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AUTOMATIC BACK DOOR MAIN SWITCH366 Removal and Installation
AUTOMATIC BACK DOOR CLOSE SWITCH.367 Removal and Installation
AUTOMATIC BACK DOOR SWITCH

BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

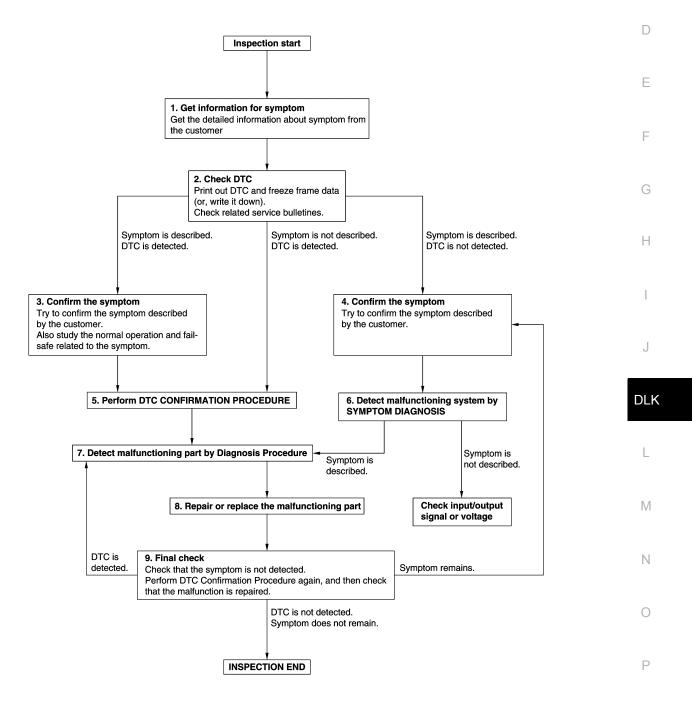
Work Flow

INFOID:000000010577550

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[WITH INTELLIGENT KEY SYSTEM]

OVERALL SEQUENCE



JMKIA8652GB

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CHECK DTC

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

Are any symptoms described and any DTC detected?

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

3.CONFIRM THE SYMPTOM

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

>> GO TO 5.

4.CONFIRM THE SYMPTOM

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

>> GO TO 6.

5.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-87. "DTC Inspection Priority Chart"</u> and determine trouble diagnosis order.

NOTE:

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

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

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to <u>GI-47, "Intermittent Incident"</u>.

6. Detect malfunctioning system by symptom diagnosis

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

Is the symptom described?

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

1.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >	[WITH INTELLIGENT KEY SYSTEM]
Inspect according to Diagnosis Procedure of the system.	
Is malfunctioning part detected?	A
YES >> GO TO 8.	
NO >> Check according to <u>GI-47, "Intermittent Incident"</u> .	В
8. REPAIR OR REPLACE THE MALFUNCTIONING PART	D
 Repair or replace the malfunctioning part. Reconnect parts or connectors disconnected during Diagnosis ment. 	Procedure again after repair and replace-
3. Check DTC. If DTC is detected, erase it.	
>> GO TO 9.	D
9.FINAL CHECK	
When DTC is detected in step 2, perform DTC CONFIRMATION PR malfunction is repaired securely.	OCEDURE again, and then check that the
When symptom is described by the customer, refer to confirmed symptom	ymptom in step 3 or 4, and check that the
symptom is not detected.	F
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 era	ase DTC.
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ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL [WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

Description

INFOID:000000010577551

When the battery is disconnected from the negative terminal, it is necessary to perform initial setting to operate automatic back door control system normally. Refer to DLK-12, "Work Procedure".

Work Procedure

INFOID:000000010577552

1.INITIALIZATION

1. Fully close the back door manually. (When back door is already fully closed, this operation is not necessary)

- Perform automatic back door open/close operation of back door. 2.
- 3. Check for noise or malfunctioning during operation.
- 4. Check that hazard lamp blinks and warning buzzer operates.

NOTE:

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

>> WORK END

ADDITIONAL SERVICE WHEN REPLACING AUTOMATIC BACK DOOR CON-TROL UNIT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING AUTOMATIC BACK DOOR CONTROL UNIT

Description INFOID:000000010577553 В When replacing automatic back door control unit, or removing connector terminal, it is necessary to perform initial setting to operate automatic back door system normally. Refer to DLK-13. "Work Procedure". Work Procedure INFOID:000000010577554 1.STEP 1 D Fully close the back door manually. >> GO TO 2. Е **2.**STEP 2 Operate back door opener switch and perform automatic back door open operation. F NOTE: At this time, automatic operation of back door is performed at half speed. >> GO TO 3. **3.**STEP 3 1. The back door fully opens. Н 2. Check that hazard lamp blinks and automatic back door warning buzzer sounds normally. Does hazard lamp blink and automatic back door warning buzzer sound normally? YES >> GO TO 4. NO >> GO TO 1. **4.**STEP 4

Fully close the back door.

>> WORK END

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CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION < BASIC INSPECTION > [WITH INTELLIGENT KEY SYSTEM]

CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

Description

INFOID:000000010577555

When the following work is performed, it is necessary to perform initial setting of automatic back door position information to operate automatic back door system. Refer to <u>DLK-14</u>, <u>"Work Procedure"</u>.

- After removing and installing, or replacing back door assembly
- After removing and installing, or replacing spindle unit

Work Procedure

INFOID:000000010577556

1.STEP 1

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "RESET AUTO BACK DOOR STATUS" of "WORK SUPPORT" mode.
- 3. Touch "NEXT" and "CLEAR" to erase automatic back door position information.

>> GO TO 2.

2.STEP 2

Fully close the back door manually.

>> GO TO 3.

3.STEP 3

Operate back door opener switch and perform automatic open operation.

NOTE:

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

>> GO TO 4.

4.STEP 4

1. The back door fully opens.

2. Check that hazard warning lamp blinks and automatic back door warning buzzer sounds normally.

Does hazard warning lamp blink and automatic back door warning buzzer sound normally?

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

Fully close the back door.

>> WORK END

[WITH INTELLIGENT KEY SYSTEM]

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INFOID:000000010577558

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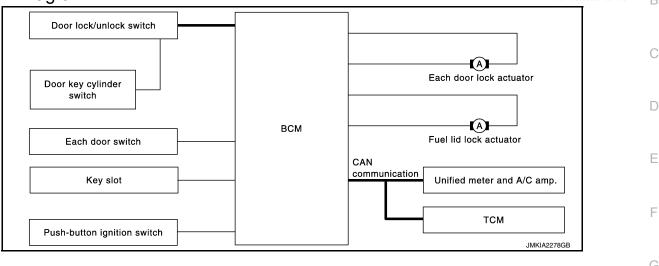
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SYSTEM DESCRIPTION POWER DOOR LOCK SYSTEM

System Diagram



System Description

DOOR LOCK FUNCTION

- The door lock and unlock switch (driver side) is build into power window main switch.
- The door lock and unlock switch (passenger side) is on door trim.
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are unlocked.

Door Key Cylinder

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

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-59, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

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.

Vehicle Speed Sensing Auto Door Lock*1

All doors are locked when the vehicle speed reaches 15 MPH (24 km/h) 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 unified meter and A/C amp. via CAN communication becomes 24 km/h (15 miles) or more.

P Range Interlock Door Lock

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

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 at the WORK SUPPORT setting in CONSULT.

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POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

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. Turn ignition switch 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 is completed when the hazard lamp blinks.

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

AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNLOCK OPERATION)

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

IGN OFF Interlock Door Unlock*1

All doors are unlocked when the power supply position is changed from ON to OFF.

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

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.

(P) With CONSULT

The ON/OFF switching of the automatic door lock/unlock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting in CONSULT.

Without CONSULT

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

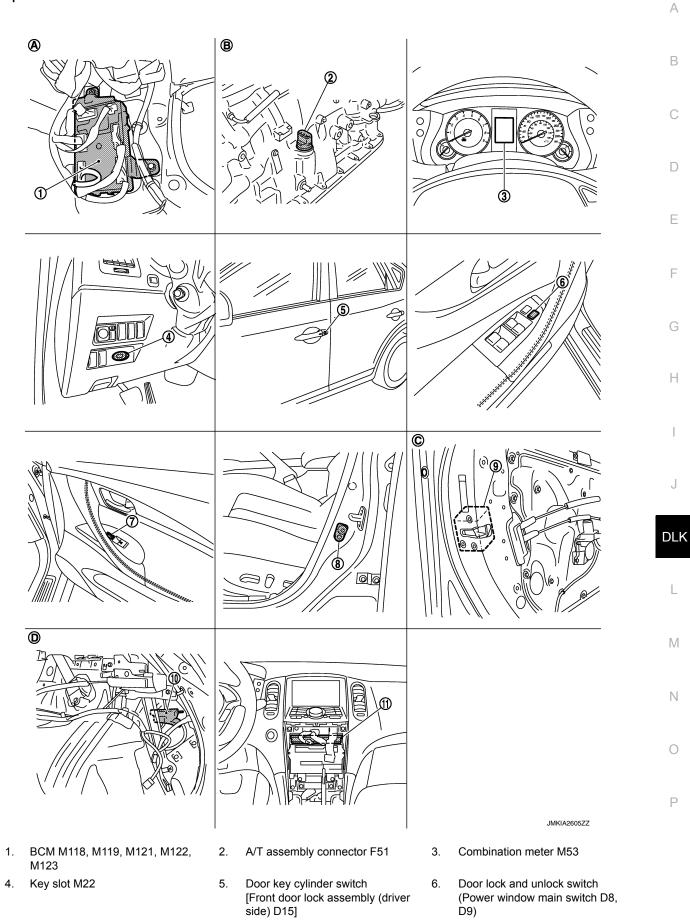
- 1. Close all doors below (door switch OFF)
- 2. Turn ignition switch ON
- 3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
- 4. The switching is completed when the hazard lamp blinks.

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

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

Component Parts Location

INFOID:000000010577559



DLK-17

POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

- Door lock and unlock switch [Front power window switch (passenger) D38]
 Fuel lid lock actuator B242
- 8. Front door switch (driver side) B16 9.
- 11. Unified meter and A/C amp. M66, M67
- B. A/T assembly (TCM is built in A/T assembly)
- Door lock actuator [Front door lock assembly (driver side) D15]

[WITH INTELLIGENT KEY SYSTEM]

View with front door finisher (LH) is removed

C.

D. View with luggage side finisher lower (RH) is removed

Dash side lower (passenger side)

Component Description

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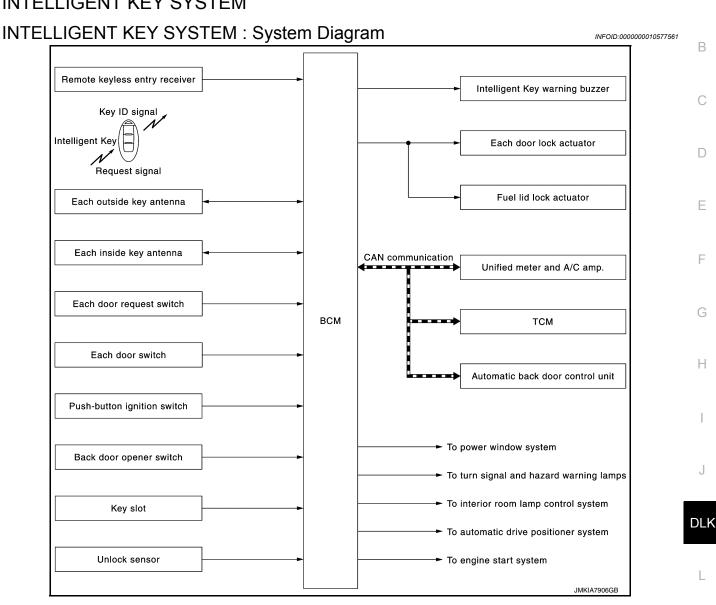
Item	Function
BCM	Controls the door lock function and room lamp function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Door key cylinder switch	 Input lock or unlock signal to power window main switch. Power window main switch transmits door lock/unlock signal to BCM.
Key slot	Input key insert/remove signal to BCM.
Unified meter and A/C amp.	 Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer. Transmits vehicle speed signal to BCM via CAN communication line.
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
ТСМ	Transmit shift position signal to BCM via CAN communication line.
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM



INTELLIGENT KEY SYSTEM : 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 using CONSULT.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered at one time.
- It is possible to perform a diagnosis on the system and register an Intelligent Key using CONSULT.

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	<u>DLK-23</u>
Remote keyless entry func- tion	Lock/unlock can be performed by pressing the remote controller button of the In- telligent Key.	<u>DLK-32</u>
Welcome light function	The puddle lamp and room lamp automatically turn ON, if the Intelligent Key is in the door outside key antenna detection area.	<u>DLK-37</u>

DLK-19

INFOID:000000010577562

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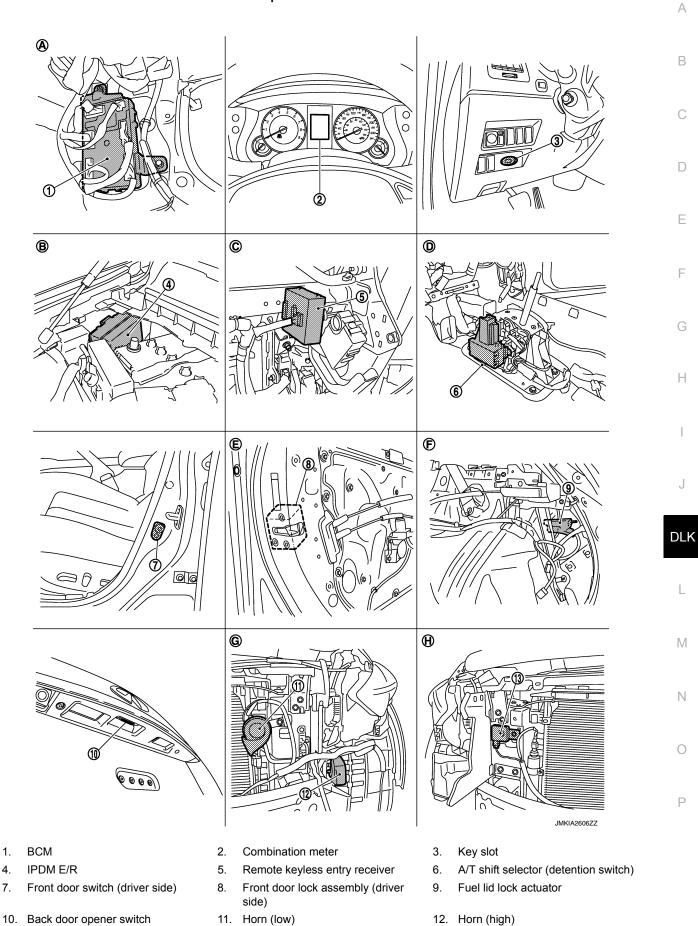
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Function	Description	Refer
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	<u>DLK-40</u>
Warning function	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-42
Engine start function	The engine can turns on while carrying the Intelligent Key.	SEC-9

INTELLIGENT KEY SYSTEM : Component Parts Location

INFOID:000000010577563



Revision: 2015 February

1.

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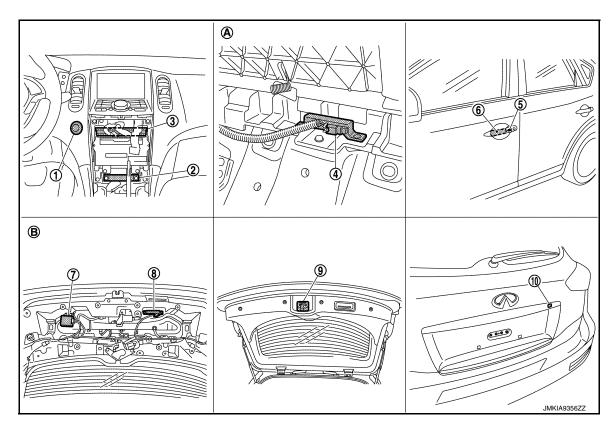
DLK-21

< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit

removed

- 10. Back door opener request switch
- A. View with luggage floor finisher front B.
- Inside key antenna (instrument cen- 3. ter)
- Front outside handle LH (request switch)
- Outside key antenna (back door)
- View with back door finisher inner removed
- Unified meter and A/C amp.
- Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

6.

INTELLIGENT KEY SYSTEM : Component Description

2.

5.

8.

INFOID:000000010577564

Item	Function
BCM	Controls the Intelligent Key system.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Request switch	Input lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Unified meter and A/C amp.	 Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer. Transmits vehicle speed signal to BCM via CAN communication line.

Revision: 2015 February

DLK-22

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Item

Intelligent Key warning buzzer

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Combination meter

ion meter Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.

Function

Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

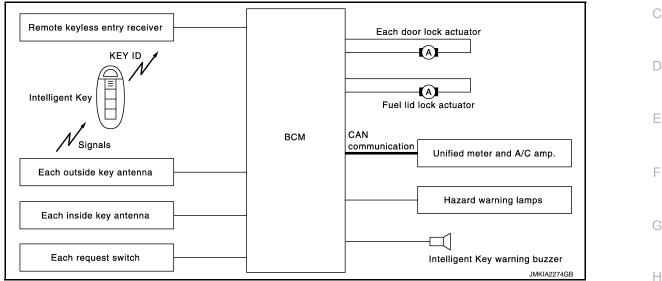
INFOID:000000010577565

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DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Diagram



DOOR LOCK FUNCTION : System Description

INFOID:000000010577566

Only when pressing the request switch, is it 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. And then, checks that the Intelligent Key is near the door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM lock/unlock each door (except back door) and fuel lid lock actuator and sounds Intelligent Key buzzer warning (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 request switch is oper-

Each request switch operation	Operation condition				
Lock operation	 All doors are closed Ignition switch is in the OFF position Intelligent Key is out of key slot Intelligent Key is outside the vehicle Intelligent Key is within outside key antenna detection area 	0			
Unlock Operation	 Intelligent Key is outside the vehicle Intelligent Key is within outside key antenna detection area * 	P			

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

OUTSIDE KEY ANTENNA DETECTION AREA

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< SYSTEM DESCRIPTION >

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 the back door request switch (2). However, this operating range depends on the ambient conditions.

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[WITH INTELLIGENT KEY SYSTEM]

SELECTIVE UNLOCK FUNCTION

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

When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door and fuel lid are unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 60 seconds, all other doors are unlocked.

HAZARD AND BUZZER REMINDER FUNCTION

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

When doors are locked or unlocked by each request switch, BCM sounds Intelligent Key warning buzzer as a reminder and blinks.

Operating Function of Hazard and Buzzer Reminder

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

How to Change Hazard and Buzzer Reminder Mode

Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

When all doors are locked, ignition switch is in the OFF position, and key switch is OFF (Intelligent Key is not inserted in key slot), doors are unlocked with door request switch

When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)

Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed in "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-61.</u> "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from door request switch. For detailed description, refer to <u>INL-7, "System Description"</u>.

LIST OF OPERATION RELATED PARTS

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

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator and fuel lid lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch	Combination meter	A B C
Door lock/unlock function by request switch	×	×	×	×	×	×	×	×			×				D
Hazard and buzzer reminder function for door lock/ unlock operation									×	×	×	×		×	_
Key reminder function	×	×	×	×	×	×	×	×	×		×	×			E
Selective unlock function by request switch (Driver side)	×				×	×	×	×			×				_
Selective unlock function by request switch (Passenger side)	×				×	×	×	×			×				F
Selective unlock function by request switch (back door)	×				×		×	×			×				G
Auto door lock function	×	×		×	×	×					×		×		

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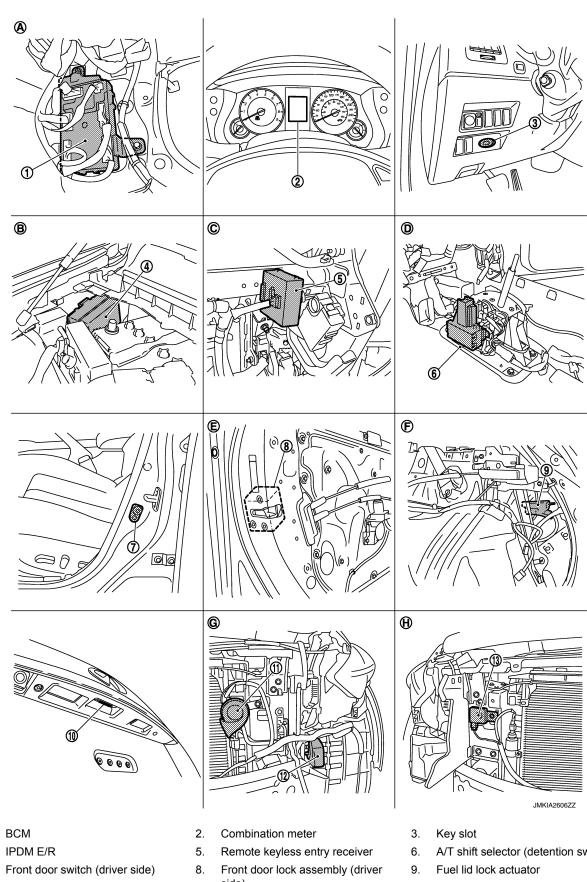
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DOOR LOCK FUNCTION : Component Parts Location

INFOID:000000010577567



- 10. Back door opener switch
- **Revision: 2015 February**

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side)

DLK-26

11. Horn (low)

- A/T shift selector (detention switch)
- 12. Horn (high)

< SYSTEM DESCRIPTION >

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G.

removed

INTELLIGENT KEY SYSTEM

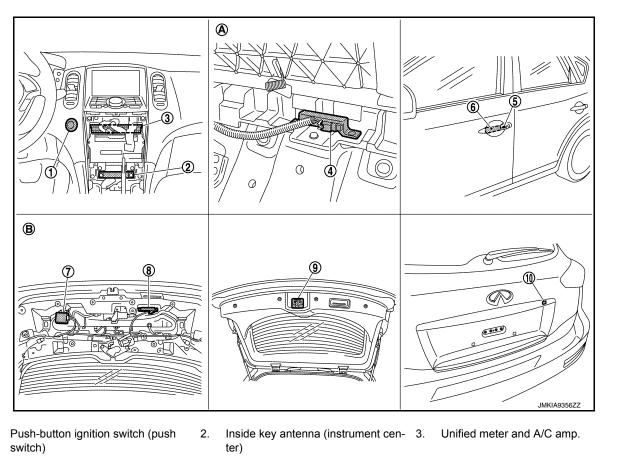
[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- Dash side lower (passenger side) Α.

View with center console assembly

View with front bumper removed

- Β. Engine room dash panel (RH)
- Ε. View with front door finisher (LH) re- F. moved
- View with front bumper removed Η.
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- Inside key antenna (luggage room) 4.
- 7. Back door control unit

1.

- 10. Back door opener request switch
- 8. Outside key antenna (back door)

Front outside handle LH (request

moved

5.

DOOR LOCK FUNCTION : Component Description

switch)

- Front outside handle LH (outside key 6. antenna)
- 9. Back door lock assembly

- View with luggage floor finisher front B. Α. removed
- View with back door finisher inner re-

- INFOID:00000001057756
- Item Function BCM Controls the door lock function. Door lock actuator Output lock/unlock signal from BCM and locks/unlocks each door. Door switch Input door open/close condition to BCM. Remote keyless entry receiver Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM. Request switch Input lock/unlock operation to BCM. Intelligent Key Transmits button operation to remote keyless entry receiver. Outside key antenna Detects if Intelligent Key is outside the vehicle. Inside key antenna Detects if Intelligent Key is inside the vehicle. Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer. Unified meter and A/C amp. Transmits vehicle speed signal to BCM via CAN communication line

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Item

Function

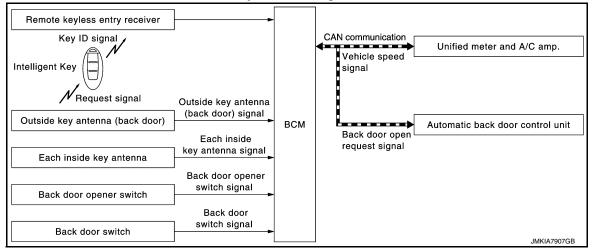
Combination meter

Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.

Intelligent Key warning buzzer Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

BACK DOOR OPEN FUNCTION

BACK DOOR OPEN FUNCTION : System Diagram



BACK DOOR OPEN FUNCTION : System Description

INFOID:000000010577570

INFOID:000000010577569

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

- The back door open function can open the back door by pressing the back door opener switch while carrying the Intelligent Key and all doors (except back door) are locked.
- The back door open function enables the back door to be opened by pressing back door opener switch after BCM transmits UNLOCK signal to each door. Refer to DLK-49, "System Description".

BACK DOOR OPEN

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

- When the BCM detects that back door opener switch is pressed, it activates the outside key antenna (back door) and inside key antenna and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the back door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- If the verification result is OK, BCM transmits the back door open request signal to automatic back door control unit via CAN communication.
- When the back door open request signal is transmitted from BCM, closure motor is operated in the automatic back door control unit.

The operation of then back door open is the same as the automatic back door system, refer to DLK-49. "System Description".

OPERATION CONDITION

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

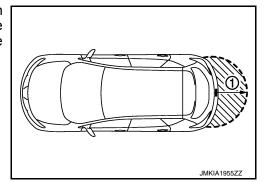
Back door opener switch operation	Operation condition						
Back door open	 Vehicle speed is less than 5 km/h (3 MPH) Intelligent Key is within outside key antenna (back door) detection area* Back door is closed 						

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

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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



LIST OF OPERATION RELATED PARTS

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

Door lock function	Intelligent Key	Remote keyless entry receiver	Back door opener switch	Back door lock assembly	Inside key antenna	Outside key antenna (back door)	CAN communication system	BCM	Automatic back door control unit
Back door open function (carrying Intelligent Key)	×	×	×	×	×	×	×	×	×

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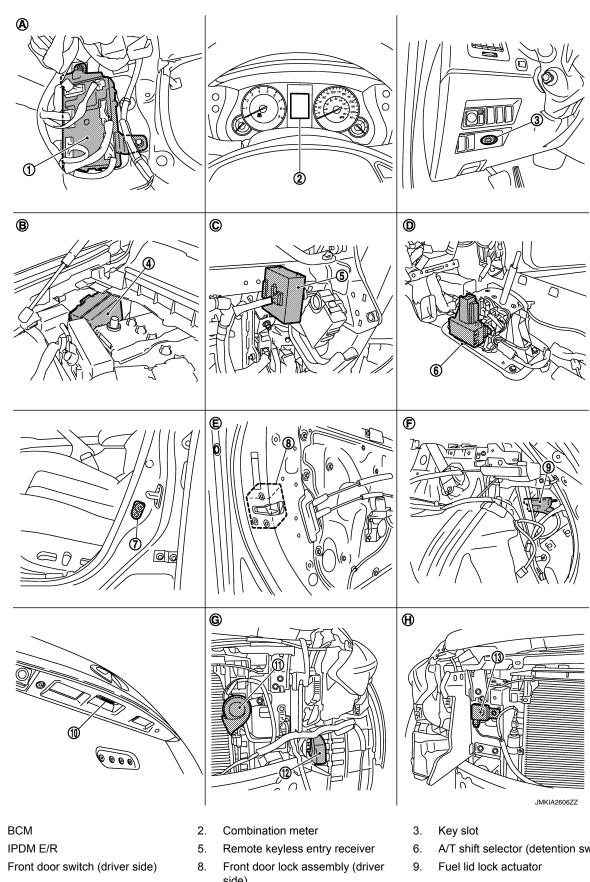
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BACK DOOR OPEN FUNCTION : Component Parts Location

INFOID:000000010577571



10. Back door opener switch

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- **Revision: 2015 February**
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DLK-30

11. Horn (low)

- A/T shift selector (detention switch)
- 12. Horn (high)

< SYSTEM DESCRIPTION >

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INTELLIGENT KEY SYSTEM

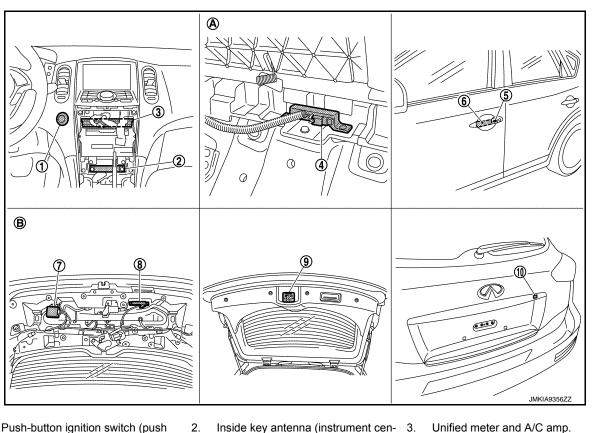
[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- Α. Dash side lower (passenger side)

View with center console assembly

View with front bumper removed

- Engine room dash panel (RH) Β.
- Ε. View with front door finisher (LH) re- F. moved
- Η. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- Push-button ignition switch (push 1. switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit
- 10. Back door opener request switch
- View with luggage floor finisher front B. Α. removed

REMOTE KEYLESS ENTRY FUNCTION

- Inside key antenna (instrument cen- 3. ter)
- Front outside handle LH (request switch)

5.

- 8. Outside key antenna (back door)
 - View with back door finisher inner removed
- Unified meter and A/C amp.
- 6. Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

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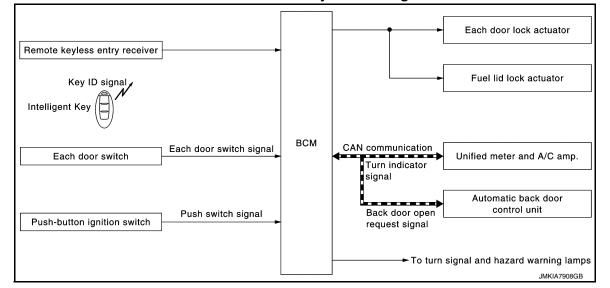
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< SYSTEM DESCRIPTION >

REMOTE KEYLESS ENTRY FUNCTION : System Diagram

INFOID:000000010577572



REMOTE KEYLESS ENTRY FUNCTION : System Description

INFOID:000000010577573

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

OPERATION

Remote keyless entry system controls operation of the following functions

- Door lock/unlock
- Selective unlock
- Hazard and horn reminder
- Auto door lock
- Panic alarm
- · Power window down
- Interior lamp
- Automatic back door open/close function

OPERATION AREA

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

DOOR LOCK/UNLOCK FUNCTION

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

OPERATION CONDITION

Remote controller operation	Operation condition	Operation
Lock	All doors closed	All doors lock
Unlock	Intelligent Key is out of key slot	All doors unlock

SELECTIVE UNLOCK FUNCTION

When a LOCK signal is transmitted from Intelligent Key, all doors and fuel lid are locked.

When an UNLOCK signal is transmitted from Intelligent Key once, driver's door and fuel lid are unlocked. Then, if an UNLOCK signal is transmitted from Intelligent Key again within 60 seconds, all other doors are unlocked.

HAZARD AND HORN REMINDER FUNCTION

INTELLIGENT KEY SYSTEM [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

Operating Function of Hazard and Horn Reminder

	C n	node	S mode				
Intelligent Key operation	Lock	Unlock	Lock	Unlock			
Hazard warning lamp blinks	Twice	Once	Twice	_			
Horn sound	Once	—	—	_			

Hazard and horn reminder does not operate if any door switch is ON (any door is OPEN).

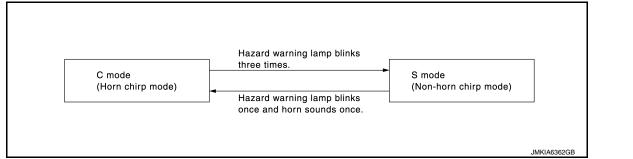
How to Change Hazard and Horn Reminder Mode

With CONSULT

Refer to DLK-61, "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 lamp flashes and horn sounds as per the following:



AUTO DOOR LOCK FUNCTION

When all doors and fuel lid are locked, ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), doors and fuel lid are unlocked with Intelligent Key button. When BCM does not receive the following signals within 30 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opened)
- Door is locked
- · Ignition switch is ON

• Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by using "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

PANIC ALARM FUNCTION

When ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), BCM receives PANIC ALARM signal from Intelligent Key.

BCM turns ON and OFF headlamp intermittently and transmits theft warning horn signal to IPDM E/R. Then, IPDM E/R turns ON and OFF horn intermittently.

The headlamp blinks and the horn sounds intermittently.

The alarm automatically turns off:

After 25 seconds

• When BCM receives any signal from Intelligent Key

Panic alarm function mode can be changed by "PANIC ALARM SET" mode in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

KEYLESS POWER WINDOW DOWN (OPEN) FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed. The power window opening stops when the following operations are performed:

- When the unlock button is kept pressed more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

While retained power operation activate, Keyless power window down (open) function cannot be operated.

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Keyless power window down operation mode can be changed by using "PW DOWN SET" mode in "WORK SUPPORT". Refer to <u>DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <u>INL-7</u>, "System Description".

AUTOMATIC BACK DOOR OPEN/CLOSE FUNCTION

When back door button of Intelligent Key is pressed for 0.4 second or more, back door open automatically for detailed description, refer to <u>DLK-49</u>, "System Description".

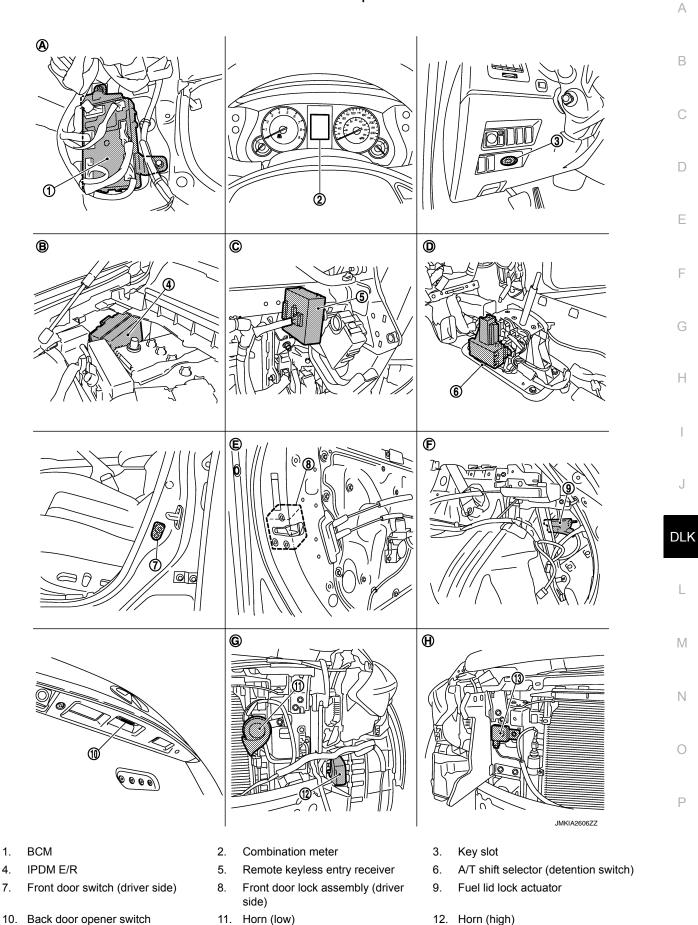
LIST OF OPERATION RELATED PARTS

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

Remote keyless entry functions	Intelligent Key	Key slot	Door request switch	Door switch	Door lock actuator and fuel lid lock actuator	CAN communication system	BCM	Combination meter	Hazard warning lamp	Hom	IPDM E/R	Headlamp	Power window switch	Automatic back door control unit
Door lock/unlock function by remote control button	×	×		×	×		×							
Hazard and horn reminder function	×					×	×	×	×	×	×			
Selective unlock function	×			×	×		×							
Keyless power window down (open) function	×	×					×						×	
Auto door lock function	×	×		×			×							
Panic alarm function	×		×			×	×			×	×	×		
Automatic back door open/close function							×							×

[WITH INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location INFOID:000000010577574



Revision: 2015 February

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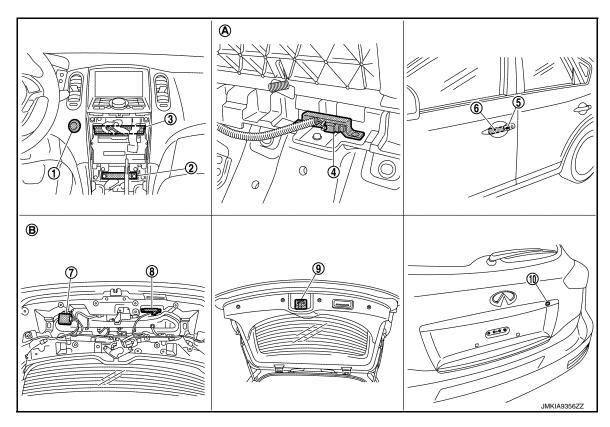
DLK-35

< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- Dash side lower (passenger side) Α.
- D. View with center console assembly removed
- G. View with front bumper removed
- Engine room dash panel (RH) Β.
- View with front door finisher (LH) re- F. Ε. moved
- Η. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- Push-button ignition switch (push 1. switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit
- 10. Back door opener request switch
- Inside key antenna (instrument cen- 3. ter)
- Front outside handle LH (request switch)

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REMOTE KEYLESS ENTRY FUNCTION : Component Description

- Outside key antenna (back door)
- 6.

Unified meter and A/C amp.

- Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

- View with luggage floor finisher front B. Α. removed
 - View with back door finisher inner removed

INFOID:0000000010577575

Item	Function
BCM	Controls the door lock function and room lamp function.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Unified meter and A/C amp.	 Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer. Transmits vehicle speed signal to BCM via CAN communication line.
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
Intelligent Key	Transmits button operation to remote keyless entry receiver.

WELCOME LIGHT FUNCTION

WELCOME LIGHT FUNCTION : System Description

CONDITION OF SEARCHING

< SYSTEM DESCRIPTION >

If all the following conditions are satisfied, BCM searches for Intelligent Key by using outside key antenna (front outside handle LH/RH and back door). BCM has timer to search for 14 days (every 0.3 sec.). If the В engine is started, the timer is reset.

Function	Condition	С
Welcome light function	 System setting is active. All doors are closed. Ignition position is OFF. There is no Intelligent Key inside vehicle. Shift position is the P position. All doors are closed and locked (or auto lock timer is running). 	D
PERATION PROCEDUR	pana (front outside handle LH/PH and back door) detection area. If registered	Ε

С

BCM search outside key antenna (front outside handle LH/RH and back door) detection area. If registered Intelligent Key is detected, BCM turn ON the room lamp and puddle lamp. For detailed description after turning ON the lamps, refer to <u>INL-7, "System Description"</u>.

SYSTEM SETTING PROCEDURE

Setting of welcome light function can be changed by the following procedure. (For system setting by CON-SULT: refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".)

- 1. Check that Intelligent Key is removed from key slot.
- 2. Turn ignition switch ON and press and hold request switch (driver side) more than 5 seconds.
- 3. Confirm that buzzer sounds (combination meter).

Pi, Pi, Pi… (approx. 1.2 sec.):	Welcome light function is OFF.
Pi, Pi, Pi…(approx. 2.4 sec.):	Welcome light function is ON.

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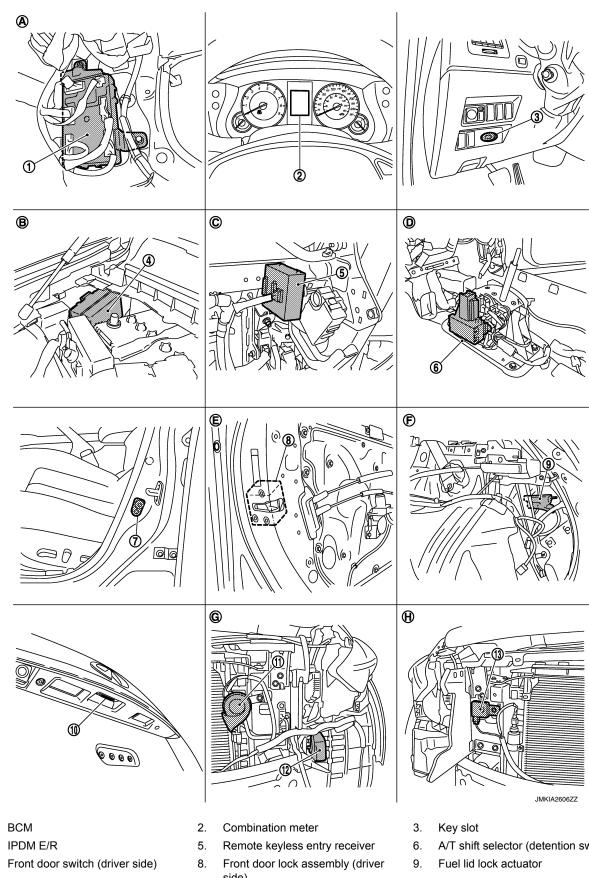
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[WITH INTELLIGENT KEY SYSTEM]

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WELCOME LIGHT FUNCTION : Component Parts Location



10. Back door opener switch

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- **Revision: 2015 February**
- side)

DLK-38

11. Horn (low)

- A/T shift selector (detention switch)
- 12. Horn (high)

< SYSTEM DESCRIPTION >

D.

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removed

INTELLIGENT KEY SYSTEM

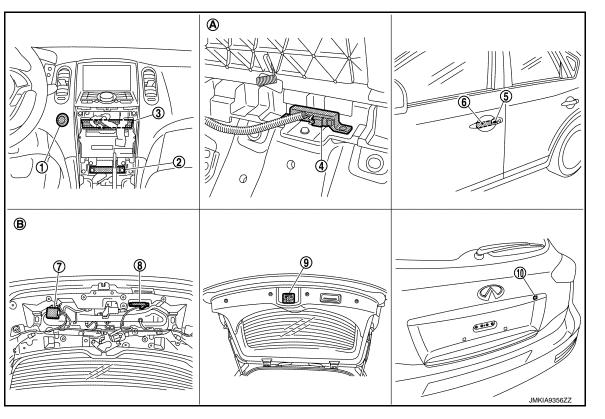
[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- A. Dash side lower (passenger side)

View with center console assembly

View with front bumper removed

- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit
- 10. Back door opener request switch
- A. View with luggage floor finisher front B. removed

KEY REMINDER FUNCTION

Inside key antenna (instrument cen- 3. ter)

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- Front outside handle LH (request switch)
- Outside key antenna (back door)
- View with back door finisher inner removed
- . Unified meter and A/C amp.
- 6. Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

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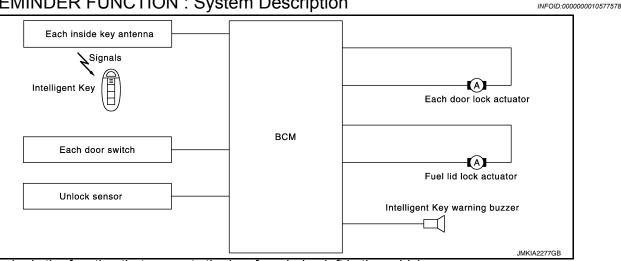
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< SYSTEM DESCRIPTION >

KEY REMINDER FUNCTION : 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 remainder function	Operation condition	Operation
Driver door closed*	Right after driver side door is closed under the following conditions Door lock operation is performed Driver side door is opened Driver side door locked 	All doors and fuel lid unlock
Door is open or closed	 Right after all doors are closed under the following conditions Intelligent Key is inside the vehicle Any door is opened All doors are locked by door lock and unlock switch or door lock knob 	 All doors and fuel lid unlock Sounds Intelligent Key warning buzzer
Back door is closed	 Right after back door is closed under the following conditions Intelligent Key is inside vehicle All doors (except back door) are closed All doors (except back door) are locked 	 All doors and fuel lid unlock Back door can open with back door opener switch Sounds Intelligent Key warn- ing buzzer

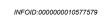
*: If the door lock knob is shocked by impact during door closing or contacts against baggage, the door lock knob might activate the door locks accidentally, but unlock operation is performed in these cases.

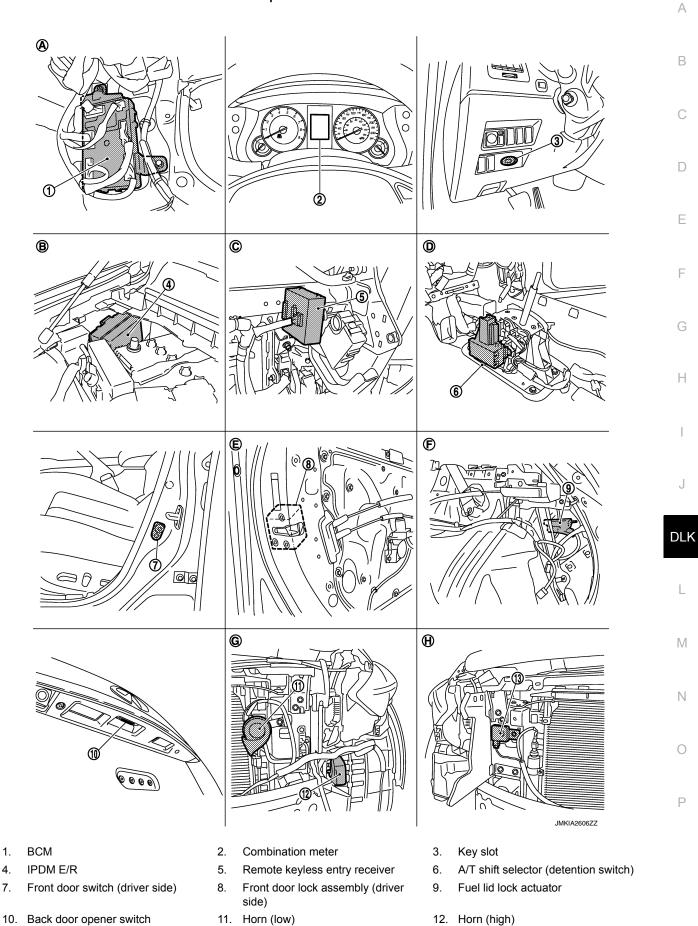
CAUTION:

- 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 will not operate when the Intelligent Key is on the instrument panel 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.
- Key reminder function is operated when the back door is open/closed and the buzzers sound. If the following operations are performed, the key reminder function is cleared and buzzer sounds are stopped.
- Remote controller door lock button operation of Intelligent Key
- Remote controller door unlock button operation of Intelligent Key
- When the back door is closed and the Intelligent Key is not inside the vehicle
- When any door is open

[WITH INTELLIGENT KEY SYSTEM]

KEY REMINDER FUNCTION : Component Parts Location





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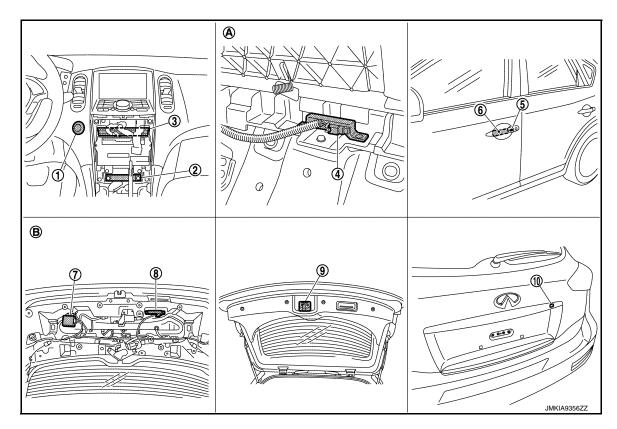
DLK-41

< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit
- 10. Back door opener request switch
- A. View with luggage floor finisher front B. removed
- Front outside handle LH (request 6. switch)

Inside key antenna (instrument cen- 3.

- Outside key antenna (back door)
- View with back door finisher inner removed
- Unified meter and A/C amp.
- Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

WARNING FUNCTION

WARNING FUNCTION : System Description

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INFOID:000000010577580

OPERATION DESCRIPTION

The warning functions are as per the following and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, KEY warning lamp, key slot illumination and information displayed on combination meter.

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

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< SYSTEM DESCRIPTION >

· Intelligent key low battery warning

Key ID warning

OPERATION CONDITION

Once the following condition from below is established, alert or warning is performed.

Warning/Inform	nation functions	Operation procedure				
Intelligent Key system mal	function	When a malfunction is detected on BCM, "KEY" warning lamp illuminates.				
OFF position warning	For internal	 When condition A, B or condition C is satisfied Condition A Ignition switch: ACC position Door switch (driver side): ON (Door is open) Condition B Turn ignition switch from ON to OFF while door is open Condition C Intelligent Key is inserted in key slot Door switch (driver side): ON (Door is open) 				
	For external	OFF position warning (For internal) is in active mode, driver side door has is closed. NOTE: OFF position (For external) active only when each of the sequence occurs as per the following: P position warning \rightarrow ACC warning \rightarrow OFF position warning (For internal) \rightarrow OFF position warning (For internal)				
P position warning		Shift position: Not the P position.Engine is running to stopped (Ignition switch is ON to OFF).				
ACC warning		 When the P position warning is in active mode, shift position is changed to P position. Ignition switch: ACC position. 				
	Door is open to close	 Ignition switch: Not the LOCK position. Door switch: ON to OFF (Door is open to close). Intelligent Key can not be detected inside the vehicle. 				
Take away warning	Door is open	 Ignition switch: Not the LOCK position. Door switch: ON (Door is open). Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle. 				
	Push button-ignition switch operation	 Ignition switch: Not the LOCK position. Press push-button ignition switch. Intelligent Key can not be detected inside the vehicle. 				
	Intelligent Key is removed from key slot	• When Intelligent Key is removed from key slot, Intelligent Key can not be detected inside the vehicle.				
Door lock operation warn-	Request switch operation	 When request switch is pushed (lock operation) under the following conditions. All doors are closed. All door is unlocked. Intelligent Key is inside vehicle. 				
ing	Intelligent Key button op- eration	 When Intelligent Key button is pushed (lock operation) under the following conditions. Door switch: ON (Any door is open). For 3 seconds after Intelligent Key is removed from key slot. 				
Key warning		 Ignition switch is in the OFF position. Driver side door switch: ON (Driver side door is open). Intelligent Key is inserted in key slot. 				
Intelligent Key insert inforn	nation	 Door switch: ON to OFF (Door is open to close). Ignition switch: OFF to ON position. Intelligent Key is out of key slot. Intelligent Key can not be detected inside the vehicle. 				

[WITH INTELLIGENT KEY SYSTEM]

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В

< SYSTEM DESCRIPTION >

Warning/Inform	nation functions	Operation procedure
	Ignition switch is in the ON position	 Ignition switch: ON position. Shift position: P position. Engine is stopped.
Engine start information	Ignition switch is not in the ON position	 Ignition switch: Not in the ON position. Shift position: P 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 is low, BCM is detected after ignition switch is turned ON.
Key ID warning		When registered intelligent Key can not be detected inside the vehicle after ig- nition switch is turned ON.

WARNING METHOD

The following table shows the alarm or warning methods by using the chime.

Information display (combination meter), "KEY" indicator or key slot illumination when the warning conditions are met.

					Warning chime			
Warning/Informa	ation functions	"KEY" warn- ing lamp	Information display (combination meter)	Key slot il- lumination	Combination meter buzzer	Intelligent Key warning buzzer		
Intelligent Key syster	m malfunction	Illuminate	—	—	—	_		
OFF position warn-	For internal	_	_	_	Activate	_		
ing	For external		_	_	_	Activate		
P position warning			P SHIFT JMKIA0037GB	_	Activate	_		
ACC warning			PUSH JMKIA0047GB			_		
	Door is open to close	_		Blink	Activate	Activate		
	Door is open			Blink		_		
Take away warning	Push-ignition switch operation			Blink	Activate			
	Intelligent Key is removed from key slot	_	JMKIA0036GB	Blink	—	_		
Door lock operation	Request switch operation	_	_	_	_	Activate		
warning	Intelligent Key operation	—	_	—	_	Activate		

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

				Warning	g chime
Warning/Information functions	"KEY" warn- ing lamp	Information display (combination meter)	Key slot il- lumination	Combination meter buzzer	Intelligent Key warning buzzer
Key ID warning	_		_	_	_
Key warning	_	JMKIA0035GB	Blink	Activate	_
Intelligent Key insert information	_	JMKIA0034GB	Blink	_	_
Engine start information	_	BRAKE JMKIA0032GB	_	_	_
Intelligent Key low battery warning	_		_	_	_

LIST OF OPERATION RELATED PARTS

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

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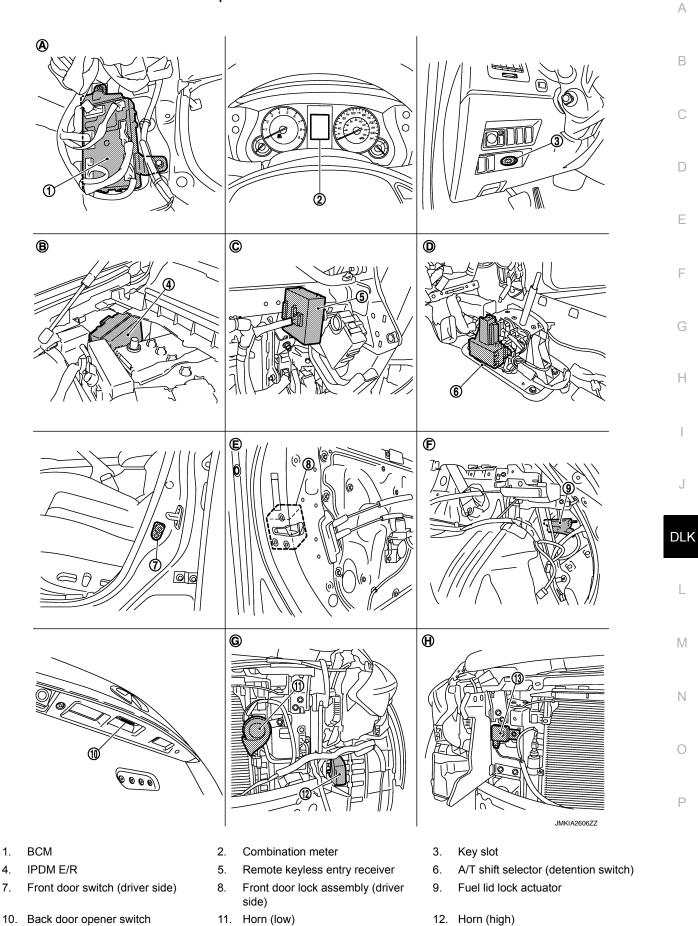
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Warning function			Key slot	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter warning buzzer	CAN communication system	BCM	Combination meter display	Key slot illumination	Transmission range switch	"KEY" warning lamp
Intelligent Key system mall	function										×	×				×
OFF position warning	For internal				×					×	×	×				
g	For external				×				×			×				
P position warning				×						×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
Take away warning	Push-ignition switch oper- ation	×		×			×			×	×	×	×	×		
	Intelligent Key is removed from key slot	×	×				×				×	×	×	×		
Door lock operation warnin	g	×	×		×	×	×	×	×			×				
Key ID warning		×	×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert information		×	×	×	×		×				×	×	×	×		
Engine start information	Ignition switch is in the ON position	×	×	×			×				×	x	×		×	
	Ignition switch is not in the ON position	×	×	×			×				×	×	×			
Intelligent Key low battery	warning	×					×				×	×	×			

WARNING FUNCTION : Component Parts Location





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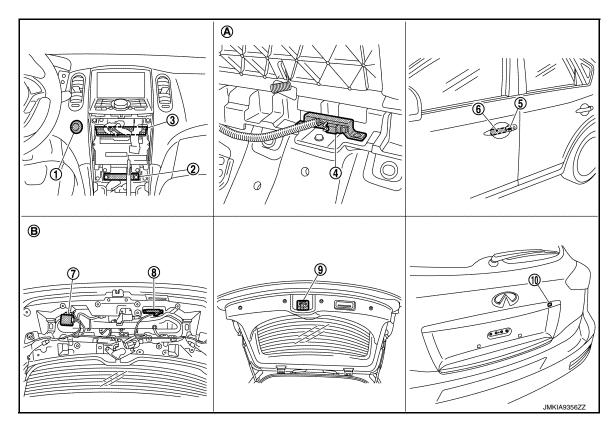
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< SYSTEM DESCRIPTION >

INTELLIGENT KEY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

- 13. Intelligent Key warning buzzer
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch)
- 4. Inside key antenna (luggage room)
- 7. Back door control unit
- 10. Back door opener request switch
- A. View with luggage floor finisher front B. removed
- Inside key antenna (instrument cen- 3. ter)

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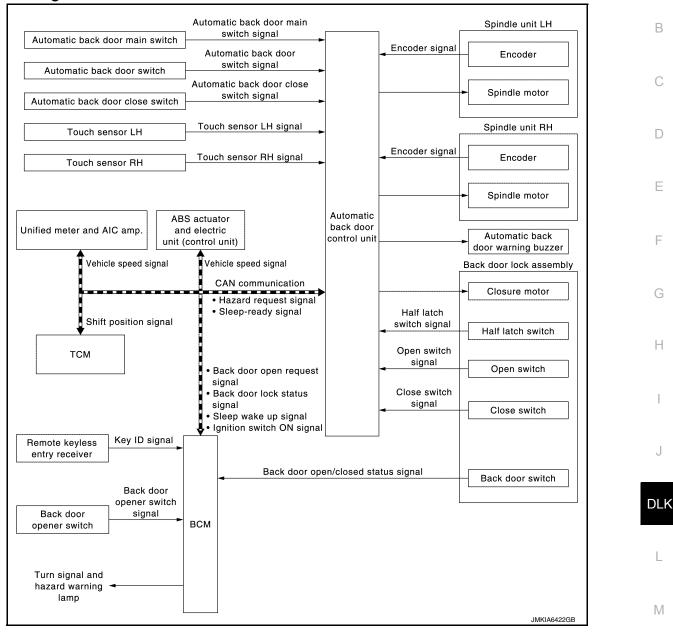
- Front outside handle LH (request switch)
- Outside key antenna (back door)
- View with back door finisher inner removed
- Unified meter and A/C amp.
- Front outside handle LH (outside key antenna)
- 9. Back door lock assembly

6.

