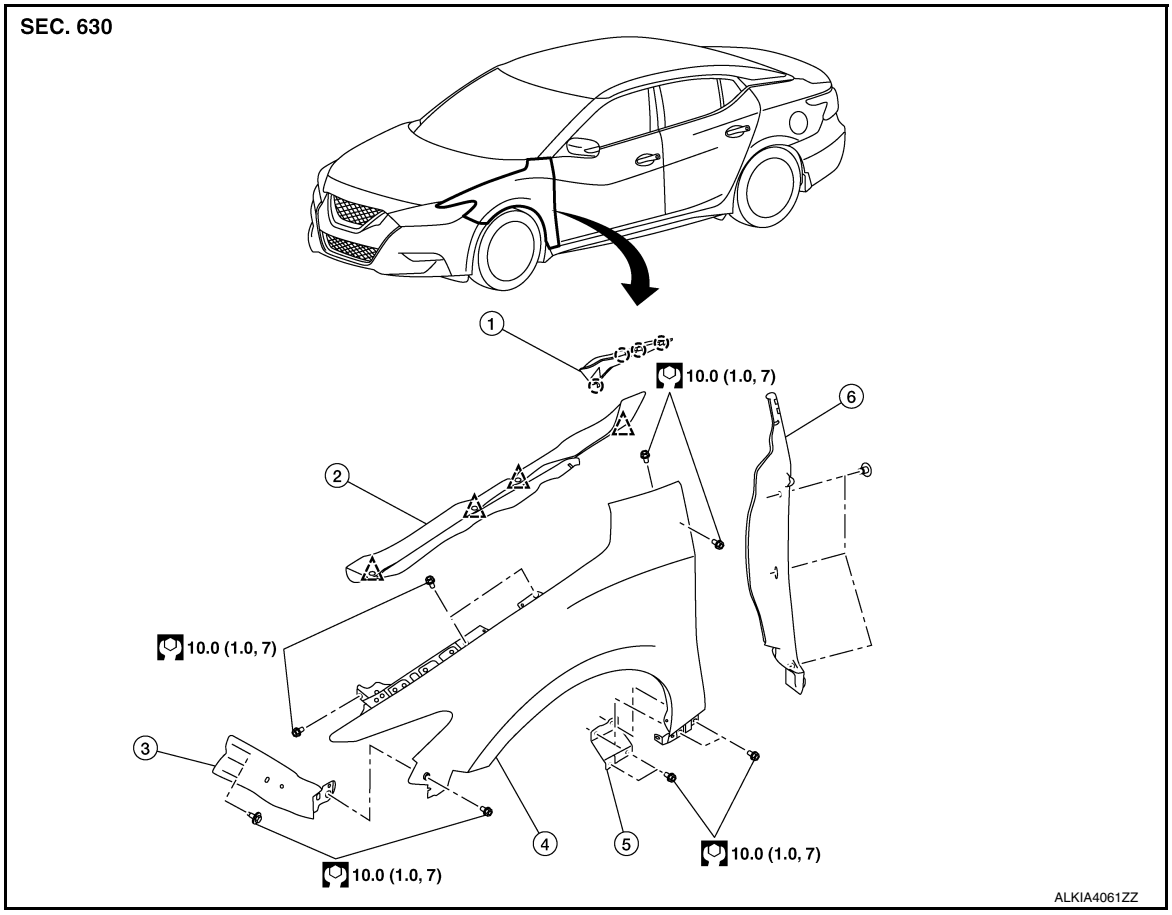
INSTALLATION

Installation is in the reverse order of removal.

FRONT FENDER

Exploded View

INFOID:0000000011935506



1. Cowl top side trim cover	2. Hood ledge cover	3. Front fender front bracket
4. Front fender	5. Front fender rear bracket	6. Front fender baffle
Pawl	Clip	

Removal and Installation

INFOID:0000000011935507

CAUTION:
Use shop cloth to protect body from being damaged during removal and installation.

REMOVAL

1. Remove front combination lamp. Refer to EXL-226, "Removal and Installation" (HALOGEN HEADLAMP) or EXL-108, "Removal and Installation" (LED HEADLAMP).
2. Using suitable tool remove clips then hood ledge finisher.
3. Remove cowl top side trim cover.
4. Partially remove center mud guard. Refer to EXT-31, "CENTER MUD GUARD : Exploded View".
5. Remove bolts and front fender.
6. If necessary, remove front fender baffle.
7. If necessary, remove front fender front bracket.
8. If necessary, remove front fender rear bracket.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

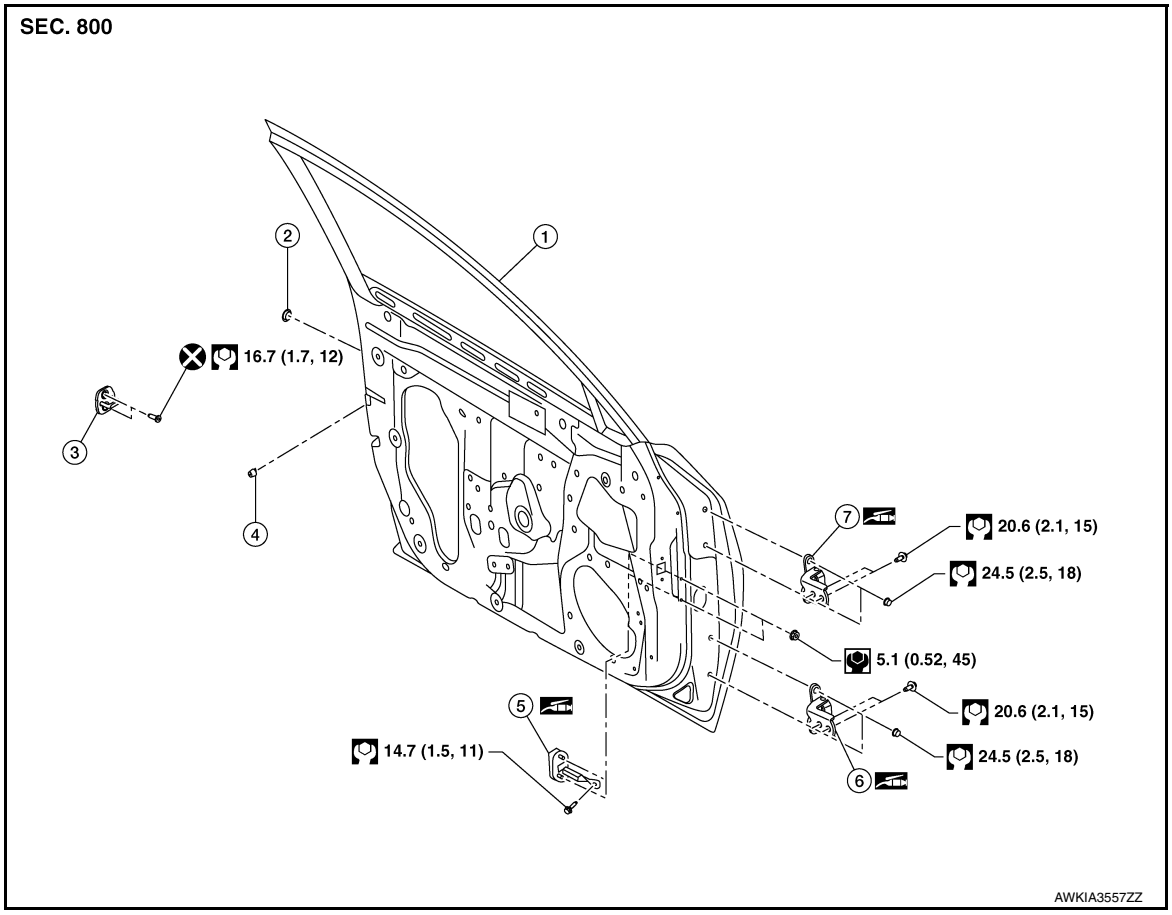
- **After installation apply touch up paint (body color) to the head of front fender bolts.**
- **After installation, adjust the following components as necessary:**

- Hood: Refer to DLK-160, "HOOD ASSEMBLY : Adjustment".
- Front door: Refer to DLK-167, "DOOR ASSEMBLY : Adjustment".

FRONT DOOR

Exploded View

INFOID:0000000011935509



1. Front door
2. Grommet
3. Door striker
4. Bumper rubber
5. Check link
6. Door hinge lower
7. Door hinge upper

DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

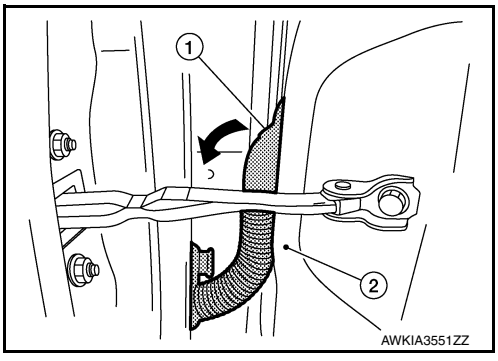
INFOID:0000000011935510

CAUTION:

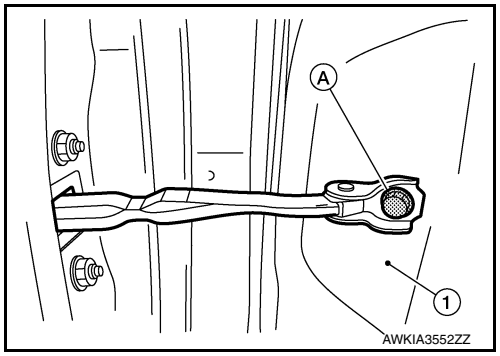
- **Use two people when removing or installing the front door due to its heavy weight.**
- **When removing and installing front door, support front door with a suitable tool.**

REMOVAL

1. Remove front door harness grommet (1), and then pull out the harness (Body side) (2).



2. Disconnect front door harness connector.
3. Remove door check link bolt (A) (Body side) (1).



4. Remove front door hinge nuts and remove front door.

INSTALLATION

Installation is in the reverse order of removal.

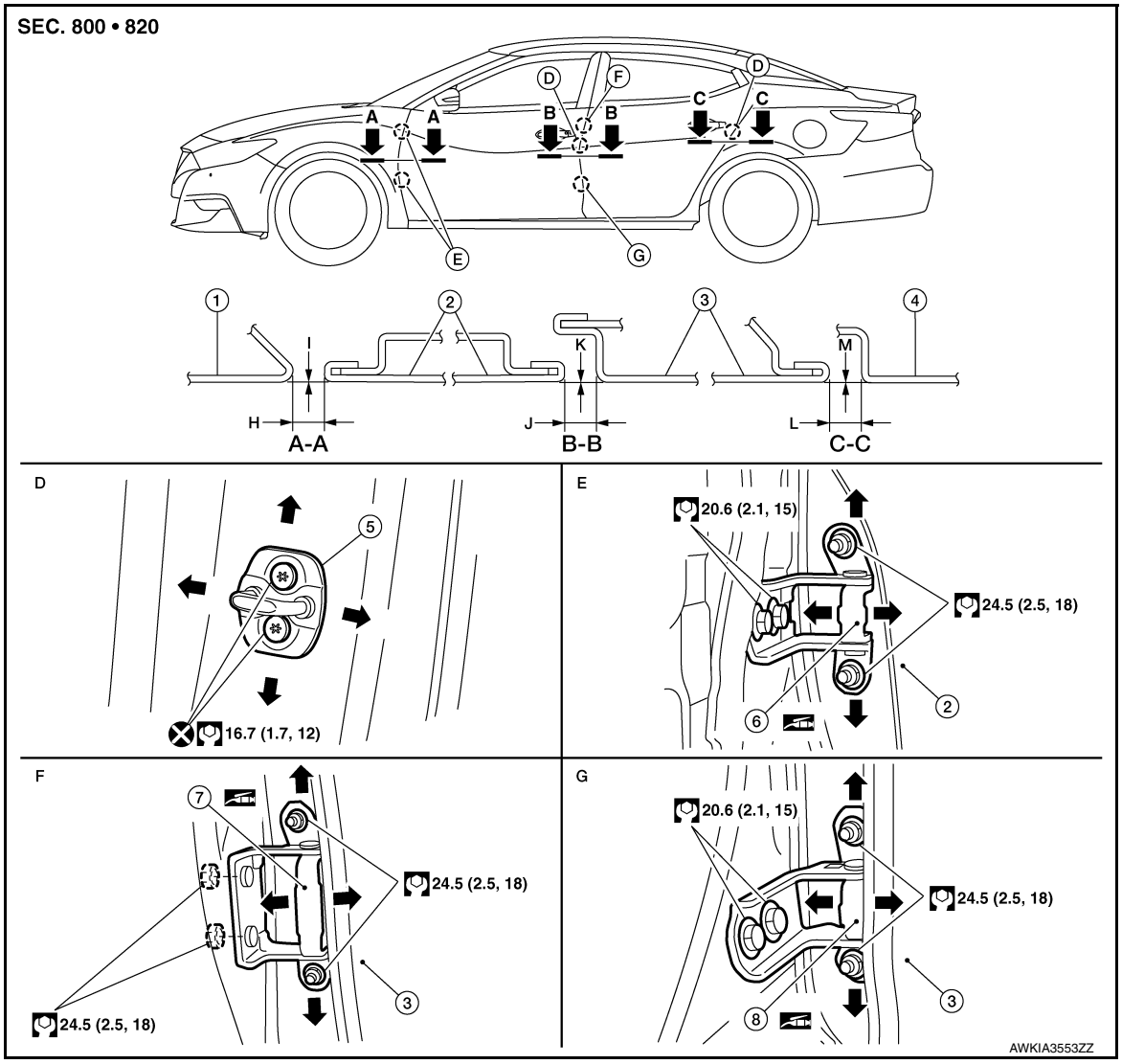
CAUTION:

