# SECTION DLK B DOOR & LOCK C

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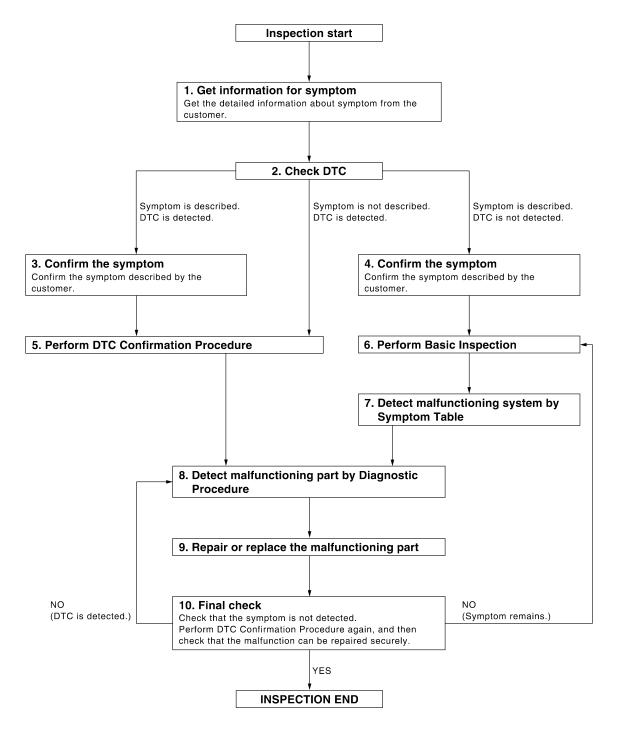
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



INFOID:000000001342731

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[COUPE]

Get the detailed information from the customer about the symptom (the condition and t the incident/malfunction occurred).	the environment wher
>> GO TO 2.	
2.снеск дтс	
1. Check DTC.	
2. Perform the following procedure if DTC is displayed.	
<ul> <li>Record DTC and freeze frame data (Print them out with CONSULT-III.)</li> <li>Erase DTC.</li> </ul>	
<ul> <li>Study the relationship between the cause detected by DTC and the symptom descr</li> <li>Check related service bulletins for information.</li> </ul>	ibed by the customer.
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.	
<b>3.</b> CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time dia Verify relation between the symptom and the condition when the symptom is detected.	agnosis results.
>> GO TO 5.	
4.CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR " mode and check real time di Verify relation between the symptom and the condition when the symptom is detected.	agnosis results.
>> GO TO 6.	
5. PERFORM DTC CONFIRMATION PROCEDURE	
Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u> . " <u>DTC Inspection Priority Chart</u> " diagnosis order. <b>NOTE:</b>	
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> </ul>	and determine trouble Service Manual. This during this check.
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> </ul>	and determine trouble Service Manual. This during this check.
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> <li><u>Is DTC detected?</u></li> <li>YES &gt;&gt; GO TO 8.</li> </ul>	and determine trouble Service Manual. This during this check.
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> <li>Is <u>DTC detected?</u></li> <li>YES &gt;&gt; GO TO 8.</li> <li>NO &gt;&gt; Refer to <u>GI-42, "Intermittent Incident"</u>.</li> </ul>	and determine trouble Service Manual. This during this check.
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> <li>Is <u>DTC detected?</u></li> <li>YES &gt;&gt; GO TO 8.</li> <li>NO &gt;&gt; Refer to <u>GI-42, "Intermittent Incident"</u>.</li> <li><b>6.</b> PERFORM BASIC INSPECTION</li> </ul>	and determine trouble Service Manual. This during this check.
<ul> <li>At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in If two or more DTCs are detected, refer to <u>DLK-160</u>. "<u>DTC Inspection Priority Chart</u>" diagnosis order.</li> <li><b>NOTE:</b></li> <li>Freeze frame data is useful if the DTC is not detected.</li> <li>Perform Component Function Check if DTC Confirmation Procedure is not included in simplified check procedure is an effective alternative though DTC cannot be detected If the result of Component Function Check is NG, it is the same as the detection of D tion Procedure.</li> <li><u>Is DTC detected?</u></li> <li>YES &gt;&gt; GO TO 8.</li> </ul>	and determine trouble Service Manual. This during this check.

>> GO TO 8.

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

### **8.** 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.

Is malfunctioning part detected?

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT-III.

9.Repair or replace the malfunctioning part

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

>> GO TO 10.

**10.**FINAL CHECK

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

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

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8. NO (Symptom remains)>>GO TO 6. YES >> **INSPECTION END** 

INSPECTION AND ADJUSTMENT	
< BASIC INSPECTION > [COUPE]	
INSPECTION AND ADJUSTMENT 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	
Refer to the CONSULT-III operation manual for the initialization procedure.	D
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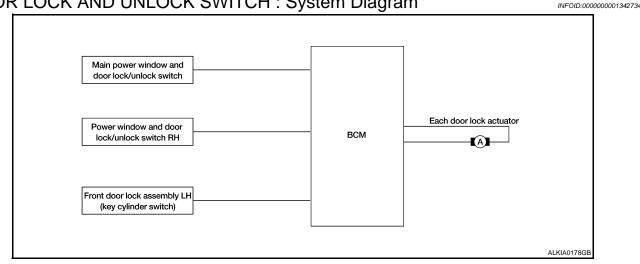
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# FUNCTION DIAGNOSIS DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH : System Diagram



# DOOR LOCK AND UNLOCK SWITCH : System Description

INFOID:000000001342735

Switch Input/output signal to BCM		BCM function	Actuator		
Main power window and door lock/unlock switch					
Power window and door lock/ unlock switch	Door lock/unlock signal	Door lock/unlock control	Door lock actuator		
Door key cylinder switch					

# DOOR LOCK FUNCTION

Functions Available by Operating the Door Lock and Unlock Switches on Driver Door and Passenger Door

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

Functions Available by Operating the Key Cylinder Switch on Driver Door

• Interlocked with the locking operation of door key cylinder, door lock actuators of all door lock actuators are locked.

Selective Unlock Operation

- When door key cylinder is unlocked, door lock actuator driver side is unlocked.
- When door key cylinder is unlocked for the second time within 5 seconds after the first operation, door lock actuators on all doors are unlocked.

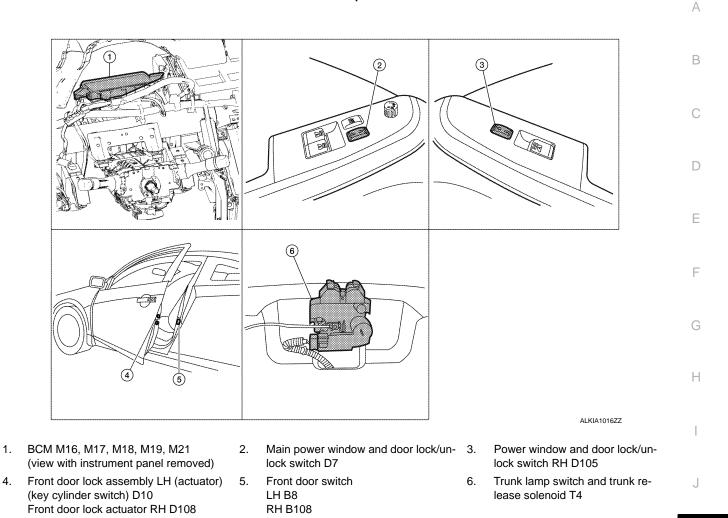
Select unlock operation mode can be changed using DOOR LOCK-UNLOCK SET mode in "WORK SUP-PORT". Refer to <u>DLK-36, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Key Reminder System Refer to <u>DLK-34</u>, "System Description".

#### < FUNCTION DIAGNOSIS >

# DOOR LOCK AND UNLOCK SWITCH : Component Parts Location

#### INFOID:000000001342736



# DOOR LOCK AND UNLOCK SWITCH : Component Description

Item Function BCM Controls the door lock function and room lamp function. Door lock and unlock switch Transmits lock or unlock signal to BCM. Μ Door lock actuator Receives lock/unlock signal from BCM and locks/unlocks each door. Door switch Transmits door open/close condition to BCM.

DOOR REQUEST SWITCH

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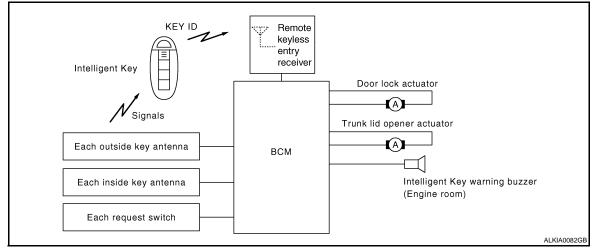
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#### < FUNCTION DIAGNOSIS >

# DOOR REQUEST SWITCH : System Diagram



# DOOR REQUEST SWITCH : System Description

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

 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 communications between the Intelligent Key and the vehicle (BCM).
 CAUTION:

#### The driver should always carry the Intelligent Key

- If an action that does not meet the operating conditions of the Intelligent Key system is taken, the buzzer goes off to inform the driver (Warning chime function).
- When a door lock is locked, unlocked or trunk open with request switch or remote controller button operation, the hazard lamps flash and the Intelligent Key warning buzzer or horn sounds (Hazard and buzzer/horn reminder function).
- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with the CONSULT-III.