< SYSTEM DESCRIPTION >

AUTOMATIC BACK DOOR SYSTEM

System Diagram



System Description

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

AUTOMATIC BACK DOOR OPEN/CLOSE FUNCTION

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

AUTOMATIC OPEN/CLOSE TEMPORARY STOP FUNCTION

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[WITH INTELLIGENT KEY SYSTEM]

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

Back Door Opener Switch Operation

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

Automatic Back Door Main Switch Operation

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

BACK DOOR OPEN POSITION SETTING FUNCTION

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

Setting Procedure

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

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

Cancellation Procedure

Setting of back door open position setting function can be cancelled by the following procedure.

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

BACK DOOR AUTO CLOSURE FUNCTION

Open Function

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

Closure Function

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

WARNING FUNCTION

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

Buzzer Operation Condition

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

	Pattern	Time	Description
A	ON 200ms OFF JMKIA1862ZZ	0.75 sec.	Operation start announcement Anti-pinch operation start announcement
В	Pi	2.0 sec.	 Closure function operates when automatic back door main switch is in OFF position During the closure operation, when touch sensor detects any trapped foreign material, the back door stops halfway
С	Pi	Back door fully closed or vehi- cle is stopped	The conditions are not satisfied in the fully open position or during the operation, and then the operation continues
D	ON OFF	2.5 sec.	 Calibration of automatic back door position information is complete Back door open position setting procedure is complete
	JMKIA6517ZZ		

ANTI-PINCH FUNCTION

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

path, a warning chime sounds and the back door operates in the open direction until it is fully open.

Operation Condition

Detection method		Encoder pulse	Touch sensor		
Applicable operation	n	Open/close operation	Close operation		
Operation when	Stop the vehicle	Buzzer sounds (pattern A) and reverse operation	 Buzzer sounds (pattern A) and the back door stops in the fully-open position after reverse operation During closure (close) operation (at main switch OFF): Closure [open (neutral position return)] operation 		
any trapped for- eign material is de- tected	Running the ve- hicle	No reverse operation (buzzer sounds, pattern C)	 The back door reverses a certain amount, and then reverses automatically to perform the auto close op ation During closure (close) operation (at main switch ON Closure (open) operation 		
Non-reverse area		 Just after starting the mo- tor operation Full range of closure oper- ation Driving Back door open operation Closure [open (return the latch to the neutral position] 			
Switch operation during reverse op- eration		Receive			
Number of allowable reverse opera- tions		Perform the automatic open/close temporary stop function after 2 reverse operations re- gardless of the operation direction			

AUTOMATIC BACK DOOR OPEN/CLOSE OPERATION CONDITION

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AUTOMATIC BACK DOOR SYSTEM [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

	Automa	Automatic back door switch			ent Key	Automat- ic back door close switch	Back door opener switch		
Operating direction	Fully closed \rightarrow Open		Fully open \rightarrow Closed	Fully closed → Open	Fully open \rightarrow Closed	Fully open \rightarrow Closed	Fully closed \rightarrow Open		
Main switch	-	_	—	_	_	ON	ON		
Ignition position	ON/ACC/ LOCK	OFF	_	_		_	ON/ACC/ LOCK	OFF	
Shift selector lever	P position	_	_	_	_	_	P position	_	
Vehicle speed				0 k	m/h		<u> </u>		
Back door lock condition	-	_	_	_			Unk	ock*	
Touch sensor	Normal								
Power supply (Automatic power back door control unit)	Approx. 11 V or more								

*: If the registered Intelligent Key is used, the operation can be performed even if the back door is in the LOCK position

CONTROL IF NOT WITHIN THE OPERATION CONDITIONS DURING THE OPERATION If the back door is not within the operation conditions during the operation, the automatic back door control unit performs the control as follows.

Item (Condition)	Back door condition						
 Vehicle stop condition (open operation) IGN ON and shift P position→IGN ON and other than P position 	The operation is continued						
Operation condition release during the opera- tion start announcement condition	Automatic back door function does not operate						
Vehicle speed	Open operation	Operation stop [Back door fully closed or buzzer sounds until the vehicle stops (pattern C)]					
(0 km/h \rightarrow More than 0 km/h)	Close operation	The operation is continued [buzzer sounds (pattern C) until back door fully closed]					
	Open operation	The operation is continued (If the pinch is detected af- ter that, the system switches to the automatic open/ close temporary stop function)					
Touch sensor	Close operation	Automatic open/close temporary stop function					
(Normal \rightarrow Open)	Closure (close) opera- tion	Closure (open) operation and buzzer sounds (pattern B)					
	Closure [open (return the latch to the neutral position)]	The operation is continued					
Operation time (More than approx. 180 sec.)	Inhibit automatic back door operation						
De de la construcción de la constru	Closure (close) opera- tion	Closure (open) operation and back door open					
Back door opener switch (OFF \rightarrow ON)	Closure [open (return the latch to the neutral position)]	Back door open					
Malfunction detected	IGN circuit	Automatic open/close temporary stop function					
	Half latch switch	Operation is possible up to 3 times					

TIME CHART FOR AUTOMATIC BACK DOOR SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Fully Closed to Fully Open Operation

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

Component	Parts	Status	1	1	2	3	4	(5	
	Half latch switch	ON								_
		OFF								
	Open switch	ON						٦		
		OFF								_
ack door lock	Close switch	ON			Г			-		
assembly Close switch		OFF					i	- 上		 _
Back door closure mot (open)	Back door closure motor	ON								
	(open)	OFF								_
Back door closure moto	Back door closure motor	ON								
	(close)	OFF								_
	Spindle motor	ON								_
Spindle unit	(open)	OFF								
	Spindle motor	ON								
	(close)	OFF								_
_	Automatic back door buzzer	ON	п	пг						
Automatic back door buz		OFF								_
— Hazard	Hozord	ON	Г		Г			_		
	Thazaru	OFF		L						-

- 1. Operates the buzzer and hazard after the operation enable conditions are established
- 2. The back door closure motor performs the open operation after the buzzer (pattern A) stops sounding
- 3. Stops the back door closure motor open operation after turning the open switch to ON Then, operate the spindle motor to perform the back door open operation
- 4. The back door closure motor performs the close operation after turning the half latch switch to ON
- 5. Stop the back door closure motor close operation and return the latch to the neutral position after turning the close switch to OFF

NOTE:

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

Fully Open to Fully Closed Operation

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

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< SYSTEM DESCRIPTION >

Component	Parts	Status	1)	Ċ	2		3	D	4	D	5	
		ON	_				_6						
	Half latch switch	OFF					\mathbb{L}						
		ON											
	Open switch	OFF	—				_((
Back door		ON					\rightarrow						
lock assembly	Close switch	OFF					_([
,	Back door closure	ON					-				_		
	notor (close)	OFF	_				_)_						
		ON											
	Back door closure motor (open)	OFF					\rightarrow						
		ON					\neg					_	
	Spindle motor (open)	OFF					_\						
Spindle unit		ON					_))-						
Spindle (close)	Spindle motor (close)	OFF											
	OFF ON			\rightarrow						 			
-	Automatic back door buzzer			$\Box \Box$									
		OFF ON					_{{						
—	Hazard	OFF					_))[L_	
							_((

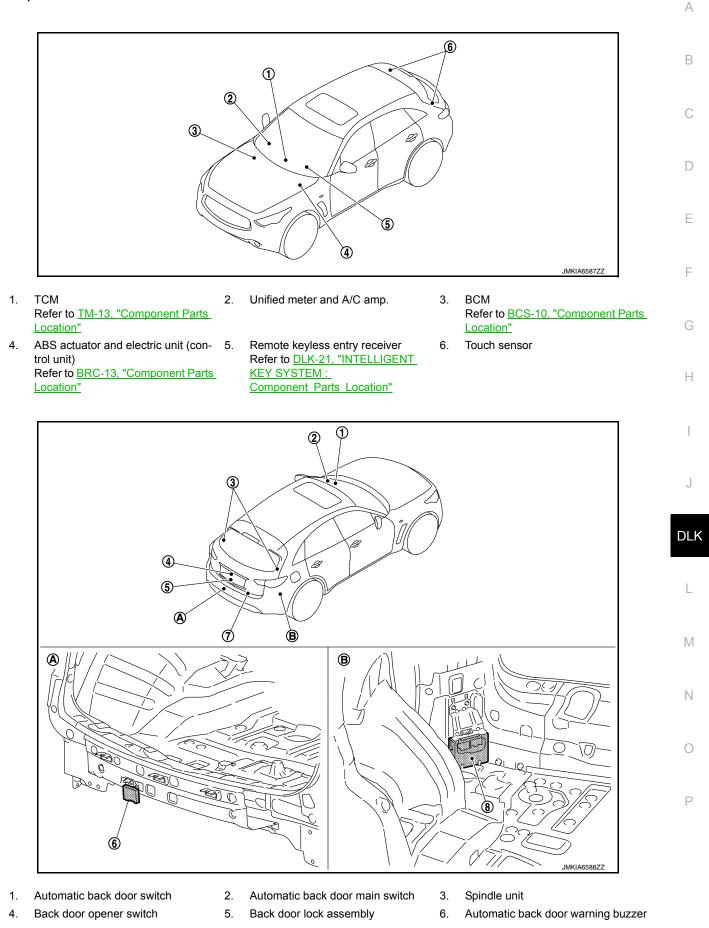
- 1. Operates the buzzer and hazard after the operation enable conditions are established
- 2. After the buzzer (pattern A) stops sounding, operates the spindle motor to perform the back door close operation
- 3. The back door closure motor performs the close operation in 300 msec. or more after turning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

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Component Parts Location

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AUTOMATIC BACK DOOR SYSTEM [WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

- Automatic back door control unit
- 7. Automatic back door close switch A. View with rear bumper removed
- 8.
- Β. View with luggage floor spacer (RH) removed

Component Description

INFOID:000000010577585

Item	Function
Automatic back door control unit	Controls the automatic back door system
BCM	Transmits and receives signals to the automatic back door control unit
ABS actuator and electric unit	Transmits vehicle speed signal to CAN communication line
Unified meter and A/C amp.	Transmits vehicle speed signal to CAN communication line
Automatic back door warning buzz- er	Warns the user of the automatic back door condition and inappropriate operations with the buzzer sounds
Touch sensor LH/RH	During back door close operation, the touch sensor detects any trapped foreign material
Back door opener switch	Detects if back door opener switch is press/release
Back door request switch	Detects if back door request switch is press/release
Automatic back door switch	Detects if automatic back door switch is press/release
Automatic back door main switch	Detects if automatic back door main switch is press/release
Automatic back door close switch	Detects if automatic back door close switch is press/release
Back door lock assembly	 Back door closure motor, half latch switch, open switch, close switch and back door switch are installed Closure motor: Inputs open/close signal from automatic back door control unit and activates the back door auto closure operation Half latch switch: Starts the closure motor close operation Open switch: Stops the closure motor close operation Close switch: Stops the closure motor close operation Back door switch: Inputs back door open/ close condition to BCM
Spindle unit	 Encoder and spindle motor are installed Encoder: Automatic back door control unit receives the pulse signals from encoders A and B that occurred due to synchronization with the back door operation. The automatic back door control unit calculates the back door position, operation direction, and operation speed according to the received pulse signals Spindle motor: Inputs open/close signal from automatic back door control unit and activates the automatic back door open/close operation

INTEGRATED HOMELINK TRANSMITTER < SYSTEM DESCRIPTION >

INTEGRATED HOMELINK TRANSMITTER

Component Description

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

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[WITH INTELLIGENT KEY SYSTEM]

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DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system. **NOTE:**

It can perform the diagnosis modes except the following for all sub system selection items.

Svetom	Sub avetem coloction item		Diagnosis mode	
System	Sub system selection item	Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
	AIR CONDITONER*			
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

CONSULT screen item	Indication/Unit		Description
Vehicle Speed	km/h	Vehicle speed of the mo	ment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odometer	r value) of the moment a particular DTC is detected
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK" [*])
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK" [*] to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT	Power position status of the moment a particular DTC is detected [*]	While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*
Vehicle Condition	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"*
	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 is 0 when The number increases whenever ignition swit 	t ignition switch is turned ON after DTC is detected a malfunction is detected now. b like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition ch OFF \rightarrow ON. b 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 N 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)

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

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< SYSTEM DESCRIPTION >

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
AUTOMATIC DOOR LOCK SE- LECT	 Automatic door lock function mode can be selected from the following in this mode. VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH) P RANGE: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	 Automatic door unlock function mode can be selected from the following in the mode. MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position
AUTOMATIC LOCK/UNLOCK SET	 Automatic door lock/unlock function mode can be selected from the following in this mode. Off: non-operational Unlock Only: door unlock operation only Lock Only: door lock operation only Lock/Unlock: lock/unlock operation

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of back door request switch.
DOOR SW-DR	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicated [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicated [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicated [ON/OFF] condition of lock signal from door lock unlock switch.
CDL UNLOCK SW	Indicated [ON/OFF] condition of unlock signal from door lock unlock switch.
KEY CYL LK-SW	Indicated [ON/OFF] condition of lock signal from door key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from door key cylinder.

ACTIVE TEST

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Description	А
DOOR LOCK	 This test is able to check door lock/unlock operation. The all door lock actuators are locked when "ALL LCK" on CONSULT screen is touched. The all door lock actuators are unlocked when "ALL UNLK" on CONSULT screen is touched. The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT screen is touched. The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT screen is touched. The door lock actuator (rear LH and RH) is unlocked when "OTR ULK" on CONSULT screen is touched. 	B

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

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WORK SUPPORT

Monitor item	Description
REMO CONT ID CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	 Auto door lock time can be changed in this mode. MODE 1: 1 min. MODE 2: 5 min. MODE 3: 30 sec. MODE 4: 2 min.
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and back door) mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door request switch can be changed to operate (ON) or not operate (OFF) in this mode.
PANIC ALARM SET	 Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following in this mode. MODE 1: 0.5 sec. MODE 2: Non-operational MODE 3: 1.5 sec.
PW DOWN SET	 Unlock button pressing time on Intelligent Key button can be selected from the following in this mode. MODE 1: 3 sec. MODE 2: Non-operational MODE 3: 5 sec.
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be supported.
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
HAZARD ANSWER BACK	 Hazard reminder function mode can be selected from the following in this mode. LOCK ONLY: Door lock operation only UNLOCK ONLY: Door unlock operation only LOCK/UNLOCK: Lock/unlock operation OFF: Non-operational
ANS BACK I-KEY LOCK	 Buzzer reminder function (lock operation) mode by door request switch (driver side and pas senger side) can be selected from the following in this mode. Horn chirp: Sound horn Buzzer: Sound Intelligent Key warning buzzer OFF: Non-operational

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< SYSTEM DESCRIPTION >

Monitor item	Description
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) in this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below.70 msec.100 msec.200 msec.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) in this mode.
WELCOME LIGHT SELECT	 Welcome light function mode can be selected from the following in this mode. Puddle Lamp (ON/OFF) Room Lamp (ON/OFF) Head and Tail Lamps (This item is displayed, but cannot be supported.) Outside Handle (This item is displayed, but cannot be supported.)

SELF-DIAG RESULT

Refer to <u>BCS-88, "DTC Index"</u>.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of the P position.
SFT PN/N SW	Indicates [ON/OFF] condition of the P or N position.
S/L -LOCK	NOTE: This item is displayed, but cannot be monitored.
S/L -UNLOCK	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY -F/B	NOTE: This item is displayed, but cannot be monitored.
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of the P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of the P or N position.
SFT P -MET	Indicates [ON/OFF] condition of the P position.
SFT N -MET	Indicates [ON/OFF] condition of the N position.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L UNLK-IPDM	NOTE: This item is displayed, but cannot be monitored.

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< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	
S/L RELAY-REQ	NOTE: This item is displayed, but cannot be monitored.	
VEH SPEED 1	Displays the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].	
VEH SPEED 2	Displays the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].	
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.	
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.	
ID OK FLAG	Indicates [SET/RESET] condition of key ID.	
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.	
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.	
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored.	
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.	
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.	
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.	
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on In- telligent Key, the numerical values starts changing.	
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated when "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated when "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated when "ON" on CONSULT screen is touched.
INSIDE BUZZER	 This test is able to check warning chime in combination meter operation. Takes away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. Key warning chime sounds when "KEY" on CONSULT screen is touched. The P position warning chime sounds when "KNOB" on CONSULT screen is touched.
INDICATOR	 This test is able to check warning lamp operation. "KEY" Warning lamp illuminates when "RED ON" on CONSULT screen is touched. The "KEY" Warning lamp blinks when "RED IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated when "ON" on CONSULT screen is touched.

< SYSTEM DESCRIPTION >

Test item	Description
LCD	 This test is able to check meter display information Engine start information displays when "BP N" on CONSULT screen is touched. Engine start information displays when "BP I" on CONSULT screen is touched. Key ID warning displays when "ID NG" on CONSULT screen is touched. ROTAT: This item is displayed, but cannot be tasted. The P position warning displays when "SFT P" on CONSULT screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. Take away through window warning displays when "NO KY" on CONSULT screen is touched. Take away warning displays when "OUTKY" on CONSULT screen is touched. The OFF position warning displays when "LK WN" on CONSULT screen is touched.
TRUNK/GLASS HATCH	NOTE: This item is displayed, but cannot be used.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps is activated when "LH" or "RH" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn will be activated when "ON" on CONSULT screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (LOCK) illuminates when "ON" on CONSULT screen is touched.
ACC INDICATOR	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (ACC) illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (ON) illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000010577590

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

DATA MONITOR **NOTE**:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Contents
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
UNLK SEN -DR	NOTE: This item is displayed, but cannot be monitored.
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.
TR CANCEL SW	NOTE: This item is displayed, but cannot be monitored.

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Contents	٨
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.	А
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.	R
RKE-TR/BD*	NOTE: This item is displayed, but cannot be monitored.	D

*: With back door opener system

ACTIVE TEST

Test item	Description	D
TRUNK/GLASS HATCH	NOTE: This item is displayed, but cannot be used.	
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DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT) < SYSTEM DESCRIPTION > [WITH INTELLIGENT KEY SYSTEM]

DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT)

CONSULT Function (AUTOMATIC BACK DOOR CONTROL UNIT)

INFOID:000000010577591

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with automatic back door control unit.

Diagnosis mode	Function Description
Work Support	Changes the setting for system function
Self Diagnostic Result	Displays the diagnosis results judged by automatic back door control unit
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from automatic back door control unit
Data Monitor	The automatic back door control unit input/output signals are displayed
Ecu Identification	The automatic back door control unit part number is displayed

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Description	
SPINDLE SENSOR LH	Indicates [Pulse] condition of encoder LH	
SPINDLE LH SPEED	Indicates [mm/s] condition of spindle motor LH operation speed	
SPINDLE MOTOR LH DUTY	Indicates [%] condition of spindle motor LH duty	
VHCL SPEED MTR	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [km/h]	
VHCL SPEED ABS	Display the vehicle speed signal received from ABS actuator and electrical unit by numer- ical value [km/h]	
MAIN SW	Indicates [ON/OFF] condition of automatic back door main switch	
AUTO BD SW	Indicates [ON/OFF] condition of automatic back door switch	
BK DOOR CL SW	Indicates [ON/OFF] condition of automatic back door close switch	
BACK DOOR LOCK STATUS	Indicates [ON/OFF] condition of back door lock status	
OPEN SW	Indicates [ON/OFF] condition of open switch	
CLOSE SW	Indicates [ON/OFF] condition of close switch	
HALF LATCH SW	Indicates [ON/OFF] condition of half latch switch	
TOUCH SEN RH	Indicates [ON/OFF/OPEN] condition of touch sensor RH	
TOUCH SEN LH	Indicates [ON/OFF/OPEN] condition of touch sensor LH	
P RANGE IND	Indicates [ON/OFF] condition of P range signal from unified meter and A/C amp.	
RKE REQ	Indicates [OFF/MOVE/REV] condition of remote keyless entry signal from BCM	
IGN SW	Indicates [ON/OFF] condition of IGN power supply	
SPINDLE LH ENCODER A	Indicates [LO/HI] condition of encoder signal A from encoder LH	
SPINDLE LH ENCODER B	Indicates [LO/HI] condition of encoder signal B from encoder LH	
UNLOCK SEN BD	NOTE: This item is displayed, but cannot be monitored	
DESTINATION	Indicates [Type1/Type2/Type3/Type4] specification of destination of the automatic back door system	
AUTO BCK DR POSI INITIAL	Indicates [YET/DONE] condition of [CALIBRATION OF AUTOMATIC BACK DOOR PO- SITION INFORMATION]	
AUTO BCK DR POSI LEARN	Indicates [YET/DONE] condition of [ADDITIONAL SERVICE WHEN REMOVING BAT- TERY NEGATIVE TERMINAL]	
SPINDLE SENSOR RH	Indicates [Pulse] condition of encoder RH	

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DLK-66

DIAGNOSIS SYSTEM (AUTOMATIC BACK DOOR CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Description	
SPINDLE RH SPEED	Indicates [mm/s] condition of spindle motor RH operation speed	
SPINDLE MOTOR RH DUTY	Indicates [%] condition of spindle motor RH duty	
SPINDLE RH ENCODER A	Indicates [LO/HI] condition of encoder signal A from encoder RH	
SPINDLE RH ENCODER B	Indicates [LO/HI] condition of encoder signal B from encoder RH	
TRANSMISSION TYPE	Indicates [MT/AT/CVT] condition of transmission type	

WORK SUPPORT

Monitor Item	Description	D
RESET AUTO BACK DOOR STA- TUS	This item is able to calibration of automatic back door position information	

SELF-DIAG RESULT Refer to DLK-251, "DTC Index".

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DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

INFOID:000000010577592

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-35, "CAN Communication Signal Chart".

DTC Logic

INFOID:000000010577593

DTC DETECTION LOGIC

DTC	CONSULT display de- scription	DTC detecting condition	Possible cause
U1000	CAN COMM	When automatic back door control unit cannot communicate CAN communication signal con- tinuously for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:000000010577594

1.PERFORM SELF DIAGNOSTIC

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

2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-25, "Trouble Diagnosis Flow Chart".

NO >> Refer to <u>GI-47, "Intermittent Incident"</u>.

U1010 CONTROL UNIT (CAN) [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000010577595

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U1010 CONTROL UNIT (CAN) Automatic back door control unit detected inter- nal CAN communication circuit malfunction Automatic back door Diagnosis Procedure 1.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT Mhen DTC [U1010] is detected, replace automatic back door control unit. When DTC [U1010] is detected, replace automatic back door control unit. >> Replace automatic back door control unit. Refer to DLK-364, "Removal and Installat"	INFOID:0000000010577
REPLACE AUTOMATIC BACK DOOR CONTROL UNIT When DTC [U1010] is detected, replace automatic back door control unit.	
When DTC [U1010] is detected, replace automatic back door control unit.	<u>ion"</u> .
	<u>ion"</u> .
>> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installat</u>	<u>ion"</u> .

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B2401 IGNITION POWER SUPPLY CIRCUIT NOSIS > [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

B2401 IGNITION POWER SUPPLY CIRCUIT

DTC Logic

INFOID:000000010577597

INFOID:000000010577598

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2401	IGN OPEN	Automatic back door control unit cannot detect igni- tion switch ON signal via CAN communication with BCM	 BCM Automatic back door control unit CAN communication system

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

- YES >> Refer to <u>DLK-70, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

1.CHECK BCM OUTPUT SIGNAL

- 1. Select "IPDM E/R" using CONSULT.
- 2. Select "IGN RLY1-REQ" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
IGN RLY1-REQ	Ignition switch	ON	On
IGN KLT I-KEQ	Ignition switch	OFF	Off

Is the inspection result normal?

YES >> Replace automatic back door control unit.

NO >> Replace BCM. Refer to <u>BCS-93. "Removal and Installation"</u>.

B2409 HALF LATCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

B2409 HALF LATCH SWITCH

DTC Logic

INFOID:000000010577599

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DTC	CONSULT display description	DTC detecting condition	1	Possible cause
B2409	HALF LATCH SW	Automatic back door control unit dete tion of half latch switch during automa of back door	cts a malfunc- atic operation	Entry of foreign materials to back door lock assembly Back door mechanism Automatic back door control unit Half latch switch Harness or connectors
	RMATION PRO	CEDURE ATION PROCEDURE		
1. Turn igni 2. Operate 3. Check "S Is DTC detec YES >> F	tion switch ON. automatic back do self Diagnostic Res t <u>ed?</u>	oor. sult" mode of "AUTOMATIC BAC <u>Diagnosis Procedure"</u> .	K DOOR CONT	FROL UNIT" using CONSUL
Diagnosis	Procedure			INFOID:00000001057
Check for ent	try of foreign mate	TERIALS IN BACK DOOR LOCK rials in back door lock assembly.	ASSEMBLY	
YES >> 0 NO >> F	ion result normal? GO TO 2. Remove foreign ma ACK DOOR OPE1			
Manually che	ck open and close	e operation of back door.		
YES >> 0 NO >> F		he malfunction parts. TCH MONITOR ITEM		
1. Select "A 2. Select "H	UTOMATIC BACH IALF LATCH SW"	CHMONTOR TEM CDOOR CONTROL UNIT" using in "DATA MONITOR" mode. erates normally according to the f		ions.
Мс	onitor item	Condition		Status
HALF LATCH	H SW	Back door Fully Oper	closed/Half latch	OFF ON
-	ion result normal? GO TO 8. GO TO 4.			

- 2. Disconnect back door lock assembly connector.
- 3. Check voltage between back door lock assembly harness connector and ground.

B2409 HALF LATCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

(+) Back door loo		()	Voltage (Approx.)	
Connector	Terminal		(FF -)	
D107	6	Ground	16 – 8 V	

Is the inspection result normal?

YES >> GO TO 6. NO >> GO TO 5.

5. CHECK HALF LATCH SWITCH CIRCUIT

1. Disconnect automatic back door control unit connector.

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

Automatic back door control unit		Back door lock assembly		door control unit Back door lock assembly Continui		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
B207	3	D107	6	Existed		

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

_	Automatic back door control unit		unit	
	Connector	Terminal	Ground	Continuity
_	B207	3		Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.

NO >> Repair or replace harness.

6.CHECK HALF LATCH SWITCH GROUND CIRCUIT

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

	Back door lock	assembly		Continuity
Co	onnector	Terminal	Ground	Continuity
	D107	8		Existed

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace back door lock assembly ground circuit.

7. CHECK HALF LATCH SWITCH

Refer to DLK-72, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace back door lock assembly.

8.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1.CHECK SWITCH

1. Turn ignition switch OFF.

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INFOID:000000010577601

B2409 HALF LATCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Disconnect back door lock assembly connector.

3. Check continuity between back door lock assembly terminals.

Back door lock assembly			Condition	Continuity			
Termi	nal		Condition		Condition Continuit		
4			Open	Existed	-		
4			Fully closed/Half latch	Not existed	-		
F		Deels deer leek	Fully close	Existed	-		
5	8	Back door lock	Open/Half latch	Not existed			
6			Open	Existed	-		
0			Fully closed/Half latch	Not existed	-		
7		_	Back door On	On	Existed	-	
1		switch	Off	Not existed	-		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly.

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B2416 TOUCH SENSOR RH

< DTC/CIRCUIT DIAGNOSIS >

B2416 TOUCH SENSOR RH

DTC Logic

INFOID:000000010577602

[WITH INTELLIGENT KEY SYSTEM]

DTC DETECTION LOGIC

_	DTC	CONSULT display description	DTC detecting condition	Possible cause
_	B2416	TOUCH SEN R OPEN	Automatic back door control unit detects a malfunc- tion of touch sensor RH during automatic operation of back door	 Improper installation of touch sensor Touch sensor RH Harness or connectors Automatic back door control unit

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

2. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

- YES >> Refer to <u>DLK-74, "Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577603

1. CHECK INSTALLATION OF TOUCH SENSOR RH

Check that touch sensor RH is installed normally. Refer to <u>DLK-351, "TOUCH SENSOR : Removal and Installation"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to <u>DLK-351</u>, "TOUCH SENSOR : Removal and Installation".

2. CHECK TOUCH SENSOR MONITOR ITEM

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "TOUCH SEN RH" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

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

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 3.

3.CHECK TOUCH SENSOR INPUT SIGNAL

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

(*	+)	(-)				back door control unit Condition		
Touch se	ensor RH	Automatic back	door control unit	Voltage (Approx.)				
Connector	Terminal	Connector	Terminal	(, , , , , , , , , , , , , , , , , , ,				
D126	1	B207	13	Touch sensor	Detect obstruc- tion	1.8 – 5 V		
D120	I	6207	15	RH	Other than above	2.72 – 7.27 V		

B2416 TOUCH SENSOR RH

< DTC/CIRCUIT DIAGNOSIS >

+.CHECK TOUCH SENS	SOR RH CIRCUIT			
 Disconnect automatic Check continuity betw ness connector. 				nd touch sensor RH ha
Automatic back do	oor control unit	Touch	sensor RH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	1	D126	1	Existed
3. Check continuity betw	ween automatic back	door control unit h	arness connector ar	nd ground.
Automatic k	back door control unit			
Connector	Termina	al	Ground	Continuity
B207	1			Not existed
s the inspection result no	ormal?			
	SOR RH GROND CI c back door control u	nit and touch sense		nd touch sensor RH ha
ness connector.				
Automatic back do	oor control unit	Touch	sensor RH	Continuity
Connector	Terminal	Connector	Terminal	- Continuity
B207	13	D126	2	Existed
Check continuity betw	ween automatic back	door control unit h	arness connector ar	nd ground.
Automatic b	back door control unit			
Automatic b Connector	back door control unit Termina	al	Ground	Continuity
		al	Ground	Continuity Not existed
Connector	Termina 13 ormal? olace harness. SOR RH GROND CI	RCUIT 2		-
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep CHECK TOUCH SENS	Termina 13 ormal? olace harness. SOR RH GROND Cli ack door control unit een automatic back do	RCUIT 2 and touch sensor I	RH connector.	Not existed
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep D.CHECK TOUCH SENS 1. Connect automatic bac 2. Check voltage between	Termina 13 ormal? olace harness. SOR RH GROND Cli ack door control unit en automatic back do (+)	RCUIT 2 and touch sensor I	RH connector. ness connector and	Not existed ground. Voltage
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep D.CHECK TOUCH SENS 1. Connect automatic ba 2. Check voltage betwee Automatic	Termina 13 ormal? olace harness. SOR RH GROND CI ack door control unit en automatic back do (+) ic back door control unit	RCUIT 2 and touch sensor I oor control unit har	RH connector.	Not existed
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep D.CHECK TOUCH SENS 1. Connect automatic base 2. Check voltage between Automatic Connector	Termina 13 ormal? olace harness. SOR RH GROND CI ack door control unit en automatic back do (+) ic back door control unit Termi	RCUIT 2 and touch sensor I oor control unit har	RH connector. ness connector and (–)	Not existed ground. Voltage (Approx.)
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep D.CHECK TOUCH SENS I. Connect automatic ba 2. Check voltage betweet Automatic Connector B207 s the inspection result no YES >> GO TO 7. NO >> Replace auto	Termina 13 20rmal? blace harness. SOR RH GROND CI ack door control unit en automatic back do (+) ic back door control unit Termi 13 20rmal? pomatic back door con	RCUIT 2 and touch sensor I oor control unit har	RH connector. ness connector and (–) Ground	Not existed ground. Voltage (Approx.) 0.01 – 0 V
Connector B207 s the inspection result no YES >> GO TO 6. NO >> Repair or rep D.CHECK TOUCH SENS I. Connect automatic base 2. Check voltage between Automatic Connector B207 s the inspection result no YES >> GO TO 7.	Termina 13 20rmal? blace harness. SOR RH GROND CI ack door control unit en automatic back do (+) ic back door control unit Termi 13 20rmal? pomatic back door con SOR RH	RCUIT 2 and touch sensor I oor control unit har	RH connector. ness connector and (–) Ground	Not existed ground. Voltage (Approx.) 0.01 – 0 V

B2416 TOUCH SENSOR RH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> GO TO 8.

NO >> Replace touch sensor RH.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK TOUCH SENSOR RH

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

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace touch sensor RH.

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INFOID:000000010577604

B2417 TOUCH SENSOR LH

< DTC/CIRCUIT DIAGNOSIS >

B2417 TOUCH SENSOR LH

DTC Logic

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[WITH INTELLIGENT KEY SYSTEM]

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2417	TOUCH SEN L OPEN	Automatic back door control unit detects a mal- function of touch sensor LH during automatic op ation of back door	 Improper installation of touch sensor Touch sensor LH Harness or connectors Automatic back door control unit
	IRMATION PROC		
.PERFOR	M DTC CONFIRM	ATION PROCEDURE	
2. Check [®] <u>s DTC deter</u> YES >>	cted?	sult" mode of "AUTOMATIC BACK DOOR	CONTROL UNIT" using CONSUL
-	Procedure		
Jaynosis	FIUCEUUIE		INFOID:00000001057
4			
		TOUCH SENSOR LH	
Check that t	ouch sensor LH is i	nstalled normally.	
Check that to Refer to <u>DLP</u> s the inspec	ouch sensor LH is i (-351, "TOUCH SE tion result normal?	nstalled normally. NSOR : Removal and Installation".	
Check that to Refer to <u>DLk</u> s the inspec YES >> NO >>	ouch sensor LH is i (-351, "TOUCH SE ation result normal? GO TO 2.	nstalled normally. NSOR : Removal and Installation". "TOUCH SENSOR : Removal and Installa	<u>tion"</u> .
Check that to Refer to <u>DLP</u> <u>s the inspec</u> YES >> NO >> 2.CHECK 1 1. Select "/ 2. Select "/	ouch sensor LH is i (-351, "TOUCH SE <u>stion result normal?</u> GO TO 2. Refer to <u>DLK-351, '</u> OUCH SENSOR M AUTOMATIC BACK TOUCH SEN LH" ir	nstalled normally. NSOR : Removal and Installation". "TOUCH SENSOR : Removal and Installa	_T.
Check that to Refer to <u>DLP</u> <u>s the inspec</u> YES >> NO >> 2. CHECK 1 1. Select "/ 2. Select "/ 3. Check th	ouch sensor LH is i (-351, "TOUCH SE <u>stion result normal?</u> GO TO 2. Refer to <u>DLK-351, '</u> OUCH SENSOR M AUTOMATIC BACK TOUCH SEN LH" ir	nstalled normally. <u>NSOR : Removal and Installation"</u> . <u>"TOUCH SENSOR : Removal and Installa</u> <u>MONITOR ITEM</u> <u>COOR CONTROL UNIT</u> " using CONSUL 1 "DATA MONITOR" mode.	_T.
Check that to Refer to <u>DLP</u> <u>s the inspec</u> YES >> NO >> 2. CHECK 1 1. Select "/ 2. Select "/ 3. Check th	ouch sensor LH is i <u>(-351, "TOUCH SE</u> <u>stion result normal?</u> GO TO 2. Refer to <u>DLK-351, '</u> OUCH SENSOR M AUTOMATIC BACK TOUCH SEN LH" in hat the function oper- onitor item	nstalled normally. <u>NSOR : Removal and Installation</u> ". <u>'TOUCH SENSOR : Removal and Installa</u> <u>MONITOR ITEM</u> <u>COOR CONTROL UNIT</u> " using CONSUL <u>o</u> "DATA MONITOR" mode. erates normally according to the following	_T. conditions.

- NO >> GO TO 3.

 $\mathbf{3}$.check touch sensor input signal

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

(+)	(-)				
Touch s	ensor LH	Automatic back	door control unit	Сог	ndition	Voltage (Approx.)	
Connector	Terminal	Connector	Terminal	1		(********)	
D125	1	B207	13	Touch sensor	Detect obstruc- tion	1.8 – 5 V	-
D125	I	6207	15	LH	Other than above	2.72 – 7.27 V	-

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B2417 TOUCH SENSOR LH

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK TOUCH SENSOR LH CIRCUIT

1. Disconnect automatic back door control unit and touch sensor LH connector.

2. Check continuity between automatic back door control unit harness connector and touch sensor LH harness connector.

Automatic back door control unit		Touch sensor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	2	D125	1	Existed

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

Automatic back of	door control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	2	*	Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK TOUCH SENSOR LH GROND CIRCUIT

1. Disconnect automatic back door control unit and touch sensor LH connector.

 Check continuity between automatic back door control unit harness connector and touch sensor LH harness connector.

Automatic back of	Automatic back door control unit		Touch sensor LH		
Connector	Terminal	Connector	Terminal	Continuity	
B207	13	D125	2	Existed	

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

Automatic back	door control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	13		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

 $\mathbf{6}$.CHECK TOUCH SENSOR LH GROND CIRCUIT 2

1. Connect automatic back door control unit and touch sensor LH connector.

2. Check voltage between automatic back door control unit harness connector and ground.

Automatic bac	(+) Automatic back door control unit Connector Terminal		Voltage (Approx.)	
Connector	Terminal	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
B207	13	Ground	0.01 – 0 V	

Is the inspection result normal?

YES >> GO TO 7.

```
NO >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.
```

7.CHECK TOUCH SENSOR LH

Refer to DLK-76, "Component Inspection".

Is the inspection result normal?

B2417 TOUCH SENSOR LH

< DTC/CIRCUIT DIA	GNOSIS >		[WITH INTE	LLIGENT KEY SYSTEM]
YES >> GO TO 8 NO >> Replace	touch sensor LH.			
8.CHECK INTERMIT				
Refer to <u>GI-47, "Interr</u>		•		
>> INSPECT				
Component Insp	ection			INFOID:000000010577607
1. CHECK TOUCH S	ENSOR LH			
1. Turn ignition swite				
 Disconnect touch Check resistance 		ector. ensor LH terminals.		
Touch se	noor I H			
Term		- c	ondition	Resistance (Approx.)
			Detect obstruction	380 – 420 kΩ
1	2	Touch sensor LH	Other than above	0.95 – 1.05 kΩ
s the inspection resu				
YES >> INSPECT NO >> Replace	TON END touch sensor LH.			

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B2419 OPEN SWITCH

DTC Logic

INFOID:000000010577608

[WITH INTELLIGENT KEY SYSTEM]

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2419	OPEN SW	Automatic back door control unit detects a malfunc- tion of open switch during automatic operation of back door	 Entry of foreign materials to back door lock assembly Back door mechanism Automatic back door control unit Open switch Harness or connectors

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

- 2. Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

YES >> Refer to <u>DLK-80, "Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577609

1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

2. CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK OPEN SWITCH SIGNAL

1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

- 2. Select "OPEN SW" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condi	tion	Status
OPEN SW E	Back door	Fully closed/Half latch	OFF
	Back dool	Open	ON

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 4.

4.CHECK OPEN SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect back door lock assembly connector.
- 3. Check voltage between back door lock assembly harness connector and ground.

B2419 OPEN SWITCH

WITH INTELLIGENT KEY SYSTEMI

< DTC/CIRCUIT DIAGNOS	SIS >	[WITH INTELLIGE	ENT KEY SYSTEM]
(+)				Voltage
Back door loc	k assembly	()	() (/	
Connector	Terminal			
D107	4	Ground	d 16 – 8 V	
 s the inspection result norm YES >> GO TO 6. NO >> GO TO 5. 5.CHECK OPEN SWITCH 1. Disconnect automatic back 2. Check continuity between 	CIRCUIT ack door control unit co		s connector and b	ack door lock assem-
bly harness connector.				
Automatic back door	control unit	Back door loo	ck assembly	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	11	D107	4	Existed
Connector	ck door control unit Terminal	(Ground	Continuity
B207	11			Not existed
Check continuity between ba				0
Connector	Terminal	Ground		Continuity
D107	8			Existed
Is the inspection result norm YES >> GO TO 7. NO >> Repair or replac CHECK OPEN SWITCH				
Refer to <u>DLK-72, "Compone</u> Is the inspection result norm YES >> GO TO 8. NO >> Replace back de	al?			
8.CHECK INTERMITTENT Refer to <u>GI-47, "Intermittent</u>				
>> INSPECTION E Component Inspectior				INFOID:000000010577610
COMPONENT INSPECTI				iivr-oitJ.uuuuuuuuuuuy/7610
1.снеск switch				
1. Turn ignition switch OFF				

Revision: 2015 February

B2419 OPEN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

2. Disconnect back door lock assembly connector.

3. Check continuity between back door lock assembly terminals.

Back door lo	Back door lock assembly		Condition	
Tern	ninal		Condition	Continuity
4		Open	Existed	
			Fully closed/Half latch	Not existed
5		Back door lock	Fully close	Existed
5	0		Open/Half latch	Not existed
6	0		Open	Existed
0			Fully closed/Half latch	Not existed
7		Back door	On	Existed
switch	switch	Off	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly.

< DTC/CIRCUIT DIAGNOSIS >

B2420 CLOSE SWITCH

DTC Logic

INFOID:0000000010577611

DTC	CONSULT display description	DTC detecting conditio	1	Possible cause
B2420	CLOSE SW	Automatic back door control unit dete tion of close switch during automatic back door	cts a malfunc- operation of Close	of foreign materials to back ock assembly door mechanism latic back door control unit switch ss or connectors
	IRMATION PRO			
.PERFOR	M DTC CONFIRM	ATION PROCEDURE		
	nition switch ON. Self Diagnostic Re	sult" mode of "AUTOMATIC BAC	K DOOR CONTROL	UNIT" using CONSUI
DTC dete	-			
	Refer to <u>DLK-83, "</u> INSPECTION END	Diagnosis Procedure".		
-				
-	Procedure			INFOID:0000000105
		TERIALS IN BACK DOOR LOC		
	ntry of foreign mate ction result normal?	rials in back door lock assembly.		
	GO TO 2.			
	Remove foreign m			
		N/CLOSE OPERATION		
-	eck open and close	e operation of back door.		
/ES >>	GO TO 3.	-		
		he malfunctioning parts.		
	CLOSE SWITCH S	IGNAL K DOOR CONTROL UNIT" using		
Select "	CLOSE SW" in "DA	TA MONITOR" mode.		
Check t	hat the function op	erates normally according to the	following conditions.	
Ν	Ionitor item	Condition		Status
CLOSE SW	1	Back door	n/Half latch	OFF
		-	closed	ON
	ction result normal? GO TO 8.	_		
	00100.			
/ES >> NO >>	GO TO 4. CLOSE SWITCH IN			

3. Check voltage between back door lock assembly harness connector and ground.

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B2420 CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

(+) Back door loc	(+) Back door lock assembly Connector Terminal D107 5	(-)	Voltage (Approx.)	
Connector	Terminal		(
D107	5	Ground	16 – 8 V	

Is the inspection result normal?

YES >> GO TO 6. NO >> GO TO 5.

5.CHECK CLOSE SWITCH CIRCUIT

1. Disconnect automatic back door control unit connector.

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

Automatic back door control unit		Back door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	5	D107	5	Existed

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

	Automatic back door control unit Connector Terminal			Continuity
	Connector	Terminal Ground	Continuity	
_	B207	5		Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace harness.

6.CHECK CLOSE SWITCH GROUND CIRCUIT

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

Back door lock	Back door lock assembly		Continuity
Connector	Terminal	Ground	Continuity
D107	8		Existed

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

7. CHECK CLOSE SWITCH

Refer to <u>DLK-72, "Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace back door lock assembly.

8.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1.CHECK SWITCH

1. Turn ignition switch OFF.

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INFOID:0000000010577613

B2420 CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Disconnect back door lock assembly.

3. Check continuity between back door lock assembly terminals.

Back door lock assembly			Condition		
Termir	nal		Condition	Continuity	
4			Open	Existed	
4	4		Fully closed/Half latch	Not existed	
5	Back door lock	Fully close	Existed		
		Open/Half latch	Not existed	_	
6	8		Open	Existed	-
6		Fully closed/Half latch	Not existed	_	
7	Back door	On	Existed	_	
	switch	Off	Not existed	_	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly.

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< DTC/CIRCUIT DIAGNOSIS >

B2422 BACK DOOR STATE

DTC Logic

INFOID:000000010577614

[WITH INTELLIGENT KEY SYSTEM]

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2422	BACK DOOR STATE	When the automatic back door control unit detects back door position malfunction according to the pulse signal	 Improper installation of back door assembly [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFOR- MATION]: not complete Back door mechanism Encoder Automatic back door control unit Harness or connectors

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

- YES >> Refer to DLK-86, "Diagnosis Procedure".
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577615

1.CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

- Perform initialization setting of automatic back door position information. Refer to <u>DLK-14, "Work Procedure"</u>.
- 2. Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

Is DTC detected?

YES >> GO TO 2.

NO >> INSPECTION END

2. CHECK INSTALLATION OF BACK DOOR ASSEMBLY

- Check that back door assembly is installed normally. Refer to <u>DLK-330, "BACK DOOR ASSEMBLY : Adjustment"</u>.
- 2. Check back door assembly mechanism deformation, looseness, rattle, interference with other parts, and pinched foreign materials.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER SIGNAL

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "SPINDLE SENSOR LH" and "SPINDLE SENSOR RH" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

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

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

YES >> GO TO 4.

B2422 BACK DOOR STATE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

•	DER POWER S		nit. Refer to <u>DLK-364, "Re</u>	emoval and Insta	<u>liation</u> .
Turn ignition s Disconnect sp	witch OFF. indle unit conne	ector.	onnector and ground.		
	(+)				
	Spindle unit		()	Volta (App	
Conn	ector	Terminal		(****	
LH	B95	3	Ground	16.75	-6V
RH	B262		Ground	10.75	- 0 V
	Itomatic back do	oor control unit co comatic back doo	nnector. r control unit harness con	nnector and spin	dle unit har
Automatic ba	ick door control unit		Spindle unit		
Connector	Terminal		Connector	Terminal	- Continuity
B207	19	LH	B95	3	Existed
	20	RH	B262		
	utomatic back door	control unit Terminal			Continuity
Connec		40	Ground		
B207		19 20			Not existed
B207 the inspection re ES >> Repla IO >> Repai .CHECK ENCO Disconnect au	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do	20 ck door control un ness. 2 por control unit co	nit. Refer to <u>DLK-364. "Re</u>	moval and Insta	llation".
B207 the inspection re ES >> Repla IO >> Repai .CHECK ENCO Disconnect au Check continu connector.	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do	20 ck door control un ness. 2 por control unit co	nit. Refer to <u>DLK-364, "Re</u> onnector.	moval and Insta	llation". dle unit har
B207 the inspection re ES >> Repla O >> Repai CHECK ENCO Disconnect au Check continu connector.	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do ity between aut	20 ck door control un ness. 2 por control unit co	nit. Refer to <u>DLK-364, "Re</u> onnector. or control unit harness con	moval and Insta	llation".
B207 the inspection re ES >> Repla IO >> Repai .CHECK ENCO Disconnect au Check continu connector. Automatic ba	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do ity between aut ick door control unit Terminal 6	20 ck door control un ness. 2 por control unit co	nit. Refer to <u>DLK-364, "Re</u> onnector. or control unit harness con Spindle unit	emoval and Insta	llation". dle unit har
B207 the inspection re ES >> Repla IO >> Repai .CHECK ENCO Disconnect au Check continu connector. Automatic ba Connector	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do ity between aut	20 ck door control un ness. 2 por control unit co comatic back doo	nit. Refer to <u>DLK-364, "Re</u> onnector. or control unit harness con Spindle unit Connector	emoval and Insta	llation". dle unit har
B207 the inspection re ES >> Repla O >> Repai CHECK ENCO Disconnect au Check continu connector. Automatic ba	esult normal? ce automatic ba r or replace harr DER CIRCUIT 2 itomatic back do ity between aut ick door control unit Terminal 6	20 ck door control un ness. 2 por control unit co comatic back doo	nit. Refer to <u>DLK-364, "Re</u> onnector. or control unit harness con Spindle unit Connector	emoval and Insta	llation". dle unit har Continuity

B2422 BACK DOOR STATE

< DTC/CIRCUIT DIAGNOSIS >

Automatic bac	Automatic back door control unit				
Connector	Terminal		Continuity		
	6	Ground			
B207	7		Not existed		
B207	8		NOT EXISTED		
	9				

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

7. CHECK ENCODER CIRCUIT 3

1. Connect automatic back door control unit and spindle unit connector

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

Automatic back	door control unit		Voltage
Connector Terminal		Ground	(Approx.)
B207	21		0 V

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

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

< DTC/CIRCUIT DIAGNOSIS >

B2423 AUTOMATIC BACK DOOR MOTOR OPERATION TIME

DTC I ogic

INFOID:0000000010577616

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DICDEIE	CTION LOGIC			
DTC	CONSULT display de- scription	DTC detecting condition	Possible	ecause
B2423	ABD MTR TIME OUT	When the automatic back door control unit and spindle motor operate in the same direction for 180 seconds or more continuously	 Spindle motor Automatic back unit Harness or cor 	
TC CONF	IRMATION PROCED	URE		
.PERFOR	M DTC CONFIRMATIO	N PROCEDURE		
2. Operate 3. Check "s <u>s DTC deter</u> YES >>	<u>cted?</u> Refer to <u>DLK-89, "Diag</u> i	mode of "AUTOMATIC BACK DOOR CON ⁻	FROL UNIT" us	ing CONSULT.
-	INSPECTION END			
Diagnosis	Procedure			INFOID:000000010577617
I.ERASE C	DTC			
2. Erase D <u>s DTC detee</u>	TC, and then repeat "P	d after automatic back door operation is inf ERFORM DTC CONFIRMATION PROCED		
-	INSPECTION END			
2.CHECK 8	SPINDLE MOTOR CIRC	CUIT		
2. Disconn	continuity between auto	r control unit and spindle unit connector. matic back door control unit harness conn	ector and spine	lle unit harness
Auton	natic back door control unit	Spindle unit		
	actor Torminal	Connector	Torminal	Continuity

Automatic	back door control unit	Continuity		Spindle unit		Spindle unit		Continuity	
Connector	Terminal	Con	nector	Terminal	Continuity				
	27	LH	B94	1		IVI			
B208	34		034	2	Existed				
B200	29	RH	B261	1	LAISIEU	Ν			
	36		6201	2					

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

Automatic back	door control unit		Oantinuitu	
Connector	Terminal		Continuity	Ρ
	27	Ground		
B208	29	Gibuna	Not existed	
6200	34		NOT EXISTED	
	36			

Is the inspection result normal?

Ο

B2423 AUTOMATIC BACK DOOR MOTOR OPERATION TIME

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- YES >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

< DTC/CIRCUIT DIAGNOSIS >

B2426 ENCODER

DTC Logic

INFOID:000000010577618

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DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2426	SPINDLE SENSOR LH	When the automatic back door control unit can not receive the pulse signal from the encoder just after starting the open/close operation	 Improper installation of back door assembly [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFOR- MATION]: not complete Back door mechanism Automatic back door control unit Encoder Harness or connectors
TC CONFI	IRMATION PROC	EDURE	
.PERFORM	M DTC CONFIRMA	TION PROCEDURE	
2. Operate 5. Check "S <u>s DTC detec</u>	ted?	r. Ilt" mode of "AUTOMATIC BACK DOOR CO RH : Diagnosis Procedure".	ONTROL UNIT" using CONSULT.
	NSPECTION END		
Diagnosis	Procedure		INFOID:000000010577619
	TION OF AUTOMAT	FIC BACK DOOR POSITION INFORMATIC	N
Refer to <u>.</u> 2. Erase DT <u>s DTC detec</u> YES >> 0	<u>DLK-14, "Work Prod</u> TC, and then repeat <u>sted?</u> GO TO 2.	of automatic back door position information <u>cedure"</u> . "PERFORM DTC CONFIRMATION PROC	
•	NSPECTION END	BACK DOOR ASSEMBLY	
Check th Refer to Check ba	at back door assem DLK-330, "BACK D	bly is installed normally. OOR ASSEMBLY : Adjustment". mechanism deformation, looseness, rattle,	interference with other parts, and
<u>s the inspect</u> YES >> (tion result normal? GO TO 3.	a malfunctioning parts	
	NCODER SIGNAL	e malfunctioning parts.	
		DOOR CONTROL UNIT" using CONSULT.	
2. Select "S	SPINDLE LH ENCO	DER A" and "SPINDLE LH ENCODER B" in rates normally according to the following co	

[WITH INTELLIGENT KEY SYSTEM]

B2426 ENCODER

< DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition		Status
SPINDLE LH ENCODER A	– Back door	Moving (auto or manu- al)	HI ⇔ LO
		When stopped	HI or LO
SPINDLE LH ENCODER B		Moving (auto or manu- al)	HI ⇔ LO
		When stopped	HI or LO

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.

4.CHECK ENCODER POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect spindle unit LH connector.

3. Check voltage between spindle unit LH harness connector and ground.

(+)			Voltage (Approx.)	
Spindle unit LH		(-)		
Connector	Terminal			
B95	3	Ground	16.75 – 6 V	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

5.CHECK ENCODER CIRCUIT

1. Disconnect automatic back door control unit connector.

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

Automatic back	door control unit	Spindle ur	nit LH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	19	B95	3	Existed

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

Automatic back	Automatic back door control unit Connector Terminal		Continuity
Connector			Continuity
B207	19		Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace harness.

6.CHECK ENCODER CIRCUIT 2

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

Automatic back	door control unit	Spindle u	nit LH	Continuity
 Connector	Terminal	Connector	Terminal	Continuity
 B207	6	- B95	4	Existed
DZU/	7	- Б93	5	Existed

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

B2426 ENCODER

< DTC/CIRCUIT DIAGNOSIS >

	door control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	6	Ground	Not existed
B207	7		NOT EXISTED
the inspection result norma	<u> ?</u>		
YES >> GO TO 7.	1		
NO >> Repair or replace			
.CHECK ENCODER CIRCU			
	door control unit and spindle		around
Check continuity betweer	automatic back door contro	i unit namess connector ar	la grouna.
Automatic back	door control unit		Voltage
Connector	Terminal	Ground	(Approx.)
B207	21		0 V
the inspection result norma	<u> ?</u>		
YES >> GO TO 8.			
NO >> Replace automati	ic back door control unit. Ref	er to <u>DLK-364, "Removal a</u>	ind Installation".
NO >> Replace automati CHECK INTERMITTENT I	NCIDENT	er to <u>DLK-364, "Removal a</u>	ind Installation".
NO >> Replace automati CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent Ir</u>	NCIDENT	er to <u>DLK-364, "Removal a</u>	nd Installation".
NO >> Replace automati CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent Ir</u> s the inspection result norma	NCIDENT ncident". I <u>?</u>		
NO >> Replace automati CHECK INTERMITTENT I Refer to GI-47, "Intermittent In s the inspection result norma YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		
NO >> Replace automati CHECK INTERMITTENT I Refer to GI-47. "Intermittent In the inspection result norma YES >> Replace automati	NCIDENT ncident". I <u>?</u>		
NO >> Replace automati CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent In</u> the inspection result norma YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		
NO >> Replace automati CHECK INTERMITTENT I efer to GI-47. "Intermittent In the inspection result norma YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		
NO >> Replace automati CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent In</u> s the inspection result norma YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		
NO >> Replace automati CHECK INTERMITTENT I Refer to GI-47. "Intermittent In the inspection result norma YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		
NO >> Replace automati CHECK INTERMITTENT I Refer to <u>GI-47, "Intermittent Ir</u> <u>s the inspection result norma</u> YES >> Replace automati	NCIDENT <u>ncident"</u> . <u>I?</u> ic back door control unit. Ref		

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< DTC/CIRCUIT DIAGNOSIS >

B2427 ENCODER

DTC Logic

INFOID:000000010577620

[WITH INTELLIGENT KEY SYSTEM]

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B2427	SPINDLE SENSOR RH	When the automatic back door control unit can not receive the pulse signal from the encoder just after starting the open/close operation	 Improper installation of back door assembly [CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFOR- MATION]: not complete Back door mechanism Automatic back door control unit Encoder Harness or connectors

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON.
- 2. Operate automatic back door.
- 3. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

- YES >> Refer to <u>DLK-158, "RH : Diagnosis Procedure"</u>.
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577621

1.CALIBRATION OF AUTOMATIC BACK DOOR POSITION INFORMATION

- Perform initialization setting of automatic back door position information. Refer to <u>DLK-14, "Work Procedure"</u>.
- 2. Erase DTC, and then repeat "PERFORM DTC CONFIRMATION PROCEDURE".

Is DTC detected?

YES >> GO TO 2.

