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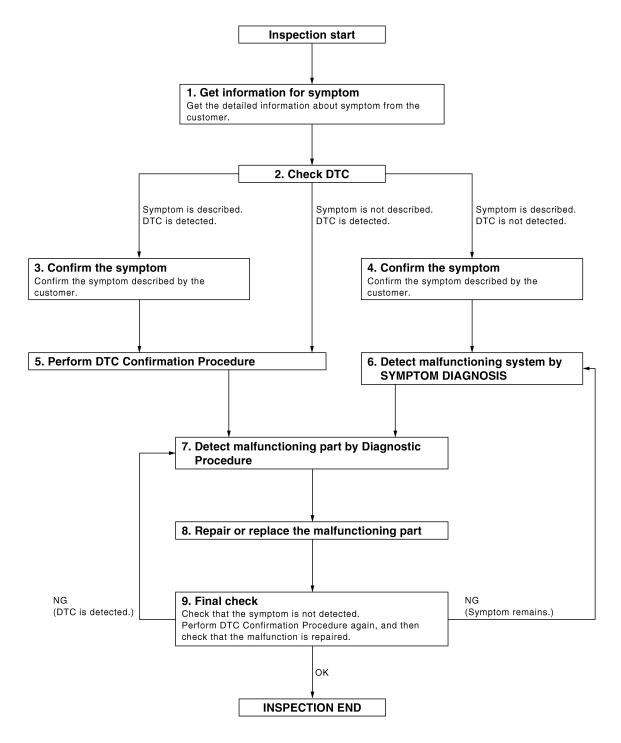
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

I.GET INFORMATION FOR SYMPTOM
Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).
>> GO TO 2.
2.CHECK DTC
 Check DTC for BCM. Perform the following procedure if DTC is displayed. Record DTC and freeze frame data (Print them out with CONSULT-III.) Erase DTC. Study the relationship between the cause detected by DTC and the symptom described by the customer. Check related service bulletins for information.
Is any symptom described and any DTC detected?
Symptom is described, DTC is displayed>>GO TO 3. Symptom is described, DTC is not displayed>>GO TO 4. Symptom is not described, DTC is displayed>>GO TO 5.
3. CONFIRM THE SYMPTOM
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.
>> GO TO 5.
4.CONFIRM THE SYMPTOM
Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.
5.PERFORM DTC CONFIRMATION PROCEDURE
Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>DLK-175</u> , " <u>DTC Inspection Priority Chart</u> " and determine trouble diagnosis order. NOTE: Perform Component Function Check if DTC Confirmation Procedure is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check. If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.
Is DTC detected?
YES >> GO TO 7. NO >> Refer to <u>GI-35, "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.
>> GO TO 7.
7.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE
Inspect according to Diagnostic Procedure of the system. NOTE:
The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

DLK-9

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Is malfunctioning part detected?

- YES >> GO TO 8.
- NO >> Check voltage of related BCM terminals using CONSULT-III.

 $\mathbf{8}$. Repair or Replace the Malfunctioning Part

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

>> GO TO 9.

9.FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction has been repaired securely.

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

Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.

YES (Symptom remains)>>GO TO 6.

NO >> INSPECTION END

INSPECTION AND ADJUSTMENT	
< BASIC INSPECTION >	
INSPECTION AND ADJUSTMENT	А
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	A
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description	В
Perform the system initialization when replacing BCM, replacing Intelligent Key or registering an additional Intelligent Key.	С
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re- quirement	C
' Refer to the CONSULT-III operation manual for the initialization procedure.	D
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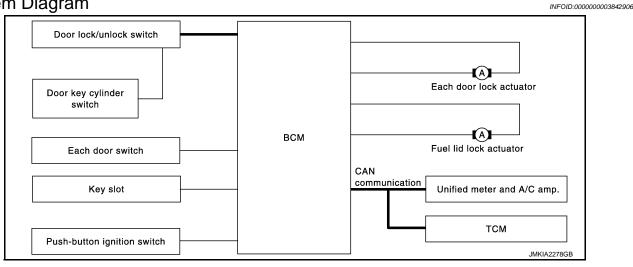
Revision: 2009 March

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SYSTEM DESCRIPTION POWER DOOR LOCK SYSTEM

System Diagram



System Description

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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-53, "DOOR LOCK : CONSULT-III 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.

(B) With CONSULT-III

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-III.

DLK-12

POWER DOOR LOCK SYSTEM

< SYSTEM DESC	RIPTION >
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Without CONSULT- III

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. \Box

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. G 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- III

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-III.

Without CONSULT- III

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
- 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.

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

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

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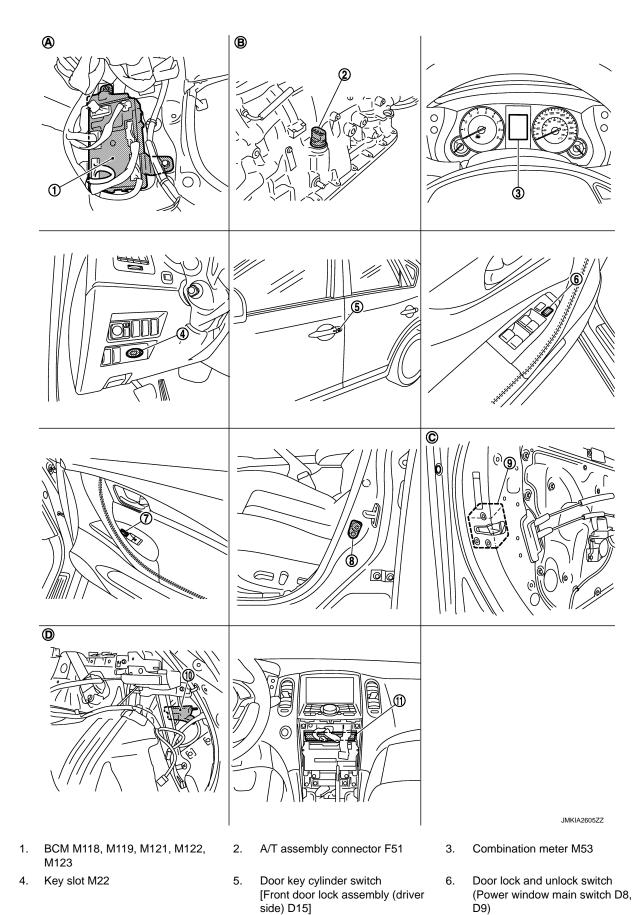
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Component Parts Location

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DLK-14

POWER DOOR LOCK SYSTEM

< SYSTEM DESCRIPTION >

7.	Door lock and unlock switch [Front power window switch (pas- senger) D38]	8.	Front door switch (driver side) B16	9.	Door lock actuator [Front door lock assembly (driver side) D15]	А
10.	Fuel lid lock actuator B242	11.	Unified meter and A/C amp. M66, M67			R
Α.	Dash side lower (passenger side)	В.	A/T assembly (TCM is built in A/T assembly)	C.	View with front door finisher (LH) is removed	D
D.	View with luggage side finisher lower (RH) is removed					С

Component Description

INFOID:000000003842909

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 combinatio 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.	

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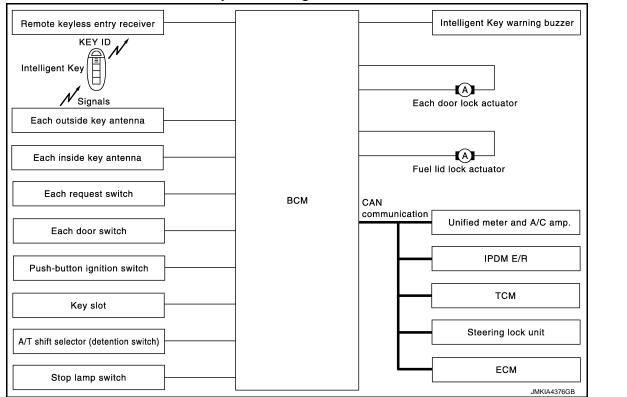
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IN	ELI	_IGEN I	KEY	SYS	IEM
INT	ELL	IGENT	KEY S	SYSTE	M

INTELLIGENT KEY SYSTEM : System Diagram



INTELLIGENT KEY SYSTEM : System Description

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INFOID:000000003842910

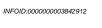
 The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/ unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communication between the Intelligent Key and the vehicle (BCM).
 CAUTION:

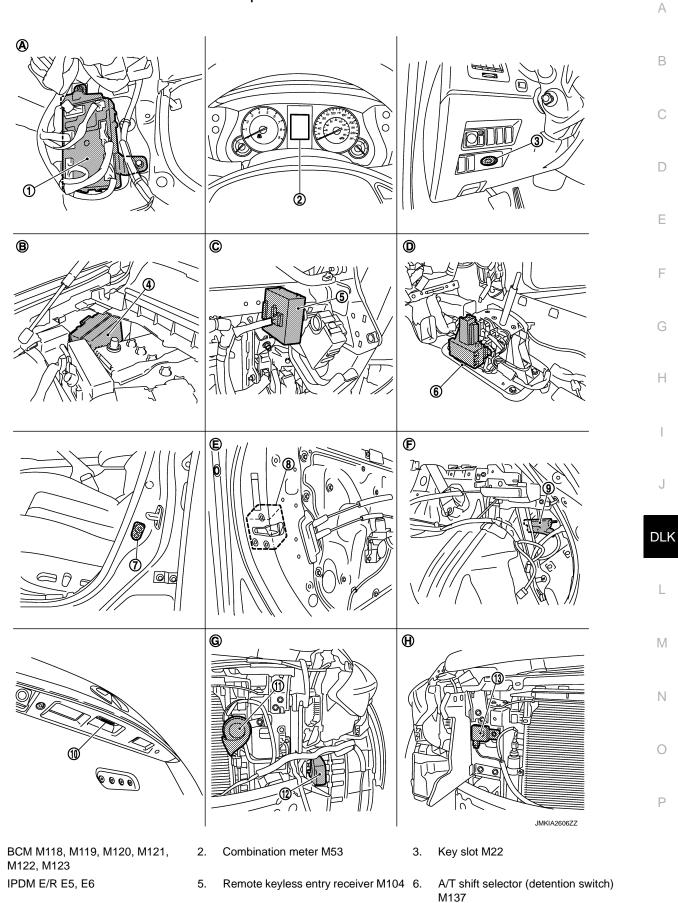
The driver should always carry the Intelligent Key

- The settings for each function can be changed using CONSULT-III.
- 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-III.

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	DLK-19
Remote keyless entry func- tion	Lock/unlock can be performed by pressing the remote controller button of the In- telligent Key.	DLK-28
Back door open function	The back door can be opened by carrying the Intelligent Key and pressing the back door opener switch.	<u>DLK-24</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-33</u>
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	<u>DLK-36</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.	<u>DLK-39</u>
Engine start function	The engine can turns on while carrying the Intelligent Key.	<u>SEC-9</u>

INTELLIGENT KEY SYSTEM : Component Parts Location





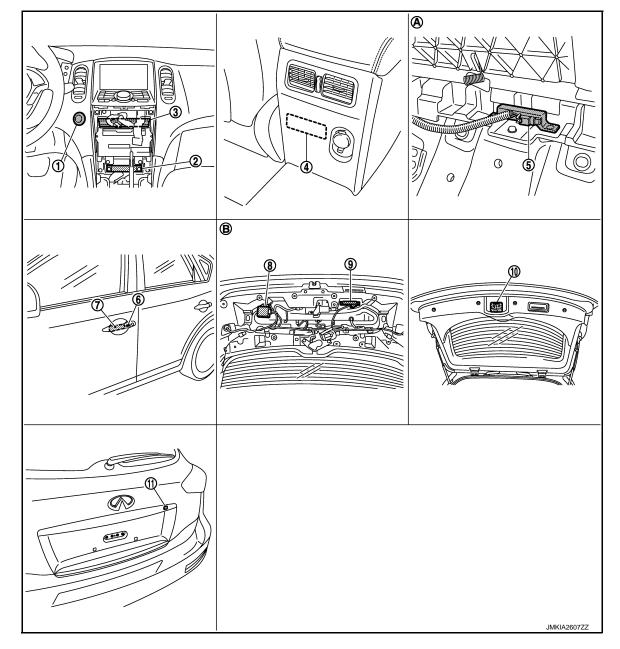
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< SYSTEM DESCRIPTION >

- 7. Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E80
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch) M50
- 4. Inside key antenna (console) M146 5.
- 7. Front outside handle LH (outside key 8. antenna) D14
- Inside key antenna (instrument cen- 3. ter) M131
- Inside key antenna (luggage room) B228
- Back door control unit D123

2.

- Unified meter and A/C amp. M66, M67
- Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

- 10. Back door lock assembly D122
- 11. Back door opener request switch D116
- A. View with luggage floor finisher front B. removed

INTELLIGENT KEY SYSTEM : Component Description

. View with back door finisher inner removed

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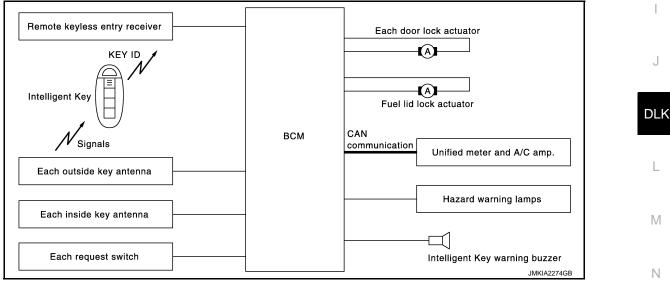
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Item	Function			
BCM	Controls the Intelligent Key system.			
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.			
Door switch	Input door open/close condition to BCM.			
Remote keyless entry receiver	Receives lock/unlock 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. 			
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.			

DOOR LOCK FUNCTION

DOOR LOCK FUNCTION : System Diagram



DOOR LOCK FUNCTION : System Description

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.

DLK-19

2009 FX35/FX50

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< SYSTEM DESCRIPTION >

• 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

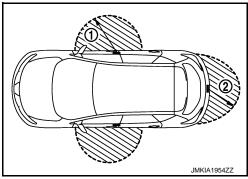
If the following conditions are satisfied, door lock/unlock operation is performed if the request switch is operated.

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 	
Unlock Operation	 Intelligent Key is outside the vehicle Intelligent Key is within outside key antenna detection area * 	

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

OUTSIDE KEY ANTENNA DETECTION AREA

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



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 sounds
Unlock	Once	Once
Lock	Twice	Twice

How to Change Hazard and Buzzer Reminder Mode

Refer to SEC-25, "INTELLIGENT KEY : CONSULT-III 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)

DLK-20

< SYSTEM DESCRIPTION >

Auto door lock mode can be changed in "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to SEC-25. "INTELLIGENT KEY : CONSULT-III 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 INL-6. "System Description".

LIST OF OPERATION RELATED PARTS

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

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	D E
Door lock/unlock function by request switch	×	×	×	×	×	×	×	×			×				
Hazard and buzzer reminder function for door lock/ unlock operation									×	×	×	×		×	G
Key reminder function	×	×	×	×	×	×	×	×	×		×	×			
Selective unlock function by request switch (Driver side)	×				×	×	×	×			×				Н
Selective unlock function by request switch (Passenger side)	×				×	×	×	×			×				I
Selective unlock function by request switch (back door)	×				×		×	×			×				
Auto door lock function	×	×		×	×	×					×		×		J

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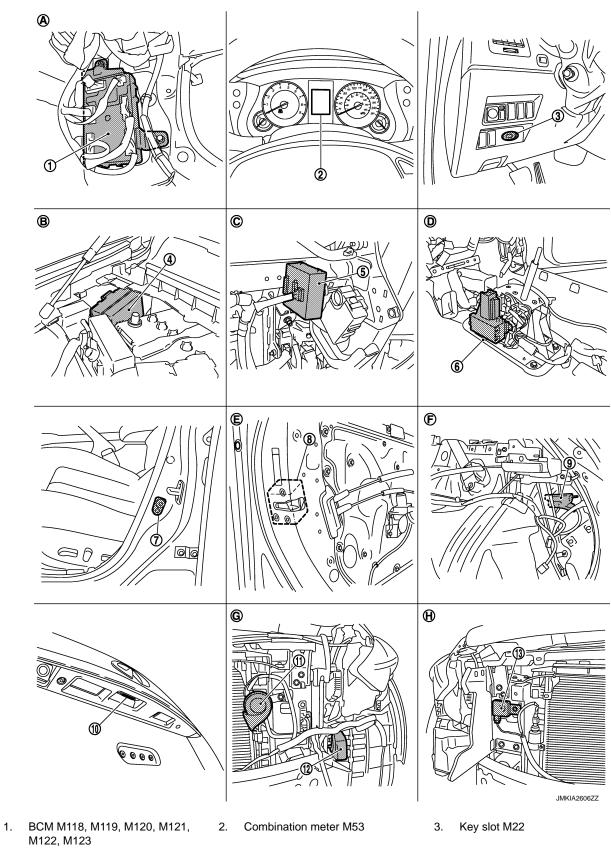
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DOOR LOCK FUNCTION : Component Parts Location

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- 4. IPDM E/R E5, E6
- 5. Remote keyless entry receiver M104 6.
- A/T shift selector (detention switch) M137

< SYSTEM DESCRIPTION >

- Front door switch (driver side) B16 7.
- 10. Back door opener switch D114
- Intelligent Key warning buzzer E80 13.
- Α. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- Β. Engine room dash panel (RH)
- Ε. View with front door finisher (LH) re- F. moved
- Η. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62

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Behind the instrument lower panel (driver side) View with luggage side finisher lower А

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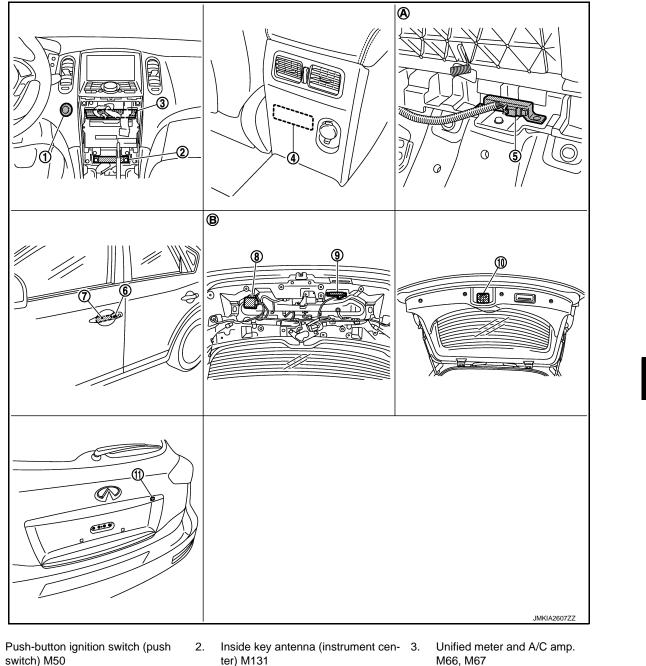
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(RH) removed



- 1. switch) M50
- Inside key antenna (console) M146 5. 4.
- 7. Front outside handle LH (outside key 8. antenna) D14
- Back door control unit D123

B228

Inside key antenna (luggage room)

- M66, M67
- 6. Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

- 10. Back door lock assembly D122
- 11. Back door opener request switch D116
- A. View with luggage floor finisher front B. removed
- View with back door finisher inner removed

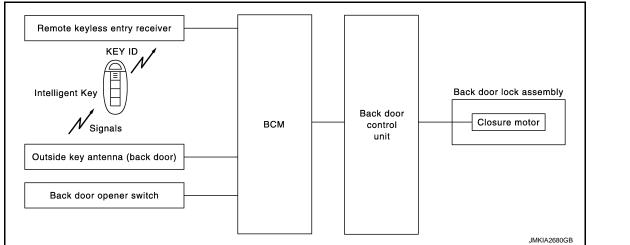
DOOR LOCK FUNCTION : Component Description

INFOID:000000003842917

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.
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 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:000000003842919

INFOID:000000003842918

This section describes the operation of the back door opener switch. The operation of the back door request switch is the same as the door lock function. Refer to <u>DLK-19</u>, <u>"DOOR LOCK FUNCTION : System Description"</u>.

- The back door opener function can open the back door by pressing the back door opener switch while carrying the Intelligent Key. At this time, all doors other than the back door and fuel lid are locked.
- The back door opener function can open the back door by pressing the back door opener switch with all doors and fuel lid unlocked by using the door request switch or remote controller.

BACK DOOR OPEN

• 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, checks that the Intelligent Key is near the back door.

< SYSTEM DESCRIPTION >

- 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.
- When the back door opener switch operation signal is transmitted from BCM, closure motor is operated in back door control unit.

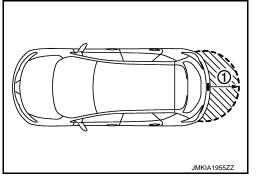
The operation of the back door open is the same as the back door opener system. Refer to <u>DLK-48, "OPEN</u> <u>FUNCTION : System Description"</u>

OPERATION CONDITION

- If the following conditions are satisfied, the back door can be opened.
- Back door is closed
- Ignition switch is in the OFF position
- Intelligent Key is out of key slot
- Intelligent Key is outside of vehicle
- Intelligent Key is within out side key antenna detection area

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 back door opener switch (1). However, this operating range depends on the ambient conditions.



HAZARD AND BUZZER REMINDER FUNCTION

When the back door is opened using the back door opener switch, the hazard warning lamps and horn blink or sound as a reminder.

LIST OF OPERATION RELATED PARTS

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

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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 (Rear bun	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Back door opener switch	L M N
Back door open function by back door opener switch (Carrying Intelligent Key)	×	×	×	×	×	×	×	×		×	×		×	0
Hazard and buzzer reminder function for door lock/unlock operation									×	×	×	×		0

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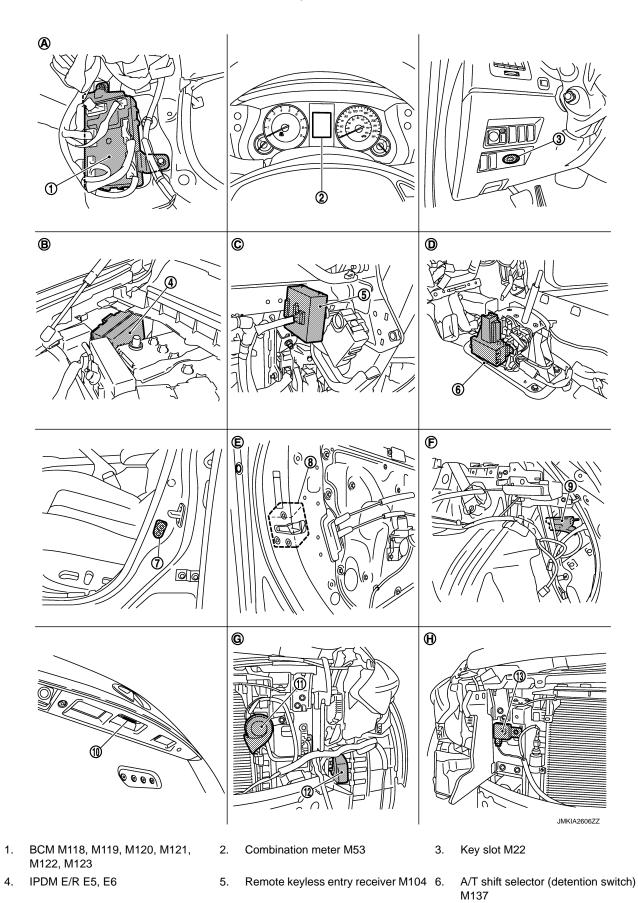
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Revision: 2009 March

BACK DOOR OPEN FUNCTION : Component Parts Location

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Revision: 2009 March

< SYSTEM DESCRIPTION >

- Front door switch (driver side) B16 7.
- 10. Back door opener switch D114
- Intelligent Key warning buzzer E80 13.
- Α. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- Β. Engine room dash panel (RH)
- Ε. View with front door finisher (LH) re- F. moved
- Η. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62

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Behind the instrument lower panel (driver side) View with luggage side finisher lower А

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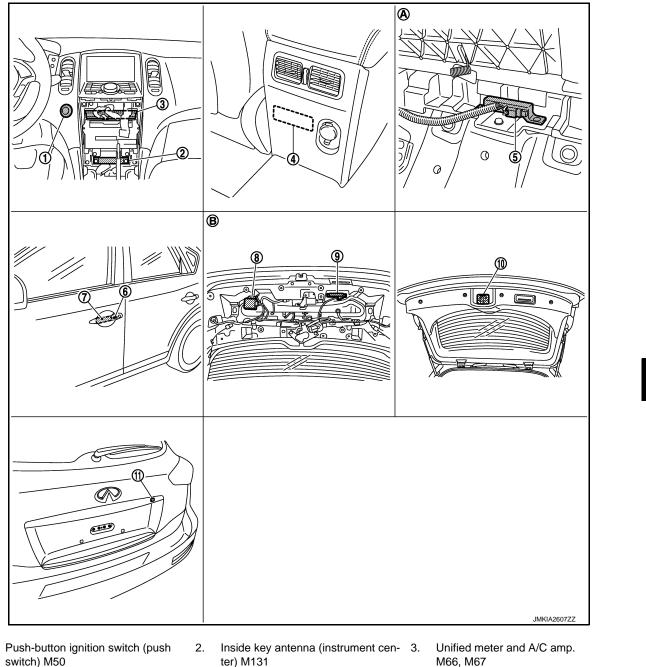
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(RH) removed



- 1. switch) M50
- Inside key antenna (console) M146 5. 4.
- 7. Front outside handle LH (outside key 8. antenna) D14
- Back door control unit D123

B228

Inside key antenna (luggage room)

- M66, M67
- 6. Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

- 10. Back door lock assembly D122
- 11. Back door opener request switch D116
- A. View with luggage floor finisher front B. removed
- . View with back door finisher inner removed

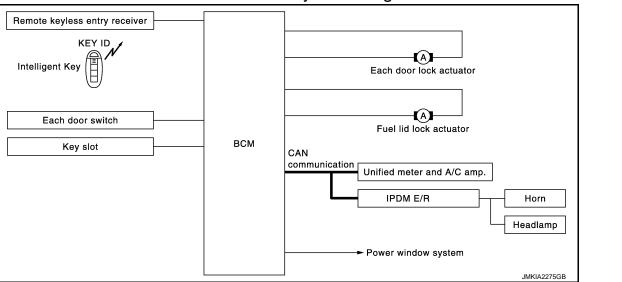
BACK DOOR OPEN FUNCTION : Component Description

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Item	Function
BCM	Controls the back door open function and room lamp function.
Back door opener switch	Input press/degrees signal to BCM.
Door lock actuator	Receives 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 (back door)	Input lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna (rear bumper)	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.
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
Intelligent Key warning buzzer	Warns the user of the back door open/close condition and inappropriate operations with the buzzer sound.

REMOTE KEYLESS ENTRY FUNCTION

REMOTE KEYLESS ENTRY FUNCTION : System Diagram



REMOTE KEYLESS ENTRY FUNCTION : System Description

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INFOID:000000003842922

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

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 Panic alarm Power window down Interior lamp 	А
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.	В
 DOOR LOCK/UNLOCK FUNCTION When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmited 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, 	С

- 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	F
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

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

					0
	C n	node	S n	node	
Intelligent Key operation	Lock	Unlock	Lock	Unlock	
Hazard warning lamp blinks	Twice	Once	Twice	—	DLK
Horn sound	Once	—	_	_	

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

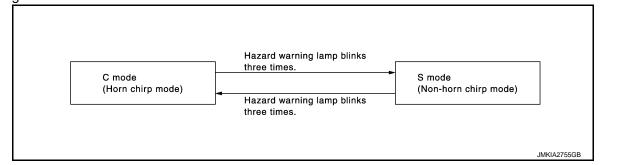
How to Change Hazard and Horn Reminder Mode

With CONSULT-III

Refer to DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

Without CONSULT-III

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 N following:



AUTO DOOR LOCK FUNCTION

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< SYSTEM DESCRIPTION >

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-54, "INTELLIGENT KEY : CONSULT-III 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-54, "INTELLIGENT KEY : CONSULT-III 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. Keyless power window down operation mode can be changed by using "PW DOWN SET" mode in "WORK SUPPORT". Refer to <u>DLK-54</u>, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

INTERIOR ROOM LAMP CONTROL

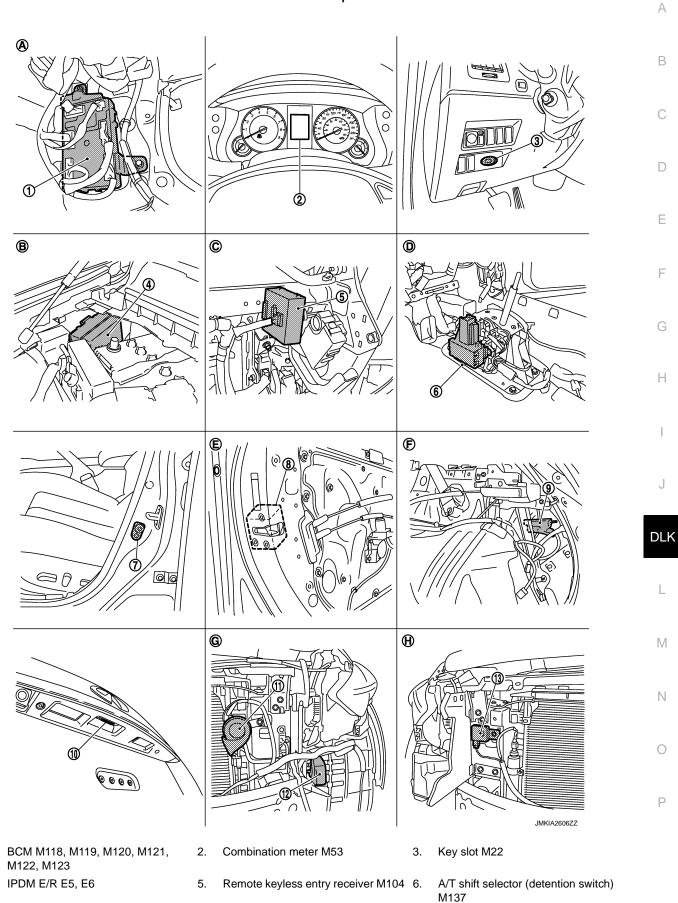
Intelligent Key system turns on interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <u>INL-6</u>, "System Description".

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	Horn	IPDM E/R	Headlamp	Power window switch
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	×		×			×	×			×	×	×	

REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location



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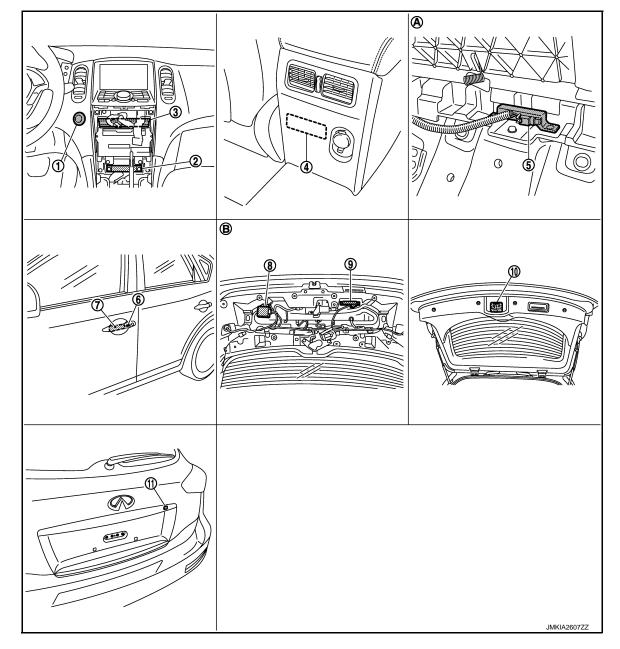
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< SYSTEM DESCRIPTION >

- 7. Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E80
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch) M50
- 4. Inside key antenna (console) M146
- 7. Front outside handle LH (outside key 8. antenna) D14
- Inside key antenna (instrument cen- 3. ter) M131
- Inside key antenna (luggage room) B228
- Back door control unit D123

2.

5.

- Unified meter and A/C amp. M66, M67
- Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

- 10. Back door lock assembly D122
- 11. Back door opener request switch D116
- A. View with luggage floor finisher front B. removed
- View with back door finisher inner removed

REMOTE KEYLESS ENTRY FUNCTION : Component Description

INFOID:000000003931343

А

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

INFOID:000000003842926

CONDITION OF SEARCHING

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 H engine is started, the timer is reset.

Function	Condition
elcome 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).

OPERATION PROCEDURE

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 INL-6, "System Description".

SYSTEM SETTING PROCEDURE

Setting of welcome light function can be changed by the following procedure. (For system setting by CON-SULT-III: refer to <u>DLK-54</u>, "INTELLIGENT KEY: CONSULT-III 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).

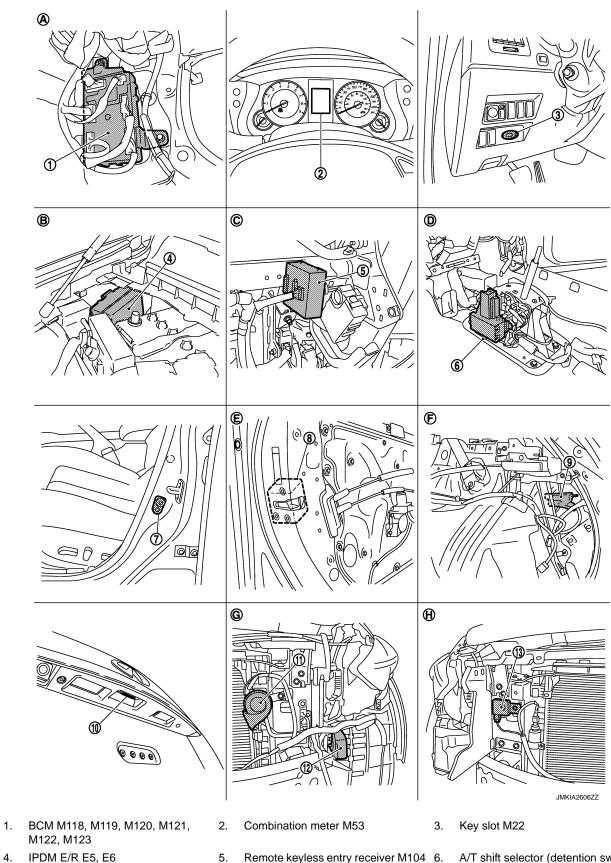
Pi, Pi, Pi… (approx. 1.2 sec.):	Welcome light function is OFF.	0
Pi, Pi, Pi…(approx. 2.4 sec.):	Welcome light function is ON.	

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WELCOME LIGHT FUNCTION : Component Parts Location

INFOID:000000003910696



- 4. IPDM E/R E5, E6
- Remote keyless entry receiver M104 6.
- A/T shift selector (detention switch) M137

< SYSTEM DESCRIPTION >

- Front door switch (driver side) B16 7.
- 10. Back door opener switch D114
- Intelligent Key warning buzzer E80 13.
- Α. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- Β. Engine room dash panel (RH)
- Ε. View with front door finisher (LH) re- F. moved
- Η. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62

C.

Behind the instrument lower panel (driver side) View with luggage side finisher lower А

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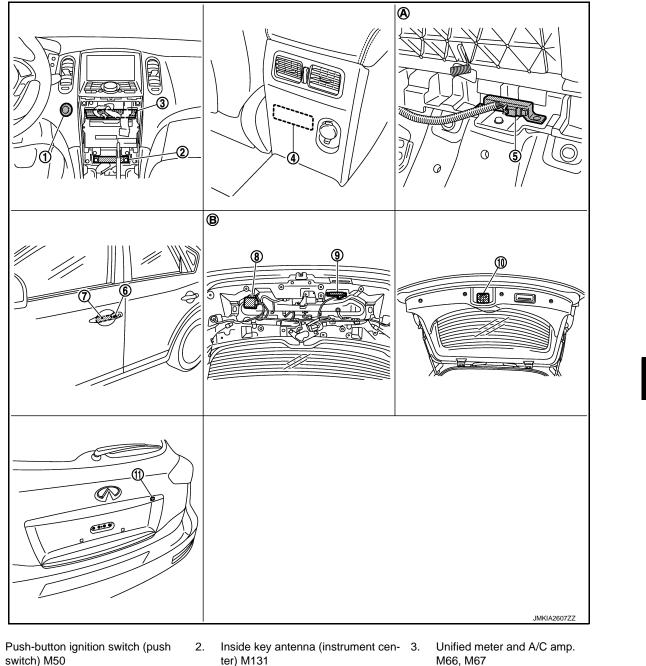
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(RH) removed



- 1. switch) M50
- Inside key antenna (console) M146 5. 4.
- 7. Front outside handle LH (outside key 8. antenna) D14
- Back door control unit D123

B228

Inside key antenna (luggage room)

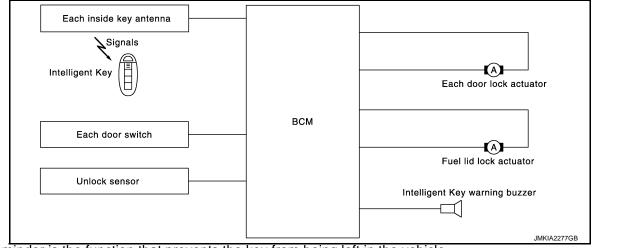
- M66, M67
- 6. Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

- 10. Back door lock assembly D122
- 11. Back door opener request switch D116
- A. View with luggage floor finisher front B. removed
- View with back door finisher inner removed

KEY REMINDER FUNCTION

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.