#### OPERATION DESCRIPTION/DOOR LOCK/UNLOCK

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

#### **OPERATION CONDITION**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the request switch is operated.

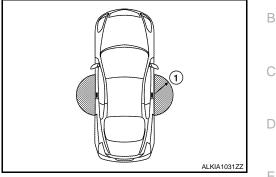
Each request switch operation	Operation condition
Lock operation	<ul> <li>All doors are closed</li> <li>Ignition switch is in OFF position</li> <li>Intelligent Key is out of key slot</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area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

#### < FUNCTION DIAGNOSIS >

\*: 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).



#### SELECTIVE UNLOCK FUNCTION

When an LOCK signal is sent from door request switch (driver side or passenger side), all doors will be locked. When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door will be unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 5 seconds, all other door will be unlocked.

#### HAZARD AND BUZZER REMINDER FUNCTION

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

Н When doors are locked, unlocked by each request switch, IPDM E/R honks Intelligent Key warning buzzer as a reminder and transmits hazard request signal to BCM via CAN communication line. BCM flashes hazard warning lamps as a reminder.

#### Operating function of hazard warning lamps and buzzer reminder

Operation	Hazard warning lamps flash	Intelligent Key warning buzzer honk	
Unlock	Once	Once	
Lock	Twice	Twice	J
Trunk open	_	Four times	

# How to change hazard and buzzer reminder mode

Refer to DLK-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### AUTO DOOR LOCK FUNCTION

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

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

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to DLK-37. Ν "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### ROOM LAMP OPERATION

When the following conditions are met:

Condition of interior lamp switch is in DOOR position

• Door switch OFF (all the doors are closed)

Intelligent Key system turns on interior lamp (for up to 30 seconds maximum) by receiving UNLOCK signal P from door request switch. For detailed description, refer to DLK-12, "DOOR LOCK AND UNLOCK SWITCH : System Description".

#### LIST OF OPERATION RELATED PARTS

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

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#### < FUNCTION DIAGNOSIS >

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch (Driver, Passenger)	Door lock actuator	Inside key antenna	Outside key antenna (Driver, Passenger)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch
Door lock/unlock function by request switch	×	×	×	×	×	×	×	×		Х	Х		
Hazard and buzzer reminder function for door lock/unlock operation									×	×	×	×	
Key reminder function	×	×	×	×	×	×	×	×	×	×	×	×	
Selective unlock function by request switch (Driver side)	×				×	×	×	×		×	×		
Selective unlock function by request switch (Passenger side)	×				×	×	×	×		×	×		
Auto door lock function	×	×		×	×	×				×	×		×

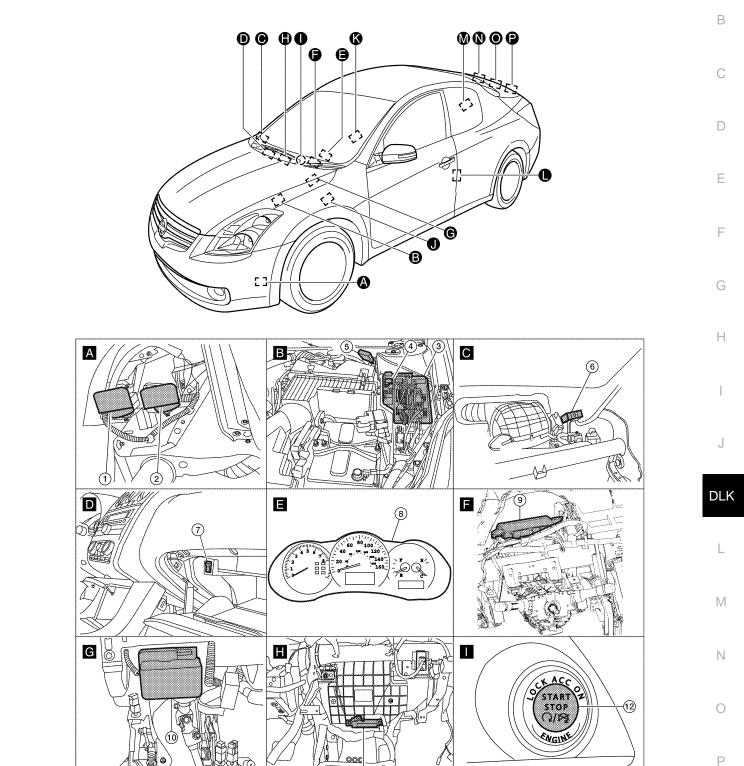
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# DOOR REQUEST SWITCH : Component Parts Location

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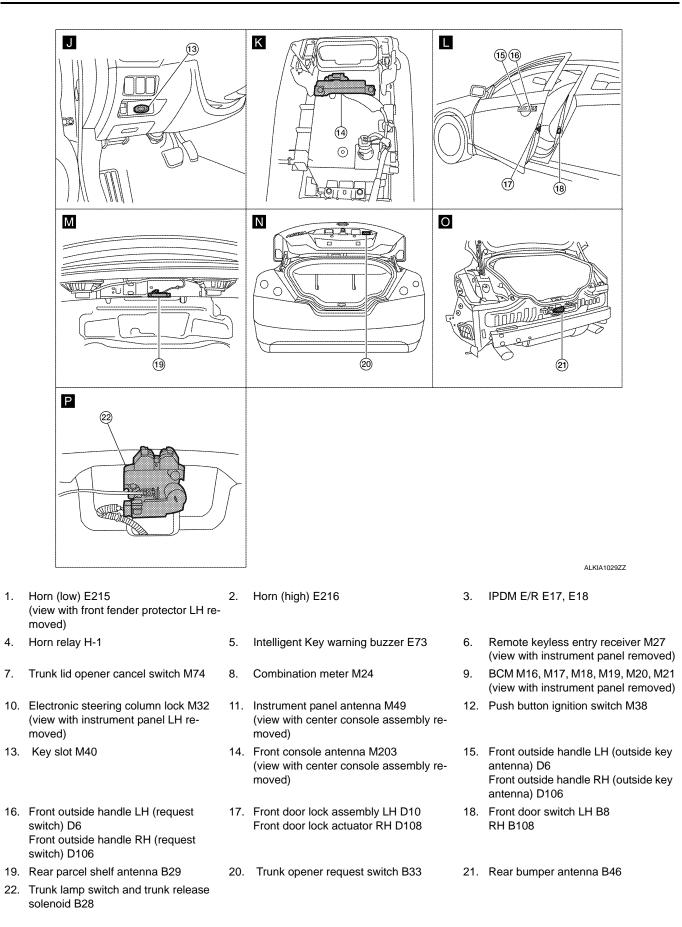


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# **DOOR REQUEST SWITCH : Component Description**

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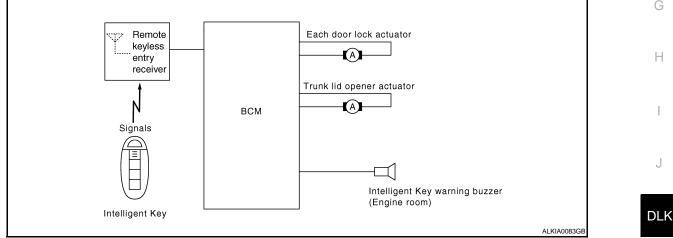
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Item	Function
BCM	Controls the door lock function and room lamp function.
Door lock and unlock switch	Transmits lock or unlock signal to BCM.
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Transmits 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	Transmits 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.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

# INTELLIGENT KEY

# **INTELLIGENT KEY : System Diagram**



# **INTELLIGENT KEY : System Description**

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

#### OPERATION DESCRIPTION/DOOR LOCK/UNLOCK FUNCTION

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

#### **OPERATION CONDITION**

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

#### **OPERATION AREA**

Operating Range

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#### < FUNCTION DIAGNOSIS >

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• To ensure the Intelligent Key works effectively, use within 80 cm range of each doors, however the operable range may differ according to surroundings. The remote control operation range is greater than that of the Intelligent Key. Refer to Owner's Manual for more details.

#### SELECTIVE UNLOCK FUNCTION

When a LOCK signal is transmitted from Intelligent Key, all doors will be locked.

When an UNLOCK signal is transmitted from Intelligent Key once, driver's door will be unlocked.

Then, if an UNLOCK signal is transmitted from Intelligent Key again within 5 seconds, all other doors will be unlocked.

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM flashes hazard warning lamps as a reminder and sends horn chirp signal to IPDM E/R. IPDM E/R sounds horn as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating function of hazard and horn reminder

		C mode			S mode	
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open
Hazard warning lamp flash	Twice	Once	_	Twice	—	—
Horns 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-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### **Without CONSULT-III**

Refer to Owner's Manual for instructions.

#### AUTO DOOR LOCK FUNCTION

#### Auto Door Lock Function

When all doors 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 are unlocked with Intelligent Key button. When BCM does not receive the following signals within 60 seconds, all doors 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 DOOR LOCK-UNLOCK SET mode in "WORK SUPPORT". Refer to DLK-36, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

#### 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 flashes 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-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### KEYLESS POWER WINDOW DOWN (OPEN) FUNCTION

Front power windows (with left and right front power window anti-pinch system) open when the unlock button on Intelligent Key is activated and kept pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed:

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

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

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Keyless power window down operation mode can be changed by PW DOWN SET mode in "WORK SUP-PORT". Refer to <u>DLK-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u>.