NO >> INSPECTION END

2. CHECK INSTALLATION OF BACK DOOR ASSEMBLY

- Check that back door assembly is installed normally. Refer to <u>DLK-330, "BACK DOOR ASSEMBLY : Adjustment"</u>.
- 2. Check back door assembly mechanism deformation, looseness, rattle, interference with other parts, and pinched foreign materials.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK ENCODER SIGNAL

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "SPINDLE RH ENCODER A" and "SPINDLE RH ENCODER B" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

B2427 ENCODER

< DTC/CIRCUIT DIAGNOSIS >

Monitor	llem	C	Condition		Status
SPINDLE RH ENCO	DER A		Moving (auto or manu- al)	н	II⇔LO
			When stopped	F	ll or LO
SPINDLE RH ENCO		ack door	Moving (auto or manu- al)	- HI⇔LO	
			When stopped	F	ll or LO
he inspection res	ult normal?			1	
ES >> GO TO O >> Replace CHECK ENCOD	e automatic back		it. Refer to <u>DLK-364, "R</u>	emoval and Ir	nstallation".
		FFLI			
	dle unit RH con		connector and ground.		
(-	+)				
	unit RH	_	(-)		Itage
Connector	Terminal	_	x /	(Ap	prox.)
B262	3		Ground	16.7	5 – 6 V
he inspection res	-		·		-
CHECK ENCOD Disconnect auto Check continuit	ER CIRCUIT omatic back doo y between autor	r control unit con matic back door	nector. control unit harness co	onnector and s	spindle unit RI
CHECK ENCOD Disconnect auto Check continuit ness connector	ER CIRCUIT omatic back doo y between auto	matic back door	control unit harness co		spindle unit RI
CHECK ENCOD Disconnect auto Check continuit ness connector. Automatic	ER CIRCUIT omatic back doo y between auto	matic back door	control unit harness co Spindle unit RH		spindle unit RI
CHECK ENCOD Disconnect auto Check continuit ness connector	ER CIRCUIT	matic back door	control unit harness co		
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit	ER CIRCUIT	matic back door	Connector	Terminal 3	Continuity Existed ound.
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit	ER CIRCUIT	matic back door	Connector B262	Terminal 3 nector and gro	Continuity
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit	ER CIRCUIT	matic back door	control unit harness co Spindle unit RH Connector B262 control unit harness con	Terminal 3 nector and gro	Continuity Existed ound.
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit Connecto B207 Check continuit B207 Check continuit Connecto B207 che inspection res ES >> Replace O >> Repair of CHECK ENCOD Disconnect auto	ER CIRCUIT	matic back door init ninal 20 natic back door of ontrol unit Terminal 20 a door control un ss. r control unit con	control unit harness co Spindle unit RH Connector B262 control unit harness con Ground it. Refer to <u>DLK-364, "R</u>	Terminal 3 nector and gro	Continuity Existed ound. Continuity Not existed
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit Connector B207 Check continuit B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207	ER CIRCUIT	matic back door	control unit harness co Spindle unit RH Connector B262 control unit harness con Ground it. Refer to DLK-364, "R inector. control unit harness co	Terminal 3 nector and gro emoval and Ir	Continuity Existed ound. Continuity Not existed
CHECK ENCOD Disconnect auto Check continuit ness connector B207 Check continuit Connector B207 Check continuit B207 Check continuit B207 Check continuit B207 Check continuit B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector CHECK ENCOD Disconnect auto Check continuit ness connector	ER CIRCUIT matic back door y between autor back door control u te back door control u	matic back door	control unit harness co Spindle unit RH Connector B262 control unit harness con Ground it. Refer to DLK-364, "R nnector. control unit harness co Spindle unit RH	Terminal 3 nector and gro emoval and Ir	Continuity Existed ound. Continuity Not existed
CHECK ENCOD Disconnect auto Check continuit ness connector Automatic Connector B207 Check continuit Connector B207 Check continuit B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207 Check continuit Connector B207	ER CIRCUIT pmatic back door y between autor back door control u terr y between autor omatic back door co pmatic back door co pmatic back door ER CIRCUIT 2 pmatic back door terr terr terr terr terr terr terr t	matic back door	control unit harness co Spindle unit RH Connector B262 control unit harness con Ground it. Refer to DLK-364, "R inector. control unit harness co	Terminal 3 nector and gro emoval and Ir	Continuity Existed Dund. Continuity Not existed

B2427 ENCODER

< DTC/CIRCUIT DIAGNOSIS >

-	Automatic back	door control unit	
_	Connector	Terminal	Orecord
-	B207	8	Ground
	B207	9	*

Not existed

Continuity

NOT EXISTEN

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

7.CHECK ENCODER CIRCUIT 3

1. Connect automatic back door control unit spindle unit RH connector.

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

Automatic back	Automatic back door control unit		Voltage
Connector	Connector Terminal		(Approx.)
B207	21		0 V

Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

8. CHECK INTERMITTENT INCIDENT

Refer to <u>GI-47, "Intermittent Incident"</u>.

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace the malfunctioning parts.

B2428 AUTOMATIC BACK DOOR CONTROL UNIT < DTC/CIRCUIT DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

B2428 AUTOMATIC BACK DOOR CONTROL UNIT

DTC Logic

INFOID:000000010577622

А

DTC DETECTION LOGIC В CONSULT display DTC DTC detecting condition Possible cause description С AUTO BACK DR Automatic back door control unit detected CPU B2428 Automatic back door control unit **CNT UNIT** malfunction D **Diagnosis** Procedure INFOID:000000010577623 1.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT Ε When DTC [B2428] is detected, replace automatic back door control unit. >> Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation". F Н J DLK L

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B242A CLOSURE CONDITION

< DTC/CIRCUIT DIAGNOSIS >

B242A CLOSURE CONDITION

DTC Logic

INFOID:000000010577624

[WITH INTELLIGENT KEY SYSTEM]

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC detecting condition	Possible cause
B242A	CLSR CONDITION	Automatic back door control unit detects malfunc- tions of open switch, close switch and half latch switch when auto closure of back door operates	 Entry of foreign materials to back door lock assembly Back door mechanism Automatic back door control unit Open switch Close switch Half latch switch Harness or connectors

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.

- 2. Operate back door auto closure operation.
- 3. Check "Self Diagnostic Result" mode of "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

Is DTC detected?

YES >> Refer to <u>DLK-158, "RH : Diagnosis Procedure"</u>.

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010577625

1. CHECK FOR FOREIGN MATERIALS IN BACK DOOR LOCK ASSEMBLY

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Remove foreign materials.

2. CHECK BACK DOOR OPEN/CLOSE OPERATION

Manually check open and close operation of back door.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK MONITOR ITEM

1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

2. Select "HALF LATCH SW", "OPEN SW" and "CLOSE SW" in "DATA MONITOR" mode.

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

Monitor item		Condition	Status
HALF LATCH SW		Fully closed/Half latch	OFF
HALF LATCH SW		Open	ON
OPEN SW	Back door	Fully closed/Half latch	OFF
OPEN SW	DACK UOUI	Open	ON
		Open/Half latch	OFF
CLOSE SW		Fully closed	ON

Is the inspection result normal?

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

B242A CLOSURE CONDITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

	(+)			
Back doo	or lock assembly	(-)		Voltage (Approx.)
Connector	Terminal			(Applox.)
	4			
D107	5	Ground		16 – 8 V
	6			
<u>e inspection result n</u> S >> GO TO 6.) >> GO TO 5. CHECK SWITCH CIF				
Check continuity be bly harness connect	ic back door control unit tween automatic back do tor.			ack door lock a
	Terminal	Connector	Terminal	Continuity
Connector				
Connector	3		6	
Connector B207		D107	6 5	Existed
B207	3		5 4	
B207 Check continuity be	3 5 11		5 4	
B207 Check continuity be Automat	3 5 11 tween automatic back do	or control unit harnes	5 4	round.
B207 Check continuity be Automat	3 5 11 tween automatic back do ic back door control unit Terminal	or control unit harnes	5 4 ss connector and g	round.
B207 Check continuity be Automat Connector B207	3 5 11 tween automatic back do ic back door control unit Terminal 3 5 11 1 1	or control unit harnes	5 4 ss connector and g	round. Continuity
B207 Check continuity be Automat Connector B207 he inspection result n S >> Replace aut > >> Repair or re CHECK SWITCH GR	3 5 11 tween automatic back do ic back door control unit Terminal 3 5 11 ormal? comatic back door contro place harness.	unit. Refer to DLK-3	5 4 ss connector and g Ground 64. "Removal and l	Continuity Not existed
B207 Check continuity be Automat Connector B207 he inspection result n ES >> Replace aut D >> Repair or re CHECK SWITCH GR eck continuity betwee	3 5 11 tween automatic back do ic back door control unit ic back door control unit 3 ic back door control unit 3 ic back door control 11 cormal? comatic back door contro place harness. COUND CIRCUIT en back door lock asseml	unit. Refer to DLK-3	5 4 ss connector and g Ground 64. "Removal and l	round. Continuity Not existed
B207 Check continuity be Automat Connector B207 he inspection result n ES >> Replace aut D >> Repair or re CHECK SWITCH GR eck continuity betwee	3 5 11 tween automatic back do ic back door control unit 7 Terminal 3 5 11 iormal? comatic back door contro place harness. COUND CIRCUIT	unit. Refer to DLK-3	5 4 ss connector and g Ground 64. "Removal and l	Continuity Not existed
B207 Check continuity be Automat Connector B207 De inspection result n S >> Replace aut D >> Repair or re CHECK SWITCH GR eck continuity betwee	3 5 11 tween automatic back do ic back door control unit 7 11 ormal? comatic back door contro place harness. COUND CIRCUIT en back door lock assemil or lock assembly	or control unit harnes	5 4 ss connector and g Ground 64. "Removal and l	round. Continuity Not existed

B242A CLOSURE CONDITION

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace back door lock assembly.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1.CHECK SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect back door lock assembly connector.

3. Check continuity between back door lock assembly terminals.

Back door loc	Back door lock assembly Terminal		Condition	Continuity
Termi			Condition	
1			Open	Existed
4		Part days had	Fully closed/Half latch	Not existed
5			Fully close	Existed
5	0	Back door lock	Open/Half latch	Not existed
6	0		Open	Existed
0			Fully closed/Half latch	Not existed
7	1	Back door	On	Existed
Ĩ		switch	Off	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly.

INFOID:000000010577626

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

B2621 INSIDE ANTENNA

Description

Detects whether Intelligent Key is inside the vehicle. Installed in the instrument center.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	D
B2621	INSIDE ANTENNA 1 CIRCUIT	An excessively high or low voltage from inside an- tenna is sent to BCM.	 Inside key antenna (instrument center) Between BCM and Inside key antenna (instrument center) 	E

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" in "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-101, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (instrument center) is OK.

Diagnosis Procedure

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

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

	(+)				
BCM		(–) Condition		Signal (Reference value)	
(Connector	Terminal			()
M122	Instrument cen-	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
1122	ter	10, 19	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10

Is the inspection result normal?

NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM and inside key antenna connector.

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B2621 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Check continuity between BCM harness connector and inside key antenna (instrument center) harness connector.

B	СМ	Inside key antenna	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M122	78	M131	2	Existed
	79	WITO I	1	LAISteu

3. Check continuity between BCM harness connector and ground.

	BCM	Ground	Continuity	
	Connector Terminal			
M122	Instrument center	78	Ground	Not existed
101122	instrument center	79		NOT EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (instrument center). (New antenna or another antenna)
- 2. Connect BCM and inside key antenna (instrument center) connector.

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

	(+) BCM		BCM				(—)	Condition	Signal (Reference value)
		Terrinida		Place Intelligent Key inside the vehicle.					
M122	Instrument cen- ter	78, 79	Ground	Ground		(V) 15 10 5 10 10 10 10 10 10 10 10 10 10			
				Place Intelligent Key outside the vehicle.	10 5 0 1 s JMKIA0063GB				

Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-357. "INSTRUMENT CENTER :</u> <u>Removal and Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-93</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to <u>GI-47, "Intermittent Incident"</u>.

>> INSPECTION END

B2623 INSIDE ANTENNA

Description

Detects whether Intelligent Key is inside the vehicle. Installed in the luggage room.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	D
B2623	INSIDE ANTENNA 3 CIRCUIT	An excessively high or low voltage from inside an- tenna is sent to BCM.	 Inside key antenna (luggage room) Between BCM and Inside key antenna (luggage room) 	E

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" in "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

Is inside key antenna DTC detected?

YES >> Refer to DLK-103, "Diagnosis Procedure".

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

Diagnosis Procedure

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch OFF.

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

als	S					
(+)		(+)		Condition	Signal (Reference value)	
Term	erminal	(–)				
24	24.25	Ground	Place Intelligent Key inside the vehicle.	(V) 15 0 1 s JMKIA0062GB		
34,	34, 35	Ground				
			Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10		
				JMKIA0063GB		

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM and inside key antenna (luggage room) connector.

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B2623 INSIDE ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

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

E	CM	Inside ke	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M121	34	B228	2	Existed	
	35	0220	1		

3. Check continuity between BCM harness connector and ground.

	BCM			
Cor	inector	ctor Terminal Ground		Continuity
M121		34		Not existed
W121	Luggage room	35		NOT EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (luggage room). (New antenna or other antenna)
- 2. Connect BCM and inside key antenna (luggage room) connector.

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

((+) BCM Connector Terminal		()	Condition	Signal (Reference value)
M121	Luggage room	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
			ciouna	Place Intelligent Key outside the vehicle.	(V) 15 0 0 1 s JMKIA0063GB

Is the inspection result normal?

YES >> Replace inside key antenna (luggage room). Refer to <u>DLK-357, "LUGGAGE ROOM : Removal</u> and Installation".

NO >> Replace BCM. Refer to <u>BCS-93</u>, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

			LY AN	D GR	OUND CIRCUIT [WITH INTELLIGENT KEY SYSTEM]	
	IT DIAGNOSIS					
	Y CONTRO				I	А
· ·						
BCM (BOD)	Y CONTROL	_ MODULE)	: Diagr	nosis	Procedure INFOID:000000010577633	В
1.CHECK FUS	SE AND FUSIB	LE LINK				
Check that the	following fuse a	ind fusible link a	are not bl	own.		С
	Signal nar	ne			Fuse and fusible link No.	
					L	D
	Battery power	supply			10	D
Is the fuse fusir	ng?					_
		n fuse or fusible	e link afte	r repai	ring the affected circuit if a fuse or fusible link is	Ε
	own. D TO 2.					
2.CHECK PO	WER SUPPLY	CIRCUIT				F
	on switch OFF.					
	t BCM connecto age between B0		nector a	nd aro	und	G
				na gro		
	Terminals					Н
((+)	(–)	Volta	•		
B	СМ		(Appr	ox.)		
Connector	Terminal	Ground				I
M118 M119	1		Battery v	/oltage		
-	ment value norr	nal?				J
) TO 3.	<u>na:</u>				
-	pair harness or					DLk
3. CHECK GR	OUND CIRCUI	Г				
Check continuit	ty between BCN	I harness conn	ector and	l groun	d.	I
	СМ					-
Connector	Terminal	Ground	Contin	nuity		
M119	13		Exist	ed		Μ
Does continuity	/ exist?	l				
	SPECTION END					Ν
	pair harness or C BACK DC		ROLU	NIT		
						0
AUTOMATI	C BACK DO	UR CONTR		11 : L	Diagnosis Procedure	
1.CHECK FUS	SE, FUSIBLE LI	NK AND CIRC		AKER		Р
Check that the	following fuse a	nd circuit break	ker are no	ot fusin	g.	Γ
	F				Signal name	
	Fuse N Q (30/				Signal name Battery power supply	
	Q (30)	-y				

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

>> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

[WITH INTELLIGENT KEY SYSTEM]

NO >> GO TO 2.

YES

2. CHECK POWER SUPPLY CIRCUIT

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

(Automatic back	+) door control unit	(-)	Voltage (Approx.)	
Connector	Connector Terminal		(//pp/ox.)	
B208	25	Ground	16.75 – 8.5 V	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Automatic back	door control unit		Continuity	
Connector	Terminal	Ground	Continuity	
B208	32		Existed	

Does continuity exist?

YES >> INSPECTION END

NO >> Repair or replace harness.

[WITH INTELLIGENT KEY SYSTEM]

DOOR SWI	ТСН					
Description	INFOID:000000010577635					
Detects door ope	n/close conditio	on.				
Component I	INFOID:000000010577636					
With CONSU Check door swite 3K") in Data Mor	hes ("DOOR S\	N-DR", "DOOR g CONSULT.	SW-AS", "Doc	OR SW-RL", "DOOR SW-RR", and "DOOR SW-		
	Monitor item	1		Condition		
	DOOR SW-D	R				
DOOR SW-AS DOOR SW-RL						
				$CLOSE \to OPEN: OFF \to ON$		
	DOOR SW-R	R				
NO >> Refe Diagnosis Pro .CHECK DOO . Turn ignition 2. Disconnect r	R SWITCH INP switch OFF. nalfunctioning d	UT SIGNAL	nector.	INFOID:000000010577637		
	Door switch		()	Signal		
Conr	Connector Terminal			(Reference value)		
Driver side	B16	2	Ground	(V) 15 0 0 + 10ms JPMIA0594GB		
Passenger side	B216	2		(V) ₁₅ 10 5 0 • • • 10ms		

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

(+) Door switch			(-)	Signal (Reference value)	
Conr	Connector Terminal			(
Rear LH	B23	2		(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Rear RH	B223	2		(V) ₁₅ 10 0 + 10ms JPMIA0594GB	

Is the inspection result normal?

YES-1 >> Back door: GO TO 3. YES-2 >> Other doors: GO TO 4. NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.

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

BCM	BCM		Door switch		
Connector	Terminal	Connector	Terminal	Continuity	
M400	150	B16 (Driver side)		Existed	
M123	124	B216 (Passenger side)	2		
M404	69	B23 (Rear LH)			
M121	68	B223 (Rear RH)			

3. Check continuity between BCM harness connector and ground.

BCM		Continuity		
Connector	Terminal		Continuity	
	150 (Driver side)	Ground		
M123	124 (Passenger side)	Ground		
N121	69 (Rear LH)		Not existed	
M121	68 (Rear RH)	-		

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93</u>, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK BACK DOOR SWITCH GROUND CIRCUIT

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

 Back door lock assen	nbly (back door switch)		Continuity
 Connector	Terminal	Ground	Continuity
D122	8		Existed

Is the inspection result normal?

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		S >> INSPECTI	ON END	tch.	Released	
		S >> INSPECTI) >> Replace • Door sw	ON END malfunction door swit itch: Refer to <u>DLK-356</u>	6, "Removal and Insta	allation".	
		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	
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		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	
		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	
		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	
		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	
		S >> INSPECTI) >> Replace • Door sw • Back doo	ON END malfunction door swit itch: Refer to <u>DLK-356</u> or lock assembly (bac	6, "Removal and Insta	allation".	

BACK DOOR SWITCH

Component Function Check

1.CHECK FUNCTION

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

Monitor item	Condition		Status
DOOR SW-BK	Back door	Open	On
DOON SW-BR	Dack dool	Closed	Off

Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-110, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577640

1. CHECK BACK DOOR SWITCH INPUT SIGNAL

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

(+)		
Back door lo	ock assembly	(-)	Voltage (Approx.)
Connector	Terminal		
D107	7	Ground	12 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK BACK DOOR SWITCH CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between back door lock assembly harness connector and BCM harness connector.

Back door lo	ock assembly	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D107	7	M121	66	Existed

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

Back door lo	ock assembly		Continuity	
Connector	Terminal	Ground	Continuity	
D107	7		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

NO >> Repair or replace harness.

$\mathbf{3}$.check back door switch ground circuit

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

Back door lo	ock assembly		Continuity
 Connector	Terminal	Ground	Continuity
 D107	8		Existed

Revision: 2015 February

BACK DOOR SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCU	DTC/CIRCUIT DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM			
Is the inspectio	n result normal?			
) TO 4.			
	pair or replace harness.			
4.CHECK BAG	CK DOOR SWITCH			
Refer to DLK-1	11. "Component Inspection".			
Is the inspectio	n result normal?			
) TO 5.			
-	place back door lock assembly	/.		
5. CHECK INT	ERMITTENT INCIDENT			
Refer to GI-47,	"Intermittent Incident".			
>> INS	SPECTION END			
Component	Inspection			INFOID:000000010577641
1. СНЕСК ВАС	CK DOOR SWITCH			
2. Disconnect	n switch OFF. back door lock assembly cont tinuity between door switch ter			
D.	ck door lock assembly		Condition	Continuity
Ba		1	Condition	Continuity
Ba	Terminal			
Ba	Terminal Ground part of door switch	Door switch	Pressed	Not existed

YES >> INSPECTION END

NO >> Replace back door lock assembly.

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DOOR LOCK AND UNLOCK SWITCH DRIVER SIDE

DRIVER SIDE : Description

Transmits door lock/unlock operation to BCM.

DRIVER SIDE : Component Function Check

1.CHECK FUNCTION

With CONSULT

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in Data Monitor mode using CONSULT.

Monitor item	C	ondition	
	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-112</u>, "<u>DRIVER SIDE</u> : <u>Diagnosis Procedure</u>".

DRIVER SIDE : Diagnosis Procedure

1.CHECK POWER WINDOW SWITCH

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

Does power window (driver side) operate?

- YES >> Replace power window main switch.
- NO >> Refer to <u>PWC-103</u>, "Diagnosis Procedure".

PASSENGER SIDE

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE : Component Function Check

1.CHECK FUNCTION

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in Data Monitor mode using CONSULT.

Monitor item	C	Condition	
CDL LOCK SW	LOCK	: ON	
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-112</u>, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

1.CHECK POWER WINDOW SWITCH

INFOID-0000000010577642

INFOID:000000010577643

INFOID:000000010577644

INFOID:000000010577645

INFOID:000000010577646

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]	
 Turn ignition switch ON. Check passenger side power window operation. 		А
Does power window (passenger side) operate?		
YES >> Replace power window switch (passenger side) NO >> Refer to <u>PWC-104, "WHEN POWER WINDOW MAIN S</u> <u>dure"</u> .	SWITCH IS OPERATED : Diagnosis Proce-	В
	(С
	I	D
	E	E
	F	F
	C	G
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DOOR LOCK ACTUATOR DRIVER SIDE

DRIVER SIDE : Description

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-114</u>, "<u>DRIVER SIDE</u> : <u>Diagnosis Procedure</u>".

DRIVER SIDE : Diagnosis Procedure

1.CHECK OUTPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check voltage between front door lock assembly (driver side) harness connector and ground.

	(+) nt door lock assembly (-) Condition of door lock and unlock switch		Voltage (V) (Approx.)	
Connector	Terminal			(FF -)
D15	1	Ground	Lock	$0 \rightarrow Battery voltage \rightarrow 0$
	2	Ground	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$

Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-317, "DOOR ASSEMBLY : Removal</u> and Installation".

NO >> GO TO 2.

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

B	СМ	Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D15	1	Existed
	9	15	2	LAISIEU

3. Check continuity between BCM harness connector and ground.

ВС	BCM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
101119	9		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

NO >> Repair or replace harness.

PASSENGER SIDE

INFOID:000000010577649

INFOID-000000010577648

DTC/CIRCUIT DIAGNOS	<u> </u>						
PASSENGER SIDE :	Descript	ion				INFOID:000000010577651	
ocks/unlocks the door with	the signal	from BCM.					
PASSENGER SIDE :	Compon	ent Func	tion Check			INFOID:000000010577652	
1 .CHECK FUNCTION							
Use CONSULT to perfo Touch "ALL LCK" or "AL	orm Active	Test ("DOOR	LOCK").				
s the inspection result norm		o check that	it works normally.				
YES >> Door lock actua	tor is OK.						
NO >> Refer to <u>DLK-11</u>			-	<u>edure"</u> .			
ASSENGER SIDE : I	Diagnos	is Proced	ure			INFOID:000000010577653	
.CHECK DOOR LOCK AC	CTUATOR	SIGNAL					
Turn ignition switch OFF							
Disconnect front door lo Check voltage between				e) harnes	s connector a	and around.	
_			, (i · · · · · · · · · · · · · · · · · ·	-,			
(+) Front door lock assembly (pass	senger side)	()	Condition of door			age (V)	
	erminal		unlock swite	ch	(A	pprox.)	
D45	1	Cround	Unlock		$0 \rightarrow Batte$	ry voltage \rightarrow 0	
YES >> Replace front on Removal and In	2 nal? door lock a		Lock	Refer to D	$0 \rightarrow Batte$	ry voltage $\rightarrow 0$	
the inspection result norm (ES >> Replace front or <u>Removal and In</u> NO >> GO TO 2. .CHECK DOOR LOCK AC Disconnect BCM conne	2 door lock a <u>istallation</u> ". CTUATOR ector.	assembly (pa CIRCUIT	Lock assenger side). R		0 → Batte	ory voltage → 0	
the inspection result norm YES >> Replace front or <u>Removal and In</u> NO >> GO TO 2. .CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwe	2 door lock a <u>istallation</u> ". CTUATOR ector.	assembly (pa CIRCUIT	Lock assenger side). R ector and front de	oor lock a	0 → Batte	ry voltage → 0 DOR ASSEMBLY :	
 the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwe ness connector. 	2 door lock a <u>istallation</u> ". CTUATOR ector.	assembly (pa CIRCUIT arness conn	Lock assenger side). R	oor lock a	0 → Batte	ory voltage → 0	
the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwe ness connector. BCM Connector	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h	assembly (pa CIRCUIT arness conn	Lock assenger side). R ector and front de Front door lock asser Connector	oor lock a	$0 \rightarrow BatterPLK-317, "DCassembly (pa$	ry voltage → 0 DOR ASSEMBLY : ssenger side) har- Continuity	
the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwe ness connector. BCM Connector	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8	assembly (pa CIRCUIT arness conn	Lock assenger side). R ector and front de Front door lock asser Connector D45	oor lock a	$0 \rightarrow Batter PLK-317, "DC assembly (pactric) assembly (pactric) assemble (pactri) assemble (pactric)$	ry voltage → 0 DOR ASSEMBLY :	
the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwe ness connector. BCM Connector M119	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8	assembly (pa CIRCUIT arness conn	Lock assenger side). R ector and front de Front door lock asser Connector D45	oor lock a	$0 \rightarrow Batter PLK-317, "DC assembly (particular) assembly (partic$	ry voltage → 0 DOR ASSEMBLY : ssenger side) har- Continuity	
s the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwee ness connector. BCM Connector M119 . Check continuity betwee	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8	assembly (pa CIRCUIT arness conn	Lock assenger side). R ector and front de Front door lock asser Connector D45	oor lock a	$0 \rightarrow Batter PLK-317, "DC assembly (parameters) assembly (parame$	ry voltage → 0 DOR ASSEMBLY : Issenger side) har- Continuity Existed	
the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwee ness connector. BCM Connector M119 Check continuity betwee	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8 en BCM ha 3CM	ASSEMBLY (particular control of the second c	Lock assenger side). R ector and front de Front door lock asser Connector D45	oor lock a mbly (passe Te	$0 \rightarrow Batter PLK-317, "DC assembly (parameters) assembly (parame$	ry voltage → 0 DOR ASSEMBLY : ssenger side) har- Continuity	
s the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. .CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betwee ness connector. BCM Connector M119 . Check continuity betwee BCM	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8 en BCM ha 3CM	assembly (pa CIRCUIT arness conn al arness conne Terminal 5	Lock assenger side). R ector and front de Front door lock assen Connector D45 ector and ground.	oor lock a mbly (passe Te	$0 \rightarrow Batter PLK-317, "DC assembly (particular) assembly (particu$	ry voltage → 0 DOR ASSEMBLY : Issenger side) har- Continuity Existed	
s the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. CHECK DOOR LOCK AC Disconnect BCM conne Check continuity betweeness connector. BCM Connector M119 Connector B Connector B M119	2 door lock a <u>istallation</u> ". CTUATOR ector. een BCM h Termina 5 8 en BCM ha	ASSEMBLY (particular control of the second c	Lock assenger side). R ector and front de Front door lock assen Connector D45 ector and ground.	oor lock a mbly (passe Te	$0 \rightarrow Batter PLK-317, "DC assembly (particular) assembly (particu$	ry voltage → 0 DOR ASSEMBLY : DOR ASSEMBLY	
s the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. 2.CHECK DOOR LOCK AC 1. Disconnect BCM conne 2. Check continuity betweeness connector. BCM Connector M119 3. Check continuity betweeness Connector M119 3. Check continuity betweeness Connector M119 5. Check continuity betweeness Connector	2 hal? door lock a hstallation". CTUATOR ector. een BCM ha 5 8 en BCM ha 3CM hal? Refer to BC	assembly (pa CIRCUIT arness conn al arness conne Terminal 5 8 CS-93. "Rem	Lock assenger side). R ector and front de Front door lock assen Connector D45 ector and ground. Grou	oor lock a	$0 \rightarrow Batter PLK-317, "DC assembly (particular) assembly (particu$	ry voltage → 0 DOR ASSEMBLY : DOR ASSEMBLY	
s the inspection result norm YES >> Replace front or Removal and In NO >> GO TO 2. . CHECK DOOR LOCK AC Disconnect BCM conne Check continuity between ness connector. BCM Connector M119 . Check continuity between BC Connector M119 Sthe inspection result norm YES >> Replace BCM. F	2 hal? door lock a stallation". CTUATOR ector. een BCM ha 5 8 en BCM ha 3 3 8 en BCM ha 3 8 en BCM ha 3 8 1 1 1 1 1 1 1 1 1 1 1 1 1	assembly (pa CIRCUIT arness conn al arness conne Terminal 5 8 CS-93. "Rem	Lock assenger side). R ector and front de Front door lock assen Connector D45 ector and ground. Grou	oor lock a	$0 \rightarrow Batter PLK-317, "DC assembly (particular) assembly (particu$	ry voltage → 0 DOR ASSEMBLY : DOR ASSEMBLY	

Locks/unlocks the door with the signal from BCM.

REAR LH : Component Function Check

1.CHECK FUNCTION

- 1. Use CONSULT to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LCK" or "ALL UNLK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-116, "REAR LH : Diagnosis Procedure"</u>.

REAR LH : Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly LH.

3. Check voltage between rear door lock assembly LH harness connector and ground.

(+	+)			
Rear door lock	assembly LH	()	Condition of door lock and unlock switch	Voltage (V) (Approx.)
Connector	Terminal			
D55	1	Ground	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$
000	2	Giouria	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$

Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to <u>DLK-323</u>, "<u>DOOR ASSEMBLY</u> : <u>Removal and</u> <u>Installation</u>".

NO >> GO TO 2.

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector.

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

В	СМ	Rear door lock assembly LH Connector Terminal		Continuity
Connector	Terminal			Continuity
M119	8	D55	1	Existed
11119	10		2	LAISIEU

3. Check continuity between BCM harness connector and ground.

B	BCM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
101113	10		NOT EXISTED

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93</u>, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH : Description

Locks/unlocks the door with the signal from BCM.

REAR RH : Component Function Check

1.CHECK FUNCTION

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

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INFOID:000000010577657

	GNOSIS >			INIELLIGE	NT KEY SYSTEM]
2. Touch "ALL LCK"		to check that	it works normally.		<u> </u>
s the inspection resul			5		
	actuator is OK.		eie Dreeedure"		
	<u>DLK-117, "REAR</u>	-	<u>sis Procedure</u> .		
REAR RH : Diagr	Iosis Proced	ure			INFOID:000000010577659
.CHECK DOOR LO	CK ACTUATOR	SIGNAL			
. Turn ignition swite 2. Disconnect rear d 3. Check voltage be	loor lock assemb	oly RH. lock assemb	ly RH harness connector a	and ground.	
(+)			Condition of door lock and	Vo	ltage (V)
Rear door lock a	-	(-)	unlock switch		vpprox.)
Connector	Terminal	<u> </u>	Unlock		
D75	1	Ground	Lock		ery voltage $\rightarrow 0$ ery voltage $\rightarrow 0$
the inspection resul	_		Look	0 / 2011	
NO >> GO TO 2. CHECK DOOR LO Disconnect BCM	CK ACTUATOR				
. Check continuity		arness conne	ctor and rear door lock as	sembly RH h	arness connector.
	BCM	arness conne	Rear door lock as	-	
Connector			Rear door lock assembl	-	Continuity
	BCM		Rear door lock assembl	y RH	
Connector	BCM Termin 8 10 between BCM ha	al	Rear door lock assembl Connector D75	y RH Terminal 2	- Continuity
Connector M119 Check continuity I	BCM Termin 8 10	arness conne	Rear door lock assembl Connector D75	y RH Terminal 2	- Continuity
Connector M119	BCM Termin 8 10 between BCM ha	arness conne	Rear door lock assembl Connector D75	y RH Terminal 2	- Continuity - Existed
Connector M119 8. Check continuity I	BCM Termin 8 10 between BCM ha	arness conne	Rear door lock assembl Connector D75 ector and ground.	y RH Terminal 2 1	- Continuity - Existed
Connector M119 Check continuity I Connector M119 s the inspection resul	BCM Termin 8 10 between BCM has BCM BCM It normal?	arness conne	Rear door lock assembl Connector D75 ector and ground.	y RH Terminal 2 1	Continuity Existed

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FUEL LID LOCK ACTUATOR

Description

Locks/unlocks the fuel filler lid with the signal from BCM.

Component Function Check

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Fuel lid lock actuator is OK.

NO >> Refer to <u>DLK-118</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK FUEL LID LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect fuel lid lock actuator connector.

3. Check voltage between fuel lid lock actuator harness connector and ground.

	+) ck actuator	(-)	Condition of door lock and unlock	Voltage (V) (Approx.)
Connector	Terminal		switch	()
B242	1	Ground	Unlock	$0 \rightarrow Battery voltage \rightarrow 0$
B242	2	Ground	Lock	$0 \rightarrow Battery voltage \rightarrow 0$

Is the inspection result normal?

YES >> Replace fuel lid lock actuator. Refer to <u>DLK-354</u>, "Removal and Installation".

NO >> GO TO 2.

2. CHECK FUEL LID LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and fuel lid lock actuator harness connector.

В	СМ	Fuel lid lock actuator		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	B242	2	Existed
101113	9	- DZ#Z	1	LXISIEU

3. Check continuity between BCM harness connector and ground.

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
101113	9		NOT EXISTED

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

NO >> Repair or replace harness.

INFOID:000000010577660

INFOID:000000010577661

KEY CYLINDER SWITCH

Description

Power window main switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signals.

Component Function Check

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" using CONSULT. Refer to <u>DLK-59, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Co	ondition	
Lock	: ON	
Neutral / Unlock	: OFF	
Unlock	: ON	
Neutral / Lock	: OFF	
	Lock Neutral / Unlock Unlock	Neutral / Unlock : OFF Unlock : ON

Is the inspection result normal?

- YES >> Key cylinder switch is OK.
- NO >> Refer to <u>DLK-119, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side).
- 3. Check voltage between front door lock assembly (driver side) harness connector and ground.

	(+) Front door lock assembly (driver side)		Voltage (V) (Approx.)	DLK
Connector	Terminal			
D15	5	Ground	F	
D15	6	Giouna	C	L

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Disconnect power window main switch connector.
- 2. Check continuity between power window main switch harness connector and front door lock assembly (driver side) harness connector.

Continuity	Front door lock assembly (driver side)		Power window main switch	
Continuity	Terminal	Connector	Terminal	Connector
Existed	6	D15	4	D8
Existed	5	015	6	Do

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

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KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Power windo	w main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	4	Ground	Not existed
50	6		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-117, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock as	sembly (driver side)		Continuity
Connector	Connector Terminal		Continuity
D15	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to DLK-120, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-317, "DOOR ASSEMBLY : Removal</u> and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) (key cylinder switch) terminals.

3. Check front door lock assembly (driver side) (key cylinder switch) terminals.

Terminal Front door lock assembly (driver side) connector		Key position	Continuity
		Key position	Continuity
5	Unlock	Existed	
5		Neutral / Lock	Not existed
6 4	Lock	Existed	
	-	Neutral / Unlock	Not existed

Is the inspection result normal?

- YES >> Door key cylinder switch is OK.
- NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-317, "DOOR ASSEMBLY : Removal</u> and Installation".

REMOTE KEYLESS ENTRY RECEIVER

Revision: 2015 February

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

Description

Receives Intelligent Key operation and transmits to BCM. В Component Function Check INFOID:000000010577668 1.CHECK FUNCTION With CONSULT Check remote keyless entry receiver ("RKE OPE COUN1") in Data Monitor mode using CONSULT. Monitor item Condition **RKE OPE COUN1** Checks whether value changes when operating Intelligent Key. Е Is the inspection result normal? YES >> Remote keyless entry receiver is OK. NO >> Refer to DLK-121, "Diagnosis Procedure". Diagnosis Procedure INFOID:000000010577669 1.CHECK BCM SIGNAL 1 1. Turn ignition switch OFF. 2. Disconnect remote keyless entry receiver connector. 3. Check voltage between remote keyless entry receiver harness connector and ground. Н (+) Voltage (V) Remote keyless entry receiver (-) (Approx.) Connector Terminal M104 4 Ground 5 Is the inspection result normal? YES >> GO TO 3. NO >> GO TO 2. DLK 2.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY CIRCUIT Disconnect BCM connector. 1. 2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector. L BCM Remote keyless entry receiver Continuity M Connector Terminal Connector Terminal M122 103 M104 4 Existed Check continuity between BCM harness connector and ground. 3. Ν BCM Continuity Connector Terminal Ground M122 103 Not existed Is the inspection result normal? >> Replace BCM. Refer to BCS-93, "Removal and Installation". Ρ YES NO >> Repair or replace harness. 3.CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY 1. Reconnect remote keyless entry receiver connector. Check signal between remote keyless entry receiver harness connector and ground using oscilloscope. 2.

[WITH INTELLIGENT KEY SYSTEM]

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REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

Remote keyless	(+) Remote keyless entry receiver Connector		Signal (Reference value)
Connector	Terminal		
M104	4	Ground	(V) 15 10 5 0 1111111111111111111111111111

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace remote keyless entry receiver. Refer to <u>DLK-362</u>, "Removal and Installation".

4.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

1. Disconnect BCM connector.

2. Disconnect remote keyless entry receiver connector.

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

BCM		Remote keyless entry receiver		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	137	M104	1	Existed

4. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Connector Terminal		Continuity
M123	137		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK BCM SIGNAL 2

1. Reconnect BCM connector.

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

(·	+)		
Remote keyles	s entry receiver	(—)	Voltage (V) (Approx.)
Connector	Terminal		
M104	2	Ground	5

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 6.

$\mathbf{6}$.CHECK REMOTE KEYLESS ENTRY RECEIVER SIGNAL CIRCUIT

1. Disconnect BCM connector.

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

B	СМ	Remote keyles	s entry receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	83	M104	2	Existed

3. Check continuity between BCM harness connector and ground.

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Connector	BCM			Continuity
		minal	Ground	
M122		83		Not existed
e inspection result no S >> Replace BCM >> Repair or rep CHECK REMOTE KE Reconnect remote ke	M. Refer to <u>BCS</u> blace harness. YLESS ENTRY	RECEIVER SI		
Check signal betwee	n remote keyles	s entry receive	er harness connecto	r and ground using oscilloscope
(+)				Signal
Remote keyless ent	-	()	Condition	(Reference value)
Connector	Terminal			
M104	2	Ground	During waiting	(V) 15 10 5 0 1 ms JMKIA0064GB
	W104 2	When operating either button on the Intelligent Key	either button on	(V) 15 10 5 0 1 ms JMKIA0065GB
e inspection result no S >> GO TO 8.) >> Replace rem CHECK INTERMITTE er to <u>GI-47, "Intermitte</u>	ote keyless entr	y receiver. Ref	er to <u>DLK-362, "Ren</u>	noval and Installation".
S >> GO TO 8. >> Replace rem CHECK INTERMITTE	ote keyless entr NT INCIDENT ent Incident".	y receiver. Ref	er to <u>DLK-362, "Ren</u>	noval and Installation".
S >> GO TO 8.) >> Replace rem CHECK INTERMITTE er to <u>GI-47, "Intermitte</u>	ote keyless entr NT INCIDENT ent Incident".	y receiver. Ref	er to <u>DLK-362, "Rer</u>	noval and Installation".
S >> GO TO 8.) >> Replace rem CHECK INTERMITTE er to <u>GI-47, "Intermitte</u>	ote keyless entr NT INCIDENT ent Incident".	y receiver. Ref	er to <u>DLK-362, "Ren</u>	noval and Installation".
S >> GO TO 8.) >> Replace rem CHECK INTERMITTE er to <u>GI-47, "Intermitte</u>	ote keyless entr NT INCIDENT ent Incident".	y receiver. Ref	er to <u>DLK-362, "Ren</u>	noval and Installation".
S >> GO TO 8.) >> Replace rem CHECK INTERMITTE er to <u>GI-47, "Intermitte</u>	ote keyless entr NT INCIDENT ent Incident".	y receiver. Ref	er to <u>DLK-362, "Ren</u>	noval and Installation".

BACK DOOR OPENER SWITCH

Description

Output back door open signal to BCM.

Component Function Check

1.CHECK FUNCTION

Check back door opener switch ("TR/BD OPEN SW") in "Data Monitor mode using CONSULT. • When back door opener switch is turned to "ON".

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

Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-124</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK BACK DOOR OPEN INPUT SIGNAL

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

	(+) Back door opener switch		Signal (Reference value)
Connector	Terminal		
D114	1	Ground	(V) ₁₅ 10 5 0 •••10ms JPMIA0594GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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

В	СМ	Back door opener switch		Continuity
Connector	Terminal	Connector Terminal		Continuity
M121	67	D114	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Connector Terminal		Continuity
M121	67		Not existed

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	BACK DOOR OF	PENER SWITCH	
< DTC/CIRCUIT DIAGNOSIS	>	[WITH INT	ELLIGENT KEY SYSTEM]
Is the inspection result normal?	-		
	er to <u>BCS-93, "Removal</u>	l and Installation".	
NO >> Repair harness or			
3. CHECK BACK DOOR OPEI	NER SWITCH GROUNE	D CIRCUIT	
Check continuity between back	door opener switch har	ness connector and groun	ıd.
Back door oper	oor owitch		
Connector	Terminal	Ground	Continuity
D114	2	Ground	Existed
	_		EXISTED
<u>Is the inspection result normal?</u> YES >> GO TO 4.	-		
NO >> Repair or replace h	arness		
4.CHECK BACK DOOR OPEI			
Refer to <u>DLK-125</u> , "Component Is the inspection result normal?			
YES >> GO TO 5.	-		
	opener switch. Refer to	EXT-50, "Removal and Ir	stallation".
5. CHECK INTERMITTENT IN	•		
Refer to <u>GI-47, "Intermittent Inc</u>			
Relef to <u>GI-47, Intermittent int</u>	<u>ident</u> .		
>> INSPECTION END)		
Component Inspection			INFOID:000000010577673
1. CHECK BACK DOOR OPEN	NER SWITCH		
1. Turn ignition switch OFF.			
2. Disconnect back door oper			
3. Check continuity between I	back door opener switch	n terminals.	
Termin	al		
		Condition	Continuity

			Condition	Continuity	DLN	
	Back door opener switch		Condition	Continuity		
	1	2	ON (press and hold)	Existed		
	I	Z	OFF (release)	Not existed	L	
10	the inerestion requilt norm				•	

Is the inspection result normal?

YES >> INSPECTION END

>> Replace back door opener switch. Refer to EXT-50, "Removal and Installation". NO

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DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR REQUEST SWITCH

Description

Transmits lock/unlock operation to BCM.

Component Function Check

1.CHECK FUNCTION

Check door request switch ("REQ SW -DR" or "REQ SW -AS") in Data Monitor mode.

Monitor item	Condition
REQ SW -DR	Door request switch is pressed: ON
REQ SW -AS	Door request switch is released: OFF

Is the inspection result normal?

YES >> Door request switch is OK. NO >> Refer to <u>DLK-126, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch \overline{OFF} .
- 2. Disconnect malfunctioning front outside handle (request switch) connector.
- 3. Check signal between malfunctioning front outside handle (request switch) harness connector and ground.

(+) Front outside handle (request switch) Connector Terminal		()	Signal (Reference value)	
				Driver side
Passenger side	D43	1	Ground	(V) 15 10 5 0

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 BCM harness connector and malfunctioning front outside handle (request switch) harness connector.

B	CM	Front outside handle (request switch)			Continuity	
Connector	Terminal	Connector		Terminal	Continuity	
M122	101	LH (driver side)	D13	1	Existed	
101122	100	RH (passenger side)	D43	I	Existed	

3. Check continuity between BCM harness connector and ground.

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INFOID:000000010577675

DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

				Continuity
Connector	Termina	al	Ground	,
M122	101			Not existed
the inspection result ne	100			
YES >> Replace BCl NO >> Repair or rep .CHECK DOOR REQU neck continuity between	blace harness. JEST SWITCH GRO			ness connector and g
Front o	outside handle (request s	switch)		
Conne	ector	Terminal	_	Continuity
Driver side	D13	2	Ground	
Passenger side	D43	2		Existed
NO >> Repair or rep	JEST SWITCH			
efer to <u>DLK-127, "Com</u> the inspection result no YES >> GO TO 5. NO >> Replace mal	JEST SWITCH ponent Inspection". ormal? Ifunctioning front out val and Installation" ENT INCIDENT ent Incident". N END tion JEST SWITCH OFF. ioning front outside g front outside hance	handle (request swi	tch) connector.	DLK-342, "OUTSIDE
CHECK DOOR REQU efer to <u>DLK-127</u> , "Com the inspection result no YES >> GO TO 5. NO >> Replace mal <u>DLE : Remo</u> CHECK INTERMITTE efer to <u>GI-47</u> , "Intermitt >> INSPECTION COMPONENT INSPECTION CHECK DOOR REQU CHECK DOOR REQU Turn ignition switch (Disconnect malfunct Check malfunctionin	JEST SWITCH ponent Inspection". ormal? functioning front out val and Installation" ENT INCIDENT ent Incident". N END tion JEST SWITCH OFF. ioning front outside g front outside hance Terminal	handle (request swi dle (request switch) t	tch) connector.	
CHECK DOOR REQU efer to <u>DLK-127</u> , "Com the inspection result no YES >> GO TO 5. NO >> Replace mal <u>DLE : Remo</u> CHECK INTERMITTE efer to <u>GI-47</u> , "Intermitt >> INSPECTION COMPONENT INSPECTION CHECK DOOR REQU CHECK DOOR REQU Turn ignition switch (Disconnect malfunct Check malfunctionin	JEST SWITCH ponent Inspection". ormal? Ifunctioning front out val and Installation" ENT INCIDENT ent Incident". N END tion JEST SWITCH OFF. ioning front outside g front outside hance	handle (request swi dle (request switch) t	tch) connector. erminals.	INFOID:000000

BACK DOOR REQUEST SWITCH

Description

Transmits lock/unlock operation to BCM.

Component Function Check

1.CHECK FUNCTION

Check back door opener request switch ("REQ SW -BD/TR ") in Data Monitor mode.

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

Is the inspection result normal?

YES >> Back door opener request switch is OK. NO >> Refer to <u>DLK-128</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK BCM OUTPUT SIGNAL

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

(+ Back door opene Connector		()	Signal (Reference value)
D116	1	Ground	(V) 15 10 5 0 10 ms JPMIA0016GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check back door opener request switch circuit

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and back door opener request switch harness connector.

BCM		Back door open	er request switch	Continuity
Connector	Terminal	Connector Terminal		Continuity
M121	61	D116	1	Existed

3. Check continuity between BCM harness connector and ground.

 BCM			Continuity
 Connector Terminal		Ground	Continuity
 M121	61		Not existed

Is the inspection result normal?

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BACK DOOR REQUEST SWITCH [WITH INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > YES >> Replace BCM. Refer to BCS-93, "Removal and Installation". NO >> Repair or replace harness. А 3.CHECK BACK DOOR OPENER REQUEST SWITCH GROUND CIRCUIT Check continuity between back door opener request switch harness connector and ground. В Back door opener request switch assembly Continuity Terminal Ground Connector D116 2 Existed Is the inspection result normal? YES >> GO TO 4. D NO >> Repair or replace harness. 4.CHECK BACK DOOR OPENER REQUEST SWITCH Е Refer to DLK-129, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace back door opener request switch. Refer to EXT-50, "Removal and Installation". **5.**CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END Н Component Inspection INFOID-0000000010577681 1. CHECK BACK DOOR OPENER REQUEST SWITCH 1. Turn ignition switch OFF. 2. Disconnect back door opener. 3. Check back door opener request switch terminals. Back door opener request switch Back door opener request switch condition Continuity Terminal DLK Pressed Existed 2 1 Not existed Released Is the inspection result normal? YES >> INSPECTION END >> Replace back door opener request switch. Refer to EXT-50, "Removal and Installation". NO Μ

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UNLOCK SENSOR

Description

Detects door lock condition of driver door.

Component Function Check

1. CHECK FUNCTION

Check unlock sensor ("UNLK SEN -DR") in "Data Monitor" mode.

Monitor item	Condition
UNLK SEN -DR	Front door lock (driver side) LOCK: OFF
UNER SEN -DR	Front door lock (driver side) UNLOCK: ON

Is the inspection result normal?

YES >> Unlock sensor is OK. NO >> Refer to <u>DLK-130</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK BCM OUTPUT SIGNAL

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

	(+) Front door lock assembly (driver side)		Signal (Reference value)	
Connector	Terminal			
D15	3	Ground	(V) 15 0 + 10ms JPMIA0594GB	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK UNLOCK SENSOR CIRCUIT

1. Disconnect BCM connector.

 Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

В	СМ	Front door lock as	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M123	119	D15	3	Existed

3. Check continuity between BCM harness connector and ground.

	BC	CM		Continuity
-	Connector	Terminal	Ground	Continuity
-	M123 119			Not existed

INFOID:000000010577682

INFOID:000000010577683

UNLOCK SENSOR

[WITH INTELLIGENT	KEY SYSTEM]
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< DTC/CIRCUIT DIAGNOSIS >

		mbly (driver side) harness connector and	l ground.
Front door lo	ck assembly (driver side)		Continuity
Connector	Terminal	Ground	Continuity
D15	4		Existed
s the inspection result n YES >> GO TO 4. NO >> Repair or re LCHECK UNLOCK SE	place harness.		
Refer to <u>DLK-131, "Com</u>			
s the inspection result n			
YES >> GO TO 5. NO >> Replace fro Installation". D.CHECK INTERMITTE		(driver side). Refer to <u>DLK-340, "DOOR</u>	LOCK : Removal and
Refer to <u>GI-47, "Intermit</u>	tent Incident".		
>> INSPECTIO	tion		
>> INSPECTIC Component Inspec	tion		INFOID:000000010577685
			INFOID:000000010577688
Component Inspec .CHECK UNLOCK SE . Turn ignition switch . Disconnect front door	ENSOR OFF. or lock assembly (driv	er side) (unlock sensor) connector. le) (unlock sensor) terminals.	INFOID:00000001057768
Component Inspec .CHECK UNLOCK SE . Turn ignition switch . Disconnect front door	ENSOR OFF. or lock assembly (driv ck assembly (driver sic	de) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock	
Component Inspec .CHECK UNLOCK SE . Turn ignition switch Disconnect front door . Check front door loc	ENSOR OFF. or lock assembly (driv ck assembly (driver sid driver side) (unlock sensor)	de) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition	Continuity
Component Inspec .CHECK UNLOCK SE . Turn ignition switch . Disconnect front door . Check front door loc Front door lock assembly (c	ENSOR OFF. or lock assembly (driv ck assembly (driver sid driver side) (unlock sensor)	de) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock	

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OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

OUTSIDE KEY ANTENNA

Description

Detects whether Intelligent Key is outside the vehicle. Integrated in front outside handle (driver side, passenger side) and installed in back door.

Component Function Check

1.CHECK DOOR REQUEST SWITCH

Check door request switch. Refer to <u>DLK-126, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check door request switch. Refer to <u>DLK-126, "Diagnosis Procedure"</u>.

2. CHECK FUNCTION

Be sure that Intelligent Key is in each outside key antenna detection area.

Does door lock/unlock when each request switch is pressed?

YES >> Outside key antenna is OK.

NO >> Refer to <u>DLK-132</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

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

(+) BCM		()	C	Condition	Signal (Reference value)	
С	onnector	Terminal				(Relefence value)
	Driver side	76, 77				
M122	Passenger side	74, 75	Ground	Request switch	When Intelligent Key is in the antenna de- tection area.	(V) 15 10 0 1 s JMKIA0062GB
M121	Back door	38, 39	Giouna	is pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0063GB

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>

NO >> GO TO 2.

- 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT
- 1. Disconnect BCM connector and malfunctioning front outside key antenna connector or outside key antenna (rear bumper) connector.
- Check continuity between BCM harness connector and malfunctioning outside key antenna harness connector.

DLK-132

INFOID:000000010577686

INFOID:000000010577687

OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

	E	SCM			Outside k	e key antenna		Continuity	
	Connector	Te	erminal	Conne	ector	Term	ninal	Continuity	
			76	D14 (driv	or aida)	2	2		
	M100		77	– D14 (driv	er side)	1			
	M122		74	D44 (20000	n an ar aid a)	2	2		
			75	– D44 (passe	nger side)	1		- Existed	
	M404		38	D110 (ha	ala ala av)	2	2		
	M121		39	– D118 (ba	CK door)	1			
Cheo	ck continuity b	etween B	CM harness	s connector	and grour	nd.			
		BCM							
	Connector		Termir	nal				Continuity	
			74						
			75						
	M122		76			Ground			
			77					Not existed	
			38						
	M121		39						
the ins	pection result	normal?							
ES O CHEC	>> GO TO 3. >> Repair or CK OUTSIDE	KEY ANT	ENNA INPU			or other ant	enna)		
ES O CHEC Repl Conr necto	>> Repair or I CK OUTSIDE ace malfunction nect BCM cor	KEY ANT oning outs nector ar	ENNA INPL side key ant id malfuncti	enna. (New ioning outsic	antenna o le key an	tenna (Nev	/ antenna	or other antenna) o	
ES O CHEC Repl Conr necto	>> Repair or CK OUTSIDE ace malfunction nect BCM cor or.	KEY ANT oning outs nector ar	ENNA INPL side key ant id malfuncti	enna. (New ioning outsic	antenna o le key an	tenna (Nev	/ antenna		
ES O CHEC Repl Conr necto	>> Repair or CK OUTSIDE ace malfunctinect BCM cor or. ck signal betw	KEY ANT oning outs nector ar	ENNA INPL side key ant id malfuncti	enna. (New ioning outsic nnector and	antenna o le key an	tenna (Nev	/ antenna cilloscope	Signal	
ES O CHEC Repl Conr necto Cheo	>> Repair or 1 CK OUTSIDE ace malfunction nect BCM cor or. ck signal betw (+)	KEY ANT oning outs nector ar	ENNA INPL side key ant ad malfuncti harness co	enna. (New ioning outsic nnector and	antenna d le key an ground u	tenna (Nev	/ antenna cilloscope		
ES O CHEC Repl Conr necto Cheo	>> Repair or 1 CK OUTSIDE ace malfunctinect BCM cor or. ck signal betw (+) BCM	KEY ANT oning outs inector ar een BCM	ENNA INPL side key ant ad malfuncti harness co	enna. (New ioning outsic nnector and	antenna o le key an ground u Condition Condition When In is in the tection a	tenna (New Ising an osc telligent Key antenna de-	/ antenna cilloscope	Signal	

Is the inspection result normal?

- YES-1 >> Replace malfunctioning front outside handle (LH or RH). Refer to <u>DLK-342, "OUTSIDE HANDLE :</u> <u>Removal and Installation"</u>.
- YES-2 >> Replace outside key antenna (Back door). Refer to <u>DLK-359</u>, "<u>BACK DOOR</u> : <u>Removal and Instal-</u><u>lation</u>".

OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAG	_	NI KEY WARN		LIGENT KEY SYSTEM]
INTELLIGENT K		BUZZER	L	
Description				INFCID:000000010577689
	.			INFOID.000000010377889
Answers back and war		e operation.		
Component Funct	lion Check			INFOID:000000010577690
1. CHECK FUNCTION	l			
Check Intelligent Key w	arning buzzer ("OUT	SIDE BUZZER") in	Active Test mode.	
Is the inspection result				
	Key warning buzzer (LK-135, "Diagnosis P			
Diagnosis Procedu	ure			INFOID:000000010577691
1.CHECK FUSE				
1. Turn ignition switch	ı OFF.			
2. Check 10 A fuse, [l	No.6, located in fuse	block (J/B)].		
Is fuse fusing?	o blown fued offer re-	airing the offected	pirouit if a fuca is bla	
YES >> Replace th NO >> GO TO 2.	e blown fuse after rep	bailing the affected	Sincult if a fuse is DIC	JVVII.
2. CHECK INTELLIGE	NT KEY WARNING E	BUZZER POWER S	UPPLY CIRCUIT	
 Disconnect Intellige Check voltage betw 	ent Key warning buzz ween Intelligent Key v	er connector. varning buzzer harn	ess connector and (ground.
	(+)			Voltage (V)
	nt Key warning buzzer		(-)	(Approx.)
Connector E80	Termina 1		Ground	Battery voltage
Is the inspection result	-		Ground	Dattery voltage
YES >> GO TO 3.				
- ·	eplace harness.			
3.CHECK INTELLIGE		BUZZER CIRCUIT		
 Disconnect BCM c Check continuity be 		connector and Inte	ligent Key warning	buzzer harness connector.
B	СМ	Intelligent Ke	y warning buzzer	Continuity
Connector	Terminal	Connector	Terminal	
M121	64	E80	3	Existed
 Check continuity be 	etween BCM harness	connector and grou	und.	
	BCM			Continuity
Connector	Termina	al	Ground	-
M121	64			Not existed
<u>Is the inspection result</u> YES >> GO TO 4.	normal?			
	eplace harness.			
4. CHECK INTELLIGE	NT KEY WARNING F	BUZZER		
Chask DLK 400 #0	nonent les setters!			