- **Apply anticorrosive agent where necessary.**
- **After installation, check front door open/close and lock/unlock operation.**
- **After installation, perform the front door adjustment procedure. Refer to DLK-167, "DOOR ASSEMBLY : Adjustment".**
- **Perform camera image calibration (with around view monitor). Refer to AV-239, "Description".**

DOOR ASSEMBLY : Adjustment

INFOID:0000000011935511

Adjustment



1. Front fender
2. Front door
3. Rear door
4. Body side outer
5. Door striker
6. Front door hinge
7. Rear door upper hinge
8. Rear door lower hinge

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

Unit: mm [in]

Portion				Standard
Front fender – Front door	A–A	H	Clearance	3.6 ± 1.0 (0.14 ± 0.04)
		I	Surface height	0 +0 -1.0 (0 +0 - 0.04)
Front door – Rear door	B–B	J	Clearance	3.95 ± 1.0 (0.16 ± 0.04)
		K	Surface height	0 ± 1.0 (± 0.04)
Rear door – Body side outer	C–C	L	Clearance	3.6 ± 1.0 (0.17 ± 0.04)
		M	Surface height	0 ± 1.0 (± 0.04)

1. Loosen door hinge nuts.
2. Adjust surface height of front door according to specifications provided.
3. Temporarily tighten door hinge nuts.
4. Loosen door hinge bolts.

5. Raise front door at rear end to adjust clearance of front door according to specifications provided.
6. After adjustment, tighten bolts and nuts to specified torque.

CAUTION:
- **Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After adjusting, apply touch-up paint if the paint peeled during procedure.**

DOOR STRIKER

DOOR STRIKER : Removal and Installation

INFOID:0000000012251770

REMOVAL

Remove bolts and front door striker.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
- **Do not reuse front door striker bolts.**
- **After installation, check front door open/close operation. If necessary, adjust front door striker. Refer to DLK-169, "DOOR STRIKER : Adjustment".**

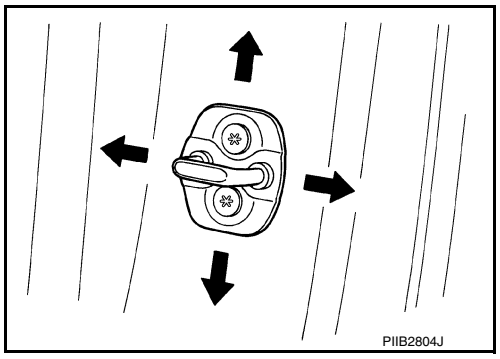
DOOR STRIKER : Adjustment

INFOID:0000000012251771

DOOR STRIKER ADJUSTMENT

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

CAUTION:
Tighten bolts to specified Torque. Refer to DLK-166, "Exploded View".



DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:0000000012251772

REMOVAL

1. Remove front door. Refer to DLK-166, "DOOR ASSEMBLY : Removal and Installation".
2. Remove front fender baffle. Refer to DLK-164, "Exploded View".
3. Remove front door hinge bolts (body side) and front door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
- **Apply anticorrosive agent to hinge mating surface.**
- **After installation, check front door open/close and lock/unlock operation.**
- **Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
- **After installation, perform front door adjustment procedure. Refer to DLK-167, "DOOR ASSEMBLY : Adjustment".**

DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012251773

REMOVAL

1. Fully close front door window.
2. Remove front door speaker. Refer to AV-190, "Removal and Installation" [MULTI AV (NAVIGATION)].
3. Remove door check link bolt (body side).
4. Remove door check link nuts (door side).
5. Remove door check link through hole in door.

INSTALLATION

Installation is in the reverse order of removal.

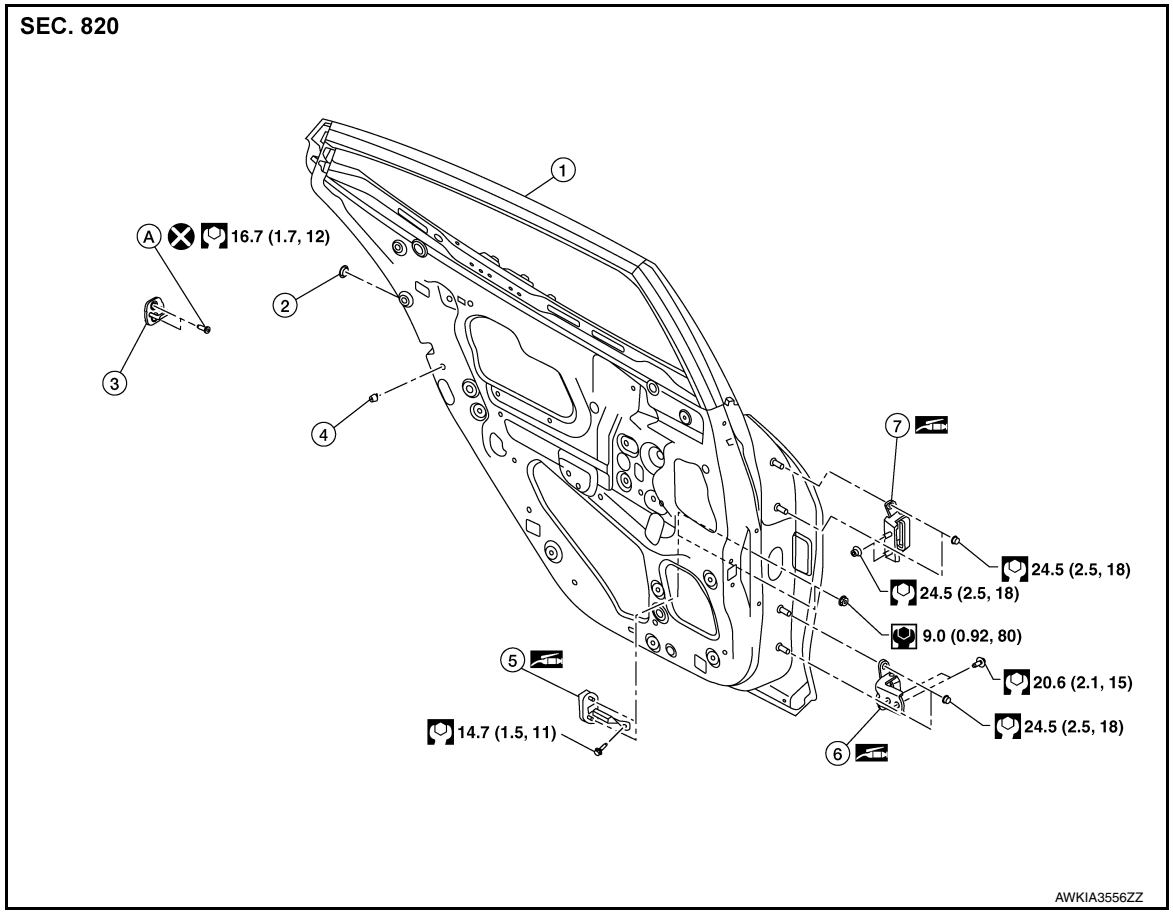
CAUTION:

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

REAR DOOR

Exploded View

INFOID:0000000011935512



1. Rear door
2. Grommet
3. Door striker
4. Bumper rubber
5. Rear door check link
6. Rear door lower hinge
7. Rear door upper hinge
A. Rear door striker bolt

DOOR ASSEMBLY

DOOR ASSEMBLY : Removal and Installation

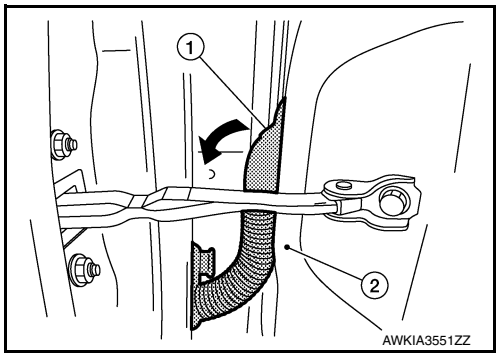
INFOID:0000000011935513

CAUTION:

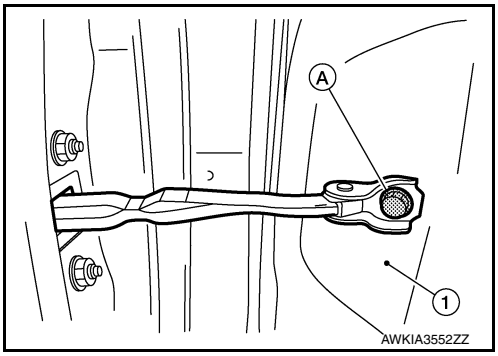
- **Use two people when removing or installing the rear door due to its heavy weight.**
- **When removing and installing rear door, support rear door with a suitable tool.**

REMOVAL

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



2. Disconnect rear door harness connector.
3. Remove door check link bolt (A) (body side) (1).



4. Remove rear door hinge nuts (door side) and remove rear door.

INSTALLATION

Installation is in the reverse order of removal.

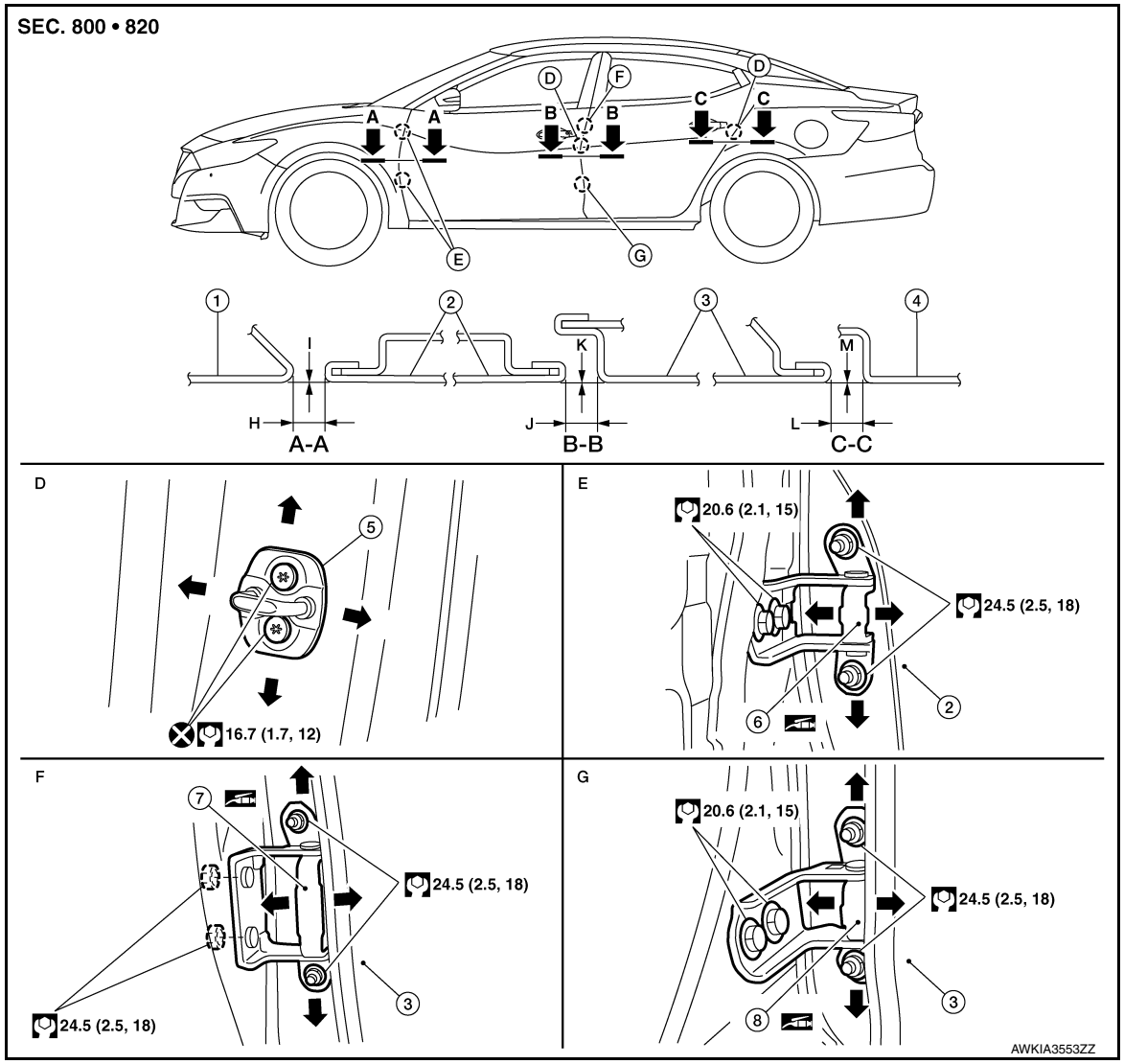
CAUTION:

- **Apply anticorrosive agent where necessary.**
- **After installation, check rear door open/close and lock/unlock operation.**
- **After installation, perform the rear door adjustment procedure. Refer to DLK-172, "DOOR ASSEMBLY : Adjustment".**

DOOR ASSEMBLY : Adjustment

INFOID:0000000011935514

Adjustment



1. Front fender
2. Front door
3. Rear door
4. Body side outer
5. Door striker
6. Front door hinge
7. Rear door upper hinge
8. Rear door lower hinge

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

Unit: mm [in]

Portion				Standard
Front fender – Front door	A–A	H	Clearance	3.6 ± 1.0 (0.14 ± 0.04)
		I	Surface height	0 +0 -1.0 (0 +0 - 0.04)
Front door – Rear door	B–B	J	Clearance	3.95 ± 1.0 (0.16 ± 0.04)
		K	Surface height	0 ± 1.0 (± 0.04)
Rear door – Body side outer	C–C	L	Clearance	3.6 ± 1.0 (0.17 ± 0.04)
		M	Surface height	0 ± 1.0 (± 0.04)

1. Remove center pillar lower finisher. Refer to INT-36, "CENTER PILLAR LOWER FINISHER : Removal and Installation".
2. Loosen door hinge nuts on door side.
3. Adjust surface height of rear door according to specifications provided.
4. Temporarily tighten door hinge nuts on door side.

5. Loosen door hinge bolts on body side.
6. Raise rear door at rear end to adjust clearance of rear door according to specifications provided.
7. After adjustment, tighten bolts and nuts to specified torque.
   CAUTION:
   - **Check door hinge rotating point for poor lubrication. If necessary, apply a suitable multi-purpose grease.**
   - **After adjusting, apply touch-up paint if the paint peeled during procedure.**
8. Install center pillar lower finisher. Refer to INT-36, "CENTER PILLAR LOWER FINISHER : Removal and Installation"

DOOR STRIKER

DOOR STRIKER : Removal and Installation

INFOID:0000000012251774

REMOVAL

Remove bolts and rear door striker.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

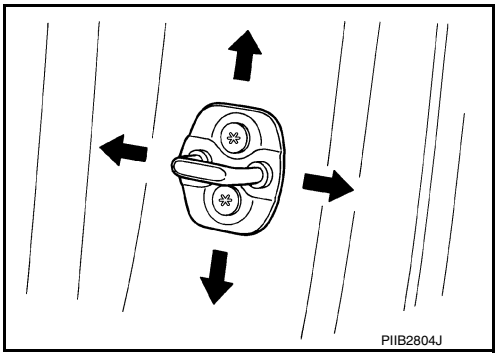
- **Do not reuse rear door striker bolts.**
- **After installation, check rear door open/close operation. If necessary, adjust door striker. Refer to DLK-174, "DOOR STRIKER : Adjustment".**

DOOR STRIKER : Adjustment

INFOID:0000000012251775

DOOR STRIKER ADJUSTMENT

1. Loosen door striker bolts.
2. Adjust door striker so that it becomes parallel with front door lock insertion direction.
   CAUTION:
   Tighten bolts to specified torque. Refer to DLK-171, "Exploded View".



DOOR HINGE

DOOR HINGE : Removal and Installation

INFOID:0000000012251776

REMOVAL

1. Remove rear door. Refer to DLK-171, "DOOR ASSEMBLY : Removal and Installation".
2. Remove center pillar lower finisher (rear door upper hinge only). Refer to INT-36, "CENTER PILLAR LOWER FINISHER : Removal and Installation".
3. Remove rear door hinge bolts and nuts and rear door hinge.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Apply anticorrosive agent onto hinge mating surface.**
- **After installation, check rear door open/close and lock/unlock operation.**
- **After installation, perform rear door adjustment procedure. Refer to DLK-172, "DOOR ASSEMBLY : Adjustment".**

DOOR CHECK LINK

DOOR CHECK LINK : Removal and Installation

INFOID:0000000012251777

REMOVAL

1. Fully close rear door window.
2. Remove rear door speaker. Refer to AV-191, "Removal and Installation" [MULTI AV (NAVIGATION)].
3. Remove rear door check link bolt (body side).
4. Remove rear door check link nuts (door side).
5. Remove rear door check link through hole in rear door.

INSTALLATION

Installation is in the reverse order of removal.

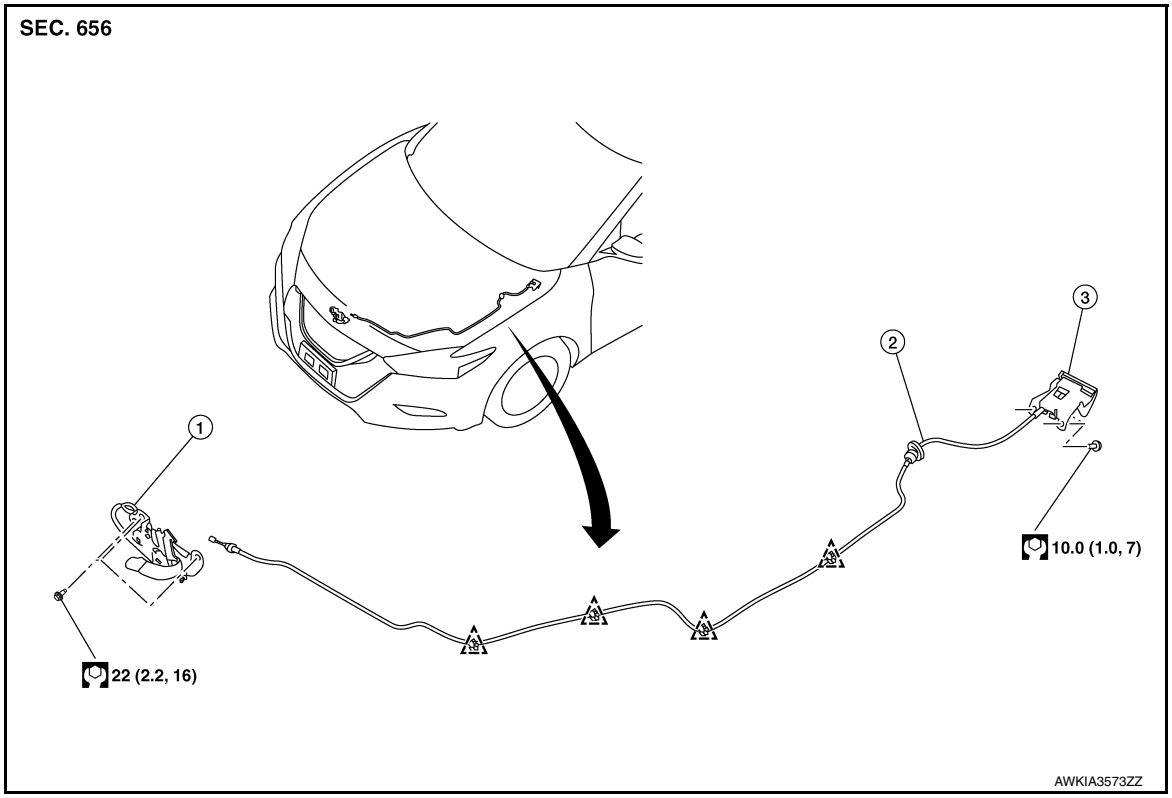
CAUTION:

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

HOOD LOCK

Exploded View

INFOID:0000000011935500



1. Hood lock
2. Hood lock release cable
3. Hood lock release handle

Clip

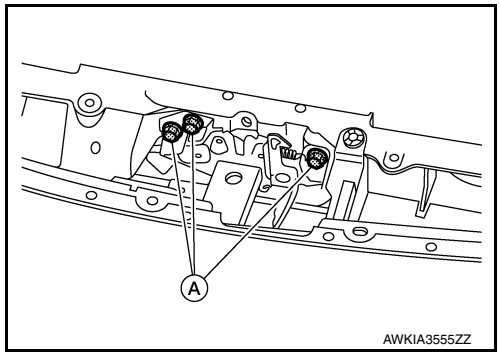
HOOD LOCK

HOOD LOCK : Removal and Installation

INFOID:0000000011935501

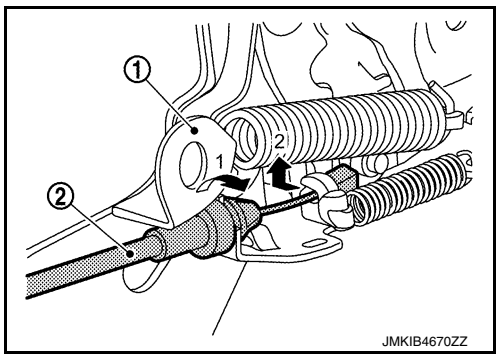
REMOVAL

1. Remove front bumper.Refer to EXT-17, "Removal and Installation"
2. Remove front air duct. Refer to EM-26, "Removal and Installation"
3. Remove bolts (A) and hood lock.



4. Disconnect harness connector from hood lock.

5. Separate hood lock release cable (2) from hood lock (1) in the sequence shown.



6. Remove hood lock.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Check that hood lock release cable and secondary latch cable are properly engaged with hood lock.**
- **After installation, perform hood assembly adjustment procedure. Refer to DLK-160, "HOOD ASSEMBLY : Adjustment".**
- **After adjusting, perform hood lock inspection. Refer to DLK-177, "HOOD LOCK : Inspection".**

HOOD LOCK : Inspection

INFOID:0000000012251780

NOTE:

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

1. Check that secondary latch is properly engaged with secondary striker with hood's own weight.
2. While operating hood lock release handle, carefully check that front end of hood is raised by approximately 20.0 mm (0.79 in). Also check that hood lock release handle returns to original position.
3. Check that hood lock release handle operates at 49 N (5.0 kg-m, 11.0 ft-lb) or below.
4. Install so that static closing force of hood is 315-490 N (32.1-50.0 kg–m, 70.8-110.2 ft–lb).
   NOTE:
   - Do not exert vertical force on right side and left side of hood lock.
   - Do not press simultaneously on both sides.
5. Check hood lock lubrication condition. If necessary, apply a suitable multi-purpose grease to hood lock.

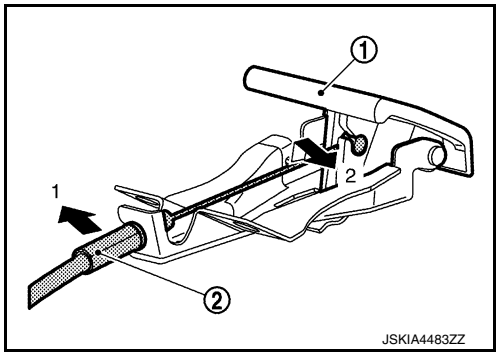
HOOD LOCK RELEASE HANDLE

HOOD LOCK RELEASE HANDLE : Removal and Installation

INFOID:0000000012261579

REMOVAL

1. Remove bolts then hood lock release handle.
2. Separate hood lock release cable (2) from hood release handle (1) in the sequence shown.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform hood lock control inspection. Refer to DLK-177, "HOOD LOCK : Inspection".