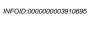
CAUTION:

- 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

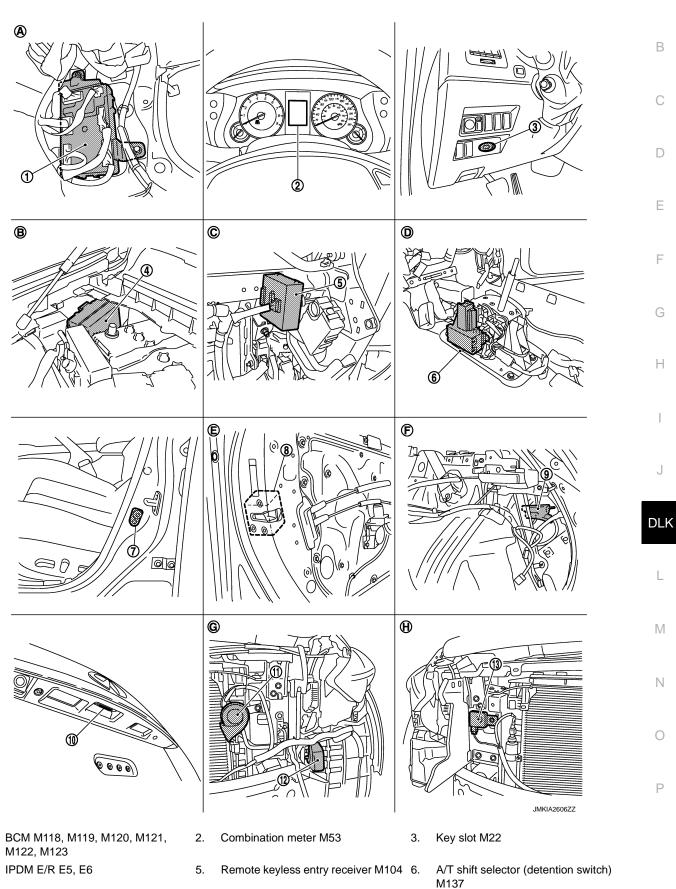
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< SYSTEM DESCRIPTION >

KEY REMINDER FUNCTION : Component Parts Location



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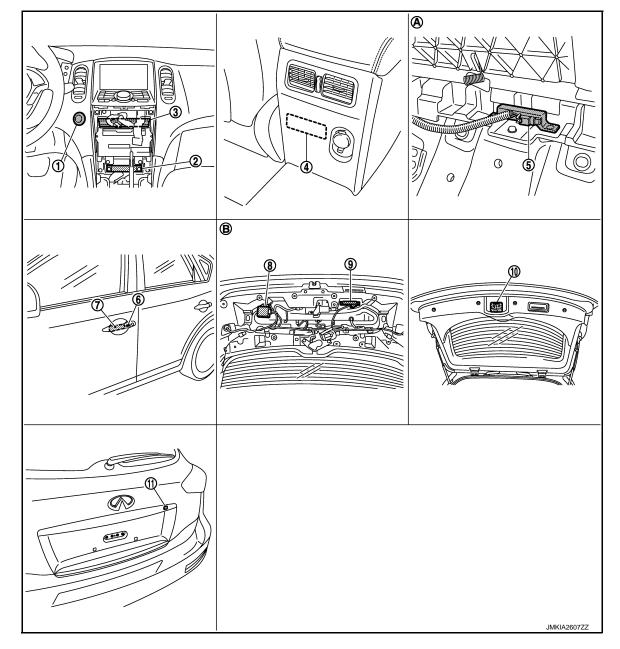
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< SYSTEM DESCRIPTION >

- 7. Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E80
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) re- F. moved
- H. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62
- C. Behind the instrument lower panel (driver side)
 - View with luggage side finisher lower (RH) removed



- 1. Push-button ignition switch (push switch) M50
- 4. Inside key antenna (console) M146
- 7. Front outside handle LH (outside key 8. antenna) D14
- Inside key antenna (instrument cen- 3. ter) M131
- Inside key antenna (luggage room) B228
- Back door control unit D123

2.

5.

- Unified meter and A/C amp. M66, M67
- Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

10.	Back door lock assembly D122	11.	Back door opener request switch D116	А
Α.	View with luggage floor finisher front removed	В.	View with back door finisher inner re- moved	
WAF	NING FUNCTION			В
WAR	NING FUNCTION : Sys	tem	Description	0
OPEF	RATION DESCRIPTION			С
using displa			owing and are given to the user as warning information and warnings ning buzzer, KEY warning lamp, key slot illumination and information	D
 OFF P pc ACC 	position warning position warning warning away warning			E
DooKey	r lock operation warning warning ligent Key insert information			_
	ine start information			F
 Intel 	ring lock information ligent key low battery warning ID warning			F

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

Warning/Info	rmation functions	Operation procedure					
Intelligent Key system m	alfunction	When a malfunction is detected on BCM, "KEY" warning lamp illuminates.					
	For internal	Ignition switch: ACC position.Door switch (driver side): ON (Door is open).					
OFF position warning	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	 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.					

< SYSTEM DESCRIPTION >

Warning/Inform	nation functions	Operation procedure	
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 inforr	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. 	
	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. 	
Steering lock information		When steering lock can not be released after ignition switch is turned ON.	
Intelligent Key low battery	Key low battery warning When Intelligent Key is low battery is low, BCM is detected after ignition 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	g 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	_		

< SYSTEM DESCRIPTION >

					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		
	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		
Key ID warning		_						
Key warning			JMKIA0035GB	Blink	Activate	_		
Intelligent Key insert	information	_	JMKIA0034GB	Blink				
Engine start informa	tion		BRAKE			_		

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< SYSTEM DESCRIPTION >

				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
Steering lock information		JMKIA0033GB			_
Intelligent Key low battery warning		JMKIA0048GB			_

LIST OF OPERATION RELATED PARTS Parts marked with \times are the parts related to operation.

Warning	g function	Intelligent Key	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 mal	function										×	×				×
OFF position warning	For internal				×					×	×	×				
or r position warning	For external				×				×			×				L
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 warning	ng	×	×		×	×	×	×	×			×				
Key ID warning		×	×	×			×				×	×	×			
Key warning	Key warning		×		×					×	×	×	×	×		
Intelligent Key insert inform	nation	×	×	×	×		×				×	×	×	×		
Engine start information	Ignition switch is in the ON position	×	×	×			×				×	×	×		×	
	Ignition switch is not in the ON position	×	×	×			×				×	×	×			

< SYSTEM DESCRIPTION >

Warning function	Intelligent Key	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	A B C
Steering lock information			×							×	×	×				
Intelligent Key low battery warning	×					×				×	×	×				
	1	1	1	1	1		1	1	1	1	1	I	I	1	<u> </u>	Ε

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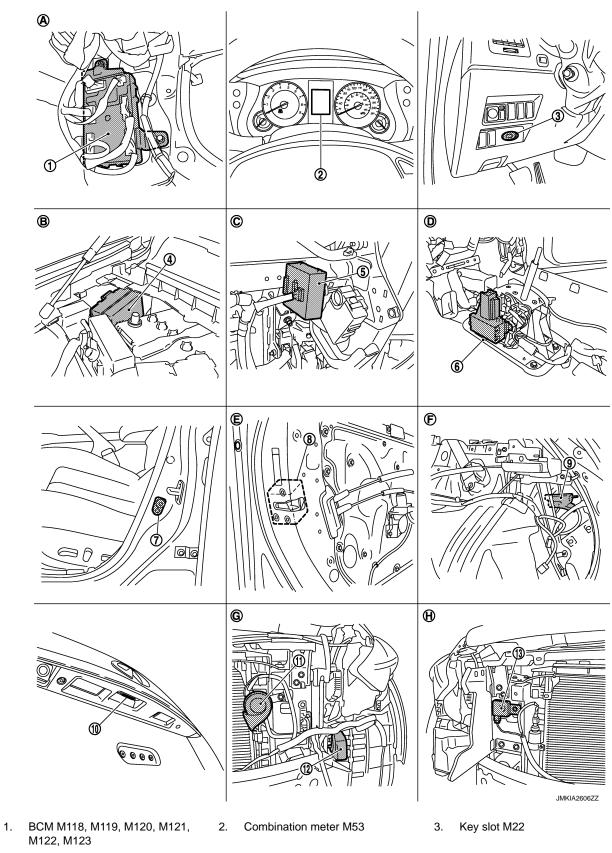
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< SYSTEM DESCRIPTION >

WARNING FUNCTION : Component Parts Location

INFOID:000000003910697



- 4. IPDM E/R E5, E6
- 5. Remote keyless entry receiver M104 6.
- A/T shift selector (detention switch) M137

< SYSTEM DESCRIPTION >

- Front door switch (driver side) B16 7.
- 10. Back door opener switch D114
- Intelligent Key warning buzzer E80 13.
- Α. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper removed
- 8. Front door lock assembly (driver side) D15
- 11. Horn (low) E69, E70
- Β. Engine room dash panel (RH)
- Ε. View with front door finisher (LH) re- F. moved
- Η. View with front bumper removed

- 9. Fuel lid lock actuator B242
- 12. Horn (high) E61, E62

C.

Behind the instrument lower panel (driver side) View with luggage side finisher lower А

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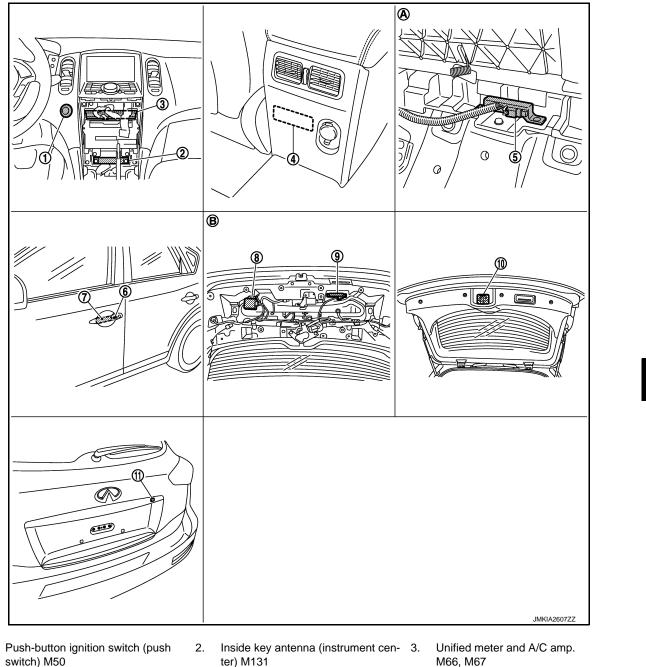
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(RH) removed



- 1. switch) M50
- Inside key antenna (console) M146 5. 4.
- 7. Front outside handle LH (outside key 8. antenna) D14
- Back door control unit D123

B228

Inside key antenna (luggage room)

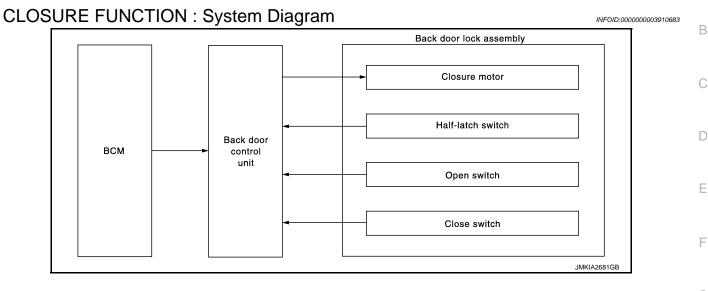
- M66, M67
- 6. Front outside handle LH (request switch) D13
- 9. Outside key antenna (back door) D118

< SYSTEM DESCRIPTION >

10. Back door lock assembly D122

- 11. Back door opener request switch
 - D116
- A. View with luggage floor finisher front B. removed
- 3. View with back door finisher inner removed

<u>< SYSTEM DESCRIPTION ></u> BACK DOOR AUTO CLOSURE SYSTEM CLOSURE FUNCTION



CLOSURE FUNCTION : System Description

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

AUTO CLOSURE OPERATION

From fully Open to Fully Closed Operation

The back door closure system operates as per the following.

Component	Parts	Status	1 2	3	4
	Half latch switch	ON			
		OFF			
	Open switch	ON			
	Open switch	OFF			
Back door lock	Close switch	ON			
assembly		OFF			
	Back door closure	ON			
	motor (close)	OFF			
	Back door closure	ON			
	motor (open)	OFF			

- 1. Back door is fully open.
- 2. Back door closure motor starts the close operation after turning half latch switch OFF.
- 3. Back door closure motor stops the close operation and starts the neutral operation after turning close switch ON.
- Back door closure motor stops the open operation and returns the latch to the neutral position after turning open switch OFF.

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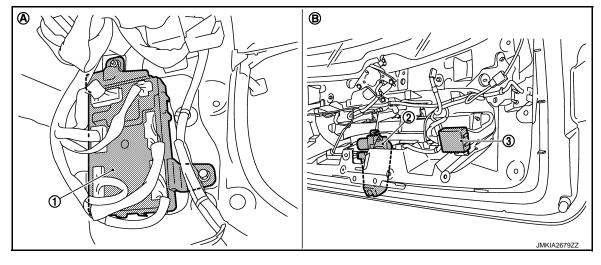
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< SYSTEM DESCRIPTION >

CLOSURE FUNCTION : Component Parts Location

INFOID:000000003910685



- 1. BCM M118, M119, M121, M122, M123
- A. Dash side lower (passenger side)
- B. View with back door finisher inner removed

Back door lock assembly D122

CLOSURE FUNCTION : Component Description

2.

INFOID:000000003910686

Back door control unit D123

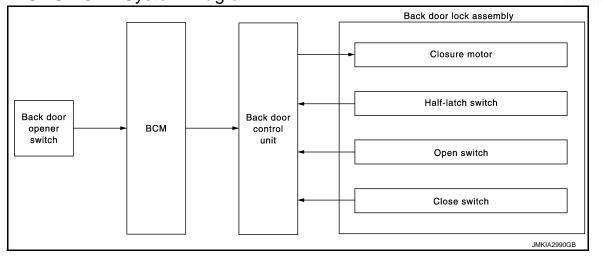
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Item	Function
Back door control unit	Operates back door closure motor with signal from each switch.
Back door lock assembly	 Back door closure motor, half latch switch, open switch, and close switch are installed. Closure motor: Opens and closes the back door Half latch switch: Starts the closure motor close operation Open switch: Stops the closure motor open operation Close switch: Stops the closure motor close operation

OPEN FUNCTION

OPEN FUNCTION : System Diagram

INFOID:000000004114226



OPEN FUNCTION : System Description

INFOID:000000004114227

When the back door opener switch operation signal is input into back door control unit from BCM, back door is opened by the closure motor open operation.

< SYSTEM DESCRIPTION >

BACK DOOR OPENER OPERATION

back door control unit and back door co	sed, BCM transmits the back door opener switch operation signal to ontrol unit opens back door lock assembly. Intelligent Key is the same as the Intelligent Key system. Refer to <u>DLK-System Description</u> "	A
NOTE: Back door opener actuator is not for loc	king back door. The function is only to open back door.	D
OPERATION CONDITION	the back door opener operation is performed.	С
Back door opener switch operation	Operation condition	D
Back door open	All doors are unlocked Nobido speed is less than 5 km/b (2 MPH)	D

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

OPEN OPERATION

From fully Closed to Fully Open Operation The back door open system operates as per the following.

Component	Parts	Status	1	2	3	4	5
	Half latch switch	ON					
	Hair latch switch	OFF	 				
	Open switch	ON					
	Open switch	OFF					
	Close switch	ON					
Back door lock		OFF	\vdash				
assembly	Back door opener switch	ON					
		OFF					
	Back door closure	ON			5 seconds o	or more	
·	motor (close)	OFF]				
	Back door closure	ON					
	motor (open)	OFF	<u> </u>				

1. Back door is fully closed.

- 2. Back door closure motor starts the open operation after turning back door opener switch ON.
- 3. Back door closure motor stops the open operation after turning open switch ON.
- 4. Back door closure motor starts the close operation after turning half latch switch ON.
- 5. Back door closure motor stops the close operation and returns the latch to the neutral position after turning close switch OFF.

NOTE:

When half latch switch is turned ON or 5 seconds pass without opening back door, back door closure motor starts the close operation.

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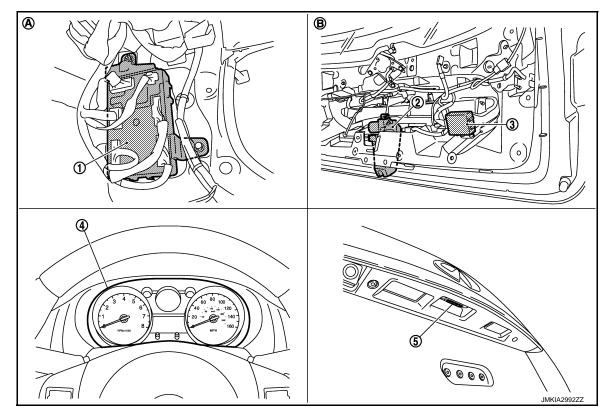
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< SYSTEM DESCRIPTION >

OPEN FUNCTION : Component Parts Location



- 1. BCM M118, M119, M121, M122, M123
- 2. Back door lock assembly D122
- 3. Back door control unit D123

- 5. Combination meter M35
- A. Dash side lower (passenger side)
- 6. Back door opener switch D114
- B. View with back door finisher inner removed

OPEN FUNCTION : Component Description

INFOID:000000004116232

Item	Function
BCM	Controls the back door opener function
Back door opener switch	Inputs back door opener switch operation signal to BCM
Back door control unit	Operates back door closure motor with the signal from each switch.
Back door lock assembly	 Back door closure motor, half latch switch, open switch and close switch are installed Closure motor: Opens and closes back door Half latch switch: Starts the closure motor close operation Open switch: Stops the closure motor open operation Close switch: Stops the closure motor close operation
Combination meter	Transmits vehicle speed signal to BCM via CAN communication

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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Revision: 2009 March

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INFOID:000000003842932

< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000003842933

APPLICATION ITEM

CONSULT-III 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. Refer to CONSULT-III opera- tion manual.
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 iteme for all sub system selection items.

Sustan		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	×	×	×
Remote keyless entry system	MULTI REMOTE ENT*1	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER		×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
_	AIR CONDITONER*2			
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	ВСМ	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

• *1:For models with Intelligent Key system this item is displayed, but is not used.

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

< SYSTEM DESCRIPTION >

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

The BCM records the following condition at the moment a particular DTC is detected.

- Vehicle Speed
- Odo/Trip Meter

• Vehicle Condition (BCM detected condition)

CONSULT screen terms	Description
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 not in the P position.)
CRANK>RUN	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
RUN>URGENT	While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
ACC>OFF	While turning power supply position from "ACC" to "OFF"
OFF>LOCK	While turning power supply position from "OFF" to "LOCK"
OFF>ACC	While turning power supply position from "OFF" to "ACC"
ON>CRANK	While turning power supply position from "IGN" to "CRANKING"
OFF>SLEEP	While turning BCM status from normal mode (Power supply position is "OFF") to low power consumption mode
LOCK>SLEEP	While turning BCM status from normal mode (Power supply position is "LOCK") to low power consumption mode
LOCK	Power supply position is "LOCK" (Ignition switch OFF with steering is locked)
OFF	Power supply position is "OFF" (Ignition switch OFF with steering is unlocked)
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

IGN counter indicates the number of times that ignition switch is turned ON after DTC is detected.

• The number is 0 when a malfunction is detected.

 The number increases from 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.

• The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

DOOR LOCK

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

BCM CONSULT-III FUNCTION

CONSULT-III performs the following functions via CAN communication with BCM.

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

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< SYSTEM DESCRIPTION >

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

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

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) INFOLD:00000003842935

WORK SUPPORT

< SYSTEM DESCRIPTION >

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 passenger side) can be selected from the following in this mode. Horn chirp: Sound horn Buzzer: Sound Intelligent Key warning buzzer OFF: Non-operational
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

< SYSTEM DESCRIPTION >

Refer to DLK-175, "DTC Index".

DATA MONITOR

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	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of ignition switch.
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	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
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.

Revision: 2009 March

< SYSTEM DESCRIPTION >

Monitor Item	Condition	
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on In- telligent Key, the numerical values starts changing.	A
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	В

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-III 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-III 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-III 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-III screen is touched. Key warning chime sounds when "KEY" on CONSULT-III screen is touched. The P position warning chime sounds when "KNOB" on CONSULT-III screen is touched. 		
INDICATOR	 This test is able to check warning lamp operation. "KEY" Warning lamp illuminates when "RED ON" on CONSULT-III screen is touched. The "KEY" Warning lamp blinks when "RED IND" on CONSULT-III 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-III screen is touched.		
LCD	 This test is able to check meter display information Engine start information displays when "BP N" on CONSULT-III screen is touched. Engine start information displays when "BP I" on CONSULT-III screen is touched. Key ID warning displays when "ID NG" on CONSULT-III screen is touched. Steering lock information displays when "ROTAT" on CONSULT-III screen is touched. The P position warning displays when "SFT P" on CONSULT-III screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. Take away through window warning displays when "NO KY" on CONSULT-III screen is touched. Take away warning displays when "OUTKY" on CONSULT-III screen is touched. The OFF position warning displays when "LK WN" on CONSULT-III screen is touched. 		
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation. This actuator operates when "ON" on CONSULT-III screen is touched.		
BLINKER	This test is able to check security hazard lamp operation. The hazard lamps is activated when "LH" or "RH" on CONSULT-III screen is touched.		
HORN	This test is able to check horn operation. The horn will be activated when "ON" on CONSULT-III 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-III 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-III 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-III 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-III 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-III screen is touched.		
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT-III screen is touched.		

TRUNK

< SYSTEM DESCRIPTION >

TRUNK : CONSULT-III Function (BCM - TRUNK)

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BCM CONSULT-III FUNCTION

CONSULT-III 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

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

*: With back door opener system

ACTIVE TEST

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation.

DTC/CIRCUIT DIAGNOSIS U1000 CAN COMM CIRCUIT

Description

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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 detectability. Modern vehicles are equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected by 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.

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause	F
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN com- munication signal continuously for 2 seconds or more.	CAN communication system	G

Diagnosis Procedure

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-22, "Trouble Diagnosis Flow Chart".
- NO >> Refer to <u>GI-35, "Intermittent Incident"</u>.

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

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DTC DETECTION LOGIC

DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT (CAN)	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

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

Special Repair Requirement

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1.REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end

< DTC/CIRCUIT DIAGNOSIS >

B2621 INSIDE KEY ANTENNA 1

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-61, "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		(+)		Signal (Reference value)		
		(–) Condition				
Co	onnector	Terminal			()	
M122	Instrument cen-	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB	
IVI I Z Z	ter	70, 79	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB	

Is the inspection result normal?

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

2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM and inside key antenna connector.

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B2621 INSIDE KEY ANTENNA 1

< DTC/CIRCUIT DIAGNOSIS >

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

BCM		Inside key antenna (instrument center)		Continuity	
Connector	Connector Terminal		Terminal	Continuity	
M122	78	M131	M131 2	Existed	
	79	WIST	1		

3. Check continuity between BCM harness connector and ground.

	BCM		Continuity				
	Connector		Connector Terminal		Ground	Continuity	
M122	Instrument center	78		Not oxisted			
101122		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)
	Connector	Terminal		Place Intelligent Key inside the vehicle.	(V) 15 10 5 0
M122	Instrument cen- ter	78, 79	Ground		(V) 15
			Place Intelligent Key outside the vehicle.	15 0 0 1 s JMKIA0063GB	

Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-270, "INSTRUMENT CENTER :</u> <u>Removal and Installation"</u>.

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

< DTC/CIRCUIT DIAGNOSIS >

B2622 INSIDE KEY ANTENNA 2

Description

Detects whether Intelligent Key is inside the vehicle. Installed in the console.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	D
B2622	INSIDE ANTENNA 2 CIRCUIT	An excessively high or low voltage from inside an- tenna is sent to BCM.	 Inside key antenna (console) Between BCM and Inside key antenna (console) 	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-63, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (console) 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)				
С	onnector	Terminal			(10001000 1000)				
Mioo	Concella	70,70	Ground	Place Intelligent Key inside the vehicle.	(V) 15 0 1 s JMKIA0062GB				
M122	Console	72, 73	Ground						
				Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 •••••••••••••••••••••••••••••				
					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 (console) connector.

2. Check continuity between BCM harness connector and inside key antenna harness connector.

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B2622 INSIDE KEY ANTENNA 2

< DTC/CIRCUIT DIAGNOSIS >

E	BCM	Inside key ant	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M122	72	M146	2	Existed
IVIIZZ	73	101740	1	LAISIEU

3. Check continuity between BCM harness connector and ground.

	BCM		Continuity	
	Connector		Ground	Continuity
M122	Console	72		Not ovicted
101122		73		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 (console). (New antenna or other antenna)
- 2. Connect BCM and inside key antenna (console) connector.
- 3. Check signal between BCM harness connector and ground using an oscilloscope.

	(+) BCM		(–) Condition		Signal (Reference value)
(Connector	Terminal			
M122	Console	72, 73	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
		12,10		Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

Is the inspection result normal?

YES >> Replace inside key antenna (console). Refer to <u>DLK-270, "CONSOLE : Removal and Installation"</u>.
 NO >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

< DTC/CIRCUIT DIAGNOSIS >

B2623 INSIDE KEY ANTENNA 3

Description

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

DTC Logic

DTC DETECTION LOGIC

DT	C No.	Trouble diagnosis name	DTC detecting condition	Possible cause	D
В	2623	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 <u>DLK-65, "Diagnosis Procedure"</u>.

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.

Terminals						
	(+)		()	Condition	Signal (Reference value)	
BC	M connector	Terminal	(-)			
		04.05	Quant	Place Intelligent Key inside the vehicle.	(V) 15 0 1 s J J J J J MKIA0062GB	
M121	Luggage room	34, 35	Ground			
				Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 0 15	
					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 KEY ANTENNA 3

< DTC/CIRCUIT DIAGNOSIS >

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

В	СМ	Inside ke	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M121	34	B228	2	Existed	
	35	DZZ0	1		

3. Check continuity between BCM harness connector and ground.

	BCM			
Cor	Connector		Ground	Continuity
M121	Luggage room	34		Not existed
		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		(–) Condition		Signal (Reference value)	
C	Connector	Terminal			
M121	Luggage room	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
	Luggugo room	01,00	Cround	Place Intelligent Key outside the vehicle.	(V) 15 0 1 s JMKIA0063GB

Is the inspection result normal?

YES >> Replace inside key antenna (luggage room). Refer to <u>DLK-271, "LUGGAGE ROOM : Removal</u> and Installation".

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-35. "Intermittent Incident".

>> INSPECTION END

PON < DTC/CIRCUIT DIAGNOSIS	NER SUPPLY AN	D GROUND C	IRCUIT	
POWER SUPPLY AN		CUIT		
BCM (BODY CONTRO				A
BCM (BODY CONTROL		nosis Procedu	Δ.	
_			C	INFOID:000000003842952
1. CHECK FUSE AND FUSIBL				
Check that the following fuse a	nd fusible link are not fu	sing.		C
Terminal No.	Signal	Iname	Fuse and fusible	le link No.
1	Battery po	wer supply	L	D
11 Is the fuse fusing?			10	
blown. NO >> GO TO 2. 2.CHECK POWER SUPPLY C 1. Turn ignition switch OFF. 2. Disconnect BCM connecto 3. Check voltage between BC	rs.			F
(+)				
BCM		(-) Voltage (Approx.)		
Connector	Terminal			
M118	1	Ground		ry voltage
M119 Is the measurement value norn	11			
YES >> GO TO 3. NO >> Repair or replace h 3. CHECK GROUND CIRCUIT Check continuity between BCN	-	l ground.		DL
BCM				
Connector	Terminal	Ground	Co	ontinuity
M119	13		E	xisted
Is the inspection result normal? YES >> INSPECTION END NO >> Repair or replace h BACK DOOR CONTRO BACK DOOR CONTRO 1.CHECK FUSE	arness. DL UNIT	Procedure		N INFOID:00000003939947
Check that the following fuse is	not fusing.			_
	0.		Signal name	F
35	-		Battery power supply	
Is the fuse fusing? YES >> Replace the blown NO >> GO TO 2. 2.CHECK POWER SUPPLY C	fuse after repairing the	affected circuit if a	fuse is blown.	

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect back door control unit connector.

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

	(+)			
Back doo	r control unit	(-)	Voltage (Approx.)	
Connector	Terminal			
D123	3	Ground	Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

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

Back doo	Back door control unit		Continuity	
Connector	Terminal	Cround	Continuity	
D123	7	- Ground -	Existed	
D123	8		Existed	

Does continuity exist?

YES >> INSPECTION END

NO >> Repair or replace harness.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH А Description INFOID:00000003842953 Detects door open/close condition. В **Component Function Check** INFOID:000000003842954 1.CHECK FUNCTION With CONSULT-III Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR", and "DOOR SW-D BK") in Data Monitor" mode using CONSULT-III. Monitor item Condition Е DOOR SW-DR DOOR SW-AS DOOR SW-RL $\mathsf{CLOSE} \to \mathsf{OPEN} \text{: } \mathsf{OFF} \to \mathsf{ON}$ F DOOR SW-RR DOOR SW-BK Is the inspection result normal? YES >> Door switch is OK. NO >> Refer to DLK-69, "Diagnosis Procedure". Н **Diagnosis Procedure** INFOID:000000003842955 1. CHECK DOOR SWITCH INPUT SIGNAL 1. Turn ignition switch OFF. 2. Disconnect malfunctioning door switch connector. 3. Check signal between malfunctioning door switch harness connector and ground using an oscilloscope. J

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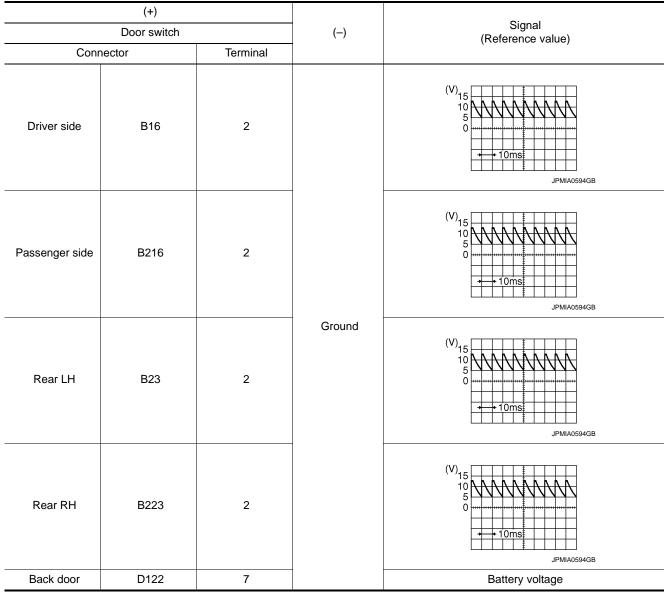
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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >



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		Door switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M123	150	B16 (Driver side)			
11/23	124	B216 (Passenger side)	2	Existed	
	69	B23 (Rear LH)			
M121	68	B223 (Rear RH)			
	66	D122 (Back door)	7		

3. Check continuity between BCM harness connector and ground.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

	BCM			-		Continuity	
Connecte	or	Terminal				- · · · · · · · · · · · · · · · · · · ·	
M123		150 (Driver side)		-			
		124 (Passenger side)		Ground			
		69 (Rear	LH)	-		Not existed	
M121		68 (Rear RH)		-			
		66 (Back door)					
the inspection result i ES >> Replace BC IO >> Repair or re CHECK BACK DOO	CM. Refer to <u>B</u> eplace harness			<u>Illation"</u> .			
eck continuity betwe	en back door lo	ock assembly (ba	ack door s	witch) harness co	nnect	or and ground.	
Back door lock	assembly (back do	por switch)					
Connector		Terminal	-	Ground	Continuity		
D122		8	-	-	Existed		
	_						
fer to <u>DLK-71, "Com</u> the inspection result r ES >> GO TO 5. O >> Replace r • Door swit • Back doo CHECK INTERMITT fer to <u>GI-35, "Intermi</u>	normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN ttent Incident".	door switch. <u>K-269, "Remova</u> y (back door swi			emova	l and Installation".	
O >> Replace r • Door swit	ponent Inspect normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN tent Incident". DN END ction TCH OFF. vitch connector	door switch. <u>.K-269, "Remova</u> y (back door swi T			<u>emova</u>	Land Installation".	
ifer to <u>DLK-71, "Com</u> the inspection result in ES >> GO TO 5. O >> Replace r • Door swit • Back doo CHECK INTERMITT ifer to <u>GI-35, "Intermin</u> >> INSPECTIO CMECK DOOR SWIT Turn ignition switch Disconnect door sw	ponent Inspect normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN tent Incident". DN END ction TCH OFF. vitch connector	door switch. <u>.K-269, "Remova</u> y (back door swi T		• to <u>DLK-266. "Re</u>		INFOID:000000003	
fer to <u>DLK-71, "Com</u> the inspection result in ES >> GO TO 5. O >> Replace in • Door swit • Back doo CHECK INTERMITT fer to <u>GI-35, "Intermin</u> >> INSPECTION CHECK DOOR SWIT Turn ignition switch Disconnect door sw	ponent Inspect normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN ENT INCIDEN ttent Incident". ON END ction TCH OFF. vitch connector terminals.	door switch. <u>K-269, "Remova</u> y (back door swi T					
fer to <u>DLK-71, "Com</u> the inspection result in ES >> GO TO 5. O >> Replace in • Door switt • Back doo CHECK INTERMITT fer to <u>GI-35, "Intermined</u> >> INSPECTION CHECK DOOR SWITT Turn ignition switch Disconnect door switch Check door switch	normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN ttent Incident". DN END ction TCH OFF. vitch connector terminals. Terminal	door switch. <u>.K-269, "Remova</u> y (back door swi T		• to <u>DLK-266. "Re</u>		INFOID:000000003	
fer to <u>DLK-71, "Com</u> the inspection result in ES >> GO TO 5. O >> Replace in • Door swit • Back doo CHECK INTERMITT fer to <u>GI-35, "Intermin</u> >> INSPECTIO OMPONENT INSPECTIO OMPONENT INSPECTIO Turn ignition switch Disconnect door sw	normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN ttent Incident". DN END ction TCH OFF. vitch connector terminals.	door switch. <u>.K-269, "Remova</u> y (back door swi T	tch): Refe	- Door switch condi		INFOID:000000003	
efer to <u>DLK-71, "Com</u> the inspection result i ES >> GO TO 5. O >> Replace r • Door swit • Back doo CHECK INTERMITT ofer to <u>GI-35, "Interminers</u> >> INSPECTION CHECK DOOR SWIT Turn ignition switch Disconnect door sw Check door switch	normal? malfunctioning ch: Refer to <u>DL</u> r lock assembly ENT INCIDEN ttent Incident". DN END ction TCH OFF. vitch connector terminals. Terminal	door switch. <u>K-269, "Remova</u> y (back door swi T	tch): Refer	- Door switch condi		INFOID:000000003	

NO >> Replace malfunction door switch.

Door switch: Refer to <u>DLK-269, "Removal and Installation"</u>.
Back door lock assembly (back door switch): Refer to <u>DLK-266, "Removal and Installation"</u>.

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

(R)With CONSULT-III

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

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

Is the inspection result normal?

- YES >> Door lock and unlock switch is OK.
- >> Refer to DLK-72, "DRIVER SIDE : Diagnosis Procedure". NO

DRIVER SIDE : Diagnosis Procedure

1.CHECK POWER WINDOW SWITCH

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

Does power window (driver side) operate?

- >> Replace power window main switch. YES
- >> Refer to PWC-106, "Diagnosis Procedure". NO

PASSENGER SIDE

PASSENGER SIDE	: Description
----------------	---------------

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE : Component Function Check

1.CHECK FUNCTION

(P)With CONSULT-III

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

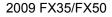
Monitor item	Condition		
CDL LOCK SW	LOCK	: ON	
	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

- YES >> Door lock and unlock switch is OK.
- >> Refer to DLK-72, "PASSENGER SIDE : Diagnosis Procedure". NO

PASSENGER SIDE : Diagnosis Procedure

CHECK POWER WINDOW SWITCH



INFOID:00000003842962

INEOID-000000003842959

INFOID-00000003842957

INFOID:00000003842958

INFOID:000000003842960

INFOID:000000003842961

DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >	
 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-106, "Diagnosis Procedure"</u> .	В
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< DTC/CIRCUIT DIAGNOSIS >

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-III 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-74, "DRIVER SIDE : 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.

	+) ock assembly	()	Condition of door lock and unlock switch	Voltage (V) (Approx.)
Connector	Terminal			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
D15	1	Ground	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$
610	2	Giouna	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-237. "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.

В	BCM		mbly (driver side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D15	1	Existed
1119	9	010	2	LAISIEU

3. Check continuity between BCM harness connector and ground.

BC	CM		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-82, "Removal and Installation"</u>.

NO >> Repair or replace harness.

PASSENGER SIDE

INFOID:000000003842963

INFOID:00000003842964

INEOID-000000003842965

DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIA	-		UUN	ACTUAT	JK			
PASSENGER SID		tion					INFOID:00000000384296	
Locks/unlocks the doo	r with the signal	from BCN	1.					А
PASSENGER SI	DE : Compor	nent Fur	nctior	h Check			INFOID:00000000384296	7 B
1.CHECK FUNCTION	N							D
1. Use CONSULT-III 2. Touch "ALL LCK"	to perform Activ	ve Test ("D		_OCK").				С
Is the inspection result				orks normally.				
	actuator is OK. LK-75, "PASSE	NGER SI	DE : Di	agnosis Proce	dure".			D
PASSENGER SI				-	<u></u> .		INFOID:00000000384296	8
1.CHECK DOOR LO	-							Ε
1. Turn ignition switc	h OFF.							-
 Disconnect front d Check voltage bet 					e) harness	connector a	and ground.	F
(+)								G
Front door lock assemb	ly (passenger side)	(-)	(Condition of door unlock swite			age (V) oprox.)	0
Connector	Terminal 1			Unlock			ry voltage $\rightarrow 0$	Н
D45	2	Ground	- k	Lock			ry voltage $\rightarrow 0$	
NO >> GO TO 2. 2.CHECK DOOR LOO 1. Disconnect BCM of 2. Check continuity	connector.	CIRCUIT	onnecto	or and front de	por lock as	sembly (pa	ssenger side) har	J - DLK
ness connector.					/			
Connector	BCM Termin	al		nt door lock asser		ger side) minal	Continuity	L
 M119	5			D45		1	Existed	N.A.
3. Check continuity b	8 Detween BCM h	arness cor	necto	and around		2		Μ
				and ground.				Ν
Connector	BCM	Terminal				C	Continuity	
M119		5		Grou	IND	N	ot existed	0
Is the inspection result	normal?	8						
YES >> Replace E	CM. Refer to <u>B</u> replace harness		<u>emova</u>	l and Installati	<u>on"</u> .			Ρ
REAR LH : Descr	iption						INFOID:00000000384296	9

Locks/unlocks the door with the signal from BCM.

DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

REAR LH : Component Function Check

1.CHECK FUNCTION

- 1. Use CONSULT-III 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-76, "REAR LH : Diagnosis Procedure"</u>.

REAR LH : Diagnosis Procedure

INFOID:000000003842971

INFOID:000000003842970

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	$0 \rightarrow Battery \ voltage \rightarrow 0$
D55	2	Ground	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to <u>DLK-243</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		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D55	1	Existed
101119	10	000	2	LAISIEU

3. Check continuity between BCM harness connector and ground.

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

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

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-III to perform Active Test ("DOOR LOCK").

INFOID:000000003842973	

DOOR LOCK ACTUATOR

2. Touch "ALL LCK" Is the inspection resu		to check that i	t works normally.		
YES >> Door locl	cactuator is OK.				
	<u>DLK-77, "REAR</u>	-	<u>s Procedure"</u> .		
REAR RH : Diag	nosis Procec	lure			INFOID:000000003842974
1.CHECK DOOR LC	OCK ACTUATOR	SIGNAL			
 Turn ignition swit Disconnect rear Check voltage be 	door lock asseml		y RH harness connector a	and ground.	
(+))				
Rear door lock	assembly RH	(—)	Condition of door lock and unlock switch		age (V) pprox.)
Connector	Terminal				
D75	2	Ground	Unlock		y voltage $\rightarrow 0$ y voltage $\rightarrow 0$
YES >> Replace Installation NO >> GO TO 2	rear door lock a on".		Refer to <u>DLK-243, "DO</u>	OR ASSEMB	<u>LY : Removal and</u>
YES >> Replace Installation NO >> GO TO 2 2.CHECK DOOR LO 1. Disconnect BCM	rear door lock a on". DCK ACTUATOR connector.		Refer to <u>DLK-243, "DO</u>		
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO Disconnect BCM	rear door lock a on". DCK ACTUATOR connector.			sembly RH ha	arness connector.
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM	CIRCUIT	ctor and rear door lock as Rear door lock assembly	sembly RH ha / RH Terminal	
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO Disconnect BCM Check continuity	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM Termir 8	CIRCUIT	ctor and rear door lock as Rear door lock assembly	sembly RH ha / RH Terminal 2	arness connector.
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO Disconnect BCM Check continuity Connector M119	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM Termin 8 10	CIRCUIT	Ctor and rear door lock as Rear door lock assembly Connector	sembly RH ha / RH Terminal	arness connector.
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LC Disconnect BCM Connector M119	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM Termir 8 10 between BCM h	CIRCUIT	Ctor and rear door lock as Rear door lock assembly Connector	sembly RH ha / RH Terminal 2	arness connector.
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO Disconnect BCM Connector M119 Check continuity Check continuity	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM Termin 8 10	CIRCUIT	Ctor and rear door lock as Rear door lock assembly Connector	sembly RH ha / RH Terminal 2 1	Continuity
YES >> Replace Installation NO >> GO TO 2 CHECK DOOR LO Disconnect BCM Check continuity Connector M119	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM Termir 8 10 between BCM h	CIRCUIT arness conner aal arness conner Terminal 8	Ctor and rear door lock as Rear door lock assembly Connector	sembly RH ha	arness connector. Continuity Existed
Installation NO >> GO TO 2 2.CHECK DOOR LC 1. Disconnect BCM 2. Check continuity Connector M119 3. Check continuity Connector	rear door lock a on". DCK ACTUATOR connector. between BCM h BCM 10 between BCM h BCM	CIRCUIT arness conner al arness conner Terminal	ctor and rear door lock as Rear door lock assembly Connector D75 Ctor and ground.	sembly RH ha	Arness connector. Continuity Existed

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< DTC/CIRCUIT DIAGNOSIS >

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-III 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-78, "Diagnosis Procedure"</u>.

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.

	(+) Fuel lid lock actuator		Condition of door lock and unlock	Voltage (V) (Approx.)
Connector	Terminal		switch	(11 -)
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-267, "Removal and Installation"</u>.

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.

E	BCM	Fuel lid lo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M119	8	B242	2	Existed
INT 19	9	- D242	1	LAISIEU

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Connector Terminal		Continuity	
M119	8	Ground	Not existed	
	9		NOT EXISTED	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

NO >> Repair or replace harness.

INFOID:000000003842975

INFOID:000000003842976

BACK DOOR OPENER SWITCH OPERATION SIGNAL CIRCUIT < DTC/CIRCUIT DIAGNOSIS > BACK DOOR OPENER SWITCH OPERATION SIGNAL CIRCUIT Description

BCM detects condition of the back door opener switch and transmits to back door control unit.

Component Function Check

1.CHECK FUNCTION

Check back door opener switch ("TR/BD OPEN SW") in "Data Monitor" mode using CONSULT-III.

	Monitor item			Condit	on	
			Back door opener	switch is pressed:	ON	
TR/BD OPEN SW			Back door opener	Back door opener switch is released: OFF		
<u>s the inspection r</u> YES >> Back NO >> Refer	door opener s	witch is OK. iagnosis Proce	dure".			
Diagnosis Pro	cedure				INFOID:0000000384298	
.CHECK BACK	DOOR CONT	ROL UNIT INP	UT SIGNAL			
. Check voltage			unit harness conne	ector and groun	d.	
(+		4			Voltage (V)	
Back door o		()	Condi	tion	(Approx.)	
Connector	Terminal			Natana	Dettemusikens	
D123	6	Ground	Back door opener switch	Not pressed Pressed	Battery voltage	
0120	14 10					
s the inspection r YES >> GO T NO >> GO T CHECK BACK	0 4. 0 2.	ROL UNIT CIR	CUIT			
the inspection r YES >> GO T NO >> GO T CHECK BACK Disconnect B	0 4. 0 2. DOOR CONT CM connector.			nector and BCI	M harness connector.	
S the inspection r YES >> GO T NO >> GO T CHECK BACK Disconnect B Check continu	O 4. O 2. DOOR CONT CM connector. uity between back k door control unit	ack door contro	bl unit harness con Be	СМ		
the inspection r YES >> GO T NO >> GO T CHECK BACK Disconnect B Check continu	O 4. O 2. DOOR CONT CM connector. uity between back k door control unit	ack door contro	bl unit harness con		M harness connector.	

BCM			Continuity	0	
(Connector Terminal	Ground	Continuity		
	M121	48		Not existed	-
		1	<u>+</u>	+	P

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

2. Check voltage between BCM harness connector and ground.

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BACK DOOR OPENER SWITCH OPERATION SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

•	+) CM	(-)	Cond	ition	Voltage (V) (Approx.)
Connector	Terminal				(
M121	48	Ground	Back door opener	Not pressed	Battery voltage
	40	Giouna	switch	Pressed	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace BCM. Refer to <u>BCS-82. "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer toGI-35, "Intermittent Incident".

>> INSPECTION END

< DTC/CIRCUIT DIAGNOSIS >

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

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INFOID:00000003842983

INFOID:00000003842981

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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-III. Refer to <u>DLK-53, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	Co	ondition	
KEY CYL LK-SW	Lock	: ON	
	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
	Neutral / Lock	: OFF	

Is the inspection result normal?

- YES >> Key cylinder switch is OK.
- NO >> Refer to <u>DLK-81, "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) Connector Terminal		()	Voltage (V) (Approx.)	DLK	
				(Αμριολ.)		
D15		5	Ground	5		
D15	6	Giouna	5	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.

Power window	w main switch	Front door lock as	sembly (driver side)	Continuity	0
Connector	Terminal	Connector	Terminal	Continuity	
D8	4	D15	6	Existed	Р
	6	015	5	Existed	

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

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-121, "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-82, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-237, "DOOR ASSEMBLY : Removal</u> and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "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		Koy position	Continuity
		Key position	Continuity
5		Unlock	Existed
		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-237, "DOOR ASSEMBLY : Removal</u> and Installation".

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

R	EMOTE KI	EYLESS	ENTRY	RECEIVER		
De	escription				A INFOID:00000003842985	(
	eceives Intellige Component F	• •		nsmits to BCM.	INF0/D:00000003842986	3
1.	CHECK FUNC	TION			C	2
	With CONSUL		eceiver ("RK	E OPE COUN1") in Data Monito	or mode using CONSULT-III.)
		Monitor item		Cor	ndition	
	RKE OPE COUN1			Checks whether value changes when	operating Intelligent Key.	-
Y N		ote keyless e r to <u>DLK-83, '</u>	ntry receive		INF01D:000000003842987	-
1.	CHECK REMO	OTE KEYLES	S ENTRY I	RECEIVER OUTPUT SIGNAL	G	ò
1. 2.	Turn ignition Check signal		note keyles:	s entry receiver harness connect	or and ground using oscilloscope.	-
	(+))			Signal	
	Remote keyless	-	(—)	Condition	Signal (Reference value)	
-	Connector	Terminal				
	M104	2	Ground	Waiting (All door closed)	(V) 15 10 5 0 1 1 1 ms JMKIA0064GB	_K
				When signal is received (All door closed)	(V) 15 10 5 0 1 ms JMKIA0065GB	
Y N 2.		0 3. 0 2. DTE KEYLES	S ENTRY I	RECEIVER CIRCUIT 1	C	-
1. 2.				te keyless entry receiver connecters connector and remote keyles	ss entry receiver harness connector.)
		BCM		Remote keyless entry rec	eiver	

	B	CM	Remote keyless entry receiver		Remote keyless entry receiver Continuity		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 >

В	CM		Continuity
Connector Terminal		Ground	Continuity
M122	83		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3. CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY

1. Disconnect remote keyless entry receiver.

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

(+) Remote keyless entry receiver Connector Terminal				
		()	Voltage (V) (Approx.)	
			(, , , , , , , , , , , , , , , , , , ,	
M104	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

1. Disconnect BCM connector.

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

В	BCM		Remote keyless entry receiver	
Connector	Terminal	Connector	Terminal	Continuity
M122	103	M104	4	Existed

3. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector Terminal		Ground	Continuity
M122	103		Not existed

Is the inspection result normal?

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

NO >> Repair or replace harness.

5.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

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

Remote keyles	s entry receiver		Continuity
Connector Terminal		Ground	Continuity
M104	1		Existed

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-276, "Removal and Installation"</u>.

NO >> GO TO 6.

6.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 3

1. Disconnect BCM connector.

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

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

REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNO	DSIS >	
Is the inspection result no YES >> Replace BCW NO >> Repair or repl	. Refer to BCS-82, "Removal and Installation".	A
		В
		С

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< DTC/CIRCUIT DIAGNOSIS >

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-III. • 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-86, "Diagnosis Procedure"</u>.

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.

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

B	BCM Back door opener		pener switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	67	D114	1	Existed

3. Check continuity between BCM harness connector and ground.

	B	CM		Continuity
	Connector Terminal		Ground	Continuity
_	M121	67		Not existed

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INFOID:000000003842989

BACK DOOR OPENER SWITCH

< DTC/CIRCUIT DIAGNOS	SIS >			
Is the inspection result norm	nal?			
	Refer to <u>BCS-82, "Removal</u>	and Installation".		А
NO >> Repair harness				
3.CHECK BACK DOOR O	PENER SWITCH GROUND	CIRCUIT		R
Check continuity between b	ack door opener switch harr	ness connector and grou	nd.	D
Back door	opener switch		Continuity	С
Connector	Terminal	Ground		0
D114	2		Existed	
Is the inspection result norm	nal?			D
YES >> GO TO 4.				
NO >> Repair or replace				E
4.CHECK BACK DOOR O	PENER SWITCH			
Refer to <u>DLK-87, "Compone</u>				
Is the inspection result norm	nal?			F
YES >> GO TO 5. NO >> Replace back d	oor opener switch. Refer to	EXT-10 "Removal and I	nstallation"	
5.CHECK INTERMITTENT	•			
				G
Refer to <u>GI-35, "Intermittent</u>	Incident".			
>> INSPECTION E	ND			Н
Component Inspection	า		INFOID:000000003842991	
1. CHECK BACK DOOR O	PENER SWITCH			I
 Turn ignition switch OFF Disconnect back door o Check continuity between 		terminals.		J
Ter	minal	Condition	Continuity	DLK
		CONUMON	Continuity	

	Terminal		Condition	Continuity	DLK	
-	Back door o	pener switch	Condition	Continuity		
-	1	1	ON (press and hold)	Existed		
	I	2	OFF (release)	Not existed	L	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door opener switch. Refer to EXT-49, "Removal and Installation".

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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-88, "Diagnosis Procedure"</u>.

Diagnosis Procedure

1.CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch 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)			()	Signal (Reference value)
Connector Terminal				
Driver side	D13			
Passenger side	D43	1	Ground	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 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.

BCM		Front outside handle (request switch)			Continuity
Connector	Terminal	Conne	ctor	Terminal	Continuity
M122	101	LH (driver side)	D13	1	Existed
101122	100	RH (passenger side)	D43		Existed

3. Check continuity between BCM harness connector and ground.

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DOOR REQUEST SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Connector M122				Continuity
M122	Termina	minal Ground		Continuity
	101			Not existed
	100			
the inspection result normal (ES >> Replace BCM. Re IO >> Repair or replace CHECK DOOR REQUEST neck continuity between mal	efer to <u>BCS-82</u> , harness. SWITCH GRC	OUND CIRCUIT		ess connector and grou
Front outside	handle (request s	witch)		
Connector		Terminal		Continuity
Driver side	D13	<u>^</u>	Ground	- 1
Passenger side	D43	2		Existed
efer to <u>DLK-89, "Component</u> the inspection result normal (ES >> GO TO 5. IO >> Replace malfuncti <u>DLE : Removal ar</u> CHECK INTERMITTENT If efer to <u>GI-35, "Intermittent In</u>	? ioning front out nd Installation". NCIDENT icident".		switch). Refer to [DLK-260, "OUTSIDE H
>> INSPECTION EN Omponent Inspection CHECK DOOR REQUEST Turn ignition switch OFF. Disconnect malfunctioning Check malfunctioning from	SWITCH			INFOID:00000000
CHECK DOOR REQUEST CHECK DOOR REQUEST Turn ignition switch OFF. Disconnect malfunctioning Check malfunctioning fror	SWITCH g front outside nt outside hand	lle (request switch) te		INFOID:00000000
CHECK DOOR REQUEST CHECK DOOR REQUEST Turn ignition switch OFF. Disconnect malfunctioning Check malfunctioning from	SWITCH g front outside nt outside hand	Door reque	erminals.	

< DTC/CIRCUIT DIAGNOSIS >

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	
REQ 3W -DD/TR	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-90, "Diagnosis Procedure"</u>.

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 opener request switch Connector Terminal		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.

В	BCM Back door opener request switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M121	61	D116	1	Existed

3. Check continuity between BCM harness connector and ground.

	BCM			Continuity
Connec	Connector Terminal		Ground	Continuity
M121		61		Not existed

Is the inspection result normal?

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BACK DOOR REQUEST SWITCH

		EST SWITCH GROUND CIRCUIT er request switch harness connecto	
	•		
	request switch asser		Continuity
Connector D116	Termi 2	inal Ground	Existed
s the inspection result nor	mal?		
YES >> GO TO 4. NO >> Repair or repla	aa harnasa		
NO >> Repair or repla •CHECK BACK DOOR (EST SWITCH	
Refer to DLK-91, "Compor		Lor ownon	
s the inspection result nor			
YES >> GO TO 5.			
· ·		uest switch. Refer to <u>EXT-49, "Rer</u>	noval and Installation".
CHECK INTERMITTEN			
efer to <u>GI-35, "Intermitter</u>	<u>nt Incident"</u> .		
>> INSPECTION			
component Inspection			INFOID:00000003842999
.CHECK BACK DOOR (OPENER REQU	EST SWITCH	
. Turn ignition switch OF			
Disconnect back door	opener. ner request switc	h terminals.	
 Check back door open 			
Back door opener requ		Back door opener request switch condition	on Continuity
Back door opener requ		Pressed	Existed
Back door opener requ Terminal	2		
Back door opener requ Terminal 1 the inspection result nor (ES >> INSPECTION	2	Pressed Released	Existed Not existed
Back door opener requ Terminal 1 the inspection result nor YES >> INSPECTION	2	Pressed	Existed Not existed
Back door opener requ Terminal 1 the inspection result nor YES >> INSPECTION	2	Pressed Released	Existed Not existed
Back door opener requ Terminal 1 the inspection result nor (ES >> INSPECTION	2	Pressed Released	Existed Not existed
Back door opener requ Terminal 1 the inspection result nor YES >> INSPECTION	2	Pressed Released	Existed Not existed

< DTC/CIRCUIT DIAGNOSIS >

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
	Front door lock (driver side) UNLOCK: ON

Is the inspection result normal?

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

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) Connector Terminal		Signal (Reference value)
D15	3	Ground	(V) 15 0 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.

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

B	BCM		Front door lock assembly (driver side)	
Connector	Terminal	Connector	Terminal	Continuity
M123	119	D15	3	Existed

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity
 Connector Terminal		Ground	Continuity
 M123	119		Not existed

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UNLOCK SENSOR

Is the inspection result normal? YES >> Replace BCM. Refer to BCS-82, "Removal and Installation". NO >> Repair or replace harness. 3.CHECK UNLOCK SENSOR GROUND CIRCUIT Check continuity between front door lock assembly (driver side) harness connector and ground. Front door lock assembly (driver side) Ground Continuity D15 4 Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES YES >> GO TO 4. NO NO >> Replace front door lock assembly (driver side). Refer to DLK-93, "DOOR LOCK : Removal and Installation". Is the inspection result normal? YES YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GL-35, "Intermittent Incident". >> INSPECTION END	< DTC/CIRCUIT DIAGNOSIS	>				
NO >> Repair or replace harness. 3.CHECK UNLOCK SENSOR GROUND CIRCUIT Check continuity between front door lock assembly (driver side) harness connector and ground. Image: transmission of the inspection result normal? Ground Continuity VES > GO TO 4. NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to DLK-93. "Component Inspection". Is the inspection result normal? YES >> GO TO 4. NO >> Replace front door lock assembly (driver side). Refer to DLK-258. "DOOR LOCK : Removal and Installation". S.CHECK UNLOCK SENSOR Refer to GL-35. "Intermittent Incident". So GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258. "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GL-35. "Intermittent Incident". >> INSPECTION END Sourcement Inspection 1. Turn ignition switch OFF. 2. 2. Disconcet front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) condition Continuity						
3.CHECK UNLOCK SENSOR GROUND CIRCUIT Check continuity between front door lock assembly (driver side) harness connector and ground.						
Check continuity between front door lock assembly (driver side) harness connector and ground. Front door lock assembly (driver side) Continuity Disconnector Continuity Disconnector Continuity Disconnector Continuity Disconnector Continuity Disconnector Continuity Seconnector issuit normal? YES > GO TO 4. NO >> Repair or replace harness. 4. Check UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5. 5.CHECK INTERMITTENT INCIDENT Refer to GL-35, "Intermittent Incident". >> INSPECTION END Component Inspection A UNICK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Continuity Term door lock assembly (driver side) (unlock sensor) connector. <td>• ' '</td> <td></td> <td></td> <td></td>	• ' '					
Front door lock assembly (driver side) Ground Continuity 015 4 Existed Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4. 4. CHECK UNLOCK SENSOR Refer to DLK-93. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258. "DOOR LOCK : Removal and Installation". 5. CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) connector. 3. 4.						
Connector Terminal Ground Continuity D15 4 Existed Is the inspection result normal? YES >> GO TO 4. NO NO >> Repair or replace harness. 4. CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) connector. 3. 4 Unlock Continuity	Check continuity between from	door lock asse	embly (driver side) harness connector a	na grouna.		
Connector Terminal Ground D15 4 Existed Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Burden Component Inspection 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) connector. 3. 4 Unlock Existed	Front door lock asser	mbly (driver side)				
Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to DLK-93. "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258. "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition Continuity sensor) condition Continuity	Connector	Terminal	Ground	Continuity		
YES >> GO TO 4. NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to <u>DLK-93, "Component Inspection".</u> Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-258, "DOOR LOCK : Removal and Installation".</u> 5.CHECK INTERMITTENT INCIDENT Refer to <u>GI-35, "Intermittent Incident".</u> >> INSPECTION END Component Inspection 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition Kenned and the sensor is the sensor i	D15	4		Existed		
NO >> Repair or replace harness. 4.CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock assem	Is the inspection result normal	2				
4.CHECK UNLOCK SENSOR Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition Continuity 3 4						
Refer to DLK-93, "Component Inspection". Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". S.CHECK INTERMITTENT INCIDENT Refer to GI-35, "Intermittent Incident". >> INSPECTION END Orego Component Inspection ONE ONE SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. Sensor (continuity terminal Front door lock assembly (driver side) (unlock sensor) condition Continuity	4					
Is the inspection result normal? YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35, "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock assembly						
YES >> GO TO 5. NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition Continuity Terminal 3 4						
NO >> Replace front door lock assembly (driver side). Refer to DLK-258, "DOOR LOCK : Removal and Installation". 5.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) condition Continuity Terminal 3 4	÷	<u>?</u>				
Installation". D.CHECK INTERMITTENT INCIDENT Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1.CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals.		r lock assembly	(driver side) Refer to DLK-258 "DOC	R LOCK : Removal and		
Refer to GI-35. "Intermittent Incident". >> INSPECTION END Component Inspection 1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals.	•			N LOOK . Kenioval and		
>> INSPECTION END Component Inspection INFORMATION OF INFORMAT	5. CHECK INTERMITTENT IN	ICIDENT				
>> INSPECTION END Component Inspection INFORMATION OF INFORMAT	Refer to GI-35. "Intermittent In	cident".				
Component Inspection INFOID:00000003843003 1. CHECK UNLOCK SENSOR Information switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. Information solution (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) terminals.						
1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) Generation Unlock Existed	>> INSPECTION END)				
1. CHECK UNLOCK SENSOR 1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) Generation Unlock Existed	Component Inspection			INFOID:00000003843003		
1. Turn ignition switch OFF. 2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) Terminal 3 4						
2. Disconnect front door lock assembly (driver side) (unlock sensor) connector. 3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) Terminal 3 4	I.CHECK UNLOCK SENSOF	R				
3. Check front door lock assembly (driver side) (unlock sensor) terminals. Front door lock assembly (driver side) (unlock sensor) Front door lock assembly (driver side) (unlock sensor) Terminal 3 4						
Front door lock assembly (driver side) (unlock sensor) Front door lock assembly (driver side) (unlock sensor) Continuity Terminal Unlock Existed				_		
Terminal Unlock Existed 3 4						
Terminal Sensor) condition 3 4	Front door lock assembly (driver sid	e) (unlock sensor)				
3 4	Terminal		sensor) condition			
	3	4	Unlock	Existed		
LOCK Not existed			Lock	Not existed		
	YES >> INSPECTION ENI NO >> Replace front lock		ver side) (unlock sensor). Refer to DI	K-258 "DOOR LOCK		
	Removal and Insta					

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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 DLK-88. "Component Function Check"

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check door request switch. Refer to <u>DLK-88, "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-94, "Diagnosis Procedure"</u>.

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		(-)	Condition		Signal (Reference value)
C	onnector	Terminal				
	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 5 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 BCS-82, "Removal and Installation"

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-94

INFOID:000000003843004

INFOID:000000003843005

OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

	E	BCM			Outside key	antenna		O antinuit.
C	Connector	Te	erminal	Connec	tor	Termi	nal	Continuity
			76		r cide)	2		
	M400		77	D14 (drive	r side)	1		
	M122		74	D44 (*******		2		Eviete d
			75	– D44 (passen	ger side)	1		Existed
	M404		38	D110 (h = -)		2		
	M121		39	D118 (back	(door)	1		
Chec	k continuity b	etween B	CM harnes	s connector a	nd ground		4	
		BCM						
	Connector		Termi	nal				Continuity
			74					
			75					
	M122		76		G	ound		
			77					Not existed
		38						
	M121		39		-			
epla onn ecto	ace malfuncti lect BCM cor or.	oning outs	ide key an d malfunct	JT SIGNAL 2 tenna. (New a ioning outside onnector and g	e key ante	nna (New	antenna	or other antenna
	(+)							
	BCM		()	C	Condition			Signal eference value)
С	connector	Terminal					(1)	
	Driver side	76, 77						
22	Passenger side	74, 75		Door request	When Intel is in the ar tection are	tenna de-	(V) 15 10 5 0	1 s JMKIA0062GB
			Ground	switch is pushed		ligent Key	(V) 15 10	

Is the inspection result normal?

Rear bumper

38, 39

YES-1 >> Replace malfunctioning front outside handle (LH or RH). Refer to <u>DLK-260, "OUTSIDE HANDLE :</u> <u>Removal and Installation"</u>.

When Intelligent Key

is not in the antenna

detection area.

YES-2 >> Replace outside key antenna (Back door). Refer to <u>DLK-272, "BACK DOOR : Removal and Instal-</u><u>lation"</u>.

M121

JMKIA0063GB

Ρ

10 10 5

n

1 s

OUTSIDE KEY ANTENNA

< DTC/CIRCUIT DIAGNOSIS >

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

INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOS				
INTELLIGENT KEY	WARNING	BUZZER		
Description				INFOID:000000003843007
Answers back and warns fo	r an inappropriate	operation.		
Component Function	Check			INFOID:00000003843008
1.CHECK FUNCTION				
Check Intelligent Key warnii	ng buzzer ("OUTSI	DE BUZZER") in <i>i</i>	Active Test mode.	
Is the inspection result norm	nal?			
YES >> Intelligent Key v NO >> Refer to <u>DLK-9</u>				
Diagnosis Procedure				INFOID:000000003843009
1. CHECK FUSE				
1. Turn ignition switch OFI2. Check 10 A fuse, [No.6]Is fuse fusing?YESYESNO>> GO TO 2.2.CHECK INTELLIGENT K	, located in fuse blo wn fuse after repai	iring the affected o	ircuit if a fuse is blo	wn.
 Disconnect Intelligent K Check voltage between 			ess connector and g	jround.
	(+)			
Intelligent Key	warning buzzer		(—)	Voltage (V) (Approx.)
Connector	Terminal			
E80	1		Ground	Battery voltage
Is the inspection result norm YES >> GO TO 3. NO >> Repair or replace 3. CHECK INTELLIGENT K 1. Disconnect BCM connect 2. Check continuity between	ce harness. EY WARNING BU		ligent Key warning b	Duzzer harness connector.
BCM		Intelligent Ke	y warning buzzer	
Connector	Terminal	Connector	Terminal	Continuity
M121	64	E80	3	Existed
3. Check continuity betwee	en BCM harness c	onnector and grou	ınd.	
В	CM			Continuity
Connector	Terminal		Ground	
M121	64			Not existed
Is the inspection result norm YES >> GO TO 4. NO >> Repair or replace 4. CHECK INTELLIGENT K Check DLK-98. "Component	ce harness. KEY WARNING BU <u>t Inspection"</u> .	IZZER		
Is the inspection result norm	<u>nal?</u>			

INTELLIGENT KEY WARNING BUZZER

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace BCM. Refer to <u>BCS-82. "Removal and Installation"</u>.

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-273, "Removal and Installation"</u>.

Component Inspection

INFOID:000000003843010

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-273, "Removal and Installation"</u>.

INTELLIGENT KEY

< DTC/CIRCUIT DIAGNOSIS >

INTELLIGENT KEY

Description

The following functions are available when having and carrying electronic ID.

Door lock/unlock

Engine start

Remote control entry function and panic alarm function are available when operating on button.

Component Function Check

1.CHECK FUNCTION

Check remote keyless entry receiver ("RKE OPE COUN1") in Data Monitor mode using CONSULT-III.

	Monitor item	Condition	E
F	RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.	
Is th	e inspection result normal?		
			F

YES >> Intelligent Key is OK.

>> Refer to DLK-99, "Diagnosis Procedure". NO

Diagnosis Procedure

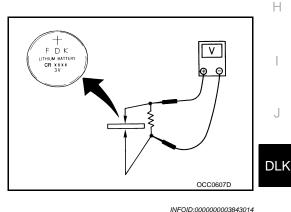
1.CHECK INTELLIGENT KEY BATTERY

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

Standard : Approx. 2.5 - 3.0V

Is the measurement value within the specification?

- YES >> Replace Intelligent Key.
- NO >> Replace Intelligent Key battery. Refer to DLK-99, "Component Inspection".



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INFOID:000000003843011

INFOID:000000003843012

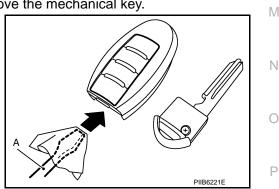
INFOID:000000003843013

Component Inspection



- 1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.
- 2. Insert a flat-bladed screwdriver (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.



Replace the battery with new one. 3.

INTELLIGENT KEY

< DTC/CIRCUIT DIAGNOSIS >

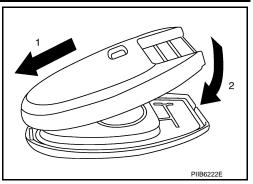
- Align the tips of the upper and lower parts, and then push them together until it is securely closed.
 CAUTION:
 - When replacing battery, keep dirt, grease, and other foreign matter off the electrode contact area.
 - After replacing the battery, check that all Intelligent Key functions work normally.

Is the inspection result normal?

- YES >> Intelligent Key is OK.
- NO >> Check remote keyless entry receiver. Refer to <u>DLK-83.</u> <u>"Component Function Check"</u>.

Special Repair Requirement

Refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.



INFOID:00000003843015

KEY SLOT

< DTC/CIRCUIT DIAGNOSIS >

KEY SLOT						
Description		INFOID:00000003843016				
Detect whether Intelligent Key is inserted. Immobilizer antenna amp checks Intelligent Key trans	ponder.					
Component Function Check		INFOID:00000003843017				
CHECK FUNCTION						
Check key slot ("KEY SW -SLOT") in Data Monitor mo	ode using CONSULT-III.					
Monitor item	Co	ndition				
	Key is inserted in key slot: ON	1				
KEY SW-SLOT	Key is removed from key slot:	OFF				
Is the inspection result normal? YES >> Key slot is OK. NO >> Refer to <u>DLK-101</u> , "Diagnosis Procedure" Diagnosis Procedure		INFOID:00000003843018				
1.CHECK FUSE		IN 012.00000003645016				
 Turn ignition switch OFF. Check 10 A fuse, [No.9, located in fuse block (J/B ls fuse fusing? YES >> Replace the blown fuse after repairing the NO >> GO TO 2. CHECK KEY SLOT POWER SUPPLY CIRCUIT Disconnect key slot connector. Check voltage between slot harness connector ar 	e affected circuit if a fuse is	blown.				
(+)		Voltage (V)				
Key slot	()	(Approx.)				
Connector Terminal M22 1	Ground	Battery voltage				
Is the inspection result normal?	Ground	Dattery voltage				
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 Terminal	Ground					
M22 7		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.

DLK-101

KEY SLOT

< DTC/CIRCUIT DIAGNOSIS >

B	СМ	Key	/ slot	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	121	M22	11	Existed

3. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector Terminal		Ground	Continuity
M123	121		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK KEY SLOT

Refer to DLK-102, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace key slot. Refer to <u>DLK-275, "Removal and Installation"</u>.

6.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:000000003843019

1.CHECK KEY SLOT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.

3. Check key slot terminals.

Key slot		Condition	Continuity	
Terr	ninal	Condition	Continuity	
1	11	Intelligent Key inserted	Existed	
I		Intelligent Key removed	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-275, "Removal and Installation"</u>.

KEY SLOT ILLUMINATION

<pre>< DTC/CIRCUIT DIAC KEY SLOT ILLU</pre>		ON					
Description		-				MEC/ID-000000000000000000000000000000000000	
·						INFOID:000000003843020	
Blinks when Intelligent	•	•					
Component Func	tion Che	CK				INFOID:000000003843021	
1.CHECK FUNCTION	N						
Check key slot illumina	ation ("KEY	SLOT ILLUMI") Active Test mod	э.			
Is the inspection result YES >> Key slot fu NO >> Refer to D	Inction is Of	K. agnosis Proce	dure".				
Diagnosis Proced		-				INFOID:000000003843022	
1.CHECK FUSE							
 Turn ignition switc Check 10 A fuse, Is fuse fusing? YES >> Replace the NO >> GO TO 2. 	[No.9, locate ne blown fus	se after repairir	ng the affected cire	cuit if a fuse is I	olown.		
2.CHECK KEY SLOT							
Check voltage between	n key slot ha	arness connec	tor and ground.				
(+)				Ke	y slot	Voltage (V)	
Key slot	Terminal	()	Condition		ination	(Approx.)	
M22	6	Ground	Intelligent Key in Intelligent Key re		OFF ON	Battery voltage	
Is the inspection result YES >> GO TO 3. NO >> GO TO 4. 3. CHECK KEY SLOT 1. Disconnect BCM a 2. Check continuity b	CIRCUIT	connector. M harness con	nector and key sl	ot harness coni	nector.		
В	BCM		Key slot			0 <i>i i i</i>	
Connector	Term	ninal	Connector	Terminal		Continuity	
M122	9		M22 6			Existed	
Check continuity b	etween BC	M harness con	nector and groun	d.			
	BCM					Continuity	
Connector		Terminal	l Ground		Not existed		
M122 Is the inspection result	normal?	92					
	CM. Refer t replace harr	ness.	emoval and Install	<u>ation"</u> .			

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

2. Check voltage between key slot harness connector and ground.

(+) Key slot Connector Terminal		()	Voltage (V) (Approx.)		
			(Approx.)		
M22	5	Ground	Battery voltage		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

 ${f 5.}$ CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot harness connector and ground.

Key	/ slot		Continuity	
Connector	Terminal	Ground	Continuity	
M22	7		Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK KEY SLOT

Refer to DLK-104, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace key slot. Refer to <u>DLK-275, "Removal and Installation"</u>.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1.CHECK KEY SLOT ILLUMINATION

1. Turn ignition switch OFF.

- 2. Disconnect key slot connector.
- 3. Connect battery power supply to key slot terminals 5 and 6, and check the operation.

5 (BAT+) - 6 (BAT-)

: Key slot illuminates

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-275, "Removal and Installation"</u>.

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS > HORN FUNCTION

Description						INFOID:000000003843024
Perform answer-back f	or each op	eration usi	ing horn.			
Component Func	tion Che	eck				INFOID:000000003843025
1.CHECK FUNCTION	J					
1. Select "HORN" in	ACTIVE T	EST" mod	e using C	ONSULT-III.		
2. Check the horn (hi			U			
	Test item				Description	
HORN	ON			Horn relay	ON (for 20 ms)	
s the operation norma YES >> Horn funct NO >> Refer to D	ion is OK.	liagnosis F	Procedure	<u>"</u> .		
Diagnosis Proced	dure					INFOID:000000003843026
1. CHECK HORN SW	ІТСН					
Check horn function us	-	witch				
Do the horns sound?	sing norm s	WITCH				
YES >> GO TO 2.						
NO >> Refer to <u>H</u>	<u>RN-2, "Wir</u>	ing Diagra	<u>m - HORN</u>	<u>1 -"</u> .		
2.CHECK HORN REL	AY POWE	R SUPPL	Y			
1. Turn ignition switc						
 Perform "ACTIVE" Check voltage bet 				JLT-III. harness connecto	r and ground.	
(+) Horn relay		(-)	-	Test item	Vo	ltage (V)
Connector	Terminal	-		lest lielli	(/	Approx.)
E11 Low	1	Ground		ON	Battery voltage	\rightarrow 0 \rightarrow Battery voltage
E18 High	3	-	HORN	Other than above	Batt	ery voltage
s the inspection result	normal?	l				
YES >> GO TO 4.						
NO >> GO TO 3.						
3. CHECK HORN REL	_AY CIRCL	ЛТ				
 Turn ignition switch Disconnect IPDM Check continuity b 	E/R conne				ctioning horn rela	ay harness connector.
IP	DM E/R			Horn relay		
					Continuity	

IPD	M E/R	Horn	relay	Continuity	0
Connector	Terminal	Connector	Terminal	Continuity	
E6	44	E11	1	Existed	Р
E0	45	E18	3	Existed	

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

HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

IPD	M E/R	Ground	Continuity	
Connector	Terminal			
E6	44	Ground	Not existed	
	45		NOT EXISTED	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

Is the inspection result normal?

>> INSPECTION END

COMBINATION METER DISPLAY FUNCTION

< DTC/CIRCUIT DIAGNOSIS >	
COMBINATION METER DISPLAY FUNCTION	
Description INFOID:00000003843027	
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-107, "Diagnosis Procedure"</u> .	
Diagnosis Procedure	
1.CHECK COMBINATION METER	
Refer to <u>MWI-112, "DTC Index"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 2. NO >> Check combination meter. Refer to <u>MWI-4, "Work flow"</u> . 2. CHECK INTERMITTENT INCIDENT	
Refer to GI-35, "Intermittent Incident".	
>> INSPECTION END	

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< DTC/CIRCUIT DIAGNOSIS >

BUZZER (COMBINATION METER)

Description

Performs operation method guide and warning using buzzer.

Component Function Check

1.CHECK FUNCTION

1. Check the operation using "INSIDE BUZZER" in the Active Test.

2. Touch "TAKE OUT", "KNOB" or "KEY" on screen.

Is the inspection result normal?

Yes >> Warning buzzer into combination meter is OK.