Check DLK-136. "Component Inspection".

Is the inspection result normal?

INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> Replace BCM. Refer to <u>BCS-93. "Removal and Installation"</u>.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-360, "Removal and Installation"</u>.

Component Inspection

INFOID:000000010577692

1. CHECK INTELLIGENT KEY WARNING BUZZER

Connect battery power supply to Intelligent Key warning buzzer terminals 1 and 3, and check the operation.

1 (BAT+) - 3 (BAT-) : The buzzer sounds

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-360, "Removal and Installation"</u>.

INTELLIGENT KEY BATTERY

Component Inspection

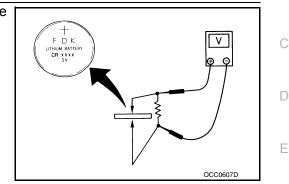
1. CHECK INTELLIGENT KEY BATTERY

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

Standard : Approx. 2.5 - 3.0 V

Is the measurement value within the specification?

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



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[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000010577693

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< DTC/CIRCUIT DIAGNOSIS > KEY SLOT

Description

Detect whether Intelligent Key is inserted. Immobilizer antenna amp checks Intelligent Key transponder.

Component Function Check

1.CHECK FUNCTION

Check key slot ("KEY SW -SLOT") in Data Monitor mode using CONSULT.

Monitor item	Condition
KEY SW-SLOT	Key is inserted in key slot: ON
	Key is removed from key slot: OFF

Is the inspection result normal?

YES >> Key slot is OK.

NO >> Refer to <u>DLK-138, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK FUSE

1. Turn ignition switch OFF.

2. Check 10 A fuse, [No.9, located in fuse block (J/B)].

Is fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 2.

2. CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Disconnect key slot connector.

2. Check voltage between slot harness connector and ground.

(+) Key slot		(-)	Voltage (V) (Approx.)	
Connector	Connector Terminal			
M22	M22 1		Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot harness connector and ground.

Key	slot		Continuity
Connector	Connector Terminal		Continuity
M22			Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK KEY SLOT CIRCUIT 1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and key slot harness connector.

INFOID:000000010577694

INFOID:0000000010577695

KEY SLOT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BC	CM	Key	slot	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M123	121	M22	11	Existed	
Check continuity be	tween BCM harnes	s connector and grour	nd.		
	BCM			Continuity	
Connector	Termir	nal	Ground	Continuity	
M123	121			Not existed	
YES >> GO TO 5. NO >> Repair or re CHECK KEY SLOT	eplace harness.				
efer to DLK-139, "Con	nponent Inspection".				
s the inspection result i	normal?				
YES >> GO TO 6. NO >> Replace ke	y slot. Refer to <u>DLK</u>	-361, "Removal and In	stallation".		
δ .CHECK INTERMITT	ENT INCIDENT				
Refer to <u>GI-47, "Intermi</u>	ttent Incident".				
>> INSPECTIO	ON END				
Component Inspec	ction			INFOID:000000010577697	
.CHECK KEY SLOT					
 Turn ignition switch Disconnect key slot Check key slot tern 	connector.				
Key sl		Condition		Continuity	
Tormir	nal				

	Terminal		Condition	Continuity	DLK	
-			Condition	Continuity		
-	1	11	Intelligent Key inserted	Existed	_	
_	I	11	Intelligent Key removed	Not existed	L	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-361, "Removal and Installation"</u>.

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KEY SLOT ILLUMINATION

Description

Blinks when Intelligent Key insertion is required.

Component Function Check

1.CHECK FUNCTION

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to <u>DLK-140, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK FUSE

1. Turn ignition switch OFF.

2. Check 10 A fuse, [No.9, located in fuse block (J/B)].

Is fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 2.

2. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot harness connector and ground.

(+) Key slot		(-)	(–) Condition Key slot		Voltage (V) (Approx.)
Connector	Terminal				(
M22	6	Ground	Intelligent Key inserted	OFF	Battery voltage
IVIZZ	0	Ground	Intelligent Key removed	ON	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

3.CHECK KEY SLOT CIRCUIT

1. Disconnect BCM and key slot connector.

2. Check continuity between BCM harness connector and key slot harness connector.

BCM		Key slot		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	92	M22	6	Existed

3. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity	
Connector Terminal		Ground	Continuity	
M122	92		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

NO >> Repair or replace harness.

4.CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Disconnect key slot connector.

INFOID:000000010577698

INFOID:000000010577699

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

2. Check voltage between key slot harness connector and ground. А (+) Voltage (V) Key slot (-) (Approx.) В Connector Terminal M22 5 Battery voltage Ground Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace harness. ${f b.}$ CHECK KEY SLOT GROUND CIRCUIT D Check continuity between key slot harness connector and ground. Е Key slot Continuity Connector Terminal Ground M22 7 Existed F Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace harness. 6.CHECK KEY SLOT Refer to DLK-141, "Component Inspection". Н Is the inspection result normal? YES >> GO TO 7. NO >> Replace key slot. Refer to <u>DLK-361, "Removal and Installation"</u>. 7. CHECK INTERMITTENT INCIDENT Refer to GI-47, "Intermittent Incident". >> INSPECTION END **Component Inspection** INFOID:0000000010577701 DLK 1. CHECK KEY SLOT ILLUMINATION Turn ignition switch OFF. 1. L 2. Disconnect key slot connector. Connect battery power supply to key slot terminals 5 and 6, and check the operation. 3. Μ 5 (BAT+) - 6 (BAT-) : Key slot illuminates Is the inspection result normal? YES >> INSPECTION END Ν NO >> Replace key slot. Refer to <u>DLK-361, "Removal and Installation"</u>.

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HORN FUNCTION

Description

Perform answer-back for each operation using horn.

Component Function Check

1.CHECK FUNCTION

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

2. Check the horn (high/low) operation.

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

Is the operation normal?

YES >> Horn function is OK. NO >> Refer to <u>DLK-142</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK HORN SWITCH

Check horn function using horn switch

Do the horns sound?

YES >> GO TO 2.

NO >> Refer to <u>HRN-2</u>, "Wiring Diagram - HORN -".

2. CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.

- 2. Perform "ACTIVE TEST" ("HORN") using CONSULT.
- 3. Check voltage between malfunctioning horn relay harness connector and ground.

	(+)		(-)				
 Horn relay			Test item		Voltage (V) (Approx.)		
 Conr	nector	Terminal	Ground			(+ +)	
 E11	Low	1	Ground	HORN	ON	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage	
 E18	High	3		HORN	Other than above	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R connector and horn relay connector.

3. Check continuity between IPDM E/R harness connector and malfunctioning horn relay harness connector.

IPD	M E/R	Horn	relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
E6	44	E11	1	Existed
Εb	45	E18	3	LAISICU

4. Check continuity between driver seat control unit harness connector and ground.

INFOID:000000010577703

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

IPD	DM E/R		Continuity	A
Connector Terminal		Ground	Continuity	
E6	44	Ciouna	Not existed	
	45		Not existed	I
s the inspection result norma	<u>al?</u>			
YES >> Replace IPDM E	/R. Refer to PCS-36, "Remov	val and Installation".		(
NO >> Repair or replace				
CHECK INTERMITTENT	INCIDENT			
efer to GI-47, "Intermittent I	<u>ncident"</u> .			
s the inspection result norma				
>> INSPECTION EN	ND			

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COMBINATION METER DISPLAY FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION METER DISPLAY FUNCTION

Description

Displays each operation method guide and warning for system malfunction.

Component Function Check

1.CHECK FUNCTION

Check the operation with ("LCD") in the Active Test.

Is each warning displayed on meter display?

Is the inspection result normal?

YES >> Meter display is OK.

NO >> Refer to <u>DLK-144, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK COMBINATION METER

Refer to <u>MWI-95, "DTC Index"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check combination meter. Refer to <u>MWI-4, "Work flow"</u>.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000010577705

INFOID:000000010577706

BUZZER (COMBINATION METER) [WITH INTELLIGENT KEY SYSTEM] < DTC/CIRCUIT DIAGNOSIS > **BUZZER (COMBINATION METER)** Description INFOID:000000010577708 Performs operation method guide and warning using buzzer. **Component Function Check** INFOID:000000010577709 1.CHECK FUNCTION Check the operation using "INSIDE BUZZER" in the Active Test. Touch "TAKE OUT", "KNOB" or "KEY" on screen. Is the inspection result normal? Yes >> Warning buzzer into combination meter is OK. >> Refer to DLK-145, "Diagnosis Procedure". No Diagnosis Procedure INFOID:000000010577710 **1.**CHECK METER BUZZER CIRCUIT Refer to WCS-23, "Component Function Check". Is the inspection result normal? Yes >> GO TO 2. No >> Repair or replace harness. 2. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

1.

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>> INSPECTION END

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KEY WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

KEY WARNING LAMP

Description

Performs operation method guide and warning together using buzzer.

Component Function Check

1.CHECK FUNCTION

Check the operation with "INDICATOR" in "Active Test" mode using CONSULT.

Test item	Condition		
INDICATOR	RED ON	Key warning lamp (red) illuminates	
INDICATOR	RED IND	Key warning lamp (red) blinks	

Is the inspection result normal?

YES >> Key warning lamp in combination meter is OK.

NO >> Refer to <u>DLK-146</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK KEY WARNING LAMP

Refer to MWI-43, "Diagnosis Description".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Revision: 2015 February

INFOID:000000010577711

INFOID:000000010577712

INFOID:000000010577713

HAZARD FUNCTION

[WITH INTELLIGENT KEY SYSTEM]

< DTC/	CIRCUIT DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
HAZA	ARD FUNCTION	
Descr	iption	INFOID:000000010577714
Perforn	n answer-back for each operation using the number of blinks	
Comp	onent Function Check	INFOID:000000010577715
1.сне	CK FUNCTION	
Check	hazard warning lamp ("FLASHER") in Active Test.	
	nspection result normal?	
YES NO	>> Hazard warning lamp circuit is OK. > Refer to <u>DLK-147, "Diagnosis Procedure"</u> .	
Diagn	osis Procedure	INFOID:000000010577716
1.сне	CK HAZARD SWITCH CIRCUIT	
Refer to	EXL-119, "Wiring Diagram - TURN AND HAZARD WARNIN	IG LAMPS -"
<u>Is the ir</u>	nspection result normal?	
YES NO	>> GO TO 2.	
-	>> Repair or replace harness. CK INTERMITTENT INCIDENT	
-		
Relei u	o <u>GI-47, "Intermittent Incident"</u> .	
	>> INSPECTION END	

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AUTOMATIC BACK DOOR CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

AUTOMATIC BACK DOOR CLOSE SWITCH

Component Function Check

1.CHECK FUNCTION

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "BK DOOR CL SW" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
BK DOOR CL SW	Automatic back door close switch	Pressed	ON
BR BOOK GE SW	Automatic back door close switch	Released	OFF

Is the inspection result normal?

- YES >> Automatic back door close switch is OK.
- NO >> Refer to <u>DLK-148, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577718

1. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH INPUT SIGNAL

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

(+) Automatic back door close switch		(-)	Voltage (Approx.)	
Connector	Terminal		(
D113	1	Ground	16 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK AUTOMATIC BACK DOOR CLOSE SWITCH CIRCUIT

- 1. Disconnect automatic back door control unit connector.
- Check continuity between automatic back door control unit harness connector and automatic back door close switch harness connector.

Automatic back	door control unit	Automatic back door close switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	23	D113	1	Existed

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

	Automatic back	door control unit		Continuity	
	Connector	Terminal	Ground		
_	B207	23		Not existed	
		10			

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK AUTOMATIC BACK DOOR CLOSE SWITCH GROUND CIRCUIT

Check continuity between automatic back door close switch harness connector and ground.

[WITH INTELLIGENT KEY SYSTEM]

INFOID:000000010577717

AUTOMATIC BACK DOOR CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Autom	atic back door close	e switch	Ografiavity		witch	
Connec	tor	Terminal	Ground	Continuity		
D113		2		Existed		
Is the inspection res	<u>sult normal?</u>					
YES >> GO TO NO >> Repair	4. or replace harne					
4.CHECK AUTOM	•		СН			
Refer to <u>DLK-149</u> , "						
Is the inspection res		<u> </u>				
YES >> GO TO	5.					
		k door close switc	h.			
5.CHECK INTERM		ENT				
Refer to GI-47, "Inte	ermittent Inciden	<u>it"</u> .				
>> INSPE(CTION END					
Component Ins	pection			INFOID:000000010577719		
1.CHECK AUTOM	ATIC BACK DO	OR CLOSE SWIT	СН			
1. Turn ignition sw						
		or close switch con				
		malic Dack UUUI CI	lose switch terminals.			
Automatic back	door close switch		Condition	Continuity		
Terr	ninal			Continuity		
1	2	Automatic back do	oor Pressed	Existed		

Released

close switch

Is the inspection result normal?

1

YES >> INSPECTION END

NO >> Replace automatic back door close switch.

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Not existed

AUTOMATIC BACK DOOR MAIN SWITCH

Component Function Check

1.CHECK FUNCTION

1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.

2. Select "MAIN SW" in "DATA MONITOR" mode.

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

Monitor item	Condition		Status
MAIN SW	Automatic back door main switch	ON	ON
	Automatic back door main switch	OFF	OFF

Is the inspection result normal?

- YES >> Automatic back door main switch is OK.
- NO >> Refer to <u>DLK-150, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000010577721

1. CHECK AUTOMATIC BACK DOOR MAIN SWITCH INPUT SIGNAL

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

(+)			Velterre	
Automatic back doo	Automatic back door main switch		Voltage (Approx.)	
Connector	Terminal			
M32	1	Ground	16 – 8 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK AUTOMATIC BACK DOOR MAIN SWITCH CIRCUIT

- 1. Disconnect automatic back door control unit connector.
- Check continuity between automatic back door control unit harness connector and automatic back door main switch harness connector.

Automatic back	door control unit	Automatic back door main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	10	M32	1	Existed

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

 Automatic back		Continuity	
 Connector	Terminal	Ground	Continuity
 B207	10	-	Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK AUTOMATIC BACK DOOR MAIN SWITCH GROUND CIRCUIT

Check continuity between automatic back door main switch connector and ground.

INFOID:000000010577720

AUTOMATIC BACK DOOR MAIN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Automatic back do	oor main switch		Continuity
Connector	Terminal	Ground	Continuity
M32	3		Existed
Is the inspection result norm	al?		· · · · · · · · · · · · · · · · · · ·
YES >> GO TO 4.			
NO >> Repair or replace			
4. CHECK AUTOMATIC BA	CK DOOR MAIN	SWITCH	
Refer to DLK-151, "Compor	ent Inspection".		
Is the inspection result norm	al?		
YES >> GO TO 5.			
NO >> Replace automa	atic back door ma	in switch.	
5. CHECK INTERMITTENT	INCIDENT		
Refer to GI-47, "Intermittent	Incident".		
>> INSPECTION E	ND		
Component Inspection	า		INFOID:000000010577722
1. СНЕСК АUTOMATIC ВА	CK DOOR MAIN	SWITCH	
1. Turn ignition switch OFF	Ξ.		
2. Disconnect automatic b			
3. Check continuity betwee	en automatic bac	k door main switch terminals.	
Automatic back door r	nain switch	Quadition	Continuitu
Terminal		Condition	Continuity

Automatic back		Condi	tion	Continuity		
Tern	ninal	Condi		Continuity		
1	3	Automatic back door	ON	Existed	.1	
Ι	5	main switch	OFF	Not existed	0	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace automatic back door main switch.

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AUTOMATIC BACK DOOR SWITCH

Component Function Check

1.CHECK FUNCTION

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "AUTO BD SW" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
AUTO BD SW	Automatic back door switch	Pressed ON	
		Released	OFF

Is the inspection result normal?

- YES >> Automatic back door switch is OK.
- NO >> Refer to <u>DLK-152</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000010577724

1. CHECK AUTOMATIC BACK DOOR SWITCH INPUT SIGNAL

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

(+)			Meller -	
Automatic back door switch		(—)	Voltage (Approx.)	
Connector	Terminal			
M34	1	Ground	16 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK AUTOMATIC BACK DOOR SWITCH CIRCUIT

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

Automatic back door control unit		Automatic bac	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
B207	22	M34	1	Existed	

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

Automatic back	door control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	22		Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK AUTOMATIC BACK DOOR SWITCH GROUND CIRCUIT

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

INFOID:000000010577723

AUTOMATIC BACK DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Automatic back d	oor switch		Questionity
Connector	Terminal	Ground	Continuity
M34	2		Existed
s the inspection result normal?	<u>?</u>		
YES >> GO TO 4. NO >> Repair or replace h	narness.		
4. CHECK AUTOMATIC BACK	K DOOR SWITCH		
Refer to <u>DLK-153, "Componen</u> Is the inspection result normal?			
YES >> GO TO 5. NO >> Replace automatic 5.CHECK INTERMITTENT IN			
Refer to <u>GI-47, "Intermittent Inc</u>			
>> INSPECTION END)		
Component Inspection			INFOID:000000010577725
1. СНЕСК АUTOMATIC BACK	K DOOR SWITCH		
 Turn ignition switch OFF. Disconnect automatic back Check continuity between 			
Automatic back door switch	1	Condition	Continuity

	Automatic back door switch		Condition		Continuity	1
-	Terr	minal	Conditio		Continuity	
-	1	2	Automatic back door switch	Pressed	Existed	
	I	2	Automatic back door switch	Released	Not existed	0

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace automatic back door switch.

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TOUCH SENSOR

RH

RH: Component Function Check

1.CHECK FUNCTION

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "TOUCH SEN RH" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

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

Is the inspection result normal?

YES >> Touch sensor RH is OK.

NO >> Refer to <u>DLK-154, "RH : Diagnosis Procedure"</u>.

RH : Diagnosis Procedure

INFOID:000000010577727

INFOID:0000000010577726

1. CHECK TOUCH SENSOR INPUT SIGNAL

1. Turn ignition switch OFF.

 Check voltage between touch sensor RH harness connector and automatic back door control unit harness connector.

(*	+)	(1	(-)			
Touch se	ensor RH	Automatic back	door control unit	Condition		Voltage (Approx.)
Connector	Terminal	Connector	Terminal			(
D126	1	B207	13	Touch sensor	Detect obstruc- tion	1.8 – 5 V
0120	I	6207	15	RH	Other than above	2.72 – 7.27 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK TOUCH SENSOR RH CIRCUIT

1. Disconnect automatic back door control unit and touch sensor RH connector.

Check continuity between automatic back door control unit harness connector and touch sensor RH harness connector.

Automatic back door control unit		Touch se	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B207	1	D126	1	Existed

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

Automatic back d	loor control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	1	-	Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "<u>Removal and Installation</u>". NO >> Repair or replace harness.

3.CHECK TOUCH SENSOR RH GROND CIRCUIT

TOUCH SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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1. Disconnect automatic back door control unit and touch sensor RH connector.

2. Check continuity between automatic back door control unit harness connector and touch sensor RH harness connector.

-	Automatic back of	door control unit	Touch sensor RH		Continuity	В
-	Connector	Terminal	Connector	Terminal	Continuity	
-	B207	13	D126	2	Existed	
~ -		· · · · · · · · · · · · · · · · · · ·				C

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

	Automatic back of	loor control unit	Continuity		
-	Connector	Terminal	Ground	Continuity	D
-	B207	13		Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK TOUCH SENSOR RH GROND CIRCUIT 2

1. Connect automatic back door control unit and touch sensor RH connector.

2. Check voltage between automatic back door control unit harness connector and ground.

(+)				
Automatic back doo	r control unit	(-)	Voltage (Approx.)	H
Connector	Terminal		()	
B207	13	Ground	0.01 – 0 V	
Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace harr	ness.			
5. CHECK TOUCH SENSOR RH				
Refer to DLK-155, "RH : Compone	ent Inspection".			
Is the inspection result normal? YES >> GO TO 6. NO >> Replace touch sensor				Ľ
NO >> Replace touch sensor 6.CHECK INTERMITTENT INCID				
Refer to GI-47, "Intermittent Incide	<u>ent"</u> .			
>> INSPECTION END				
RH : Component Inspectio	n		INFOID:000000010577728	
1.CHECK TOUCH SENSOR RH				
 Turn ignition switch OFF. Disconnect touch sensor RH 6 Check resistance between tou 		S.		
Touch sensor RH			Resistance	

	Sensor RH Resistance rminal (Approx.)		Resistance (Approx.)	Ρ	
1	2	Touch sensor RH	Detect obstruction	380 – 420 kΩ	
I	2		Other than above	0.95 – 1.05 kΩ	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace touch sensor RH.

Revision: 2015 February

LH

LH : Component Function Check

1.CHECK FUNCTION

- 1. Select "AUTOMATIC BACK DOOR CONTROL UNIT" using CONSULT.
- 2. Select "TOUCH SEN LH" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

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

Is the inspection result normal?

- YES >> Touch sensor LH is OK.
- NO >> Refer to <u>DLK-156</u>, "LH : Diagnosis Procedure".

LH : Diagnosis Procedure

INFOID:000000010577730

INFOID:000000010577729

1. CHECK TOUCH SENSOR INPUT SIGNAL

1. Turn ignition switch OFF.

2. Check voltage between touch sensor LH harness connector and automatic back door control unit harness connector.

(+)	(·	-)				
Touch s	ensor LH	Automatic back	door control unit	Condition		Voltage (Approx.)	
Connector	Terminal	Connector	Terminal			(, , , , , , , , , , , , , , , , , , ,	
D125	1	B207	13	Touch sensor	Detect obstruc- tion	1.8 – 5 V	
D125	I	6207	15	LH	Other than above	2.72 – 7.27 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK TOUCH SENSOR LH CIRCUIT

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

Automatic back	door control unit	Touch sens	sor LH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B207	2	D125	1	Existed

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

Automatic back	Automatic back door control unit		Continuity
Connector	Terminal	Ground	Continuity
B207	2		Not existed

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace harness.

 ${f 3}.$ check touch sensor LH grond circuit

1. Disconnect automatic back door control unit and touch sensor LH connector.

TOUCH SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Automatic back	door control unit		Touch sensor LH	Operation 11
Connector	Termina	I Conne	ctor Terminal	Continuity
B207	13	D12	5 2	Existed
Check continuity be	tween automa	tic back door contro	ol unit harness connect	or and ground.
	c back door contro	Terminal	Cround	Continuity
Connector B207		13	Ground	Not existed
the inspection result i	ormal?	13		Not existed
(ES >> GO TO 4.	<u>Iomar</u>			
IO >> Repair or re	eplace harness			
CHECK TOUCH SEI	NSOR LH GRO	OND CIRCUIT 2		
Connect automatic	back door cont	trol unit and touch s	ensor LH connector.	
			unit harness connector	and ground.
	(+)			
Autom	(+) Automatic back door cont		(-)	Voltage
Connector		Terminal	(-)	(Approx.)
B207		13	Ground	0.01 – 0 V
the inspection result i				
NO >> Repair or re CHECK TOUCH SEI	NSOR LH			
بالالبيم مستعملا مماله مسمعا المطل	normal?			
the inspection result i				
'ES >> GO TO 6.	ich sensor I H			
YES >> GO TO 6.				
YES >> GO TO 6. NO >> Replace to CHECK INTERMITT	ENT INCIDEN			
YES >> GO TO 6.	ENT INCIDEN			
YES >> GO TO 6. NO >> Replace to CHECK INTERMITT	ENT INCIDEN			
YES >> GO TO 6. NO >> Replace tou CHECK INTERMITT efer to <u>GI-47, "Intermit</u> >> INSPECTIO	ENT INCIDEN [:] t <u>tent Incident"</u> . DN END			
YES >> GO TO 6. NO >> Replace tou CHECK INTERMITT efer to <u>GI-47, "Intermit</u> >> INSPECTIO H : Component Ir	ENT INCIDEN <u>ttent Incident"</u> . ON END Ispection			INFOID:0000
YES >> GO TO 6. NO >> Replace tou CHECK INTERMITT efer to <u>GI-47, "Intermit</u> >> INSPECTIO	ENT INCIDEN <u>ttent Incident"</u> . ON END Ispection			INFOID:000
ES >> GO TO 6. IO >> Replace tou CHECK INTERMITT ifer to <u>GI-47, "Intermit</u> >> INSPECTIO I : Component Ir CHECK TOUCH SEI Turn ignition switch	ENT INCIDEN ttent Incident". ON END aspection NSOR LH OFF.	T		INFOID:0000
YES >> GO TO 6. NO >> Replace to CHECK INTERMITT efer to <u>GI-47, "Intermit</u> >> INSPECTIO H : Component Ir .CHECK TOUCH SEI	ENT INCIDEN ttent Incident". ON END aspection NSOR LH OFF. ensor LH conne	T ector.		INFOID:0000
YES >> GO TO 6. NO >> Replace tou CHECK INTERMITT efer to GI-47, "Intermit >> INSPECTION H : Component Ir CHECK TOUCH SEI Turn ignition switch Disconnect touch se	ENT INCIDEN ttent Incident". DN END aspection NSOR LH OFF. ensor LH connection off.	T ector. sensor LH terminals		INFOID:0000
YES >> GO TO 6. NO >> Replace tou CHECK INTERMITT efer to GI-47, "Intermit >> INSPECTIO H : Component Ir .CHECK TOUCH SEI Turn ignition switch Disconnect touch se Check resistance b	ENT INCIDEN ttent Incident". DN END aspection NSOR LH OFF. ensor LH connective or LH	T ector. sensor LH terminals	S. Condition	
YES >> GO TO 6. NO >> Replace too CHECK INTERMITT efer to GI-47, "Intermit >> INSPECTIO H : Component Ir .CHECK TOUCH SEI Turn ignition switch Disconnect touch se Check resistance b	ENT INCIDEN ttent Incident". DN END aspection NSOR LH OFF. ensor LH connective or LH	T ector. sensor LH terminals		Resistance

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace touch sensor LH.

[WITH INTELLIGENT KEY SYSTEM]

SPINDLE MOTOR

RH

RH : Diagnosis Procedure

INFOID:000000010577732

1. CHECK SPINDLE MOTOR INPUT SIGNAL

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

(+) Spindle unit RH		()	Condition		Voltage (Approx.)
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B261	1	Ground	Back door	Auto open opera- tion	16.75 – 8.5 V
BZUT	2	Ground	Back UUUI	Auto close opera- tion	10.75 - 0.5 V

Is the inspection result normal?

YES >> Replace spindle unit RH.

NO >> GO TO 2.

2. CHECK SPINDLE MOTOR CIRCUIT

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

Automatic bac	k door control unit	Spindle u	nit RH	Continuity
Connector	Terminal	Connector	Terminal	Continuity
B208	29	B261	1	Existed
D200	36	D201	2	Existed

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

Automatic back	Automatic back door control unit		Continuity
Connector	Terminal	Ground Continuity	Continuity
M208	29	Ground	Not existed
11200	36		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to BCS-93, "Removal and Installation".

NO >> Repair or replace harness.

LH

LH : Diagnosis Procedure

INFOID:000000010577733

1. CHECK SPINDLE MOTOR INPUT SIGNAL

1. Turn ignition switch OFF.

2. Disconnect spindle unit LH connector.

3. Check voltage between spindle unit LH harness connector and ground.

SPINDLE MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Spinale	e unit LH		Condition		Voltage (Approx.)
Connector	Terminal	(-)	Cor	Condition	
B94	1	- Ground	Back door	Auto open opera- tion Auto close opera- tion	16.75 – 8.5 V
>> GO TC HECK SPINDI Disconnect aut	e spindle unit LH 2. E MOTOR CIRC omatic back door ty between autor	UIT	onnector. or control unit harn	ess connector and	spindle unit LH
Automatic	back door control un	it	Spindle	e unit LH	
Connector	Termi	nal	Connector	Terminal	Continuity
B208	27		B94	1	Existed
B200	34	,	D94	2	Existed
Check continui	ty between auton	natic back door	r control unit harnes	ss connector and gr	round.
Auto	matic back door cont	trol unit			Continuity
Connecto	r	Terminal	Grour	Oraund	
		27	27		Not existed
M208	M208				

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BACK DOOR CLOSURE MOTOR

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR CLOSURE MOTOR

Diagnosis Procedure

1. CHECK BACK DOOR CLOSURE MOTOR INPUT SIGNAL

1. Turn ignition switch OFF.

- 2. Disconnect back door lock assembly connector.
- 3. Check voltage between back door lock assembly harness connector and ground.

(+ Back door lo	/	()	Condition		Voltage (Approx.)
Connector	Terminal	*			
D107	1	Ground	Back door opener	Pressed	16 – 7.8 V
0107	2	Giouria	switch	Released	0 V

Is the inspection result normal?

YES >> Replace back door lock assembly.

NO >> GO TO 2.

2. CHECK BACK DOOR CLOSURE MOTOR CIRCUIT

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

Automatic back d	oor control unit	Back door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	Continuity
P209	31	D107	1	Existed
B200	B208 D107		2	Existed

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

Automatic back d	oor control unit		Continuity
Connector	Terminal	Ground	Continuity
B208	31	Ground	Not existed
B200	38		NOT EXISTED

Is the inspection result normal?

YES >> Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

NO >> Repair or replace harness.

AUTOMATIC BACK DOOR WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

AUTOMATIC BACK DOOR WARNING BUZZER

Diagnosis Procedure

1. CHECK AUTOMATIC BACK DOOR WARNING BUZZER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

- Disconnect automatic back door warning buzzer connector. 2.
- Check voltage between automatic back door warning buzzer harness connector and ground. 3.

(+) Automatic back door v	varning buzzer	(-)	Voltage (Approx.)	D
Connector	Terminal		(Approx.)	_
B86	1	Ground	16 – 7.5 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check automatic back door warning buzzer output signal circuit

- 1. Disconnect automatic back door control unit connector.
- Check continuity between automatic back door control unit harness connector and automatic back door warning buzzer harness connector.

Automatic back	door control unit	Automatic back doo	or warning buzzer	Continuity	Н
Connector	Terminal	Connector	Terminal	Continuity	
B208	37	B86	1	Existed	

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

	Automatic back de	oor control unit		Continuity	_
	Connector	Terminal	Ground	Continuity	J
	B208	37		Not existed	-
ls tł	ne inspection result normal?				DLK

YES >> Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation".

NO >> Repair or replace harness.

${f 3.}$ CHECK AUTOMATIC BACK DOOR WARNING BUZZER GROUND CIRCUIT

Check continuity between automatic back door warning buzzer harness connector and ground.

Automatic back doo	r warning buzzer		Continuity	
Connector	Terminal	Ground	Continuity	
B86	2		Existed	_
Is the inspection result normal?				_
YES >> GO TO 4.				
NO >> Repair or replace h	arness.			
4. CHECK AUTOMATIC BACK	DOOR WARNING BUZZE	ER		
Refer to DLK-162, "Component	Inspection".			
Is the inspection result normal?				
YES >> GO TO 5.				
NO >> Replace automatic	back door warning buzzer	:		
5. CHECK INTERMITTENT IN	CIDENT			

Refer to GI-47, "Intermittent Incident".

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INFOID:000000010577735

AUTOMATIC BACK DOOR WARNING BUZZER [WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

>> INSPECTION END

Component Inspection

INFOID:000000010577736

$1. {\sf check\ automatic\ back\ door\ warning\ buzzer}$

- 1. Turn ignition switch OFF.
- 2. Disconnect automatic back door warning buzzer connector.
- 3. Check battery power supply directly to automatic back door warning buzzer terminals and check the operation.

	oor warning buzzer	Automatic back do
Operation	minal	Terr
	(-)	(+)
Buzzer sounds	2	1

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace automatic back door warning buzzer.

GROUND CIRCUIT

[WITH INTELLIGENT KEY SYSTEM]

GROUND CIRCUIT А AUTOMATIC BACK DOOR CONTROL UNIT AUTOMATIC BACK DOOR CONTROL UNIT : Component Function Check В INEOID:000000010577737 1.CHECK FUNCTION Check automatic back door switch ("DESTINATION") in Data Monitor mode. Monitor item Condition Status D DESTINATION Type 4 Is the inspection result normal? YES >> Automatic back door ground circuit is OK. Е NO >> Refer to DLK-163, "AUTOMATIC BACK DOOR CONTROL UNIT : Diagnosis Procedure". AUTOMATIC BACK DOOR CONTROL UNIT : Diagnosis Procedure INFOID:000000010577738 F 1.CHECK GROUND CIRCUIT Check continuity between automatic back door control unit harness connector and ground. Automatic back door control unit Continuity Connector Terminal Ground Н B207 4 Existed Does continuity exist? YES >> Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation". NO >> Repair or replace harness. DLK L

< DTC/CIRCUIT DIAGNOSIS >

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INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

INTEGRATED HOMELINK TRANSMITTER

Description

Integrated Homelink Transmitter can store and transmit a maximum of 3 radio signals. Allows operation of garage doors, gates, home and office lighting, entry door locks and security system, etc. Integrated Homelink Transmitter power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

Component Function Check

INFOID:000000010577740

INFOID:000000010577739

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 ILLUMINATE

- 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-164, "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 <u>MIR-74.</u> <u>"Removal and Installation"</u>.

Diagnosis Procedure

INFOID:000000010577741

1.CHECK POWER SUPPLY

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

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal		Condition	Voltage (V) (Approx.)	
10		Cround	Ignition switch position: OFF	Battery voltage	
к у	R3 Ground 6		Ignition switch position: ON	Ballery vollage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following items.

- 10A fuse [No. 3 located in the fuse block (J/B)]
- 10A fuse [No. 6 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.

Revision: 2015 February

INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity	
R3	8	-	Existed	
the inspection result normal?				
YES >> GO TO 3.				
NO >> Repair harness.				
.CHECK INTERMITTENT INCIDENT				
efer to GI-47, "Intermittent Incident".				
>> INSPECTION END				

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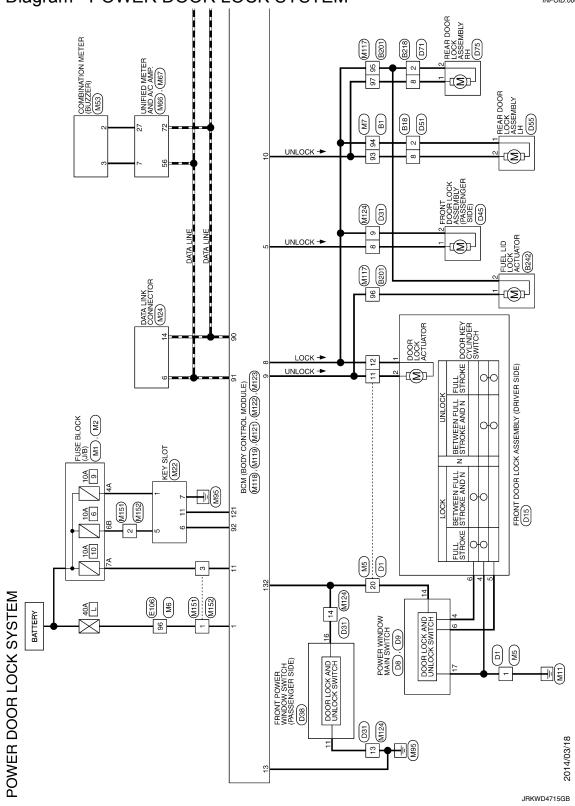
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POWER DOOR LOCK SYSTEM

Wiring Diagram - POWER DOOR LOCK SYSTEM -





POWER DOOR LOCK SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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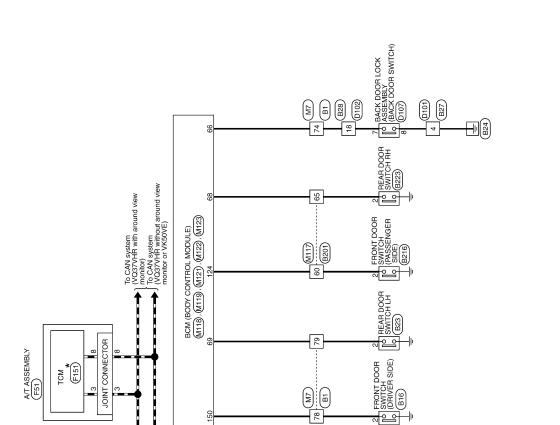
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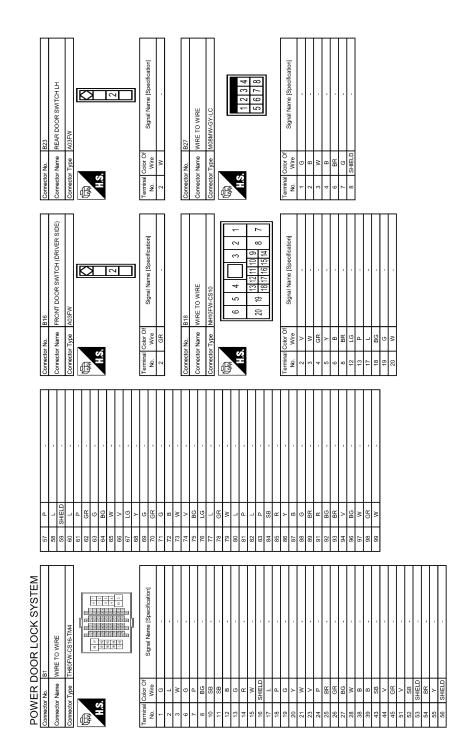
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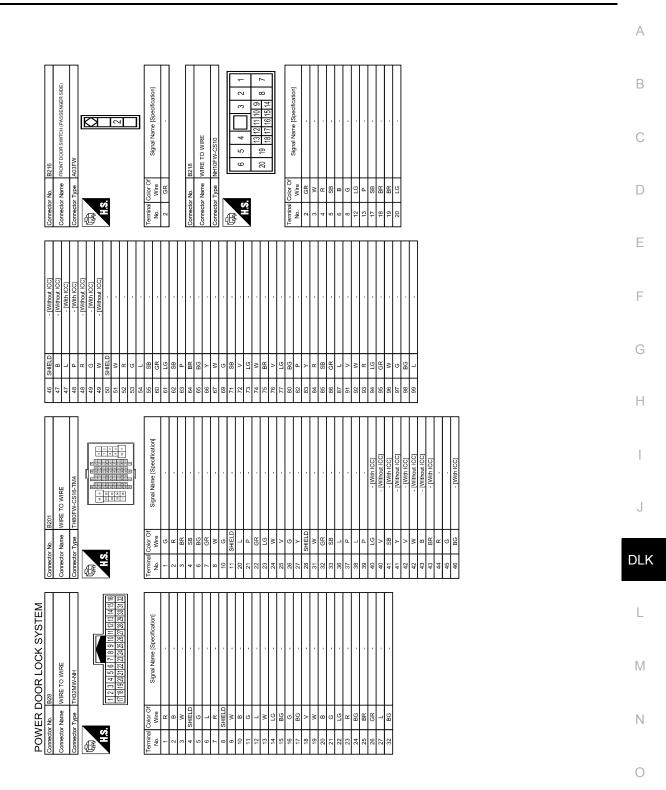
* : This connector is not shown in "Harness Layout".



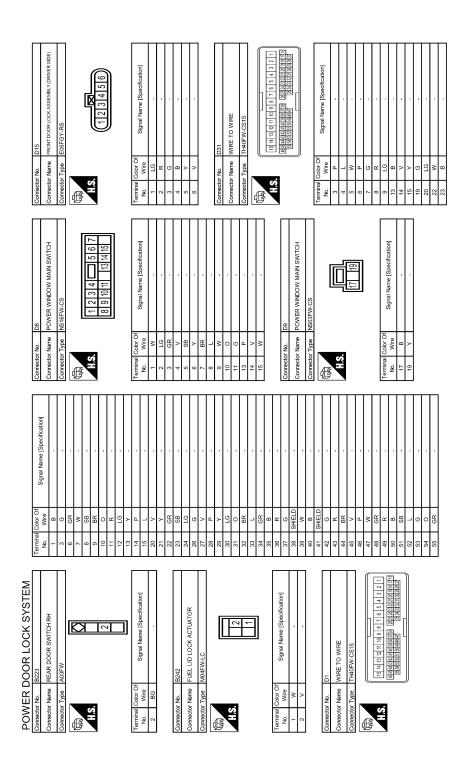
JRKWD4717GB

POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]



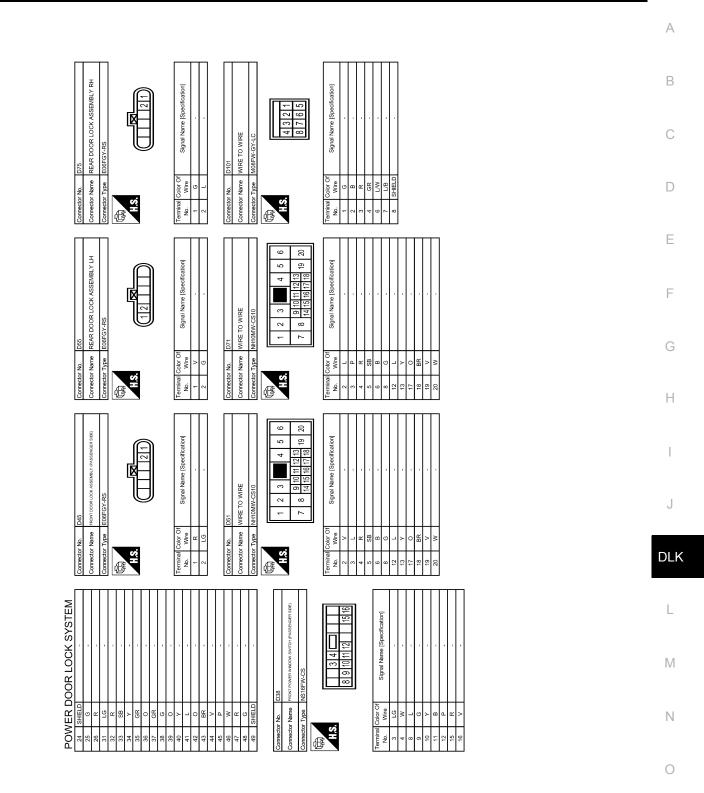
JRKWD4718GB



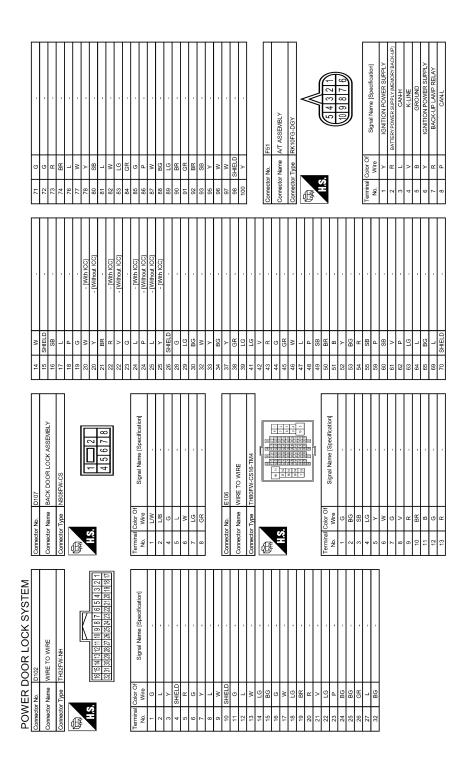
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POWER DOOR LOCK SYSTEM

[WITH INTELLIGENT KEY SYSTEM]



JRKWD4720GB

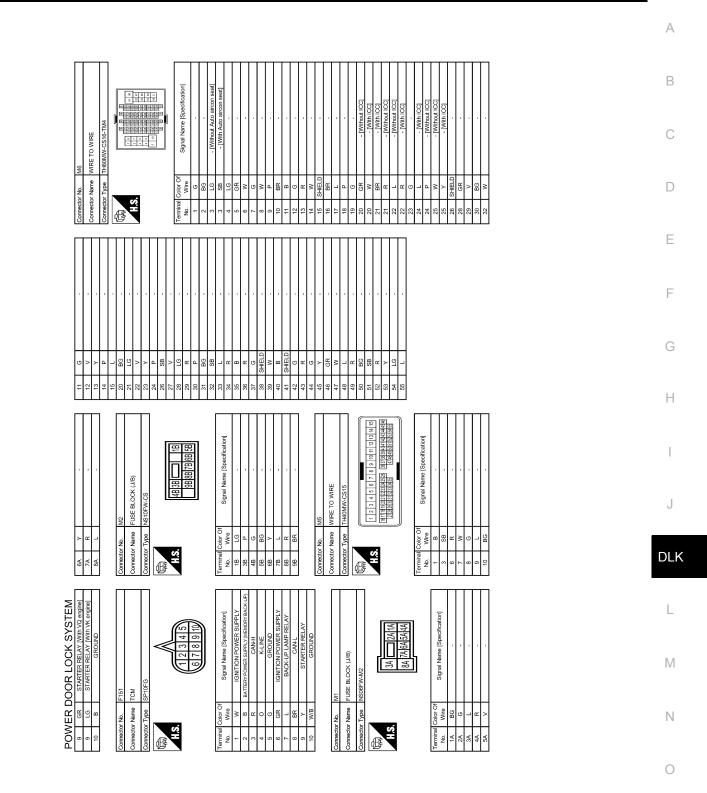


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POWER DOOR LOCK SYSTEM

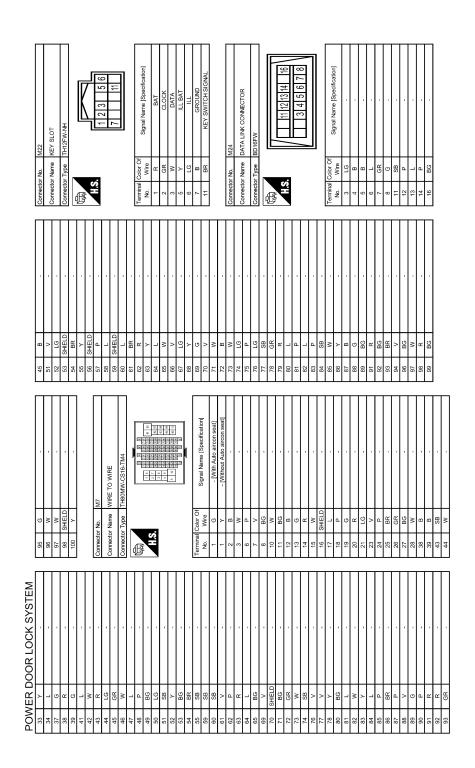
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]



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Comector No. M66 Comector Name UNIFED METER AND A/C AMP. Comector Type THHOFW-NH	Terminal Color Of No. Signal Name (Specification) No. L ANAULI, MODE SHIFT LP. SIGNAL, E F E C Construct 7 F F CONMUNCTION Statement, Mam- Signal Name (Specification) 9 E Save and the statement of	
POWER DOOR LOCK SYSTEM Connector Name Connector Name COMBINATION METER COMBINATION METER COMBINATION METER COMBINATION METER COMBINATION METER COMBINATION METER	Tarminal No. Signal Name (Specification) No. BG Signal Name (Specification) 1 BG EANTERY POWER SUPPLY 2 LG Communication signal, unerstanding 3 GR Communication signal, unerstanding 4 M Communication signal, unerstanding 6 N AltERNATION Signal, unerstanding 1 P AltERNATION Signal, unerstanding 21 R M REDUND 23 Y COMMUNATION Signal, unerstanding 24 B M M 25 Y COMMUNATION Signal, unerstanding 24 B M M 29 G M M 21 L M M 23 L M M 24 B M M	

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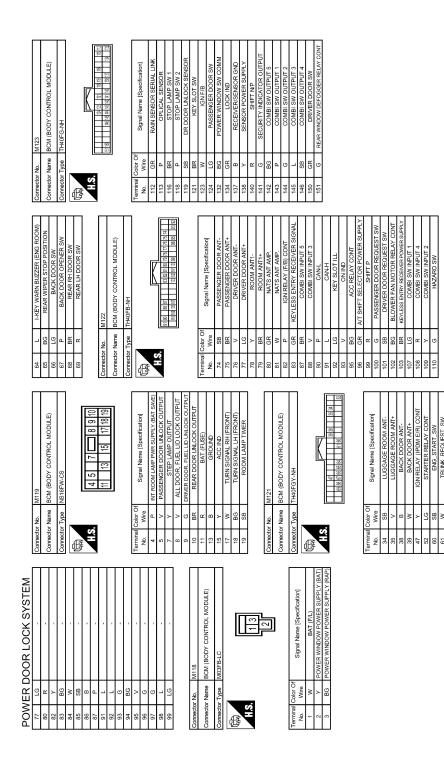
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[WITH INTELLIGENT KEY SYSTEM]



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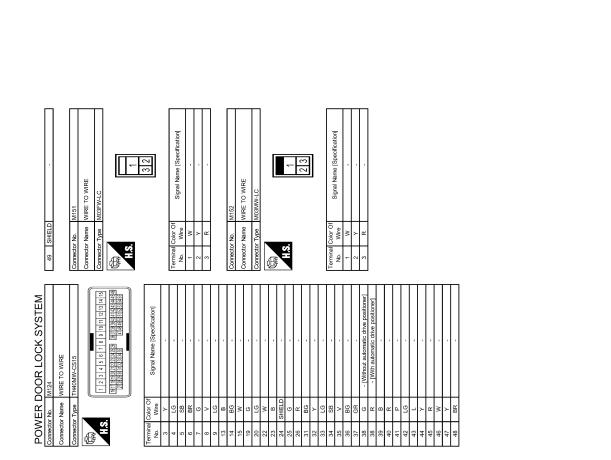
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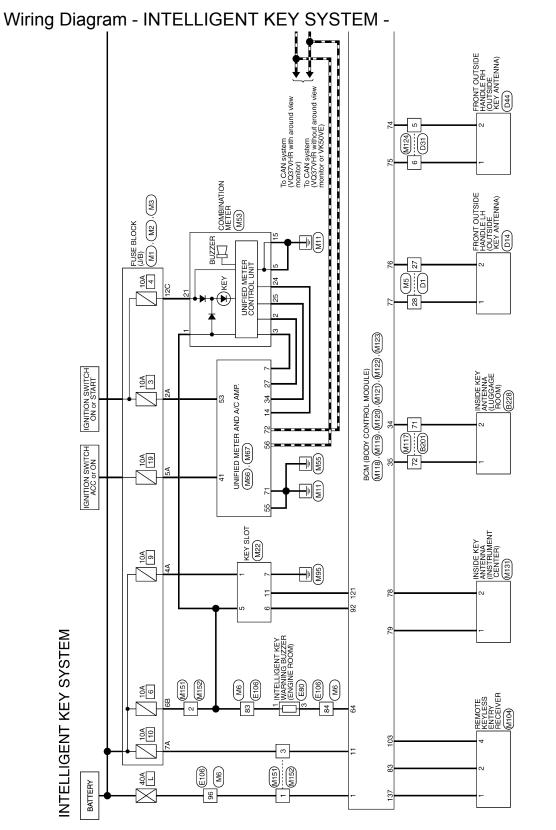
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INFOID:000000010577743

INTELLIGENT KEY SYSTEM



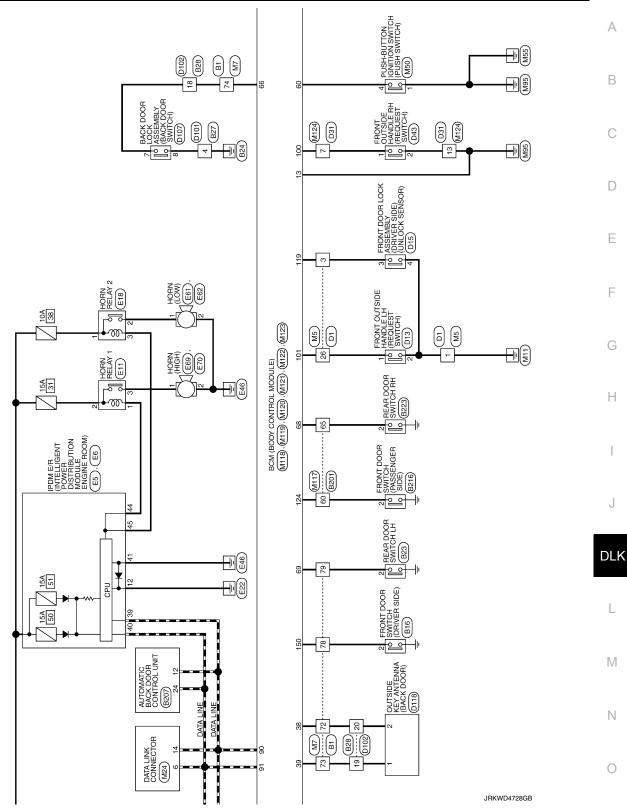
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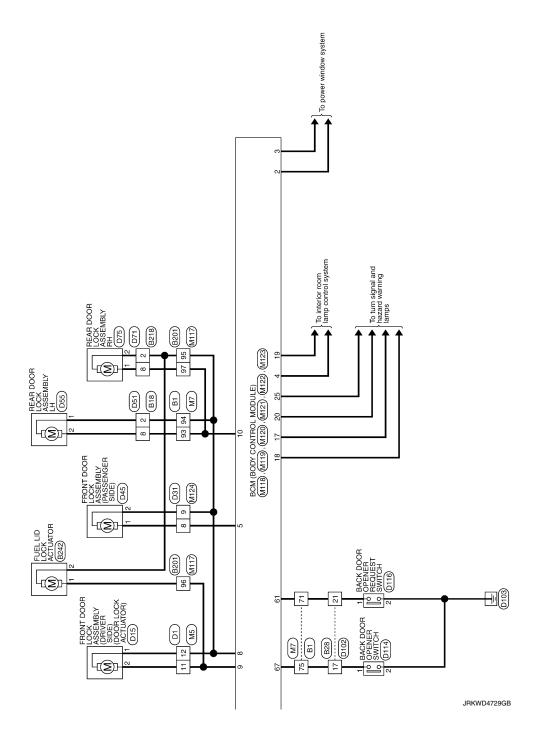
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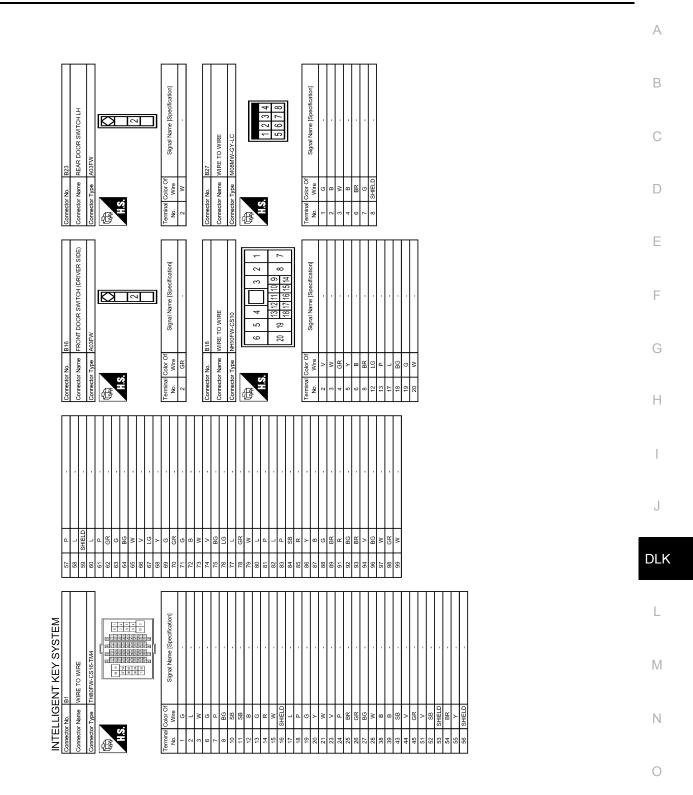
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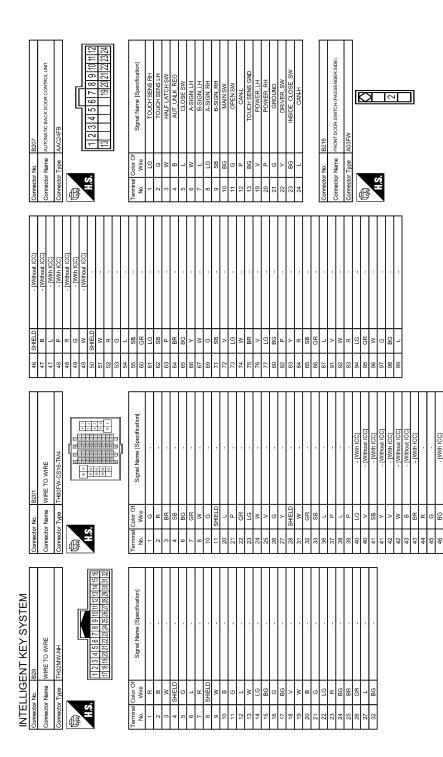
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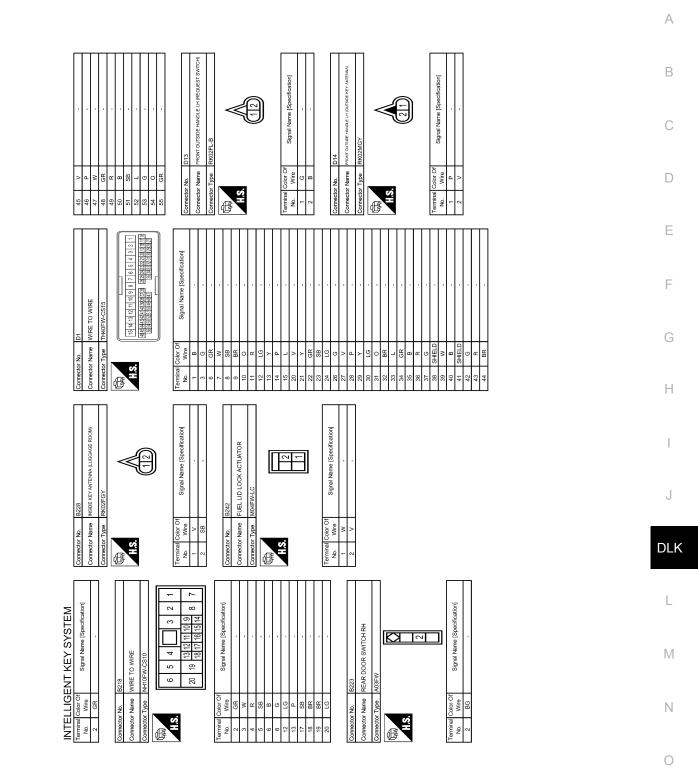
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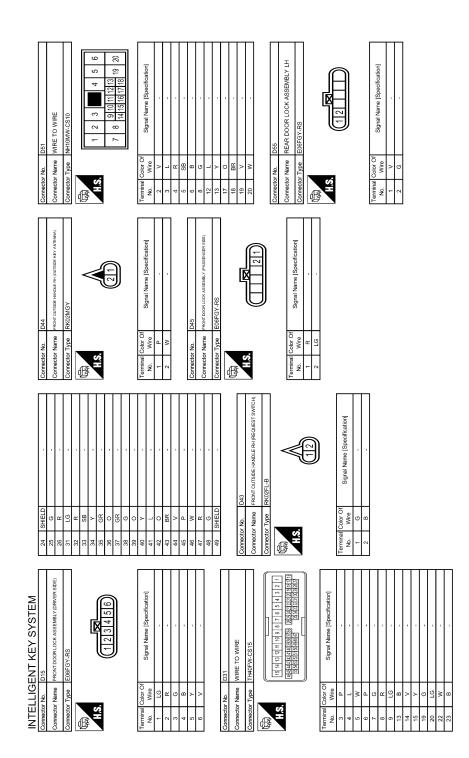