#### ROOM LAMP ILLUMINATION OPERATION

When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch OFF (all the doors are closed)

Intelligent Key system turns on interior lamp (for 15 seconds) by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <u>DLK-19</u>, "INTELLIGENT KEY : System Description".

#### LIST OF OPERATION RELATED PARTS

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

														D
Remote keyless entry functions	Intelligent Key	Key slot	Door request switch (Driver, Passenger)	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamp	Horn	IPDM E/R	Head lamp	E F G
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	×	×		×			×	×						J
Panic alarm function	×	×	×				×	×	×		×	×	×	

# **INTELLIGENT KEY : Component Parts Location**

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#### Refer to DLK-17, "DOOR REQUEST SWITCH : Component Parts Location".

# **INTELLIGENT KEY : Component Description**

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Item	Function	
BCM	Controls the door lock function and room lamp function.	
Door lock actuator	Receives 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.	
Intelligent Key	Transmits button operation to remote keyless entry receiver.	
Fuel lid opener actuator	Performs lock/unlock of the fuel lid.	
Intelligent key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.	

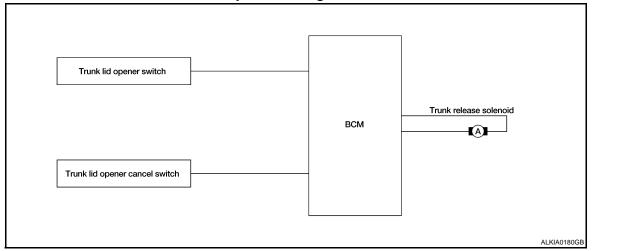
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< FUNCTION DIAGNOSIS >

INFOID:000000001342746

# TRUNK OPEN FUNCTION TRUNK LID OPENER SWITCH

# TRUNK LID OPENER SWITCH : System Diagram



# TRUNK LID OPENER SWITCH : System Description

INFOID:000000001342747

Switch	Input/output signal to BCM	BCM function	Actuator
Trunk lid opener switch	Trunk open signal	Trunk open control	Trunk lid opener actuator
Trunk lid opener cancel switch	Trank open signal	Trank open control	

#### TRUNK LID OPENER OPERATION

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

BCM can open trunk lid opener actuator when

vehicle speed is less than 5 km/h (3MPH)

· vehicle security system is disarmed or pre-armed phase

BCM does not open trunk lid opener actuator when

• trunk lid opener cancel switch is OFF (CANCEL)

- vehicle speed is more than 5 km/h (3MPH)
- vehicle security system is armed or alarm phase

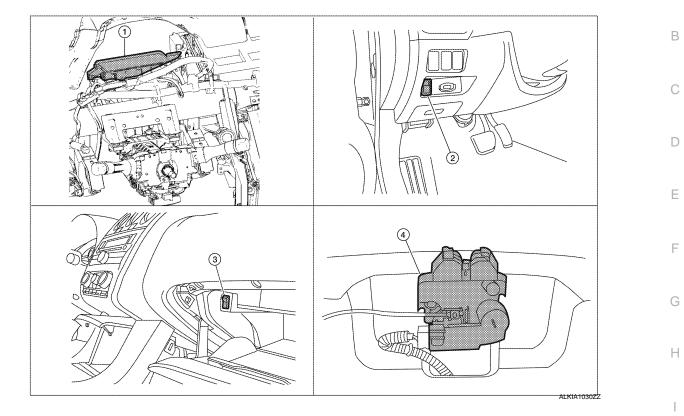
• Within 3 seconds of removing the Intelligent Key from the key slot

#### < FUNCTION DIAGNOSIS >

# TRUNK LID OPENER SWITCH : Component Parts Location

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- 1. BCM M16, M17, M18, M20, M21
- 2. Trunk lid opener switch M75
- 3. Trunk lid opener cancel switch M74

4. Trunk lamp switch and trunk release solenoid B28

# TRUNK LID OPENER SWITCH : Component Description

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Item	Function	
BCM	Transmits trunk open operation to BCM.	
Trunk lid opener switch	Transmits trunk open operation to BCM.	L
Trunk release solenoid	Opens the trunk with the open signal from BCM	
Trunk lid opener cancel switch	Cancels the trunk open operation.	Μ
	TOLL	

# TRUNK REQUEST SWITCH

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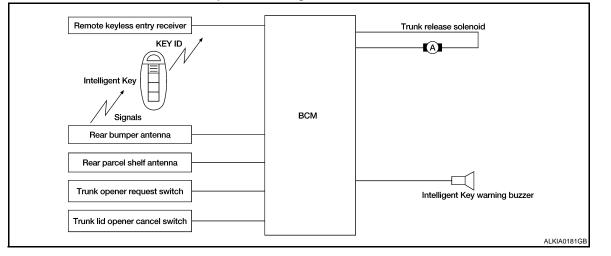
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#### < FUNCTION DIAGNOSIS >

# TRUNK REQUEST SWITCH : System Diagram



# **TRUNK REQUEST SWITCH : System Description**

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Only when pressing the request switch, it is possible to open the trunk by carrying the Intelligent Key.

The Intelligent Key system is a system that makes it possible to open the trunk (trunk open function) by carrying the Intelligent Key which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (BCM).
 CAUTION:

#### The driver should always carry the Intelligent Key

- If an action that does not meet the operating conditions of the Intelligent Key system is taken, the buzzer goes off to inform the driver (warning chime functions).
- When a trunk open with request switch or remote controller button operation, the hazard lamps flash and the Intelligent Key warning buzzer or horns sound (hazard and buzzer/horn reminder function).
- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with the CONSULT-III.

#### **OPERATION DESCRIPTION/TRUNK OPEN**

- When the BCM detects that trunk open request switch is pressed, it starts the outside key antenna (trunk room) and inside key antenna corresponding to the pressed trunk open request switch and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the trunk.
- If the Intelligent Key is within the outside key antenna (trunk room) detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM transmits the trunk open request signal and sounds Intelligent Key warning buzzer 4 consecutive times.
- When BCM receives the trunk open request signal, it operates the trunk release solenoid and opens the trunk.

#### **OPERATION CONDITION**

If the following conditions are not satisfied, trunk open operation is not performed even if the request switch is operated.

Each request switch operation	Operation condition
Trunk open operation	<ul> <li>Intelligent Key is within outside key antenna (trunk room) detection area*</li> <li>Trunk cancel switch is ON</li> <li>Key reminder functions operate (trunk)</li> </ul>

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

# OUTSIDE KEY ANTENNA DETECTION AREA

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#### < FUNCTION DIAGNOSIS >

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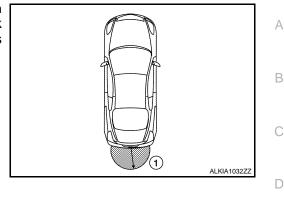
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The outside key antenna detection area of trunk open function is in the range of approximately 80 cm (31.50 in) surrounding Trunk opener request switch (1). However, this operating range depends on the ambient conditions.



#### KEY REMINDER FUNCTION

Key reminder function	Operation condition	Operation
Trunk is closed	<ul><li>Right after trunk is closed under the following conditions</li><li>Intelligent Key is inside trunk room</li><li>All doors are closed</li><li>All doors are locked</li></ul>	<ul> <li>Trunk open</li> <li>Honk Intelligent Key warning buzzer</li> </ul>

\*: If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation will be perform at 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, and this function will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.
- When the key reminder function is operated when the trunk is opened/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 trunk is closed, the Intelligent Key is not inside the vehicle
- When any door is open

#### HAZARD AND BUZZER REMINDER FUNCTION

During trunk opening operation by request switch, the hazard warning lamps and Intelligent Key warning buzzer will flash or honk as a reminder.

When trunk open by each request switch, IPDM E/R honks Intelligent Key warning buzzer as a reminder and transmits hazard request signal to BCM via CAN communication line.

BCM flashes hazard warning lamps as a reminder.

#### Operating function of hazard and buzzer reminder

Operation	Hazard warning lamp flash	Intelligent Key warning buzzer honks	NЛ
Trunk open	—	Four times	1 V I

#### How to change hazard and buzzer reminder mode

#### With CONSULT-III

Refer to DLK-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### LIST OF OPERATION RELATED PARTS

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

#### < FUNCTION DIAGNOSIS >

Trunk open function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Trunk room lamp switch	Trunk opener request switch	Trunk release solenoid	Inside key antenna	Outside key antenna (Trunk)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamps	Trunk lid opener cancel switch
Trunk open function by the trunk opener request switch	×		×		×	×	×	×	×		×	×		×
Hazard and buzzer reminder function for door lock/unlock operation										×	×	×	×	
Buzzer reminder for trunk open operation										×	×	×		
Key reminder function	×	×	×	×				×	×	×	×	×	×	

# TRUNK REQUEST SWITCH : Component Parts Location

# Refer to <u>DLK-21, "INTELLIGENT KEY : Component Parts Location"</u>.

# TRUNK REQUEST SWITCH : Component Description

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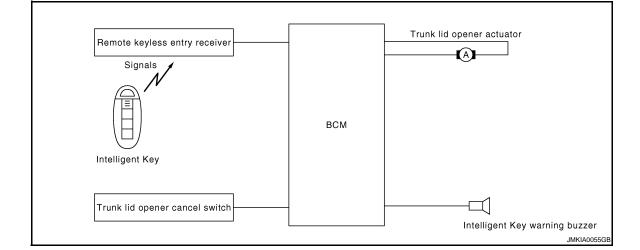
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Item	Function
BCM	Controls trunk open function.
Trunk release solenoid	Transmits trunk open operation to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Trunk opener request switch	Transmits trunk open 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.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

# INTELLIGENT KEY

# INTELLIGENT KEY : System Diagram

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# **DLK-27**

# TRUNK OPEN FUNCTION

# **INTELLIGENT KEY : System Description**

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

#### **OPERATION DESCRIPTION/TRUNK OPEN FUNCTION**

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

#### **OPERATION CONDITION**

< FUNCTION DIAGNOSIS >

Remote controller operation	Operation condition	Operation
Trunk open	Press and hold the trunk open button for 0.5 second or more	Trunk open

#### OPERATION AREA

Operating Range

• To ensure the Intelligent Key works effectively, use within 80 cm range of each door, however the operable range may differ according to surroundings.