No >> Refer to <u>DLK-108, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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-35, "Intermittent Incident".

>> INSPECTION END

INFOID:000000003843030

INFOID:000000003843031

KEY WARNING LAMP

<pre>< DTC/CIRCUIT DIAGNOSIS > KEY WARNING LAMP</pre>				
			А	
Description		INF0ID:000000003843033		
Performs operation method guide a	nd warning together usi	ng buzzer.	В	
Component Function Chec	k	INFOID:00000003843034		
1.CHECK FUNCTION			С	
Check the operation with "INDICATO	DR" in "Active Test" mod	de using CONSULT-III.		
Test item		Condition	D	
	RED ON	Key warning lamp (red) illuminates		
INDICATOR	RED IND	Key warning lamp (red) blinks	Е	
Is the inspection result normal?				
YES >> Key warning lamp in co NO >> Refer to <u>DLK-109, "Diag</u>			F	
Diagnosis Procedure		INFOID:00000003843035		
1. CHECK KEY WARNING LAMP			G	
Refer to MWI-43, "Diagnosis Descri	<u>otion"</u> .			
Is the inspection result normal?			Н	
YES >> GO TO 2. NO >> Repair or replace harne	22			
2.CHECK INTERMITTENT INCIDE			1	
Refer to GI-35, "Intermittent Incident			I	
	<u>-</u> .			
>> INSPECTION END	>> INSPECTION END			

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HAZARD FUNCTION

< DTC/CIRCUIT DIAGNOSIS > HAZARD FUNCTION

Description INFOID:000000003843036 Perform answer-back for each operation using the number of blinks. **Component Function Check** INFOID:000000003843037 1. CHECK FUNCTION Check hazard warning lamp ("FLASHER") in Active Test. Is the inspection result normal? YES >> Hazard warning lamp circuit is OK. >> Refer to <u>DLK-110</u>, "Diagnosis Procedure". NO **Diagnosis Procedure** INFOID:000000003843038 1. CHECK HAZARD SWITCH CIRCUIT Refer to EXL-111, "Wiring Diagram - TURN AND HAZARD WARNING LAMPS -" Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace harness. 2. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Revision: 2009 March

OPEN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

OPEN SWITCH

Description

The open switch is integrated in the back door lock assembly, and it detects the open condition of the back $_{\rm B}$ door lock.

Diagnosis Procedure

1. CHECK BACK DOOR CONTROL UNIT OUTPUT

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

	(+)				E
	Back door lock	assembly	(-)	Voltage (V) (Approx.)	
	Connector	Terminal		(//pp/0/.)	
	D122	4	Ground	Battery voltage	F
Is the inspect	tion result normal?				-

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK OPEN SWITCH CIRCUIT

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

Back door control unit		Back door lock assembly		Continuity	•
Connector	Terminal	Connector	Terminal	Continuity	
D123	5	D122	4	Existed	-

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

	Back door control unit			Continuity	DLK
-	Connector	Terminal	Ground	Continuity	
-	D123	5		Not existed	L

Is the inspection result normal?

YES >> Replace back door control unit. Refer to <u>DLK-274, "Removal and Installation"</u>.

NO >> Repair or replace harness.

 ${
m 3.}$ CHECK OPEN SWITCH GROUND CIRCUIT

Check continuity between back door lock assembly connector and ground.

-	Back door lock as	sembly		Continuity	•
	Connector	Terminal	Ground	Continuity	0
	D122	8		Existed	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK OPEN SWITCH

Refer to DLK-112, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <u>DLK-266, "Removal and Installation"</u>.

DLK-111

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INFOID:00000003939953

OPEN SWITCH

< DTC/CIRCUIT DIAGNOSIS >

5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1. CHECK OPEN SWITCH

Check back door lock assembly (open switch).

Term	Terminal		Condition	Continuity	
Back door lock asse	mbly (open switch)	Condition			
1	Q	Back door lock	Open	Existed	
4	0	Back door lock	Fully closed/Half latch	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly. Refer to <u>DLK-266. "Removal and Installation"</u>.

CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS > CLOSE SWITCH

Description

The close switch is integrated in the back door lock assembly, and it detects the close condition of the back door lock.

Diagnosis Procedure

1. CHECK BACK DOOR CONTROL UNIT OUTPUT 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 lock assembly (-)	Voltage (V)
	(Approx.)
Connector Terminal	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
D123 5 Ground	Battery voltage

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK CLOSE SWITCH CIRCUIT

1. Disconnect back door control unit connector.

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

Back door control unit		Back door lock assembly		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D123	1	D122	5	Existed

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

-	Back door control unit			Continuity	DLK
-	Connector	Terminal	Ground	Continuity	
-	D123	1		Not existed	

Is the inspection result normal?

YES >> Replace back door control unit. Refer to <u>DLK-274, "Removal and Installation"</u>.

NO >> Repair or replace harness.

 ${f 3.}$ CHECK CLOSE SWITCH GROUND CIRCUIT

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

Back door lock assembly			Continuity	
Connector	Terminal	Ground	Continuity	0
D122	8		Existed	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK CLOSE SWITCH

Refer to DLK-114, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <u>DLK-266, "Removal and Installation"</u>.

DLK-113

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INFOID:000000003939959

CLOSE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1. CHECK CLOSE SWITCH

Check back door lock assembly (close switch).

Back door lock	erminal ssembly (close switch)	– Con	dition	Continuity
F	•	Deals deer leak resition	Fully closed	Existed
5	δ	Back door lock position	Open/Half latch	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly. Refer to <u>DLK-266. "Removal and Installation"</u>.

HALF LATCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

HALF LATCH SWITCH

Description

The half latch switch is integrated in the back door lock assembly and it detects the half latch condition of the back door lock.

Diagnosis Procedure

1. CHECK BACK DOOR CONTROL UNIT OUTPUT

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

(-	•)			E
Half latcl	n switch	()	Voltage (V) (Approx.)	
Connector	Terminal		(
D122	6	Ground	Battery voltage	F
le the increation result norr			Dattory Voltage	-

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HALF LATCH SWITCH CIRCUIT

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

Continuity	Back door lock assembly		Back door control unit	
Continuity	Terminal	Connector	Terminal	Connector
Existed	6	D122	2	D123

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

Back door	control unit		Continuity	
Connector	Terminal	Ground	Continuity	DLK
D123	2		Not existed	

Is the inspection result normal?

YES >> Replace back door control unit. Refer to <u>DLK-274, "Removal and Installation"</u>.

NO >> Repair or replace harness.

${f 3.}$ CHECK HALF LATCH SWITCH GROUND CIRCUIT

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

Back door lock	assembly		Continuity	P
Connector	Terminal	Ground	Continuity	
D122	8		Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK HALF LATCH SWITCH

Refer to DLK-116, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door lock assembly. Refer to <u>DLK-266, "Removal and Installation"</u>.

DLK-115

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INFOID:00000003939961

HALF LATCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1. CHECK HALF LATCH SWITCH

Check back door lock assembly (half latch switch).

_	Terminal		Back door lock position	Continuity
_	Back door lock assembly (ha	alf latch switch) connector	Back door lock position	Continuity
_	6	0	Open	Existed
	0	0	Fully closed/Half latch	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door lock assembly. Refer to <u>DLK-266. "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

BACK DOOR CLOSURE MOTOR

Description

The back door lock assembly consists of the open switch, close switch, half latch switch and closure motor. The back door control unit determines the back door lock condition according to the signal from each switch and performs the open/close operation of closure motor.

Diagnosis Procedure

1. CHECK BACK DOOR CLOSURE MOTOR CIRCUIT

- Turn ignition switch OFF. 1.
- Disconnect back door control unit connector and back door lock assembly connector. 2.
- Check continuity between back door control unit harness connector and back door lock assembly harness 3. connector.

Back door co	ontrol unit	Back door loc	k assembly	Continuity
Connector	Terminal	Connector	Terminal	- Continuity
D400		4 D122	1	Not existed
	4		2	Existed
D123	10		1	Existed
	10	-	2	Not existed

Back door co	ntrol unit	Ground	Continuity
Connector	Terminal		Continuity
D123	4	Ground	Not existed
D125	10	-	NOT EXISTED

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.check back door closure motor circuit

Connect back door control unit connector and back door lock assembly connector. 1.

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

(+ Back door d		()	Condition		Voltage (V) (Approx.)	N
Connector	Terminal				()	
	4			Close operation	Battery voltage	
D123	4	Ground	Back door closure	Other than above	0	N
D125	10	Giodila	Back door closure	Open operation	Battery voltage	
	10			Other than above	0	C

Is the inspection result normal?

YES >> Replace back door lock assembly. Refer to DLK-266, "Removal and Installation".

>> Replace back door control unit. Refer to DLK-274, "Removal and Installation". NO

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INFOID:00000003932091

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:000000003843040

INFOID:00000003843039

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-118, "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-68.</u> <u>"Removal and Installation"</u> (with ADP) or <u>MIR-90. "Removal and Installation"</u> (Without ADP).

Diagnosis Procedure

INFOID:000000003843041

1.CHECK POWER SUPPLY

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

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal		Condition	Voltage (V) (Approx.)
P2	10	Ground	Ignition switch position: OFF	Battery voltage
R3	6	Ground	Ignition switch position: ON	Dattery Voltage

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: 2009 March

DLK-118

INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R3	8		Existed
s the inspection result normal?			
YES >> GO TO 3.			
NO >> Repair harness.			
3 .check intermittent incident			
Refer to GI-35, "Intermittent Incident".			
>> INSPECTION END			

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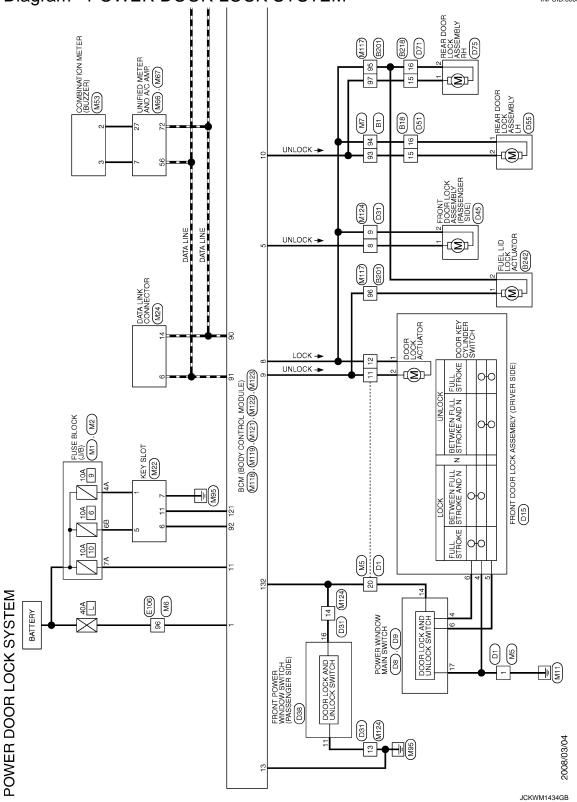
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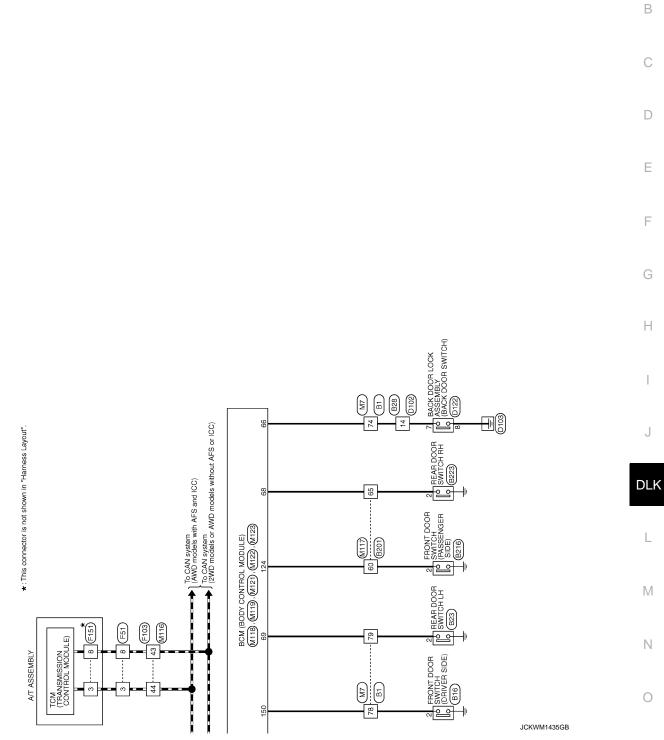
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POWER DOOR LOCK SYSTEM

Wiring Diagram - POWER DOOR LOCK SYSTEM -



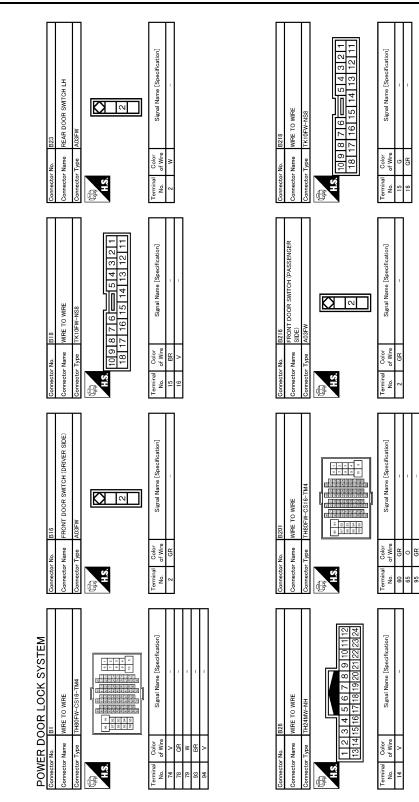
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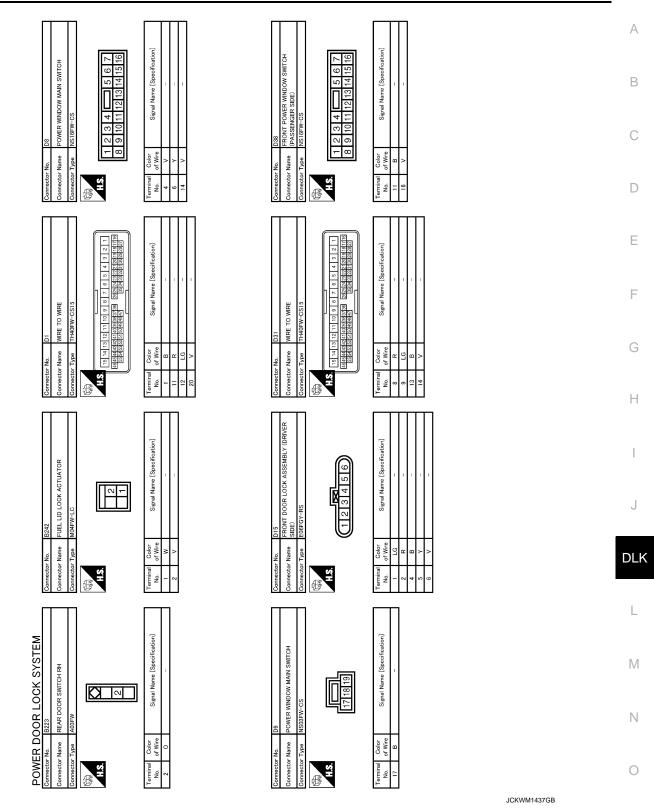


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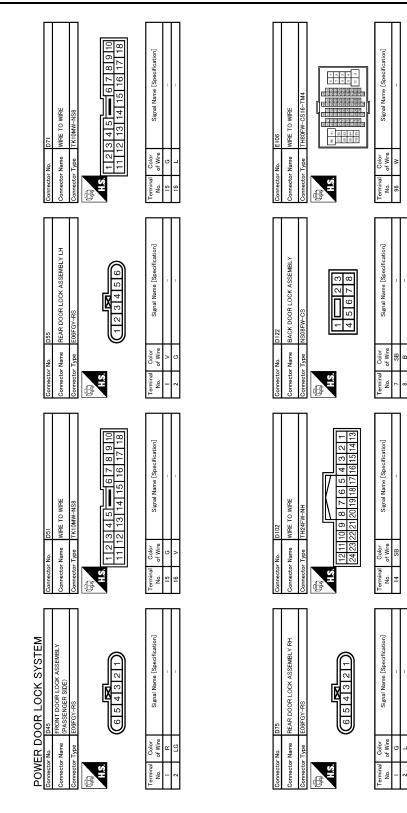
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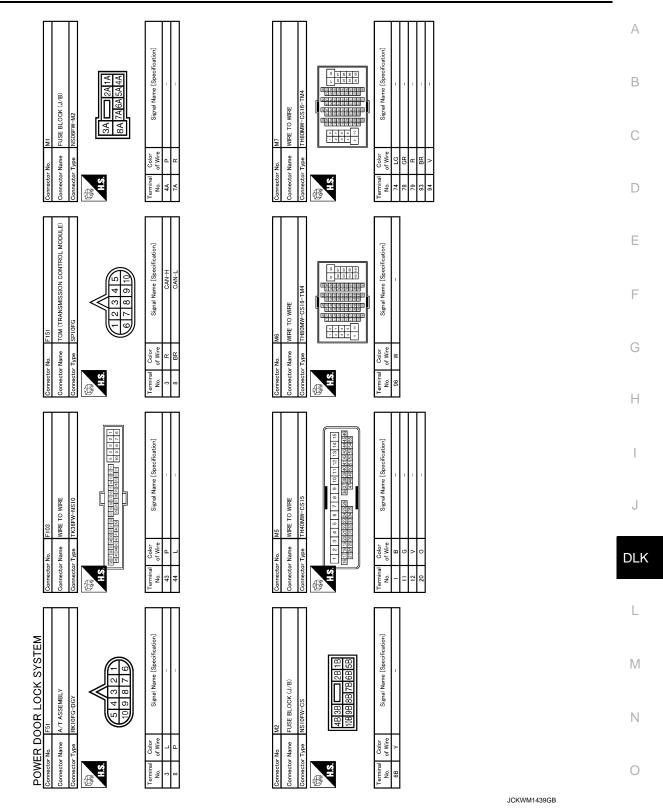


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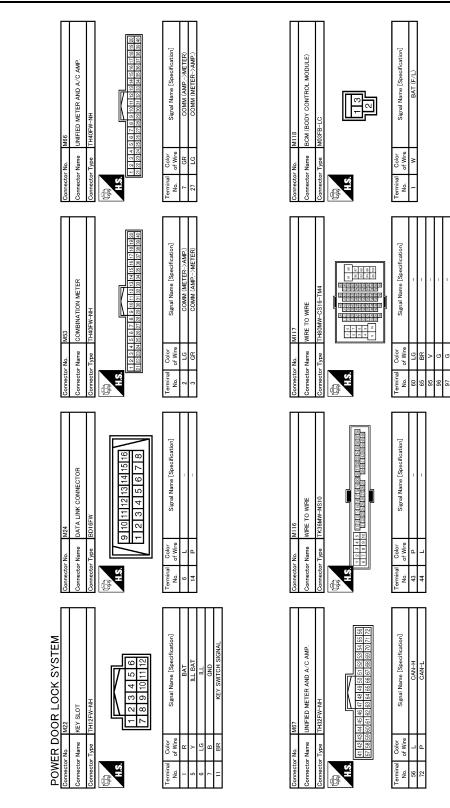


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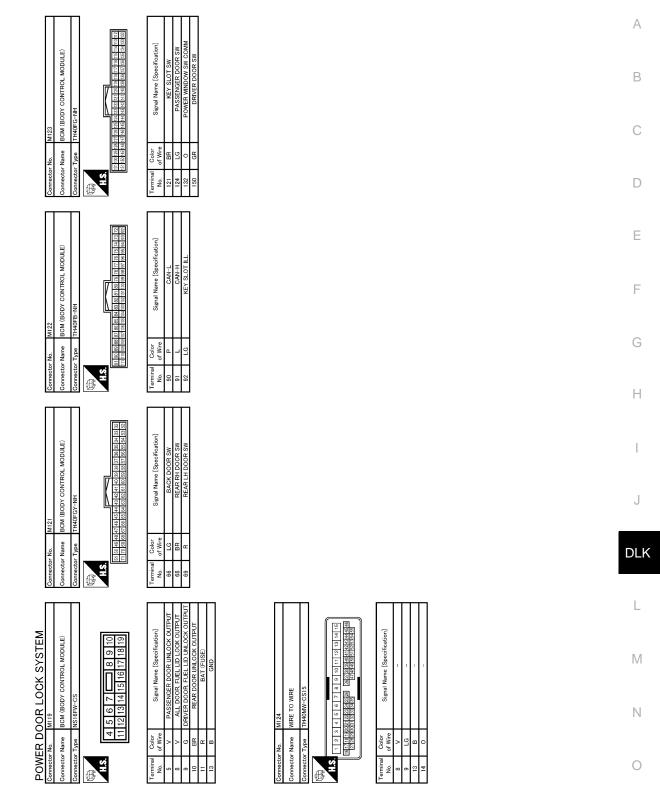


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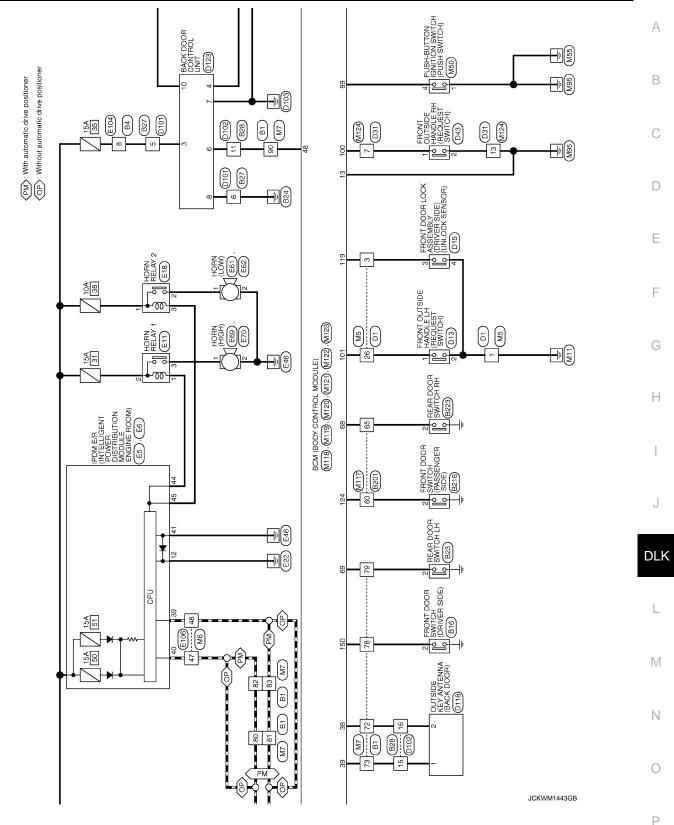
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INTELLIGENT KEY SYSTEM Wiring Diagram - INTELLIGENT KEY SYSTEM -DATA LINK CONNECTOR (M24) DATA LINE FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA) D44 DATA LINE To CAN system (AWD models with AFS and ICC) To CAN system (M11) (SVD models or AWD models without AFS or ICC) ŝ 031 COMBINATION METER (M53) FRONT OUTSIDE HANDLE LH (OUTSIDE D14) D14 M3 FUSE BLOCK (J/B) M1 , M2 ,(BUZZER BUZZER 15 01 [27 UNIFIED METER CONTROL UNIT KEY 10A 4 <u>اير</u> 28 10A INSIDE KEY ANTENNA (LUGGAGE ROOM) (B228) , M123 BCM (BODY CONTROL MODULE) (M113), (M120), (M122), (M122), IGNITION SWITCH ON or START 10A 3 UNIFIED METER AND A/C AMP. (M66) . (M67) Ezol ŝ 72 INSIDE KEY ANTENNA (CONSOLE) (M146) IGNITION SWITCH ACC or ON 10A 19 KEY SLOT M22 10A INSIDE KEY ANTENNA (INSTRUMENT CENTER) (M131) 80 INTELLIGENT KEY SYSTEM EBO (ENGINE ROOM) (ENGINE ROOM) E100 M6 We 10A REMOTE KEYLESS ENTRY RECEIVER (M104) 83 84 25 10A 96 M6 40A BATTERY 37

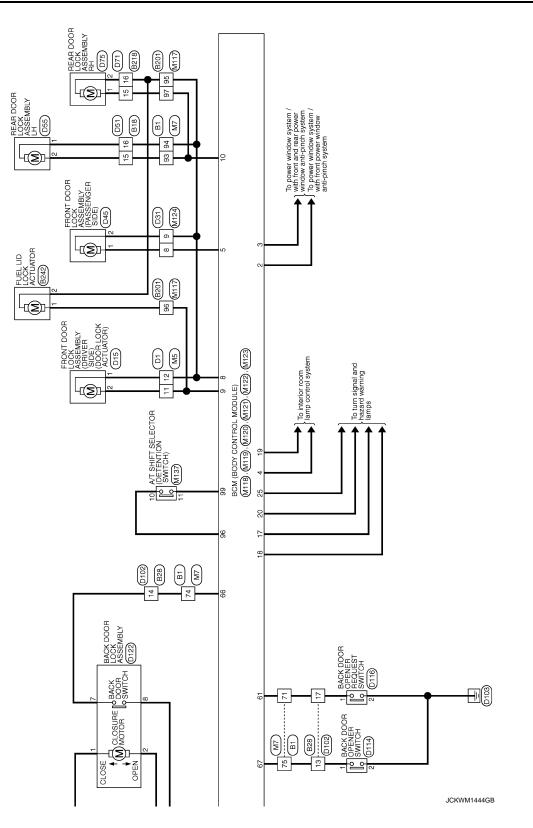
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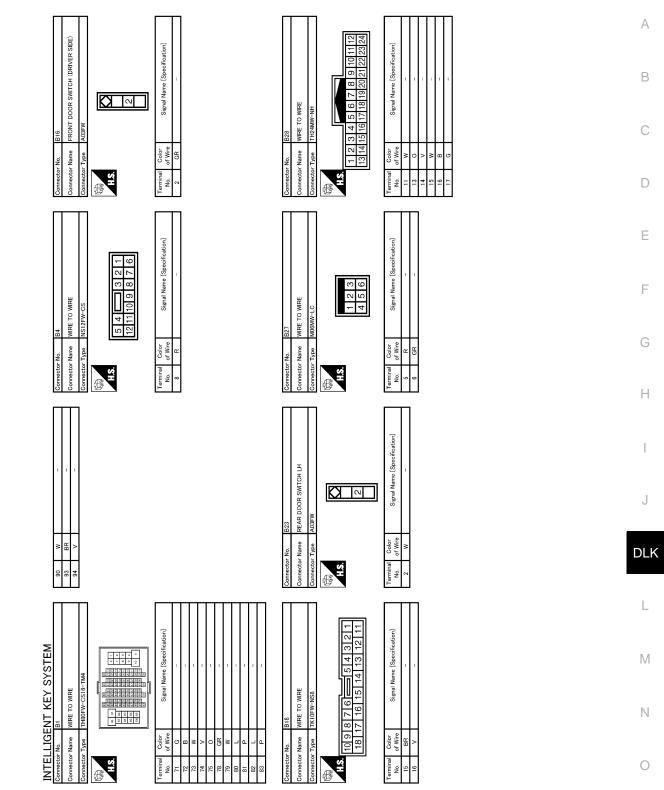


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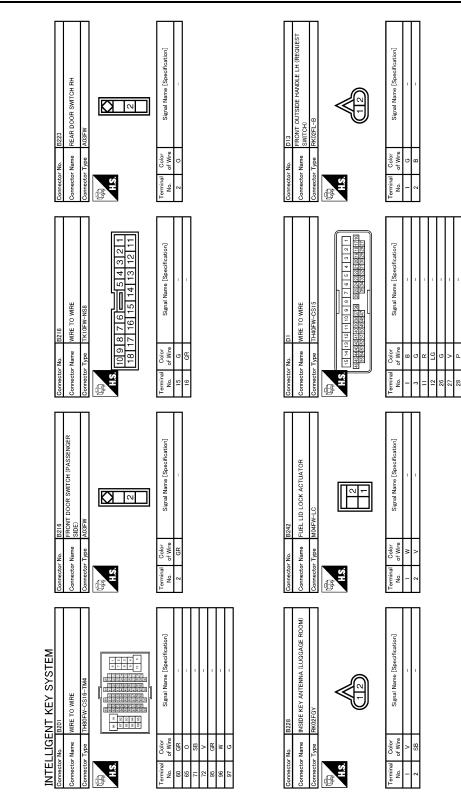


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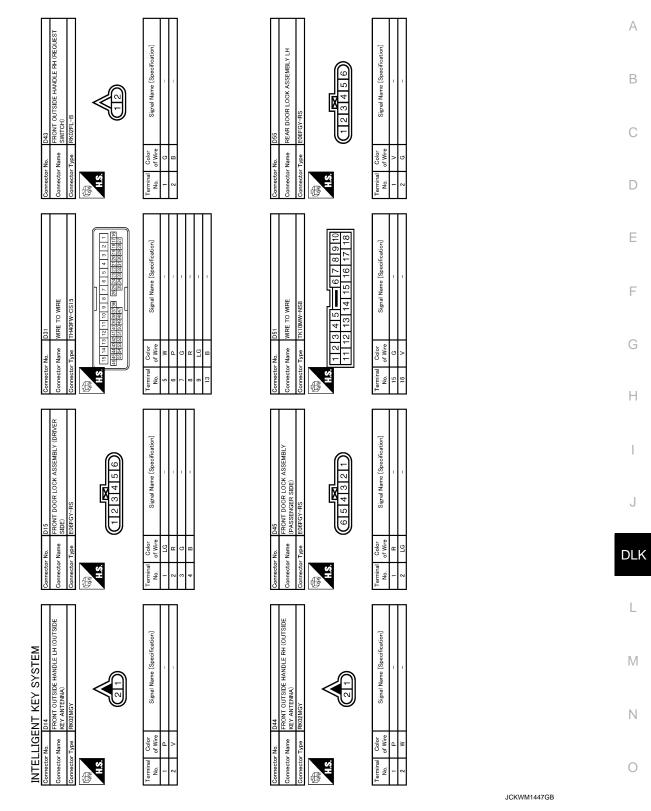
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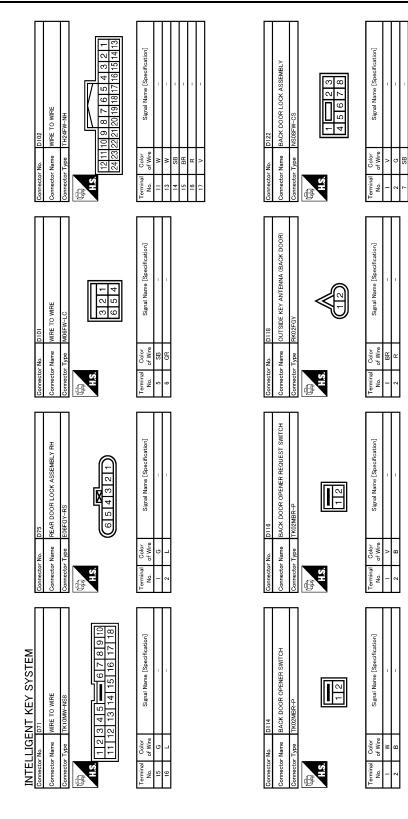


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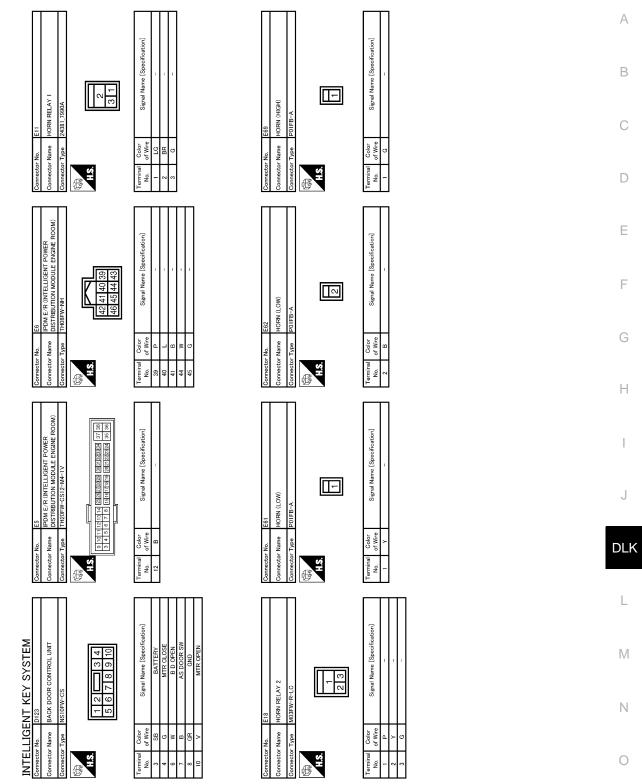


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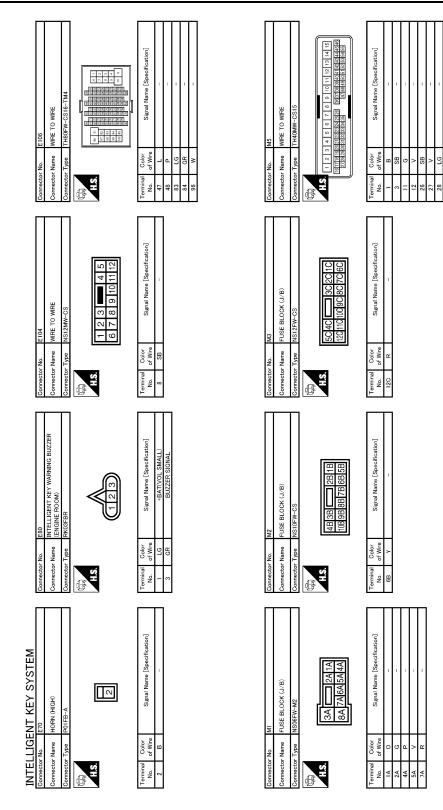
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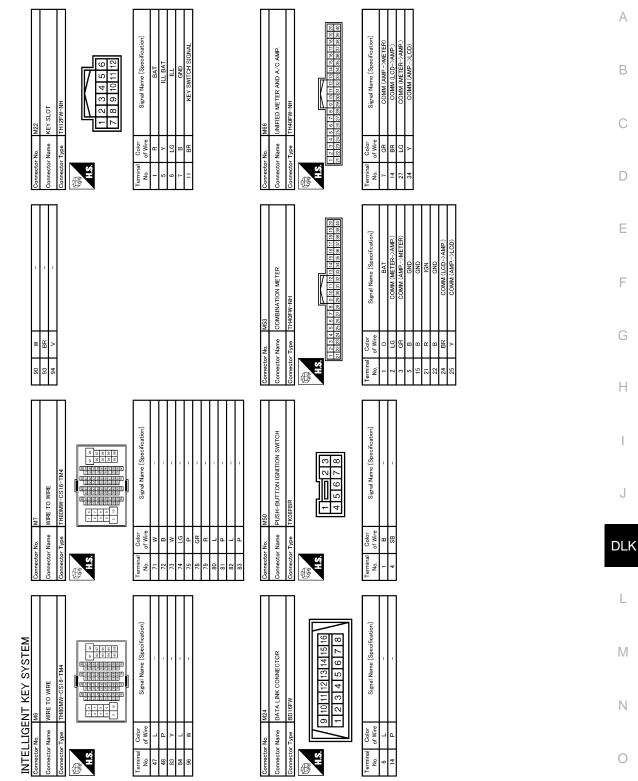
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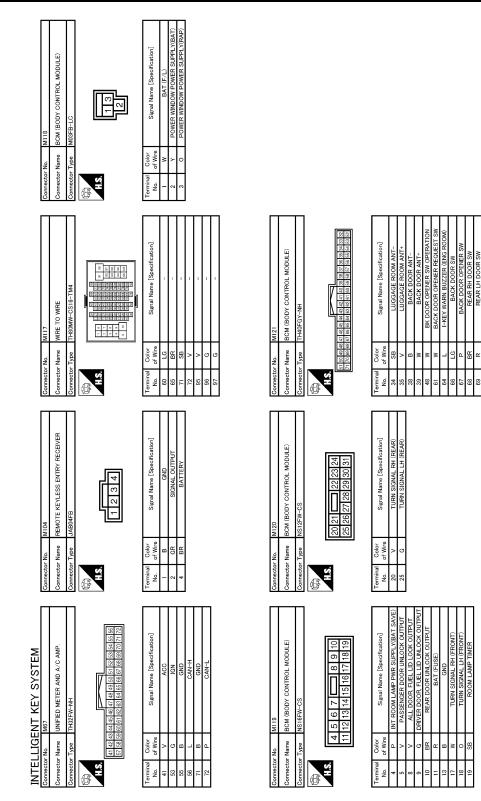
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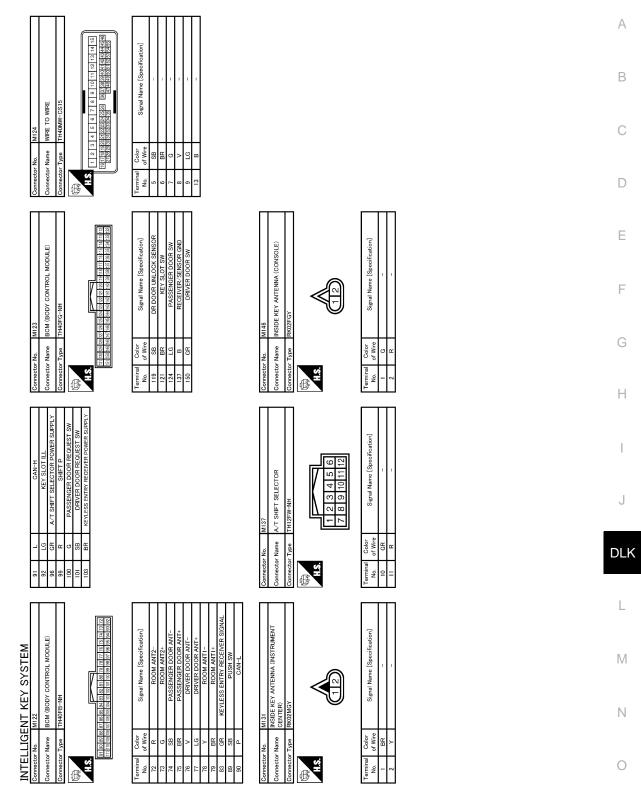
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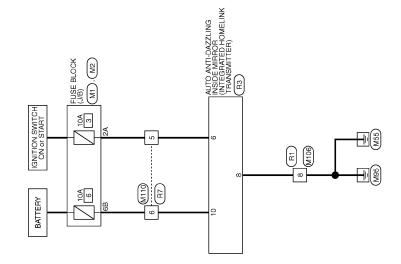
INTEGRATED HOMELINK TRANSMITTER SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