HOOD LOCK RELEASE CABLE

HOOD LOCK RELEASE CABLE : Removal and Installation

INFOID:0000000012261580

REMOVAL

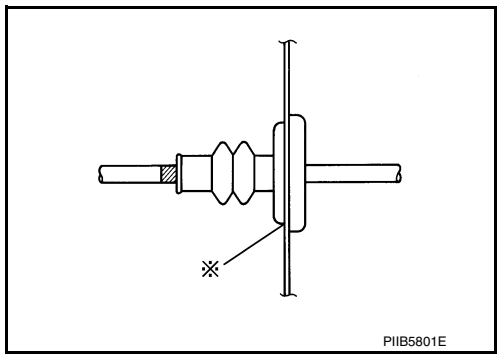
1. Remove front fender protector. Refer to EXT-28, "Removal and Installation".
2. Remove hood lock. Refer to DLK-176, "HOOD LOCK : Removal and Installation".
3. Release hood lock release cable clips using a suitable tool. Refer to DLK-176, "Exploded View".
4. Remove hood lock release handle. Refer to DLK-177, "HOOD LOCK RELEASE HANDLE : Removal and Installation"
5. Remove grommet on the lower dash, and pull the hood lock control cable toward the passenger compartment.
   CAUTION:
   While pulling, be careful not to damage (peel) outside of hood lock release cable.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Be careful not to bend cable too much; keep radius of 100 mm (3.94 in) or more.**
- **Check that cable is not offset from positioning grommet, and apply sealant to grommet (at * mark) properly.**

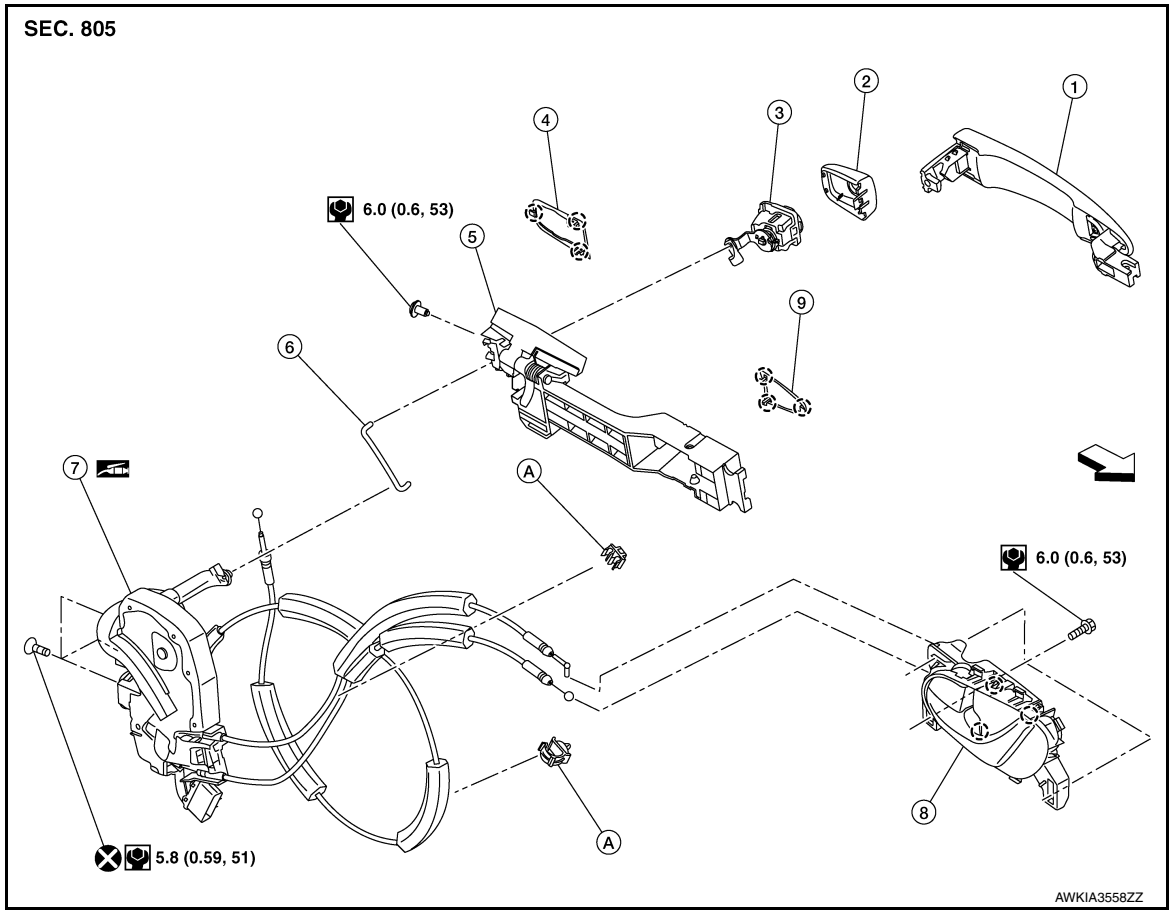


- **Check that hood lock release cable is properly engaged with hood lock.**
- **After installation, perform hood adjustment procedure. Refer to DLK-160, "HOOD ASSEMBLY : Adjustment".**
- **After adjusting, perform hood lock inspection. Refer to DLK-177, "HOOD LOCK : Inspection".**

FRONT DOOR LOCK

Exploded View

INFOID:0000000011935515



1. Outside handle	2. Outside handle escutcheon	3. Door lock cylinder (LH only)
4. Rear gasket	5. Outside handle bracket	6. Door key cylinder rod
7. Front door lock	8. Inside handle	9. Front gasket
A. Cable clip	⇦ Front	Pawl

DOOR LOCK

DOOR LOCK : Removal and Installation

INFOID:0000000011935516

REMOVAL

1. Fully close the front door glass.
2. Remove outside handle. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation".
3. Disconnect harness connector from front door lock.
4. Remove front door lock bolts, then remove front door lock.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Do not reuse front door lock bolts.**
- **After installation, check that door lock cables are properly engaged to inside handle and outside handle bracket.**
- **When installing door key cylinder rod (LH only), be sure to rotate door key cylinder rod holder until a click is felt.**

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

INSIDE HANDLE

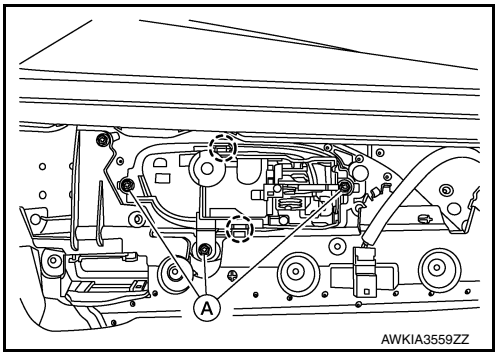
INSIDE HANDLE : Removal and Installation

INFOID:0000000012251784

REMOVAL

1. Remove front door finisher. Refer to INT-27, "Removal and Installation".
2. Remove inside handle screws (A).
3. Release pawls and remove inside door handle.

:Pawl



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

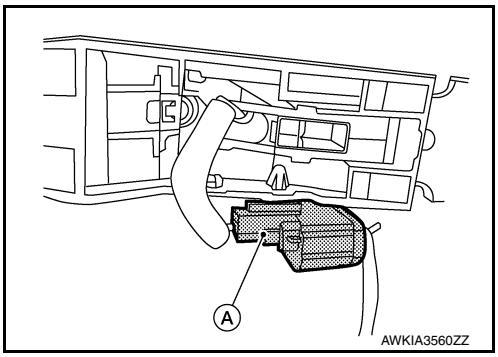
OUTSIDE HANDLE

OUTSIDE HANDLE : Removal and Installation

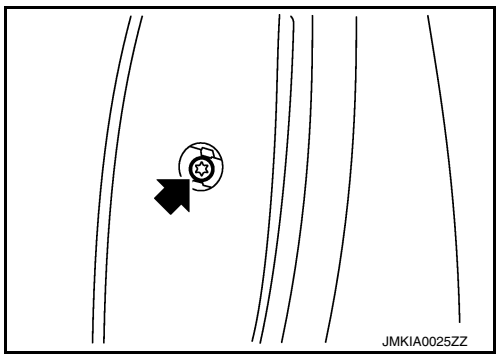
INFOID:0000000012251785

REMOVAL

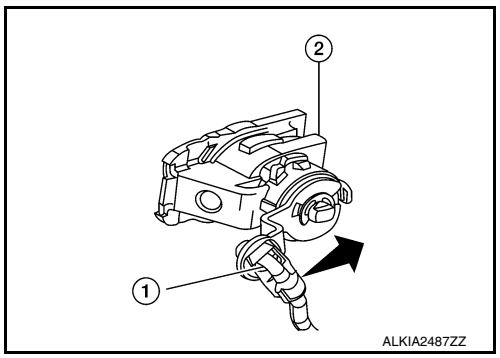
1. Fully close front door glass.
2. Remove front door finisher. Refer to INT-27, "Removal and Installation".
3. Remove front door vapor barrier (rear side).
   CAUTION:
   Use care not to damage or tear vapor barrier during removal.
4. Disconnect the harness connector (A) from the outside door handle.



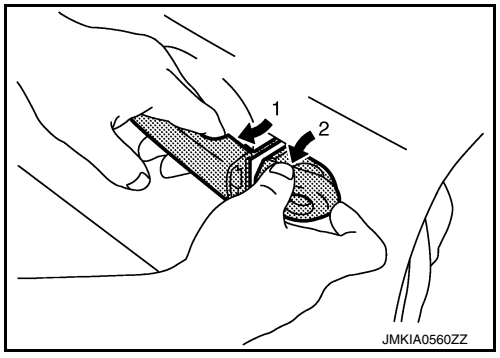
5. Remove grommet and loosen bolt in hole.



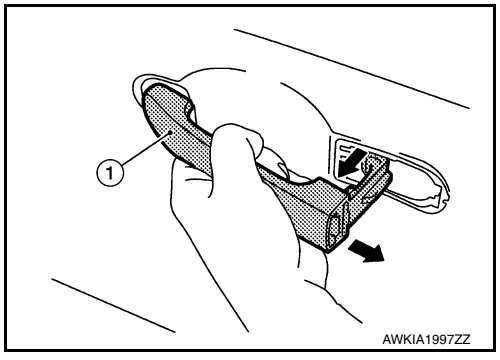
6. Separate door key cylinder rod (1) (LH only) from door key cylinder (2) (LH only).



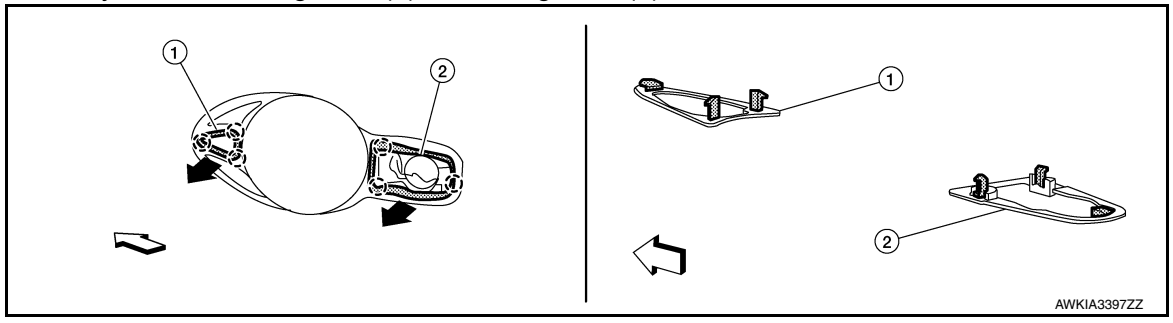
7. While pulling outside handle (1), remove door key cylinder (2) (LH side) or outside handle escutcheon (RH side).



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



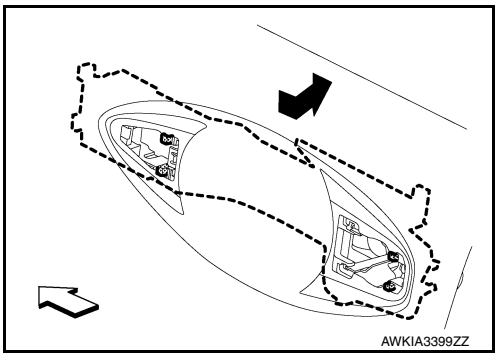
9. If necessary, remove front gasket (1) and rear gasket (2).



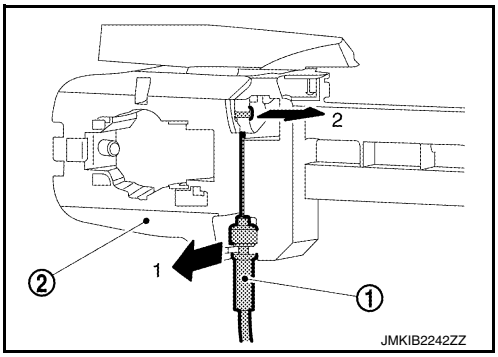
⇦ : Front ◌ : Pawl

10. If necessary, slide outside handle bracket toward rear of vehicle to remove it.

⇦ : Front



11. Disconnect outside handle cable (1) from outside handle bracket (2) in the sequence shown.



INSTALLATION

Installation is in the reverse order of removal.