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key. BCM flashes hazard warning lamps as a reminder and transmits horn chirp signal to IPDM E/R. IPDM E/R sound horns as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

#### Operating function of hazard and horn reminder

		C mode			S mode	
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open
Hazard warning lamp flash	Twice	Once		Twice	_	_
Horn sound	Once			—		

Hazard and horn reminder does not operate if any door switch is ON (any door is OPEN). How to change hazard and horn reminder mode

#### (P) With CONSULT-III

#### Refer to DLK-37, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### **Without CONSULT-III**

Refer to Owner's Manual for instructions.

#### LIST OF OPERATION RELATED PARTS

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

Remote keyless entry functions	Intelligent Key	Key slot	Trunk room lamp switch	Trunk release solenoid	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamps	Horns	IPDM E/R	Head lamp	
		-				9	ш	<u> </u>	-	-	-	-	
Trunk open function by remote control button	×	×	×	×		×	×						F
Hazard and horn reminder function	×				×	×	×	×	×	×	×		

# INTELLIGENT KEY : Component Parts Location

Refer to DLK-21, "INTELLIGENT KEY : Component Parts Location".



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#### < FUNCTION DIAGNOSIS >

# INTELLIGENT KEY : Component Description

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Item	Function
BCM	Controls trunk open function.
Trunk release solenoid	Opens the trunk with the open signal from BCM.
Remote keyless entry receiver	Receives trunk open signal from the Intelligent Key, and then transmits to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with a buzzer sound.

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# < FUNCTION DIAGNOSIS >

# WARNING FUNCTION

System Description

The warning functions are as follows and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, KEY warning lamp, key slot illumination and combination	
meter display in combination meter.	С
Intelligent Key system malfunction	
OFF position warning	
P position warning	
ACC warning	D
Take away warning	
<ul> <li>Door lock operation warning</li> </ul>	
Key warning	Ε
<ul> <li>Intelligent Key insert information</li> </ul>	
Engine start information	
<ul> <li>Steering lock information</li> </ul>	_
Intelligent key low battery warning	F
Key ID warning	

#### **OPERATION CONDITION**

Once the following condition from below is established, alert or warning will be executed.

Warning/Information functions		Operation procedure	LI
Intelligent Key system malfunction		When a malfunction is detected on BCM, "KEY" warning lamp will illuminate.	Н
	For internal	<ul><li>Ignition switch: ACC position.</li><li>Door switch (driver side): ON (Door is open).</li></ul>	
OFF position warning	For external	OFF position warning (For internal) is in active mode, driver side door has been closed. <b>NOTE:</b> OFF position (For external) active only when each of the sequence has occurred as below: P position warning $\rightarrow$ ACC warning $\rightarrow$ OFF position warning (For internal) $\rightarrow$ OFF position warning (For internal)	J
P position warning		<ul><li>Shift position: Except P position</li><li>Engine is running to stopped (Ignition switch is ON to OFF)</li></ul>	DLI
ACC warning		<ul> <li>During P position warning is in active mode, shift position has changed P position.</li> <li>Ignition switch: Except OFF position.</li> </ul>	L
	Door is open to close	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>	M
	Door is open	<ul> <li>Door switch: ON (Door is open)</li> <li>Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> </ul>	N
Take away warning	Push-ignition switch oper- ation	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Press ignition switch.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>	0
	Take away through win- dow	<ul> <li>Engine is running.</li> <li>Key ID verification every 30 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> <li>After vehicle speed verification, the registered Intelligent Key can not be de- tect inside the vehicle.</li> </ul>	P
	Intelligent Key is removed from key slot	• When Intelligent Key is removed from key slot, Intelligent Key can not be detected inside the vehicle.	

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#### < FUNCTION DIAGNOSIS >

Warning/Inform	nation functions	Operation procedure
Door look operation warn	Request switch operation	<ul> <li>When request switch is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>Intelligent Key is inside vehicle.</li> </ul>
Door lock operation warn- ing	Intelligent Key button op- eration	<ul> <li>When Intelligent Key button is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>For 3 seconds after Intelligent Key is removed from key slot.</li> </ul>
Key warning		<ul> <li>Ignition switch is OFF position.</li> <li>Driver side door switch: ON (Driver side door is open).</li> <li>Intelligent Key is inserted in key slot.</li> </ul>
Intelligent Key insert inforr	nation	<ul> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Ignition switch: OFF to ON position.</li> <li>Intelligent Key is out of key slot.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>
	Ignition switch is ON posi- tion	<ul><li> Ignition switch: ON position.</li><li> Shift position: P position</li><li> Engine is stopped</li></ul>
Engine start information	Ignition switch is except ON position	<ul> <li>Ignition switch: Except ON position.</li> <li>Shift position: P position</li> <li>Intelligent Key is inserted in key slot.</li> <li>Intelligent Key can be detected inside the vehicle.</li> </ul>
Steering lock information		When steering lock can not be released after ignition switch is turned ON.
Intelligent Key low battery	warning	When Intelligent Key has low battery, it is detected by BCM after ignition switch is turned ON.
Key ID warning		When registered intelligent Key cannot be detected inside the vehicle after ig- nition switch is turned ON.

#### WARNING METHOD

The following table shows the alarm or warning methods with chime. Meter display, "KEY" indicator or key slot illumination when the warning conditions are met.

					Warning	g chime
Warning/Informa	ation functions	"KEY" warn- ing lamp	Combination meter display	Key slot il- lumination	Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key syste	m malfunction	Illuminate	—	—	—	_
OFF position warn-	For internal	_	_	_	Activate	_
ing	For external	_	_	_	—	Activate
P position warning			BIE SHIFT JMKIA0037GB	_	Activate	_
ACC warning			PUSH JMKIA0047GB		Activate	_

#### < FUNCTION DIAGNOSIS >

# [COUPE]

					Warning	l chime
Warning/Informa	ation functions	"KEY" warn- ing lamp	Combination meter display	Key slot il- lumination	Combination meter buzzer	Intelligent Key warning buzzer
	Door is open to close	—		Flash	Activate	Activate
	Door is open			Flash		
Take away warning	Push-ignition switch operation	_		Flash	Activate	_
	Take away through window	_	NO KEY	Flash	Activate	_
	Intelligent Key is removed from key slot	_	JMKIA0036GB	Flash	_	_
Door lock operation	Request switch operation	—	—	_	—	Activate
warning	Intelligent Key operation	_	—	_	—	Activate
Key ID warning			NO KEY			_
Key warning		_	JMKIA0035GB	Flash	Activate	_
Intelligent Key inser	t information		JMKIA0034GB	Flash	_	_
Engine start infor-	Automatic trans- mission models		BRAKE BRAKE	_	_	_
mation	Manual trans- mission models		CLUTCH ELKIA1326GB			_

#### < FUNCTION DIAGNOSIS >

[COUPE]
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				Warning	, chime
Warning/Information functions	"KEY" warn- ing lamp	Combination meter display	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.

Warnin	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	Park position switch	"KEY" warning lamp
Intelligent Key system ma	lfunction										×	×				×
OFF position warning	For internal				×					×	×	×				
Of I position warning	For external				×				×		×	×				
P position warning				×						×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
Take away warning	Push-ignition switch oper- ation	×		×			×			×	×	×	×	×		
·	Take away through win- dow	×					×			×	×	×	×	×		
Intelligent Key is removed from key slot		×	×				×				×	×	×	×		
Door lock operation warning		×	×		×	×	×	×	×		×	×				
Key ID warning		×	×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert inform	mation	×	×	×	×		×				×	×	×	×		

#### < FUNCTION DIAGNOSIS >

# [COUPE]

INFOID:000000001342759

Warnin	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	Park position switch	"KEY" warning lamp	A B C
For size of set in formation	Ignition switch is ON posi- tion	×	×	×			×				×	×	×		×		
Engine start information	Ignition switch is except ON position	×	×	×			×				×	×	×				E
Steering lock information				×							×	×	×				
Intelligent Key low battery	warning	×					×				×	×	×				F

Component Parts Location

Refer to DLK-21, "INTELLIGENT KEY : Component Parts Location".