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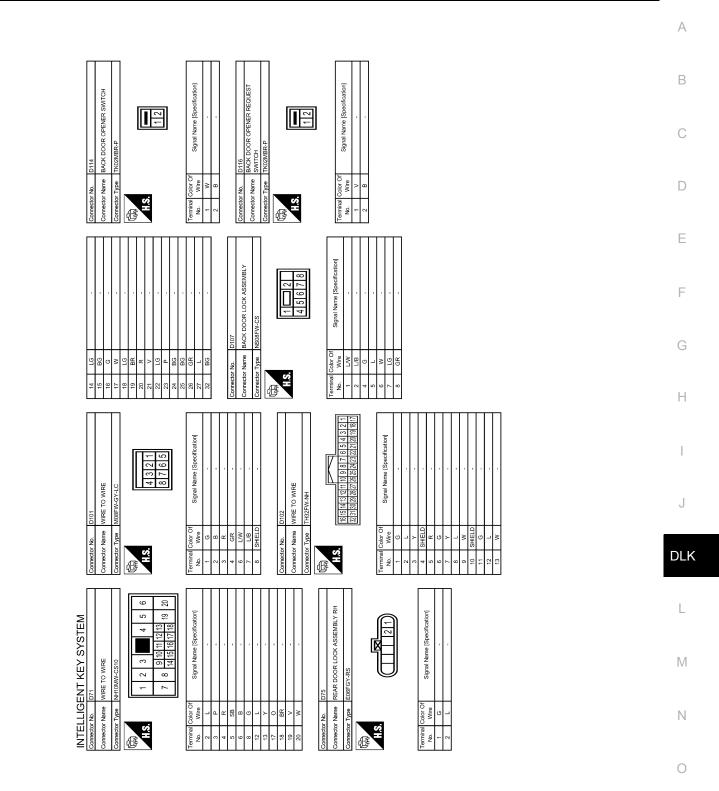
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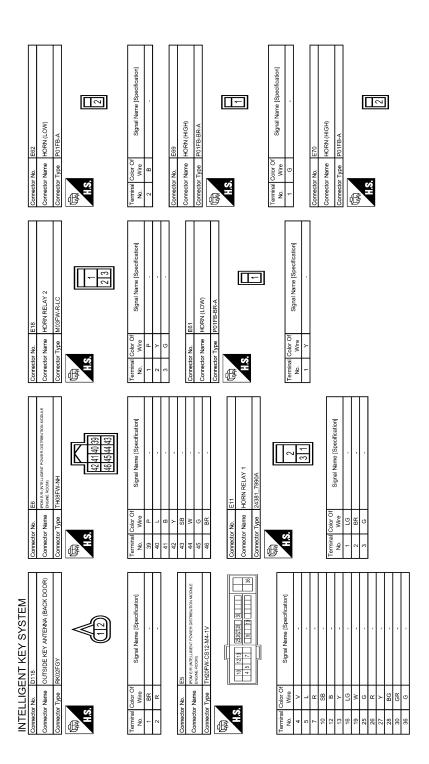
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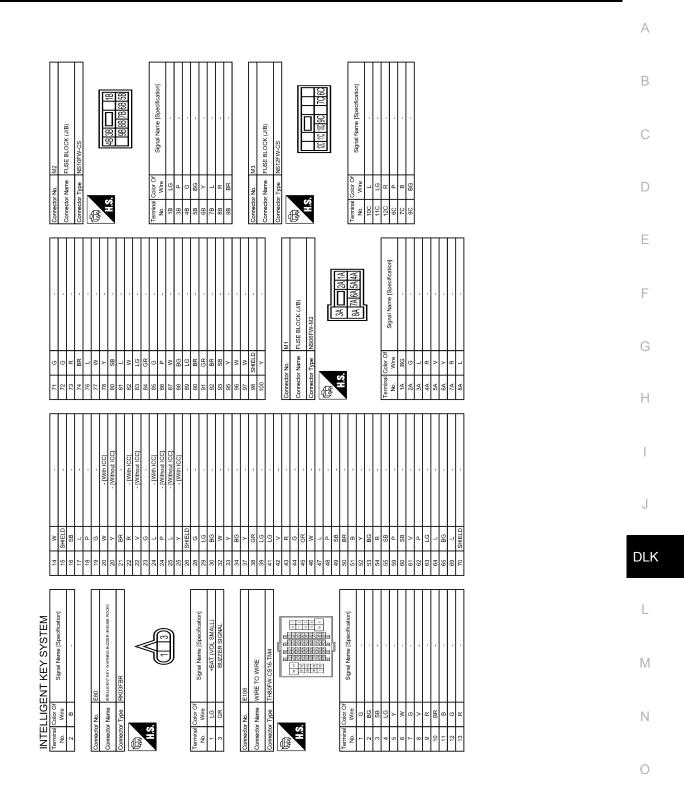


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Connector No. M5		45	≻		21	~	- [Without ICC]	81	-	-	
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Connector Type TH40MW-CS15		48	L		23	0		84	L		
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Corrector No. M53 Corrector Name COMBINATION METER Corrector Type TH40FW-NH-	Terminal Mo. Control Wo. Sugnal Name [Specification] Ab. Wite Sammer: Powers supery 1 Bis EATTERY POWER Supery 2 LIG Communication service supery 3 Rig communication service supery 1 P Communication service	
Corrector No. M24 Connector Name DATA LINK CONNECTOR Connector Type BD16FW Connector Type BD16FW	Terminal No. Mine Nine Signal Name (Specification) 3 LG Signal Name (Specification) 3 LG Signal Name (Specification) 3 LG E 4 E E 11 Signal Name (Specification) 12 P 13 L 14 E 15 P 16 E 17 L 18 L 19 E 11 E 12 P 13 L 14 E 15 E 16 E 17 L 18 L 1 E 1 E 1 E 1 E 1 E 2 E 2 E 2 E 2 E 2 <td< td=""><td></td></td<>	
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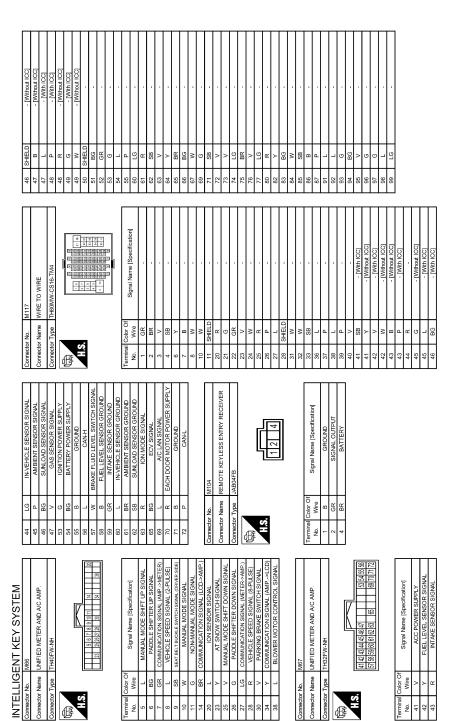
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INTELLIGENT KEY SYSTEM [WITH INTELLIGENT KEY SYSTEM]



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Corrector No. M123 Connector Name BCM (BODY CONTROL MODULE) Connector Type TH40FG-NH Connector Type TH40FG-NH	Terminal No. Signal Name (Specification) No. Wree Signal Name (Specification) 112 CR OPLICAL SENSOR SERVLINK 113 P STOP LAMP SW1 114 P STOP LAMP SW1 118 P STOP LAMP SW1 119 SE STOP LAMP SW1 121 BR STOP LAMP SW1 123 W IGN FIB 123 W IGN FIB 124 G PASSENER DORS NO 134 G STOP LAMP SW1 135 B COME SW UNFUT 144 G SECURT NO 145 E COME SW UNFUT 146 C COME SW UNFUT 146 C COME SW UNFUT 147 G COME SW UNFUT 148 SECORR FOURS SW UNFUT 1 149 G COME SW UNFUT 141 G COME SW UNFUT 143 C COME SW UNFUT 144	
Oomedar No. M122 Connector Name BCM (EODY CONTROL MODULE) Connector Type TH40FE-NH Connector Type TH40FE-NH Connector Type TH40FE-NH	Terminal No. Condition No. Signal Name (Specification) 76 BR PASSENGER DOOR ANT- TT 77 LQ PANER DOOR ANT- PANER DOOR ANT- TT 78 V BRINER DOOR ANT- PANER DOOR ANT- TT 79 BR ROOM ANT- PANER DOOR ANT- TT 79 BR ROOM ANT- PANER DOOR ANT- TT 79 BR ROOM ANT- PANER DOOR ANT- TT 70 CR MATS ANT AMP. ANT ANT AMP. 80 V COMM ANT- COMBI SW NEUT 5. 81 V COMBI SW NEUT 5. 92 LG COMBI SW NEUT 5. 93 C COMBI SW NEUT 5. 94 LG COMPI 7. 90 R ACCRELAT CONT 0.01 0. 91 L COMPI 7. 92 LG PASSENER DOOR RELIEVOR RELIEVER SIGNUL 0.01 0. 93 R COMBI SW NEUT 4. 101 S COMBI SW NEUT 4. 102 R COMBI SW NEUT 4. 103 R COMBI SW NEUT 4. 104 <td< td=""><td></td></td<>	
Comediar Na. M120 Connector Name BCM (BODY CONTROL MODULE) Connector Type NS12FW-C5	Terminal Color Of No. Signal Name (Specification) 26 0 TUEN SIGNAL BH (REAR) 26 0 TUEN SIGNAL BH (REAR) 26 0 TUEN SIGNAL BH (REAR) 26 0 11 27 11 12 28 1 LUGGAGE ROOM ATT 29 1 10 20 1 10 21 1 10 22 1 10 23 1 10 24 1 10 25 1 10 26 1 10 27 1 10 28 1 10 29 1 10 20 1 10 21 1 10 22 1 10 23 1 10 24 1 10 25 1 10 26 1 10 27 1 10 28 1 10 29 1 10 20 1 10 21 1 10 22 1 10 23 <td></td>	
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INTELLIGENT KEY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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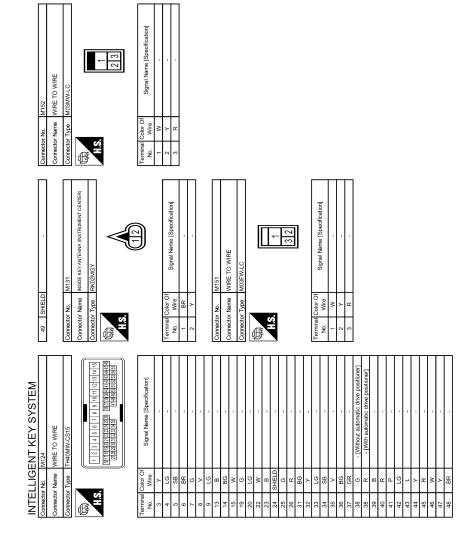
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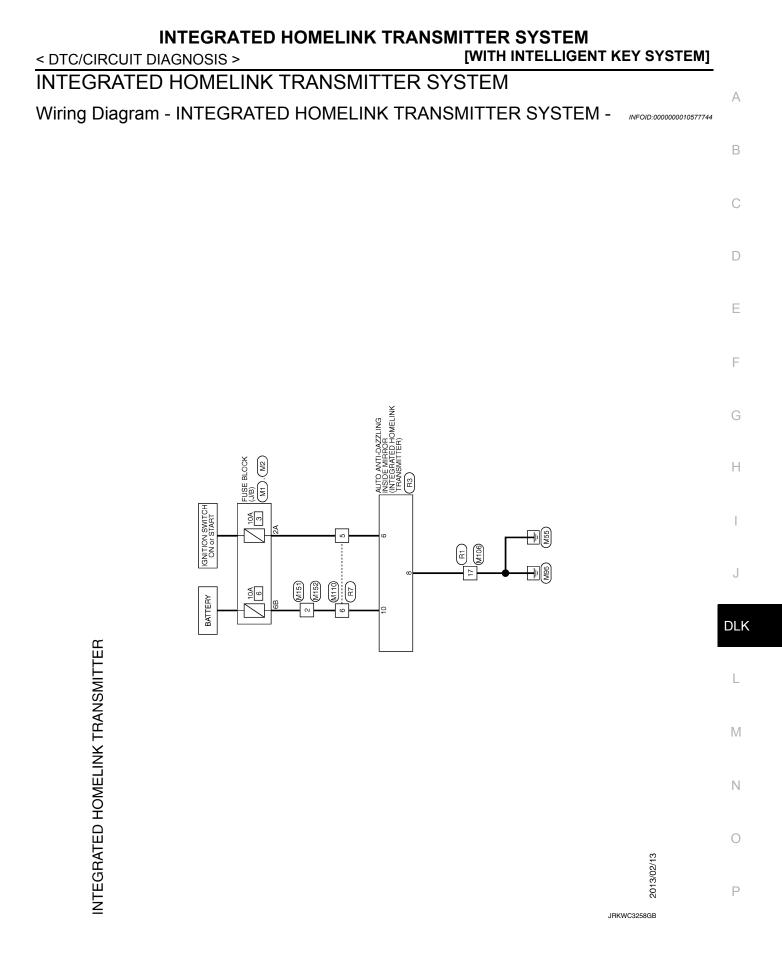
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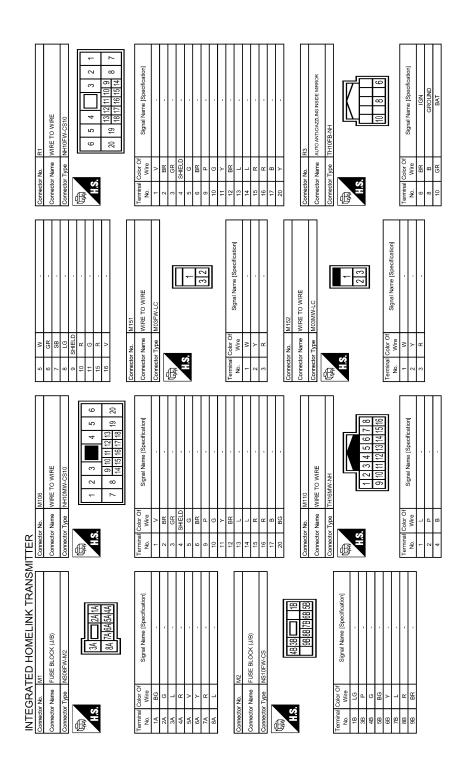
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INTEGRATED HOMELINK TRANSMITTER SYSTEM < DTC/CIRCUIT DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]



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ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000011002913

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
	Other than front wiper switch HI Front wiper switch LO W Front wiper switch LO W Front washer switch OFF Front washer switch ON Other than front wiper switch INT/AUTO Front washer switch ON Other than front wiper switch INT/AUTO Front wiper switch INT/AUTO Front wiper switch INT/AUTO Front wiper switch INT/AUTO Other than front wiper switch INT/AUTO Front wiper switch INTO Front wiper is not in STOP position Wiper volume dial is in a dial position 1 - 7 Other than rear wiper switch ON Rear wiper switch ON Rear wiper switch INT Rear wiper switch ON Rear washer switch OFF Rear washer switch OFF Rear washer switch ON Rear washer switch ON Rear washer switch OFF Rear washer switch ON Rear washer switch OFF Rear washer switch OFF Rear wiper is not in STOP position Rear wiper is not in STOP position Rear wiper is not in STOP position Lighting switch RH	
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
	Other than rear wiper switch ON	Off
RR WIPER ON	PER ON Other than rear wiper switch ON Rear wiper switch ON Other than rear wiper switch INT Rear wiper switch INT Rear washer switch OFF Rear washer switch ON Rear wiper is in STOP position PER STOP Other than rear wiper switch ON Rear wiper is in STOP position	On
	Other than rear wiper switch INT	Off
	WIPER INT Rear wiper switch INT WASHER SW Rear washer switch OFF	
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
	Rear washer switch ON WIPER STOP Rear wiper is in STOP position Rear wiper is not in STOP position	
RR WIPER STOP	Rear wiper is not in STOP position	On
	IPER STOP Rear wiper is not in STOP position Other than turn signal switch RH Other than turn signal switch RH	
I URIN SIGINAL R	W Front wiper switch LO SW Front washer switch OFF Front washer switch ON Other than front wiper switch INT/AUTO Front wiper switch INT/AUTO Front wiper switch INT/AUTO OP Front wiper switch INT/AUTO Front wiper switch INT/AUTO Front wiper switch INT/AUTO OP Front wiper is not in STOP position Wiper volume dial is in a dial position 1 - 7 Other than rear wiper switch ON Rear wiper switch ON Rear wiper switch INT Rear wiper switch INT Rear wiper switch OFF Rear washer switch OFF Rear washer switch OFF Rear washer switch OFF Rear wiper is in STOP position OP Rear wiper is not in STOP position OP Rear wiper is not STOP position OP Rear wiper is not in STOP position OP Rear wiper is not in STOP position OP Rear wiper is not in STOP position L Uther than turn signal switch RH L Turn signal switch LH L Uther than lighting switch 1ST and 2ND Lighting switch 1ST or 2ND Uther than lighting switch 2ND SW 1<	On
JRN SIGNAL R Turn signal switch RH Other than turn signal switch LH		Off
TURN SIGNAL L	Turn signal switch LH	On
TURN SIGNAL L Turn signal switch LH Other than lighting switch 1ST and 2ND TAIL LAMP SW		Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
HEAD LAIVIF SVV I	On	
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status				
-R FOG SW	Front fog lamp switch OFF	Off				
R FUG SW	Front fog lamp switch ON	On				
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off				
	Off					
DOOR SW-DR	Driver door opened	On				
	Passenger door closed	Off				
DOOR SW-AS	Passenger door opened	On				
DOOR SW-RR	Rear RH door closed	Off				
JOOR SW-RR	Rear RH door opened	On				
DOOR SW-RL	Rear LH door closed	Off				
JOOR SW-RL	Rear LH door opened	On				
	Back door closed	Off				
OOR SW-BK	BK Back door opened Other than power door lock switch LOCK					
CDL LOCK SW Power door lock switch LOCK		Off				
	On					
	Other than power door lock switch UNLOCK	Off				
DL UNLOCK SW	Power door lock switch UNLOCK	On				
	Other than driver door key cylinder LOCK position	Off				
EY CYL LK-SW	Driver door key cylinder LOCK position	On				
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off				
EY CYL UN-SW	Driver door key cylinder UNLOCK position	On				
EY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off				
Hazard switch is OFF		Off				
AZARD SW	Hazard switch is ON	On				
EAR DEF SW	NOTE: The item is indicated, but not monitored.	Off				
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off				
	Back door opener switch OFF	Off				
R/BD OPEN SW Back door opener switch OFF While the back door opener switch is turned ON		On				
RNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off				
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off				
	LOCK button of the Intelligent Key is not pressed	Off				
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On				
	UNLOCK button of the Intelligent Key is not pressed	Off				
KE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On				
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off				
	PANIC button of the Intelligent Key is not pressed	Off				
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On				
	UNLOCK button of the Intelligent Key is not pressed	Off				
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On				

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status				
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneous- ly	Off				
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On				
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V				
OF HOAL SENSOR	Dark outside of the vehicle	Close to 0 V				
REQ SW -DR	Driver door request switch is not pressed	Off				
XEQ 3W -DR	Driver door request switch is pressed	On				
REQ SW -AS	Passenger door request switch is not pressed	Off				
	Passenger door request switch is pressed	On				
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off				
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off				
	Back door request switch is not pressed	Off				
REQ SW -BD/TR	Back door request switch is pressed	On				
	Push-button ignition switch (push switch) is not pressed	Off				
PUSH SW	Push-button ignition switch (push switch) is pressed	On				
GN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off				
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off				
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off				
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off				
DRARE SW I	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On				
BRAKE SW 2	Off					
DRARE SW Z	The brake pedal is depressed	On				
DETE/CANCL SW	Off					
DETE/CANCE SW	On					
SFT PN/N SW	Selector lever in any position other than P and N	Off				
DET FIN/IN SVV	On					
S/L -LOCK	NOTE: The item is indicated but not monitored.	Off				
S/L -UNLOCK	NOTE: The item is indicated but not monitored.	Off				
S/L RELAY-F/B	NOTE: The item is indicated but not monitored.	Off				
UNLK SEN -DR	Driver door is unlocked	Off				
	Driver door is locked	On				
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off				
	Push-button ignition switch (push-switch) is pressed	On				
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off				
UNINLI I -F/D	Ignition switch in ON position	On				
DETE SW -IPDM	Selector lever in any position other than P	Off				
	Selector lever in P position	On				
SFT PN -IPDM	Selector lever in any position other than P and N	Off				
	Selector lever in P or N position	On				

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status		
FT P -MET	Selector lever in any position other than P	Off		
// / / [−] //L	Selector lever in P position	On		
SFT N -MET	Selector lever in any position other than N	Off		
	Selector lever in N position	On		
	Engine stopped	Stop		
ENGINE STATE	While the engine stalls	Stall		
INGINE STATE	At engine cranking	Crank		
	Engine running	Run		
S/L LOCK-IPDM	NOTE: The item is indicated but not monitored.	Off		
S/L UNLK-IPDM	NOTE: The item is indicated but not monitored.	Off		
S/L RELAY-REQ	NOTE: The item is indicated but not monitored.	Off		
/EH SPEED 1	While driving	Equivalent to speed- ometer reading		
/EH SPEED 2	While driving	Equivalent to speed- ometer reading		
	Driver door is locked	LOCK		
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY		
	Driver door is unlocked	UNLOCK		
	Passenger door is locked	LOCK		
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY		
	Passenger door is unlocked	UNLOCK		
D OK FLAG	Reset			
	Set			
PRMT ENG STRT	The engine start is prohibited	Reset		
NUT ENG STRT	The engine start is permitted	Set		
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset		
The Intelligent Key is not inserted into key slot		Off		
KEY SW -SLOT	On			
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key		
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_		
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet		
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done		
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet		
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done		
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet		
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to	Done		

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONTINUE	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1 - 3	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
192	The ID of second Intelligent Key is registered to BCM	Done
TD 1	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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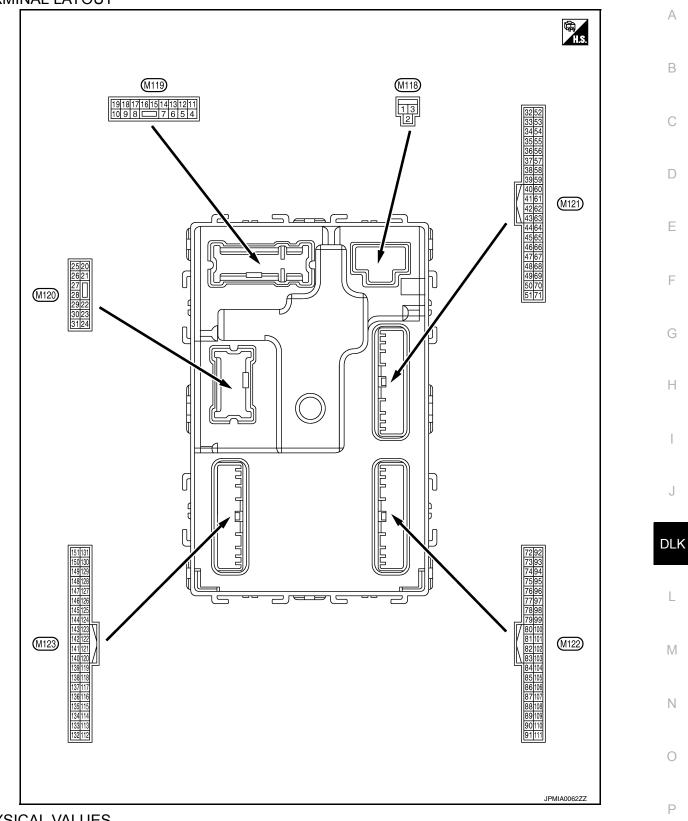
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TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(VVire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	12 V
3 (BG)	Ground	P/W power supply (IGN)	Output	Ignition switch ON	١	12 V
					p battery saver is activated. room lamp power supply)	0 V
4 (P)	Ground	Interior room lamp power supply	Output	ed.	b battery saver is not activat- ior room lamp power sup-	12 V
5	Oneverd	Passenger door UN-	Outrut	Deserves dese	UNLOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V
7	0		0.1.1	Stan Jama		0 V
(Y)	Ground	Step lamp control	Output	Step lamp	OFF	12 V
8	Cround	All doors, fuel lid	Output	All doors fuel lid	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	ut All doors, fuel lid	Other than LOCK (Actuator is not activated)	0 V
9	9 . Driver door fuel lid	Driver door, fuel lid	Outrut	Driver door, fuel	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Cround	Rear RH door and rear LH door UN-	Quitout	Rear RH door	UNLOCK (Actuator is activated)	12 V
(BR)	Ground	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON	N	0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(1)					ACC or ON	0 V
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

	inal No.	Description	Valua		Value			
(Wire +	e color) –	Signal name	Input/ Output		Condition	value (Approx.)	A	
					Turn signal switch OFF	0 V	D	
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	B C D	
				Other than under	condition	5.0 V	Е	
19 (SB)	Ground	Interior room lamp control	Output	(Door is unlock	mp timer is activated. ed. etc) function is activated.	0 V		
					Turn signal switch OFF	0 V	F	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH		G H	
						Turn signal switch OFF	6.5 V 0 V	
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 15 10 15 10 15 10 15 10 15 10 10 15 10 10 15 10 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	J DLK	
26				.	OFF (Stopped)	0 V	L	
(P)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	12 V		
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M N O	
(SB)	Ground	na (–)	Guiput	ÕFF	When Intelligent Key is not in the passenger com- partment	(V) 15 10 5 0 1 s JMKIA0063GB	Ρ	

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

	inal No.	Description				Value	
+	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
35	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(V)		na (+)	Cutput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	
38	Ground	Back door antenna (–	Output	When the back door opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	
(B))			operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 10 10 10 10 10 10 10 10 10 10 10 10 10
39	Ground	Back door antenna	Output	When the back door opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(W)	Ground	(+)	output	operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB	
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V	
(Y)		E/R) control	1.14	J	ON	0 V	

< ECU DIAGNOSIS INFORMATION >

	Terminal No. (Wire color)	Description				Value
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V
(LG)	Cround	Statter relay control	Output	ON	When selector lever is not in P or N position	0 V
60	Ground	Push-button ignition	Input	Push-button ig- nition switch	Pressed	0 V
(SB)	Ground	switch (Push switch)	mput	(Push switch)	Not pressed	12 V
					ON (Pressed)	0 V
61 (W)	Ground	Back door opener re- quest switch	Input	Back door re- quest switch	OFF (Not pressed)	(V) 15 0 0 10 ms JPMIA0016GB
		Intelligent Key warn-		Intelligent Key	Sounding	1.0 V 0 V
64 (L)	Ground	ing buzzer (Engine	Output	warning buzzer		12 V
(=)		room)		(Engine room)	Not sounding	12 V
65 (BG)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB
					Not in stop position	1.0 V 0 V
66					OFF (Door close)	12 V
(LG)	Ground	Back door switch	Input	Back door switch	ON (Door open)	0 V
					Pressed	0 V
67 (P)	Ground	Back door opener switch	Input	Back door open- er switch	Not pressed	(V) ₁₅ 10 0 •••10ms JPMIA0594GB 8.5 - 9.0 V
68	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ••••10ms
(BR)						JPMIA0594GB 8.5 - 9.0 V

< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description	1			Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) ₁₅ 10 0 ••••10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V
74	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Clouina	tenna (-)			When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB
75	Ground	Passenger door an-	Output	When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)	Ground	Ground tenna (+)		quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	А
+	e color) –	Signal name	Input/ Output		Condition	(Approx.)	A
76		Driver door antenna		When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	B C D
(V)	Ground	(-)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 s JMKIA0063GB	E
77	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(LG)	Ground				When Intelligent Key is not in the antenna detec- tion area	(V) 15 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	J DLł
78	Ground	Room antenna (-)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s 1 s JMKIA0062GB	M
(Y)		(Instrument panel)	Saiput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	P

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			0	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
79	Ground	Room antenna (+)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(BR)		(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger com- partment	(V) 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(P)		block (J/B)] control		•	ON	12 V
83	Ground	Remote keyless entry receiver communica- tion	Input/ Output	During waiting		(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
(GR)	Ground			When operating e gent Key	either button on the Intelli-	(V) 15 10 5 0 1 ms JMKIA0065GB

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

	inal No.	Description				Value	Δ
(VVire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D
87		Combination switch		Combination	Front fog lamp switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	E
(BR)	Ground INPUT 5		switch	Rear wiper switch ON (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	G H I	
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	J DLK L

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
					Lighting switch HI (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0037GB 1.3 V	
					Rear washer switch ON (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0039GB 1.3 V	
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	(V) 15 0 2 ms JPMIA0040GB 1.3 V	
90 (P)	Ground	CAN-L	Input/ Output			_	
91 (L)	Ground	CAN-H	Input/ Output		_	_	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					OFF	12 V
92 (LG)	Ground Key slot illumination Output Key slot illumina-	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB 6.5 V			
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(v)					ON or ACC	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	0.00110	-	cput		ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)	(R) Ground tion swite	tion switch	mput		Any position other than P	12 V
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 10 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 5 10 10 10 10 10 10 10 10 10 10 10 10 10
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(BG)	Ground	lay control	Output	Ignition Switch	ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF	F	12 V

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	e color) –	Signal name	Input/ Output	Condition		(Approx.)	
					All switches OFF	(V) 15 0 0 2 ms JPMIA0041GB 1.4 V	
					Turn signal switch LH	(V) 15 0 2 ms JPMIA0037GB 1.3 V	
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	Turn signal switch RH	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
					Front wiper switch LO	(V) 15 0 2 ms JPMIA0038GB 1.3 V	
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

	nal No.	Description				Value	А
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D
					Lighting switch AUTO (Wiper volume dial 4)	(V) 15 10 5 2 ms JPMIA0038GB 1.3 V	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper volume dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	G H I
					Rear wiper switch INT (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	J DLK L
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	(V) 15 10 5 0 	M
						1.3 V	0

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< ECU DIAGNOSIS INFORMATION >

	nal No.	Description		2		Value
(Wire	e color) —	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 2 ms JPMIA0040GB 1.3 V 0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 10 10 ms JPMIA0012GB 1.1 V

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch Of	٧	(V) 15 10 5 0
					When bright outside of the	8.7 V
113	Ground	Optical sensor	Input	Ignition switch	vehicle	Close to 5 V
(P)	Cround		mput	ON	When dark outside of the vehicle	Close to 0 V
116 (BR)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118	18	(Without ICC)			ON (Brake pedal is de- pressed)	Battery voltage
(P)	Stop lamp sw	Stop lamp switch 2	- Input		OFF (Brake pedal is not de- brake hold relay OFF	0 V
	(With ICC)				ON (Brake pedal is de- orake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock as- d sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) ₁₅ 10 0 + 10ms JPMIA0594GB
					UNLOCK status (Unlock switch sensor ON)	8.5 - 9.0 V 0 V
121				When the Intellige slot	ent Key is inserted into key	12 V
(BR)	Ground	Key slot switch	Input	When the Intellige key slot	ent Key is not inserted into	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)					ON	Battery voltage
124	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ••••10ms
(LG)						JPMIA0594GB 8.5 - 9.0 V

< ECU DIAGNOSIS INFORMATION >

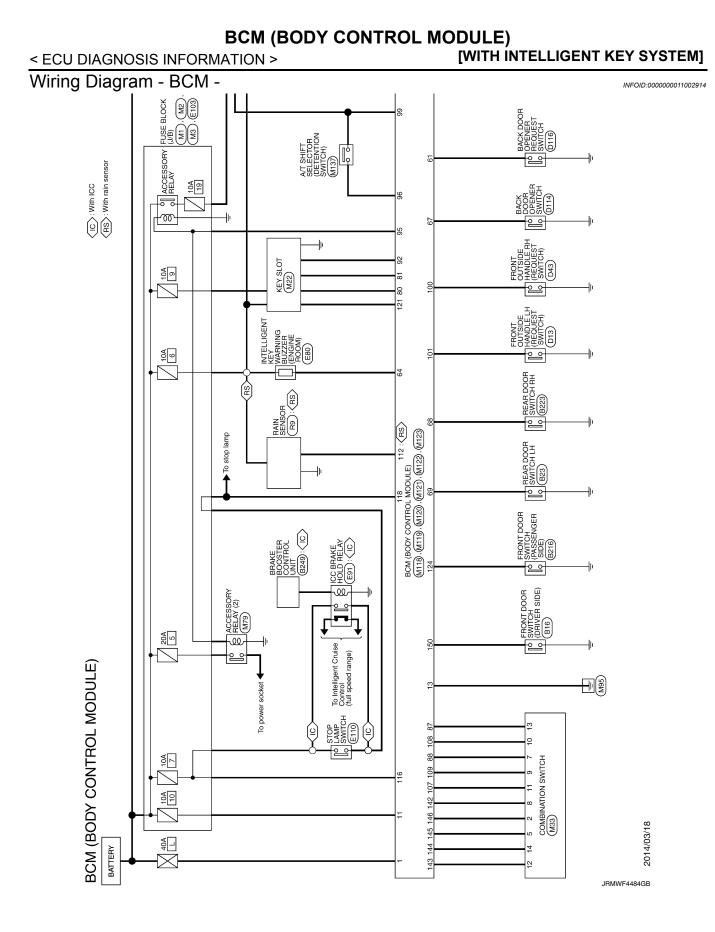
	inal No.	Description				Value
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)
132 (BG)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 0 10 10 ms JPMIA0013GB 10.2 V
				Ignition switch OF	FF or ACC	12 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V
137		Receiver and sensor				
(B)	Ground	ground	Input	Ignition switch Of	N	0 V
138	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V
(Y)	oround		ouput		ACC or ON	5.0 V
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(R)		position	-		Except P and N positions ON	0 V 0 V
141 (G)	Ground	Security indicator lamp	Output	Security indica- tor lamp	Blinking	(V) 15 10 10 10 10 10 10 10 10 10 10
					All switches OFF	0 V
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	(V) 15 10 5 0 2 ms
						JPMIA0031GB 10.7 V
					All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4) Rear wiper switch INT	(V) 15
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	(Wiper volume dial 4) Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	15 0 2 ms JPMIA0032GB 10.7 V

< ECU DIAGNOSIS INFORMATION >

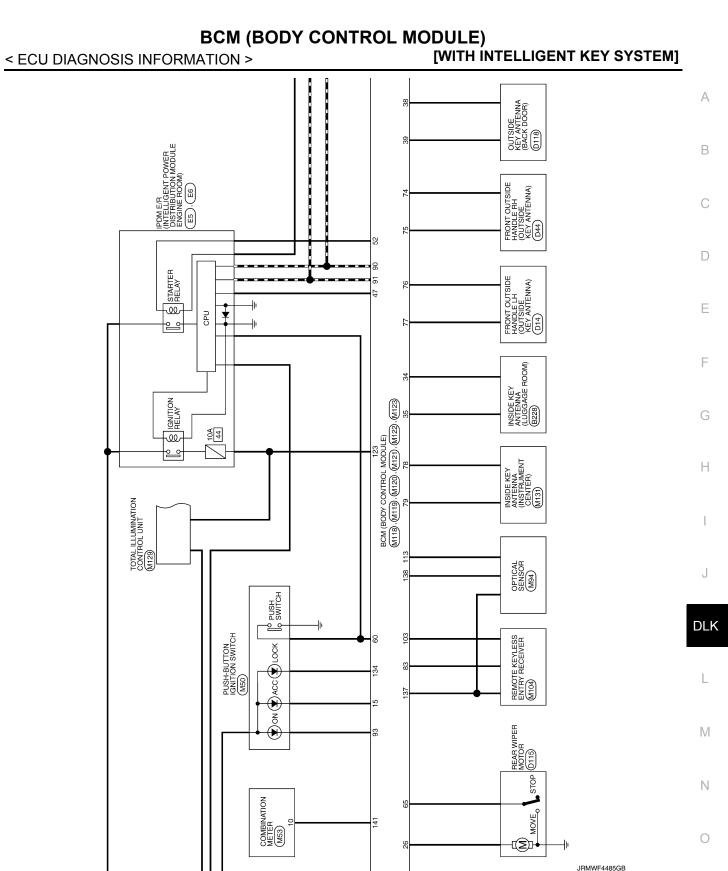
[WITH INTELLIGENT KEY SYSTEM]

	nal No.	Description				Value
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	
144		Combination switch	0.1.1	Combination	Rear wiper switch ON (Wiper volume dial 4)	
(G)	Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper volume dial 4)	
					Any of the conditions be- low with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	2 ms JPMIA0033GB 10.7 V
					All switches OFF	0 V
					Front wiper switch INT/ AUTO	(V) 15
145		Combination switch		Combination switch	Front wiper switch LO	15 10 5
(L)	Ground	OUTPUT 3	Output	(Wiper volume dial 4)	Lighting switch AUTO	2 ms
						10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	(Λ)
146		Combination switch		Combination switch	Lighting switch 2ND Lighting switch PASS	(V) 15 10 5 0
(SB)	Ground	OUTPUT 4	Output	(Wiper volume dial 4)	Turn signal switch LH	2 ms
						10.7 V
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ••• 10ms
					ON (Door open)	JPMIA0594GB 8.5 - 9.0 ∨ 0 ∨
		Rear window defog-		Rear window de-	Active	0 V
151	Ground		Output			

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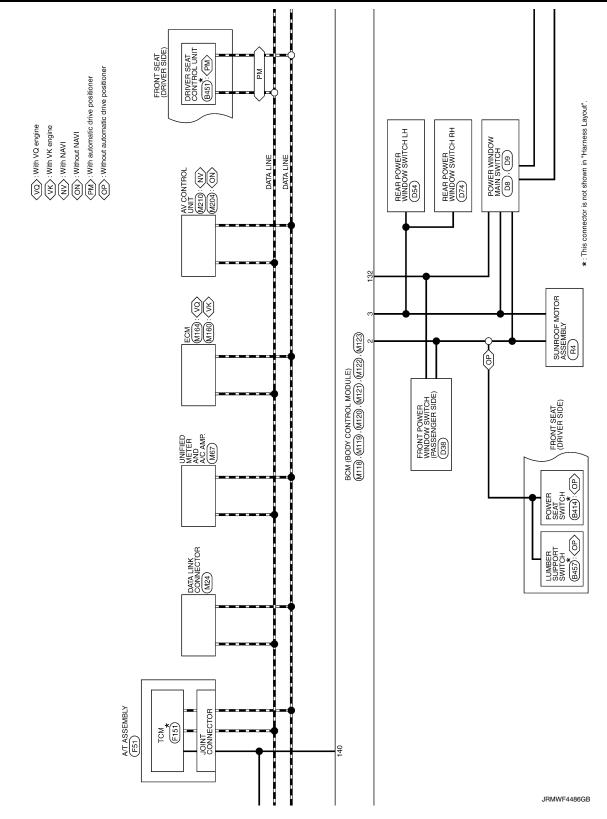


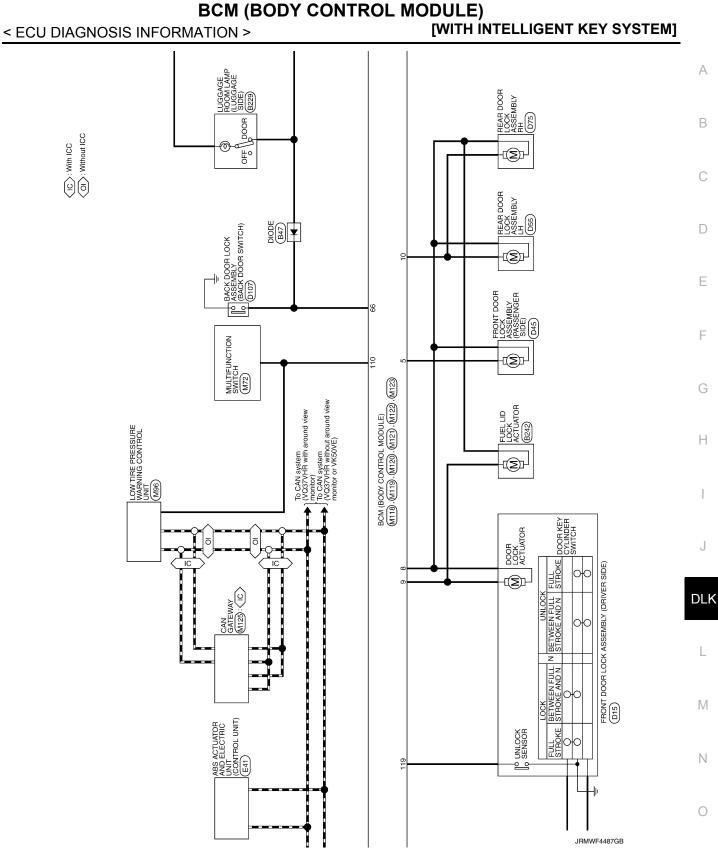
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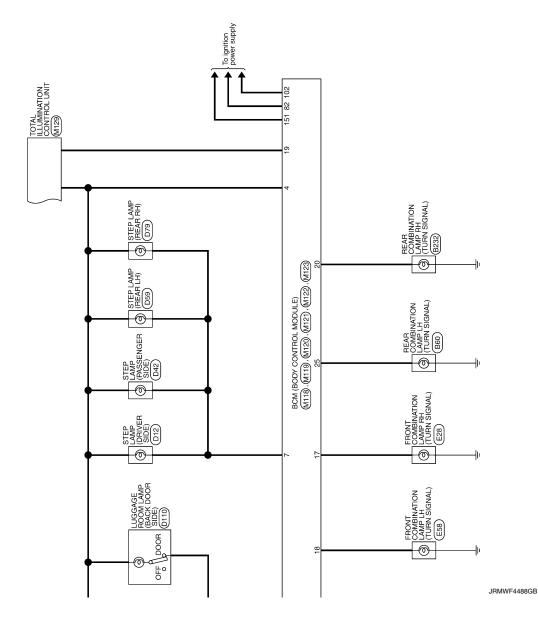
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[WITH INTELLIGENT KEY SYSTEM]

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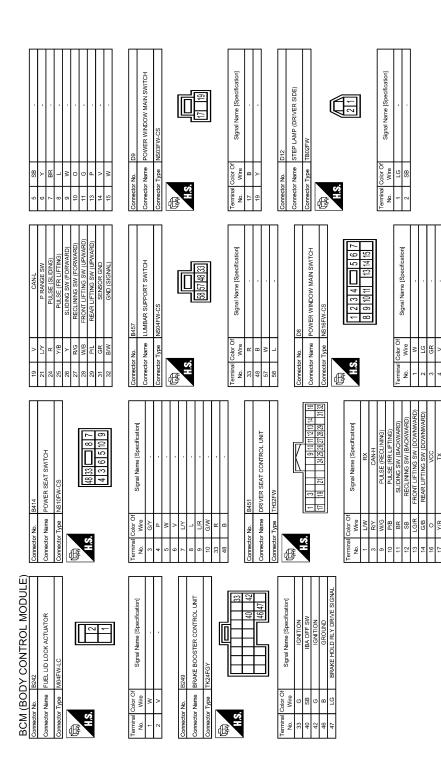
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< ECU DIAGNOSIS INFORMATION >



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Signal Name [Specification] Signal Name [Specification] IDLE RH (OUTSIDE KEY Color Of Wire Color Of Wire R onnector No. mector Name Connector Name nnector Type onnector Type nector No. H.S. H.S. erminal rminal ġ ß ß FRONT OUTSIDE HANDLE RH (REQUEST SWITCH) Signal Name [Specification] Signal Name [Specification] STEP LAMP (PASSENGER SIDE) **₹**₽] 胬 242 olor Of Wire Connector Name Connector No. Connector Name Connector Type Solor . Type 8 mector No. H.S. H.S. erminal No. Ś E E FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) (JDE) Signal Name [Specification] Signal Name [Specification] EOGFGY Connector Name Connector Name Connector Type olor C Wire Wire LG onnector No. O M داەل മ പ ഷ Connector No. H.S. H.S. E ġ ß ġ BCM (BODY CONTROL MODULE) Commetor No. D13 FRONT OUTSIDE HANDLE LH (REQUEST SWITCH) ITSIDE HANDLE LH (OUTSIDE KEY ANTENNA Signal Name [Specification] Signal Name [Specification] nector No. D14 ector Type nnector Name nector Type nnector Name olor C Wire 0 0 Wire ٩ H.S. H.S. g F ş ß

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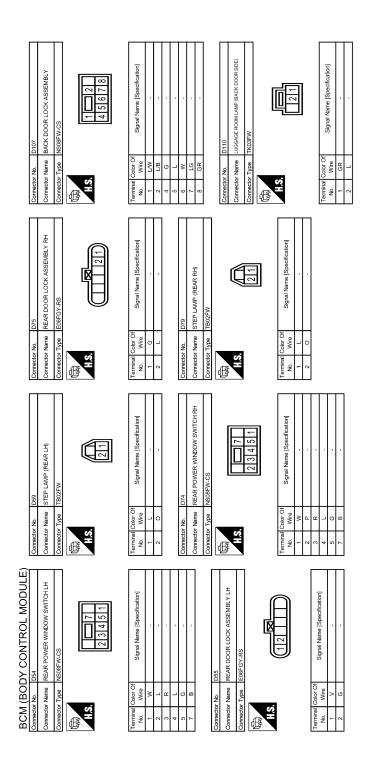
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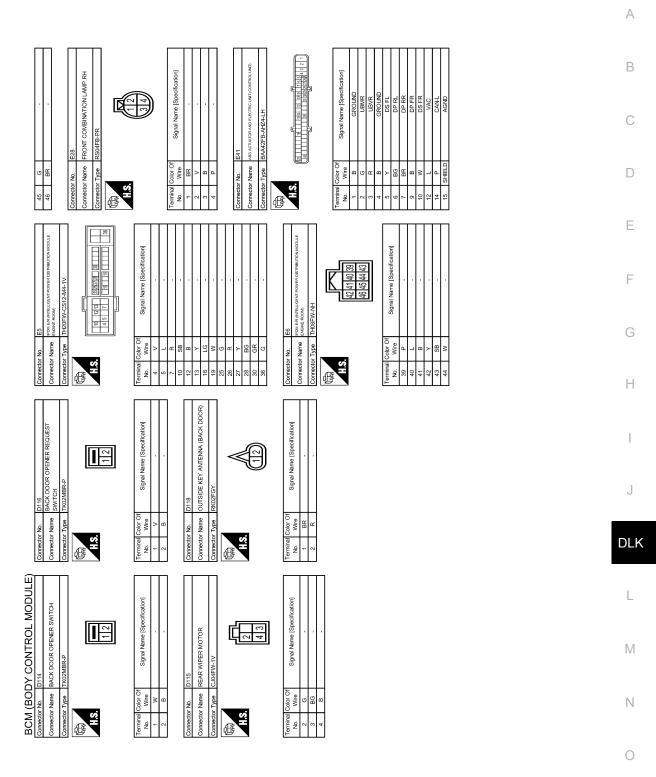
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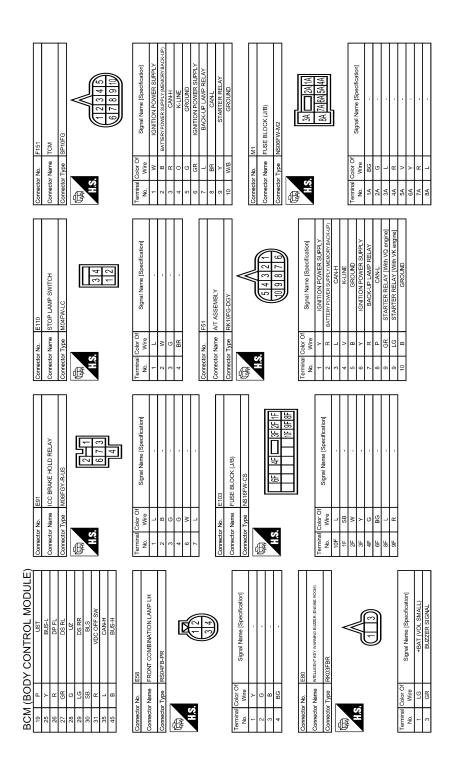
< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



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7 V 8 P 6 . Connector Name COMBINATION METER Connector Type TH40PW-NH	2 2 2 2 2 2 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	31 L MARTICH SIGNAL 36 L0 SELECT SUNTCH SIGNAL 37 L0 SELECT SUNTCH SIGNAL 38 L THR AN RESET SIGNAL 39 P LLUMMATION CONTROL SIGNAL 40 BG ILLUMMATION CONTROL SIGNAL (1)
Corrector No. M33 Connector Name COMBINATION SWITCH Connector Type THIGFWANH IS 123145 7891011121314	Terminal No. Cubr Of No. Signal Name (Specification) No. Wree P FR WASHER (-) 2 SB FR WASHER (-) 2 SB FR WASHER (-) 3 BG GR WASHER (-) 5 L OUTPUT 3 6 BG OUTPUT 3 11 LG INPUT 3 12 V INPUT 3 13 BR INPUT 1 13 BR INPUT 3 14 LG OUTPUT 1 13 BR INPUT 3 Corrector Name PUT 1 INPUT 3 Corrector Name NSHER 1 OUTPUT 1	Terminal Terminal
Corrector No. M22 Connector Name KEY SLOT Connector Type TH12FW1AH	Terminal Color Of No. Signal Name [Specification] No. Wrep BaT 1 R BaT 2 GR CLOCK 3 V ULL BAT 1 BR CLOCK 1 BR V 1 BR CLOCK 1 BAT ULL BAT 1 BAT CROME 0 CROME CROME	Tarminal Cond Orl Signal Name (Specification) 3 1.0 3 1.0 6 1 7 0.8 8 1 7 0.8 8 1 11 1 12 1 13 1 14 1 13 1 14 1
BCM (BODY CONTROL MODULE) Connector Name Connector Name FUSE BLOCK (JP) Connector Type NS10FW-CS (JB)	Terminal Color Of No. Signal Name (Specification) No. Wrep Signal Name (Specification) Signal Name (Specification)	Taminal Color Of No. Signal Name [Specification] 10. L - 11.0 L - 12.0 R - 12.0 B - 20.0 B -

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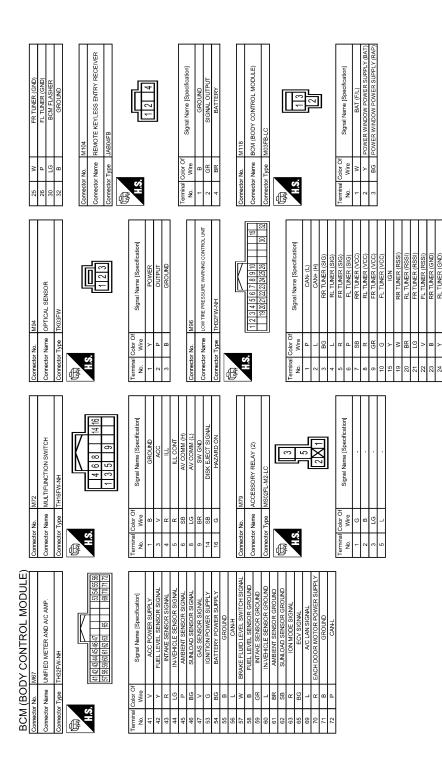
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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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JRMWF4496GB

BCM (BODY CONTROL MODULE)	Connector No. M121	0 GR NATS ANT	141 G SECURITY INDICATOR OUTPUT
Connector Name BCM (BODY CONTROL MODULE)	Connector Name BCM (BODY CONTROL MODULE)	81 W NATS ANT AMP. 82 P IGN RELAY (F/B) CONT 83 GR KEVI FSS FNTRY RECEIVER SIGNAL	++
		i H >) – 8
		> @.	9 B
· · · ·		91 L CANH	151 G REAR WINDOW DEFOGGER RELAY CONT
	69 68 67 66 65 64 61 60 22	2 >	
			Connector No. M125
Terminal Color Of	Terminal Color Of	99 R SHIFT SELECTOR POWER SUPPLY	Connector Name CAN GATEWAY
e olyikli Nalile	Wire	U	Connector Type TH12FW-NH
A P INT ROOM LAMP PWR SUPPLY (BAT SAVE) A DASSENDED POOD LINI OOM OTTEDIT	34 SB LUGGAGE ROOM ANT- 25 V/ LUGGAGE BOOM ANT-	101 SB DRIVER DOOR REQUEST SW 102 BC BLOWED EAMINGTOD BELAY CONF	Ð
Y STEPLAND	• a	2	
>	×	Ľ	H.S.
9 G DRIVER DOOR, FUEL LID UNLOCK OUTPUT	47 Y IGN RELAY (IPDM E/R) CONT	108 R COMBI SW INPUT 4	
ź	8	- 0	2
13 B GROUND	TRUNK REQUES		
×	- 2	0	Terminal Color Of Signal Name [Specification]
BG TURN SIGNAL LH	2 9	2	L L
SB ROOM LAMP	P R		GR .
	68 BK REAK KH DOOK SW 69 R REAR LH DOOR SW	Connector Type TEH40FG-NH	5 B GROUND
Connector No. M120	-	E C	6 L CANH
Connector Name BCM (BODY CONTROL MODULE)	Commenter No. M122	S S	a 9
Connector Type NS12FW-CS	9	120 122 120 120 120 120 120 120 120 120	g ∎
(L)			11 B GROUND 13 D CANI
			- -
	E	Terminal Color Of Signal Name [Specification]	
	HS		
	91 [30] 88 87 833 82 81 80 73 78 77 76 153 74 111 121 124 488 110 111 111 111 111 111 111 111 111 1	_	
	AA 800 100 900 800	R	
Terminal Color Of Signal Name [Specification]		e es	
20 V TURN SIGNAL RH (REAR)	Terminal Color Of	121 BR KEY SLOT SW	
IJ	Wire	×	
_	8	Ľ0	
	BR	132 BG POWER WINDOW SW COMM	
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BCM (BODY CONTROL MODULE) < ECU DIAGNOSIS INFORMATION > [WITH II]

ROL MODULE) [WITH INTELLIGENT KEY SYSTEM]

Revision: 2015 February

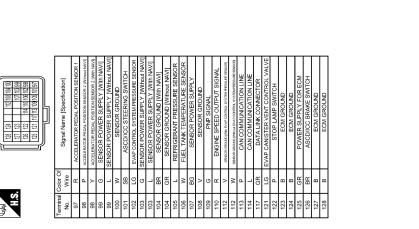
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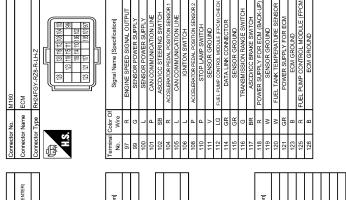
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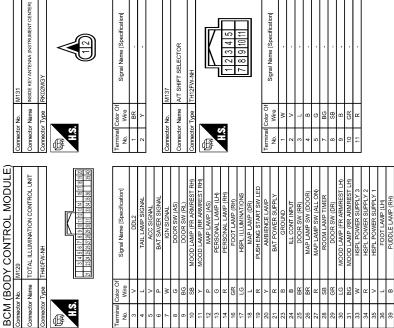
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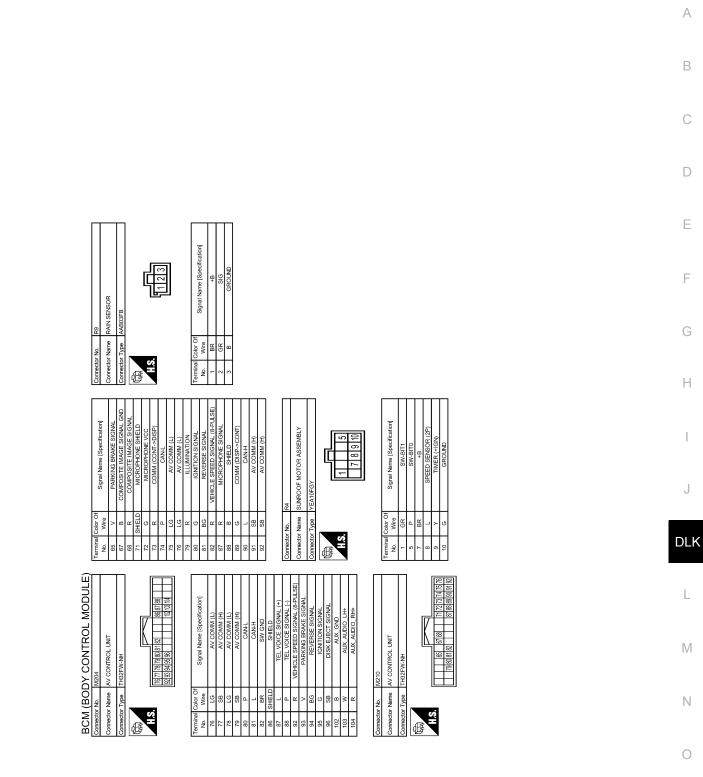
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Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2560: STARTER CONT RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Starter control relay signal Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF \Rightarrow ON and front wiper switch is INT position, BCM operates a fail-safe control.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

- 1. More than 1 minute is passed after the rear wiper stops.
- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Priority	DTC	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	B
	 B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY 	С
	B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP/CLUTCH SW	D
4	 B2604: FNP/CLUTCH SW B2608: STARTER RELAY B260A: IGNITION RELAY 	E
	 B260F: ENG STATE SIG LOST B2614: BCM B2615: BCM B2616: BCM 	F
	 B2617: BCM B2618: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE 	G
	B26EA: KEY REGISTRATION U0415: VEHICLE SPEED SIG	Н
5	B2621: INSIDE ANTENNA B2623: INSIDE ANTENNA	
6	B26E7: TPMS CAN COMM	

DTC Index

NOTE:

The details of time display are as follows.