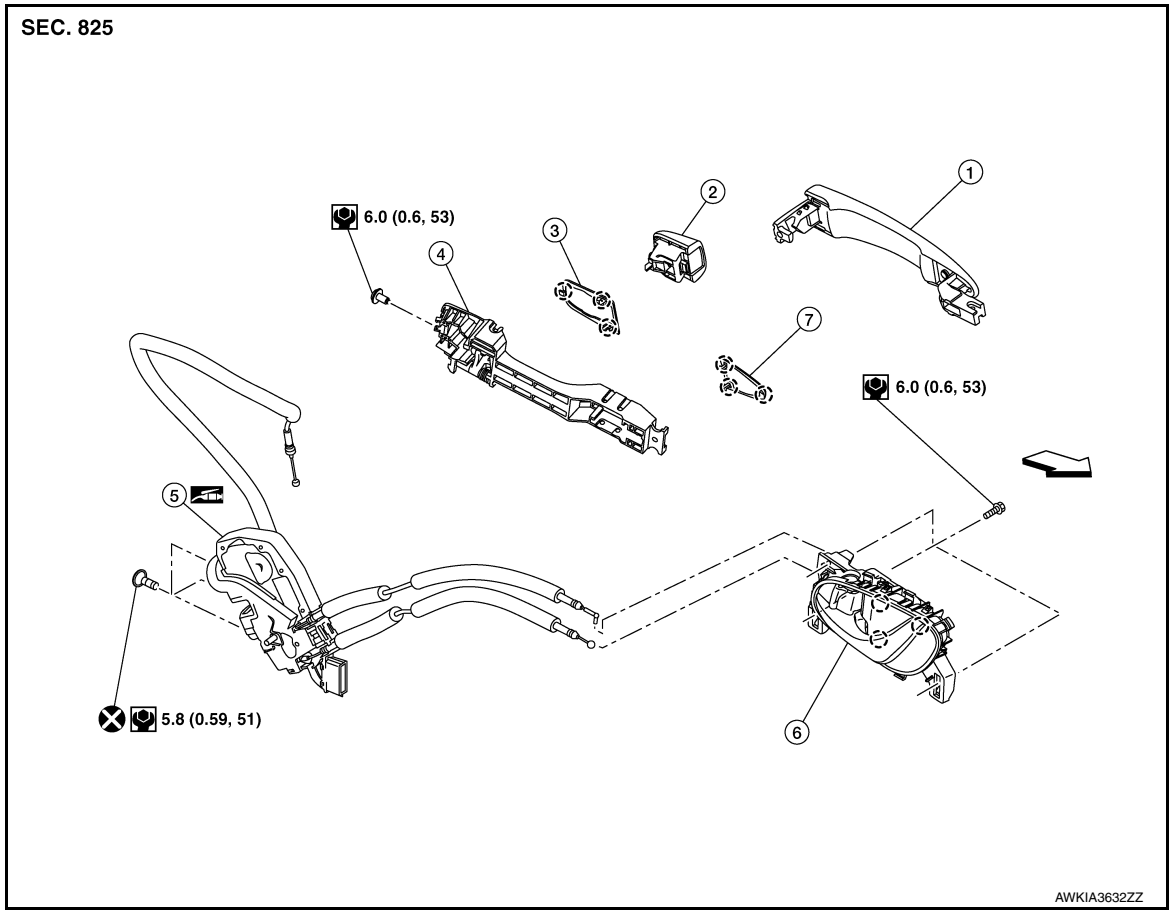
CAUTION:

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

REAR DOOR LOCK

Exploded View

INFOID:0000000011935517



1.	Outside handle	2.	Outside handle escutcheon	3.	Rear gasket
4.	Outside handle bracket	5.	Rear door lock	6.	Inside handle
7.	Front gasket		Pawl		Front

DOOR LOCK

DOOR LOCK : Removal and Installation

INFOID:0000000011935518

REMOVAL

1. Fully close the rear door glass.
2. Remove outside handle. Refer to DLK-184, "OUTSIDE HANDLE : Removal and Installation".
3. Disconnect the harness connector from the rear door lock.
4. Remove rear door lock bolts, then remove rear door lock.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Do not reuse rear door lock bolts.**
- **After installation, check that door lock cables are properly engaged to inside handle and outside handle bracket.**
- **After installation, check door open/close and lock/unlock operation.**
- **Check door lock for poor lubrication. If necessary, apply a suitable multi-purpose grease.**

INSIDE HANDLE

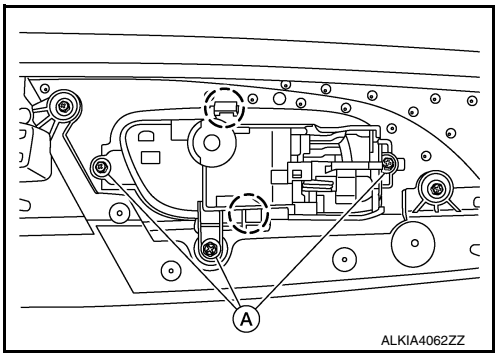
INSIDE HANDLE : Removal and Installation

INFOID:0000000012251786

REMOVAL

1. Remove rear door finisher. Refer to INT-29, "Removal and Installation".
2. Remove inside handle screws (A).
3. Release pawls and remove inside door handle.

:Pawl



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

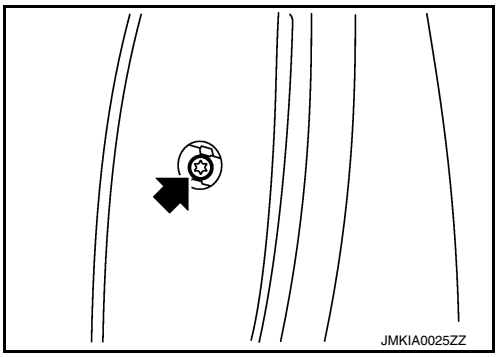
OUTSIDE HANDLE

OUTSIDE HANDLE : Removal and Installation

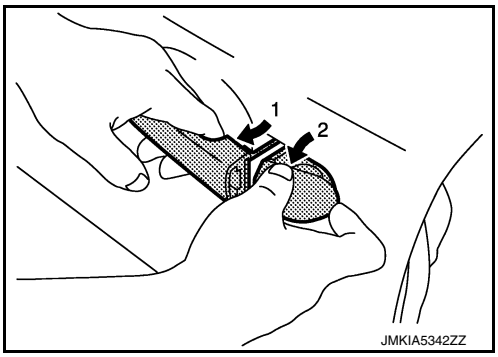
INFOID:0000000012251787

REMOVAL

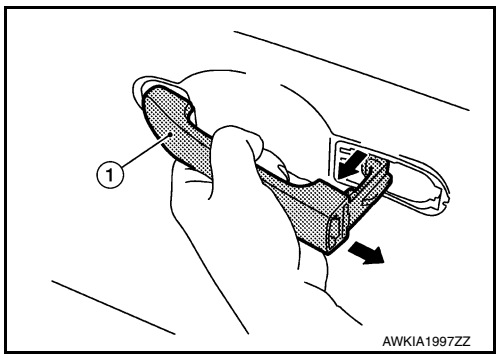
1. Fully close rear door glass.
2. Remove rear door finisher. Refer to INT-29, "Removal and Installation".
3. Partially remove front door vapor barrier (rear side).
   CAUTION:
   Use care not to damage or tear vapor barrier during removal.
4. Remove grommet, and then loosen bolt in grommet hole.



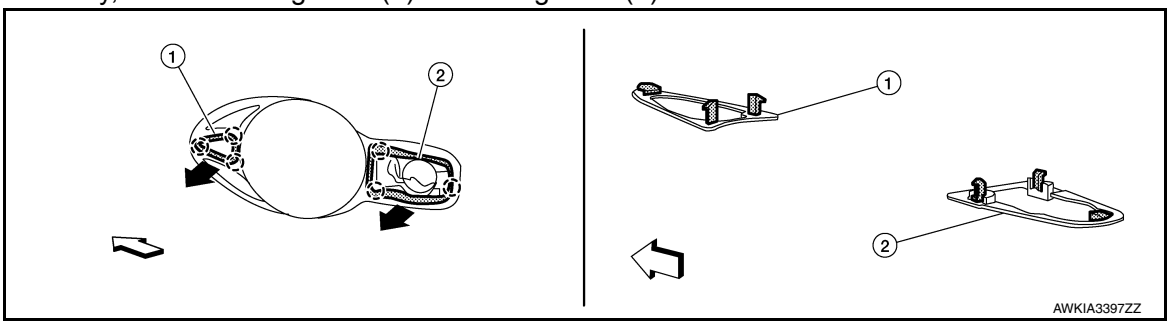
5. While pulling outside handle (1), remove door outside handle escutcheon (2).



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



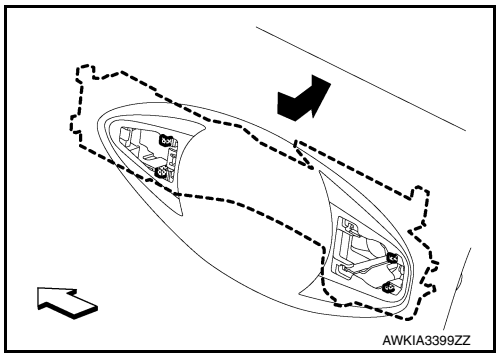
7. If necessary, remove front gasket (1) and rear gasket (2).



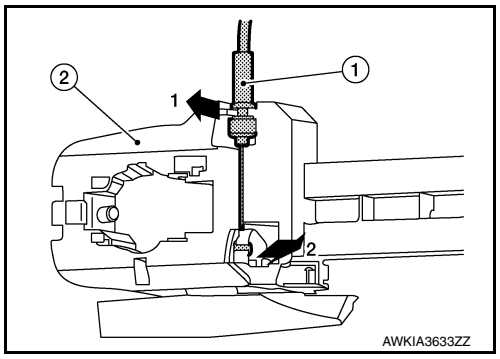
⇦ : Front ◌ : Pawl

8. If necessary, slide outside handle bracket toward rear of vehicle to remove.

⇦ : Front



9. If necessary, disconnect outside handle cable (1) from outside handle bracket (2) in the sequence shown.



INSTALLATION

Installation is in the reverse order of removal.

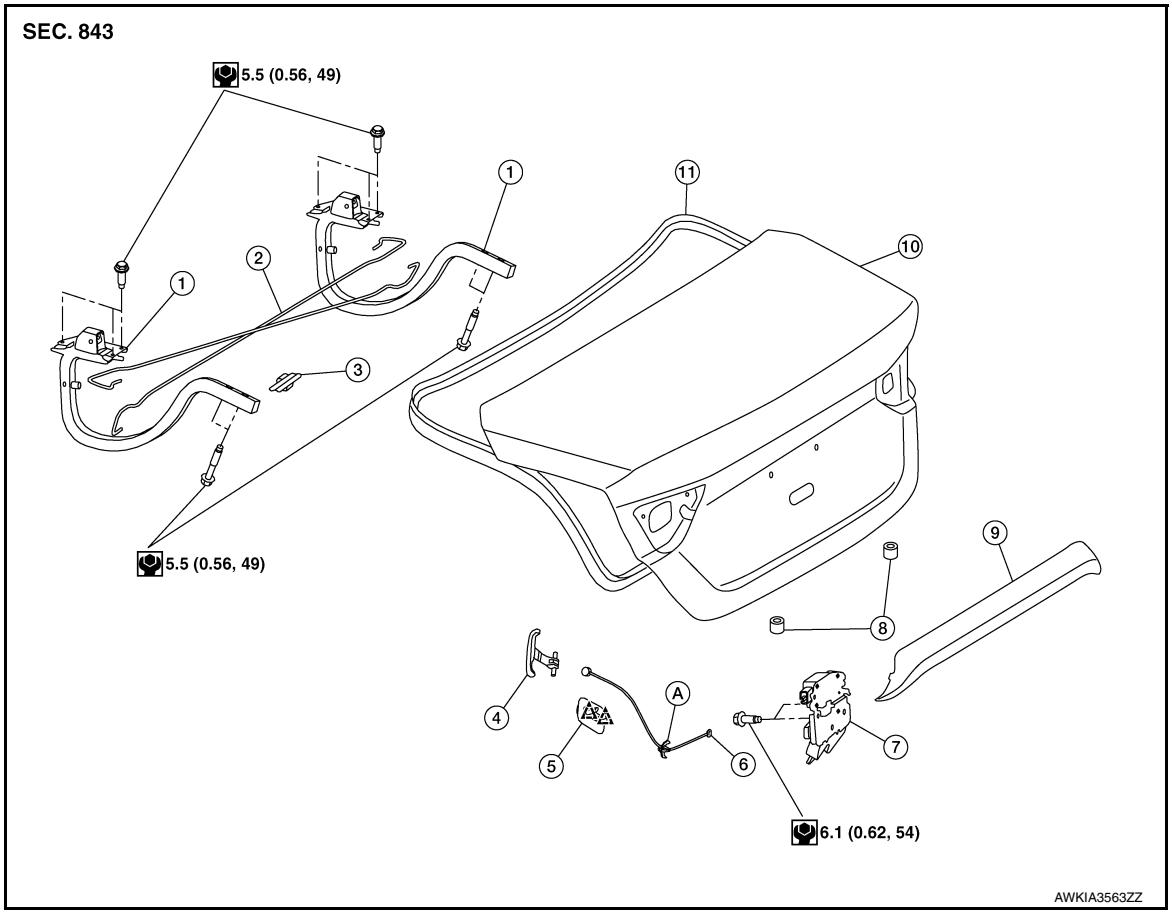
CAUTION:

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

TRUNK LID

Exploded View

INFOID:0000000012262295



1.	Trunk lid hinge (LH/RH)	2.	Torsion bar (LH/RH)	3.	Torsion bar clip
4.	Emergency release lever handle	5.	Emergency release lever clip	6.	Emergency release lever cable
7.	Trunk lamp switch and trunk release solenoid	8.	Trunk lid bumper rubber	9.	License plate finisher
10.	Trunk lid	11.	Trunk lid weather strip		Clips

TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Removal and Installation

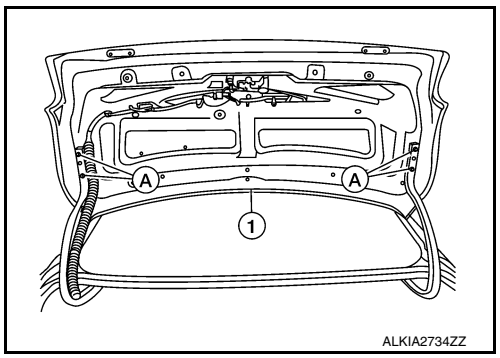
INFOID:0000000011935519

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

REMOVAL

1. Remove trunk lid finisher. Refer to INT-51, "TRUNK LID FINISHER : Removal and Installation".
2. Remove trunk hinge finisher. Refer to INT-54, "TRUNK HINGE FINISHER : Removal and Installation".
3. Remove and disconnect all remaining harness connectors and clips from trunk lid and position aside.