INTEGRATED HOMELINK TRANSMITTER SYSTEM

Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM -

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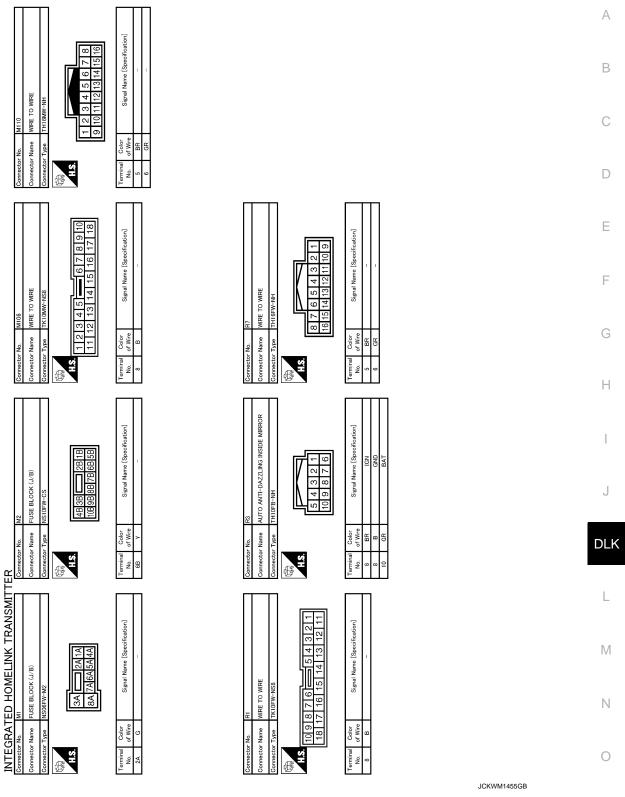
INTEGRATED HOMELINK TRANSMITTER

2008/03/04

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INTEGRATED HOMELINK TRANSMITTER SYSTEM

< DTC/CIRCUIT DIAGNOSIS >



ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000003930809

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III 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
FR WIFER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
TR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
FR WIFER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
KK WASHER SW	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TURN SIGNAL R	Other than turn signal switch RH	Off
TURIN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	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	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
HEAD LAIVIP SVV 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off	
	Driver door closed	Off	_
DOOR SW-DR	Driver door opened	On	-
	Passenger door closed	Off	-
DOOR SW-AS	Passenger door opened	On	-
	Rear RH door closed	Off	-
DOOR SW-RR	Rear RH door opened	On	-
	Rear LH door closed	Off	-
DOOR SW-RL	Rear LH door opened	On	_
	Back door closed	Off	_
DOOR SW-BK	Back door opened	On	
	Other than power door lock switch LOCK	Off	_
CDL LOCK SW	Power door lock switch LOCK	On	_
	Other than power door lock switch UNLOCK	Off	—
CDL UNLOCK SW	Power door lock switch UNLOCK	On	-
	Other than driver door key cylinder LOCK position	Off	-
KEY CYL LK-SW	Driver door key cylinder LOCK position	On	_
	Other than driver door key cylinder UNLOCK position	Off	_
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On	_
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	_
HAZARD SW	Hazard switch is OFF	Off	_
	Hazard switch is ON	On	_
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	_ _ [
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	
TR/BD OPEN SW	Back door opener switch OFF	Off	
	While the back door opener switch is turned ON	On	
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off	
	LOCK button of the Intelligent Key is pressed	On	
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off	
	UNLOCK button of the Intelligent Key is pressed	On	
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off	
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off	_
	PANIC button of the Intelligent Key is pressed	On	_
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off	_
NE-F/W UPEN	UNLOCK button of the Intelligent Key is pressed and held	On	-
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	
	Bright outside of the vehicle	Close to 5 V	_
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	-

Revision: 2009 March

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

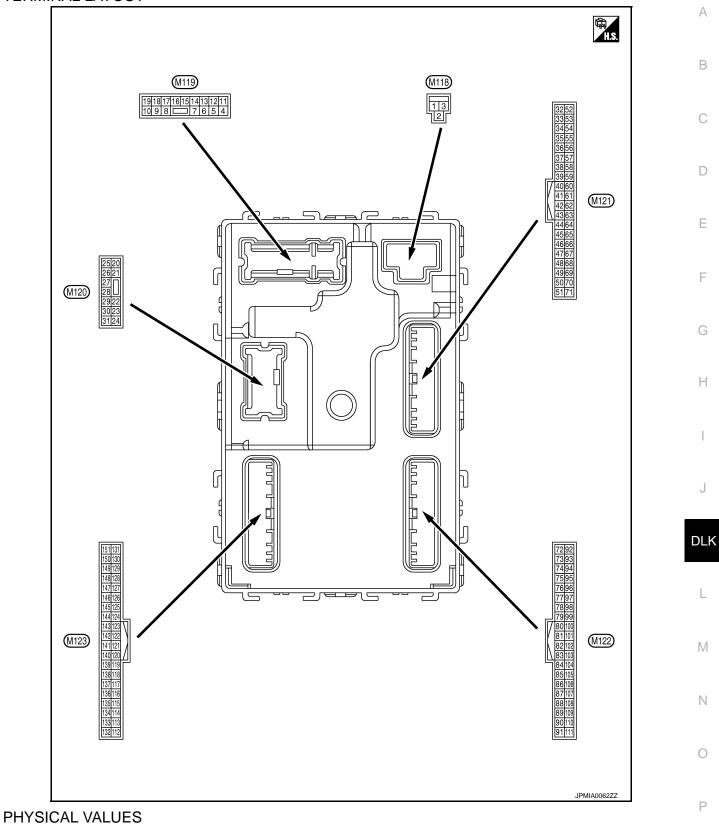
Monitor Item	Condition	Value/Status
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
NEQ 3W -A3	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
REQ 3W -BD/TR	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	
PUSH 3W	Push-button ignition switch (push switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
IGN RLY2 -F/B	Ignition switch in ON position	On
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	Selector lever in P position	Off
DETE/CANCL SW	Selector lever in any position other than P	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
IGN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	Selector lever in any position other than P and N	Off
SFT PN -IPDM	Selector lever in P or N position	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
3/L UNLK-IF DIVI	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH 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	Steering is locked	Reset
D OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
PRIMI ENG STRI	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	The Intelligent Key is inserted into key 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 BCM.	Done
	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRMIDI	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
1P 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
1P 2	The ID of second Intelligent Key is registered to BCM	Done
	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

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TERMINAL LAYOUT



lor) - 	Signal name Battery power supply (BAT) P/W power supply (BAT) P/W power supply (RAP) Interior room lamp power supply (Battery saver signal) Passenger door UN- LOCK Step lamp	Input/ Output Output Output Output Output	(Cuts the interior r Interior room lamp ed.	F b battery saver is activated. oom lamp power supply) b battery saver is not activat- or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF	Value (Approx.) Battery voltage 12 V 12 V 0 V 12 V 12 V 12 V 0 V 12 V 12 V
round round round round	P/W power supply (BAT) P/W power supply (RAP) Interior room lamp power supply (Battery saver signal) Passenger door UN- LOCK Step lamp All doors, fuel lid	Output Output Output Output	Ignition switch OF Ignition switch ON Interior room lamp (Cuts the interior r Interior room lamp ed. (Outputs the interior Passenger door	F b battery saver is activated. oom lamp power supply) b battery saver is not activat- or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF	12 V 12 V 0 V 12 V 12 V 12 V 12 V 0 V 0 V
round round round	(BAT) P/W power supply (RAP) Interior room lamp power supply (Battery saver signal) Passenger door UN- LOCK Step lamp All doors, fuel lid	Output Output Output Output	Ignition switch ON Interior room lamp (Cuts the interior r Interior room lamp ed. (Outputs the interior Passenger door	 battery saver is activated. oom lamp power supply) battery saver is not activat- or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF 	12 V 0 V 12 V 12 V 0 V 0 V
round	(RAP) Interior room lamp power supply (Battery saver signal) Passenger door UN- LOCK Step lamp All doors, fuel lid	Output Output Output	Interior room lamp (Cuts the interior r Interior room lamp ed. (Outputs the interior Passenger door	 battery saver is activated. oom lamp power supply) battery saver is not activat- or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF 	0 V 12 V 12 V 0 V 0 V
round	power supply (Battery saver signal) Passenger door UN- LOCK Step lamp All doors, fuel lid	Output	(Cuts the interior r Interior room lamp ed. (Outputs the interior Passenger door	oom lamp power supply) battery saver is not activat- or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF	12 V 12 V 0 V 0 V
round	(Battery saver signal) Passenger door UN- LOCK Step lamp All doors, fuel lid	Output	ed. (Outputs the interio Passenger door	or room lamp power supply) UNLOCK (Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF	12 V 0 V 0 V
ound	LOCK Step lamp All doors, fuel lid	Output		(Actuator is activated) Other than UNLOCK (Actuator is not activated) ON OFF	0 V 0 V
ound	Step lamp All doors, fuel lid	Output		(Actuator is not activated) ON OFF	0 V
	All doors, fuel lid	•	Step lamp	OFF	
	All doors, fuel lid	•			12 V
ound		Output			
ound	LOCK		All doors, fuel lid	LOCK (Actuator is activated)	12 V
		0 0.0 0.1		Other than LOCK (Actuator is not activated)	0 V
ound	Driver door, fuel lid	Output	Driver door, fuel	UNLOCK (Actuator is activated)	12 V
ounu	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V
ound	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	12 V
ound	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
ound	Battery power supply	Input	Ignition switch OF	F	Battery voltage
ound	Ground	_	Ignition switch ON		0 V
ound	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
				ACC or ON	0 V
				Turn signal switch OFF	0 V
ound	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
0	und	und Ground und ACC indicator lamp Turn signal RH	und Ground — und ACC indicator lamp Output	und Ground — Ignition switch ON und ACC indicator lamp Output Ignition switch	und Battery power supply Input Ignition switch OFF und Ground — Ignition switch ON und ACC indicator lamp Output Ignition switch Und ACC indicator lamp Output Ignition switch Ignition switch — Turn signal RH Output Und Turn signal RH Output Ignition switch

	inal No.	Description				Value
(VVire +	e color) _	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0
				Other than under o	condition	5.0 V
19 (SB)	Ground	Room lamp timer	Output	(Door is unlocke	np timer is activated. ed. etc) unction is activated.	0 V
					Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 •••••••••••••••••••••••••••••
					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 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
					OFF (Stopped)	6.5 V 0 V
26 (G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	12 V
34	Grand	Luggage room anten-	0.1	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
(SB)	Ground	na (–)	Output	ŎFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB

	inal No.	Description				Value
(VVire +	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 0 10 1 1 1 1 1 1 1 1 1 1 1 1 1
(V)	(V) Cround	na (+)	Cutput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB
38	Ground	Back door antenna (-	Output	When the back door opener re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB
(B))			When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
39	Ground	Back door antenna	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
(W)	Ground	(+)	Culput	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC ON	12 V 0 V

	inal No.	Description				Value
(Wire +	e color) _	Signal name	Input/ Output		Condition	(Approx.)
48		Back door opener		Back door opener	Not pressed	12 V
(W)	Ground	switch operation	Output	switch	Pressed	0 V
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V
(LG)	Giouna	Statter relay control	Output	ON	When selector lever is not in P or N position	0 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 10 5 0 10 ms JPMIA0016GB 1.0 V
64	_	Intelligent Key warn-	_	Intelligent Key	Sounding	0 V
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V
65 (O)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					Not in stop position	0 V
66	<u> </u>	D I I I I I I I I I I			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 opener switch	Not pressed	(V) ₁₅ 10 5 0 → + 10ms JPMIA0594GB 8.5 - 9.0 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 + 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V

	inal No.	Description	1			Value
(vvir) +	e color)	Signal name	Input/ Output		Condition	(Approx.)
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 • • 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V
72	Ground	Room antenna 2 (-)	Output	utput Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 1 1 1 5 0 1 1 5 0 1 1 5 0 1 1 5 0 1 1 5 0 1 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
(R) Grou	Giouna	(Center console)	Cutput		When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
73	Ground	Ground Room antenna 2 (+) (Center console) Output Ignition switch OFF	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
73 (G)	Siound		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	

	inal No.	Description				Value	
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	A
74		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	B C D
(SB)	Ground	tenna (-)		quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0063GB	E
75	Ground	Passenger door an-	Output	When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 50 1 s JMKIA0062GB	G H I
(BR)		Calpar	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 10 5 10 5 10 5 10 5 10 5 10 5 1	J DLK L	
76	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 0 10 10 10 10 10 10 10 10 10	M
(V)		switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	P		

	inal No.	Description		Condition		Value
(Wire +	e color)	Signal name	Input/ Output			(Approx.)
77	Ground Driver door antenna (+) Output When the driver door request switch is operat-	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB			
(LG)	Ground	(+)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
78 (Y) Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	
		(Instrument panel)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB
79	Ground	around Room antenna 1 (+) (Instrument panel) Output		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 1 1 1 1 JMKIA0062GB
79 (BR)			OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	

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	inal No.	Description		Value		Valuo	Δ
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)	A
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.	В
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.	С
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V	
(P)	Ciouna	block (J/B)] control	2 4 4 4 4	ignition switch	ON	12 V	D
83	Ground	Remote keyless entry receiver communica-	Input/	During waiting		(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	E
(GR)	Ciouna	tion	Output				G
			When operating e Key	ither button on the Intelligent	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	H	

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	inal No. e color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
87	Ground	Combination switch INPUT 5	Input	Combination	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0037GB 1.3 V
(BR)					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0039GB 1.3 V
				Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3 V	

	inal No.	Description				Value	
(Wire +	e color) -	Signal name	Input/ Output		Condition	Value (Approx.)	A
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2.ms JPMIA0041GB 1.4 V	B C D
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	E
88 (V)		Combination switch INPUT 3	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 0 2.ms 1.3 V	G	
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 0 2.ms JPMIA0039GB 1.3 V	J DLł
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 0 2 ms JPMIA0040GB 1.3 V	M
89 (SB)	Ground	Push-button ignition switch (Push switch)	Input	Push-button igni- tion switch (Push	Pressed	0 V 12 V	0
90 (P)	Ground	CAN-L	Input/ Output	switch)	Not pressed		P
91 (L)	Ground	CAN-H	Input/ Output		_		-

Terminal No.		Description				
(Wire	e color) _	Signal name	Input/ Output		Condition	Value (Approx.)
			Carpar		OFF	12 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
					ON	0 V
93	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
(O)	Croana		Output	- Ignition of them	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Ground	tion No. 1	Input	Steering lock	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	0.00.00	tion No. 2	mpor	C C C C C C C C C C C C C C C C C C C	UNLOCK status	0 V
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)		tion switch	•		Any position other than P	12 V
100 (G)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	ON (Pressed) OFF (Not pressed)	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 10 ms JPMIA0016GB 1.0 V
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)	Cround	lay control	Suthat		ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF	F	12 V

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Terminal No. (Wire color)		Description				Value	
(VVire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC ON	12 V 0 V	
					All switches OFF	(V) 15 10 5 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 intermit- tent 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 10 5 0 2 ms JPMIA0039GB	

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	Terminal No. Description (Wire color)		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0038GB 1.3 V
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0040GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V

	inal No.	Description				Value	
(Wire +	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	А
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	B
						1.4 V	D
					Lighting switch PASS	(V) 15 10 5 0	E
						2 ms	F
							G
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit-	Lighting switch 2ND		Н
				tent dial 4)		2 ms	I
					Front wiper switch INT	(V) 15 10 0 0 	J DLł
						JPMIA0038GB 1.3 V	L
					Front wiper switch HI		Μ
						2 ms	Ν
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 0 5 10 10 ms JPMIA0012GB 1.1 V	Ρ

	inal No.	Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	
					LOCK status	12 V	
111 (GR)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB	
					For 15 seconds after UN- LOCK	12 V	
					15 seconds or later after UNLOCK	0 V	
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 0 0 0 0 0 0 0 0 0 0 0 0 0	
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V	
(P)	Cround		input	ON	When dark outside of the vehicle	Close to 0 V	
116 (BR)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
14.0		Stop lamp switch 2 (Without ICC)		Stop lamp switch	OFF (Brake pedal is not depressed) ON (Brake pedal is de- pressed)	0 V Battery voltage	
118 (P)	Ground	Stop lamp switch 2	Input		DFF (Brake pedal is not de- brake hold relay OFF	0 V	
_		(With ICC)		Stop lamp switch (pressed) or ICC bi	ON (Brake pedal is de- rake hold relay ON	Battery voltage	
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) ₁₅ 10 5 0 ••10ms JPMIA0594GB 8.5 - 9.0 V	
					UNLOCK status (Unlock switch sensor ON)	0 V	
101				When the Intelliger	nt Key is inserted into key slot	12 V	
121 (BR)	Ground	Key slot switch	Input	When the Intelliger slot	nt Key is not inserted into key	0 V	
122	Ground	ACC feedback	Input	Ignition switch	OFF	0 V	
(V)			1.44	5	ACC or ON	Battery voltage	

Terminal No. Description				Value			
	e color)	Signal name	Input/		Condition	(Approx.)	ŀ
+	_	- 5	Output		OFF or ACC	0 V	
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF of ACC ON	Battery voltage	E
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) ₁₅ 10 5 0 ++10ms JPMIA0594GB 8.5 - 9.0 V	C E E
132 (O)	Ground	Power window switch communication	Input/ Output	ON (Door opene) Ignition switch ON Ignition switch OFF or ACC		0 V (V) 15 0 0 10 ms JPMIA0013GB 10.2 V 12 V	F
134				LOCK indicator	OFF	Battery voltage	
(GR)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V	
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	
138	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V	
(Y)	C.Guild		- a.put		ACC or ON	5.0 V	
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V	D
(R)		position			Except P and N positions	0 V	
141 (G)	Ground	Security indicator	Output	Security indicator	ON Blinking	0 V (V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	[
					OFF	12 V	
					All switches OFF	0 V	
					Lighting switch 1ST		
				Combination	Lighting switch HI		
142 (O)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	10 5 0 2 ms JPMIA0031GB 10.7 V	

	inal No.	Description				Value									
(VVire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)									
					All switches OFF (Wiper intermittent dial 4)	0 V									
					Front wiper switch HI (Wiper intermittent dial 4)										
143	Ground	Combination switch	Output	Combination	Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10									
(P)	Ground	OUTPUT 1	Output	switch	Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	5 2 ms JPMIA0032GB 10.7 V									
					All switches OFF (Wiper intermittent dial 4)	0 V									
					Front washer switch ON (Wiper intermittent dial 4)										
144		und Combination switch COUTPUT 2		put Combination switch	Rear wiper switch ON (Wiper intermittent dial 4)										
(G)	Ground		Output		Rear washer switch ON (Wiper intermittent dial 4)										
					 Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6 	2 ms JPMIA0033GB 10.7 V									
					All switches OFF	0 V									
					Front wiper switch INT	(V)									
145 (L)	Ground	Combination switch OUTPUT 3	Output Combination switch (Wiper intermit- tent dial 4)		Front wiper switch LO	JPMIA0034GB 10.7 V									
					All switches OFF	0 V									
					Front fog lamp switch ON	(10)									
				Combination	Lighting switch 2ND										
146 (SB)	Ground	Combination switch OUTPUT 4	Output	t switch (Wiper intermit- tent dial 4)	switch (Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	(Wiper intermit-	Lighting switch PASS	JPMIA0035GB
						10.7 V									

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	٥
(Wire +	e color)	Signal name	Input/ Output		Condition	(Approx.)	A
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) ₁₅ 10 50 •••10ms JPMIA0594GB	B
					ON (Door open)	8.5 - 9.0 V 0 V	D
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V	E
(G)	Giouna	ger relay control	Culpul	fogger	Not activated	Battery voltage	

Н

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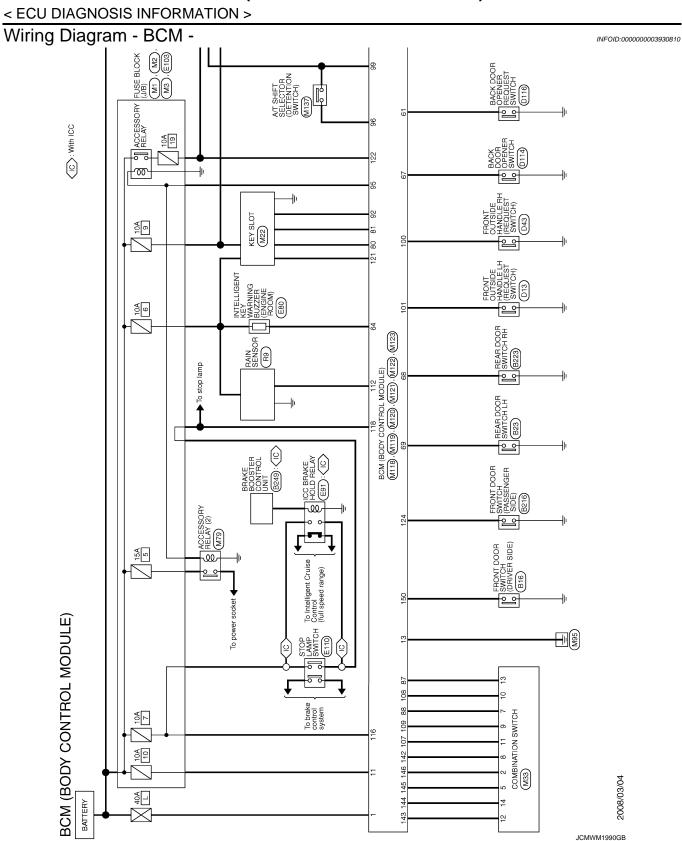
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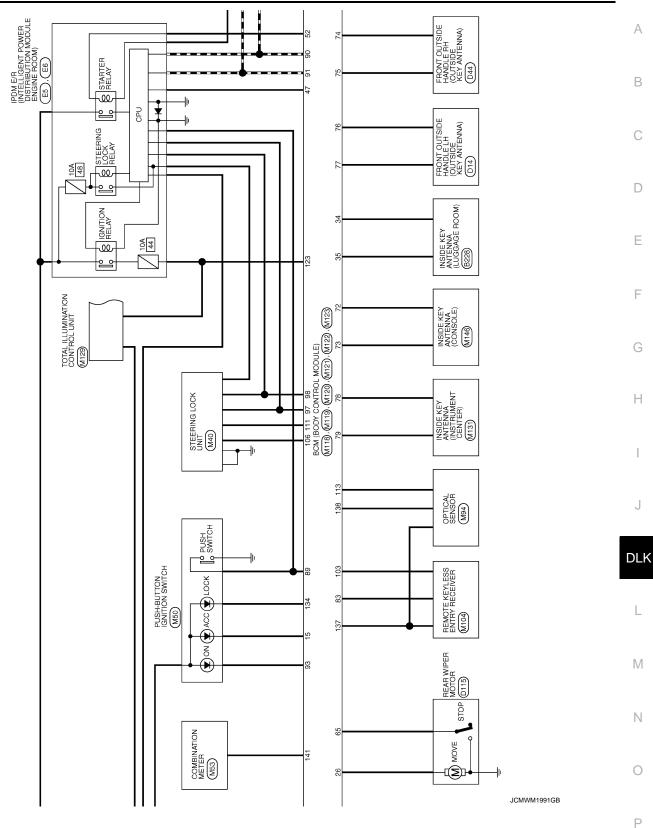
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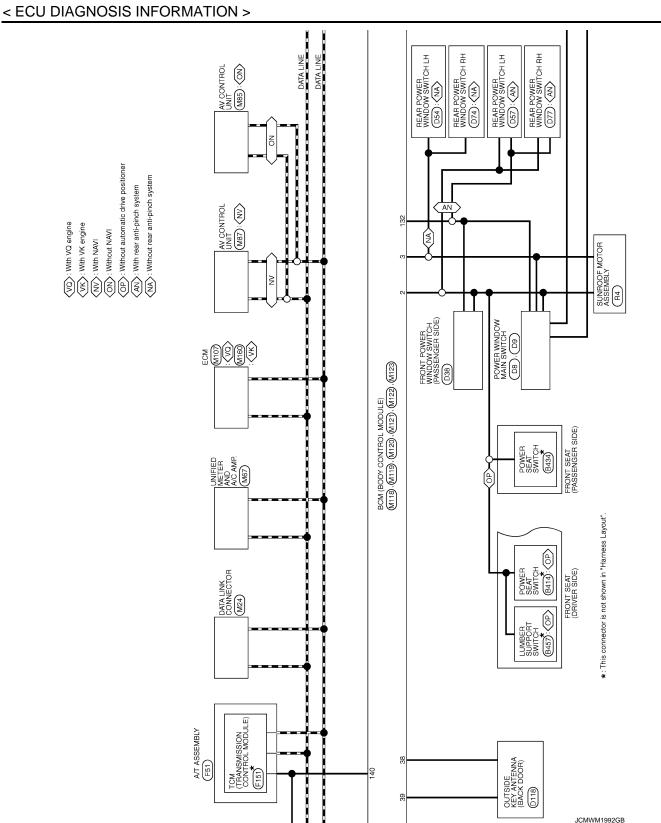
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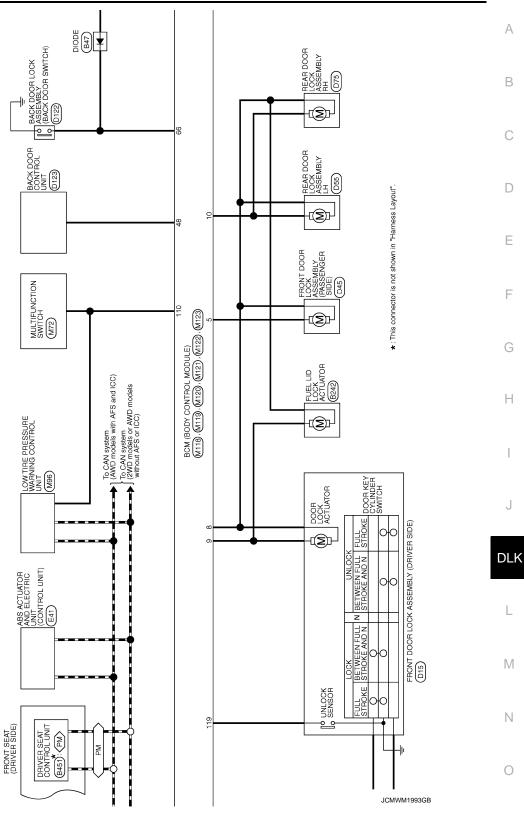






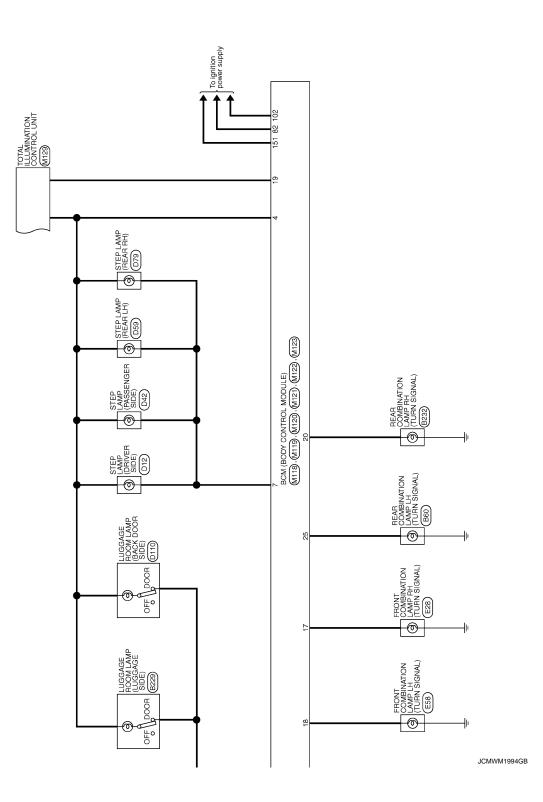
Revision: 2009 March

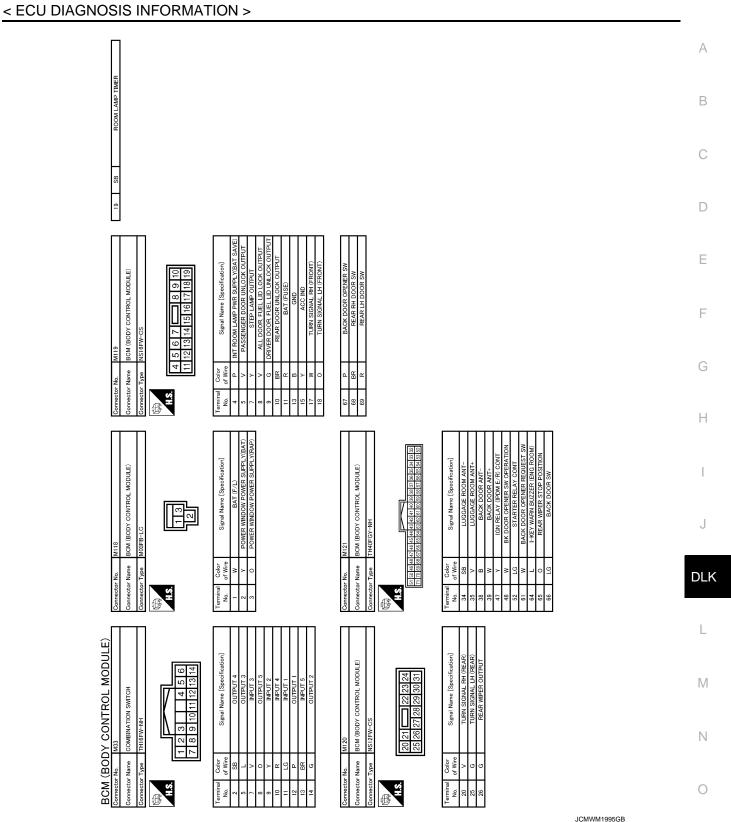
< ECU DIAGNOSIS INFORMATION >



PM : With automatic drive positioner

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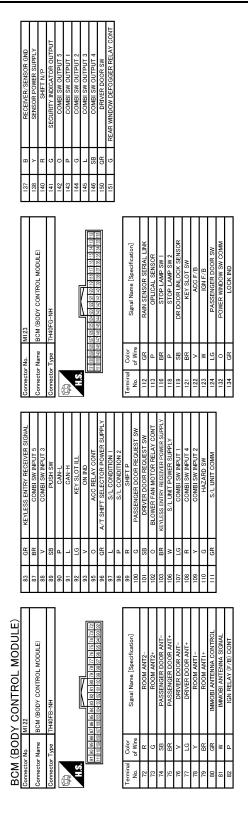




Revision: 2009 March

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< ECU DIAGNOSIS INFORMATION >



Fail-safe

JCMWM1996GB

INFOID:000000005176466

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
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 $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status be- comes consistentStarter control relay signalStarter relay status signal
		500 ms after the following signal reception status becomes consis-
B2601: SHIFT POSITION	Inhibit steering lock	tent Selector lever P position switch signal P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Power position: IGN Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
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)
B2612: S/L STATUS	 Inhibit engine cranking Inhibit steering lock 	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor 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
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

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.

< ECU DIAGNOSIS INFORMATION >

- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

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	C
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)	C
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	E
	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2553: STOP LAMP 	F
	 B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION 	C
	 B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW 	F
	 B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2608: OTATIVE 	I
4	 B2609: S/L STATUS B260A: IGNITION RELAY B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT 	
	 B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST B2612: S/L STATUS B2614: ACC RELAY CIRC 	DI
	 B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM 	L
	 B2619: BCM B2619: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E9: S/L STATUS 	N
	 B26E9: S/L STATUS B26EA: KEY REGISTRATION U0415: VEHICLE SPEED SIG 	Ν
5	 B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA 	C
	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-16. "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

DLK-175

INFOID:000000003930813

А

INFOID:000000003930812

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	_	_	_	_
U1000: CAN COMM		_	_	BCS-34
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-35
U0415: VEHICLE SPEED SIG	_	_	_	BCS-36
B2013: ID DISCORD BCM-S/L	×	×	_	<u>SEC-50</u>
B2014: CHAIN OF S/L-BCM	×	×		<u>SEC-51</u>
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-42</u>
B2191: DIFFERENCE OF KEY	×	_	_	<u>SEC-45</u>
B2192: ID DISCORD BCM-ECM	×	_	_	<u>SEC-46</u>
B2193: CHAIN OF BCM-ECM	×	_	_	<u>SEC-48</u>
B2195: ANTI SCANNING	×		_	<u>SEC-49</u>
B2553: IGNITION RELAY		×	_	PCS-50
B2555: STOP LAMP		×	_	<u>SEC-54</u>
B2556: PUSH-BTN IGN SW		×	×	<u>SEC-56</u>
B2557: VEHICLE SPEED	×	×	×	<u>SEC-58</u>
B2560: STARTER CONT RELAY	×	×	×	SEC-59
B2562: LOW VOLTAGE		×		BCS-37
B2601: SHIFT POSITION	×	×	×	<u>SEC-60</u>
B2602: SHIFT POSITION	×	×	×	<u>SEC-63</u>
B2603: SHIFT POSI STATUS	×	×	×	<u>SEC-65</u>
B2604: PNP SW	×	×	×	<u>SEC-68</u>
B2605: PNP SW	×	×	×	<u>SEC-70</u>
B2606: S/L RELAY	×	×	×	<u>SEC-72</u>
B2607: S/L RELAY	×	×	×	<u>SEC-73</u>
B2608: STARTER RELAY	×	×	×	<u>SEC-75</u>
B2609: S/L STATUS	×	×	×	<u>SEC-77</u>
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT		×	×	<u>SEC-81</u>
B260C: STEERING LOCK UNIT		×	×	<u>SEC-82</u>
B260D: STEERING LOCK UNIT	_	×	×	<u>SEC-83</u>
B260F: ENG STATE SIG LOST	×	×	×	<u>SEC-84</u>
B2612: S/L STATUS	×	×	×	<u>SEC-88</u>
B2614: ACC RELAY CIRC		×	×	PCS-54
B2615: BLOWER RELAY CIRC	_	×	×	<u>PCS-56</u>
B2616: IGN RELAY CIRC		×	×	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	SEC-92
B2618: BCM	×	×	×	<u>PCS-60</u>
B2619: BCM	×	×	×	SEC-94
B261A: PUSH-BTN IGN SW		×	×	<u>SEC-95</u>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	<u>SEC-98</u>

Revision: 2009 March

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page	A
B2621: INSIDE ANTENNA	—	×	—	<u>DLK-61</u>	В
B2622: INSIDE ANTENNA	_	×	—	DLK-63	
B2623: INSIDE ANTENNA	—	×	—	DLK-65	
B26E7: TPMS CAN COMM	_	_	—	BCS-38	С
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	<u>SEC-86</u>	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	<u>SEC-87</u>	D

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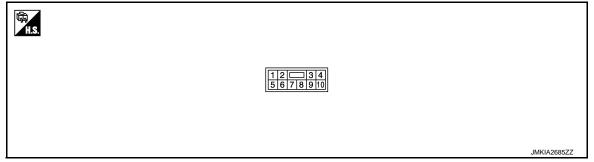
BACK DOOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

BACK DOOR CONTROL UNIT

Reference Value

INFOID:000000003910928



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Voltage (V)	
(+)	()	Signal name	Input/ Output	Condition	(Approx.)	
1 (L)	Ground	Close switch signal	Input	Back door Fully open \rightarrow half \rightarrow fully close	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage	
2 (O)	Ground	Half-latch switch	Input	Back door Fully open \rightarrow half \rightarrow fully close	$0 \rightarrow Battery voltage$	
3 (SB)	Ground	Battery power supply (Fusible link)	Input	Ignition switch OFF	Battery voltage	
4 (G)	Ground	Closure motor close signal	Output	Back door Fully open \rightarrow half \rightarrow fully close	$0 \rightarrow Battery \ voltage \rightarrow 0$	
5 (P)	Ground	Open switch	Input	Back door Fully open \rightarrow half \rightarrow fully close	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage	
6 (W) Ground	Back door opener switch signal	Input	Back door opener switch is pressed	0		
			Other than above	Battery voltage		
7 (B)	Ground	Ground		Ignition switch ON	0	
8 (GR)	Ground	Ground		Ignition switch ON	0	
10 (V)	Ground	Closure motor open signal	Output	Back door Fully open \rightarrow half \rightarrow fully close	$0 \rightarrow Battery voltage \rightarrow 0$	

BACK DOOR CONTROL UNIT

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FRONT DOOR

MBLY

D15

BACK DOOR CONTROL UNIT D123

B24

BACK DOOR LOCK ASSEMBLY 122

A HALF LATCH switch

BACK DOOR SWITCH

M5

a

CLOSE CLOSURE MOTOR

HE

2008/03/04

JCKWM1466GB

< ECU DIAGNOSIS INFORMATION >



B4

To CAN system (AWD models with AFS and ICC)

DATA LINK CONNECTOR M24

96 Me

To CAN system (2WD models or AWD models without AFS or ICC)

DATA LINE

BCM 180DY CONTROL 1001LE) 10113. (0113) (012)