CRNT: A malfunction is detected now.

• PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-20, "COM-</u> MON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference	M
No DTC is detected. Further testing may be required.	_	_	_	_	Ν
U1000: CAN COMM	_	—	—	<u>BCS-39</u>	
U1010: CONTROL UNIT(CAN)	_	—	—	<u>BCS-40</u>	0
U0415: VEHICLE SPEED SIG	_	—	—	BCS-41	
B2190: NATS ANTENNA AMP	×	—	—	<u>SEC-47</u>	
B2191: DIFFERENCE OF KEY	×	—	—	<u>SEC-50</u>	Р
B2192: ID DISCORD BCM-ECM	×	—	—	<u>SEC-51</u>	
B2193: CHAIN OF BCM-ECM	×	—	—	<u>SEC-53</u>	
B2195: ANTI SCANNING	×	—	—	<u>SEC-54</u>	
B2553: IGNITION RELAY	-	×	—	PCS-53	
B2555: STOP LAMP	_	×	—	<u>SEC-55</u>	

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< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference
B2556: PUSH-BTN IGN SW	—	×	×	<u>SEC-57</u>
B2557: VEHICLE SPEED	×	×	×	<u>SEC-59</u>
B2560: STARTER CONT RELAY	×	×	×	<u>SEC-60</u>
B2562: LOW VOLTAGE	—	×	—	BCS-42
B2601: SHIFT POSITION	×	×	×	<u>SEC-61</u>
B2602: SHIFT POSITION	×	×	×	<u>SEC-64</u>
B2603: SHIFT POSI STATUS	×	×	×	<u>SEC-66</u>
B2604: PNP/CLUTCH SW	×	×	×	<u>SEC-69</u>
B2605: PNP/CLUTCH SW	×	×	×	<u>SEC-71</u>
B2608: STARTER RELAY	×	×	×	<u>SEC-73</u>
B260A: IGNITION RELAY	×	×	×	PCS-55
B260F: ENG STATE SIG LOST	×	×	×	<u>SEC-75</u>
B2614: BCM	—	×	×	PCS-57
B2615: BCM	—	×	×	PCS-59
B2616: BCM	_	×	×	PCS-61
B2617: BCM	×	×	×	<u>SEC-77</u>
B2618: BCM	×	×	×	PCS-63
B261A: PUSH-BTN IGN SW	_	×	×	<u>SEC-79</u>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	<u>SEC-82</u>
B2621: INSIDE ANTENNA	_	×	—	DLK-101
B2623: INSIDE ANTENNA	—	×	—	DLK-103
B26E7: TPMS CAN COMM	—	—	—	<u>BCS-43</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	<u>SEC-76</u>

< ECU DIAGNOSIS INFORMATION >

AUTOMATIC BACK DOOR CONTROL UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
SPINDLE SENSOR LH	Back door: Moving	0 – 65535	
PINDLE LH SPEED	Back door: Moving	0 - 6553.5	
SPINDLE MOTOR LH DUTY	Back door: Moving		0 – 255
/HCL SPEED MTR	While driving		Equivalent to speedometer reading
/HCL SPEED ABS	While driving		Equivalent to speedometer reading
MAIN SW	Automatic back door main switch	OFF	OFF
	Automatic back door main switch	ON	ON
AUTO BD SW	Automatic back door switch	Release	OFF
	Automatic back door switch	Press	ON
3K DOOR CL SW	Automatic back door close switch	Release	OFF
		Press	ON
BACK DOOR LOCK STATUS	Back door lock	Lock	OFF
SACK DOOK LOCK STATUS	Back door lock	Unlock	ON
OPEN SW	Back door Half latch/fully closed		OFF
JPEN SW	Back door	Open	ON
CLOSE SW	Back door	Open/half latch	OFF
203E 3W	Back door	Fully closed	ON
	Deals dean	Half latch/fully closed	OFF
IALF LATCH SW	Back door	Open	ON
	Touch concer DU	Other than bellow	OFF
OUCH SEN RH	Touch sensor RH	Detect obstruction	ON
	Tauch as a second lit	Other than bellow	OFF
FOUCH SEN LH	Touch sensor LH	Detect obstruction	ON
	Colortor lover	Other than P position	OFF
P RANGE IND	Selector lever	P position	ON
		Switch OFF ON Release Press Press switch Release Press Unlock Half latch/fully closed Open Open/half latch Fully closed Half latch/fully closed Open Open Open/half latch Fully closed Half latch/fully closed Open Open Open Open Open Other than bellow Detect obstruction Other than bellow Detect obstruction Position Pross (more than 0.5 cord) Release	OFF
RKE REQ	Intelligent Key button (back door)	Press (more than 0.5 sec- ond)	MOVE
			REV
	1	Other than ON position	OFF
GN SW	Ignition switch	ON position	ON
		Not operate	No change HI or LO
SPINDLE LH ENCODER A	Automatic back door	Operate	Change HI or LO
		Not operate	No change HI or LO
SPINDLE LH ENCODER B	Automatic back door	Operate	Change HI or LO

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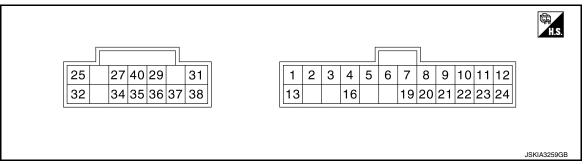
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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Conditio	n	Value/Status
UNLOCK SEN BD	NOTE: The item is indicated, but not monit	OFF	
DESTINATION	_	_	
AUTO BCK DR POS INITIAL	Calibration of automatic back door	Not complete	YET
AUTO BOR DIVEOS INITIAL	position information	Complete	DONE
AUTO BCK DR POS LEARN	Additional service when removing	Not complete	YET
AUTO BOR DR FOS LEARN	battery negative terminal	Complete	DONE
SPINDLE SENSOR RH	Back door: Moving		0 – 65535
SPINDLE RH SPEED	Back door: Moving	Back door: Moving	
SPINDLE MOTOR RH DUTY	Back door: Moving		0 – 255
SPINDLE RH ENCODER A	Automatic back door	Not operate	No change HI or LO
SPINDLE NITENCODEN A		Operate	Change HI or LO
SPINDLE RH ENCODER B	Automatic back door	Not operate	No change HI or LO
		Operate	Change HI or LO
TRANSMISSION TYPE	-	·	AT/CVT

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Voltage	
(+)	(-)	Signal name	Input/ Output	Con		(Approx.)	
1 (LG)	13 (BC)	Touch sensor RH sig-	Input	Touch sensor RH	Detect obstruc- tion	1.8 – 5 V	
(LG) (BG)	(60)	nal			Other than above	2.72 – 7.27 V	
2	13 (PC)	Touch sensor LH sig-	Input	Touch sensor LH	Detect obstruc- tion	1.8 – 2.72 V	
(G)	G) (BG) nal	Other than above	5.0 – 7.27 V				
2					Open	0 V	
3 (W)	Ground	Half latch switch signal	Input	Back door	Fully closed/half latch	16 – 8 V	
4 (B)	Ground	Ground	_	_		0 V	
5	Ground		Input	Back door	Fully closed	0 V	
(L)	Ground	ound Close switch signal		Dack UUUI	Open/half latch	16 – 8 V	

< ECU DIAGNOSIS INFORMATION >

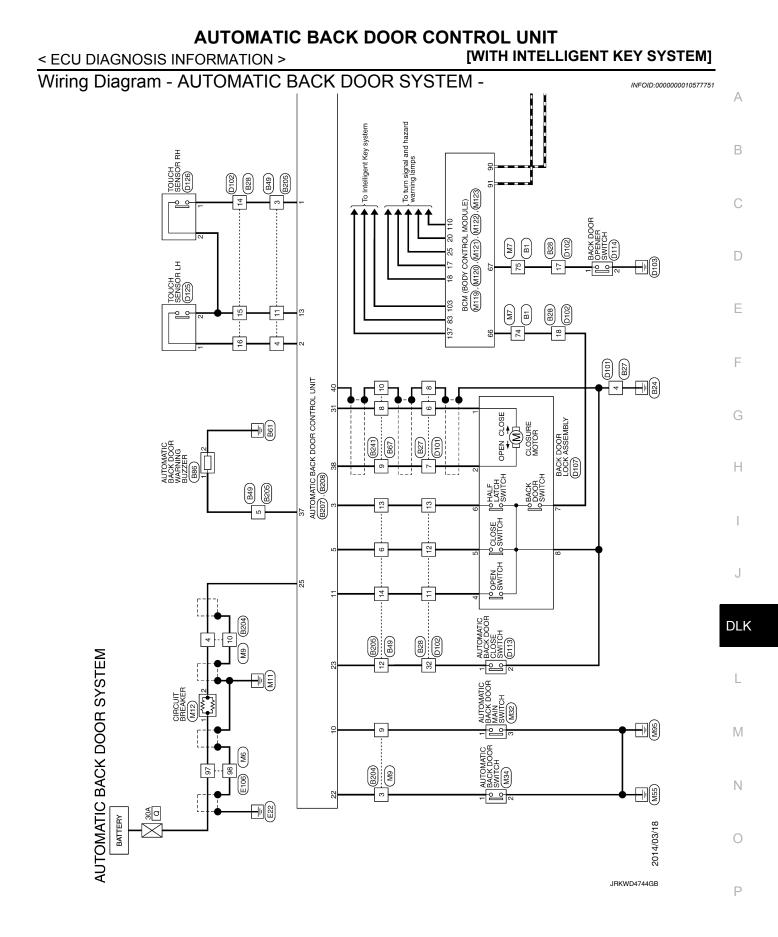
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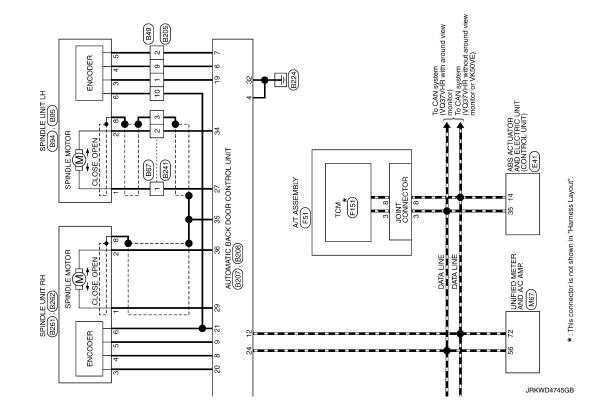
Terminal No. (Wire color)		Description		Condition		Voltage	
(+)	(-)	Signal name	Input/ Output	Con	ullon	(Approx.)	
6 (W)	Ground	Encoder LH A signal	Input	Back door	Moving (auto or manual)	(V) 15 10 5 0 JMKIA1864ZZ NOTE: Waveform width changes accord- ing to back door open/close speed	
					When stopped	0 V or 12 V	
7 (L)	Ground	Encoder LH B signal	Input	Back door	Moving (auto or manual)	(V) 15 10 5 0 	
						NOTE: Waveform width changes accord- ing to back door open/close speed	
					When stopped	0 V or 12 V	
8 (LG)	Ground	Encoder RH A signal	Input	Back door	Moving (auto or manual)	(V) 15 10 5 0 20ms JMKIA1864ZZ MOTE: Waveform width changes accord- ing to back door open/close speed	
					When stopped	0 V or 12 V	
9 (SB)	Ground	Encoder RH B signal	Input	Back door	Moving (auto or manual)	(V) 15 10 5 0 20ms JMKIA1864ZZ NOTE: Waveform width changes accord- ing to back door open/close speed	
					When stopped	0 V or 12 V	
10 (BG)	Ground	Automatic back door main switch	Input	Automatic back door main switch	ON OFF	16 – 8 V 0 V	
					Open		
11 (G)	Ground	Open switch signal	Input	Back door	Half latch/fully closed	16 – 8 V	
12 (P)	Ground	CAN - L	Input/ Output	-		_	

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Voltage
(+)	(–)	Signal name	Input/ Output	Condition		(Approx.)
13 (BG)	Ground	Touch sensor ground	Input	-	_	0.01 – 0 V
19 (V)	Ground	Encoder LH power supply	Output	-	_	16.75 – 6 V
20 (P)	Ground	Encoder RH power supply	Output	-	_	16.75 – 6 V
21 (G)	Ground	Encoder ground		-	_	0 V
22	Ground	Automatic back door	Input	Automatic back	Pressed	16 V
(Y)	Cround	switch	mput	door switch	Released	0 V
23	Ground	Automatic back door	Input	Automatic back	Pressed	16 V
(BG)	e.ea.ia	close switch	mput	door close switch	Released	0 V
24 (L)	Ground	CAN - H	Input/ Output	_		_
25 (W)	Ground	Power supply (BAT)	Input	_		16.75 – 8.5 V
27 (BR)	Ground	Spindle motor LH (open)	Output	Back door	Auto open opera- tion	16.75 – 8.5 V
29 (W)	Ground	Spindle motor RH (open)	Output	Back door	Auto open opera- tion	16.75 – 8.5 V
31	Ground	Back door closure mo-	Output	Back door	Open operation	16 – 7.8 V
(L/Y)	Cround	tor (open)	Output	Dack door	Other than above	0 V
32 (B)	Ground	Ground	_	-	_	0 V
34 (G)	Ground	Spindle motor LH (close)	Output	Back door	Auto close opera- tion	16 – 8 V
35 (—)	Ground	Ground (noise shield)	_			0.01 – 0 V
36 (B)	Ground	Spindle motor RH (close)	Output	Back door Auto close opera- tion		16 – 8 V
37		Automatic back door		Automatic back	Sounding	0 V
(L)	Ground	warning buzzer	Output	door warning buzzer	Not sounding	16.0 – 7.5 V
38	Ground	Back door closure mo-	Output	Back door	Close operation	16 – 7.8 V
(L/B)		tor (close)	•	Other than above		0 V
40 (—)	Ground	Ground (noise shield)		_		0.01 – 0 V

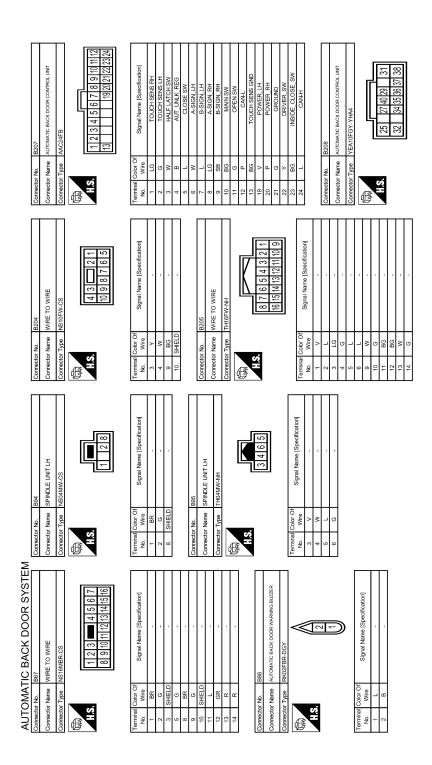




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13 W 14 Lto 16 6 17 B6 23 B 23 B 23 Corrector Name 23 B 23 Corrector Name 19 Write TO Wite 23 L 23 L 24 B9 25 GR 26 B4 10 Write TO Wite 11 B6 12 B6 13 B6 14 G 13 B6 14 G	D
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or Name B27 or Name WIRE TO WIR Cor Type Motion OF B28 Centrol WIRe TO WIR B28 BR B BR BR	G
Corrector Name Corrector Name Correc	Н
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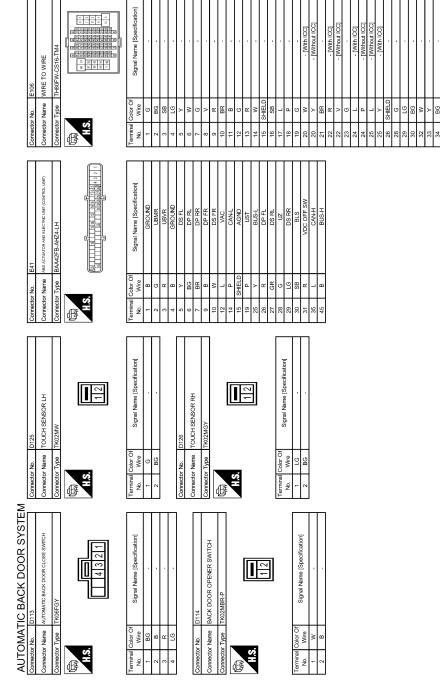
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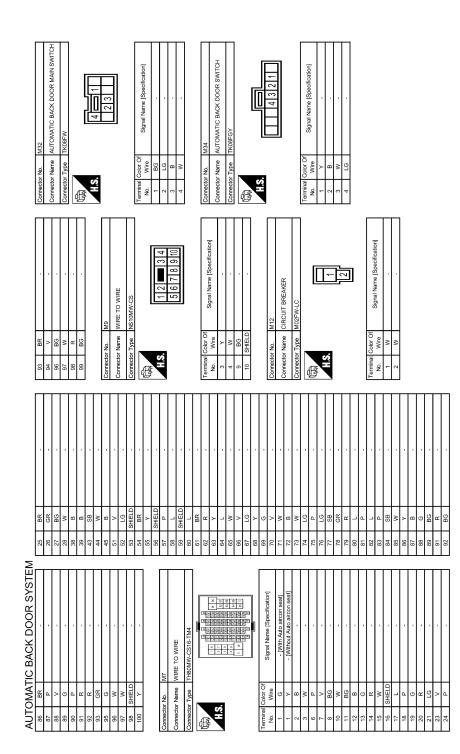
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AUTOMATIC BACK DOOR CONTROL UNIT < ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]

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24 24 25 5 V 25 V 28 54 26 V 28 54 V 28 S 10 28 54 V 29 V 33 V	
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AUTOMATIC BACK DOOR CONTROL UNIT < ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]

Revision: 2015 February



Fail-safe

JRKWD4753GB

INFOID:000000010577752

Display contents of CONSULT	Fail-safe	Cancellation
U1000 CAN COMM	Inhibit automatic back door operation	Return to normal status
U1010 CONTROL UNIT (CAN)	Inhibit automatic back door operation	Return to normal status

Revision: 2015 February

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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

DTC Inspection Priority Chart

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

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

DTC Index

NOTE:

Details of time display

1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1

 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Reference page
U1000: CAN COMM	×	<u>DLK-68</u>
U1010: CONTROL UNIT(CAN)	×	<u>DLK-69</u>
B2401: IGN OPEN	×	<u>DLK-70</u>
B2409: HALF LATCH SW	×	<u>DLK-71</u>

Revision: 2015 February

INFOID:000000010577754

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CU DIAGNOSIS INFORMATION >	[WITH INTELLIGENT KEY SYSTE		
CONSULT display	Fail-safe	Reference page	
B2416: TOUCH SEN R OPEN	x	<u>DLK-74</u>	
B2417: TOUCH SEN L OPEN	×	<u>DLK-77</u>	
B2419: OPEN SW	×	<u>DLK-80</u>	
B2420: CLOSE SW	×	<u>DLK-83</u>	
B2422: BACK DOOR STATE	x	<u>DLK-86</u>	
B2423: ABD MTR TIME OUT	×	<u>DLK-89</u>	
B2426: SPINDLE SENSOR LH	×	<u>DLK-91</u>	
B2427: SPINDLE SENSOR RH	×	<u>DLK-94</u>	
B2428: AUTO BACK DR CNT UNIT	×	<u>DLK-97</u>	
B242A: CLSR CONDITION	×	DLK-98	

SYMPTOM DIAGNOSIS > WITH INTELLIGENT KEY SYSTEM]

DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND	UNLOCK	L
SWITCH ALL DOOR	В	
ALL DOOR : Diagnosis Procedure	INFOID:000000010577755	
1. CHECK POWER SUPPLY AND GROUND CIRCUIT		r
Check power supply and ground circuit. Refer to <u>DLK-105</u> , " <u>BCM (BODY CONTROL MODULE)</u> : <u>Diagnosis Procedure</u> " (BCM). <u>Is the inspection result normal?</u> YES >> GO TO 2.	D	
NO >> Repair or replace the malfunctioning parts. 2.CHECK DOOR LOCK AND UNLOCK SWITCH		
Check door lock and unlock switch. Refer to <u>DLK-112, "DRIVER SIDE : Component Function Check"</u> (driver side). Refer to <u>DLK-112, "PASSENGER SIDE : Component Function Check"</u> (passenger side). Is the inspection result normal?	F	;
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK DOOR LOCK ACTUATOR	Н	1
Check door lock actuator (driver side). Refer to <u>DLK-114, "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	l L	
4.CONFIRM THE OPERATION		
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> . NO >> GO TO 1. DRIVER SIDE		K
DRIVER SIDE : Diagnosis Procedure	INFOID:000000010577756	_
1.CHECK DOOR LOCK ACTUATOR Check door lock actuator (driver side). Refer to DLK-114, "DRIVER SIDE : Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	M N 0	J
2.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident". NO >> GO TO 1. PASSENGER SIDE	P	>

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

< SYMPTOM DIAGNOSIS >

PASSENGER SIDE : Diagnosis Procedure

1.CHECK DOOR LOCK ACTUATOR

Check door lock actuator (passenger side). Refer to <u>DLK-115, "PASSENGER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>. NO >> GO TO 1.

REAR LH

REAR LH : Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (rear LH). Refer to <u>DLK-116, "REAR LH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

NO >> GO TO 1.

REAR RH

REAR RH : Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (rear RH).

Refer to DLK-116, "REAR RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

NO >> GO TO 1.

INFOID:000000010577759

INFOID:000000010577758

INFOID:000000010577757

[WITH INTELLIGENT KEY SYSTEM]

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

DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERA-TION

Diagnosis Procedure	INFOID:0000000010577760	В
1. CHECK POWER DOOR LOCK OPERATION		
Check power door lock operation. Does door lock/unlock with door lock and unlock switch?		С
YES >> GO TO 2. NO >> Go to <u>DLK-253, "ALL DOOR : Diagnosis Procedure"</u> . 2. CHECK DOOR KEY CYLINDER SWITCH		D
Check door key cylinder switch. Refer to <u>DLK-119. "Component Function Check"</u> . Is the inspection result normal?		E
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		F
3.CONFIRM THE OPERATION		
Confirm the operation again. <u>Is the result normal?</u>		G
 YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>. NO >> GO TO 1. 		Н

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

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000010577761

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is removed from key slot.
- Ignition switch is in the OFF position.
- No Intelligent Keys are inside the vehicle.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000010577762

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go to <u>DLK-259</u>, "Description".

2.CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT"

Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

3.CHECK DOOR REQUEST SWITCH

Check door request switch (driver side). Refer to <u>DLK-126, "Component Function Check"</u>.

Is the inspection result normal?

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

4.CHECK OUTSIDE KEY ANTENNA

Check outside key antenna (driver side).

Refer to DLK-132, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check Intermittent Incident. Refer to GI-47. "Intermittent Incident".

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

NOTE:

INFOID:000000010577763

[•] Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
 Check that vehicle is under the condition shown in "Conditions o check each symptom. 	f vehicle" before starting diagnosis, and A
CONDITIONS OF VEHICLE (OPERATING CONDITIONS)	
Intelligent Key is removed from key slot.	D
Ignition switch is in the OFF position.No Intelligent Keys are inside the vehicle.	В
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000010577764
1.CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function.	D
Does door lock/unlock with Intelligent key button?	
YES >> GO TO 2. NO >> Go to <u>DLK-259</u> , " <u>Description</u> ".	_
2.CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPO	E דסר"
Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM -	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".	G
3. CHECK DOOR REQUEST SWITCH	
Check door request switch (passenger side).	Н
Refer to DLK-126, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CHECK OUTSIDE KEY ANTENNA	
	J
Check outside key antenna (passenger side). Refer to DLK-132, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 5.	DL
NO >> Repair or replace the malfunctioning parts.	
5. CONFIRM THE OPERATION	L
Confirm the operation again.	
Is the result normal?	
YES >> Check Intermittent Incident. Refer to <u>GI-47, "Intermittent</u>	Incident". M
NO >> GO TO 1. BACK DOOR	
BACK DOOK	Ν
BACK DOOR : Description	INFOID:000000010577765
NOTE:	
 Before performing the diagnosis in the following procedure, che Flow" 	ck "Work Flow". Refer to <u>DLK-9, "Work</u> O
 <u>Flow</u>. Check that vehicle is under the condition shown in "Conditions or 	f vehicle" before starting diagnosis. and
check each symptom.	P
CONDITIONS OF VEHICLE (OPERATING CONDITIONS)	
Intelligent Key is removed from key slot.	
 Ignition switch is in the OFF position. 	

• No Intelligent Keys are inside the vehicle.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFOID:0000000010577766

BACK DOOR : Diagnosis Procedure 1. CHECK REMOTE KEYLESS ENTRY FUNCTION Check remote keyless entry function. Does door lock/unlock with Intelligent key button? YES >> GO TO 2. >> Go to DLK-259, "Description". NO 2.CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT" Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 3. NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT". $\mathbf{3}$.check back door opener request switch Check back door opener request switch (back door). Refer to DLK-128, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. >> Repair or replace the malfunctioning parts. NO **4.**CHECK OUTSIDE KEY ANTENNA Check outside key antenna (back door). Refer to DLK-132, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. >> Repair or replace the malfunctioning parts. NO 5.CONFIRM THE OPERATION Confirm the operation again. Is the result normal?

YES >> Check Intermittent Incident. Refer to GI-47. "Intermittent Incident".

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

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Description

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent key is removed from key slot.
- All doors are closed.

Diagnosis Procedure

1.CHECK INTELLIGENT KEY

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

Does the Intelligent Key belong to the vehicle to checked?

YES >> GO TO 2.

NO >> Check Intelligent Key button operation with registered Intelligent Key belonging to the vehicle. 2. CHECK INTELLIGENT KEY LOW BATTERY WARNING

Check that the Intelligent Key low battery warning is operated.

Is the Intelligent Key low battery warning operated?

YES >> GO TO 6.

- NO-1 >> With another registered Intelligent Key: GO TO 3.
- NO-2 >> Without another registered Intelligent Key: GO TO 4.

3. CHECK INTELLIGENT KEY BUTTON OPERATION

Check that door lock and unlock can be performed by operating the buttons of another registered Intelligent Key.

Can door lock and unlock be performed with another registered Intelligent Key?

YES >> GO TO 4. NO >> GO TO 7.

4.CHECK ENGINE START

Insert Intelligent Key into the key slot. Operate the push-button ignition switch, and check that the vehicle is in START status.

Is the vehicle in START status?

YES >> GO TO 6. NO >> GO TO 5.

NO >> GO TO 5.

5.CHECK INTELLIGENT KEY

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

Is the vehicle in START status?

YES >> GO TO 6.

NO >> Replace Intelligent Key.

6.CHECK INTELLIGENT KEY BATTERY

Check the Intelligent Key battery. Refer to <u>DLK-137, "Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace Intelligent Key battery.

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INFOID:000000010577767

INFOID:0000000010577768

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

7.check power door lock operation

Check door lock/unlock using door lock and unlock switch.

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

YES >> GO TO 8.

NO >> Refer to <u>DLK-253</u>, "ALL <u>DOOR</u> : <u>Diagnosis Procedure</u>".

8.CHECK REMOTE KEYLESS ENTRY RECEIVER

Check remote keyless entry receiver. Refer to <u>DLK-121, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace the malfunctioning parts.

9.CHECK DOOR SWITCH

Check door switch.

Refer to <u>DLK-107</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair or replace the malfunctioning parts.

10.REPLACE INTELLIGENT KEY

1. Replace Intelligent Key.

2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Replace BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

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SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLIGENT

KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLI-GENT KEY

Description

INFOID:000000010577771

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent key is removed from key slot.
- All doors are closed.

Diagnosis Procedure

INFOID:000000010577772

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 >> Go to <u>DLK-253</u>, "ALL DOOR : Diagnosis Procedure".

2. CHECK "DOOR LOCK–UNLOCK SET" SETTING IN "WORK SUPPORT"

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-59</u>, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "DOOR LOCK-UNLOCK SET" of "WORK SUPPORT".

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.
- NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-ATE

Diagnosis Procedure	INFOID:000000010577773
1. CHECK POWER DOOR LOCK OPERATION	L
Check power door lock operation.	
Does door lock/unlock using door lock and unlock switch? YES >> GO TO 2.	
NO >> Go to <u>DLK-253</u> , "ALL DOOR : Diagnosis Procedure".	
2. CHECK VEHICLE SPEED SIGNAL	
Check combination meter. Refer to <u>SEC-59, "DTC Logic"</u> .	E
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3. CONFIRM THE OPERATION	
Confirm the operation again.	(-
Is the result normal?	_
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Ir</u> NO >> GO TO 1.	n <u>cident"</u> . ⊦

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IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000010577774

1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

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

YES >> GO TO 2.

NO >> Go to <u>DLK-253</u>, "ALL DOOR : Diagnosis Procedure".

2. СНЕСК ВСМ

Check DTC for BCM. Refer to <u>BCS-88, "DTC Index"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47. "Intermittent Incident"</u>.

P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPER-

ATE

[WITH INTELLIGENT KEY SYSTEM]

P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OP-ERATE

Diagnosis Procedure	INFOID:000000010577775	В
1. CHECK POWER DOOR LOCK OPERATION		D
Check power door lock operation.		0
Does door lock/unlock using door lock and unlock switch?		C
YES >> GO TO 2. NO >> Go to <u>DLK-253, "ALL DOOR : Diagnosis Procedure"</u> .		D
2. СНЕСК ТСМ		
Check DTC for TCM. Refer to <u>TM-455, "DTC Index"</u> .		E
Is the inspection result normal?		
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION		F
Confirm the operation again.		~
Is the result normal?		G
 YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>. NO >> GO TO 1. 		Η

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< SYMPTOM DIAGNOSIS >

AUTO DOOR LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description

NOTE:

• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.

Diagnosis Procedure

INFOID:000000010577777

INFOID:000000010577776

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT"

Check "AUTO LOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "AUTO LOCK SET" setting in "WORK SUPPORT".

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
- NO >> GO TO 1.

WELCOME LIGHT FUNCTION DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS >

WELCOME LIGHT FUNCTION DOES NOT OPERATE

Description

NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u>.
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATION CONDITIONS)

- Intelligent Key system (door lock function) is normal.
- All operation conditions are satisfied. Refer to DLK-37, "WELCOME LIGHT FUNCTION : System Descrip-D tion".

Diagnosis Procedure

1. CHECK WELCOME LIGHT FUNCTION SETTING

Check "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the function active?

- YES >> GO TO 2.
- >> Set "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUP-NO PORT".

2.check door lock function

Check Intelligent Key system (door lock function). Does the door lock/unlock using door request switch (driver side)? YES >> GO TO 3.

NO >> Go to DLK-256, "DRIVER SIDE : Description".

 ${\it 3.}$ CHECK INTERIOR ROOM LAMP CONTROL SYSTEM

Check interior room lamp control system. Refer to INL-7, "System Description".

|--|

YES >> GO TO 4. NO >> Go to INL-186, "Symptom Table".

4.REPLACE BCM

Replace BCM. Refer to BCS-93, "Removal and Installation".

>> GO TO 5.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> INSPECTION END NO

>> GO TO 1.

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INFOID:000000010577778

INFOID:0000000010577779

PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

PANIC ALARM FUNCTION DOES NOT OPERATE

Description

NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to DLK-9, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATION CONDITIONS)

- Ignition switch is in the OFF or LOCK position.
- Intelligent Key is removed from key slot.

Diagnosis Procedure

INFOID:000000010577781

INFOID:000000010577780

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go to <u>DLK-259</u>, "Description".

2. CHECK VEHICLE SECURITY ALARM OPERATION

Check vehicle security alarm operation.

Does alarm (headlamp and horn) activate?

YES >> GO TO 3.

NO >> Go to <u>DLK-259</u>, "Description".

3.CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"

Check "PANIC ALARM SET" setting in "WORK SUPPORT". Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Refer to <u>DLK-61, "INTELLIGENT KEY: CONSULT FUNCTION (BCM - INTELLIGEN</u>

Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PANIC ALARM SET" setting in "WORK SUPPORT".

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

HAZARD AND HORN REMINDER DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]	
HAZARD AND HORN REMINDER DOES NOT OPERATE	А
Description	A
 NOTE: Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. 	В
CONDITIONS OF VEHICLE (OPERATION CONDITIONS) Ignition switch is in the OFF or LOCK position. Intelligent Key is removed from key slot. 	C
Diagnosis Procedure	D
1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"	Е
Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u> . Is the inspection result normal?	F
YES >> GO TO 2. NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	
2. CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT".	G
Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT". Refer to <u>DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)</u> ". Is the inspection result normal?	Н
YES >> GO TO 3. NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT". 3. CHECK HAZARD WARNING LAMP	I
Check hazard warning lamp. Refer to <u>DLK-147, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	J
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	DLK
4.CHECK HORN	
Check horn. Refer to <u>DLK-142, "Component Function Check"</u> .	L
<u>Is the inspection result normal?</u> YES >> GO TO 5.	M
NO >> Repair or replace the malfunctioning parts. 5.CONFIRM THE OPERATION	
Confirm the operation again.	Ν
Is the result normal?	
 YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>. NO >> GO TO 1. 	0

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

< SYMPTOM DIAGNOSIS >

HAZARD AND BUZZER REMINDER DOES NOT OPERATE

Description

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is removed from key slot.
- Ignition switch is in the OFF position.
- No Intelligent Keys are inside the vehicle.

Diagnosis Procedure

INFOID:0000000010577785

INFOID:000000010577784

1.CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"

Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-59, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)</u>".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" in "WORK SUPPORT".

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

Check "ANS BACK I-KEY LOCK" setting in "WORK SUPPORT". Refer to <u>DLK-59, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "ANS BACK I-KEY LOCK" in "WORK SUPPORT".

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

Check "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT". Refer to DLK-59, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "ANS BACK I-KEY UNLOCK" in "WORK SUPPORT".

4.CHECK HAZARD WARNING LAMP

Check hazard warning lamp.

Refer to DLK-147, "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-135, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

6.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

KEY REMINDER FUNCTION DOES NOT OPERATE GNOSIS > [WITH INTELLIGENT KEY SYSTEM]

<u>SYMPTOM DIAGNOSIS ></u> [WITH INTELLIGN KEY REMINDER FUNCTION DOES NOT OPERATE]

KET REMINDER FUNCTION DUES NOT OPERATE	А
Description	A
 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work Flow". 	В
Understand the operation when does it work, refer to <u>DLK-40, "KEY REMINDER FUNCTION : System</u> <u>Description"</u> .	С
Diagnosis Procedure	
1. CHECK "ANTI KEY LOCK IN FUNCTI" SETTING IN "WORK SUPPORT"	D
Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT". Refer to <u>DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 2.	Е
NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".	F
2.CHECK DOOR SWITCH	
Check door switch. Refer to <u>DLK-107, "Component Function Check"</u> .	G
<u>Is the inspection result normal?</u> YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	Н
3. CHECK INSIDE KEY ANTENNA	
Check inside key antenna. Refer to <u>DLK-101, "DTC Logic"</u> (instrument center). Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).	I
Is the inspection result normal?	J
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CHECK UNLOCK SENSOR	DLK
Check unlock sensor. Refer to DLK-130, "Component Function Check".	
Is the inspection result normal?	L
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5. CONFIRM THE OPERATION	\mathbb{M}
Confirm the operation again.	
Is the result normal?	Ν
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> . NO >> GO TO 1.	
	0

KEY WARNING DOES NOT OPERATE

[WITH INTELLIGENT KEY SYSTEM]

KEY WARNING DOES NOT OPERATE

Description

INFOID:000000010577788

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".
- Door lock function is normal.

Diagnosis Procedure

INFOID:000000010577789

1.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to <u>DLK-145</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR SWITCH

Check door switch (driver side). Refer to <u>DLK-107</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK KEY SLOT

Check key slot.

Refer to DLK-138, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-144, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5. CHECK KEY SLOT ILLUMINATION

Check key slot illumination. Refer to <u>DLK-140</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{6}$.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

OFF POSITION WARNING DOES NOT OPERATE

OFF POSITION WARNING DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
OFF POSITION WARNING DOES NOT OPE	RATE

OFF PUSITION WARNING DUES NUT OPERATE	А
Description INFOID:000000010577790	
 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u>. 	В
 Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "<u>WARNING FUNCTION : System Description</u>". Door lock function is normal. 	
Diagnosis Procedure	D
1. CHECK POWER POSITION	_
Check if ignition switch position is changing or not.	- E
Does ignition switch position change?	
YES >> GO TO 2. NO >> Check DTC for BCM. Refer to BCS-88, "DTC Index".	F
2.CHECK BUZZER (COMBINATION METER)	
Check buzzer (combination meter).	G
Refer to DLK-145, "Component Function Check".	
Is the inspection result normal?	Н
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer.	.
Refer to <u>DLK-135, "Component Function Check"</u> .	
Is the inspection result normal?	J
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
4.CHECK DOOR SWITCH	DLK
Check door switch (driver side). Refer to <u>DLK-107, "Component Function Check"</u> .	
Is the inspection result normal?	L
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	
5. CONFIRM THE OPERATION	M
Confirm the operation again.	
Is the result normal?	Ν
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
NO >> GO TO 1.	0
	0

P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P POSITION WARNING DOES NOT OPERATE

Description

INFOID:000000010577792

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".
- Door lock function is normal.

Diagnosis Procedure

INFOID:000000010577793

1. CHECK TRANSMISSION RANGE SWITCH

Check DTC for BCM. Refer to BCS-88, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer. Refer to <u>DLK-135, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}.$ CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter). Refer to <u>DLK-145, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK DOOR SWITCH

Check door switch (driver side).

Refer to <u>DLK-107</u>, "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. Refer to <u>DLK-101, "DTC Logic"</u> (instrument center).

Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{6}.$ CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-144, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

/.CONFIRM THE OPERATION

P POSITION WARNING DOES NOT OPERATE

WITH INTELLIGENT KEY SYSTEMI

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer NO >> GO TO 1.	to <u>GI-47, "Intermittent Incident"</u> .
NO GO TO T.	

ACC WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ACC WARNING DOES NOT OPERATE

Description

INFOID:000000010577794

[WITH INTELLIGENT KEY SYSTEM]

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".
- Door lock function is normal.

Diagnosis Procedure

INFOID:000000010577795

1.CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

NO >> Check DTC for BCM. Refer to <u>BCS-88</u>, "DTC Index".

2. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter). Refer to <u>DLK-145, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}$. CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-144, "Component Function Check".

Is the inspection result normal?

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident".
- NO >> GO TO 1.

TAKE AWAY WARNING DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]
TAKE AWAY WARNING DOES NOT OPERATE DOOR IS OPEN
DOOR IS OPEN : Description
 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>. Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm
the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u> , "WARNING FUNCTION : <u>System</u> <u>Description</u> ". • Door lock function is normal.
DOOR IS OPEN : Diagnosis Procedure
1.CHECK POWER POSITION
Check if ignition switch position is changing or not. Does ignition switch position change? YES >> GO TO 2. NO >> Check DTC for BCM. Refer to <u>BCS-88. "DTC Index"</u> .
2.CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to <u>DLK-145, "Component Function Check"</u> .
Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.
3.CHECK COMBINATION METER DISPLAY
Check combination meter display. Refer to <u>DLK-144, "Component Function Check"</u> .
Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK DOOR SWITCH
Check door switch (driver side). Refer to <u>DLK-107, "Component Function Check"</u> .
<u>Is the inspection result normal?</u> 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-135, "Component Function Check".
Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.
6.CHECK INSIDE KEY ANTENNA
Check inside key antenna. Refer to <u>DLK-101. "DTC Logic"</u> (instrument center). Refer to <u>DLK-103. "DTC Logic"</u> (luggage room). <u>Is the inspection result normal?</u> YES >> GO TO 7.
NO >> Repair or replace the malfunctioning parts.

TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

7. CHECK KEY SLOT ILLUMINATION

Check key slot illumination.

Refer to DLK-140, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace the malfunctioning parts.

8.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

NO >> GO TO 1.

ANY DOOR OPEN TO ALL DOORS CLOSED

ANY DOOR OPEN TO ALL DOORS CLOSED : Description

INFOID:000000010577798

INFOID:000000010577799

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work</u> <u>Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : System <u>Description</u>".
- Door lock function is normal.

ANY DOOR OPEN TO ALL DOORS CLOSED : Diagnosis Procedure

1.CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-107, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-144, "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.

Refer to <u>DLK-101, "DTC Logic"</u> (instrument center). Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

NO >> GO TO 1.

PUSH-BUTTON IGNITION SWITCH OPERATION

TAKE AWAY WARNING DOES NOT OPERATE [WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > **PUSH-BUTTON IGNITION SWITCH OPERATION : Description** INFOID:000000010577800

 Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>. Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : System 	В
Description".	
Door lock function is normal.	С
PUSH-BUTTON IGNITION SWITCH OPERATION : Diagnosis Procedure INFOLD:000000010577801	
1.CHECK POWER POSITION	D
Check if ignition switch position is changing or not.	
<u>Does ignition switch position change?</u> YES >> GO TO 2.	Ε
NO >> Check DTC for BCM. Refer to <u>BCS-88, "DTC_Index"</u> .	
2. CHECK PUSH-BUTTON IGNITION SWITCH	F
Check push-button ignition switch.	
Refer to PCS-67. "Component Function Check".	G
Is the inspection result normal?	0
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CHECK BUZZER (COMBINATION METER)	Н
Check buzzer (combination meter).	
Refer to DLK-145, "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	J
4. CHECK COMBINATION METER DISPLAY	
Check combination meter display.	DL
Refer to <u>DLK-144, "Component Function Check"</u> .	UL
<u>Is the inspection result normal?</u> YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	L
5. CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	M
Refer to <u>DLK-101, "DTC Logic"</u> (instrument center).	
Refer to <u>DLK-103, "DTC Logic"</u> (luggage room). Is the inspection result normal?	N
YES >> GO TO 6.	IN
NO >> Repair or replace the malfunctioning parts.	
6.CONFIRM THE OPERATION	0
Confirm the operation again.	
Is the result normal?	Ρ
YES >> Check intermittent incident. Refer to <u>GI-47. "Intermittent Incident"</u> . NO >> GO TO 1.	
INTELLIGENT KEY IS REMOVED FROM KEY SLOT	
INTELLIGENT KEY IS REMOVED FROM KEY SLOT : Description	

NOTE:

NOTE:

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TAKE AWAY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-9, "Work Flow".
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-42, "WARNING FUNCTION : System Description".
- · Door lock function is normal.

INTELLIGENT KEY IS REMOVED FROM KEY SLOT : Diagnosis Procedure

INFOID:000000010577803

1. CHECK KEY SLOT

Check key slot. Refer to DLK-138, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK COMBINATION METER DISPLAY

Check combination meter display. Refer to DLK-144, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

>> Repair or replace the malfunctioning parts. NO

3.CHECK INSIDE KEY ANTENNA

Check inside key antenna. Refer to <u>DLK-101, "DTC Logic"</u> (instrument center). Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK KEY SLOT ILLUMINATION

Check key slot illumination.

Refer to DLK-140, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5 . CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE A Description ************************************	INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM]	
Description B NOTE: • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u> . B • Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42, "WARNING FUNCTION : System Description"</u> . C Diagnosis Procedure	INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE	Δ
Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u> "Work How". Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u> . "WARNING FUNCTION : System Description". Description". J.CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT" Check "LO- BATT OF KEY FOB WARN" Setting in "WORK SUPPORT". Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". Refer to <u>DLK-61</u> . "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". Check IntelLIGENT KEY BATTERY Check INTELLIGENT KEY BATTERY Check INTELLIGENT MEY BATTERY Check COMBINATION METER DISPLAY Check combination meter display. Refer to <u>DLK-144</u> . "Component Inspection". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. A.CHECK COMBINATION METER DISPLAY Check INSIDE KEY ANTENNA DLK Check INSIDE KEY ANTENNA S. CONFIRM THE OPERATION S. Repair or replace the malfunctioning parts. S.OON >> Repair or replace the mal	Description	
Description". Diagnosis Procedure D 1.check "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT". E Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". E Stati inspection result normal? F YES > GO TO 2. F NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". G 2.check INTELLIGENT KEY IOB WARN" setting in "WORK SUPPORT". G WES > GO TO 2. F NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". G 2.check INTELLIGENT KEY BATTERY G Check Intelligent Key battery. G Refer to DLK-137. "Component Inspection". I Is the inspection result normal? H NO >> Repair or replace the malfunctioning parts. J J.Check combination meter display. J Refer to DLK-144. "Component Function Check". J Is the inspection result normal? J YES > GO TO 4. J NO >> Repair or replace the malfunctioning parts. L 4.check INSIDE KEY ANTENNA DLK Check inside key antenna. M	 Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u>. Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm 	
1. CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT" E Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". E Refer to DLK-61, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)". E Is the inspection result normal? F YES >> GO TO 2. F O >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". F Q. CHECK INTELLIGENT KEY BATTERY G Check Intelligent Key battery. G Refer to DLK-137. "Component Inspection". I Is the inspection result normal? G YES >> GO TO 3. H NO >> Repair or replace the malfunctioning parts. H 3. CHECK COMBINATION METER DISPLAY I Check combination meter display. I NO >> Repair or replace the malfunctioning parts. J 4. CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. I Refer to DLK-101. "DTC Logic" (Instrument center). Refer to DLK-103. "DTC Logic" (luggage room). Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5. CONFIRM THE OPERATION	Description"	
Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". E Refer to DLK-61, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. F NO >> Set "LO - BATT OF KEY FOB WARN" setting in "WORK SUPPORT". G Z.CHECK INTELLIGENT KEY BATTERY G Check Intelligent Key battery. Refer to DLK-137. "Component Inspection". Is the inspection result normal? G YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK COMBINATION METER DISPLAY I Check combination meter display. I Refer to DLK-144. "Component Function Check". I Is the inspection result normal? J YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-103. "DTC Logic" (instrument center). Refer to DLK-101."DT Logic" (instrument center). I Ste inspection result normal? YES YES >> GO TO 5. M NO >> Repair or replace the malfunctioning parts. M <	Diagnosis Procedure	D
Refer to DLK-61. "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". Image: Constraint of the inspection result normal? YES >> GO TO 2. F NO >> Set "LO-BATT OF KEY FOB WARN" setting in "WORK SUPPORT". F Q.CHECK INTELLIGENT KEY BATTERY G Check Intelligent Key battery. G Refer to DLK-137. "Component Inspection". Image: Component Inspection ". Is the inspection result normal? F YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK COMBINATION METER DISPLAY Image: Component Function Check". Is the inspection result normal? J YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4.CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-103. "DTC Logic" (instrument center). Refer to DLK-101."DTC Logic" (instrument center). Refer to DLK-102."DTC Logic" (instrument center). Refer to DLK-103."DTC Logic" (instrument center). Mo Ste inspection result normal? YES YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. Mo 5.	1. CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"	
YES>> GO TO 2. NO>> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".F2. CHECK INTELLIGENT KEY BATTERYGCheck Intelligent Key battery. Refer to DLK-137. "Component Inspection".GIs the inspection result normal? YES>> GO TO 3. NO>> Repair or replace the malfunctioning parts.3. CHECK COMBINATION METER DISPLAYICheck combination meter display. Refer to DLK-144. "Component Function Check".JIs the inspection result normal? YES>> GO TO 4.NO>> Repair or replace the malfunctioning parts.JYES>> GO TO 4.JNO>> Repair or replace the malfunctioning parts.DLK4. CHECK INSIDE KEY ANTENNADLKCheck inside key antenna. Refer to DLK-101. "DTC Logic" (instrument center). Refer to DLK-103. "DTC Logic" (instrument center). Refer to DLK-103. "DTC Logic" (luggage room).LIs the inspection result normal? 		Е
Check Intelligent Key battery. G Refer to DLK-137. "Component Inspection". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK COMBINATION METER DISPLAY I Check combination meter display. Refer to DLK-144. "Component Function Check". Is the inspection result normal? J YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-101. "DTC Logic" (instrument center). Refer to DLK-103. "DTC Logic" (luggage room). L Is the inspection result normal? YES YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. MO >> Repair or repl	YES >> GO TO 2. NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".	F
Check Intelligent Rey Dately. Refer to DLK-137, "Component Inspection". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK COMBINATION METER DISPLAY Check combination meter display. Refer to DLK-144. "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. Refer to DLK-10, "DTC Logic" (instrument center). Refer to DLK-10, "DTC Logic" (luggage room). Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. M 5. cONFIRM THE OPERATION Confirm the operation again. N Is the result normal? YES YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident". NO >> CPO TO 1	2.CHECK INTELLIGENT KEY BATTERY	-
YES \Rightarrow GO TO 3.HNO \Rightarrow Repair or replace the malfunctioning parts.3. CHECK COMBINATION METER DISPLAY1Check combination meter display. Refer to DLK-144. "Component Function Check".1Is the inspection result normal? YES \Rightarrow GO TO 4.JNO \Rightarrow Repair or replace the malfunctioning parts.J 4. CHECK INSIDE KEY ANTENNADLKCheck inside key antenna. Refer to DLK-101. "DTC Logic" (instrument center). 	Refer to <u>DLK-137, "Component Inspection"</u> .	G
$\begin{array}{llllllllllllllllllllllllllllllllllll$	YES >> GO TO 3.	Н
Refer to DLK-144, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4 .CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-101, "DTC Logic" (instrument center). Refer to DLK-103, "DTC Logic" (luggage room). L Is the inspection result normal? YES YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5 .CONFIRM THE OPERATION M Confirm the operation again. N Is the result normal? YES YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".		I
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4 . CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-101, "DTC Logic" (instrument center). Refer to DLK-103, "DTC Logic" (luggage room). L Is the inspection result normal? YES YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5 . CONFIRM THE OPERATION M Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".		I
4. CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to DLK-101, "DTC Logic" (instrument center). Refer to DLK-103, "DTC Logic" (luggage room). L Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. M 5. CONFIRM THE OPERATION N Is the result normal? YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". N		J
Check inside key antenna. Refer to $DLK-101$, "DTC Logic" (instrument center). Refer to $DLK-103$. "DTC Logic" (luggage room). L Is the inspection result normal? YES YES NO >> Repair or replace the malfunctioning parts. M 5.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident".		
Refer to DLK-101, "DTC Logic" (instrument center). L Refer to DLK-103, "DTC Logic" (luggage room). L Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. M 5.CONFIRM THE OPERATION N Is the result normal? N YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". NO >> CO TO 1		DLK
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5. CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident".	Refer to <u>DLK-101, "DTC Logic"</u> (instrument center). Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).	L
NO >> Repair or replace the malfunctioning parts. M 5. CONFIRM THE OPERATION N Confirm the operation again. N Is the result normal? N YES >> Check intermittent incident. Refer to GI-47. "Intermittent Incident".		
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	NO >> Repair or replace the malfunctioning parts.	\mathbb{N}
Is the result normal? YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .		
YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .		Ν
NO >> GO TO 1.	YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
	NO >> GO TO 1.	0

DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR RE-QUEST SWITCH

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR REQUEST SWITCH

Description

INFOID:000000010577806

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9</u>, "Work <u>Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-42</u>, "WARNING FUNCTION : System <u>Description</u>".

Diagnosis Procedure

INFOID:000000010577807

1.CHECK DOOR LOCK FUNCTION

Check door lock function by door request switch.

Does door lock/unlock with door request switch?

YES >> GO TO 2.

- NO >> Go to <u>DLK-256, "DRIVER SIDE : Description"</u> (driver side).
 - Go to DLK-256, "PASSENGER SIDE : Description" (passenger side).
 - Go to DLK-257, "BACK DOOR : Description" (back door).

2. CHECK DOOR SWITCH

Check door switch (driver side). Refer to <u>DLK-107</u>, "Component Function Check".

Is the inspection result normal?

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

3.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer. Refer to <u>DLK-135, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK INSIDE KEY ANTENNA

Check inside key antenna.

Refer to <u>DLK-101. "DTC Logic"</u> (instrument center).

Refer to <u>DLK-103, "DTC Logic"</u> (luggage room).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

< SYMPTOM DIAGNOSIS >	[WITH INTELLIGENT KEY SYSTEM]	
KEY ID WARNING DOES NOT OPERATE		А
Description	INFOID:000000010577808	1 1
 NOTE: Before performing the diagnosis in the following procedure, ch Flow". 	neck "Work Flow". Refer to <u>DLK-9, "Work</u>	В
 Warning functions operating condition is extremely complicated, the list above twice in order to ensure proper operation. Refer to <u>Description</u>". 		С
Diagnosis Procedure	INFOID:000000010577809	D
1.CHECK INTELLIGENT KEY		
Check Intelligent Key. Refer to <u>DLK-137, "Component Inspection"</u> .		Е
<u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.		F
2. CHECK COMBINATION METER DISPLAY FUNCTION		
Check combination meter display function. Refer to <u>DLK-144, "Component Function Check"</u> .		G
<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.		Η
3.CONFIRM THE OPERATION		I
Confirm the operation again.		

KEY ID WARNING DOES NOT OPERATE

Is the	result normal?	

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

NO >> GO TO 1.

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INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

Description

INFOID:000000010577810

[WITH INTELLIGENT KEY SYSTEM]

NOTE:

Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-9, "Work Flow"</u>.

Diagnosis Procedure

INFOID:000000010577811

1. CHECK INTEGRATED HOMELINK TRANSMITTER

Check integrated homelink transmitter. Refer to <u>DLK-164</u>, "<u>Component Function Check</u>". Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM] AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE ALL SWITCHES

ALL SWITCHES	
ALL SWITCHES : Description	B
Automatic back door open/close function does not operate using all switches.	D
Automatic back door open/close operation condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-49</u> , "System Description".	С
ALL SWITCHES : Diagnosis Procedure	
1. CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL UNIT	D
Check that DTC is not detected with automatic back door control unit.	E
Is the inspection result normal?	
YES >> GO TO 2. NO >> Perform trouble diagnosis relevant to DTC indicated.	
2. CHECK BACK DOOR AUTO CLOSURE FUNCTION	F
Check back door auto closure function.	
Is the inspection result normal?	G
YES >> GO TO 3.	
NO >> Refer to <u>DLK-288, "OPEN/CLOSURE FUNCTION : Diagnosis Procedure"</u> .	
3. CHECK POWER SUPPLY AND GROUND CIRCUIT	H
Check automatic back door control unit power supply and ground circuit. Refer to <u>DLK-105, "AUTOMATIC BACK DOOR CONTROL UNIT : Diagnosis Procedure"</u> .	
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	J
4.CHECK TOUCH SENSOR	
Check touch sensor. Refer to <u>DLK-156, "LH : Component Function Check"</u> .	DLK
Is the inspection result normal?	
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	
5. CHECK SPINDLE MOTOR	_
Check spindle motor.	M
Refer to <u>DLK-158, "RH : Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 6.	NI
NO >> Repair or replace the malfunctioning parts.	Ν
6.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT	
 Replace automatic back door control unit. Refer to <u>DLK-364. "Removal and Installation"</u>. Confirm the operation after replacement. 	0
Is the result normal?	
YES >> INSPECTION END	Ρ
NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> . AUTOMATIC BACK DOOR SWITCH	
AUTOMATIC BACK DOOR SWITCH : Description	t
Automatic back door open/close function does not operate using automatic back door switch. NOTE:	

А

AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Automatic back door open/close operation condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-49</u>, "System Description".