4. Remove the bolts (A) and the trunk lid (1).



INSTALLATION

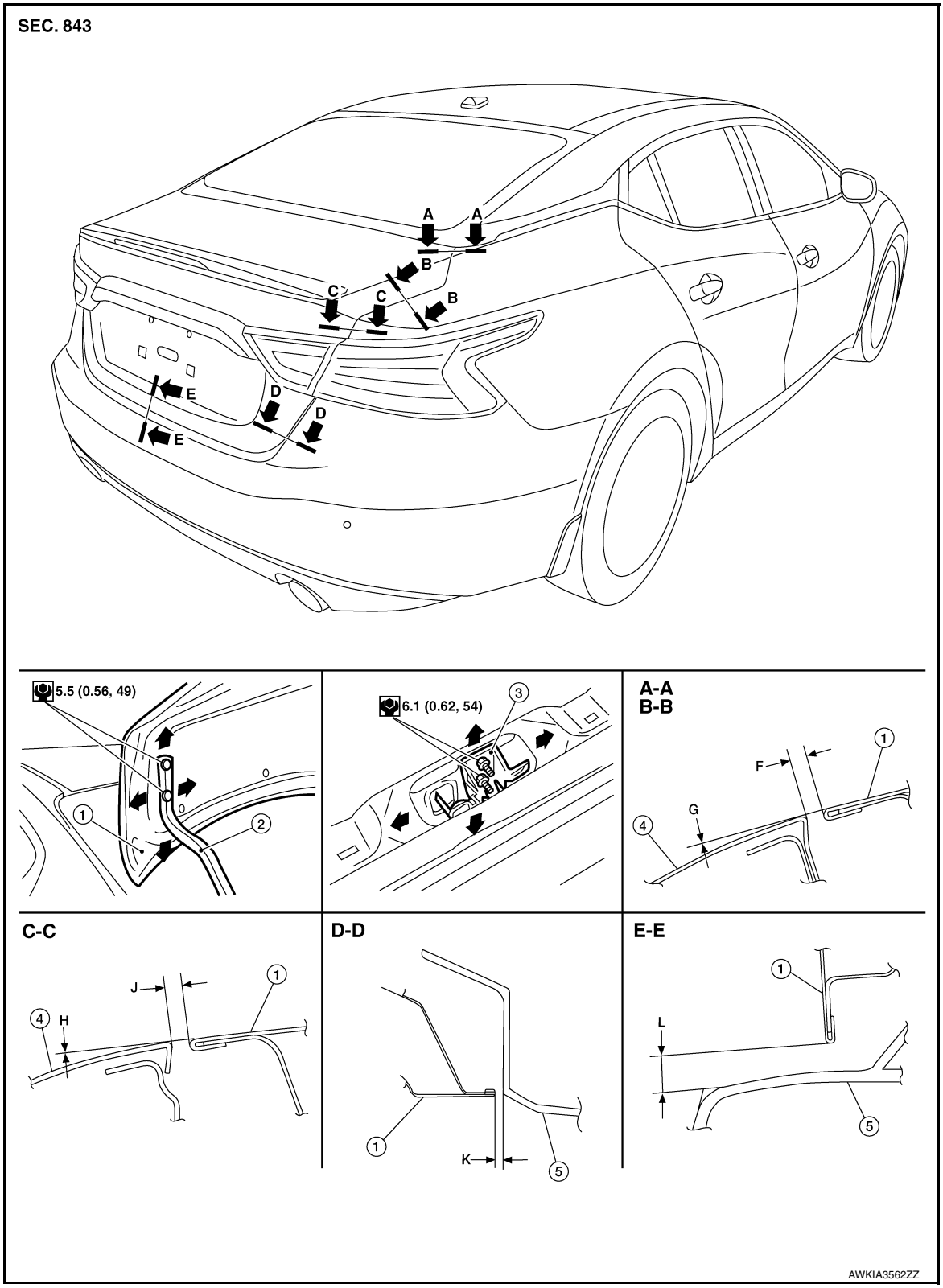
Installation is in the reverse order of removal.

CAUTION:

- **After installation, check trunk lid open/close, lock/unlock operation.**
- **After installation, perform the trunk lid adjustment procedure. Refer to DLK-188, "TRUNK LID ASSEMBLY : Adjustment".**

TRUNK LID ASSEMBLY : Adjustment

INFOID:0000000011935520



1. Trunk lid
2. Trunk lid hinge
3. Trunk lid striker
4. Body side outer
5. Rear bumper fascia

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

Unit: mm (in)

Portion	Section	Item	Measurement	Standard
Trunk lid - Body side outer	A - A B - B	F	Clearance	3.5 ± 1.0 (0.14 ±0.04)
		G	Surface height	0.0 ±1.0 (0.00 ± 0.04)
Trunk lid - Body side outer	C - C	J	Clearance	4.5 ± 1.0 (0.14 ±0.04)
		H	Surface Height	1.0± 1.0 (0.00 ± 0.04)
Trunk lid - Rear bumper fascia	D - D	K	Clearance	4.0 ± 2.0 (0.16 ±)
Trunk lid - Rear bumper fascia	E - E	L	Clearance	7.0 ± 2.0 (0.16 ±)

LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

1. Remove the trunk lid hinge finisher. Refer to INT-54, "TRUNK HINGE FINISHER : Removal and Installation"
2. Loosen the trunk lid to hinge bolts.
3. Move the trunk lid so that the clearance measurements are within specifications provided.
4. Tighten the trunk lid to hinge bolts.
5. Install the trunk lid hinge finisher. Refer to INT-54, "TRUNK HINGE FINISHER : Removal and Installation"

Trunk Lid Hinge Removed From Vehicle

1. Remove the rear parcel shelf finisher. Refer to INT-40, "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-40, "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) then close it lightly. Make sure it engages firmly with the trunk lid closed.
4. Tighten the trunk lid striker.

TRUNK LID HINGE

TRUNK LID HINGE : Removal and Installation

INFOID:0000000012256780

REMOVAL

1. Remove trunk lid. Refer to DLK-186, "TRUNK LID ASSEMBLY : Removal and Installation".
2. Remove trunk upper finisher. Refer to INT-51, "TRUNK LID FINISHER : Removal and Installation".
3. Remove trunk side finisher. Refer to INT-52, "TRUNK SIDE FINISHER : Removal and Installation".
4. Remove torsion bar. Refer to DLK-191, "TORSION BAR : Removal and Installation".
5. Remove rear parcel shelf finisher. Refer to INT-40, "Removal and Installation".
6. Remove trunk lid hinge bolts (body side) and then trunk lid hinge.

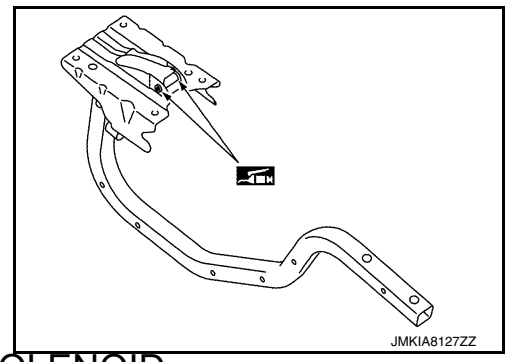
INSTALLATION

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 adjustment procedure. Refer to DLK-188, "TRUNK LID ASSEMBLY : Adjustment".**

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


JMKIA8127ZZ

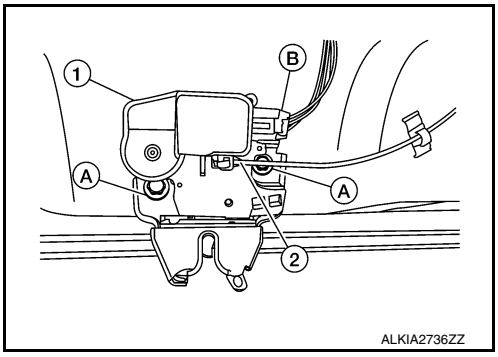
TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID

TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID : Removal and Installation

INFOID:0000000012257332

REMOVAL

1. Remove the trunk lid finisher. Refer to INT-51, "TRUNK LID FINISHER : Removal and Installation".
2. Remove the trunk lamp switch and trunk release solenoid bolts (A).
3. Disconnect the harness connector (B) and emergency release cable (2) from the trunk lamp switch and trunk release solenoid (1) and remove.



ALKIA2736ZZ

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform the trunk lid adjustment procedure. Refer to DLK-188, "TRUNK LID ASSEMBLY : Adjustment".

EMERGENCY LEVER

EMERGENCY LEVER : Removal and Installation

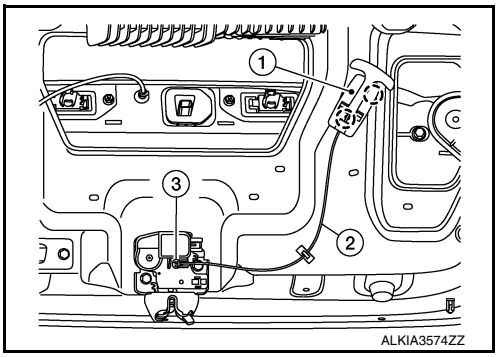
INFOID:0000000012256782

Removal

1. Remove the trunk lid finisher. Refer to INT-51, "TRUNK LID FINISHER : Removal and Installation".
2. Using a suitable tool release the pawls and remove emergency release handle (1) from trunk lid.

: Pawl

3. Disconnect emergency release handle cable (2) from trunk lamp switch and trunk release solenoid (3).



ALKIA3574ZZ

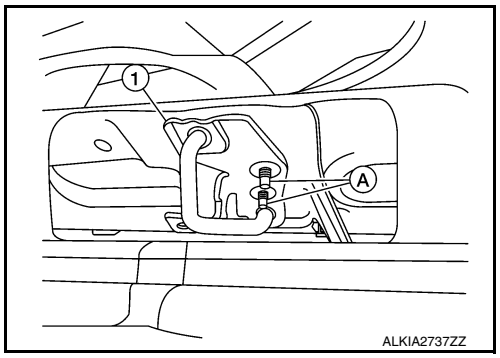
TRUNK LID STRIKER

TRUNK LID STRIKER : Removal and Installation

INFOID:0000000012256783

REMOVAL

1. Remove the trunk rear finisher. Refer to INT-54, "TRUNK REAR FINISHER : Removal and Installation".
2. Remove bolts (A), and striker (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, perform the trunk lid adjustment procedure. Refer to DLK-188, "TRUNK LID ASSEMBLY : Adjustment".

TORSION BAR

TORSION BAR : Removal and Installation

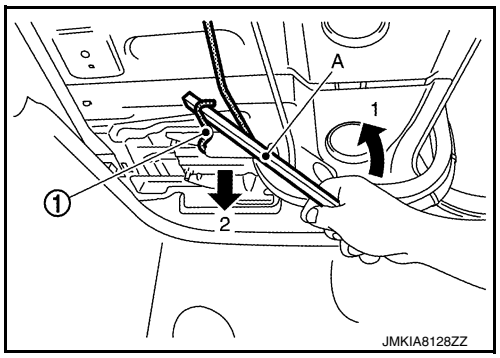
INFOID:0000000012256781

REMOVAL

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

   WARNING:

   Bodily injury may occur if trunk lid is not supported properly when removing trunk lid.
3. Release torsion bar (1) using a suitable tool (A) as shown to remove.



INSTALLATION

Installation is in the reverse order of removal.