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# KEY REMINDER FUNCTION

# System Description

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

Key reminder function	Operation condition	Operation
Driver door closed*	<ul> <li>Right after driver side door is closed under the following conditions</li> <li>Door lock operation is performed</li> <li>Driver side door is opened</li> <li>Driver side door is in unlock state</li> </ul>	All doors unlock
Door is open or closed	<ul> <li>Right after all doors are closed under the following conditions</li> <li>Intelligent Key is inside the vehicle</li> <li>Any door is opened</li> <li>All doors are locked by door lock and unlock switch or door lock knob</li> </ul>	<ul> <li>All doors unlock</li> <li>Sounds Intelligent Key warning buzzer</li> </ul>
Trunk is closed	<ul> <li>Right after trunk is closed under the following conditions</li> <li>Intelligent Key is inside trunk room</li> <li>All doors are closed</li> <li>All doors are locked</li> </ul>	<ul> <li>Trunk open</li> <li>Sounds Intelligent Key warning buzzer</li> </ul>

\*: If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation will be 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, and this function will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.
- When the key reminder function is operated when the trunk 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 trunk is closed, the Intelligent Key is not inside the vehicle
- When any door is open

#### Component Parts Location

INFOID:000000001342761

Refer to <u>DLK-21, "INTELLIGENT KEY : Component Parts Location"</u>.

# HOMELINK UNIVERSAL TRANSCEIVER

#### < FUNCTION DIAGNOSIS >

# HOMELINK UNIVERSAL TRANSCEIVER

# **Component Description**

Item	Function	Reference page
Homelink Liniversal transceiver	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.	Refer to Owner's Manual

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# [COUPE]

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# DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000001342763

### 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-DIAG RESULTS	Displays the diagnosis results judged by BCM. Refer to <u>DLK-160, "DTC Index"</u> .
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFUCATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

System	Sub system selection item	Diagnosis mode							
System	Sub system selection item	WORK SUPPORT	DATA MONITOR	ACTIVE TEST					
Door lock	DOOR LOCK	×	×	×					
Warning chime	BUZZER		×	×					
Interior room lamp timer	INT LAMP	×	×	×					
Turn signal and hazard warning lamps	FLASHER	×	×	×					
Intelligent Key system	INTELLIGENT KEY	×	×	×					
BCM	BCM	×							
Interior room lamp battery saver	BATTERY SAVER	×	×	×					
Trunk open	TRUNK		×						
RAP system	RETAINED PWR		×						

# DOOR LOCK

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

INFOID:000000001342764

#### 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

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.

#### < FUNCTION DIAGNOSIS >

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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 trunk opener request switch.	
DOOR SW-DR	Indicated [ON/OFF] condition of door switch (driver side).	
DOOR SW-AS	Indicated [ON/OFF] condition of door switch (passenger side).	
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	
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 key cylinder.	
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from key cylinder.	

#### ACTIVE TEST

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

### **INTELLIGENT KEY**

### INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) INFOLD:00000001342765

#### BCM CONSULT-III FUNCTION

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

		DLK
Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.	L
DATA MONITOR	The BCM input/output signals are displayed.	
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.	

#### WORK SUPPORT

Monitor item	Description
REMO CONT ID CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode.
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window) mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when (CHANGE SETT" on CONSULT-III screen is touched.
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and trunk) mode can be changed to operate (ON) or not operate (OFF) with this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk opener request switch can be changed to operate (ON) or not operate (OFF) with this mode.

#### < FUNCTION DIAGNOSIS >

[COUPE]

Monitor item	Description
PANIC ALARM SET	<ul> <li>Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode.</li> <li>0.5 sec.</li> <li>1.5 sec.</li> <li>OFF: Non-operation</li> </ul>
PW DOWN SET	<ul> <li>Unlock button pressing time on Intelligent Key button to lower front windows can be selected from the following with this mode.</li> <li>3 sec.</li> <li>5 sec.</li> <li>OFF: Non-operation</li> </ul>
TRUNK OPEN DELAY	<ul> <li>Trunk button pressing time on Intelligent Key button can be selected from the following with this mode.</li> <li>0.5 sec.</li> <li>1.5 sec.</li> <li>OFF: No delay</li> </ul>
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	<ul> <li>Hazard reminder function mode can be selected from the following with this mode.</li> <li>LOCK ONLY: Door lock operation only</li> <li>UNLOCK ONLY: Door unlock operation only</li> <li>LOCK AND UNLOCK: Lock/unlock operation</li> <li>OFF: Non operation</li> </ul>
ANS BACK I-KEY LOCK	<ul> <li>Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode.</li> <li>HORN CHIRP: Sound horn</li> <li>BUZZER: Sound Intelligent Key warning buzzer</li> <li>OFF: Non-operation</li> </ul>
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) with this mode.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.

#### SELF-DIAG RESULT Refer to <u>DLK-160, "DTC Index"</u>.

### 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 trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (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.

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#### < FUNCTION DIAGNOSIS >

[COUPE]
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Monitor Item	Condition
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
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	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
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.

### ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "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 will be activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. Intelligent Key warning buzzer sounds when "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	<ul> <li>This test is able to check warning chime by combination meter operation.</li> <li>Take out warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched.</li> <li>Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched.</li> <li>P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched.</li> <li>ACC warning chime sounds when "ACC WARN" on CONSULT-III screen is touched.</li> </ul>
INDICATOR	<ul> <li>This test is able to check warning lamp operation.</li> <li>"KEY" Warning lamp illuminates when "KEY IND ON" on CONSULT-III screen is touched.</li> <li>"KEY" Warning lamp flashes when "KEY IND FSH" on CONSULT-III screen is touched.</li> </ul>
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.

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#### < FUNCTION DIAGNOSIS >

[COUPE]

Test item	Description
LCD	<ul> <li>This test is able to check meter display information</li> <li>Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched.</li> <li>Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched.</li> <li>Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched.</li> <li>Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched.</li> <li>P position warning displays when "P RNG IND" on CONSULT-III screen is touched.</li> <li>Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched.</li> <li>Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched.</li> <li>Take away window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched.</li> <li>Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched.</li> <li>OFF position warning display when "IGN OFF WARN" on CONSULT-III screen is touched.</li> </ul>
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.
IGN CONT2	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check CVT device power supply CVT device 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 LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check INGITION ON indicator in push-ignition switch operation. LOCK indicator in push-ignition switch 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 flash when "ON" on CONSULT-III screen is touched.

### TRUNK

### TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000001342766

#### 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 switch.
UNLK SEN -DR	Indicates [ON/OFF] condition of unlock sensor.
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	Indicates [ON/OFF] condition of trunk lid opener cancel switch.

### **DLK-40**

#### < FUNCTION DIAGNOSIS >

### [COUPE]

Monitor Item	Contents	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.	A
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.	
RKE-TR/BD	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote controller button.	В

#### ACTIVE TEST

Test item	Description	С
TRUNK/GLASS HATCH	This test is able to check trunk open operation. Trunk open when "OPEN" on CONSULT-III screen is touched.	

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### COMPONENT DIAGNOSIS **U1000 CAN COMM CIRCUIT**

### Description

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[COUPE]

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-25, "CAN Communication Signal Chart".

### DTC Logic

INFOID:000000001342768

### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN com- munication signal continuously for 2 sec- onds or more.	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (MULTI AV) • Receiving (IPDM E/R)

### **Diagnosis** Procedure

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**1.**PERFORM SELF DIAGNOSTIC

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

Check "Self Diagnostic Result". 2.

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to DLK-42, "Diagnosis Procedure".
- NO >> Refer to GI-42, "Intermittent Incident".

**DLK-42** 

### U1010 CONTROL UNIT (CAN)

### < COMPONENT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

### DTC Logic

INFOID:000000001342770

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DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT (CAN)	BCM detected internal CAN communication circuit malfunction.	BCM
Diagno	osis Procedure		INFOID:00000000134277
1.REPI	LACE BCM		
Nhen D	TC [U1010] is detected	d, replace BCM.	
<b></b>	>> Replace BCM.		
Specia	al Repair Requiren	nent	INFOID:000000001342772
<b>1</b> .req	UIRED WORK WHEN	REPLACING BCM	
nitialize VIS/NV	NVIS by CONSULT-II IS.	I. For the details of initialization refer to CONSULT-III	operation manual NATS-
	>> Work end.		

### B2621 INSIDE KEY ANTENNA 1

### Description

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

### DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA 1 CIRCUIT	An excessive high or low voltage from inside anten- na is sent to BCM.	<ul> <li>Inside key antenna (instrument panel)</li> <li>Between BCM and Inside key antenna (instrument panel)</li> </ul>

#### DTC CONFIRMATION PROCEDURE

**1.**PERFORM DTC CONFIRMATION PROCEDURE

#### (B) With CONSULT-III

- 1. Perform INSIDE ANT DIAGNOSIS on Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

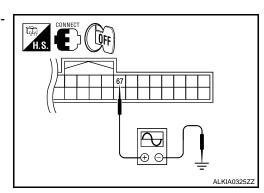
Is inside key antenna DTC detected?

- YES >> Refer to <u>DLK-44, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (instrument panel) is OK.

#### **Diagnosis Procedure**

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- Check signal between BCM connector and ground with oscilloscope.