AUTOMATIC BACK DOOR SWITCH : Diagnosis Procedure

INFOID:000000010577815

[WITH INTELLIGENT KEY SYSTEM]

1.CHECK AUTOMATIC BACK DOOR SWITCH

Check automatic back door switch.

Refer to DLK-152, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT

1. Replace automatic back door control unit. Refer to <u>DLK-364. "Removal and Installation"</u>.

2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

AUTOMATIC BACK DOOR CLOSE SWITCH

AUTOMATIC BACK DOOR CLOSE SWITCH : Description

INFOID:000000010577816

Automatic back door open/close function does not operate using automatic back door close switch. **NOTE:**

Automatic back door open/close operation condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <u>DLK-49</u>, "System Description".

AUTOMATIC BACK DOOR CLOSE SWITCH : Diagnosis Procedure

INFOID:000000010577817

1.CONFIRM THE OPERATION

1. Turn ON automatic back door main switch.

2. Confirm the operation.

Is the result normal?

YES >> Automatic back door system is normal.

NO >> GO TO 2.

2. CHECK AUTOMATIC BACK DOOR CLOSE SWITCH

Check automatic back door close switch.

Refer to DLK-148, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch. Refer to DLK-150, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT

1. Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation".

2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

INTELLIGENT KEY

Revision: 2015 February

AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY : Description		INFOID:000000010577818
Automatic back door open/close function does	not operate using Intelligent Key.	A
NOTE: Automatic back door open/close operation conc reconfirm the list above twice in order to ensure		
INTELLIGENT KEY : Diagnosis Proc		INFOID:000000010577819
1. CHECK DTC WITH AUTOMATIC BACK DO	OR CONTROL UNIT	С
Check that DTC is not detected with automatic	back door control unit.	
Is the inspection result normal?		D
YES >> GO TO 2. NO >> Perform trouble diagnosis relevant	to DTC indicated.	
2. CHECK DTC WITH BCM		E
Check that DTC is not detected with BCM		
Is the inspection result normal?		F
YES >> GO TO 3.	to DTC indicated	
NO >> Perform trouble diagnosis relevant 3.CHECK REMOTE KEYLESS ENTRY FUNC		G
	TION	
Check remote keyless entry function. Does door lock/unlock with Intelligent Key butto	n?	
YES >> GO TO 4.	<u></u>	Н
NO >> Refer to <u>DLK-259</u> , "Diagnosis Proc		
4 .REPLACE AUTOMATIC BACK DOOR CON	TROL UNIT	
 Replace automatic back door control unit. F Confirm the operation after replacement. 	Refer to DLK-364, "Removal and Insta	llation".
Is the result normal?		J
YES >> INSPECTION END		
NO >> Check intermittent incident. Refer to BACK DOOR OPENER SWITCH	o <u>GI-47, "Intermittent Incident"</u> .	DLK
BACK DOOR OPENER SWITCH : D	escription	INFOID:000000010577820
Automatic back door open/close function does	not operate using back door opener sy	witch
NOTE:		
Automatic back door open/close operation conc reconfirm the list above twice in order to ensure		
BACK DOOR OPENER SWITCH : D	iagnosis Procedure	INFOID:000000010577821
1.CONFIRM THE OPERATION		Ν
 Turn ON automatic back door main switch. Confirm the operation. 		
Is the result normal?		0
YES >> Automatic back door system is norr	nal.	
NO >> GO TO 2.		P
2. CHECK AUTOMATIC BACK DOOR MAIN S	WITCH	
Check automatic back door main switch. Refer to DLK-150, "Component Function Chec	k".	
Is the inspection result normal?	<u></u> .	
YES >> GO TO 3.		
NO >> Repair or replace the malfunctionin	g parts.	
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AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

3.CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-124, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT

1. Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation".

2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-47. "Intermittent Incident"</u>.

OPEN/CLOSURE FUNCTION

OPEN/CLOSURE FUNCTION : Description

Back door auto closure function does not operate when back door opening and closing operations are performed.

OPEN/CLOSURE FUNCTION : Diagnosis Procedure

1.CONFIRM THE OPERATION

1. Turn ON automatic back door main switch.

2. Confirm the operation.

Is the result normal?

YES >> Automatic back door system is normal.

NO >> GO TO 2.

2.CHECK DTC WITH AUTOMATIC BACK DOOR CONTROL UNIT

Check that DTC is not detected with automatic back door control unit.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform trouble diagnosis relevant to DTC indicated.

3.CHECK AUTOMATIC BACK DOOR MAIN SWITCH

Check automatic back door main switch.

Refer to <u>DLK-150</u>, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-124, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CHECK BACK DOOR CLOSURE MOTOR

Check back door closure motor.

Refer to DLK-160, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

INFOID:000000010577822

INFOID:0000000010577823

AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE

[WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > 6.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation". 1. Confirm the operation after replacement. 2. Is the result normal? В YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". OPEN FUNCTION **OPEN FUNCTION : Description** INFOID:000000010577824 D Back door auto closure function does not operate when back door opening operations are performed. OPEN FUNCTION : Diagnosis Procedure INFOID:0000000010577825 Ε **1**.CONFIRM THE OPERATION 1. Turn ON automatic back door main switch. 2. Confirm the operation. Is the result normal? YES >> Automatic back door system is normal. NO >> GO TO 2. 2.CHECK AUTOMATIC BACK DOOR MAIN SWITCH Check automatic back door main switch. Н Refer to DLK-150, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. ${f 3}.$ CHECK BACK DOOR OPENER SWITCH Check back door opener switch. Refer to DLK-124, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. DLK NO >> Repair or replace the malfunctioning parts. **4.**REPLACE AUTOMATIC BACK DOOR CONTROL UNIT

Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation". 1 2. Confirm the operation after replacement. Is the result normal? YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". CLOSURE FUNCTION

CLOSURE FUNCTION : Description

Back door auto closure function does not operate when back door closing operations are performed.

CLOSURE FUNCTION : Diagnosis Procedure

CHECK BACK DOOR CLOSURE MOTOR

Check back door closure motor. Refer to DLK-160, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts. INFOID:000000010577826

INFOID:0000000010577827

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AUTOMATIC BACK DOOR OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

$\overline{\mathbf{2}}$.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT

- 1. Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".
- 2. Confirm the operation after replacement.

Is the result normal?

- YES >> INSPECTION END
- NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM] AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE

BUZZER	1
BUZZER : Description	~
E Automatic back door warning buzzer does not operate when automatic back door warning function are per- formed.	5
BUZZER : Diagnosis Procedure	С
1. CHECK DTC WITCH AUTOMATIC BACK DOOR CONTROL UNIT	
Check that DTC is not detected with automatic back door control unit.)
Is the inspection result normal?	
YES >> GO TO 2. NO >> Perform trouble diagnosis relevant to DTC indicated.	=
2. CHECK AUTOMATIC BACK DOOR WARNING BUZZER	
Check automatic back door warning buzzer.	_
Refer to <u>DLK-161. "Diagnosis Procedure"</u> .	
Is the inspection result normal?	2
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	_
3. REPLACE AUTOMATIC BACK DOOR CONTROL UNIT	
1. Replace automatic back door control unit. Refer to <u>DLK-364, "Removal and Installation"</u> .	1
2. Confirm the operation after replacement.	
Is the result normal?	
YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u> .	
HAZARD WARNING LAMP	J
HAZARD WARNING LAMP : Description	-
Hazard warning lamp does not operate when automatic back door warning function are performed.	LK
HAZARD WARNING LAMP : Diagnosis Procedure	
1. CHECK DTC WITCH AUTOMATIC BACK DOOR CONTROL UNIT	_
Check that DTC is not detected with automatic back door control unit.	
Is the inspection result normal?	Л
YES >> GO TO 2. NO >> Perform trouble diagnosis relevant to DTC indicated.	
2.CHECK DTC WITCH BCM	J
Check that DTC is not detected with BCM.	-
Is the inspection result normal?	_
YES >> GO TO 3.)
NO >> Perform trouble diagnosis relevant to DTC indicated.	
3. CHECK HAZARD AND HORN REMINDER FUNCTION	C
Check hazard and horn reminder function.	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Refer to <u>DLK-269, "Diagnosis Procedure"</u> .	
4.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT	

1. Replace automatic back door control unit. Refer to <u>DLK-364</u>, "Removal and Installation".

AUTOMATIC BACK DOOR WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

2. Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

[WITH INTELLIGENT KEY SYSTEM]

AUTOMATIC BACK DOOR FUNCTIONS DO NOT CANCEL < SYMPTOM DIAGNOSIS > AUTOMATIC BACK DOOR FUNCTIONS DO NOT CANCEL **Diagnosis** Procedure INFOID:000000010577832 **1.**CHECK THE OPERATION Check automatic back door main switch function. NOTE: When the main switch is OFF, the automatic back door operation is not available by back door opener switch and automatic back door close switch. Is the inspection result normal? YES >> Automatic back door system is normal. NO >> GO TO 2. 2.CHECK AUTOMATIC BACK DOOR MAIN SWITCH Check automatic back door main switch. Refer to DLK-150, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.REPLACE AUTOMATIC BACK DOOR CONTROL UNIT Replace automatic back door control unit. Refer to DLK-364, "Removal and Installation". 1. Confirm the operation after replacement. 2. Is the result normal? YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

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AUTOMATIC BACK DOOR ANTI-PINCH FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

AUTOMATIC BACK DOOR ANTI-PINCH FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000010577833

1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check automatic back door control unit power supply and ground circuit. Refer to <u>DLK-105, "AUTOMATIC BACK DOOR CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK TOUCH SENSOR

Check touch sensor. Refer to <u>DLK-154</u>, "RH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

\mathbf{3}. Replace automatic back door control unit

- 1. Replace automatic back door control unit. Refer to <u>DLK-105, "AUTOMATIC BACK DOOR CONTROL</u> <u>UNIT : Diagnosis Procedure"</u>.
- 2. Confirm the operation after replacement.

Is the result normal?

- YES >> INSPECTION END
- NO >> Check intermittent incident. Refer to <u>GI-47, "Intermittent Incident"</u>.

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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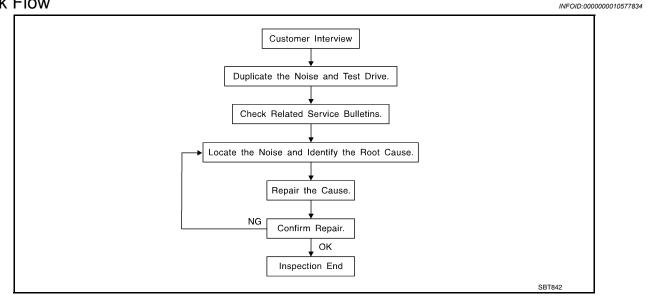
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SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <u>DLK-299</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics J 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 bumblebee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician 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 the repair is reconfirmed.

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on 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 and mechanics 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 is are suspected to be the cause of the noise. Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
- Tapping or pushing/pulling the component that is are suspected to be the cause of 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 by hand by touching the component(s) that is are suspected to be the cause of the noise.
- Placing a piece of paper between components that are suspected to be the cause of the noise.
- Looking for loose components and contact marks. Refer to <u>DLK-297, "Inspection Procedure"</u>.

REPAIR THE CAUSE

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

CAUTION:

Never 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 following materials are 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.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

- 76268-9E005: 100 \times 135 mm (3.94 \times 5.31 in)
- 76884-71L01: 60 \times 85 mm (2.36 \times 3.35 in)
- 76884-71L02:15 \times 25 mm (0.59 \times 0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

- 73982-9E000: 45 mm (1.77 in) thick, 50 \times 50 mm (1.97 \times 1.97 in)
- 73982-50Y00: 10 mm (0.39 in) thick, 50 \times 50 mm (1.97 \times 1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30 \times 50 mm (1.18 \times 1.97in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

- + 68370-4B000: 15 \times 25 mm (0.59 \times 0.98 in) pad
- 68239-13E00: 5 mm (0.20 in) wide tape roll

Revision: 2015 February

DLK-296

[WITH INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE А Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Used in place of UHMW tape that is be visible or does not fit. Will only last a few months. В SILICONE SPRAY Used when grease cannot be applied. DUCT TAPE Used 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 D conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet. Inspection Procedure INFOID:000000010577835 Ε Refer to Table of Contents for specific component removal and installation information. INSTRUMENT PANEL Most incidents are caused by contact and movement between: 1. The cluster lid A and instrument panel 2. Acrylic lens and combination meter housing 3. Instrument panel to front pillar garnish Instrument panel to windshield 5. Instrument panel mounting pins Н Wiring harnesses behind the combination meter 6 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 silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness. CAUTION: J Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible. CENTER CONSOLE DLK Components to pay attention to include: Shifter assembly cover to finisher A/C control unit and cluster lid C Wiring harnesses behind audio and A/C control unit The instrument panel repair and isolation procedures also apply to the center console. M DOORS Pay attention to the following: Finisher and inner panel making a slapping noise Ν Inside handle escutcheon to door finisher Wiring harnesses tapping Door striker out of alignment causing a popping noise on starts and stops Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-50397) to repair the noise. Ρ TRUNK Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer. In addition look for the following: 1. Trunk lid dumpers out of adjustment

- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together

Revision: 2015 February

< SYMPTOM DIAGNOSIS >

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. Sunvisor 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.

SEATS

When isolating seat noise it's important to note the position the seats in and the load placed on the seat when the noise occurs. 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 mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator mounting 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.

< SYMPTOM DIAGNOSIS >

Diagnostic Worksheet



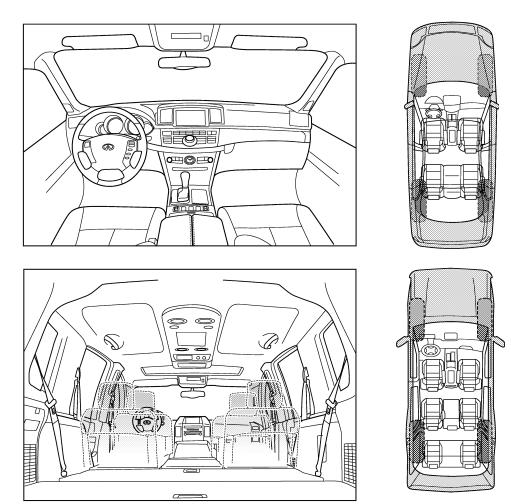
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti 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 consultant or technician to ensure we confirm the noise you are hearing.

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)							
anytime1st time in the morning	after sitting out in the rainwhen it is raining or wet						
only when it is cold outsideonly when it is hot outside	dry or dusty conditionsother:						
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE						
 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 minu 	 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			
/IN: Cus NO.# Date	tomer Na	me:	

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PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:

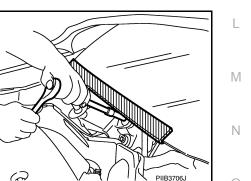
Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 3 minutes before performing any service.

Precaution for Procedure without Cowl Top Cover

When performing the procedure after removing cowl top cover, cover

the lower end of windshield with urethane, etc to prevent damage to



Precautions For Xenon Headlamp Service

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INFOID:000000010577838

WARNING:

windshield.

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector.

PRECAUTIONS

< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

- (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

- Comply with the following cautions to prevent any error and malfunction.
- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

Work

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- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operational.
- · Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

Precautions for Removing Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
 NOTE:

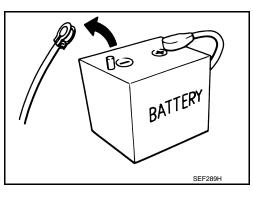
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
 NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.



PREPARATION

PREPARATION

Special Service Tools

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

	Tool number (Kent-Moore No.) Tool name	Description	С
(J-39570) Chassis ear	SILAO993E	Locates the noise	D E F
(J-50397) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairs the cause of noise	G
Commercial Service 1	ools	INFOID:000000010577842	
	Tool name	Description	J
Engine ear	SIIA0995E	Locates the noise	DLł
Remover tool	J B J J J JMKIA3050ZZ	Removes clips, pawls and metal clips	M
Power tool	PIB1407E	Loosening bolts, nuts and screws	O

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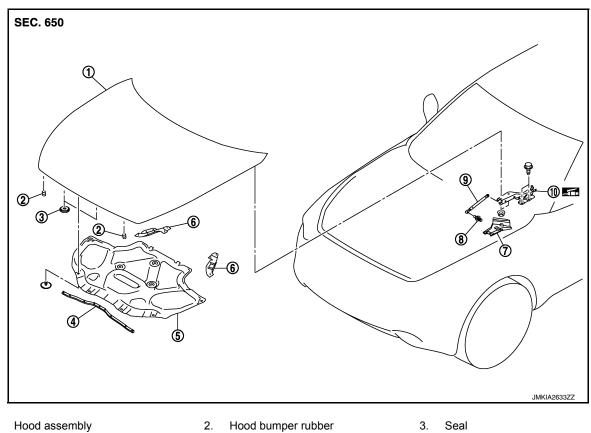
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< REMOVAL AND INSTALLATION > **REMOVAL AND INSTALLATION** HOOD HOOD ASSEMBLY HOOD ASSEMBLY : Exploded View

INFOID:000000010577843

REMOVAL



- 1.
- 4. Radiator core seal
- 7. Hood hinge cover
- 10. Hood hinge
- : Body grease

- 5. Hood insulator
- 8. Stud ball

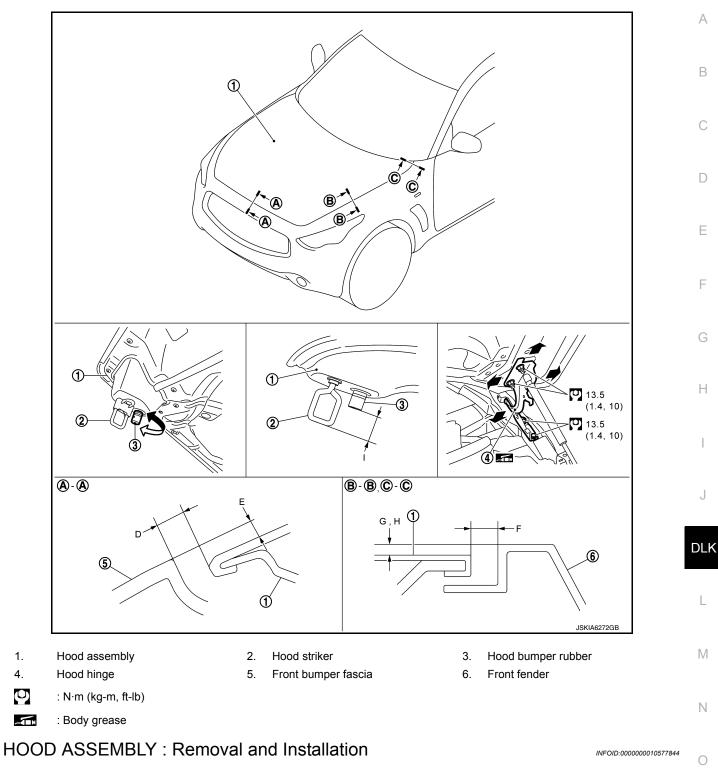
- 6. Inner cover
- 9. Hood stay

ADJUSTMENT

HOOD

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]



CAUTION:

1.

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- Operate with two workers, because of its heavy weight.
- Use protective tape or shop cloth to protect from damage during removal and installation.

REMOVAL

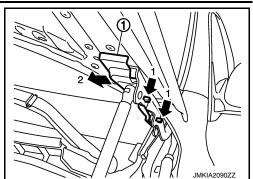
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HOOD

< REMOVAL AND INSTALLATION >

1. Remove hood hinge cover (LH/RH) (1). NOTE:

While pushing the pawls, pull hood hinge cover in the direction of the arrow.



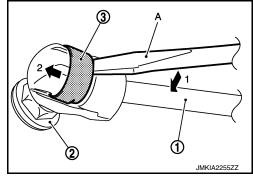
[WITH INTELLIGENT KEY SYSTEM]

- 2. Remove washer nozzle and washer tube. Refer to <u>WW-121, "Inspection and Adjustment"</u>.
- 3. Support hood assembly with a proper material to prevent it from falling.

WARNING:

Bodily injury may occur if no supporting rod is holding the hood open when removing the hood stay.

- 4. Remove the metal clip (3) located on the connection between the hood stay (1) and the stud ball (2) (hood side), by using a flat-bladed screwdriver (A).
- 5. Disengage the stud ball from the hood stay (hood side).



- 6. Remove hood hinge mounting nuts on the hood to remove the hood assembly.
- 7. Remove the following parts after removing the hood assembly.
 - Radiator core seal
 - Hood insulator
 - Hood bumper rubber
 - Inner cover
 - Hood striker
 - Secondary latch

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent onto the mounting surface.
- Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check hood open/close, lock/unlock operation.
- After installation, adjust the following parts.
- Hood: Refer to DLK-306, "HOOD ASSEMBLY : Adjustment".
- Washer nozzle and washer tube: Refer to <u>WW-121, "Inspection and Adjustment"</u>.
- After installation, apply touch-up paint (the body color) onto the head of hood hinge mounting bolts and nuts.

HOOD ASSEMBLY : Adjustment

Check the clearance and the surface height between hood and each part by seeing and touching. Fitting standard dimension in the table below should be satisfied.

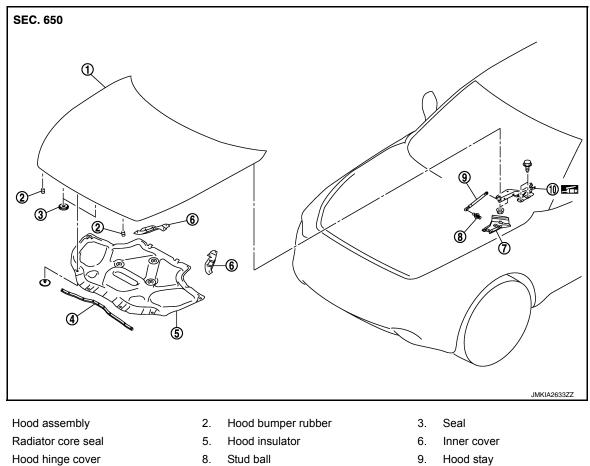
If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

						Unit: mm (in)
	I	Portion			Standard	Difference (LH/RH, MAX)
Нс	od – Front bumper A – A D Clearance		2.6 - 5.6 (0.102 - 0.220)	_		
fas	scia	A-A	Е	Surface height	-0.5 - 2.0 (-0.020 - 0.079)	-
				Clearance	2.5 – 4.5 (0.098 – 0.177)	2.0 (0.079)
Нс	od – Front fender	B – B	G	Surface height	0 - 2.0 (0.000 - 0.079)	_
		C – C	н	Surface height	-1.0 - 1.0 (-0.039 - 0.039)	_
	od striker – Bumper ober	-	I	Height difference	32.3 - 33.3 (1.272 - 1.311)	_
1.	Remove striker and ad the fitting standard dim				nt bumper fascia and fron	t fender according to
2.	•		-	•	according to the fitting sta	andard dimension
 3.	Loosen hood hinge mo			-	according to the fitting st	
4.	•	•			t fender according to the fi	tting standard dimen-
5.	Check that hood lock p 200 mm (7.874 in) heig CAUTION:				th striker by dropping hoo	d from approximately
	Never drop hood fron	n a heigh	nt of	300 mm (11.811 in) o	r more.	
6.	Install as static closing NOTE:			,		
	 Exercise vertical force Do not simultaneousl 				lock.	
7.	After adjustment, tighte				specified torque.	
	JTION:		_			
	efore installing hood ody.	ninge, a	pply	anticorrosive agent	onto the mounting su	Tace of the vehicle
• C	heck hood hinge rotat				cessary, apply body gre	
	fter installation, apply nd nuts.	touch-u	p pai	int (the body color) o	onto the head of hood hi	nge mounting bolts
-	OD HINGE					
-						

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< REMOVAL AND INSTALLATION > HOOD HINGE : Exploded View

INFOID:000000010577846



- 10. Hood hinge
- : Body grease

HOOD HINGE : Removal and Installation

REMOVAL

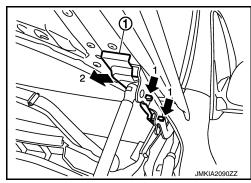
1.

4.

7.

1. Remove hood hinge cover (LH/RH) (1). NOTE:

While pushing the pawls, pull hood hinge cover in the direction of the arrow.



- 2. Remove hood assembly. Refer to DLK-305, "HOOD ASSEMBLY : Removal and Installation".
- 3. Remove front fender. Refer to <u>DLK-314</u>, "Removal and Installation".
- Remove hood hinge mounting bolts, and then remove hood hinge. 4.

INSTALLATION

Install in the reverse order of removal.

CAUTION: • Apply anticorrosive agent onto the mounting surface.

Revision: 2015 February

DLK-308

HOOD

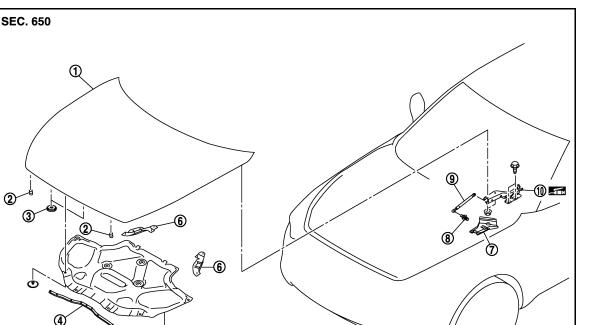
[WITH INTELLIGENT KEY SYSTEM]

- < REMOVAL AND INSTALLATION > Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check hood open/close, lock/unlock operation.
- After installation, apply touch-up paint (the body color) onto the head of hood hinge mounting bolts and nuts.
- After installation, perform the fitting adjustment. Refer to DLK-306, "HOOD ASSEMBLY : Adjustment".

HOOD STAY

•

HOOD STAY : Exploded View





REMOVAL

1.

4.

7.

10.

Support hood assembly with a proper material to prevent it from falling. 1.

2.

5.

8.

Hood bumper rubber

Hood insulator

Stud ball

(5)

WARNING:

Hood assembly

Radiator core seal

Hood hinge cover

Hood hinge

: Body grease

Bodily injury may occur if no supporting rod is holding the hood open when removing the hood stay.

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3.

6.

9.

Seal

Inner cover

Hood stay

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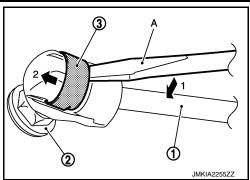
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HOOD

< REMOVAL AND INSTALLATION >

- 2. Remove the metal clip (3) located on the connection between the hood stay (1) and the stud ball (2) (hood side), by using a flat-bladed screwdriver (A).
- 3. Disengage the stud ball from the hood stay (hood side).
- 4. Repeat the same operation to disengage the stud ball from the hood stay (body side), then remove the hood stay.



INSTALLATION Install in the reverse order of removal.

[WITH INTELLIGENT KEY SYSTEM]

RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

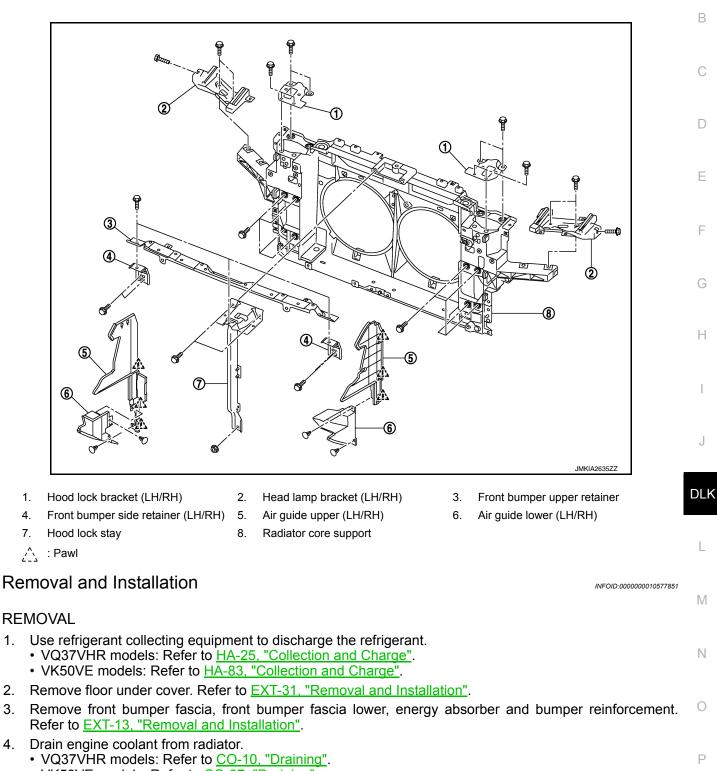
RADIATOR CORE SUPPORT

[WITH INTELLIGENT KEY SYSTEM]

Exploded View

INFOID:000000010577850

А



- VK50VE models: Refer to <u>CO-37</u>, "Draining".
- 5. Remove engine coolant reservoir tank.

 - VQ37VHR models: Refer to <u>CO-16</u>, "Exploded View".
 VK50VE models: Refer to <u>CO-43</u>, "Exploded View".
- Remove air guide lower (LH/RH). 6.
- 7. Remove air guide upper (LH/RH).
- **Revision: 2015 February**

RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

- 8. Remove front combination lamp (LH/RH). Refer to EXL-222, "Exploded View".
- 9. Disconnect hood lock switch connector from head lamp bracket RH.
- 10. Remove mounting bolts and then remove head lamp bracket (LH/RH).
- 11. Remove mounting bolts and then remove hood lock bracket assembly (LH/RH).
- 12. Remove washer tank and washer tank inlet. Refer to WW-118, "Exploded View".
- 13. Remove ambient sensor. Refer to HAC-195, "Exploded View".
- 14. Remove GAS sensor (with intelligent A/C). Refer to HAC-200, "Exploded View".
- 15. Disconnect harness clamp from hood lock stay.
- 16. Remove mounting bolt and nut, and remove hood lock stay.
- 17. Remove horn (HIGH/LOW). Refer to HRN-7, "Exploded View".
- 18. Remove ICC sensor integrated unit (with intelligent cruse control model). Refer to <u>CCS-175</u>, "Exploded <u>View"</u>.
- 19. Remove intelligent key warning buzzer. Refer to DLK-360. "Removal and Installation".
- 20. Remove power steering oil cooler.
 - VQ37VHR models: Refer to ST-48, "VQ37VHR : Exploded View".
 - VK50VE models: Refer to <u>ST-49, "VK50VE : Exploded View"</u>.
- 21. Disconnect harness connector of refrigerant pressure sensor. Refer to HAC-201, "Exploded View".
- 22. Remove condenser assembly and condenser pipe assembly.
 - VQ37VHR models: Refer to HA-49, "CONDENSER : Removal and Installation".
 - VK50VE models: Refer to <u>HA-106</u>, "CONDENSER : Removal and Installation".
- 23. Disconnect A/T fluid cooler hose (upper/lower) from fan shroud and remove A/T fluid cooler hose (upper/lower) from radiator.
 - VQ37VHR, 2WD models: Refer to TM-206, "2WD : Exploded View".
 - VQ37VHR, AWD models: Refer to <u>TM-208, "AWD : Exploded View"</u>.
 - VK50VE models: Refer to <u>TM-493</u>, "Exploded View".
- 24. Remove radiator upper hose and lower hose at radiator side.
 - VQ37VHR models: Refer to CO-25, "Exploded View".
 - VK50VE models: Refer to <u>CO-51, "Exploded View"</u>.
- 25. Remove radiator.
 - VQ37VHR models: Refer to CO-16, "Removal and Installation".
 - VK50VE models: Refer to CO-43, "Removal and Installation".
- 26. Remove crash zone sensor. Refer to SR-21, "Removal and Installation".
- 27. Disconnect harness connector of cooling fan.
 - VQ37VHR models: Refer to <u>CO-20, "Exploded View"</u>.
 - VK50VE models: Refer to <u>CO-47, "Exploded View"</u>.
- 28. Disconnect all harness clip from radiator core support assembly.
- 29. Remove mounting bolts, and then remove radiator core support assembly. **CAUTION:**

Operate with two workers, because of its heavy weight.

- 30. Remove the following parts after removing radiator core support assembly.
 - Cooling fan (LH/RH)
 - VQ37VHR models: Refer to CO-20, "Exploded View".
 - VK50VE models: Refer to CO-47, "Exploded View".
 - Front bumper side retainer (LH/RH)

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- After installation, replenish the following parts.
- Refrigerant: Refer to <u>HA-25, "Collection and Charge"</u> (VQ37VHR models) or <u>HA-83, "Collection and Charge"</u> (VK50VE models).
- Engine coolant: Refer to <u>CO-11, "Refilling"</u> (VQ37VHR models) or <u>CO-38, "Refilling"</u> (VK50VE models).
- A/T fluid: Refer to <u>TM-174, "Changing"</u> (VQ37VHR models) or <u>TM-472, "Changing"</u> (VK50VE models).
- Power steering oil: Refer to <u>ST-12, "Inspection"</u>.
- After installation, adjust the following parts.

RADIATOR CORE SUPPORT

[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >	[WITH INTELLIGENT KEY SYSTEM]
- ICC sensor integrated unit (with intelligent cruse contro	
VICE WHEN REPLACING CONTROL UNIT (ICC SEN Requirement".	<u>SOR INTEGRATED UNIT) : Special Repair</u> A
<u>Requirement</u> .	

- Front combination lamp: Refer to EXL-219, "Aiming Adjustment Procedure".

- Perform camera image calibration	Refer to	<u>AV-247,</u>	"CALIBRATING	CAMERA	IMAGE	(AROUND	D
VIEW MONITOR) : Description".							В

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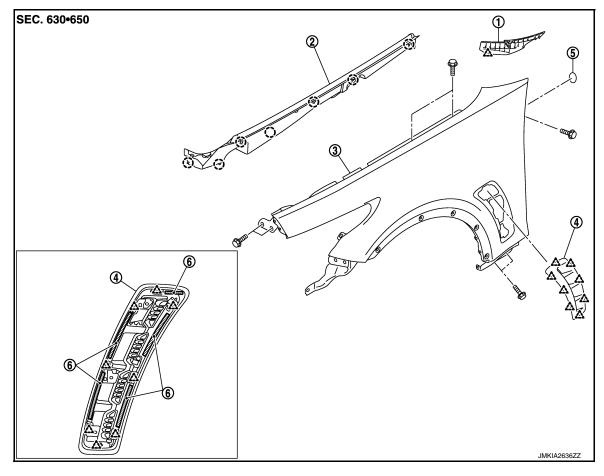
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< REMOVAL AND INSTALLATION >

FRONT FENDER

Exploded View

INFOID:000000010577852



- 1. Front fender cover
- 4. Front fender duct assembly
- : Clip 八:Pawl

Removal and Installation

CAUTION:

Use protective tape or shop cloth to protect from damage during removal and installation. REMOVAL

- 1. Remove clips of hood seal assembly (side) on font fender.
- Remove fillet molding. Refer to <u>EXT-32, "Removal and Installation"</u>.
- Remove fender protector. Refer to <u>EXT-25, "FENDER PROTECTOR : Removal and Installation"</u>.
- 4. Remove front bumper fascia. Refer to EXT-13, "Removal and Installation".

2.

5.

Seal

- 5. Remove center mud guard. Refer to EXT-29, "Removal and Installation".
- Remove front combination lamp. Refer to <u>EXL-223, "Removal and Installation"</u>.
- 7. Remove front fender cover.
- 8. Remove mounting bolts and remove front fender. **CAUTION:**

- Hood seal assembly (side)
- 3. Front fender
- 6. Double-faced adhesive tape (t: 0.8 mm, 0.031 in)

INFOID:000000010577853

[WITH INTELLIGENT KEY SYSTEM]

FRONT FENDER

< REMOVAL AND INSTALLATION >

A viscous urethane foam is installed on the back surface of front fender. When removing the front fender, be careful to not deform the front fender while performing the procedure and removing the viscous urethane foam a little at a time.

INSTALLATION

Install in the reverse order of removal. **CAUTION:**

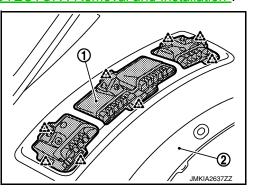
- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.
- After installation, adjust the following part.
- Hood assembly: Refer to DLK-306, "HOOD ASSEMBLY : Adjustment".
- Front door: Refer to DLK-318, "DOOR ASSEMBLY : Adjustment".
- Front combination lamp: Refer to EXL-219, "Aiming Adjustment Procedure".
- Perform camera image calibration. Refer to <u>AV-248</u>, "CALIBRATING CAMERA IMAGE (AROUND <u>VIEW MONITOR) : Special Repair Requirement"</u>.

Disassembly and Assembly

⚠ : Pawl

- 1. Remove fender protector (front). Refer to EXT-25, "FENDER PROTECTOR : Removal and Installation".
- Disengage pawls of front fender duct (1) assembly from front fender (2) to remove.
 CAUTION:

When removing front fender duct assembly, peel off the double-faced adhesive tape at a time, and carefully to remove it.



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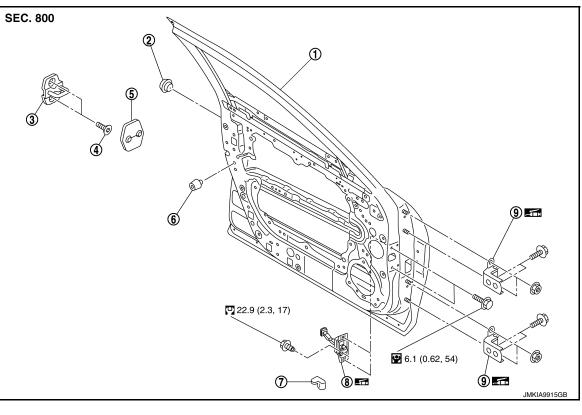
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< REMOVAL AND INSTALLATION >

FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Exploded View

REMOVAL



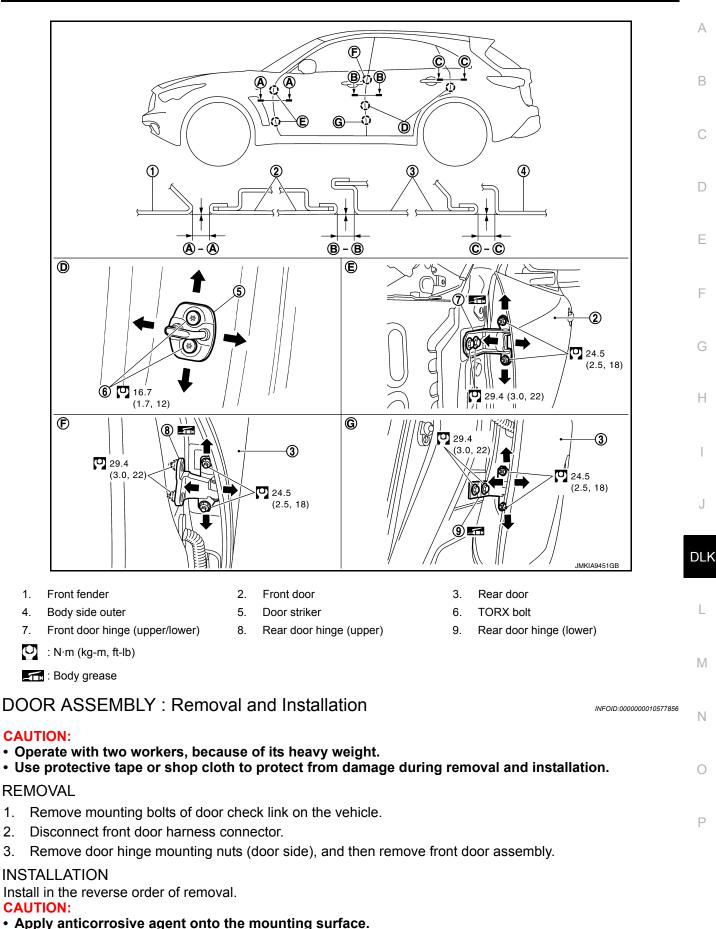
- 1. Front door panel
- 4. TORX bolt
- 7. Door check link cover
- : N·m (kg-m, ft-lb)
- : N·m (kg-m, in-lb)
- : Body grease
- ADJUSTMENT

- 2. Grommet
- 5. Door striker cover
- 8. Door check link

- 3. Door striker
- 6. Bumper rubber
- 9. Door hinge (upper/lower)

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]



• Check door hinge rotating part for poor lubrication. If necessary, apply body grease.

Revision: 2015 February

DLK-317

< REMOVAL AND INSTALLATION >

- After installation, check door open/close, lock/unlock operation.
- After installation, perform the fitting adjustment. Refer to <u>DLK-318</u>, "DOOR ASSEMBLY : Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

DOOR ASSEMBLY : Adjustment

INFOID:000000010577857

Check the clearance and surface height between front door and each part by seeing and touching. If the clearance and surface height are out of specification, adjust them according to the procedures shown below.

Limite		(:
Unit:	mm	(IN)

Portion		Clearance	Surface height
Front fender – Front door	A – A	3.0 - 5.0 (0.118 - 0.197)	-1.0 - 1.0 (-0.039 - 0.039)
Front door – Rear door	B – B	3.0 – 5.0 (0.118 – 0.197)	-0.5 - 1.0 (-0.020 - 0.039)

- 1. Remove front fender. Refer to <u>DLK-314, "Removal and Installation"</u>.
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of front door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting bolts on body side.
- 6. Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
- 7. Tighten each bolts and nuts to the specified torque. **CAUTION:**
 - Apply anticorrosive agent onto the mounting surface.
 - Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
 - After installation, check door open/close, lock/unlock operation.
 - After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.
- 8. Install front fender. Refer to <u>DLK-314, "Removal and Installation"</u>.

CAUTION:

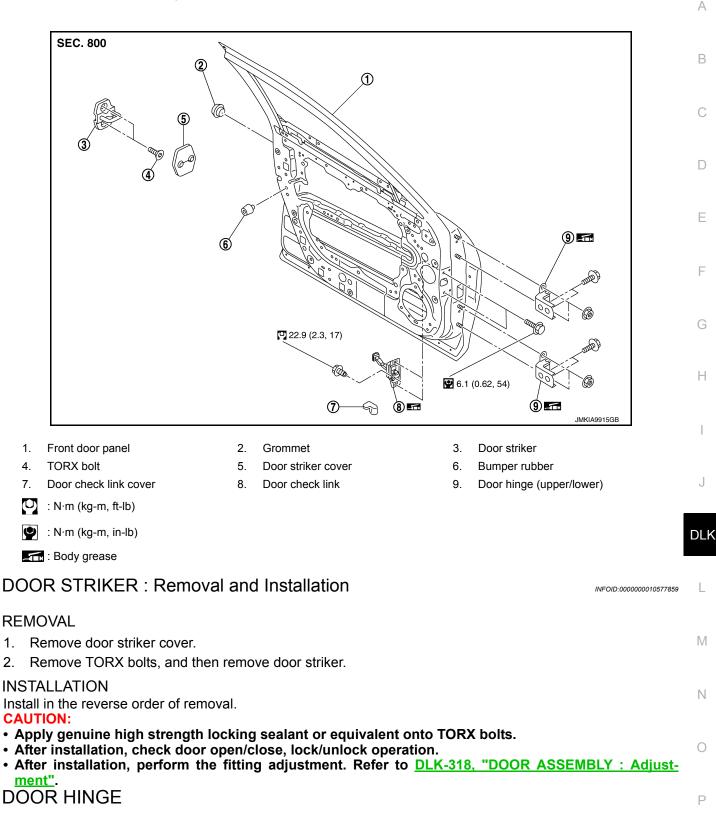
After adjusting, perform the camera image calibration (models with side camera). Refer to <u>AV-248.</u> <u>"CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement"</u>.

DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction. DOOR STRIKER

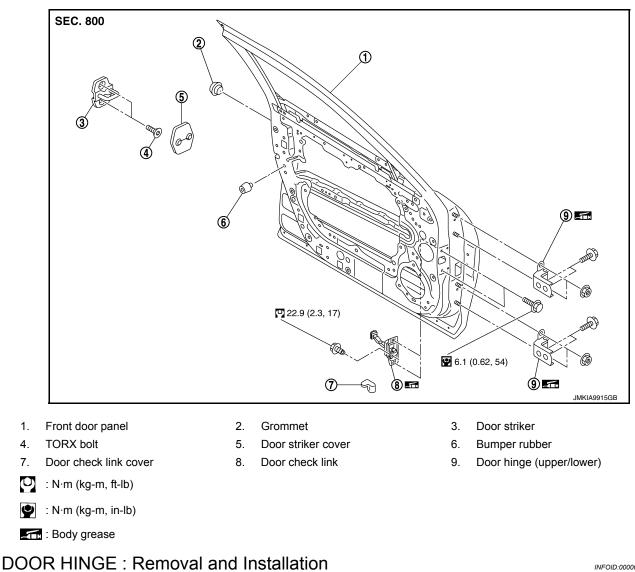
[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > DOOR STRIKER : Exploded View



< REMOVAL AND INSTALLATION > DOOR HINGE : Exploded View

INFOID:000000010577860



REMOVAL

- 1. Remove front fender. Refer to <u>DLK-314, "Removal and Installation"</u>.
- 2. Remove front door assembly. Refer to <u>DLK-317</u>, "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove front door hinge mounting bolts, and then remove front door hinge.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

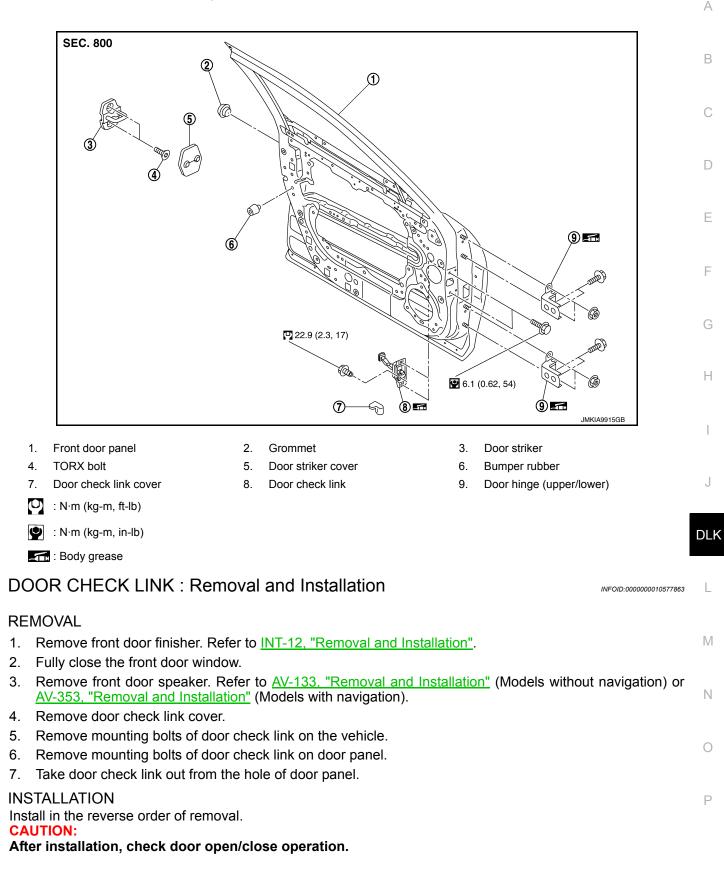
- Apply anticorrosive agent onto the mounting surface.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check door open/close, lock/unlock operation.
- After installation, perform the fitting adjustment. Refer to <u>DLK-318, "DOOR ASSEMBLY : Adjust-ment"</u>.
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

DOOR CHECK LINK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

DOOR CHECK LINK : Exploded View



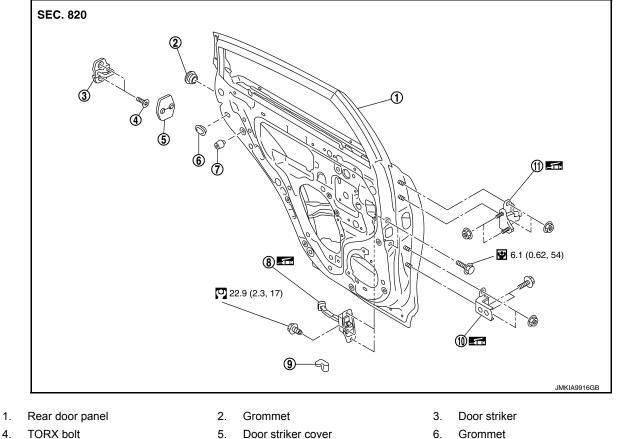
< REMOVAL AND INSTALLATION >

REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Exploded View

INFOID:000000010577864

REMOVAL



- 4.
- Bumper rubber 7.
- 10. Door hinge (lower)
- ∴ N·m (kg-m, ft-lb)
- . N·m (kg-m, in-lb)
- : Body grease

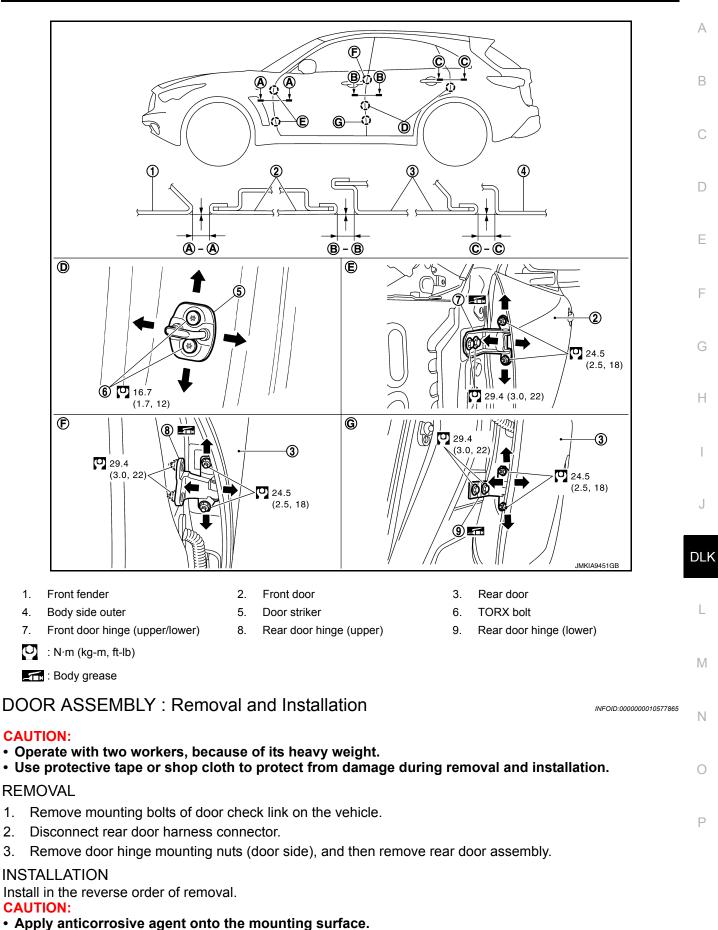
ADJUSTMENT

- 5. Door striker cover
- 8. Door check link
- 11. Door hinge (upper)
- 6. Grommet
- 9. Door check link cover

REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]



Revision: 2015 February

DLK-323

Check door hinge rotating part for poor lubrication. If necessary, apply body grease.

REAR DOOR

< REMOVAL AND INSTALLATION >

- After installation, check door open/close, lock/unlock operation.
- After installation, perform the fitting adjustment. Refer to <u>DLK-324, "DOOR ASSEMBLY : Adjust-ment"</u>.
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

DOOR ASSEMBLY : Adjustment

INFOID:000000010577866

Check the clearance and surface height between rear door and each part by seeing and touching. If the clearance and surface height are out of specification, adjust them according to the procedures shown below.

Unit: mm (in)

Portion		Clearance	Surface height
Front door – Rear door	B – B	3.0 - 5.0 (0.118 - 0.197)	-0.5 - 1.0 (-0.020 - 0.039)
Rear door – Body side outer	C – C	3.0 - 5.0 (0.118 - 0.197)	-0.5 - 1.0 (-0.020 - 0.039)

- 1. Remove center pillar lower garnish. Refer to INT-18, "Removal and Installation".
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of rear door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting nuts and bolts on body side.
- 6. Raise rear door at rear end to adjust clearance of the rear door according to the fitting standard dimension.
- 7. After adjustment, tighten bolts and nuts to the specified torque.
- 8. Install center pillar lower garnish. Refer to INT-18, "Removal and Installation".