15A 35

FUSE BLOCK (J/B) M1

10A

40A

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INFOID:000000003932125



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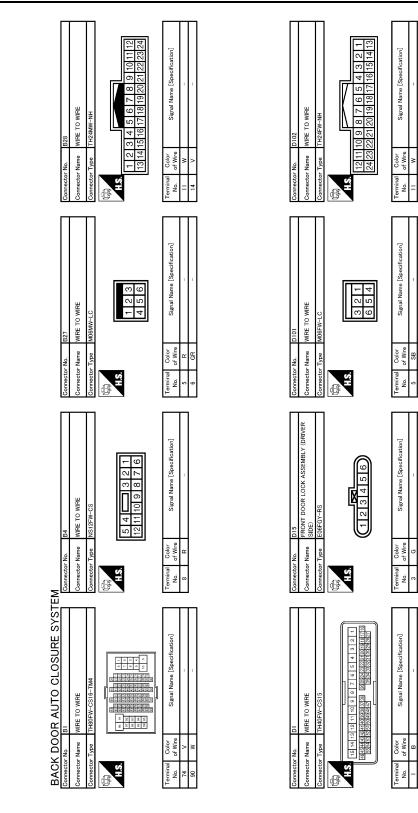
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BACK DOOR AUTO CLOSURE SYSTEM

BATTERY

BACK DOOR CONTROL UNIT

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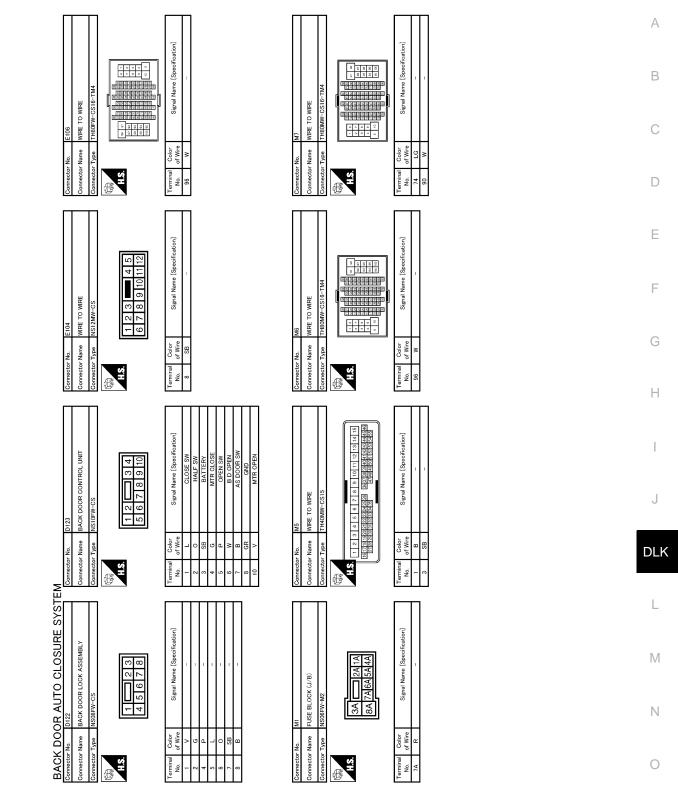


JCKWM1467GB

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BACK DOOR CONTROL UNIT

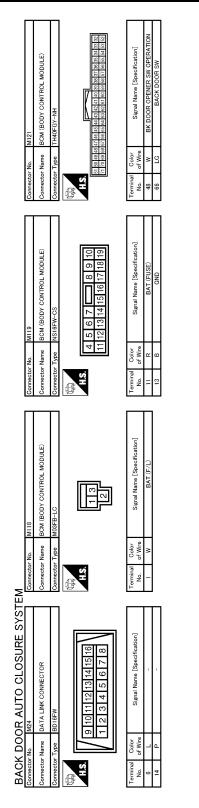
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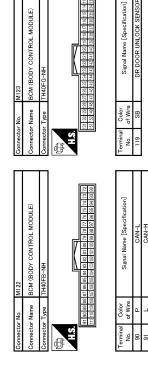


JCKWM1468GB

BACK DOOR CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >





JCKWM1469GB

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

SYMPTOM DIAGNOSIS	
DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK	A
SWITCH	
	В
ALL DOOR : Diagnosis Procedure	С
1. CHECK POWER SUPPLY AND GROUND CIRCUIT	
Check power supply and ground circuit. Refer to <u>DLK-67, "BCM (BODY CONTROL MODULE) : Diagnosis Procedure"</u> (BCM).	D
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	E
2. CHECK DOOR LOCK AND UNLOCK SWITCH	
	F
Refer to <u>DLK-72, "DRIVER SIDE : Component Function Check"</u> (driver side). Refer to <u>DLK-72, "PASSENGER SIDE : Component Function Check"</u> (passenger side).	
	G
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
	Н
Check door lock actuator (driver side).	
Refer to DLK-74, "DRIVER SIDE : Component Function Check".	1
<u>Is the inspection result normal?</u> YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
4.CONFIRM THE OPERATION	J
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".	LK
NO >> GO TO 1.	
DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	. //
1. CHECK DOOR LOCK ACTUATOR	VI
Check door lock actuator (driver side). Refer to <u>DLK-74, "DRIVER SIDE : Component Function Check"</u> .	Ν
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	С
2. CONFIRM THE OPERATION	
Confirm the operation again.	Ρ
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	
PASSENGER SIDE	

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

< SYMPTOM DIAGNOSIS >

PASSENGER SIDE : Diagnosis Procedure INFOID:000000003843052 **1.**CHECK DOOR LOCK ACTUATOR Check door lock actuator (passenger side). Refer to DLK-75, "PASSENGER SIDE : 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? >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". YES NO >> GO TO 1. REAR LH **REAR LH** : Diagnosis Procedure INFOID:00000003843053 **1.**CHECK DOOR LOCK ACTUATOR Check door lock actuator (rear LH). Refer to DLK-76, "REAR LH : 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 GI-35, "Intermittent Incident". NO >> GO TO 1. REAR RH **REAR RH : Diagnosis Procedure** INFOID:00000003843054 1. CHECK DOOR LOCK ACTUATOR Check door lock actuator (rear RH). Refer to DLK-76. "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-35, "Intermittent Incident"</u>.

DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION < SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure	INFOID:000000003843055	В
1. CHECK POWER DOOR LOCK OPERATION		D
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-183, "ALL DOOR : Diagnosis Procedure"</u> . 2. CHECK DOOR KEY CYLINDER SWITCH		D
Check door key cylinder switch. Refer to <u>DLK-81. "Component Function Check"</u> . Is the inspection result normal?		E
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION		F
Confirm the operation again. <u>Is the result normal?</u>		G
 YES >> Check intermittent incident. Refer to <u>GI-35. "Intermittent Incident"</u>. NO >> GO TO 1. 		Н

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DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

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

DRIVER SIDE : Description

INFOID:000000003843056

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8, "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:00000003843057

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-189</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-54, "INTELLIGENT KEY : CONSULT-III 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 DLK-88, "Component Function Check".

Is the inspection result normal?

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

CHECK OUTSIDE KEY ANTENNA

Check outside key antenna (driver side).

Refer to DLK-94, "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-35. "Intermittent Incident".

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

NOTE:

• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</u>, "Work <u>Flow"</u>.

DLK-186

INFOID:00000003843058

DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >	
• Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.	А
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	С
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-189, "Description"</u> .	Е
2. CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT"	
Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".	
Refer to <u>DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u> .	F
Is the inspection result normal?	
YES >> GO TO 3.	0
NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".	G
3.CHECK DOOR REQUEST SWITCH	
Check door request switch (passenger side). Refer to <u>DLK-88, "Component Function Check"</u> .	Н
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	
4.CHECK OUTSIDE KEY ANTENNA	.1
Check outside key antenna (passenger side). Refer to <u>DLK-94, "Component Function Check"</u> .	0
Is the inspection result normal?	DLK
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	
5. CONFIRM THE OPERATION	
Confirm the operation again.	L
Is the result normal?	
YES >> Check Intermittent Incident. Refer to <u>GI-35, "Intermittent Incident"</u> .	M
NO >> GO TO 1.	
BACK DOOR	
BACK DOOR : Description	Ν
NOTE:	\sim
• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8. "Work</u>	0
 <u>Flow</u>". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and 	
check each symptom.	Ρ
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 >

BACK DOOR : Diagnosis Procedure INFOID:00000000384306 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-189, "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-54, "INTELLIGENT KEY : CONSULT-III 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-90, "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-94, "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 <u>GI-35, "Intermittent Incident"</u>.

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

Description

Description INFOID:00000003843062	
NOTE: • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8. "Work</u>	В
 Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. 	С
CONDITIONS OF VEHICLE (OPERATING CONDITIONS)Intelligent key is removed from key slot.All doors are closed.	D
Diagnosis Procedure	
1.CHECK POWER DOOR LOCK OPERATION	E
Check power door lock operation. Does door lock/unlock with door lock and unlock switch?	F
YES >> GO TO 2. NO >> Go to <u>DLK-183, "ALL DOOR : Diagnosis Procedure"</u> . 2. CHECK REMOTE KEYLESS ENTRY RECEIVER	G
Check remote keyless entry receiver. Refer to <u>DLK-83, "Component Function Check"</u> . Is the inspection result normal?	Н
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CHECK INTELLIGENT KEY	I
Check Intelligent Key. Refer to <u>DLK-99, "Component Function Check"</u> . Is the inspection result normal?	J
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. 4. CHECK KEY SLOT	DLk
Check key slot. Refer to <u>DLK-101, "Component Function Check"</u> .	L
Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. 5. CONFIRM THE OPERATION	Μ
Confirm the operation again.	Ν
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	0

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SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR RE-QUEST SWITCH

Description

INFOID:000000003843064

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</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:000000003843065

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-186, "DRIVER SIDE : Description"</u> (driver side).
 - Go to DLK-186, "PASSENGER SIDE : Description" (passenger side).
 - Go to <u>DLK-187, "BACK DOOR : Description"</u> (back door).

2.CHECK "DOOR LOCK–UNLOCK SET" SETTING IN "WORK SUPPORT"

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-53. "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT".

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".
- NO >> GO TO 1.

SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >	
SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLI-	
GENT KEY	А
Description	В
NOTE:	
• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8.</u> "Work Flow".	0
 Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. 	С
CONDITIONS OF VEHICLE (OPERATING CONDITIONS) Intelligent key is removed from key slot. All doors are closed. 	D
Diagnosis Procedure	Ε
1. CHECK POWER DOOR LOCK OPERATION	_
Check power door lock operation.	F
Does door lock/unlock with door lock and unlock switch?	
YES >> GO TO 2. NO >> Go to <u>DLK-183, "ALL DOOR : Diagnosis Procedure"</u> .	G
2. CHECK "DOOR LOCK–UNLOCK SET" SETTING IN "WORK SUPPORT"	
Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-53, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u> . Is the inspection result normal?	Н
YES >> GO TO 3. NO >> Set "DOOR LOCK-UNLOCK SET" of "WORK SUPPORT".	
3. CONFIRM THE OPERATION	
Confirm the operation again.	J
Is the result normal?	
 YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u>. NO >> GO TO 1. 	DL⊧

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VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE < SYMPTOM DIAGNOSIS >

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER-ATE

Diagnosis Procedure

INFOID:000000003843068

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-183</u>, "ALL DOOR : Diagnosis Procedure".

2. CHECK VEHICLE SPEED SIGNAL

Check combination meter. Refer to <u>SEC-58, "DTC Logic"</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-35, "Intermittent Incident"</u>.

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE < SYMPTOM DIAGNOSIS >

IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

	А
Diagnosis Procedure	INFOID:00000003843069
1. CHECK POWER DOOR LOCK OPERATION	В
Check power door lock operation.	
Does door lock/unlock using door lock and unlock switch?	
YES >> GO TO 2. NO >> Go to <u>DLK-183, "ALL DOOR : Diagnosis Procedure"</u> .	С
2.снеск всм	D
Check DTC for BCM. Refer to <u>DLK-175, "DTC Index"</u> .	
Is the inspection result normal?	E
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION	_
J.CONFIRM THE OPERATION	F
Confirm the operation again.	
Is the result normal?	G
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	G

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P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPER-ATE

< SYMPTOM DIAGNOSIS >

P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OP-ERATE

Diagnosis Procedure

INFOID:000000003843070

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-183</u>, "ALL DOOR : Diagnosis Procedure".

2. СНЕСК ТСМ

Check DTC for TCM. Refer to <u>TM-353, "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-35, "Intermittent Incident"</u>.

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-8. "Work Flow"</u>.
Diagnosis Procedure
1. CHECK "AUTO LOCK SET" SETTING IN "WORK SUPPORT"
Check "AUTO LOCK SET" setting in "WORK SUPPORT". Refer to <u>DLK-54, "INTELLIGENT KEY : CONSULT-III 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 <u>GI-35, "Intermittent Incident"</u>. NO >> GO TO 1.

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WELCOME LIGHT FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WELCOME LIGHT FUNCTION DOES NOT OPERATE

Description

INFOID:000000003843076

NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to DLK-8, "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)

- Intelligent Key system (door lock function) is normal.
- All operation conditions are satisfied. Refer to <u>DLK-33, "WELCOME LIGHT FUNCTION : System Description"</u>.

Diagnosis Procedure

INFOID:000000003843077

1.CHECK WELCOME LIGHT FUNCTION SETTING

Check "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUPPORT". Refer to <u>DLK-54, "INTELLIGENT KEY</u>: <u>CONSULT-III Function (BCM - INTELLIGENT KEY)</u>.

Is the function active?

- YES >> GO TO 2.
- NO >> Set "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUP-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 <u>DLK-186</u>, "DRIVER SIDE : Description".

3.CHECK INTERIOR ROOM LAMP CONTROL SYSTEM

Check interior room lamp control system. Refer to INL-6. "System Description".

Does the room lamp and puddle lamp turn ON?

YES >> GO TO 4.

NO >> Go to <u>INL-166, "Symptom Table"</u>.

4.REPLACE BCM

Replace BCM. Refer to BCS-82, "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.

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 <u>DLK-8, "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)

- Ignition switch is in the OFF or LOCK position.Intelligent Key is removed from key slot.
- 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.

 NO
 >> Go to <u>DLK-189. "Description"</u>.

 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-189</u>, "<u>Description</u>".
 - 3. CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"
 - Check "PANIC ALARM SET" setting in "WORK SUPPORT".
 - Refer to <u>DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM INTELLIGENT KEY)"</u>. <u>Is the inspection result normal?</u>
 - 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-35, "Intermittent Incident"</u>.

NO >> GO TO 1.

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INFOID:00000003843078

INFOID:000000003843079

HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

HAZARD AND HORN REMINDER DOES NOT OPERATE

Description

INFOID:000000003843080

NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to DLK-8. "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:000000003843081

1.CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"

Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".

Refer to DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT".

2.CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT".

Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".

Refer to DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".

3.CHECK HAZARD WARNING LAMP

Check hazard warning lamp.

Refer to DLK-110, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK HORN

Check horn.

Refer to DLK-105, "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 <u>GI-35, "Intermittent Incident"</u>.

HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

HAZARD AND BUZZER REMINDER DOES NOT OPERATE

Description

Description	INFOID:000000003843082
NOTE: • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to Flow"	DLK-8, "Work
 <u>Flow</u>". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting check each symptom. 	diagnosis, and
 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. 	Ε
Diagnosis Procedure	INFOID:000000003843083
1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"	
Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to <u>DLK-53. "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u> .	F
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 DLK-53, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".	
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Set "ANS BACK I-KEY LOCK" in "WORK SUPPORT".	
3. CHECK "ANS BACK I-KEY UNLOCK" SETTING IN "WORK SUPPORT"	
Check "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT". Refer to <u>DLK-53, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u> .	
Is the inspection result normal?	DI
YES >> GO TO 4. NO >> Set "ANS BACK I-KEY UNLOCK" in "WORK SUPPORT".	
4. CHECK HAZARD WARNING LAMP	I
Check hazard warning lamp. Refer to <u>DLK-110, "Component Function Check"</u> .	
Is the inspection result normal?	Ν
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	1
5. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to <u>DLK-97, "Component Function Check"</u> .	(
Is the inspection result normal?	
YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.	
6.CONFIRM THE OPERATION	1
Confirm the operation again.	

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1. А

KEY REMINDER FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEY REMINDER FUNCTION DOES NOT OPERATE

Description

INFOID:00000003843084

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8, "Work</u> Flow".
- Understand the operation when does it work, refer to <u>DLK-36</u>, "KEY REMINDER FUNCTION : System Description".

Diagnosis Procedure

INFOID-000000003843085

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

Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".

Refer to DLK-54, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".

2.CHECK DOOR SWITCH

Check door switch.

Refer to DLK-69, "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-61, "DTC Logic"</u> (instrument center). Refer to <u>DLK-63, "DTC Logic"</u> (console).

Refer to DLK-65, "DTC Logic" (luggage room).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4. CHECK UNLOCK SENSOR

Check unlock sensor. Refer to DLK-92, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

< SYMPTOM DIAGNOSIS >

KEY WARNING DOES NOT OPERATE

Description INFOID:00000003843086 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8, "Work</u> 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-39, "WARNING FUNCTION : System С Description". Door lock function is normal. D Diagnosis Procedure INFOID:00000003843087 1.CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-108, "Component Function Check". Is the inspection result normal? F YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK DOOR SWITCH Check door switch (driver side). Refer to DLK-69, "Component Function Check". Н 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-101, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. DLK **4**.CHECK COMBINATION METER DISPLAY Check combination meter display. Refer to DLK-107, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. Μ NO >> Repair or replace the malfunctioning parts. 5.CHECK KEY SLOT ILLUMINATION Check key slot illumination. Ν Refer to DLK-103, "Component Function Check". Is the inspection result normal? YES >> GO TO 6. >> Repair or replace the malfunctioning parts. NO **O**.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

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OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

OFF POSITION WARNING DOES NOT OPERATE

Description

INFOID:000000003843088

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8. "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-39</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".
- Door lock function is normal.

Diagnosis Procedure

INFOID:000000003843089

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>DLK-175, "DTC Index"</u>.

2. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter). Refer to <u>DLK-108, "Component Function Check"</u>.

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 DLK-97, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK DOOR SWITCH

Check door switch (driver side). Refer to DLK-69, "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 <u>GI-35, "Intermittent Incident"</u>.

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P POSITION WARNING DOES NOT OPERATE
< SYMPTOM DIAGNOSIS >
P POSITION WARNING DOES NOT OPERATE
Description
 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</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-39</u>, "WARNING FUNCTION : System <u>Description"</u>. Door lock function is normal.
Diagnosis Procedure
1.CHECK TRANSMISSION RANGE SWITCH
Check DTC for BCM. Refer to <u>DLK-175, "DTC_Index"</u> .
Is the inspection result normal?
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.
2.CHECK INTELLIGENT KEY WARNING BUZZER

F Check Intelligent Key warning buzzer. Refer to DLK-97, "Component Function Check". Н Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. **3.**CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-108, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. DLK **4.**CHECK DOOR SWITCH Check door switch (driver side). Refer to DLK-69, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. Μ NO >> Repair or replace the malfunctioning parts. **5.**CHECK INSIDE KEY ANTENNA Check inside key antenna. Ν Refer to DLK-61, "DTC Logic" (instrument center). Refer to <u>DLK-63. "DTC Logic"</u> (console). Refer to <u>DLK-65, "DTC Logic"</u> (luggage room). Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts.

6.CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-107, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 7.

>> Repair or replace the malfunctioning parts. NO

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P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

7. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-35. "Intermittent Incident"</u>.

ACC WARNING DOES NOT OPERATE

<u>< SYMPTOM DIAGNOSIS ></u> ACC WARNING DOES NOT OPERATE

А Description INFOID:00000003843092 NOTE: · Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-8, "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-39, "WARNING FUNCTION : System С Description". Door lock function is normal. D Diagnosis Procedure INFOID:00000003843093 1. CHECK POWER POSITION Ε Check if ignition switch position is changing or not. Does ignition switch position change? YES >> GO TO 2. F NO >> Check DTC for BCM. Refer to DLK-175, "DTC Index". **2.**CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-108, "Component Function Check". Is the inspection result normal? Н YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK COMBINATION METER DISPLAY FUNCTION Check combination meter display function. Refer to DLK-107, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. **4.**CONFIRM THE OPERATION DLK Confirm the operation again. Is the result normal? L YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". NO >> GO TO 1. Μ Ν

< SYMPTOM DIAGNOSIS >

TAKE AWAY WARNING DOES NOT OPERATE DOOR IS OPEN

DOOR IS OPEN : Description

INFOID:000000003843094

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8, "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-39</u>, "WARNING FUNCTION : System <u>Description</u>".
- Door lock function is normal.

DOOR IS OPEN : Diagnosis Procedure

INFOID:000000003843095

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>DLK-175, "DTC Index"</u>.

2.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter). Refer to <u>DLK-108, "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

Check combination meter display.

Refer to DLK-107, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-69, "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-97, "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-61, "DTC Logic"</u> (instrument center).

Refer to <u>DLK-63, "DTC Logic"</u> (console).

Refer to <u>DLK-65, "DTC Logic</u>" (luggage room).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

< SYMPTOM DIAGNOSIS >	
7. CHECK KEY SLOT ILLUMINATION	
Check key slot illumination. Refer to <u>DLK-103, "Component Function Check"</u> .	A
Is the inspection result normal? YES >> GO TO 8.	В
NO >> Repair or replace the malfunctioning parts.	
8.CONFIRM THE OPERATION	С
Confirm the operation again.	
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	D
ANY DOOR OPEN TO ALL DOORS CLOSED	Е
ANY DOOR OPEN TO ALL DOORS CLOSED : Description	
 NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</u>, "Work <u>Flow"</u>. 	F
 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-39</u>. "WARNING FUNCTION : System <u>Description</u>". 	G
Door lock function is normal.	Н
ANY DOOR OPEN TO ALL DOORS CLOSED : Diagnosis Procedure	
1.CHECK DOOR SWITCH	I
Check door switch (driver side). Refer to <u>DLK-69, "Component Function Check"</u> .	
Is the inspection result normal?	J
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	_
	DLK
Check combination meter display. Refer to <u>DLK-107, "Component_Function_Check"</u> .	
Is the inspection result normal?	L
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CHECK INSIDE KEY ANTENNA	\mathbb{M}
Check inside key antenna. Refer to <u>DLK-61, "DTC Logic"</u> (instrument center).	N
Refer to <u>DLK-63, "DTC Logic"</u> (console). Refer to <u>DLK-65, "DTC Logic"</u> (luggage room).	
Is the inspection result normal?	0
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	
4. CONFIRM THE OPERATION	Ρ
Confirm the operation again.	I
Is the result normal?	
 YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u>. NO >> GO TO 1. 	
PUSH-BUTTON IGNITION SWITCH OPERATION	

< SYMPTOM DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH OPERATION : Description

INFOID:000000003843098

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</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-39</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".
- Door lock function is normal.

PUSH-BUTTON IGNITION SWITCH OPERATION : Diagnosis Procedure INFOLD.00000003843099

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>DLK-175, "DTC Index"</u>.

2. CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to PCS-64. "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-108, "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-107, "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-61, "DTC Logic"</u> (instrument center).

Refer to <u>DLK-63. "DTC Logic"</u> (console).

Refer to DLK-65. "DTC Logic" (luggage room).

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-35, "Intermittent Incident"</u>.

NO >> GO TO 1.

INTELLIGENT KEY IS REMOVED FROM KEY SLOT

INTELLIGENT KEY IS REMOVED FROM KEY SLOT : Description

INFOID:000000003843102

NOTE:

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< SYMPTOM DIAGNOSIS >

• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8</u> , "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 <u>DLK-39</u>, "WARNING FUNCTION : System 	A
Description".	
Door lock function is normal.	В
INTELLIGENT KEY IS REMOVED FROM KEY SLOT : Diagnosis Procedure	
INFOID:000000003843103	С
1.CHECK KEY SLOT	
Check key slot.	D
Refer to <u>DLK-101, "Component Function Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2.	Е
NO >> Repair or replace the malfunctioning parts.	
2. CHECK COMBINATION METER DISPLAY	
Check combination meter display.	F
Refer to <u>DLK-107, "Component Function Check"</u> .	
Is the inspection result normal?	\sim
YES >> GO TO 3.	G
NO >> Repair or replace the malfunctioning parts.	
3. CHECK INSIDE KEY ANTENNA	Н
Check inside key antenna.	
Refer to <u>DLK-61, "DTC Logic"</u> (instrument center).	
Refer to DLK-63, "DTC Logic" (console).	
Refer to DLK-65, "DTC Logic" (luggage room).	
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	J
4.CHECK KEY SLOT ILLUMINATION	
Check key slot illumination. Refer to <u>DLK-103, "Component Function Check"</u> .	DLK
Is the inspection result normal?	
YES >> GO TO 5.	L
NO >> Repair or replace the malfunctioning parts.	
5. CONFIRM THE OPERATION	D. 4
Confirm the operation again.	Μ
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> .	Ν
NO $>>$ GO TO 1.	1 1
	\bigcirc

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE < SYMPTOM DIAGNOSIS >

INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description

INFOID:000000003843104

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8. "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-39</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".

Diagnosis Procedure

INFOID:000000003843105

1.CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT"

Check "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT".

Refer to DLK-54, "INTELLIGENT KEY : CONSULT-III 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".

2. CHECK INTELLIGENT KEY BATTERY

Check Intelligent Key battery. Refer to <u>DLK-99, "Component Function Check"</u>.

Is the inspection result normal?

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

 ${\it 3.}$ CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to <u>DLK-107</u>, "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 <u>DLK-61, "DTC Logic"</u> (instrument center).

Refer to <u>DLK-63</u>, "DTC Logic" (console).

Refer to <u>DLK-65, "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-35, "Intermittent Incident"</u>.

DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR RE-QUEST SWITCH

QUEST SWITCH	
< SYMPTOM DIAGNOSIS >	
DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR	Δ
REQUEST SWITCH	A
Description INFOID:00000003843106	В
NOTE: • Refere performing the diagnosis in the following precedure, sheek "Work Flow" Refer to DLK 9. "Work	
• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8, "Work</u> <u>Flow"</u> .	С
 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-39</u>, "WARNING FUNCTION : System <u>Description</u>". 	
Diagnosis Procedure	D
1. CHECK DOOR LOCK FUNCTION	Е
Check door lock function by door request switch.	
<u>Does door lock/unlock with door request switch?</u> YES >> GO TO 2.	F
NO >> • Go to <u>DLK-186, "DRIVER SIDE : Description"</u> (driver side).	
 Go to <u>DLK-186, "PASSENGER SIDE : Description"</u> (passenger side). Go to <u>DLK-187, "BACK DOOR : Description"</u> (back door). 	G
2. CHECK DOOR SWITCH	G
Check door switch (driver side). Refer to DLK-69, "Component Function Check".	Н
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.	J
Refer to <u>DLK-97, "Component Function Check"</u> .	-
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	DLł
4. CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	L
Refer to <u>DLK-61</u> , " <u>DTC Logic</u> " (instrument center).	
Refer to <u>DLK-63, "DTC Logic"</u> (console). Refer to <u>DLK-65, "DTC Logic"</u> (luggage room).	M
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	Ν
re >> repair of replace the manufolioning parts.	

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u>.

NO >> GO TO 1.

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KEY ID WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEY ID WARNING DOES NOT OPERATE

Description

INFOID:000000003843108

NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-8. "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-39</u>, "WARNING FUNCTION : <u>System</u> <u>Description</u>".

Diagnosis Procedure

INFOID:000000003843109

1.CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to DLK-99, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function. Refer to <u>DLK-107, "Component Function Check"</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-35, "Intermittent Incident"</u>.

INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

А Description INFOID:000000003843112 NOTE: В Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-8, "Work Flow". **Diagnosis** Procedure INFOID:000000003843113 С 1.CHECK INTEGRATED HOMELINK TRANSMITTER Check integrated homelink transmitter. D Refer to DLK-118, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. Е NO >> Repair or replace the malfunctioning parts. 2. CONFIRM THE OPERATION Confirm the operation again. F Is the result normal? YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". NO >> GO TO 1.

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Revision: 2009 March		DLK-214	2009 FX35/FX50
Check half latch swite Refer to <u>DLK-115. "D</u> Is the inspection resu	Diagnosis Procedure".		
1.CHECK HALF LA			
CLOSURE FUN	CTION : Diagnosis	Procedure	INFOID:000000003940368
	ntermittent incident. Refer 1.	to <u>GI-35. "Intermittent Incident"</u> .	
Confirm the operation Is the result normal?	-		
3. CONFIRM THE C	3. r replace the malfunctioni DPERATION	ng parts.	
Refer to DLK-79, "Co	ener switch operation sign		
2. CHECK BACK DO	OOR OPENER SWITCH	OPERATION SIGNAL CIRCUIT	
Is the inspection resu YES >> GO TO 2	omponent Function Chec ult normal?		
1. CHECK BACK DO	OOR OPENER SWITCH		14 CI2.00000000 1102
NO >> GO TO 1 OPEN FUNCTION	1.		INFOID:000000003911592
Confirm the operation <u>Is the result normal?</u> YES >> Check in	-	to <u>GI-35, "Intermittent Incident"</u> .	
YES >> GO TO 3 NO >> Repair of 3. CONFIRM THE C	r replace the malfunctioni	ng parts.	
Check back door clos Refer to <u>DLK-117, "D</u> Is the inspection resu	<u>Diagnosis Procedure"</u> .		
Is the inspection result YES >> GO TO 2 NO >> Repair of	ACK DOOR CONTROL U	•	
	SUPPLY AND GROUND	CIRCUIT	
OPEN/CLOSUR	RE FUNCTION : Diag	gnosis Procedure	INF0ID:000000003940369
OPEN/CLOSUF	RE FUNCTION		
OPEN/CLOSUF	RE FUNCTION		

BACK DOOR DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

BACK DOOR DOES NOT OPERATE

BACK DOOR DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >			
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK OPEN SWITCH	A		
Check open switch. Refer to <u>DLK-111, "Diagnosis Procedure"</u> .	В		
Is the inspection result normal?			
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	С		
3. CHECK CLOSE SWITCH			
Check close switch. Refer to <u>DLK-113, "Diagnosis Procedure"</u> .	D		
Is the inspection result normal?			
YES >> GO TO 4.	E		
NO >> Repair or replace the malfunctioning parts.			
4.CHECK CLOSURE MOTOR	F		
Check closure door motor. Refer to <u>DLK-117, "Diagnosis Procedure"</u> .	=		
Is the inspection result normal?			
YES >> GO TO 5.	G		
NO >> Repair or replace the malfunctioning parts.			
5.CONFIRM THE OPERATION	Н		
Confirm the operation again.			
Is the result normal?			
 YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u>. NO >> GO TO 1. 	I		
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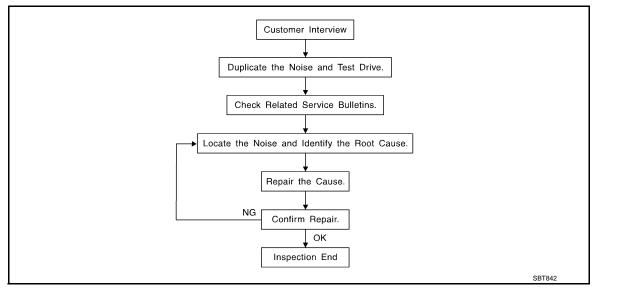
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SQUEAK AND RATTLE TROUBLE DIAGNOSES

< SYMPTOM DIAGNOSIS >

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-220</u>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, 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 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.

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INFOID:000000004041322

< SYMPTOM DIAGNOSIS >

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 DLK-218, "Inspection Procedure".

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-43980) 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:

Μ Always check with the Parts Department for the latest parts information. The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed. URETHANE PADS [1.5 mm (0.059 in) thick] Ν 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, 50×50 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) Ρ INSULATOR (Light foam block) 80845-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18 \times 1.97in) FELT CLOTHTAPE Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000: 15 × 25 mm (0.59 × 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE

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< SYMPTOM DIAGNOSIS >

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. 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 conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

Inspection Procedure

INFOID:000000004041323

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
- 4. Instrument panel to windshield
- 5. Instrument panel mounting pins
- 6. Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

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

CAUTION:

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

Components to pay attention to include:

- 1. Shifter assembly cover to finisher
- 2. A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

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

DOORS

Pay attention to the following:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

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
- 4. A loose license plate or bracket

< SYMPTOM DIAGNOSIS >

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) caus- ing the noise.	А
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	В
2. Sunvisor shaft shaking in the holder	
3. Front or rear windshield touching headlining and squeaking	С
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.	0
SEATS	D
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	Е
 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 con-	F
ditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.	G
UNDERHOOD	0
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:	Н
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	J
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.	DLK
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< SYMPTOM DIAGNOSIS >

Diagnostic Worksheet



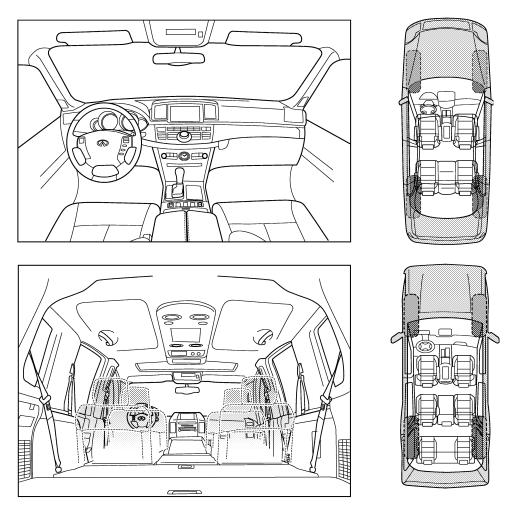
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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.

INFOID:000000004041324

< SYMPTOM DIAGNOSIS >

	oise occurs:	_
II. WHEN DOES IT OCCUR? (please ch	neck the boxes that apply)	_
 anytime 1st time in the morning only when it is cold outside only when it is hot outside 	 after sitting out in the rain when it is raining or wet dry or dusty conditions other: 	
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE	
 through driveways over rough roads over speed bumps 	 squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor) rattle (like shaking a baby rattle) 	
 only about mph on acceleration coming to a stop on turns: left, right or either (circle) 	 knock (like a knock at the door) tick (like a clock second hand) thump (heavy, muffled knock noise) buzz (like a bumble bee) 	
with passengers or cargo		
<pre>dother: miles or miles</pre>	inutes	
<pre> after driving miles or miles TO BE COMPLETED BY DEALERSHIF </pre>		-
		-
after driving miles or mi TO BE COMPLETED BY DEALERSHIF	P PERSONNEL YES NO Initials of person performing	-
After driving miles or miles TO BE COMPLETED BY DEALERSHIF Test Drive Notes: Vehicle test driven with customer Noise verified on test drive Noise source located and repaired	P PERSONNEL YES NO Initials of person performing rm repair Customer Name:	-

< PRECAUTION >

PRECAUTION PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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:

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

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

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000003960590

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables. **NOTE:**

Supply power using jumper cables if battery is discharged.

- 2. Turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.

PRECAUTIONS

< PRECAUTION >

- 5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
- 6. Perform self-diagnosis check of all control units using CONSULT-III.

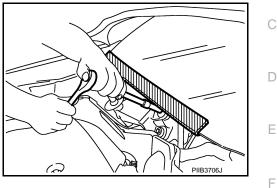
Precaution for Procedure without Cowl Top Cover

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В

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



Work

INFOID:000000003843120

- 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.

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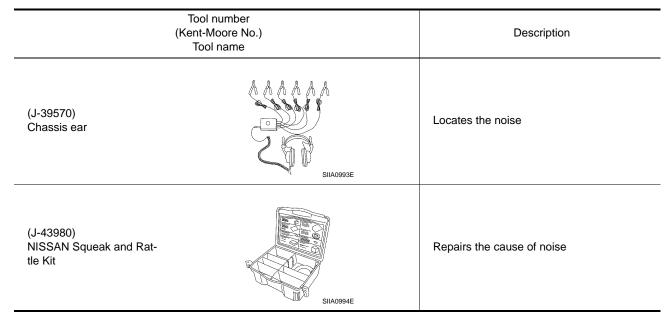
< PREPARATION >

PREPARATION PREPARATION

Special Service Tools

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.



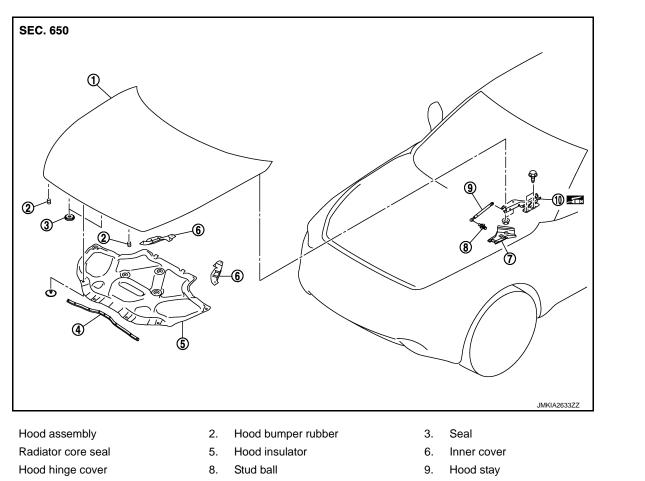
Commercial Service Tools

INFOID:000000003843122

	Tool name	Description		
Engine ear	SIIA0995E	Locates the noise		
Remover tool	PIB7923J	Removes the clips, pawls, and metal clips		
Power tool				
	PIIB1407E			

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

REMOVAL



10. Hood hinge

Refer to $\underline{\text{GI-4}}$, "Components" for symbols in the figure.