[COUPE]

INFOID:000000001342773

INFOID:000000001342774

### **B2621 INSIDE KEY ANTENNA 1**

[COUPE]

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#### < COMPONENT DIAGNOSIS >

Terminals А Signal (+) Condition (Reference value.) (-) Terminal BCM connector (V 10 Place Intelligent Key inside the vehicle. 1 s D JMKIA0062GB Instrument M19 67 Ground panel antenna (V Е 15 10 Place Intelligent Key outside the vehicle. F 1 s JMKIA0063GB Is the inspection result normal? YES >> Check the condition of harness and connector. NO >> GO TO 2 2. CHECK INSIDE KEY ANTENNA CIRCUIT Н Disconnect BCM and instrument panel antenna connector. 1. Check continuity between BCM connector and instrument panel 2. antenna connector. 1.2 66, 67 DLK Ω ALKIA0326Z BCM connector Terminal Instrument panel antenna connector Terminal Continuity Μ 66 2 A: M19 B: M49 Instrument center Yes 67 1 Check continuity between BCM connector and ground. 3. Ν BCM connector Terminal Continuity 66 Ground

Is the inspection result normal?

YES >> GO TO 3.

A: M19

NO >> Repair or replace harness between BCM and instrument panel antenna.

**3.**CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace instrument panel antenna (New antenna or other antenna).

2. Connect BCM and instrument panel antenna connector.

Instrument panel antenna

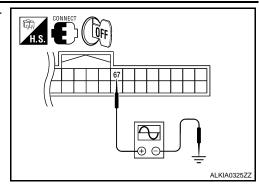
### **DLK-45**

67

### **B2621 INSIDE KEY ANTENNA 1**

#### < COMPONENT DIAGNOSIS >

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



[COUPE]

	Termi	nals			Cignal
	(+) BCM connector Terminal		()	Condition	Signal (Reference value.)
BCI			( )		
M10	Instrument	67	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
M19	Instrument 67 panel antenna	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB	

Is the inspection result normal?

- YES >> Replace instrument panel antenna. Refer to <u>IP-11, "Removal and Installation"</u>.
- NO >> Replace BCM. Refer to <u>BCS-88. "Removal and Installation"</u>.

# < COMPONENT 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 excessive high or low voltage from inside anten- na is sent to BCM.	<ul> <li>Front console antenna</li> <li>Between BCM and front console antenna.</li> </ul>	E

#### DTC CONFIRMATION PROCEDURE

### 1.PERFORM DTC CONFIRMATION PROCEDURE

#### With CONSULT-III

- 1. Perform front console antenna INSIDE ANT DIAGNOSIS on "Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

Is front console antenna DTC detected?

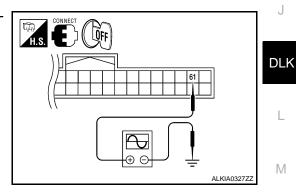
YES >> Refer to <u>DLK-47, "Diagnosis Procedure"</u>.

NO >> Front console antenna is OK.

### **Diagnosis Procedure**

### 1. CHECK FRONT CONSOLE ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- Check signal between BCM connector and ground with oscilloscope.



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### **B2622 INSIDE KEY ANTENNA 2**

#### < COMPONENT DIAGNOSIS >

	Terminals (+)			Condition	Signal
BCI	(+) BCM connector Termin		()	Condition	(Reference value.)
M10	Front console	61	Ground	Place Intelligent Key inside the ve- hicle.	(V) 15 10 5 0 1 s JMKIA0062GB
M19			Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

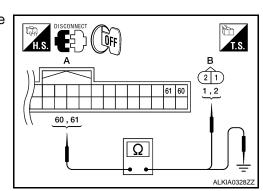
Is the inspection result normal?

>> Check the condition of harness and connector. YES

NO >> GO TO 2

2. CHECK FRONT CONSOLE ANTENNA CIRCUIT

- Disconnect BCM and front console antenna connector. 1.
- Check continuity between BCM connector and front console 2. antenna connector.



BCM connector	Terminal	Front consc	ble antenna connector	Terminal	Continuity
A: M19	60	B: M203	Console	2	Yes
	61	D. 101203	Console	1	- res

3. Check continuity between BCM connector and ground.

BC	BCM connector			Continuity
A: M19	Console	60	Ground	No
		61		NO

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and front console antenna.

**3.**CHECK FRONT CONSOLE ANTENNA INPUT SIGNAL 2

1. Replace front console antenna (New antenna or other antenna).

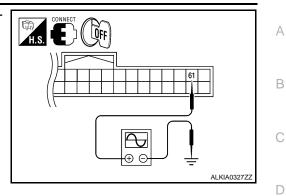
Connect BCM and front console antenna connector. 2.

### **DLK-48**

### **B2622 INSIDE KEY ANTENNA 2**

#### < COMPONENT DIAGNOSIS >

Check signal between BCM connector and ground with oscillo-3. scope.



[COUPE]

	Termi	nals				
(+)		(-)	Condition	Signal (Reference value.)		
BC	BCM connector Terminal		()		, , , , , , , , , , , , , , , , , , ,	
M40	Front console	61	Crowned	Place Intelligent Key inside the vehicle.	(V) 15 0 1 s JMKIA0062GB	
M19 Front console antenna	61	61 Ground	Place Intelligent Key outside the vehicle.			
					JMKIA0063GB	

<u>is me ms</u>	pectio	<u>n re</u>	Suit	<u> 101111</u>	ar		
			,			_	

>> Replace front console antenna. Refer to IP-17, "Disassembly and Assembly". YES >> Replace BCM. Refer to BCS-88, "Removal and Installation". NO

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### B2623 INSIDE KEY ANTENNA 3

### Description

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

### DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA 3 CIRCUIT	An excessive high or low voltage from rear parcel shelf antenna is sent to BCM.	<ul> <li>rear parcel shelf antenna</li> <li>Between BCM and rear parcel shelf antenna</li> </ul>

#### DTC CONFIRMATION PROCEDURE

**1.**PERFORM DTC CONFIRMATION PROCEDURE

#### (P) With CONSULT-III

- 1. Perform rear parcel shelf antenna INSIDE ANT DIAGNOSIS on "Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

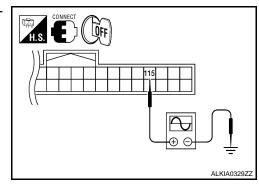
Is rear parcel shelf antenna DTC detected?

- YES >> Refer to <u>DLK-50, "Diagnosis Procedure"</u>.
- NO >> rear parcel shelf antenna is OK.

### **Diagnosis Procedure**

### **1.**CHECK REAR PARCEL SHELF ANTENNA INPUT SIGNAL 1

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



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INEOID:000000001342780

### **B2623 INSIDE KEY ANTENNA 3**

#### < COMPONENT DIAGNOSIS >

Terminals А Signal Condition (+)(Reference value.) (-) BCM connector Terminal 15 10 Place Intelligent Key inside the vehicle. 1 s D JMKIA0062GB Rear parcel M21 115 Ground shelf antenna Е 15 10 Place Intelligent Key outside the vehicle. F 1 s JMKIA0063GB Is the inspection result normal? YES >> Check the condition of harness and connector. NO >> GO TO 2 2. CHECK REAR PARCEL SHELF ANTENNA CIRCUIT Н Disconnect BCM and rear parcel shelf antenna connector. 1. Check continuity between BCM connector and rear parcel shelf 2. antenna connector. 21 1,2 1151 114,115 DLK Ω ALKIA0330ZZ BCM connector Terminal Rear parcel shelf antenna connector Terminal Continuity Μ 114 2 A: M21 B: B29 Trunk room Yes 115 1 3. Check continuity between BCM connector and ground. Ν BCM connector Terminal Continuity

A: M21 Trunk room 114 Ground 115

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and rear parcel shelf antenna.

 $\mathbf{3.}$  CHECK REAR PARCEL SHELF ANTENNA INPUT SIGNAL 2

1. Replace rear parcel shelf antenna (New antenna or other antenna).

2. Connect BCM and rear parcel shelf antenna connector.

### **DLK-51**

[COUPE]

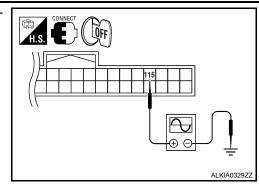
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### **B2623 INSIDE KEY ANTENNA 3**

#### < COMPONENT DIAGNOSIS >

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



Terminals						
(+)		()	Condition	Signal (Reference value.)		
BCI	V connector	Terminal	(-)		( ,	
M21	Trunk room	115	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB	
IVIZ I	Hunk toom		Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB	

Is the inspection result normal?

- YES >> Replace rear parcel shelf antenna. Refer to INT-16, "Removal and Installation".
- NO >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

COMPONENT DIAGNOSIS >	[COUPE]	
POWER SUPPLY AND GROUND CIRCUIT		А
Diagnosis Procedure	IFOID:000000001342782	
Refer to BCS-36, "Diagnosis Procedure".		В
		С
		D
		E
		F
		G

**DLK-53** 

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#### < COMPONENT DIAGNOSIS >

### DOOR SWITCH

### Description

Detects door open/close condition.

**Component Function Check** 

### **1.**CHECK FUNCTION

#### With CONSULT-III

Check door switches DOOR SW-DR, DOOR SW-AS in Data Monitor mode with CONSULT-III.

Monitor item	Condition
DOOR SW-DR	$CLOSE \rightarrow OPEN: OFF \rightarrow ON$
DOOR SW-AS	

Is the inspection result normal?

YES >> Door switch is OK.