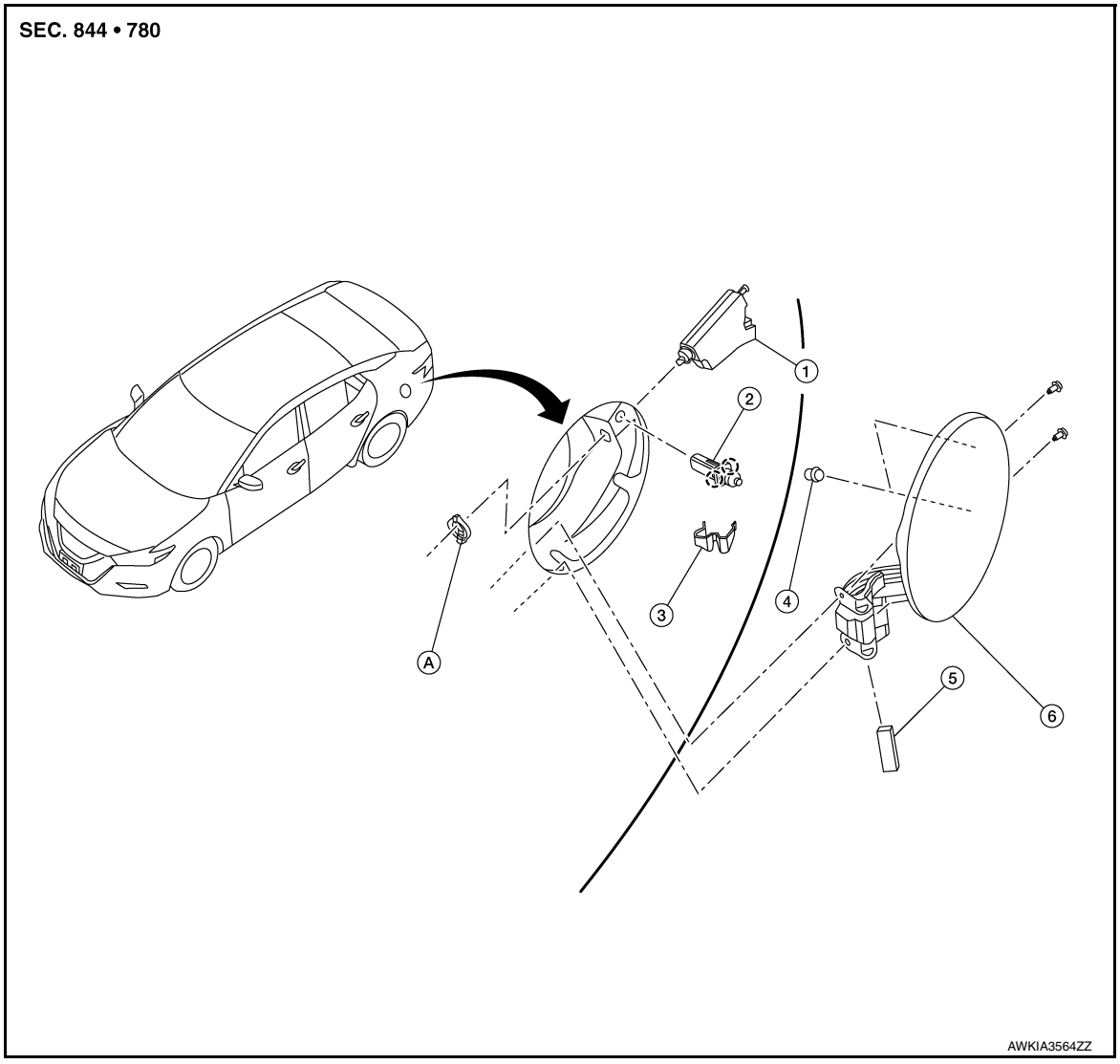
CAUTION:

After installation check the trunk lid open/close, lock/unlock operation.

FUEL FILLER LID OPENER

Exploded View

INFOID:0000000012262610



1. Fuel filler lid lock actuator
2. Fuel filler opener
3. Fuel filler spring
4. Fuel filler lid bumper rubber
5. Fuel filler lid bumper rubber
6. Fuel filler lid
A. Fuel filler lid lock nut
Pawls

FUEL FILLER LID

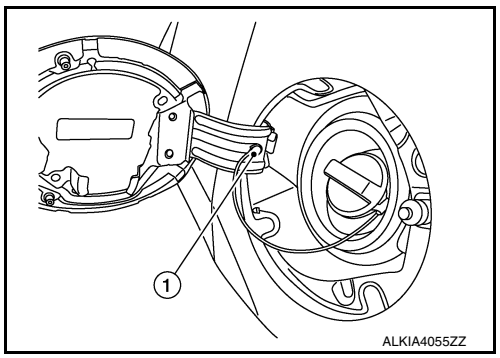
FUEL FILLER LID : Removal and Installation

INFOID:0000000012262354

REMOVAL

1. Fully open fuel filler lid.

2. Remove fuel cap pin (1).



3. Remove bolts, and remove fuel filler lid.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check fuel filler lid open/close and 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	Clearance	Surface Height
Fuel filler lid – Body side panel	3.5 ± 1.0 (0.14 ±)	0.0 ± 1.0 (0.00 ±)

FUEL FILLER LID LOCK ACTUATOR

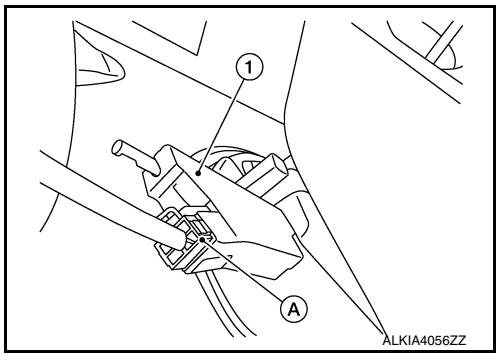
FUEL FILLER LID LOCK ACTUATOR : Removal and Installation

INFOID:0000000012262355

REMOVAL

1. Fully open fuel filler lid.
2. Partially remove trunk side finisher (LH) (rear side). Refer to INT-52, "TRUNK SIDE FINISHER : Removal and Installation"
3. Rotate the lock nut counterclockwise, and remove lock nut.

4. Disconnect harness connector (A) from fuel filler lid lock actuator (1).
5. Remove fuel filler lid lock nut and then fuel filler lid lock actuator.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

FUEL FILLER OPENER

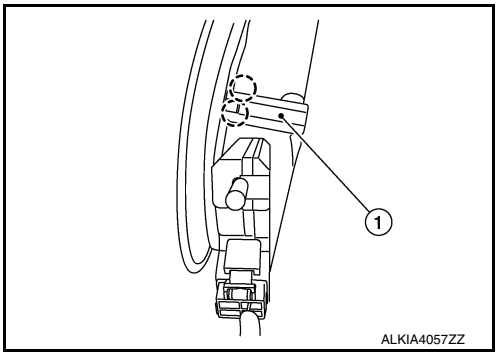
FUEL FILLER OPENER : Removal and Installation

INFOID:0000000012262356

REMOVAL

1. Fully open fuel filler lid.
2. Partially remove trunk side finisher (LH) (rear side). Refer to INT-52, "TRUNK SIDE FINISHER : Removal and Installation"
3. Release pawls and remove fuel filler opener.

:Pawls



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

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

KEY CYLINDER

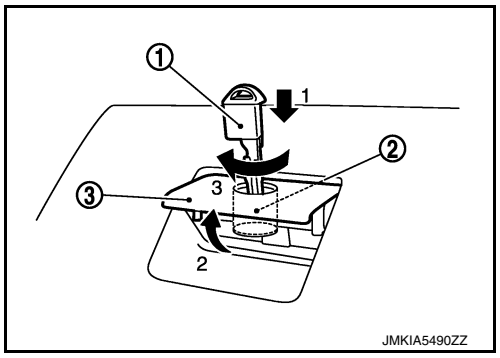
GLOVE BOX LID KEY CYLINDER

GLOVE BOX LID KEY CYLINDER : Removal and Installation

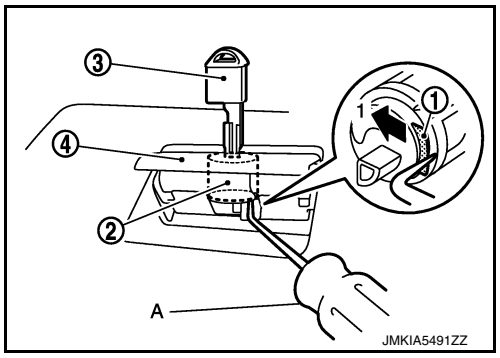
INFOID:0000000012257414

REMOVAL

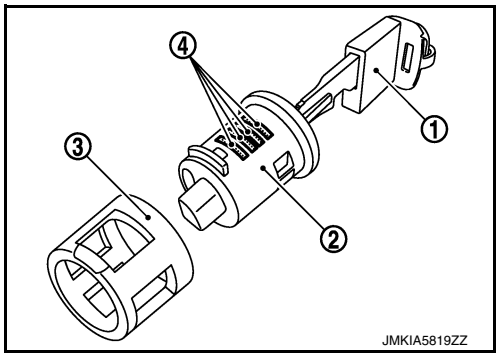
1. Insert key (1) into glove box lid lock cylinder (2).
2. Pull upward on glove box lid release handle (3).
3. Rotate key (1) and turn glove box lid key cylinder (2) to the lock position.



4. Press tumbler stopper (1) into glove box lid lock cylinder (2) using a suitable tool (A), and then remove key (3) and glove box lid lock cylinder together from glove box lid release handle (4).
   NOTE:
   When removing glove box lid lock cylinder (2) note the position of cylinder to glove box lid release handle (4).



5. Remove sleeve (3) from glove box lid release handle and then install sleeve to glove box lid lock cylinder.
   NOTE:
   When removing sleeve note the position of sleeve to glove box lid release handle.
   CAUTION:
   Do not pull out key (1) from glove box lid lock cylinder (2) while sleeve (3) is removed. Otherwise, tumblers (4) may be lost from glove box lid lock cylinder.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, check glove box open/close, lock/unlock operation.

SEATBACK LOCK KEY CYLINDER

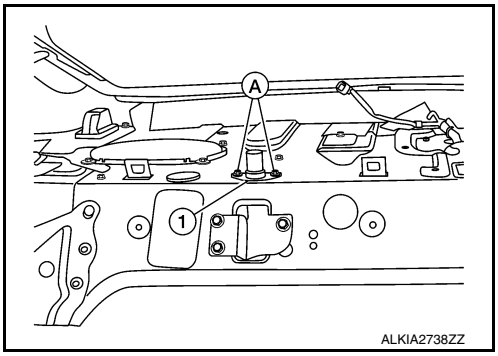
SEATBACK LOCK KEY CYLINDER : Removal and Installation

INFOID:0000000012257415

REMOVAL

1. Remove rear parcel shelf finisher. Refer to INT-40, "Removal and Installation".

2. Remove bolts (A) and the setback lock key cylinder (1).



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installation, rear seatback open/close, lock/unlock operation.

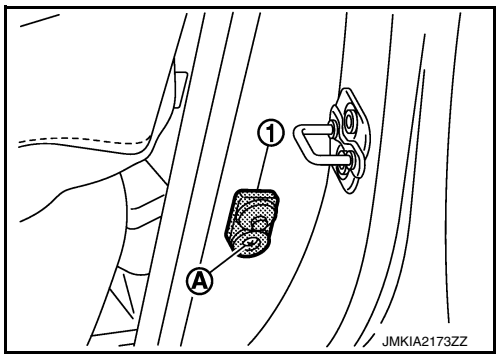
DOOR SWITCH

Removal and Installation

INFOID:0000000011935524

REMOVAL

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



INSTALLATION

Installation is in the reverse order of removal.

INSIDE KEY ANTENNA

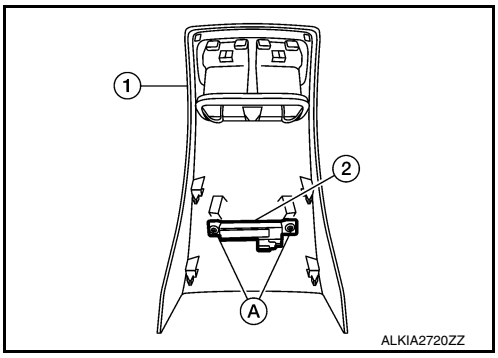
FRONT CONSOLE ANTENNA

FRONT CONSOLE ANTENNA : Removal and Installation

INFOID:0000000012257412

REMOVAL

1. Remove rear console finisher (1). Refer to IP-20, "Exploded View".
2. Remove inside key antenna (front console antenna) screws (A) and inside key antenna (front console antenna) (2).



INSTALLATION

Installation is in the reverse order of removal.