ADJUSTMENT

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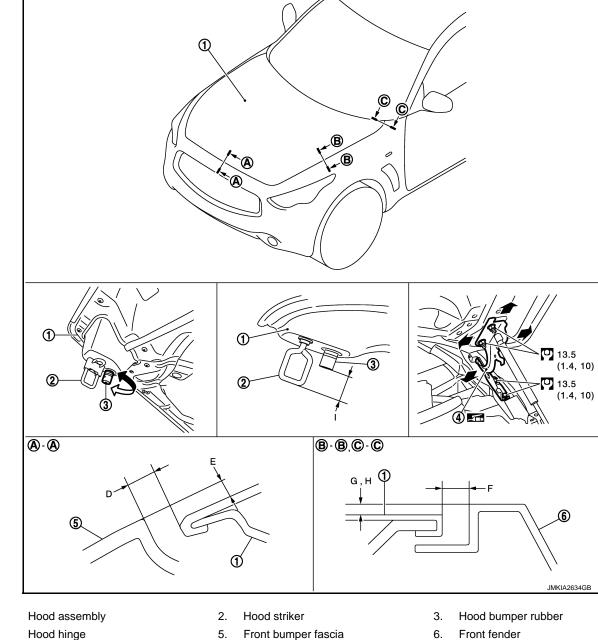
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DLK-226

Revision: 2009 March

< REMOVAL AND INSTALLATION >



Refer to <u>GI-4, "Components"</u> for symbols in the figure.

HOOD ASSEMBLY : Removal and Installation

CAUTION:

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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

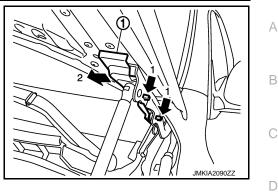


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< REMOVAL AND INSTALLATION >

1. Remove hood hinge cover (LH/RH) (1). **NOTE:**

While pushing the pawls, pull hood hinge cover in the direction of the arrow.

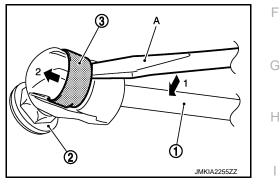


- 2. Remove washer nozzle and washer tube. Refer to WW-111, "Inspection and Adjustment".
- 3. Support hood assembly with a proper material to prevent it from falling.

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).



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6.	Remove hood hinge mounting nuts on the hood to remove the hood assembly.	
7.	Remove the following parts after removing the hood assembly.	J
	 Radiator core seal Hood insulator 	
	Hood insulator Hood bumper rubber	DLK
	Inner cover	DLN
	Hood striker	
	Secondary latch	L
	STALLATION	
	tall in the reverse order of removal.	
	pply anticorrosive agent onto the mounting surface.	Μ
	check hood hinge rotating part for poor lubrication. If necessary, apply body grease.	
	fter installation, check hood open/close, lock/unlock operation.	
	fter installation, adjust the following parts. lood: Refer to DLK-227, "HOOD ASSEMBLY : Adjustment".	Ν
	Vasher nozzle and washer tube: Refer to <u>WW-111, "Inspection and Adjustment"</u> .	
	fter installation, apply touch-up paint (the body color) onto the head of hood hinge mounting bolts nd nuts.	0
пС	DOD ASSEMBLY : Adjustment	
	eck the clearance and the surface height between hood and each part by seeing and touching. Fitting stan- d dimension in the table below should be satisfied.	Р
lf ti	he clearance and the surface height are out of specification, adjust them according to the procedures	

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

< REMOVAL AND INSTALLATION >

	Portion			Standard	Difference (LH/RH, MAX)
Hood – Front bumper fascia		D Clearance 2.6 - 5.6 (0.102 - 0.220)		_	
	A – A	Е	Surface height	-2.0 - 0.5 (-0.079 - 0.020)	_
		F Clearance 2.5 - 4.5 (0.098 - 0.177)			2.0 (0.079)
Hood – Front fender	B – B	G	Surface height	0 - 0.0 (-0.118 - 0.000)	_
	C – C	н	Surface height	-1.0 - 1.0 (-0.039 - 0.039)	_
Hood striker – Bumper rubber	_	I.	Height difference	32.3 – 33.3 (1.272 – 1.311)	_

1. Remove striker and adjust the surface height of hood, front bumper fascia and front fender according to the fitting standard dimension, by rotating hood bumper rubber.

- 2. Adjust the height difference of striker, hood bumper rubber according to the fitting standard dimension.
- 3. Loosen hood hinge mounting nuts on the hood.
- 4. Adjust the clearance of hood, front bumper fascia and front fender according to the fitting standard dimension, for the hood.
- Check that hood lock primary latch is securely engaged with striker by dropping hood from approximately 200 mm (7.874 in) height or pressing lightly on the hood.
 CAUTION:

Never drop hood from a height of 300 mm (11.811 in) or more.

- 6. Install as static closing face of hood is 94 490 N (9.6 50.0 kg, 21.1 110 lb). NOTE:
 - Exercise vertical force on right side and left side of hood lock.
 - Do not simultaneously press both sides.
- 7. After adjustment, tighten hood hinge mounting nuts to the specified torque.

CAUTION:

- Before installing hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- Check hood hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, apply touch-up paint (the body color) onto the head of hood hinge mounting bolts and nuts.

HOOD HINGE

HOOD

< REMOVAL AND INSTALLATION >

HOOD HINGE : Exploded View

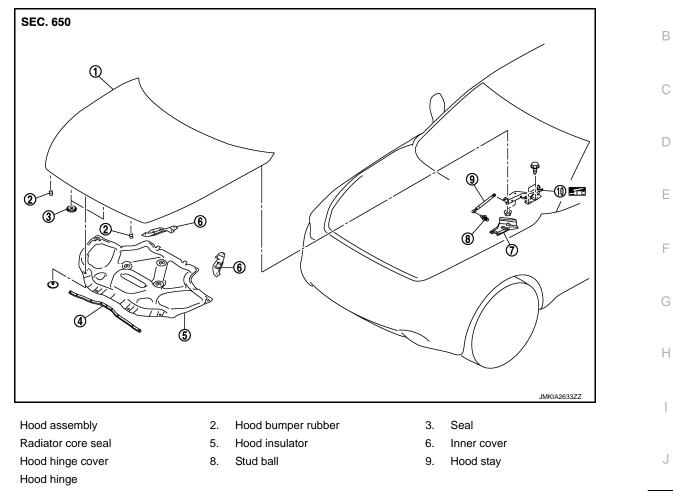
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Refer to GI-4, "Components" for symbols in the figure.

HOOD HINGE : Removal and Installation

REMOVAL

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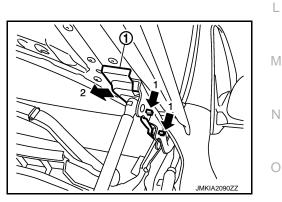
4.

7.

10.

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 <u>DLK-226</u>, "HOOD ASSEMBLY : Removal and Installation".
- 3. Remove front fender. Refer to <u>DLK-234</u>, "Removal and Installation".
- 4. Remove hood hinge mounting bolts, and then remove hood hinge.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

• Apply anticorrosive agent onto the mounting surface.

HOOD

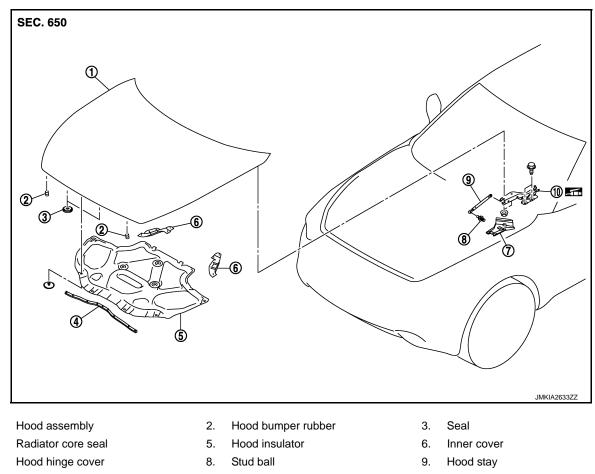
< REMOVAL AND INSTALLATION >

- 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 <u>DLK-227, "HOOD ASSEMBLY : Adjust-ment"</u>.

HOOD STAY

HOOD STAY : Exploded View

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10. Hood hinge

Refer to <u>GI-4, "Components"</u> for symbols in the figure.

HOOD STAY : Removal and Installation

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REMOVAL

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7.

1. Support hood assembly with a proper material to prevent it from falling.

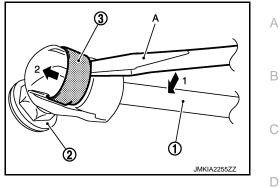
WARNING:

Bodily injury may occur if no supporting rod is holding the hood open when removing the hood stay.

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.



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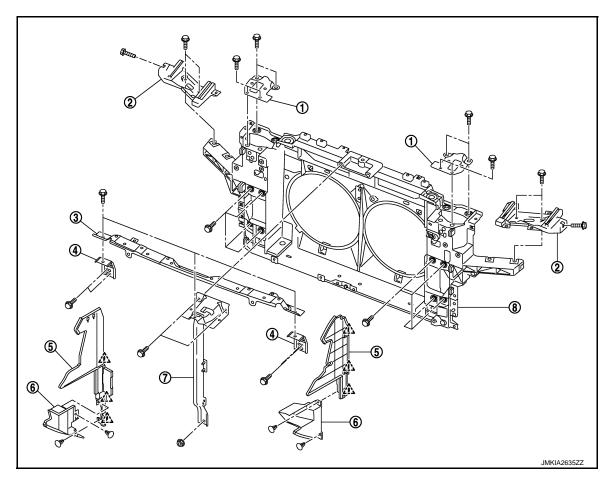
RADIATOR CORE SUPPORT

< REMOVAL AND INSTALLATION >

RADIATOR CORE SUPPORT

Exploded View

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- 1. Hood lock bracket (LH/RH)
- Head lamp bracket (LH/RH)
 Air guide upper (LH/RH)

Radiator core support

- 3. Front bumper upper retainer
- 6. Air guide lower (LH/RH)

- 4. Front bumper side retainer (LH/RH)
- 7. Hood lock stay
- کے : Pawl

Removal and Installation

REMOVAL

- 1. Use refrigerant collecting equipment to discharge the refrigerant. Refer to <u>HA-25</u>, "Collection and <u>Charge"</u>.
- 2. Remove floor under cover. Refer to EXT-31, "Removal and Installation".

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- 3. Remove front bumper fascia, front bumper fascia lower, energy absorber and bumper reinforcement. Refer to <u>EXT-13, "Removal and Installation"</u>.
- 4. Drain engine coolant from radiator.
 - VQ35HR models: Refer to <u>CO-8, "Draining"</u>.
 - VK50VE models: Refer to <u>CO-33, "Draining"</u>.
- 5. Remove engine coolant reservoir tank. Refer to CO-14, "Exploded View".
- 6. Remove air guide lower (LH/RH).
- 7. Remove air guide upper (LH/RH).
- 8. Remove front combination lamp (LH/RH). Refer to EXL-201, "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).

DLK-232

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RADIATOR CORE SUPPORT

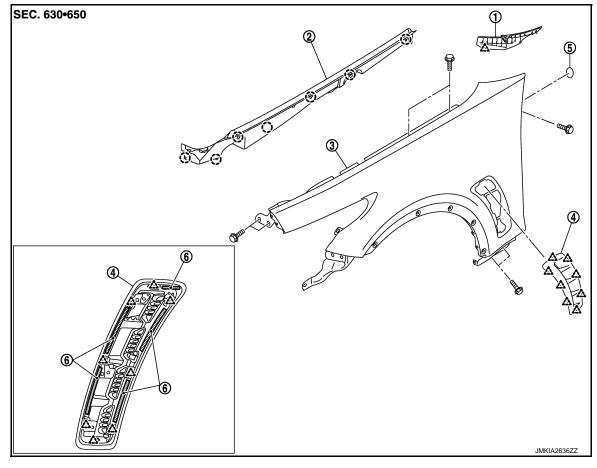
< R	EMOVAL AND INSTALLATION >	
11.	Remove mounting bolts and then remove hood lock bracket assembly (LH/RH).	
12.	Remove washer tank and washer tank inlet. Refer to WW-108, "Exploded View".	А
13.	Remove ambient sensor. Refer to HAC-180, "Exploded View".	
14.	Remove GAS sensor (with intelligent A/C). Refer to <u>HAC-185. "Exploded View"</u> .	_
15.	Disconnect harness clamp from hood lock stay.	В
16.	Remove mounting bolt and nut, and remove hood lock stay.	
17.	Remove horn (HIGH/LOW). Refer to HRN-6, "Exploded View".	С
18.	Remove ICC sensor integrated unit (with intelligent cruse control model). Refer to <u>CCS-180, "Exploded</u> <u>View"</u> .	C
19.	Remove intelligent key warning buzzer. Refer to DLK-273, "Removal and Installation".	D
20.	 Remove power steering oil cooler. VQ35HR models: Refer to <u>ST-47, "VQ35HR : Exploded View"</u>. VK50VE models: Refer to <u>ST-48, "VK50VE : Exploded View"</u>. 	
21.	Disconnect harness connector of refrigerant pressure sensor. Refer to <u>HAC-186</u> , "Exploded View".	E
	Remove condenser assembly and condenser pipe assembly. Refer to <u>HA-47, "CONDENSER : Removal</u>	
	and Installation".	F
23.	Disconnect A/T fluid cooler hose (upper/lower) from fan shroud and remove A/T fluid cooler hose (upper/lower) from radiator.	F
	 VQ35HR, 2WD models: Refer to <u>TM-194. "2WD : Exploded View"</u>. VQ35HR, AWD models: Refer to <u>TM-196. "AWD : Exploded View"</u>. VK50VE models: Refer to <u>TM-381. "Exploded View"</u>. 	G
24.	 Remove radiator upper hose and lower hose at radiator side. VQ35HR models: Refer to <u>CO-24, "Exploded View"</u>. VK50VE models: Refer to <u>CO-46, "Exploded View"</u>. 	Н
25.	 Remove radiator. VQ35HR models: Refer to <u>CO-14, "Removal and Installation"</u>. VK50VE models: Refer to <u>CO-39, "Removal and Installation"</u>. 	I
26.	Remove crash zone sensor. Refer to <u>SR-15, "Removal and Installation"</u> .	
	Disconnect harness connector of cooling fan.	J
	 VQ35HR models: Refer to <u>CO-17, "Exploded View"</u>. VK50VE models: Refer to <u>CO-42, "Exploded View"</u>. 	
28.	Disconnect all harness clip from radiator core support assembly.	DLK
29.	Remove mounting bolts, and then remove radiator core support assembly. CAUTION: Operate with two workers, because of its heavy weight.	
20	Remove the following parts after removing radiator core support assembly.	L
30.	 Cooling fan (LH/RH) 	
	- VQ35HR models: Refer to <u>CO-17, "Exploded View"</u> .	ъл
	- VK50VE models: Refer to <u>CO-42, "Exploded View"</u> .	M
	 Front bumper side retainer (LH/RH) 	
INS	STALLATION	Ν
	tall in the reverse order of removal.	1.4
	UTION: fter installation, replenish the following parts.	
- R	efrigerant: Refer to <u>HA-25, "Collection and Charge"</u> (VQ35HR models) or <u>HA-81, "Collection and harge"</u> (VK50VE models).	0
- A	ngine coolant: Refer to <u>CO-9, "Refilling"</u> (VQ35HR models) or <u>CO-34, "Refilling"</u> (VK50VE models). /T fluid: Refer to <u>TM-176, "Changing"</u> (VQ35HR models) or <u>TM-363, "Changing"</u> (VK50VE models). ower steering oil: Refer to <u>ST-11, "Inspection"</u> .	Ρ
• A	fter installation, adjust the following parts.	
<u>S</u>	CC sensor integrated unit (with intelligent cruse control model): Refer to <u>CCS-13, "ADDITIONAL</u> <u>ERVICE WHEN REPLACING CONTROL UNIT (ICC SENSOR INTEGRATED UNIT) : Special Repair</u>	
	<u>equirement"</u> . ront combination lamp: Refer to <u>EXL-198, "Aiming Adjustment Procedure"</u> .	
- P	erform camera image calibration. Refer to <u>AV-614</u> , "CALIBRATING CAMERA IMAGE (AROUND IEW MONITOR) : Special Repair Requirement"	

< REMOVAL AND INSTALLATION >

FRONT FENDER

Exploded View

INFOID:000000003843132



- 1. Front fender cover
- 4. Front fender duct assembly

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.
- 2. Remove fillet molding. Refer to EXT-32, "Removal and Installation".
- 3. Remove fender protector. Refer to EXT-25, "FENDER PROTECTOR : Removal and Installation".
- 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".
- 6. Remove front combination lamp. Refer to <u>EXL-202, "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)

Revision: 2009 March

DLK-234

2009 FX35/FX50

INFOID:000000003843133

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:**

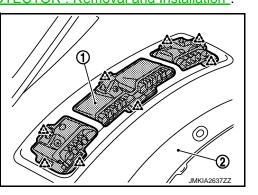
- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.
- After installation, adjust the following part.
- Hood assembly: Refer to DLK-227, "HOOD ASSEMBLY : Adjustment".
- Front door: Refer to DLK-238, "DOOR ASSEMBLY : Adjustment".
- Front combination lamp: Refer to EXL-198, "Aiming Adjustment Procedure".
- Perform camera image calibration. Refer to <u>AV-614</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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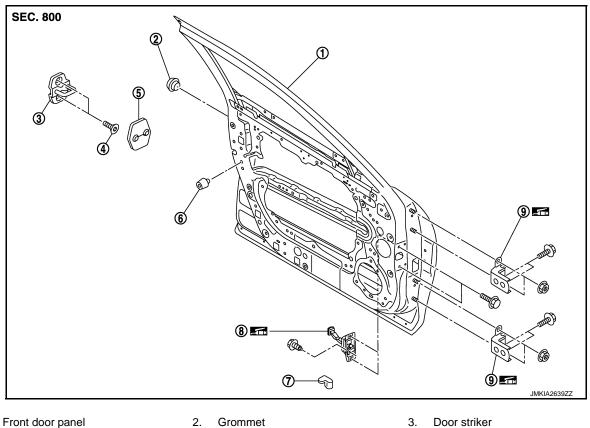
< REMOVAL AND INSTALLATION >

FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Exploded View

INFOID:000000003843134

REMOVAL



3.

6.

9.

Bumper rubber

Door hinge (upper/lower)

- 1. Front door panel
- 4. TORX bolt
- 7. Door check link cover

Refer to GI-4, "Components" for symbols in the figure.

2.

5.

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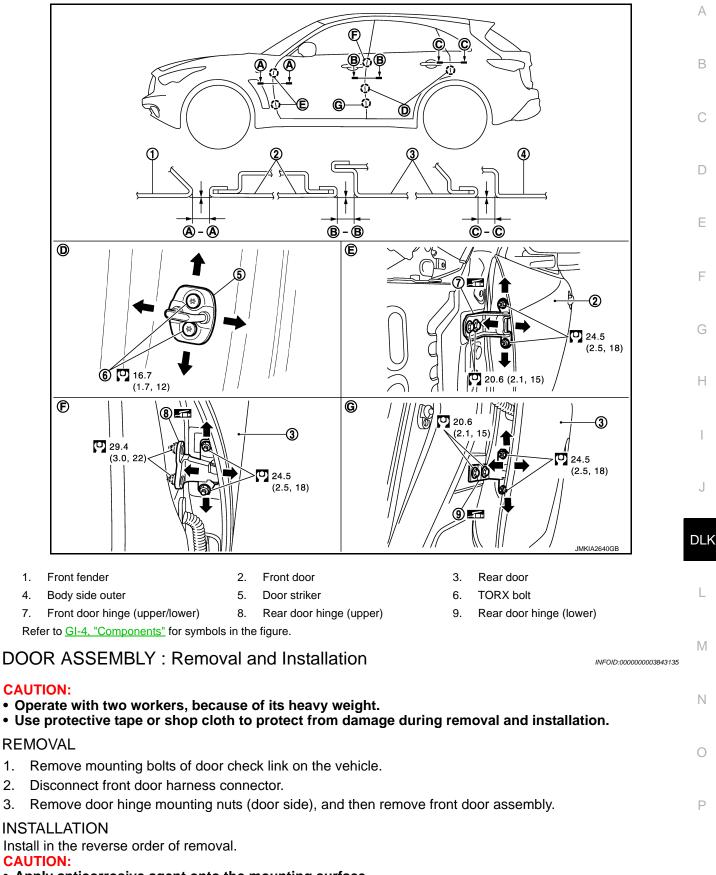
Grommet

Door striker cover

Door check link

ADJUSTMENT

< REMOVAL AND INSTALLATION >



- 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.

DLK-237

< REMOVAL AND INSTALLATION >

- After installation, perform the fitting adjustment. Refer to <u>DLK-238, "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:000000003843136

Unit: mm (in)

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.

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)	-1.0 - 1.0 (-0.039 - 0.039)

- 1. Remove front fender. Refer to <u>DLK-234, "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 DLK-234, "Removal and Installation".

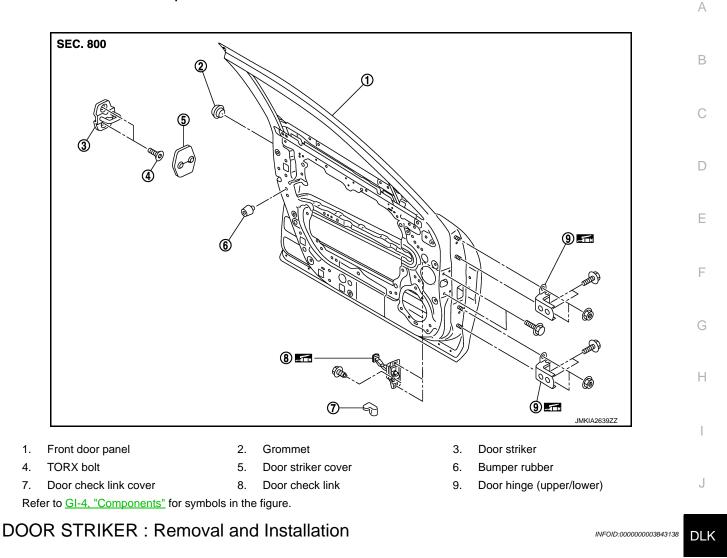
DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction. DOOR STRIKER

< REMOVAL AND INSTALLATION >

DOOR STRIKER : Exploded View

INFOID:000000003843137



REMOVAL

1. Remove door striker cover.

2. Remove TORX bolts, and then remove door striker.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Apply genuine high strength locking sealant or equivalent onto TORX bolts.
- After installation, check door open/close, lock/unlock operation.
- After installation, perform the fitting adjustment. Refer to <u>DLK-238, "DOOR ASSEMBLY : Adjust-</u> ment".

DOOR HINGE

Μ

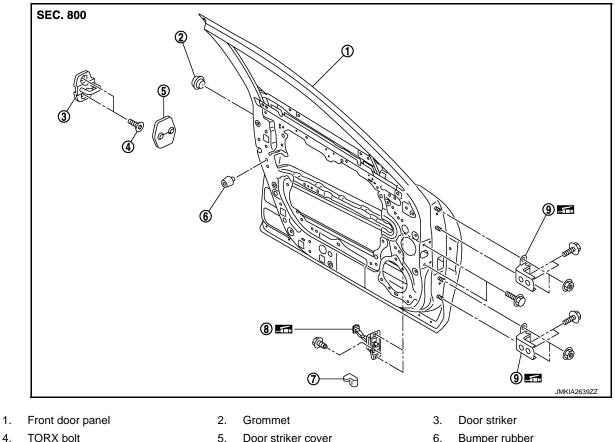
Ν

Ρ

< REMOVAL AND INSTALLATION >

DOOR HINGE : Exploded View

INFOID:000000003940558



- 7. Door check link cover
- 5.
 - 8. Door check link

- Bumper rubber
- Door hinge (upper/lower) 9

Refer to GI-4, "Components" for symbols in the figure.

DOOR HINGE : Removal and Installation

INFOID:000000003843140

REMOVAL

1.

- 1. Remove front fender. Refer to DLK-234, "Removal and Installation".
- 2. Remove front door assembly. Refer to DLK-237, "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-238, "DOOR ASSEMBLY : Adjust-</u> ment".
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

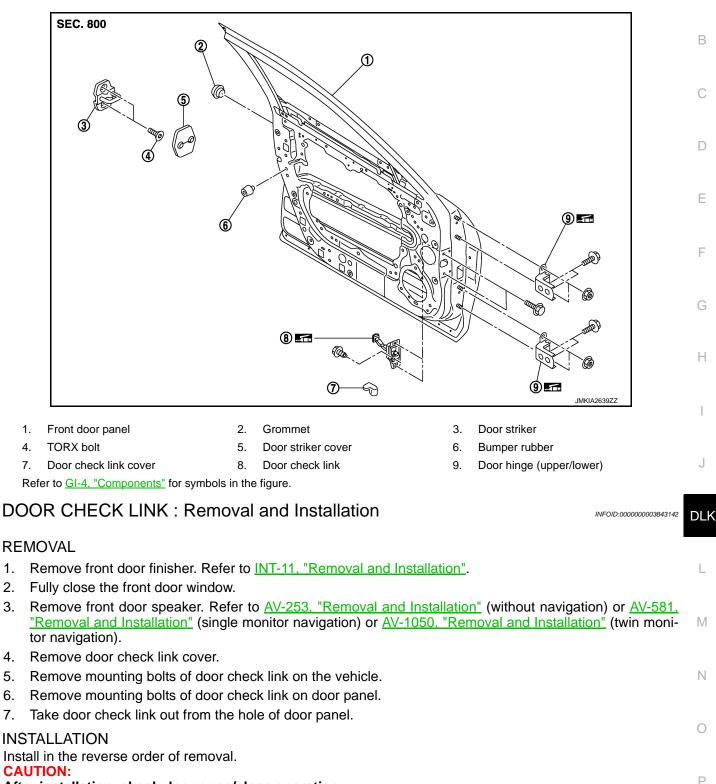
DOOR CHECK LINK

< REMOVAL AND INSTALLATION >

DOOR CHECK LINK : Exploded View

INFOID:000000003940559

А



After installation, check door open/close operation.

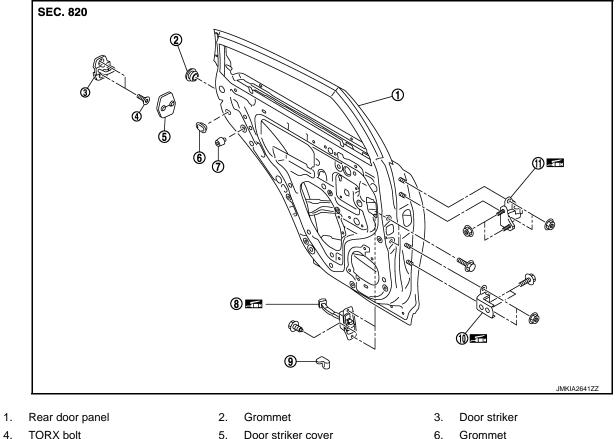
< REMOVAL AND INSTALLATION >

REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY : Exploded View

INFOID:000000003843143

REMOVAL



- 4. TORX bolt
- 7. Bumper rubber
- 10. Door hinge (lower)
- 5. Door striker cover
- 8. Door check link
- 11. Door hinge (upper)

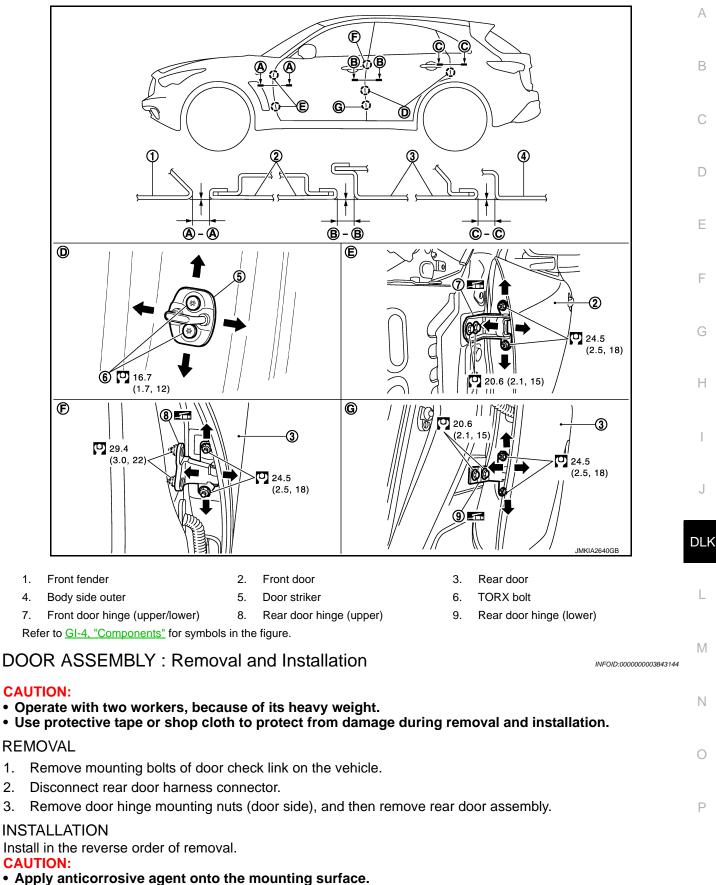
9.

Door check link cover

Refer to GI-4, "Components" for symbols in the figure.

ADJUSTMENT

< REMOVAL AND INSTALLATION >



- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, check door open/close, lock/unlock operation.
- Revision: 2009 March

DLK-243

< REMOVAL AND INSTALLATION >

- After installation, perform the fitting adjustment. Refer to <u>DLK-244, "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:000000003843145

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)	-1.0 - 1.0 (-0.039 - 0.039)
Rear door – Body side outer	C – C	3.0 – 5.0 (0.118 – 0.197)	-1.0 - 1.0 (-0.039 - 0.039)

- 1. Remove center pillar lower garnish. Refer to INT-17, "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-17, "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.

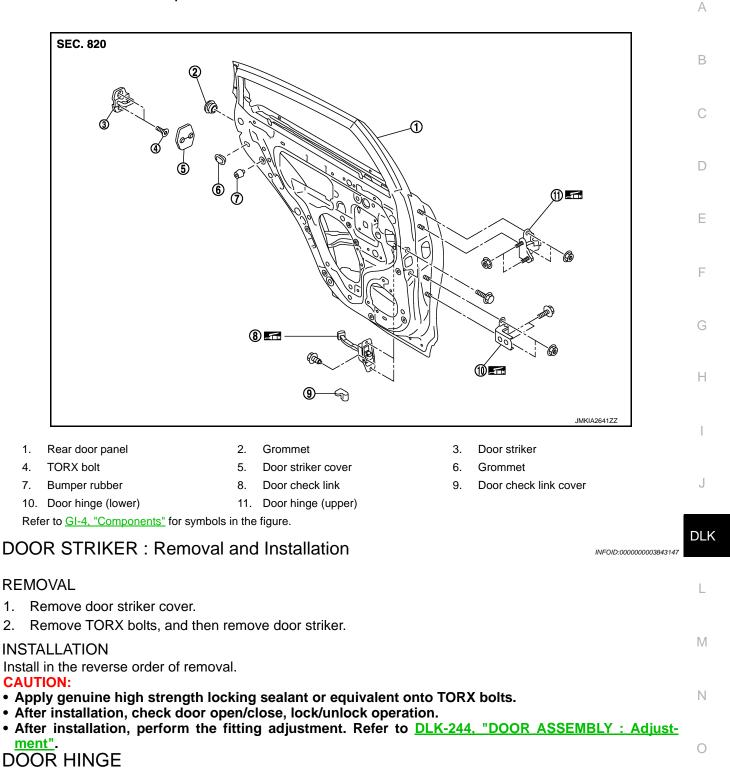
DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction. DOOR STRIKER

< REMOVAL AND INSTALLATION >

DOOR STRIKER : Exploded View

INFOID:00000003843146

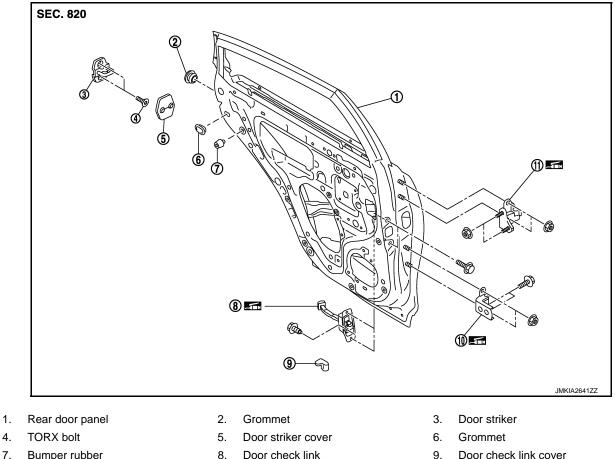


Ρ

< REMOVAL AND INSTALLATION >

DOOR HINGE : Exploded View

INFOID:000000003940560



- 7. Bumper rubber

- Door check link
- 10. Door hinge (lower) 11. Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

DOOR HINGE : Removal and Installation

REMOVAL

- Remove center pillar lower garnish. Refer to <u>INT-17, "Removal and Installation"</u>.
- Remove rear door assembly. Refer to DLK-243, "DOOR ASSEMBLY : Removal and Installation". 2.
- 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-244, "DOOR ASSEMBLY : Adjust-</u> ment".
- After installation, apply the touch-up paint (the body color) onto the head of door hinge mounting bolts and nuts.

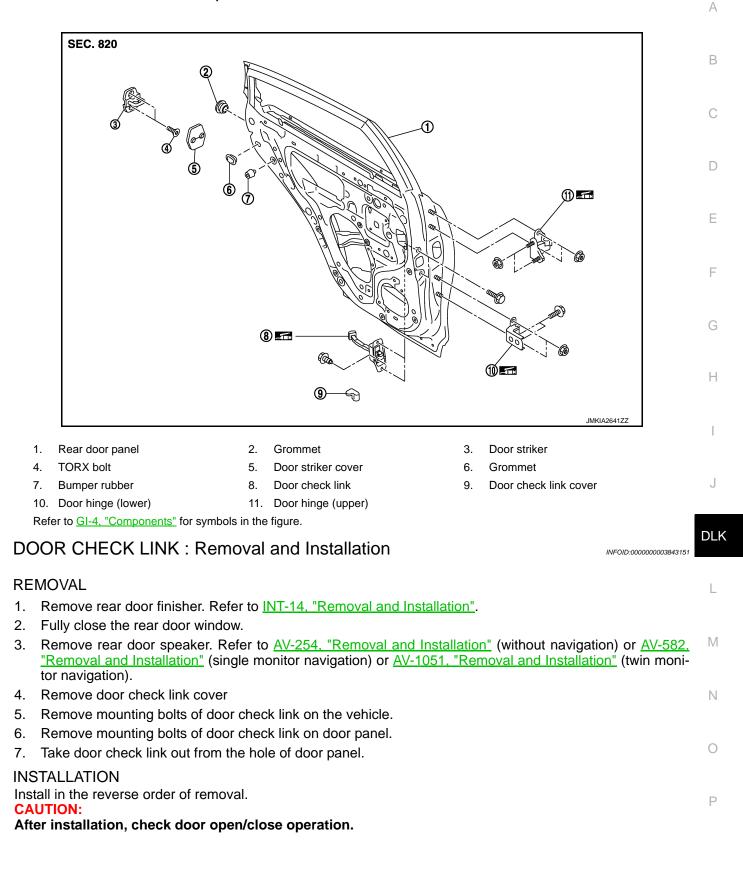
DOOR CHECK LINK

INFOID:000000003843149

< REMOVAL AND INSTALLATION >

DOOR CHECK LINK : Exploded View

INFOID:00000000394056



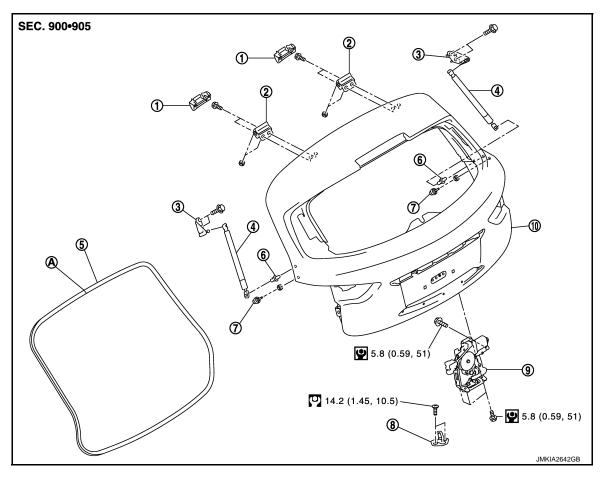
< REMOVAL AND INSTALLATION >

BACK DOOR BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY : Exploded View

INFOID:000000003843152

REMOVAL



- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (LH/RH)
- 10. Back door assembly
- A : Center mark

Refer to GI-4, "Components" for symbols in the figure.



- 2. Back door hinge (LH/RH)
- 5. Back door weather-strip
- 8. Back door striker

- 3. Back door stay bracket (LH/RH)
- 6. Stud ball (LH/RH)
- 9. Back door lock assembly

BACK DOOR

< REMOVAL AND INSTALLATION >

		А
		В
		С
	C	D
		E
		F
		G
		Н
		I
	1. Back door assembly2. Bumper rubber3. Back door hinge4. Back door striker5. Roof6. Rear bumper fasciaRefer to GI-4, "Components" for symbols in the figure.	J
	CK DOOR ASSEMBLY : Removal and Installation	DLK
СА	UTION:	
• U	perate with two workers, because of its heavy weight. Ise protective tape or shop cloth to protect from damage during removal and installation. TE:	L
	e back door harness constitute the back door assembly.	вл
RE	MOVAL	Μ
1.	Remove back door finisher inner, back door plate and back door hinge cover. Refer to <u>INT-32, "Removal</u> and Installation".	Ν
2.	Remove clips of headlining at rear end. Refer to INT-24, "Removal and Installation".	
3.	Disconnect connectors and bolts of back door harness.	
4.	Remove back door grommet (LH), and then pull harness out of vehicle at roof panel hole.	0
5.	Remove back door plate, and then disconnect washer tube. Refer to <u>INT-32, "Exploded View"</u> and <u>WW-123, "Removal and Installation"</u> .	
6.	Pull washer tube out of back door.	Ρ

- 6. sher tube out of back door. 7. Support back door lock with the proper material 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.