CAUTION:

- Apply anticorrosive agent onto the mounting surface.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check door open/close, lock/unlock operation.
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

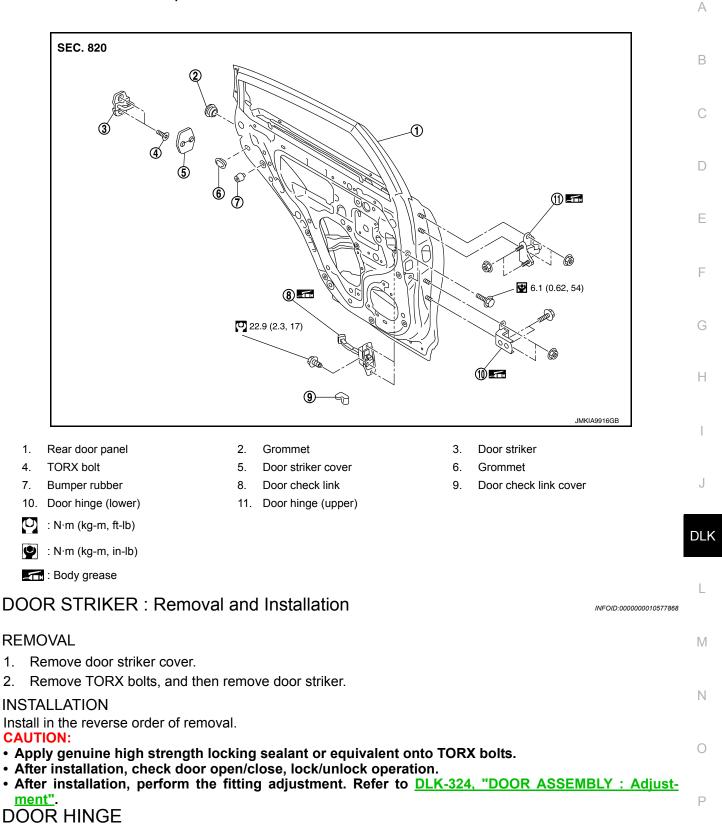
DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction. DOOR STRIKER

REAR DOOR

[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > DOOR STRIKER : Exploded View

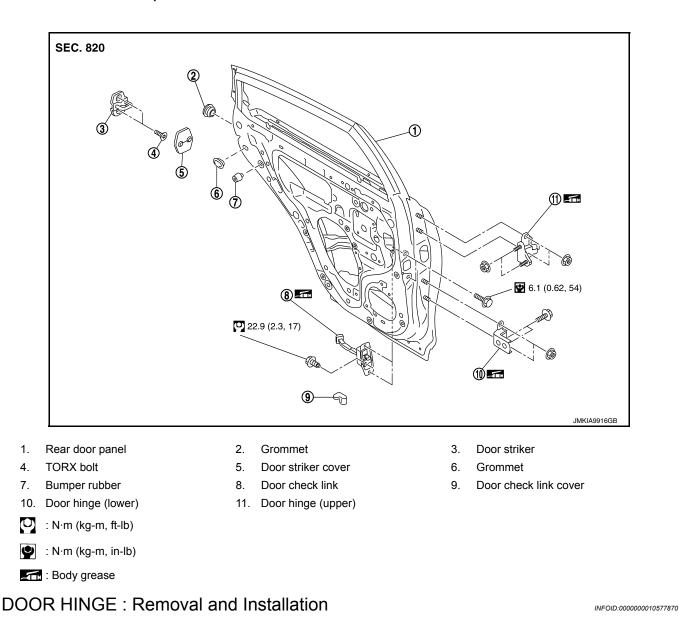


REAR DOOR

[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > DOOR HINGE : Exploded View

INFOID:000000010577869



REMOVAL

- 1. Remove center pillar lower garnish. Refer to INT-18, "Removal and Installation".
- 2. Remove rear door assembly. Refer to <u>DLK-323</u>, "DOOR ASSEMBLY : Removal and Installation".
- 3. Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Apply anticorrosive agent onto the mounting surface.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check door open/close, lock/unlock operation.
- After installation, perform the fitting adjustment. Refer to <u>DLK-324, "DOOR ASSEMBLY : Adjust-ment"</u>.
- After installation, apply the touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

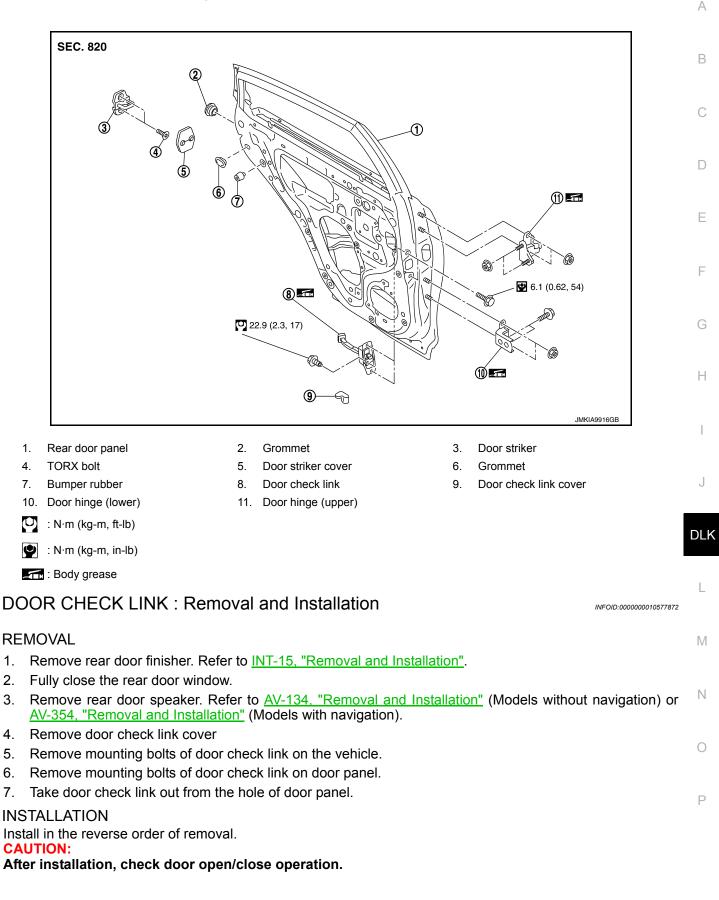
DOOR CHECK LINK

REAR DOOR

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

DOOR CHECK LINK : Exploded View



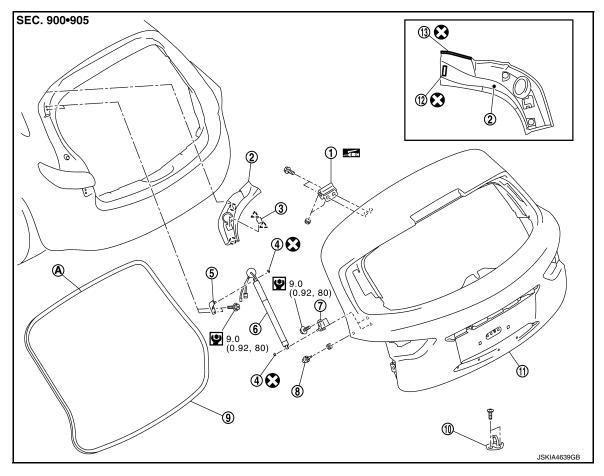
< REMOVAL AND INSTALLATION > BACK DOOR

BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY : Exploded View

INFOID:000000010577873

REMOVAL



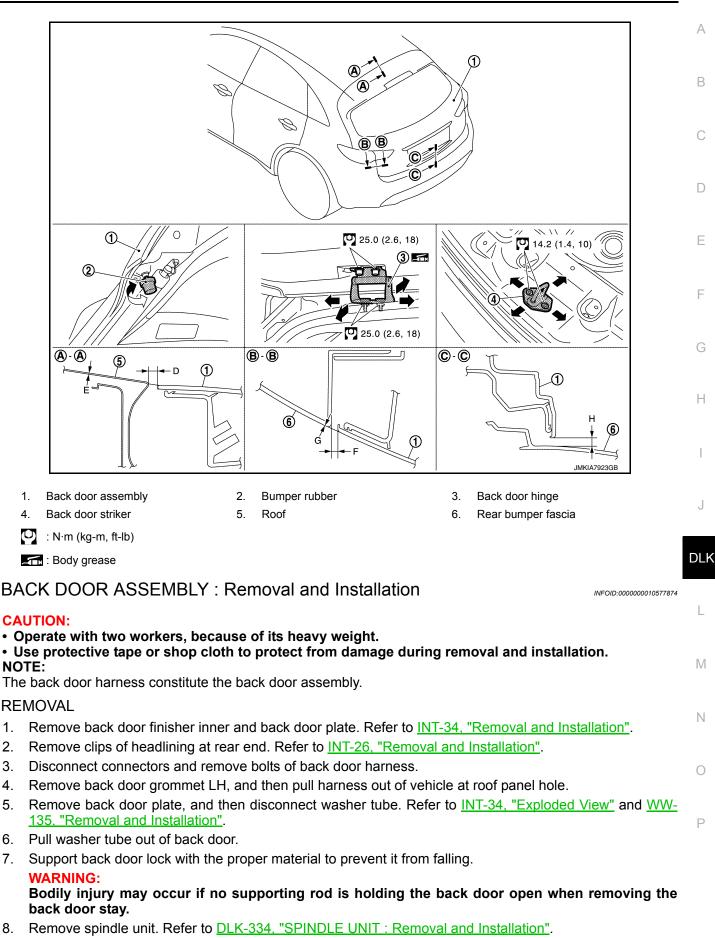
- 1. Back door hinge
- 4. Rod stopper
- 7. Back door stay lower bracket
- 10. Back door striker
- 13. Double-sided tape [t: 1.2 mm (0.047 in)]
- A : Center mark
- (_) : Clip
- ∠____: Pawl
- : Body grease
- Always replace after every disassembly



- 2. Back pillar finisher
- 5. Back door stay upper bracket
- 8. Bumper rubber
- 11. Back door assembly
- 3. Cap
- 6. Spindle unit
- 9. Back door weather-strip
- 12. Double-sided tape [t: 1.2 mm (0.047 in)]

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]



DLK-329

< REMOVAL AND INSTALLATION >

9. Remove back door hinge mounting bolts on back door and remove back door assembly.

INSTALLATION

Note the following items, and then install in the reverse order of removal. **CAUTION:**

- After installation, perform the fitting adjustment. Refer to <u>DLK-330</u>, "BACK DOOR ASSEMBLY : Adjustment".
- · Perform initialization setting of automatic back door system. Refer to DLK-14, "Work Procedure".
- After installation, check back door open/close, lock/unlock operation.
- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.

BACK DOOR ASSEMBLY : Adjustment

INFOID:000000010577875

Check the clearance and the surface height between back door and each part by seeing and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

				Unit: mm (in)
Portion		Standard		
Back daar Baaf		D	Clearance	5.0 - 9.0 (0.197 - 0.354)
Back door – Roof	A – A	Ε	Surface height	-2.3 - 1.7 (-0.090 - 0.067)
		F	Clearance	3.0 - 7.0 (0.118 - 0.276)
Back door – Rear bumper fascia	B – B	G	Surface height	-2.1 - 2.1 (-0.083 - 0.083)
	C – C	Н	Clearance	5.0 - 9.0 (0.197 - 0.354)

- 1. Loosen back door hinge mounting bolts (back door side).
- 2. Loosen bumper rubber.
- 3. Remove luggage rear plate cap. Refer to INT-31. "Removal and Installation".
- 4. Loosen back door striker mounting bolts.
- 5. Lift up back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that it is engaged firmly with back door closed.
- 6. Check the clearance and surface height.
- 7. Finally tighten back door hinge, bumper rubber, and back door striker. CAUTION:
 - Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
 - After installation, check back door open/close, lock/unlock operation.
- 8. Install luggage rear plate cap. Refer to INT-31, "Removal and Installation".

CAUTION:

After installation, perform the camera image calibration.

- WITHOUT NAVIGATION: Refer to AV-147, "Adjustment".
- NAVIGATION: Refer to <u>AV-248</u>, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement".

BACK DOOR STRIKER ADJUSTMENT

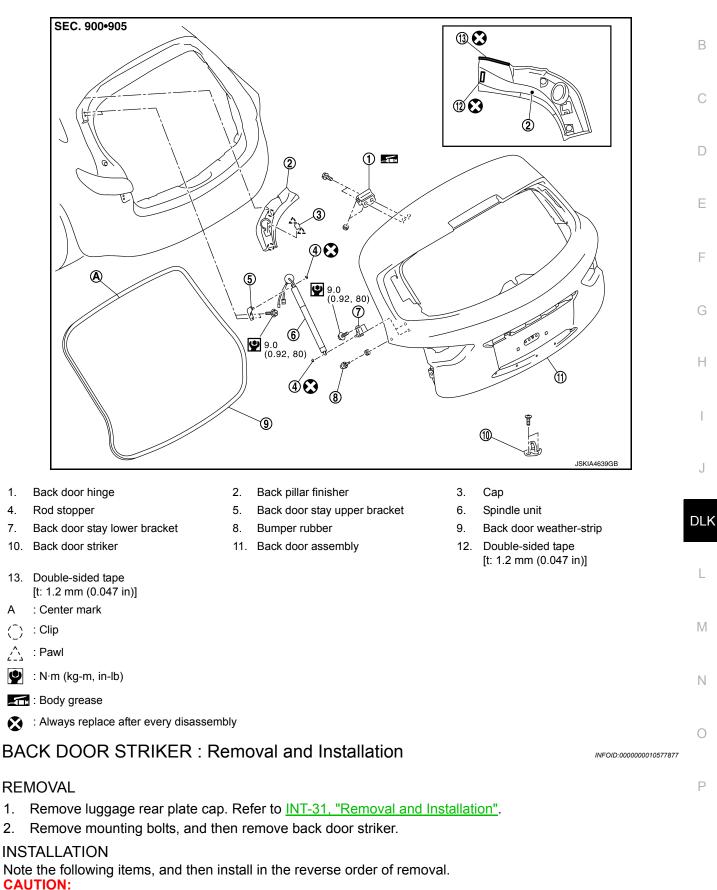
Adjust back door striker so that it becomes parallel with back door lock insertion direction. BACK DOOR STRIKER

< REMOVAL AND INSTALLATION >

BACK DOOR STRIKER : Exploded View

INFOID:000000010577876

[WITH INTELLIGENT KEY SYSTEM]



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

Revision: 2015 February

DLK-331

2015 QX70

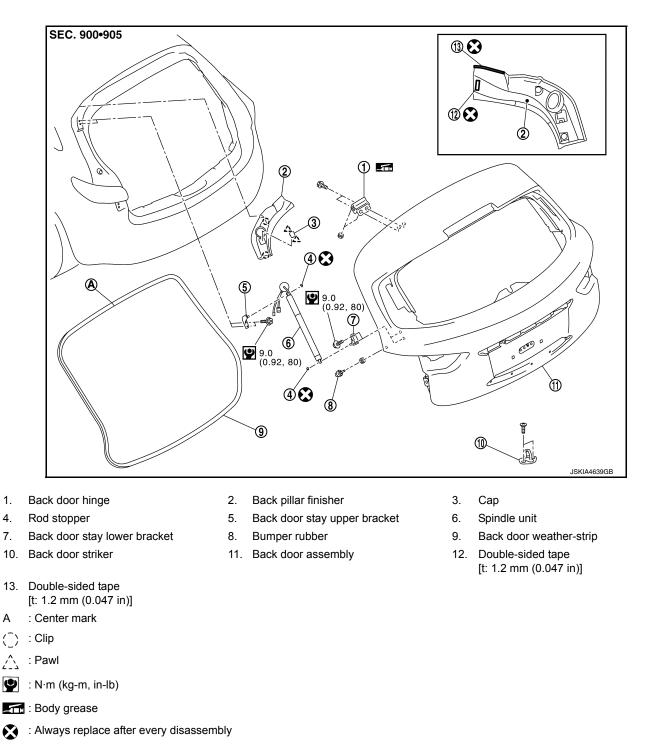
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[WITH INTELLIGENT KEY SYSTEM]

• After installation, perform the fitting adjustment. Refer to DLK-330, "BACK DOOR ASSEMBLY : Adjustment". BACK DOOR HINGE

BACK DOOR HINGE : Exploded View

INFOID:000000010577878



BACK DOOR HINGE : Removal and Installation

INFOID:000000010577879

REMOVAL

А

1. Remove luggage side lower finisher and luggage side upper finisher. Refer to INT-31, "Removal and Installation".

< REMOVAL AND INSTALLATION >

2. Using a remover tool, remove headlining clip at the rear side of headlining, and then remove rear side of headlining. Refer to INT-26, "Removal and Installation".

- Remove back door assembly. Refer to DLK-329, "BACK DOOR ASSEMBLY : Removal and Installation". 3.
- 4. Remove back door hinge mounting nuts (body side), and then remove back door hinge.

INSTALLATION

Note the following items, and then install in the reverse order of removal. **CAUTION:**

- After installation, perform the fitting adjustment. Refer to DLK-330, "BACK DOOR ASSEMBLY : Adjustment".
- Perform initialization setting of automatic back door system. Refer to <u>DLK-14, "Work Procedure"</u>.
- After installation, check back door open/close, lock/unlock operation.
- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease. SPINDLE UNIT

SPINDLE UNIT : Exploded View

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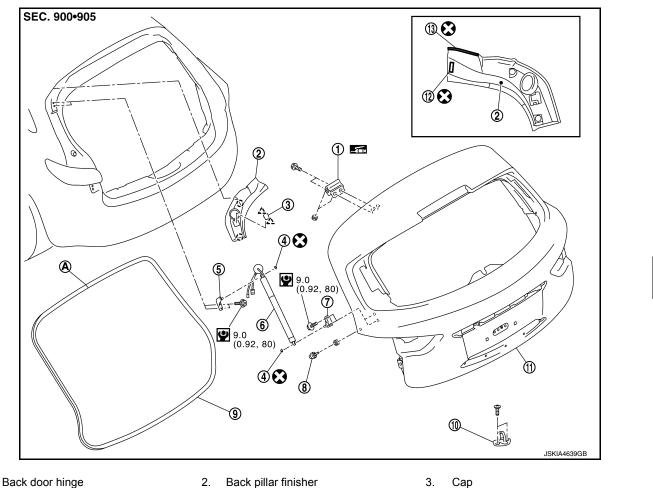
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[WITH INTELLIGENT KEY SYSTEM]



- 1.
- 4 Rod stopper
- 7. Back door stay lower bracket
- 10. Back door striker
- 13. Double-sided tape [t: 1.2 mm (0.047 in)]
- : Center mark А
- : Clip
- : Pawl $\hat{\square}$

- Back pillar finisher
- 5 Back door stay upper bracket
- 8 Bumper rubber
- 11. Back door assembly
- 3. Cap
 - 6. Spindle unit
 - Back door weather-strip 9
 - 12. Double-sided tape [t: 1.2 mm (0.047 in)]

DLK-333

: Body grease

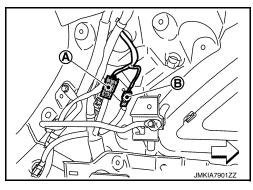
- . N·m (kg-m, in-lb)
- Always replace after every disassembly

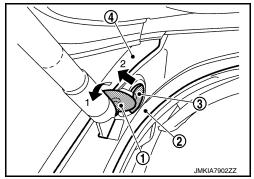
SPINDLE UNIT : Removal and Installation

INFOID:000000010577881

REMOVAL

- 1. Disconnect the battery cable from the negative terminal.
- 2. Remove luggage side finisher. Refer to INT-31, "Removal and Installation".
- 3. Disconnect spindle unit harness connector (A) and (B).



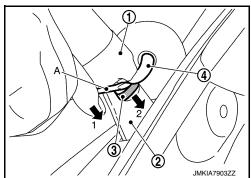


- 4. Remove cap cover (1) from back pillar finisher (2).
- 5. Remove grommet (3) from back main upper pillar (4).
- 6. Pull out spindle unit harness from the vehicle.

7. Using an appropriate material, Support back door to prevent it from falling. **WARNING:**

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

- Using a flat-bladed screwdriver (A) remove the rod stopper (3) located on the connection between the spindle unit (1) and the back door stay upper bracket (2).
 CAUTION:
 - Be careful not to damage spindle unit harness (4).
 - Be careful not to damage painted surface.
 - Rod stopper is not reusable. Replace with new part when rod stopper is removed.
- 9. Remove spindle unit (body side).

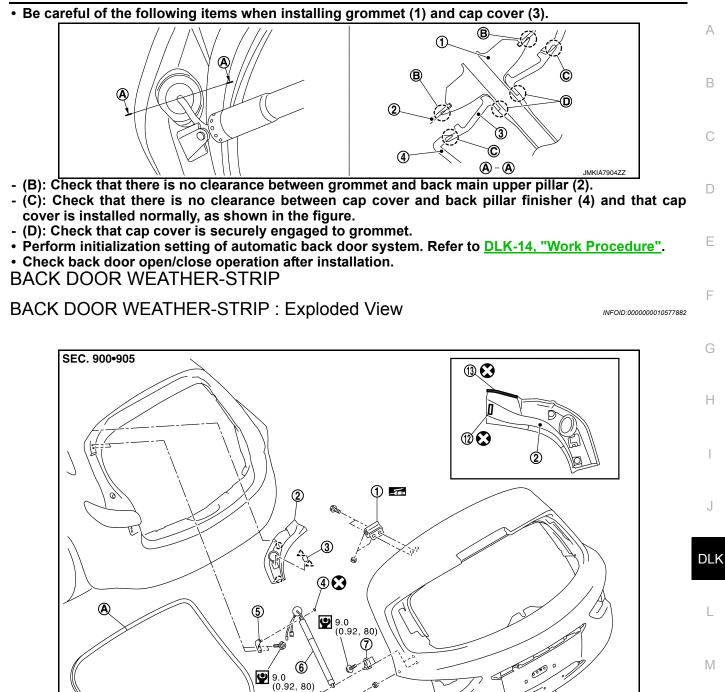


10. In the same way, Remove spindle unit (back door side). Location of components is symmetrically opposite of those shown in the figure.

INSTALLATION

Note the following items, and then install in the reverse order of removal. **CAUTION:**

[WITH INTELLIGENT KEY SYSTEM]



1. Back door hinge

- 4. Rod stopper
- 7. Back door stay lower bracket

< REMOVAL AND INSTALLATION >

- 10. Back door striker
- 13. Double-sided tape [t: 1.2 mm (0.047 in)]
- A : Center mark

Revision: 2015 February

2. Back pillar finisher

4

- 5. Back door stay upper bracket
- 8. Bumper rubber

(9)

- 11. Back door assembly
- 3. Cap

(10)

- 6. Spindle unit
- 9. Back door weather-strip
- 12. Double-sided tape [t: 1.2 mm (0.047 in)]

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< REMOVAL AND INSTALLATION >

- (_) : Clip
- ∠____: Pawl

Y : N·m (kg-m, in-lb)

: Body grease

Always replace after every disassembly

BACK DOOR WEATHER-STRIP : Removal and Installation

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REMOVAL

Pull up and remove engagement with body from weather-strip joint. **CAUTION:**

Never pull strongly on weather-strip.

INSTALLATION

- 1. Working from the upper section, align weather-strip center mark with vehicle center position mark and install weather-strip onto the vehicle.
- 2. Pull weather-strip gently to ensure that there is no loose section. NOTE:

Check that weather-strip fits tightly in each corner and luggage rear plate.

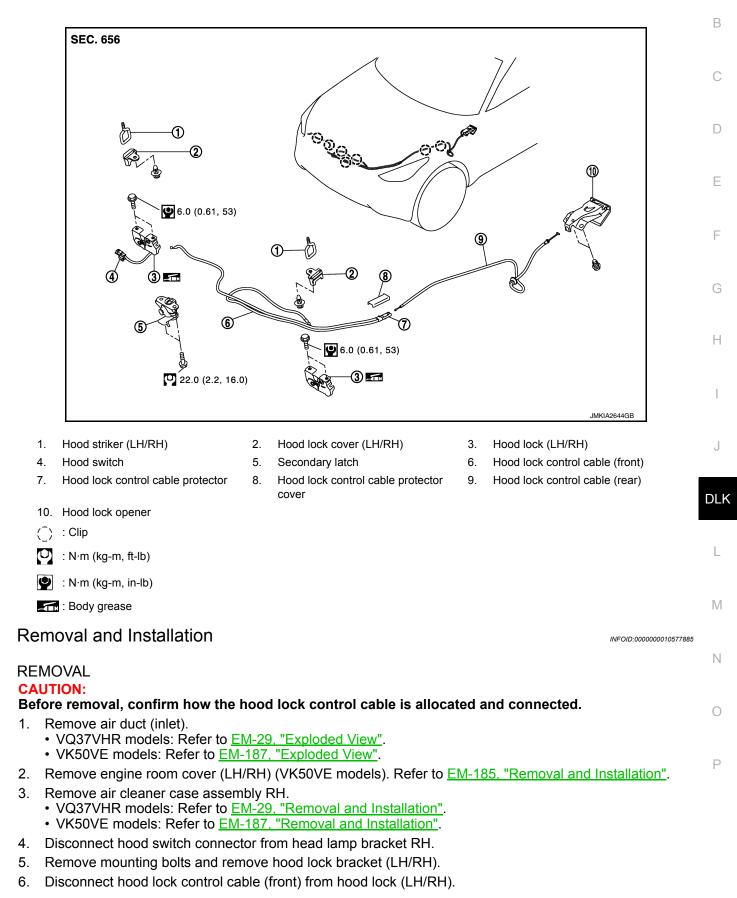
[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION > HOOD LOCK

Exploded View

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DLK-337

HOOD LOCK

< REMOVAL AND INSTALLATION >

- 7. Disassembly hood lock from hood lock bracket (LH/RH).
- 8. Remove fender protector LH. Refer to EXT-25, "FENDER PROTECTOR : Removal and Installation".
- 9. Remove clips of hood seal assembly (side) LH at the front side.
- Rotate hood lock control cable protector (1) toward the arrow direction, then remove it from front combination lamp assembly (2).

- 11. Remove hood lock control cable protector cover from hood lock control cable protector.
- 12. Disconnect hood lock control cable (rear) from hood lock control cable protector.
- 13. Remove mounting bolts and remove hood lock opener.
- 14. Remove grommet on the lower dash, pull hood lock control cable (rear) toward the passenger compartment.

CAUTION:

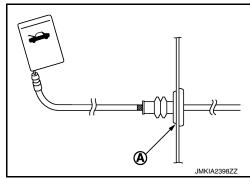
While pulling, never damage (peeling) the outside of the hood lock control cable.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Never bend cable too much. Keep the radius 100 mm (3.937 in) or more.
- Check cable is not offset from the positioning grommet, and apply the sealant to the grommet (A) properly.



- Check hood lock control cable is properly engaged with hood lock.
- After installation, perform the fitting adjustment. Refer to <u>DLK-306, "HOOD ASSEMBLY : Adjust-ment"</u>.
- After installation, perform the inspection. Refer to <u>DLK-338, "Inspection"</u>.

Inspection

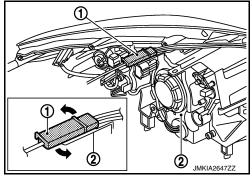
NOTE:

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

- 1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
- 2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20 mm (0.787 in). Also check that hood opener returns to the original position.
- 3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or less.
- Install so that static closing force of hood is 94 490 N (9.6 50.0 kg, 21.1 110 lb).
 NOTE:
 - Exert vertical force on right side and left side of hood lock.
 - Do not simultaneously press both sides.

DLK-338

[WITH INTELLIGENT KEY SYSTEM]



HOOD LOCK

< REMOVAL AND INSTALLATION >

5. Check the hood lock lubrication condition. If necessary, apply body grease to hood lock. А В С D Е F G Н J DLK L Μ Ν Ο

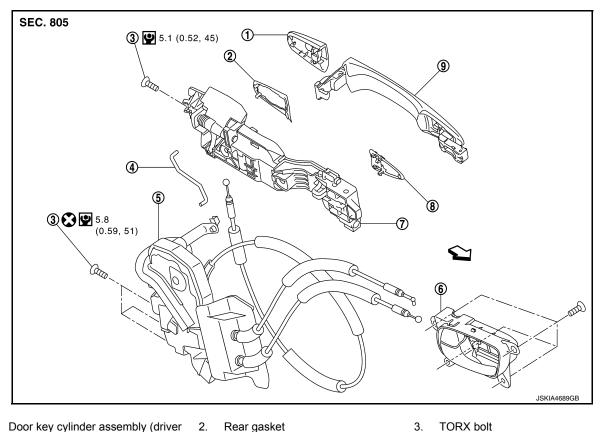
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FRONT DOOR LOCK DOOR LOCK

DOOR LOCK : Exploded View

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[WITH INTELLIGENT KEY SYSTEM]



3.

6.

9

Inside handle

Outside handle

- 1. Door key cylinder assembly (driver 2. Rear gasket side) Outside handle escutcheon (passenger side) 5. Door lock assembly
- 4. Key rod (driver side)
- Outside handle bracket 7.
- <□ : Vehicle front
- Proventieve (Proventieve Proventieve Prov
- Always replace after every disassembly

DOOR LOCK : Removal and Installation

REMOVAL

Remove front door finisher. Refer to <u>INT-12, "Removal and Installation"</u>.

8.

Front gasket

- 2. Remove front door glass. Refer to GW-19, "Removal and Installation".
- Remove front door module assembly. Refer to <u>GW-22, "Removal and Installation"</u>.
- 4. Remove door key cylinder assembly (outside handle escutcheon), outside handle, outside handle bracket, rear gasket and front gasket. Refer to DLK-342, "OUTSIDE HANDLE : Removal and Installation".
- Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly.
- 7. Remove key rod from door lock assembly.

INSTALLATION

Install in the reverse order of removal.

Revision: 2015 February

DLK-340

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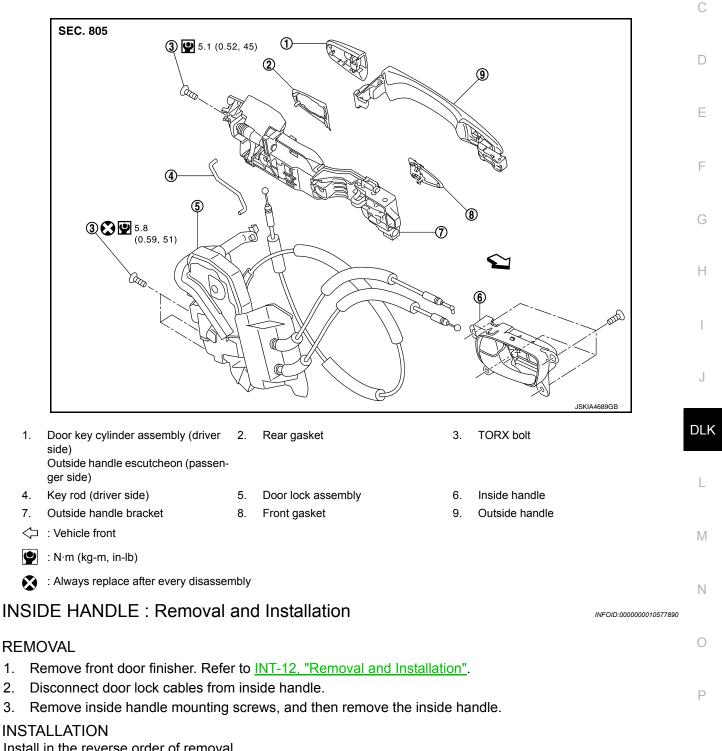
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CAUTION:

- Check door lock cables are properly engaged with inside handle and outside handle.
- When installing key rod, rotate key rod holder until a click is felt.
- After installation, check door open/close, lock/unlock operation.

INSIDE HANDLE

INSIDE HANDLE : Exploded View



Install in the reverse order of removal. **CAUTION:**

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

Revision: 2015 February

1.

2.

3.

FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

Revision: 2015 February

OUTSIDE HANDLE : Exploded View

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3.

6.

9.

TORX bolt

Inside handle

Outside handle

- 1. Door key cylinder assembly (driver 2. Rear gasket side) Outside handle escutcheon (passenger side)
- 4. Key rod (driver side)
- 7. Outside handle bracket
- ⟨⊐ : Vehicle front
- Yeight Strain (kg-m, in-lb)
- Always replace after every disassembly

OUTSIDE HANDLE : Removal and Installation

REMOVAL

1. Remove front door finisher. Refer to INT-12, "Removal and Installation".

5.

8.

Door lock assembly

Front gasket

- 2. Remove front door glass. Refer to GW-19, "Removal and Installation".
- Remove front door module assembly. Refer to <u>GW-22, "Removal and Installation"</u>.
- 4. Disconnect door antenna and door request switch connector, and then remove harness clamp (models with Intelligent Key system) on outside handle bracket.

DLK-342



FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

- 5. Remove door side grommet, and loosen TORX bolt from grommet hole.
- [WITH INTELLIGENT KEY SYSTEM]

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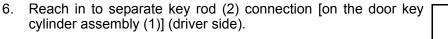
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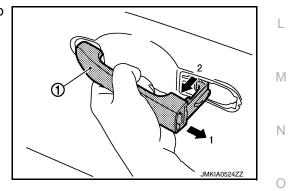


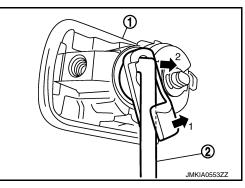
7. While pulling outside handle, remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).

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

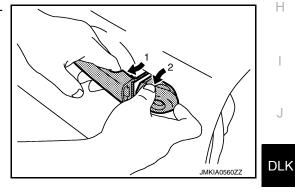
9. Remove front gasket and rear gasket.

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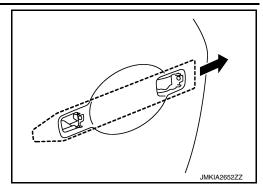
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FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

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



11. Disconnect door lock cable from outside handle bracket.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

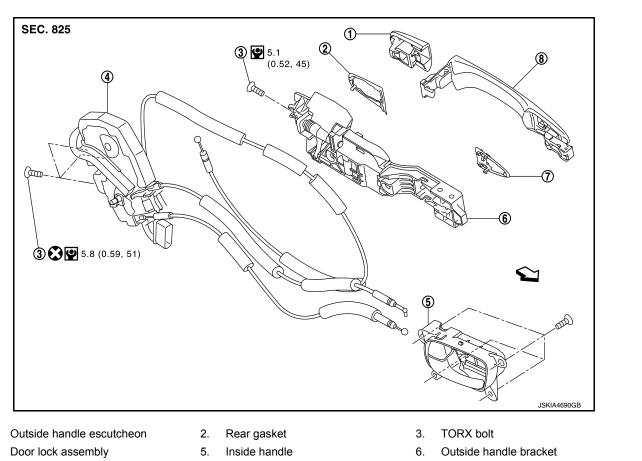
- When installing key rod, rotate key rod holder until a click is felt.
- Check door lock cable is properly engaged with outside handle bracket.
- After installation, check door open/close, lock/unlock operation.

[WITH INTELLIGENT KEY SYSTEM]

REAR DOOR LOCK DOOR LOCK

DOOR LOCK : Exploded View

INFOID:0000000010577893



- 7. Front gasket
- <□ : Vehicle front
- . N·m (kg-m, in-lb)
- Always replace after every disassembly

DOOR LOCK : Removal and Installation

REMOVAL

1.

4.

- 1. Remove outside handle escutcheon, outside handle, rear gasket and front gasket. Refer to <u>DLK-347.</u> N <u>"OUTSIDE HANDLE : Removal and Installation"</u>.
- 2. Remove rear door finisher. Refer to INT-15, "Removal and Installation".

8.

- 3. Remove sealing screen, rear door glass and rear door sash. Refer to GW-25, "Removal and Installation".
- Remove outside handle bracket. Refer to <u>DLK-347, "OUTSIDE HANDLE : Exploded View"</u>.

Outside handle

- 5. Remove door lock assembly TORX bolts.
- 6. Disconnect door lock actuator connector, and then remove door lock assembly.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

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

INSIDE HANDLE

Revision: 2015 February

DLK-345

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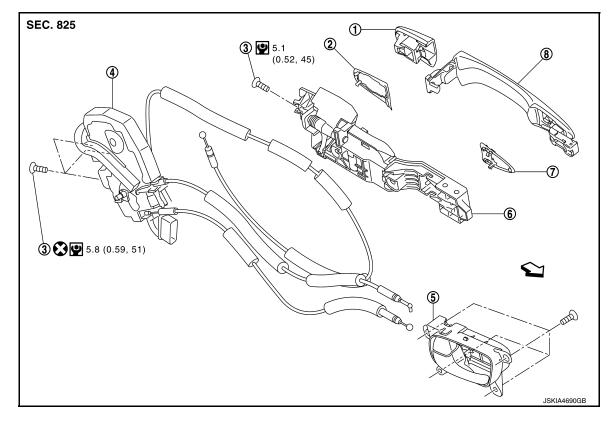
REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

INSIDE HANDLE : Exploded View

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3.

6.

TORX bolt

Outside handle bracket

- 1. Outside handle escutcheon
- Rear gasket
 Inside handle

Outside handle

- 4. Door lock assembly
- 7. Front gasket

- : Always replace after every disassembly

INSIDE HANDLE : Removal and Installation

REMOVAL

1. Remove rear door finisher. Refer to INT-15, "Removal and Installation".

8.

- 2. Disconnect door lock cables from inside handle.
- 3. Remove inside handle mounting screws, and then remove inside handle.

INSTALLATION

Install in the reverse order of removal. CAUTION:

Check door lock cables are properly engaged with inside handle.

• After installation, check door open/close, lock/unlock operation. OUTSIDE HANDLE

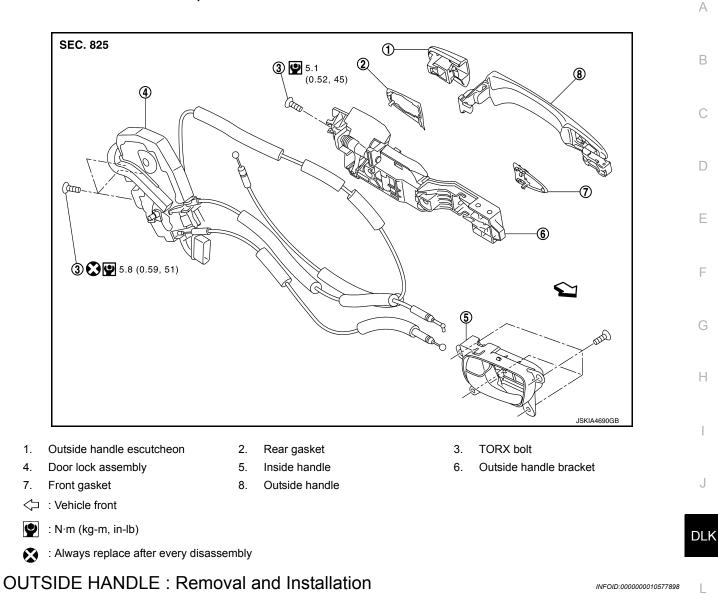
REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

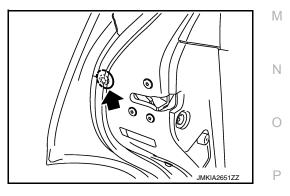
OUTSIDE HANDLE : Exploded View

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REMOVAL

- 1. Disconnect rear door weather-strip to see door side grommet.
- 2. Remove door side grommet, and loosen TORX bolt from grommet hole.

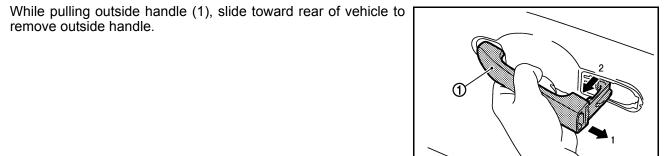


Revision: 2015 February

REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

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



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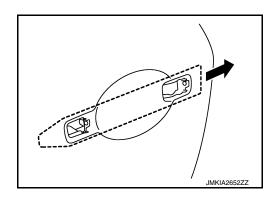
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- 5. Remove rear door finisher. Refer to INT-15, "Removal and Installation".
- 6. Remove sealing screen. Refer to GW-25, "Removal and Installation".
- 7. Fully close rear door glass.

remove outside handle.

4.

- 8. Remove front gasket and rear gasket.
- 9. Slide toward rear of vehicle to remove outside handle bracket.



10. Disconnect door lock cable from outside handle bracket.

INSTALLATION

Install in the reverse order of removal. **CAUTION:**

· Check door lock cable is properly engaged with outside handle bracket.

DLK-348

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



[WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >

BACK DOOR LOCK **BACK DOOR LOCK**

BACK DOOR LOCK : Exploded View



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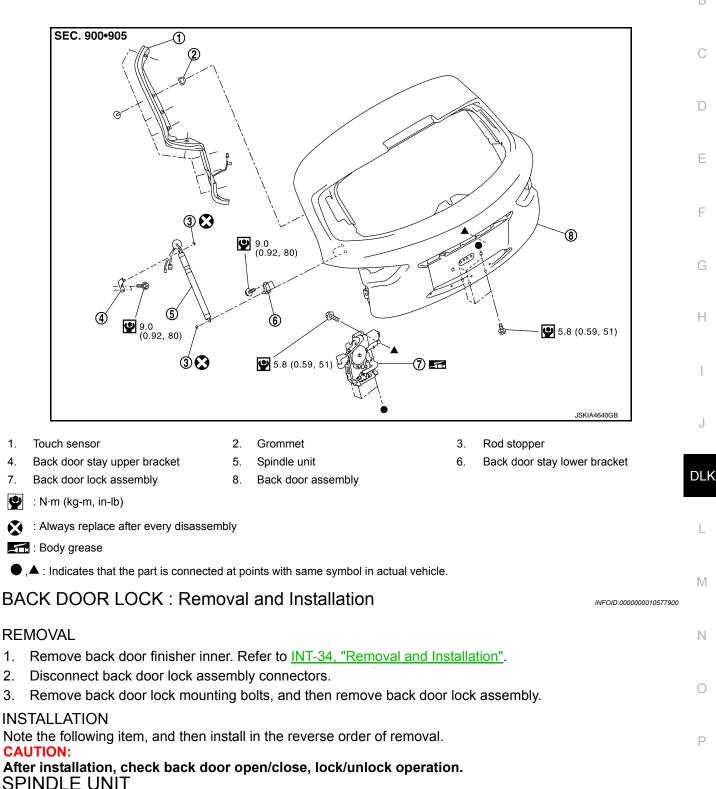
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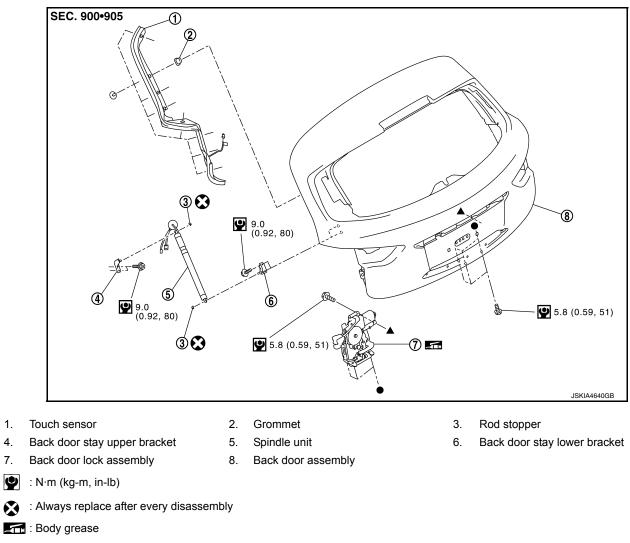


BACK DOOR LOCK [WITH INTELLIGENT KEY SYSTEM]

< REMOVAL AND INSTALLATION >

SPINDLE UNIT : Exploded View

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●, ▲ : Indicates that the part is connected at points with same symbol in actual vehicle.

SPINDLE UNIT : Removal and Installation

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For removal and installation of spindle unit. Refer to DLK-334, "SPINDLE UNIT : Removal and Installation". TOUCH SENSOR

1.

4.

7.

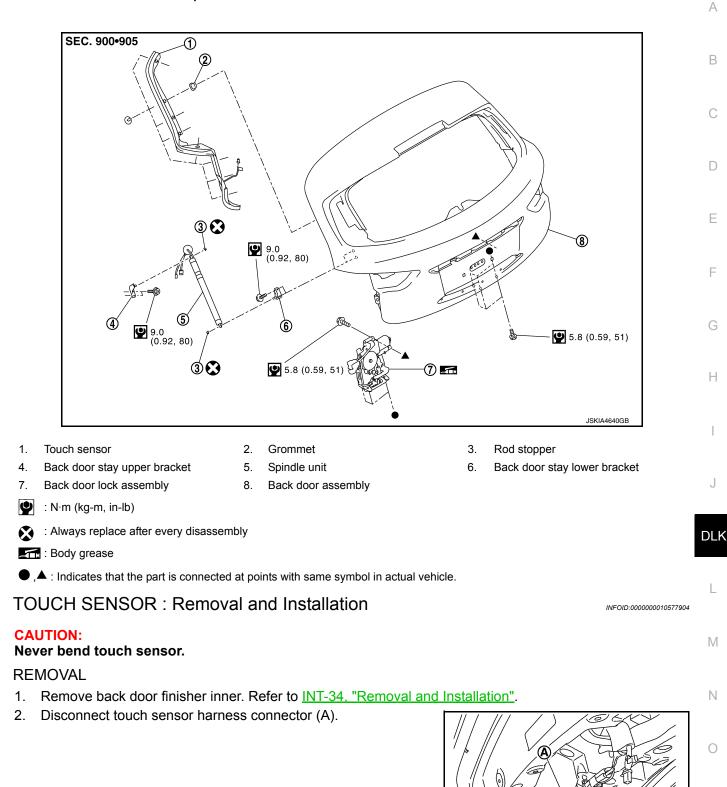
BACK DOOR LOCK

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

TOUCH SENSOR : Exploded View

INFOID:000000010577903



3. Remove fixing clips, and then remove touch sensor. **CAUTION:**

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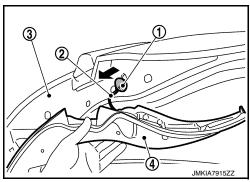
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BACK DOOR LOCK

< REMOVAL AND INSTALLATION >

When removing touch sensor, peel off the double-sided tape one strip at a time, and carefully remove it.

- 4. Remove grommet (1).
- 5. Pull harness (2) of touch sensor out of back door (3) and remove touch sensor (4).

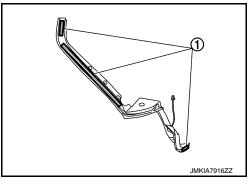


INSTALLATION

Note the following item, and then install in the reverse order of removal. **CAUTION:**

- Before installation, remove double sided-tape that remains no touch sensor and back door.
- Apply primer for plastic to touch sensor and back door, on the area to be covered by double-sided tape, and then install touch sensor using double sided-tape (1).

Double-sided tape t: 0.6 mm (0.024 in)



• Install touch sensor and back door without clearance.

Check back door open/close operation after installation.

EMERGENCY LEVER

BACK DOOR LOCK

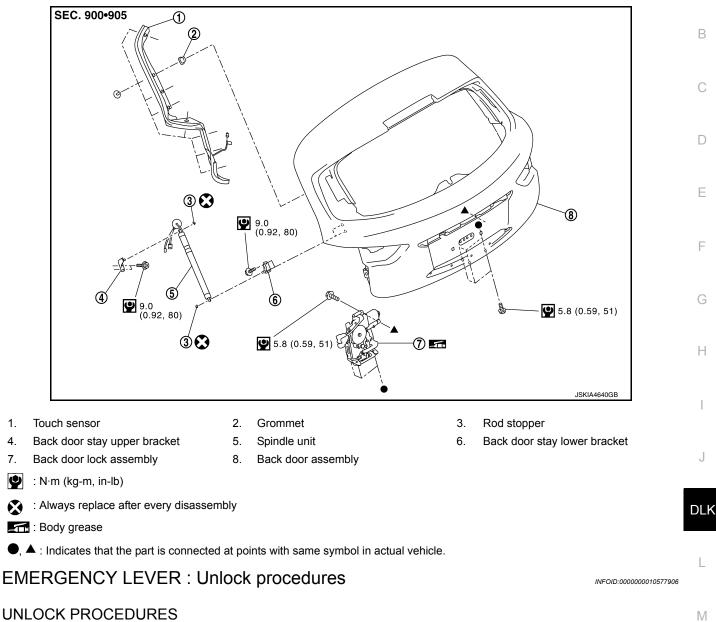
< REMOVAL AND INSTALLATION >

EMERGENCY LEVER : Exploded View

[WITH INTELLIGENT KEY SYSTEM]

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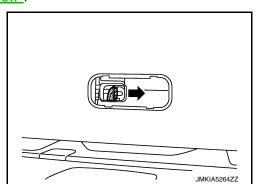
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NOTE:

If back door lock cannot be unlocked due to a malfunction or battery discharge, follow the procedures to unlock back door.

- 1. Remove the back door finisher lid. Refer to INT-34, "Exploded View".
- 2. From inside the vehicle, rotate emergency lever toward lower direction and unlock.



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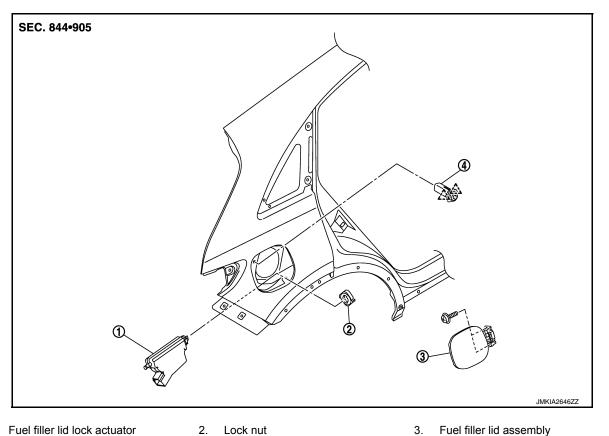
FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

FUEL FILLER LID OPENER

Exploded View

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Fuel filler lid lock actuator 1

4. Lock & cable assembly

♪ : Pawl

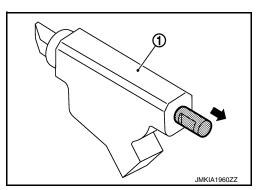
Removal and Installation

NOTE:

When fuel filler lid lock actuator (1) is a defective operation, pull the rod to open fuel filler lid.

2.

Lock nut



3.

REMOVAL

- 1. Remove luggage side finisher lower RH. Refer to INT-31. "Removal and Installation".
- 2. Pull and remove lock & cable assembly forward, while pushing the pawls.
- 3. Rotate lock nut counterclockwise, and then remove lock nut.
- 4. Push fuel filler lid lock actuator behind the vehicle, while pushing the pawl.
- Disconnect harness connector and remove fuel filler lid lock actuator. 5.
- 6. Remove mounting screws, and then remove fuel filler lid.

FUEL FILLER LID OPENER

INSTALLATION

< REMOVAL AND INSTALLATION >

Install in the reverse order of removal. **CAUTION:**

After installation, apply touch-up paint (the body color) onto the head of fuel filler lid mounting screws.

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[WITH INTELLIGENT KEY SYSTEM]

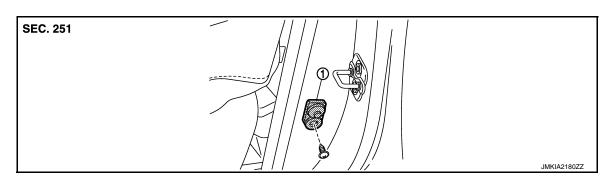
< REMOVAL AND INSTALLATION >

DOOR SWITCH

Exploded View

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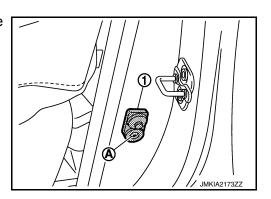


1. Door switch

Removal and Installation

REMOVAL

1. Remove the door switch mounting screw (A), and then remove door switch (1).



[WITH INTELLIGENT KEY SYSTEM]

INSTALLATION Install in the reverse order of removal.

[WITH INTELLIGENT KEY SYSTEM]

INSIDE KEY ANTENNA INSTRUMENT CENTER

INSTRUMENT CENTER : Exploded View

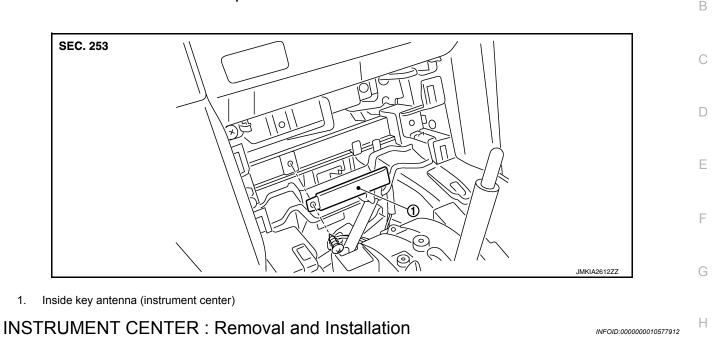
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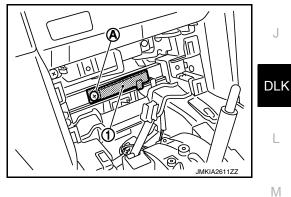
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REMOVAL

- 1. Remove the console finisher assembly. Refer to IP-23. "Removal and Installation".
- Remove the key antenna mounting screw (instrument center) 2. (A), and then remove inside key antenna (instrument center) (1).



INSTALLATION Install in the reverse order of removal. LUGGAGE ROOM

LUGGAGE ROOM : Exploded View

Refer to INT-30, "Exploded View".

LUGGAGE ROOM : Removal and Installation

REMOVAL

1. Remove the luggage floor finisher front. Refer to INT-31, "Removal and Installation".

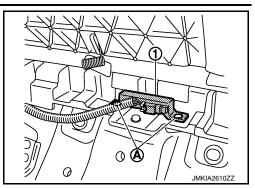
INFOID:000000010577913

INSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

 Remove the inside key antenna (luggage room) mounting clip (A), and then remove inside key antenna (luggage room) (1).

[WITH INTELLIGENT KEY SYSTEM]

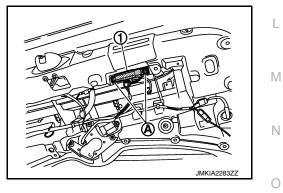


INSTALLATION Install in the reverse order of removal.

OUTSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >	[WITH INTELLIGENT KEY SYSTEM]
OUTSIDE KEY ANTENNA DRIVER SIDE	
DRIVER SIDE : Exploded View	INFOID:000000010577915
Refer to DLK-342, "OUTSIDE HANDLE : Exploded View".	
DRIVER SIDE : Removal and Installation	INFOID:000000010577916
REMOVAL Remove the front outside handle LH. Refer to <u>DLK-342. "OUTSIDE</u> INSTALLATION Install in the reverse order of removal. PASSENGER SIDE	HANDLE : Removal and Installation".
PASSENGER SIDE : Exploded View	INFOID:000000010577917
Refer to DLK-342, "OUTSIDE HANDLE : Exploded View".	
PASSENGER SIDE : Removal and Installation	INFOID:000000010577918
REMOVAL Remove the front outside handle RH. Refer to <u>DLK-342. "OUTSIDE</u> INSTALLATION Install in the reverse order of removal. BACK DOOR	E HANDLE : Removal and Installation".
BACK DOOR : Exploded View	INFOID:000000010577919
Refer to INT-34. "Exploded View". BACK DOOR : Removal and Installation	INFOID:000000010577920
REMOVAL	

- 1. Remove the back door finisher inner. Refer to EXT-50, "Removal and Installation".
- 2. Remove the outside key antenna (back door) mounting bolts (A), and then remove outside key antenna (back door) (1).



INSTALLATION Install in the reverse order of removal. Κ

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< REMOVAL AND INSTALLATION >

INTELLIGENT KEY WARNING BUZZER

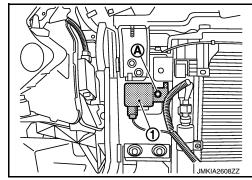
Exploded View

Refer to EXT-12, "Exploded View".

Removal and Installation

REMOVAL

- 1. Remove the fender protector. Refer to <u>EXT-25</u>, "FENDER PRO-<u>TECTOR</u> : Removal and Installation".
- 2. Remove the Intelligent Key warning buzzer mounting bolt (A), and then remove the Intelligent Key warning buzzer (1).



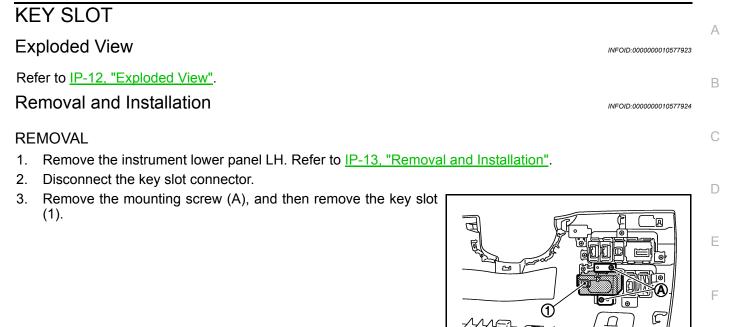
[WITH INTELLIGENT KEY SYSTEM]

INSTALLATION Install in the reverse order of removal.



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INSTALLATION Install in the reverse order of removal.

< REMOVAL AND INSTALLATION >

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REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

REMOTE KEYLESS ENTRY RECEIVER

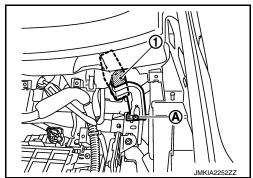
Exploded View

Refer to IP-12, "Exploded View".

Removal and Installation

REMOVAL

- 1. Remove the instrument lower panel RH. Refer to IP-13, "Removal and Installation".
- 2. Remove the remote keyless entry receiver mounting screw (A), and then remove remote keyless entry receiver (1).



INSTALLATION Install in the reverse order of removal. INFOID:000000010577925

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ITRY RECEIVER [WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY BATTERY

< REMOVAL AND INSTALLATION >

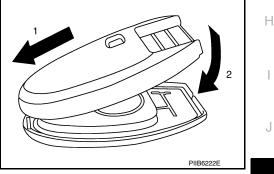
INTELLIGENT KEY BATTERY

Removal and Installation

- 1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.
- Insert a remover tool (A) wrapped in a cloth into the slit of the corner and twist it to separate the upper part from the lower part. CAUTION:
 - Never touch the circuit board or battery terminal.
 - The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.
- 3. Replace the battery with new one.

Battery replacement : Coin-type lithium battery (CR2032)

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



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Revision: 2015 February

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AUTOMATIC BACK DOOR CONTROL UNIT

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

AUTOMATIC BACK DOOR CONTROL UNIT

Removal and Installation

INFOID:000000010577928

REMOVAL

- 1. Remove the luggage floor spacer RH. Refer to INT-31, "Removal and Installation".
- 2. Remove the automatic back door control unit bracket mounting bolt and then remove the automatic back door control unit.

INSTALLATION

Install in the reverse order of removal.

NOTE:

After installing back door control unit, perform additional service when replace control unit. Refer to <u>DLK-13</u>, <u>"Work Procedure"</u>.

AUTOMATIC BACK DOOR WARNING BUZZER

< REMOVAL AND INSTALLATION >

AUTOMATIC BACK DOOR WARNING BUZZER

Removal and Installation INFOID:000000010577929 REMOVAL 1. Remove the rear bumper. Refer to EXT-17, "Removal and Installation". 2. Remove the automatic back door warning buzzer mounting bolt, and then remove the automatic back

INSTALLATION

Install in the reverse order of removal.

door warning buzzer.

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AUTOMATIC BACK DOOR MAIN SWITCH

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

AUTOMATIC BACK DOOR MAIN SWITCH

Removal and Installation

REMOVAL

- 1. Remove the instrument driver lower panel LH. Refer to IP-13, "Removal and Installation".
- 2. Widen the pawl, and remove the automatic back door main switch from switch bracket.

INSTALLATION

Install in the reverse order of removal.

AUTOMATIC BACK DOOR CLOSE SWITCH

< REMOVAL AND INSTALLATION >

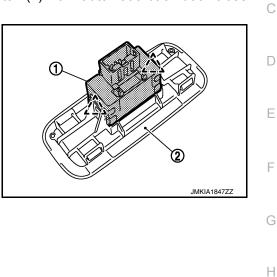
AUTOMATIC BACK DOOR CLOSE SWITCH

Removal and Installation

REMOVAL

- 1. Remove the automatic back door close switch finisher.
- 2. Widen the pawl, and remove the automatic back door close switch (1) from automatic back door close switch finisher (2).

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[WITH INTELLIGENT KEY SYSTEM]

INSTALLATION Install in the reverse order of removal.

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< REMOVAL AND INSTALLATION >

AUTOMATIC BACK DOOR SWITCH

Removal and Installation

INFOID:000000010577932

REMOVAL

- 1. Remove the instrument driver lower panel LH. Refer to IP-13. "Removal and Installation".
- 2. Widen the pawl, and remove the automatic back door switch from automatic back door switch finisher.

INSTALLATION

Install in the reverse order of removal.