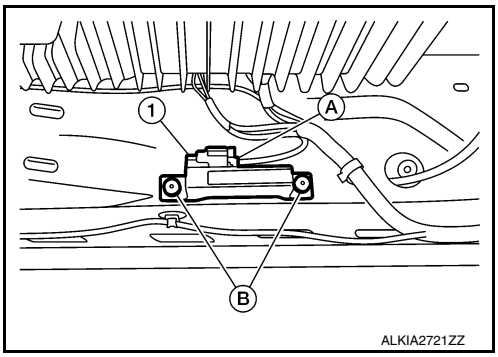
REAR PARCEL SHELF ANTENNA

REAR PARCEL SHELF ANTENNA : Removal and Installation

INFOID:0000000012257413

REMOVAL

1. Disconnect harness connector (A) from the inside key antenna (rear parcel shelf antenna) (1).
2. Remove inside key antenna (rear parcel shelf antenna) clips (B), and then remove inside key antenna (rear parcel shelf antenna) (1).



INSTALLATION

Installation is in the reverse order of removal.

OUTSIDE KEY ANTENNA

DRIVER SIDE

DRIVER SIDE : Removal and Installation

INFOID:0000000012257334

REMOVAL

The driver side outside key antenna and driver side outside handle are serviced as an assembly. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

PASSENGER SIDE

PASSENGER SIDE : Removal and Installation

INFOID:0000000012257335

REMOVAL

The passenger side outside key antenna and passenger side outside handle are serviced as an assembly. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

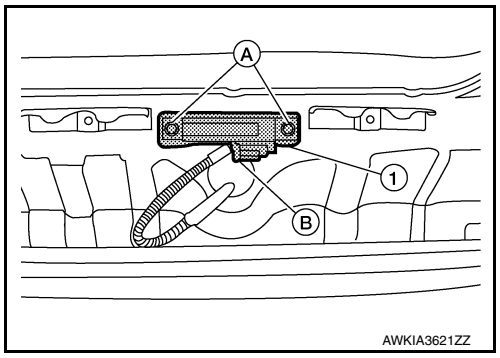
REAR BUMPER

REAR BUMPER : Removal and Installation

INFOID:0000000011935529

REMOVAL

1. Remove rear bumper. Refer to EXT-20, "Removal and Installation".
2. Disconnect harness connector (B) from outside key antenna (rear bumper) (1).
3. Remove outside key antenna (rear bumper) screws (A) and outside key antenna (rear bumper).



INSTALLATION

Installation is in the reverse order of removal.

DOOR REQUEST SWITCH

DRIVER SIDE

DRIVER SIDE : Removal and Installation

INFOID:0000000012257416

REMOVAL

The driver side door request switch and driver side outside handle are serviced as an assembly. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

PASSENGER SIDE

PASSENGER SIDE : Removal and Installation

INFOID:0000000012257417

REMOVAL

The passenger side door request switch and passenger side outside handle are serviced as an assembly. Refer to DLK-180, "OUTSIDE HANDLE : Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

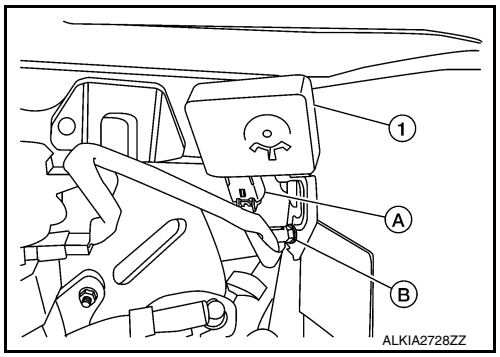
INTELLIGENT KEY WARNING BUZZER

Removal and Installation

INFOID:0000000012504134

REMOVAL

1. Remove air cleaner and air duct. Refer to EM-26, "Removal and Installation"
2. Remove Intelligent Key warning buzzer harness clip.
3. Remove nut (B) that retains the Intelligent Key warning buzzer (1) to the body.
4. Disconnect harness connector (A) from Intelligent Key warning buzzer (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

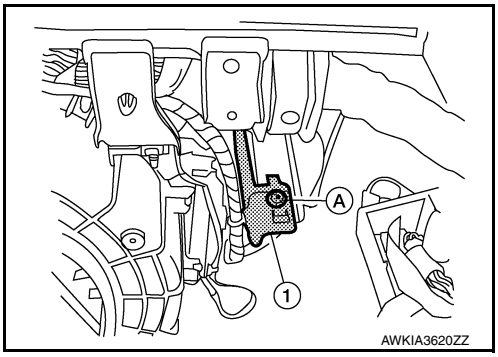
REMOTE KEYLESS ENTRY RECEIVER

Removal and Installation

INFOID:0000000011935528

REMOVAL

1. Remove glove box. Refer to IP-24, "Removal and Installation".
2. Disconnect harness connector from remote keyless entry receiver (1).
3. Remove screw (A) and remote keyless entry receiver.



INSTALLATION

Installation is in the reverse order of removal.

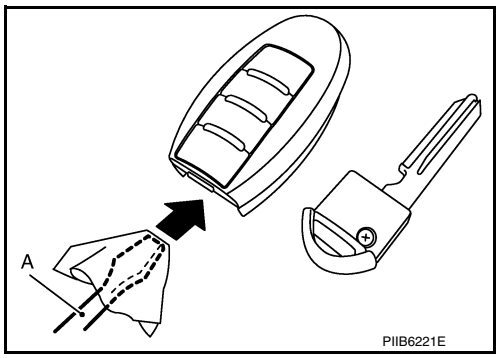
INTELLIGENT KEY BATTERY

Removal and Installation

INFOID:0000000011935527

1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

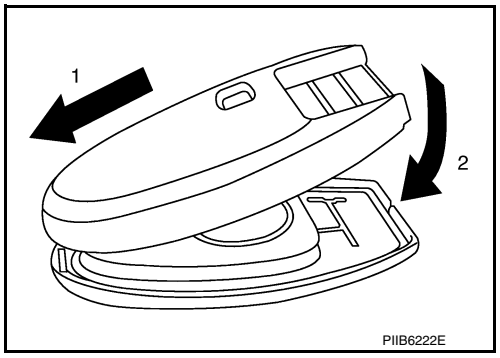
2. Insert a suitable tool (A) wrapped with a cloth into slit of the corner and twist it to separate the upper part from the lower part.
   CAUTION:
   - **Do not touch the circuit board or battery terminal.**
   - **The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.**



3. Replace battery with new one.

   Battery replacement : Coin-type lithium battery (CR2032)

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



TRUNK LID OPENER CANCEL SWITCH

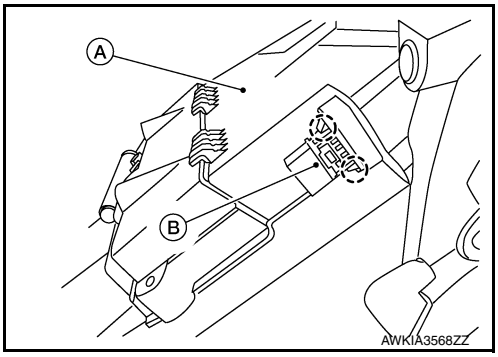
Removal and Installation

INFOID:0000000012257333

REMOVAL

1. Remove glove box. Refer to IP-24, "Removal and Installation".
2. Release pawls and remove trunk lid opener cancel switch (B) from glove box (A).

: Pawl



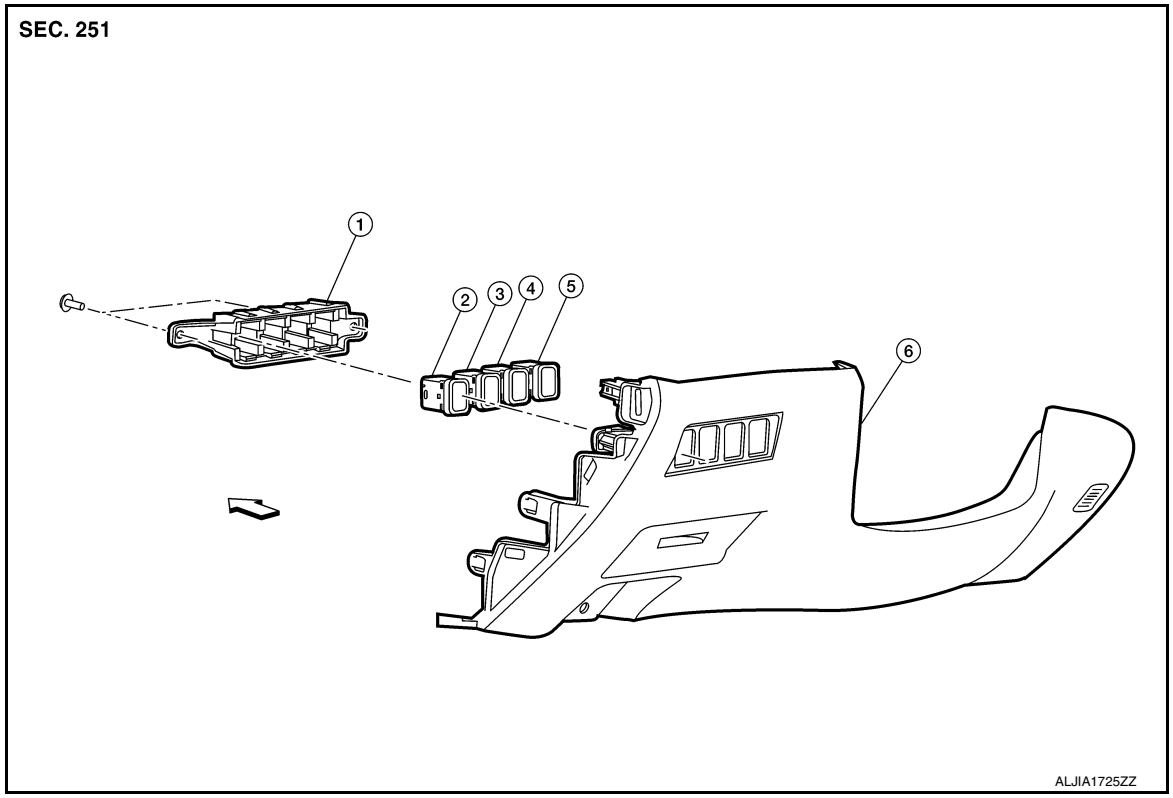
INSTALLATION

Installation is in the reverse order of removal.

TRUNK LID OPENER SWITCH

Exploded View

INFOID:0000000012261574



1. Switch carrier
2. Trunk lid switch
3. VDC OFF switch
4. Heated steering wheel switch
5. Rear sunshade switch
6. Instrument lower panel LH

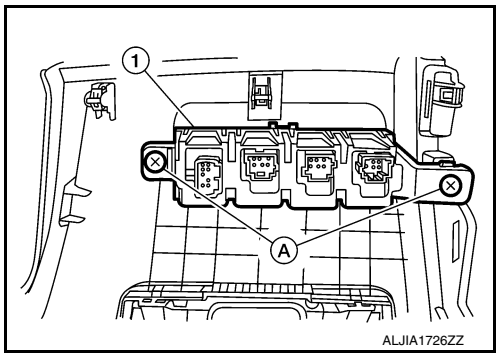
⇦ Front

Removal and Installation

INFOID:0000000011935525

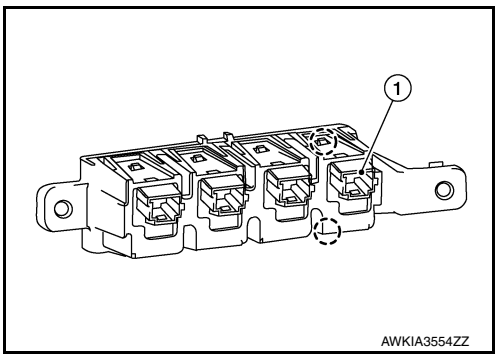
REMOVAL

1. Remove instrument lower panel LH. Refer to IP-23, "Removal and Installation".
2. Remove screws (A), then remove switch carrier (1) from instrument lower panel LH.



3. Using a suitable tool release pawls and remove fuel filler lid opener switch (1).

: Pawl



INSTALLATION

Installation is in the reverse order of removal.

TRUNK OPENER REQUEST SWITCH

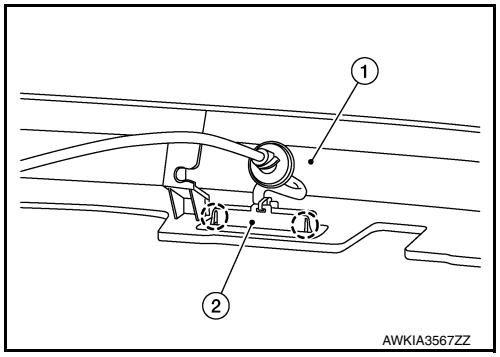
Removal and Installation

INFOID:0000000011935526

REMOVAL

1. Remove license lamp finisher. Refer to EXT-40, "Removal and Installation".
2. Release pawls and remove trunk lid request switch (2) from license lamp finisher (1).

:Pawls



INSTALLATION

Installation is in the reverse order of removal.