- 8. Remove back door stay. Refer to <u>DLK-253</u>, "BACK DOOR STAY : Removal and Installation".
- 9. Remove back door hinge mounting bolts on back door and remove back door assembly.

DLK-249

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal. 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.
- After installation, perform the fitting adjustment. Refer to <u>DLK-250, "BACK DOOR ASSEMBLY :</u> <u>Adjustment"</u>.
- After installation, perform the camera image calibration. Refer to <u>AV-279</u>, "CALIBRATING CAMERA <u>IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement</u>" (single monitor) or <u>AV-614</u>, "CALI-<u>BRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement</u>" (twin monitor).

BACK DOOR ASSEMBLY : Adjustment

INFOID:000000003843154

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)

Port	Standard			
Back door Boof	A – A	D	Clearance	5.0 - 9.0 (0.197 - 0.354)
Back door – Roof	A-A	Ε	Surface height	-0.4 - 3.6 (-0.016 - 0.142)
Back door – Rear bumper fascia	B – B	F	Clearance	3.0 – 7.0 (0.118 – 0.276)
	D – D	G	Surface height	-2.1 - 2.1 (-0.083 - 0.083)
	C – C	Н	Clearance	5.0 - 9.0 (0.197 - 0.354)

1. Remove back door hinge cover. Refer to INT-32. "Removal and Installation".

- 2. Loosen back door hinge mounting bolts (back door side).
- 3. Loosen bumper rubber.
- 4. Remove luggage rear plate mask. Refer to INT-29. "Removal and Installation".
- 5. Loosen back door striker mounting bolts.
- 6. 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.
- 7. Check the clearance and surface height.
- 8. 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.
- 9. Install back door hinge cover and luggage rear plate mask. Refer to <u>INT-32, "Removal and Installation"</u> and <u>INT-29, "Removal and Installation"</u>.

BACK DOOR STRIKER ADJUSTMENT

Adjust back door striker so that it becomes parallel with back door lock insertion direction. BACK DOOR STRIKER

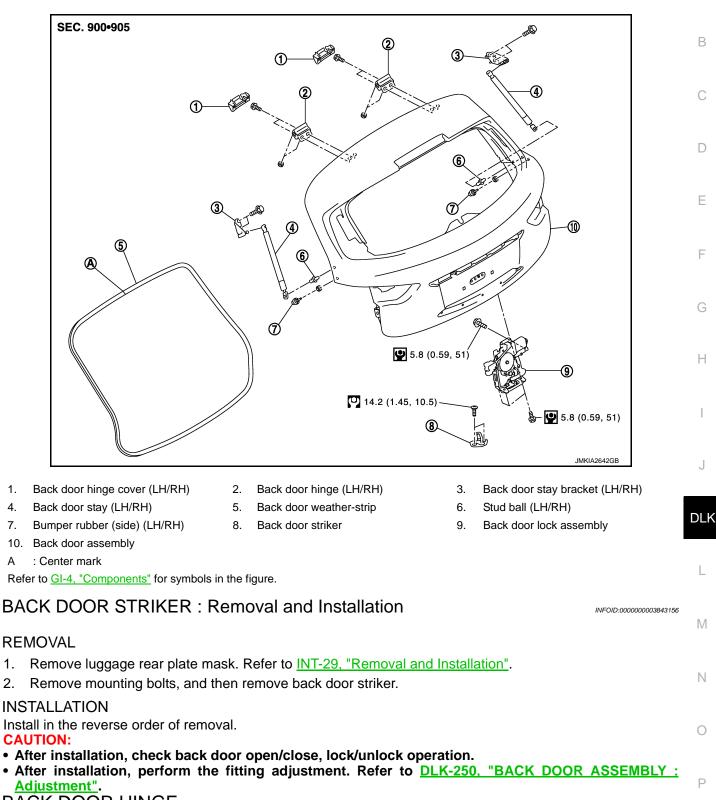
BACK DOOR

< REMOVAL AND INSTALLATION >

BACK DOOR STRIKER : Exploded View

INFOID:00000003843155

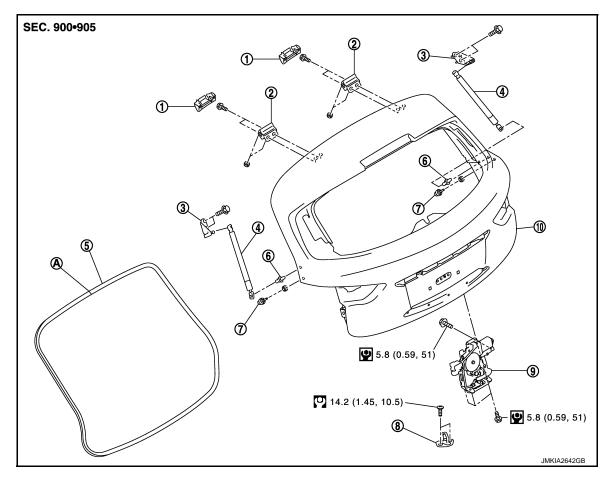
А



BACK DOOR

< REMOVAL AND INSTALLATION >

BACK DOOR HINGE : Exploded View



- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (side) (LH/RH)
- 10. Back door assembly
- A : Center mark

Refer to $\underline{\text{GI-4}}$, "Components" for symbols in the figure.

BACK DOOR HINGE : Removal and Installation

2.

5.

8.

REMOVAL

1. Remove luggage side lower finisher and luggage side upper finisher. Refer to <u>INT-29, "Removal and</u> <u>Installation"</u>.

Back door hinge (LH/RH)

Back door weather-strip

Back door striker

- 2. Using a remover tool, remove headlining clip at the rear side of headlining, and then remove rear side of headlining. Refer to <u>INT-24</u>, "Removal and Installation".
- 3. Remove back door assembly. Refer to DLK-249, "BACK DOOR ASSEMBLY : Removal and Installation".
- 4. Remove back door hinge mounting nuts (body side), and then remove back door hinge.

INSTALLATION

Install in the reverse order of removal.

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.
- After installation, perform the fitting adjustment. Refer to <u>DLK-250, "BACK DOOR ASSEMBLY :</u> <u>Adjustment"</u>.

DLK-252

2009 FX35/FX50

Back door lock assembly

INFOID:00000003843158

3. Back door stay bracket (LH/RH)

Stud ball (LH/RH)

6.

9.

BACK DOOR

< REMOVAL AND INSTALLATION >

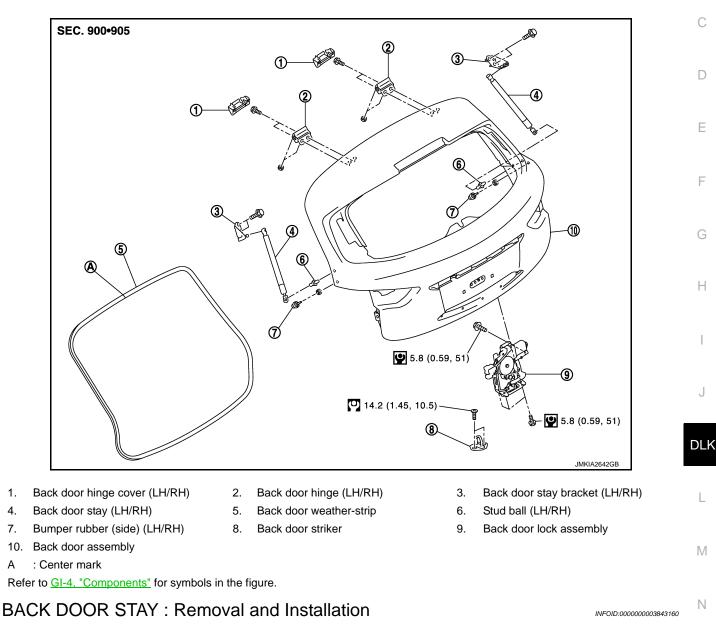
• After installation, perform the camera image calibration. Refer to AV-279, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement" (single monitor) or AV-614, "CALI-BRATING CAMERA IMAGE (AROUND VIEW MONITOR) : Special Repair Requirement" (twin monitor). BACK DOOR STAY

BACK DOOR STAY : Exploded View

INFOID:000000003940563

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В



REMOVAL

1.

4.

7.

10.

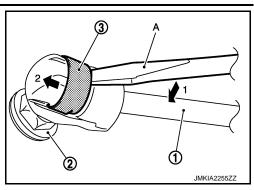
А

- 1. Support back door lock with the proper material to prevent it from falling. WARNING: Bodily injury may occur if no supporting rod is holding the back door open when removing the P back door stay.
- 2. Remove mounting bolts of back door stay (body side).

BACK DOOR

< REMOVAL AND INSTALLATION >

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



Remove mounting bolts of back door stay bracket, and then remove stud ball assembly. 5.

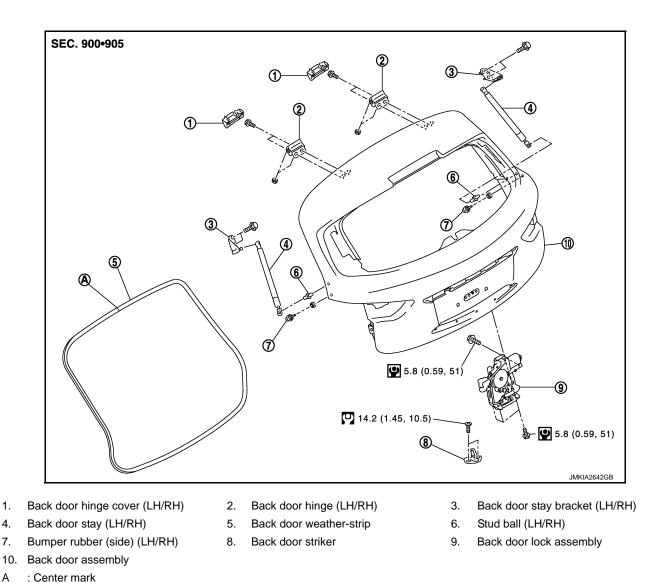
INSTALLATION

Install in the reverse order of removal. **CAUTION:** After installation, check back door open/close operation.

BACK DOOR WEATHER-STRIP

BACK DOOR WEATHER-STRIP : Exploded View

INFOID:000000003940564



Refer to GI-4, "Components" for symbols in the figure.

А

BACK DOOR

< REMOVAL AND INSTALLATION >	
BACK DOOR WEATHER-STRIP : Removal and Installation	3162 A
REMOVAL	
Pull up and remove engagement with body from weather-strip joint. CAUTION:	В
Never pull strongly on weather-strip.	
INSTALLATION	. C
 Working from the upper section, align weather-strip center mark with vehicle center position mark an install weather-strip onto the vehicle. 	nd
 Pull weather-strip gently to ensure that there is no loose section. NOTE: 	D
Check that weather-strip fits tightly in each corner and luggage rear plate.	
	E
	F
	G
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	I

J

L

M

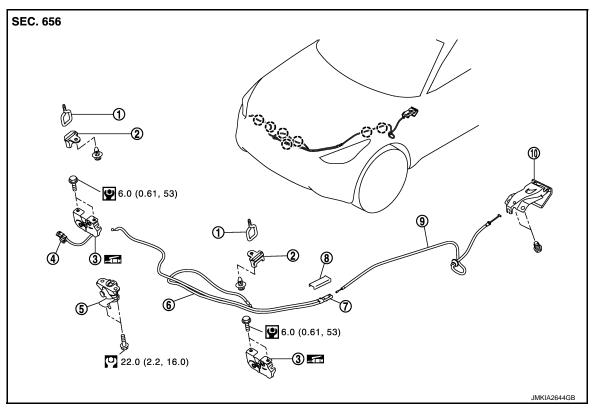
Ν

Ο

< REMOVAL AND INSTALLATION > HOOD LOCK

Exploded View

INFOID:00000003843163



- Hood striker (LH/RH) 1.
- Hood lock cover (LH/RH) 2. Secondary latch

Hood lock control cable protector

5.

8.

cover

- 4. Hood switch
- Hood lock control cable protector 7.
- 10. Hood lock opener

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

INFOID:00000003843164

3. Hood lock (LH/RH)

Hood lock control cable (front)

Hood lock control cable (rear)

6.

9

REMOVAL

CAUTION:

Before removal, confirm how the hood lock control cable is allocated and connected.

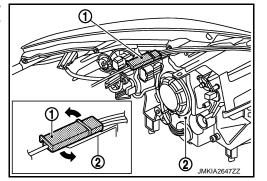
- 1. Remove air duct (inlet). Refer to EM-29, "Exploded View".
- 2. Remove engine room cover (LH/RH) (VK50VE models). Refer to EM-175, "Removal and Installation".
- Remove air cleaner case assembly (RH). Refer to <u>EM-29, "Removal and Installation"</u>.
- 4. Disconnect hood switch connector from head lamp bracket (RH).
- 5. Remove mounting bolts and remove hood lock bracket (LH/RH).
- 6. Disconnect hood lock control cable (front) from hood lock (LH/RH).
- 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.

DLK-256

HOOD LOCK

< REMOVAL AND INSTALLATION >

Rotate hood lock control cable protector (1) toward the arrow direction, then remove it from front combination lamp assembly (2).



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INFOID:000000003843165

- 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:

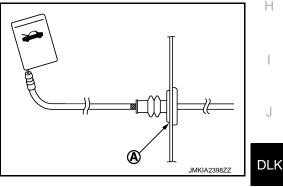
While pulling, never damage (peeling) the outside of the hood lock control cable.

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-227, "HOOD ASSEMBLY : Adjust-ment"</u>.
- After installation, perform the inspection. Refer to <u>DLK-257, "Inspection"</u>.

Inspection

NOTE:

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

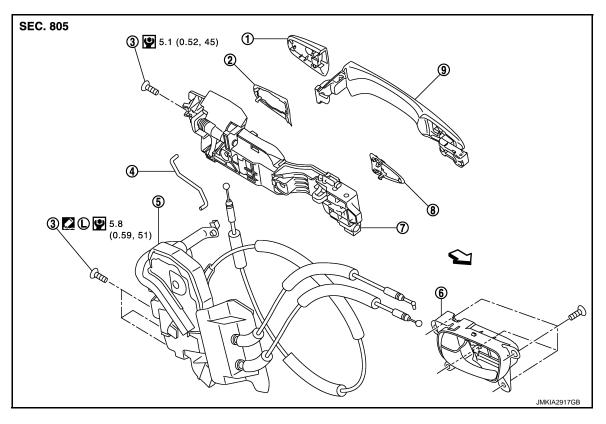
- 1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
- While operating hood opener, carefully check that the front end of hood is raised by approximately 20 mm (0.787 in). Also check that hood opener returns to the original position.
- 3. Check 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.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to hood lock.

DLK-257

FRONT DOOR LOCK DOOR LOCK

DOOR LOCK : Exploded View

INFOID:000000003843166



3.

9

TORX bolt

6. 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

Refer to GI-4, "Components" for symbols in the figure.

DOOR LOCK : Removal and Installation

REMOVAL

1. Remove front door finisher. Refer to INT-11, "Removal and Installation".

8.

Front gasket

- Remove front door glass. Refer to <u>GW-18, "Removal and Installation"</u>. 2.
- 3. Remove front door module assembly. Refer to GW-21, "Removal and Installation".
- Remove door key cylinder assembly (outside handle escutcheon), outside handle, outside handle bracket, 4. rear gasket and front gasket. Refer to DLK-260, "OUTSIDE HANDLE : Removal and Installation".
- 5. Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly. 6.
- 7. Remove key rod from 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.

DLK-258

2009 FX35/FX50

FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

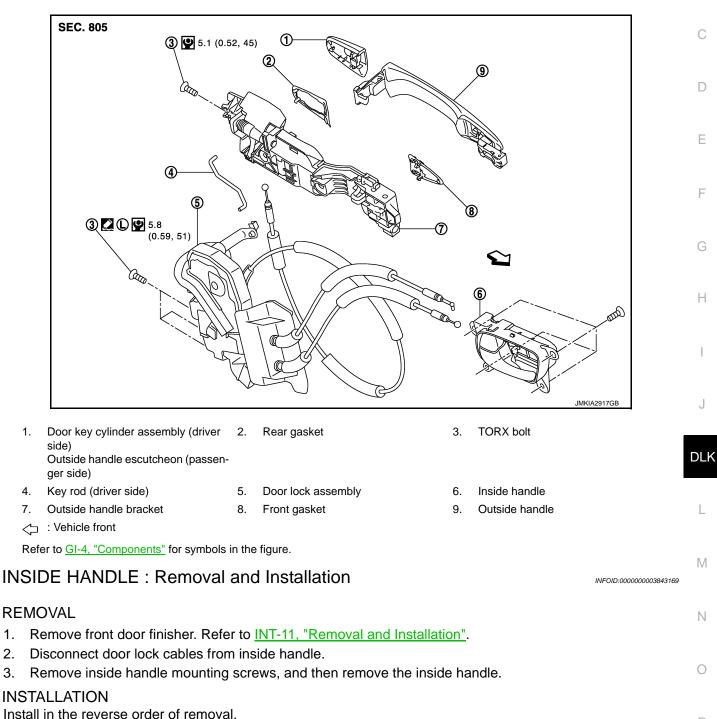
· When installing key rod, rotate key rod holder until a click is felt.

 After installation, check door open/close, lock/unlock operation. **INSIDE HANDLE**

INSIDE HANDLE : Exploded View

INFOID:000000003940566 В

А



CAUTION:

1. 2.

3.

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

OUTSIDE HANDLE

Revision: 2009 March

DLK-259

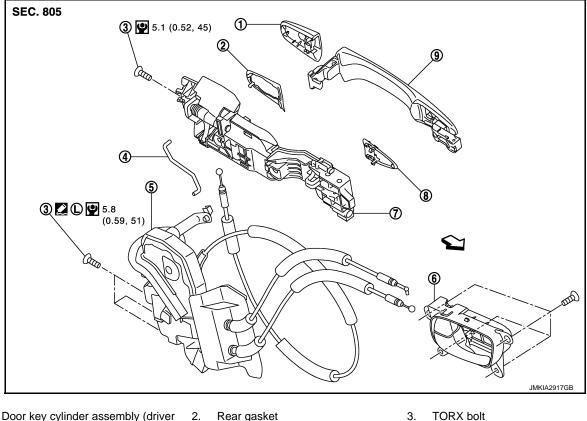
2009 FX35/FX50

FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

OUTSIDE HANDLE : Exploded View

INFOID:000000003940567



- Door key cylinder assembly (driver 2. Reside)
 Outside handle escutcheon (passenger side)
- 4. Key rod (driver side)

Outside handle bracket

- 5. Door lock assembly
- 8. Front gasket

Refer to GI-4, "Components" for symbols in the figure.

OUTSIDE HANDLE : Removal and Installation

REMOVAL

7.

- 1. Remove front door finisher. Refer to INT-11, "Removal and Installation".
- 2. Remove front door glass. Refer to GW-18, "Removal and Installation".
- 3. Remove front door module assembly. Refer to <u>GW-21, "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.

6.

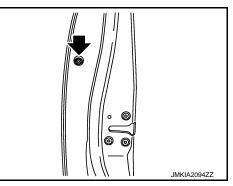
9.

Inside handle

Outside handle

5. Remove door side grommet, and loosen TORX bolt from grommet hole.

🖛 : TORX bolt



FRONT DOOR LOCK

< REMOVAL AND INSTALLATION >

6. Reach in to separate key rod (2) connection [on the door key cylinder assembly (1)] (driver side).

Revision: 2009 March

11. Disconnect door lock cable from outside handle bracket.

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

INSTALLATION

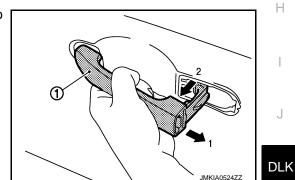
Install in the reverse order of removal.

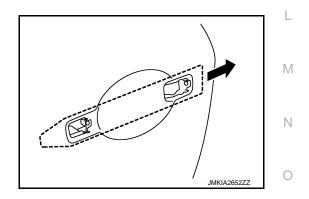
9. Remove front gasket and rear gasket.

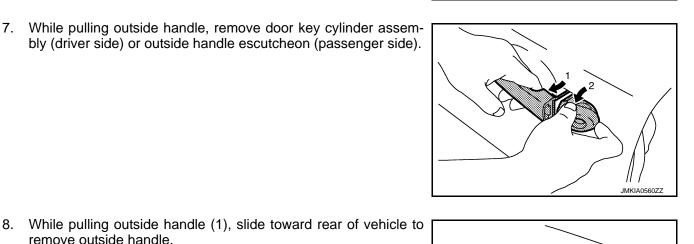
remove outside handle.

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.









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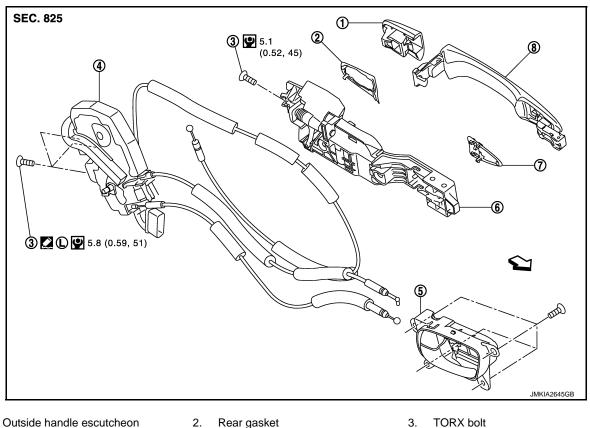
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REAR DOOR LOCK DOOR LOCK

DOOR LOCK : Exploded View

INFOID:00000003843172



- 1. Outside handle escutcheon Door lock assembly
- 2. Rear gasket
- 5. Inside handle 8. Outside handle
- Front gasket 7. : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

DOOR LOCK : Removal and Installation

Outside handle bracket

3.

6.

INFOID:000000003843173

REMOVAL

4.

- 1. Remove outside handle escutcheon, outside handle, rear gasket and front gasket. Refer to DLK-264. "OUTSIDE HANDLE : Removal and Installation".
- 2. Remove rear door finisher. Refer to INT-14, "Removal and Installation".
- 3. Remove sealing screen, rear door glass and rear door sash. Refer to <u>GW-24. "Removal and Installation"</u>.
- 4. Remove outside handle bracket. Refer to <u>DLK-264, "OUTSIDE HANDLE : Exploded View"</u>.
- 5. Remove door lock assembly TORX bolts.
- Disconnect door lock actuator connector, and then remove door lock assembly. 6.

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

DLK-262

REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

INSIDE HANDLE : Exploded View

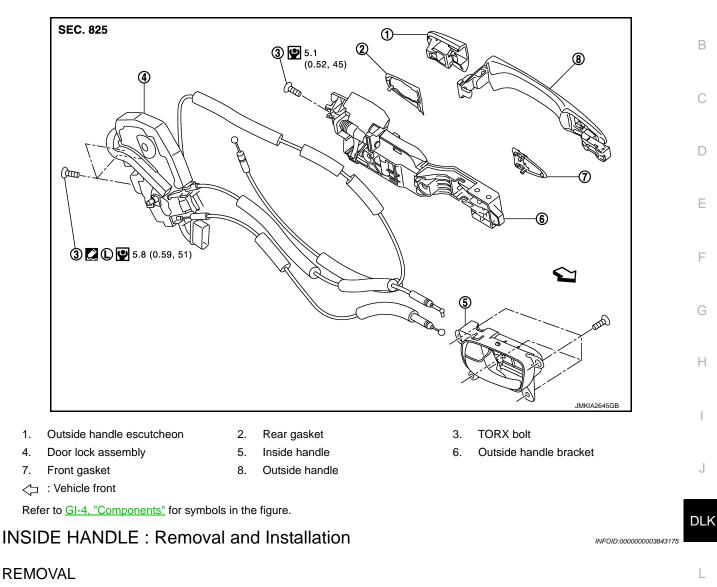
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- 1. Remove rear door finisher. Refer to INT-14, "Removal and Installation".
- 2. Disconnect door lock cables from inside handle.
- 3. Remove inside handle mounting screws, and then remove inside handle.

INSTALLATION

Install in the reverse order of removal.

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

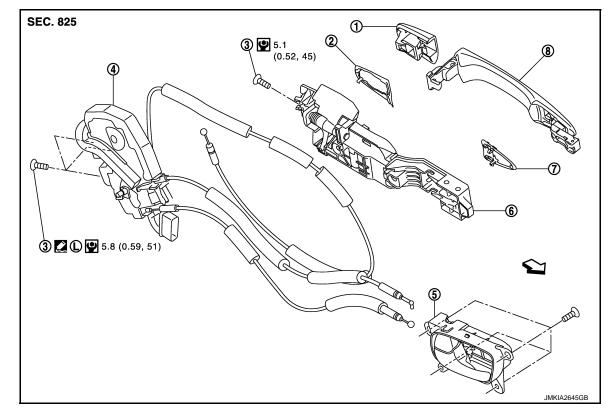
OUTSIDE HANDLE

REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

OUTSIDE HANDLE : Exploded View

INFOID:000000003940569



- 1. Outside handle escutcheon
- Rear gasket
 Inside handle

Outside handle

8.

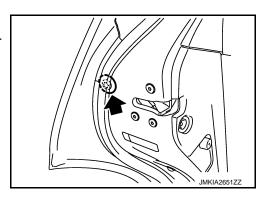
- Door lock assembly
 Front gasket
- ⟨→ : Vehicle front

Refer to <u>GI-4, "Components"</u> for symbols in the figure.

OUTSIDE HANDLE : Removal and Installation

REMOVAL

- 1. Disconnect rear door weather-strip to see door side grommet.
- 2. Remove door side grommet, and loosen TORX bolt from grommet hole.



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3.

6.

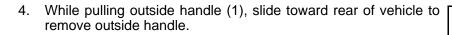
TORX bolt

Outside handle bracket

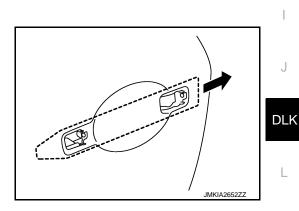
REAR DOOR LOCK

< REMOVAL AND INSTALLATION >

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



- 5. Remove rear door finisher. Refer to INT-14, "Removal and Installation".
- 6. Remove sealing screen. Refer to <u>GW-24, "Removal and Installation"</u>.
- 7. Fully close rear door glass.
- 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.
- After installation, check door open/close, lock/unlock operation.

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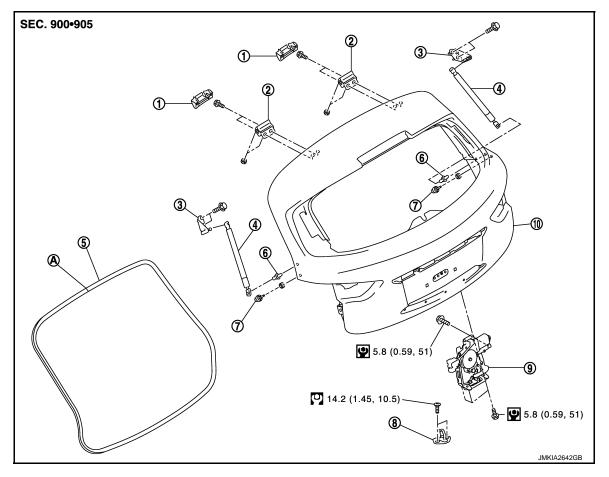
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BACK DOOR LOCK

Exploded View

INFOID:000000003940565



Back door hinge (LH/RH)

Back door weather-strip

Back door striker

- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (side) (LH/RH)
- 10. Back door assembly
- A : Center mark

Refer to GI-4, "Components" for symbols in the figure.

Removal and Installation

REMOVAL

1. Remove back door finisher inner. Refer to INT-32, "Removal and Installation".

2.

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8.

- 2. Disconnect back door lock assembly connectors.
- 3. Remove back door lock mounting bolts, and then remove back door lock assembly.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

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

- 3. Back door stay bracket (LH/RH)
- 6. Stud ball (LH/RH)
- 9. Back door lock assembly

FUEL FILLER LID OPENER

< REMOVAL AND INSTALLATION >

FUEL FILLER LID OPENER

Exploded View

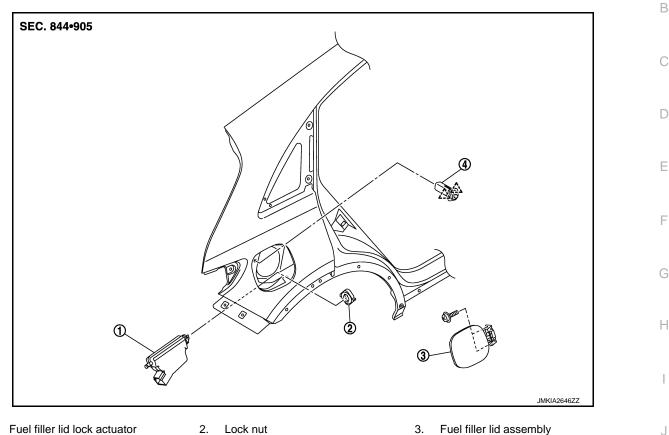
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Fuel filler lid lock actuator 1.

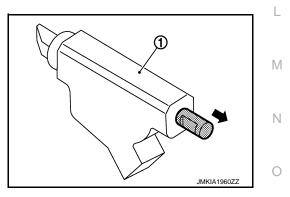
4. Lock & cable assembly

^` : Pawl

Removal and Installation

NOTE:

When fuel filler lid lock actuator (1) is a defective operation, pull the rod to open fuel filler lid.



REMOVAL

- Remove luggage side finisher lower (RH). Refer to INT-29. "Removal and Installation". 1.
- 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.

DLK-267

2009 FX35/FX50

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.

< REMOVAL AND INSTALLATION > DOOR SWITCH

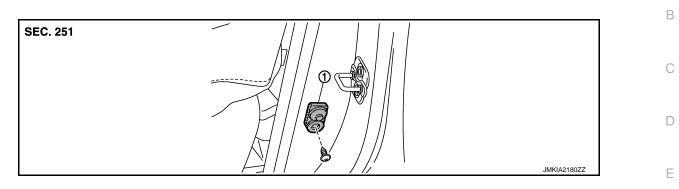
Exploded View

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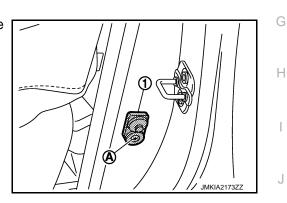


1. Door switch

Removal and Installation

REMOVAL

1. Remove the door switch mounting screw (A), and then remove door switch (1).



INSTALLATION Install in the reverse order of removal.

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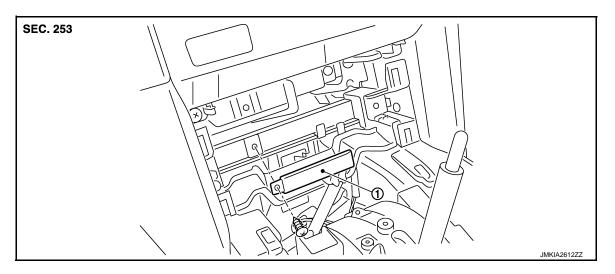
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INSIDE KEY ANTENNA INSTRUMENT CENTER

INSTRUMENT CENTER : Exploded View

INFOID:000000003843184



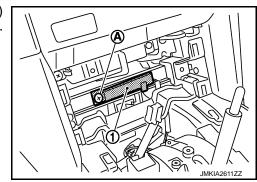
1. Inside key antenna (instrument center)

INSTRUMENT CENTER : Removal and Installation

INFOID:000000003843185

REMOVAL

- 1. Remove the console finisher assembly. Refer to IP-22. "Removal and Installation".
- Remove the key antenna mounting screw (instrument center) (A), and then remove inside key antenna (instrument center) (1).



INSTALLATION Install in the reverse order of removal. CONSOLE

CONSOLE : Exploded View

INFOID:000000003843186

INFOID:00000003843187

Refer to IP-22, "Exploded View".

CONSOLE : Removal and Installation

REMOVAL

1. Remove the console pocket and rear finisher. Refer to IP-22, "Removal and Installation".

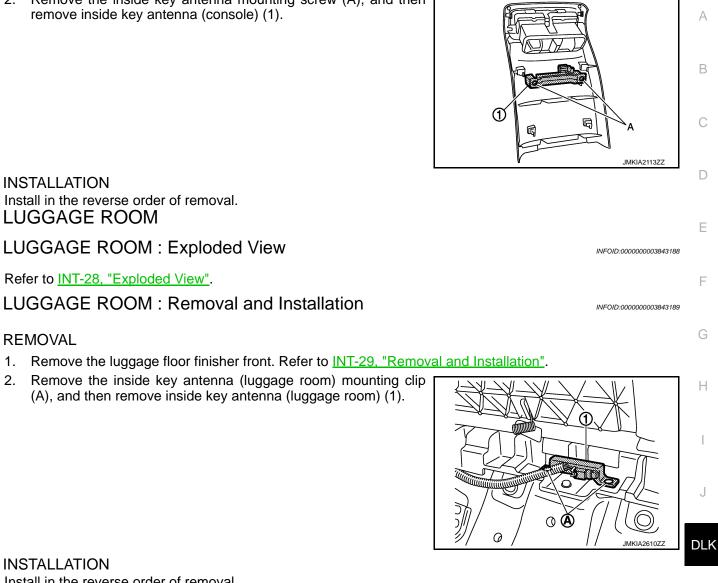
INSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

INSTALLATION

REMOVAL

2. Remove the inside key antenna mounting screw (A), and then remove inside key antenna (console) (1).



INSTALLATION Install in the reverse order of removal.

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OUTSIDE KEY ANTENNA

< REMOVAL AND INSTALLATION >

OUTSIDE KEY ANTENNA DRIVER SIDE

DRIVER SIDE : Exploded View

Refer to <u>DLK-260, "OUTSIDE HANDLE : Exploded View"</u>.

DRIVER SIDE : Removal and Installation

REMOVAL Remove the front outside handle LH. Refer to <u>DLK-260, "OUTSIDE HANDLE : Removal and Installation"</u>.

INSTALLATION Install in the reverse order of removal. PASSENGER SIDE

PASSENGER SIDE : Exploded View

Refer to <u>DLK-260, "OUTSIDE HANDLE : Exploded View"</u>.

PASSENGER SIDE : Removal and Installation

REMOVAL

Remove the front outside handle RH. Refer to <u>DLK-260, "OUTSIDE HANDLE : Removal and Installation"</u>.

INSTALLATION Install in the reverse order of removal. BACK DOOR

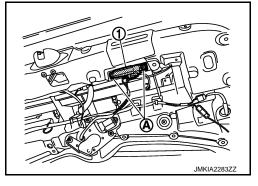
Refer to INT-32, "Exploded View".

BACK DOOR : Removal and Installation

REMOVAL

- 1. Remove the back door finisher inner. Refer to EXT-49, "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.



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INFOID:000000003843191

INFOID:000000003843193

INFOID:000000003843192

INFOID:000000003843194

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DLK-272

INTELLIGENT KEY WARNING BUZZER

< REMOVAL AND INSTALLATION >

INTELLIGENT KEY WARNING BUZZER

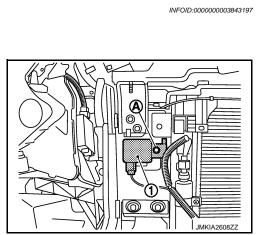
Exploded View

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).



INSTALLATION Install in the reverse order of removal.



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BACK DOOR CONTROL UNIT

< REMOVAL AND INSTALLATION >

BACK DOOR CONTROL UNIT

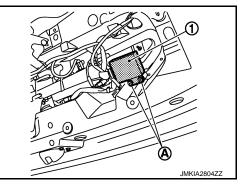
Exploded View

Refer to DLK-266, "Exploded View".

Removal and Installation

REMOVAL

- 1. Remove the back door finisher inner. Refer to EXT-49, "Removal and Installation".
- 2. Remove the back door control unit mounting bolts (A), and then remove back door control unit (1).

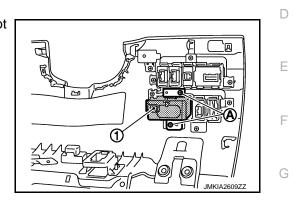


INSTALLATION Install in the reverse order of removal. INFOID:000000003970734

KEY SLOT

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Exploded View	INFOID:000000003843198	\frown
Refer to <u>IP-11, "Exploded View"</u> . Removal and Installation	INFOID:000000003843199	В
REMOVAL		С

- 1. Remove the instrument lower panel LH. Refer to IP-12, "Removal and Installation".
- 2. Disconnect the key slot connector.
- 3. Remove the mounting screw (A), and then remove the key slot (1).



INSTALLATION Install in the reverse order of removal.



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REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

REMOTE KEYLESS ENTRY RECEIVER

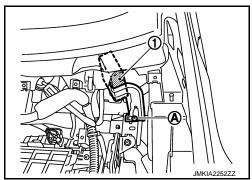
Exploded View

Refer to IP-11, "Exploded View".

Removal and Installation

REMOVAL

- 1. Remove the instrument lower panel RH. Refer to IP-12, "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:000000003843200

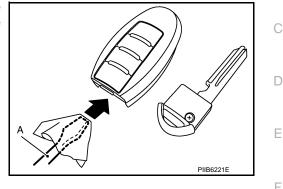
INTELLIGENT KEY BATTERY

< REMOVAL AND INSTALLATION >

INTELLIGENT KEY BATTERY

Removal and Installation

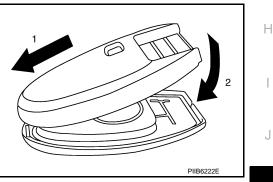
- 1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.
- Insert a flat-bladed screwdriver (A) wrapped in a cloth into the 2. slit of the corner and twist it to separate the upper part from the lower part. **CAUTION:**
 - Never touch the circuit board or battery terminal.
 - The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



Replace the battery with new one. 3.

Battery replacement : Coin-type lithium battery (CR2025)

- Align the tips of the upper and lower parts, and then push them 4. 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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