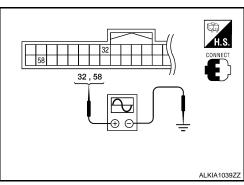
NO >> Refer to <u>DLK-54, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

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



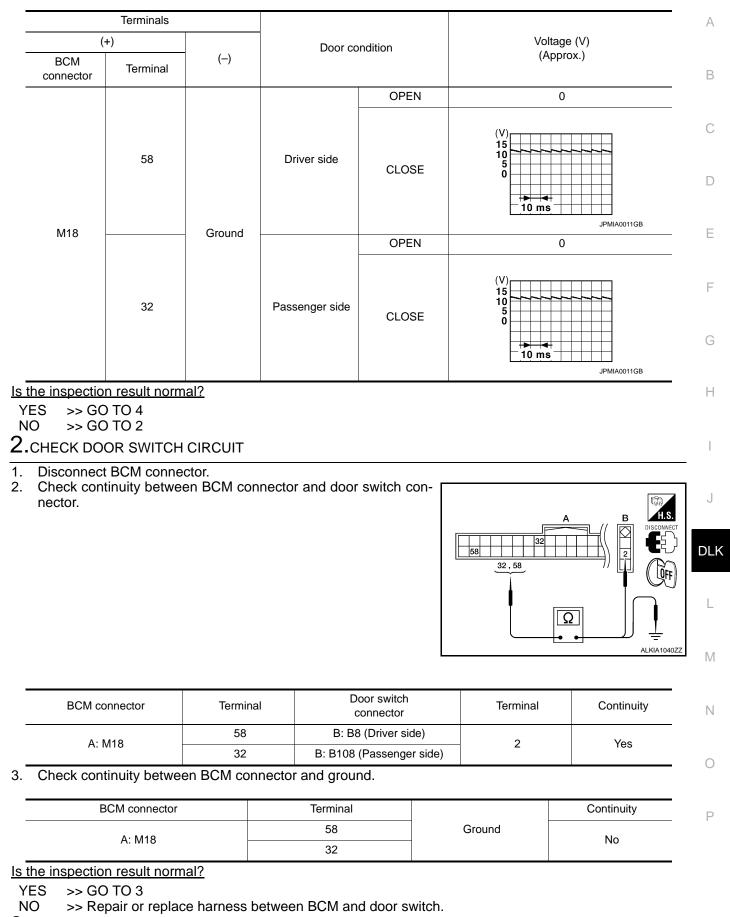
INFOID:000000001342783

INFOID:000000001342785

### **DOOR SWITCH**

#### < COMPONENT DIAGNOSIS >

[COUPE]



**3.**CHECK DOOR SWITCH

< COMPONENT DIAGNOSIS >

Refer to <u>DLK-56. "Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

4. CHECK INTERMITTENT INCIDENT

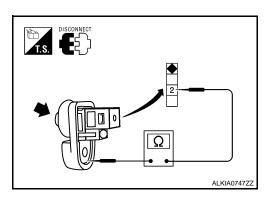
Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### **Component Inspection**

### 1. CHECK DOOR SWITCH

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



Terminal Door switch		Door switch condition	Continuity	
		Door Switch condition		
	Ground part of door switch	Pressed	No	
Ζ	Ground part of door switch	Released	Yes	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace malfunction door switch.

	K AND UNLOCK SWITCH [COUPE]
< COMPONENT DIAGNOSIS > DOOR LOCK AND UNLOCK S DRIVER SIDE	
DRIVER SIDE : Description	INFOID:000000001342787
Transmits door lock/unlock operation to BCM DRIVER SIDE : Component Function	
1.CHECK FUNCTION	
With CONSULT-III     Check CDL LOCK SW, CDL UNLOCK SW in	Data Monitor mode with CONSULT-III.
Monitor item	Condition
CDL LOCK SW	LOCK : ON
	UNLOCK : OFF
CDL UNLOCK SW	LOCK : OFF F
RH Anti-Pinch)"	to <u>DLK-57</u> , " <u>DRIVER SIDE</u> : <u>Diagnosis Procedure (With LH and</u> <u>DLK-59</u> , " <u>DRIVER SIDE</u> : <u>Diagnosis Procedure (With LH Anti-</u> <b>H</b> <b>re (With LH and RH Anti-Pinch)</b>
1.CHECK POWER WINDOW SWITCH OUT	
<ol> <li>Read voltage signal between BCM consoscilloscope when door lock and unlock turned "LOCK" or "UNLOCK".</li> </ol>	
<ol> <li>Check that signals which are shown in the lock and unlock switch (driver side) is ture.</li> </ol>	ne figure below can be detected during 10 second just after door ned "LOCK" or "UNLOCK".

Terminal					
(+)			Condition	Signal (Reference value)	0
BCM connector	Terminal	()		( ,	
M18	40	Ground	Door is closed	(V) 15 10 0 10 10 10 10 10 10 10 10	Ρ

Is the inspection result normal?

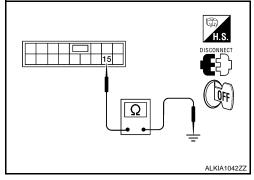
< COMPONENT DIAGNOSIS >

[COUPE]

#### YES >> GO TO 4 NO >> GO TO 2

**2.**CHECK POWER WINDOW SWITCH GROUND

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



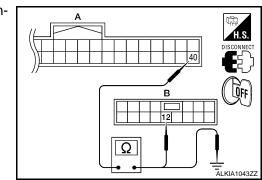
Main power window and door lock/unlock switch connector	Terminal		Continuity
D7	15	Ground	Yes

Is the inspection result normal?

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

## 3. CHECK POWER WINDOW SERIAL LINK CIRCUIT

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



BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
A: M18	40	B: D7	12	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Terminal Ground	
A: M18	40	Giodila	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Main power window and door lock/un-Connector Terminal Voltage lock switch state Neutral  $\rightarrow$  Lock 5 Ground Battery voltage  $\rightarrow 0$ D7 Neutral  $\rightarrow$  Unlock 6 Ground Battery voltage  $\rightarrow 0$ 

Is the inspection result normal?

YES >> GO TO 5. >> GO TO 2.

NO

**2.**CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.

- Disconnect main power window and door lock/unlock switch conne 2.
- 3. Check continuity between main power window and door lock/ unlock switch connector and ground.

Main power window and door lock/unlock Terminal Continuity switch connector D7 10 Ground Yes Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace harness.

3.CHECK POWER WINDOW SWITCH

### DRIVER SIDE : Diagnosis Procedure (With LH Anti-Pinch Only)

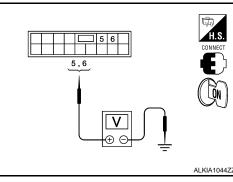
1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

#### Turn ignition switch ON. 1.

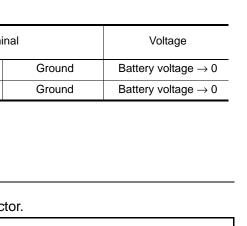
< COMPONENT DIAGNOSIS >

>> INSPECTION END.

Check voltage at the main power window and door lock/unlock 2. switch connector when the switch (driver side) is turned to "LOCK" or "UNLOCK".



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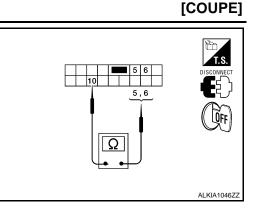
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#### < COMPONENT DIAGNOSIS >

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



Main power window and door lock/unlock switch state	Terminals	Continuity
Lock	5 - 10	Yes
Unlock	6 - 10	Yes
Neutral/Unlock	5 - 10	No
Neutral/Lock	6 - 10	No

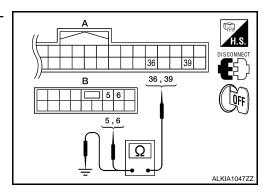
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace main power window and door lock/unlock switch.

### **4.**CHECK POWER WINDOW SWITCH CIRCUITS

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



BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
A: M18	36	B: D7	5	Yes
	39	<b>D</b> . <b>D</b> 7	6	163

3. Check continuity between BCM connector and ground.

BCM connector	Terr	minal	Continuity
A: M18	36	Ground	No
	39	Cround	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

### **DLK-60**

< COMPONENT DIAGNOSIS >		[COUPE]	
>> INSPECTION END.			
DRIVER SIDE : Special Repair Req	juirement	INFOID:000000001342791	A
<ol> <li>INITIALIZATION PROCEDURE</li> <li>Disconnect battery minus terminal or main nect it after a minute or more.</li> <li>Turn ignition switch ON.</li> </ol>	in power window and door lo	ck/unlock switch connector. Recon-	В
3. Operate power window switch to fully op	en the window. (This operat	ion is unnecessary if the window is	С
<ul><li>already fully open)</li><li>4. Continue pulling the power window switch position, keep pulling the switch for 3 sec</li><li>5. Inspect anti-pinch function.</li></ul>		Even after glass stops at fully closed	D
<ol> <li>CHECK ANTI-PINCH FUNCTION</li> <li>Fully open the driver window.</li> <li>Place a piece of wood near fully closed p</li> <li>Close door glass completely with AUTO-I</li> </ol>			E
<ul> <li>Check that glass lowers for approximately 1</li> <li>Check that glass does not rise when opera lowering.</li> <li>CAUTION:</li> </ul>	50 mm or 2 seconds without		F
<ul> <li>Do not check with hands and other part of</li> <li>Check that AUTO-UP operates before ins</li> <li>It may switch to fail-safe mode if open</li> </ul>	spection when system initia /close operation is perform	alization is performed.	G
<ul> <li>setting in that situation. Refer to <u>DLK-15</u></li> <li>Perform initial setting when auto-up oper</li> <li>Finish initial setting. Otherwise, next oper</li> <li>Auto-up operation</li> <li>Anti-pinch function</li> <li>Retained power operation when ignitic</li> <li>PASSENGER SIDE</li> </ul>	ration or anti-pinch functio eration cannot be done.	n does not operate normally.	H
PASSENGER SIDE : Description		INFOID:000000001342792	J
Transmits door lock/unlock operation to BCM			DL
PASSENGER SIDE : Component F	Function Check	INFOID:000000001342793	DL
1.CHECK FUNCTION			L
With CONSULT-III     Check CDL LOCK SW, CDL UNLOCK SW in	Data Monitor mode with CO	NSULT-III.	M
Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	N. 1
	UNLOCK	: OFF	Ν
CDL UNLOCK SW	LOCK	: OFF	
	UNLOCK	: ON	

YES >> Door lock and unlock switch is OK.

NO >> With LH and RH anti-pinch, refer to <u>DLK-61</u>, "PASSENGER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch)".

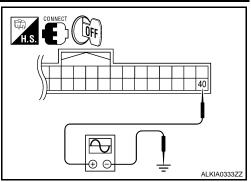
NO >> With LH anti-pinch only, refer to <u>DLK-63</u>, "PASSENGER SIDE : Diagnosis Procedure (With LH <u>Anti-Pinch Only)"</u>.

PASSENGER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch) INFOLD:00000001342794

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

#### < COMPONENT DIAGNOSIS >

- 1. Read voltage signal between BCM connector and ground with oscilloscope when door lock and unlock switch (passenger side) is turned to "LOCK" or "UNLOCK".
- 2. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (passenger side) is turned "LOCK" or "UNLOCK".



[COUPE]

Terminal				
(+	)	()	Condition	Signal (Reference value)
BCM connector	Terminal	()		
M18	40	Ground	Door is closed	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10

Is the inspection result normal?

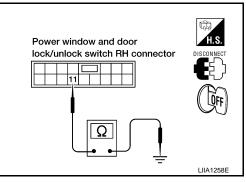
YES >> GO TO 4

NO >> GO TO 2

2. CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.

- 2. Disconnect power window and door lock/unlock switch RH connector.
- 3. Check continuity between front power window switch (passenger side) connector and ground.



Power window and door lock/unlock switch RH connector	Terminal		Continuity
D105	11	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3

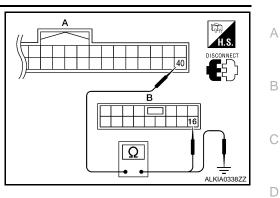
NO >> Repair or replace harness.

**3.**CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Disconnect BCM connector.

#### < COMPONENT DIAGNOSIS >

2. Check continuity between BCM connector and front power window switch (passenger side) connector.



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BCM connector	Terminal	Front power window switch (passenger side) connector	Terminal	Continuity
A: M18	40	B: D105	16	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity	
A: M18	40	Giodila	No	
s the inspection result normal?				
YES >> GO TO 4				
NO >> Repair or replace harne				
CHECK INTERMITTENT INCIDE	INT			
efer to GI-42, "Intermittent Incident	<u>t"</u> .			
YES >> INSPECTION END.				
ASSENGER SIDE : Diagno	osis Procedure	(With LH Anti-	-Pinch Only)	342795
CHECK POWER WINDOW SWI	TCH OUTPUT SIGN	NAL		
. Turn ignition switch ON.				
. Check voltage at the power win				
RH connector when the switch "LOCK" or "UNLOCK".	h (passenger side)	is turned to		s
LOCK OF UNLOCK.				
				٦
				~
				( V
				V)
				<b>v</b> )

			ALKIA0339ZZ	
r	Power window and door lock/unlock switch RH state	Terminal	Voltage	

	Connector	nector Power window and door lock/unlock switch RH state		inal	Voltage
D105	Neutral $\rightarrow$ Lock	2	Ground	Battery voltage $\rightarrow 0$	
	Neutral $\rightarrow$ Unlock	1	Ground	Battery voltage $\rightarrow 0$	

Is the inspection result normal?

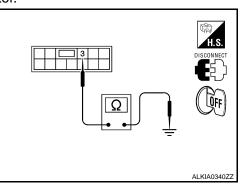
YES >> GO TO 5 NO >> GO TO 2

#### < COMPONENT DIAGNOSIS >

[COUPE]

## 2. CHECK POWER WINDOW SWITCH GROUND

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



Power window and door lock/unlock switch RH connector	Terminal		Continuity
D105	3	Ground	Yes

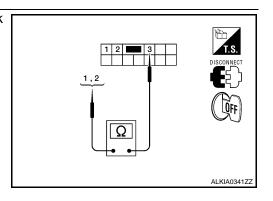
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

**3.**CHECK POWER WINDOW SWITCH

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



Power window and door lock/unlock switch RH state	Terminals	Continuity
Lock	2 - 3	Yes
Unlock	1 - 3	Yes
Neutral/Unlock	2 - 3	No
Neutral/Lock	1 - 3	No

#### Is the inspection result normal?

YES >> GO TO 4

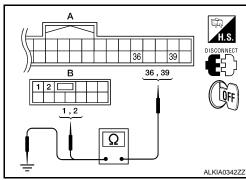
NO >> Replace power window and door lock/unlock switch RH.

**4.**CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.

#### < COMPONENT DIAGNOSIS >

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



BCM connector	Terminal	Power window and door lock/ unlock switch RH connector	Terminal	Continuity
A: M18	36	B: D105	2	Yes
	39		1	Yes

#### 3. Check continuity between BCM connector and ground.

BCM connector	Terr	minal	Continuity	(
A: M18	36	Ground	No	
A. MIO	39 Ground		NU	L

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END.

### PASSENGER SIDE : Special Repair Requirement

#### NOTE:

This procedure is applicable to vehicles equipped with front LH and RH anti-pinch windows only.

#### INITIALIZATION PROCEDURE

- Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 3 seconds or more.
- 5. Inspect anti-pinch function.

#### CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

#### **CAUTION:**

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>DLK-157, "Fail Safe"</u>

### **DLK-65**

#### [COUPE]

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< COMPONENT DIAGNOSIS >

[COUPE]

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Retained power operation when ignition switch is OFF.

### **KEY SLOT**

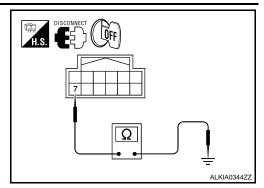
[COUPE]

# < COMPONENT DIAGNOSIS > KEY SLOT

Description			
Detect whether Intelligent Key mmobilizer antenna amp chec		insponder.	
Component Function C	heck		INFOID:000000001
.CHECK FUNCTION			
With CONSULT-III			
Check KEY SW -SLOT in Data	Monitor mode with	CONSULT-III.	
Monitor ite	m	Co	ondition
KEY SW-SLOT		Key is inserted in key slot: ON	
		Key is removed from key slot: C	DFF
s the inspection result normal' YES >> Key slot is OK.	<u> </u>		
NO >> Refer to <u>DLK-67, "</u>	Diagnosis Procedure	<u>e"</u> .	
			INFOID:000000001
Diagnosis Procedure			INFOID:000000001
	R SUPPLY CIRCUIT		IN-01D:000000001.
	R SUPPLY CIRCUIT		INF-012:000000001.
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.		INFOL2:000000001
CHECK KEY SLOT POWER	ctor.	ground.	ISCONNECT
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.		
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	ISCONNECT
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor.	ground.	
CHECK KEY SLOT POWER . Turn ignition switch OFF. 2. Disconnect key slot conne	ctor. y slot connector and	ground.	
CHECK KEY SLOT POWER Turn ignition switch OFF. Disconnect key slot conne Check voltage between ke	ctor. y slot connector and Terminals	ground.	SCONNECT
CHECK KEY SLOT POWER Turn ignition switch OFF. Disconnect key slot conne Check voltage between ke	ctor. y slot connector and Terminals	ground.	SCONNECT

#### < COMPONENT DIAGNOSIS >

#### Check continuity between key slot connector and ground.



Key slot connector	Terminal	Ground	Continuity
M40	7	Oround	Yes

Is the inspection result normal?

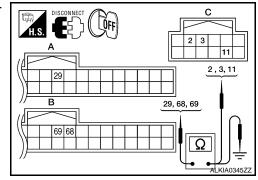
YES >> GO TO 3

NO >> Repair or replace key slot ground circuit.

**3.**CHECK KEY SLOT CIRCUIT

1. Disconnect BCM connector.

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



BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M18	29		11	Yes
B: M19	68	C: M40	2	Yes
D. WI19	69		3	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Tern	Continuity	
A: M18	29		
B: M19	68	Ground	No
D. W19	69	Î	

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness between BCM and key slot.

**4.**CHECK KEY SLOT

Refer to DLK-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace key slot.

**5.**CHECK INTERMITTENT INCIDENT

### **KEY SLOT**

#### < COMPONENT DIAGNOSIS >

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### **Component Inspection**

### 1.CHECK KEY SLOT

Check key slot.

	Terminal Key slot		Condition	Continuity	
			Condition		
	1	11	Intelligent Key inserted	Yes	
	1 11		Intelligent Key removed	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace key slot.

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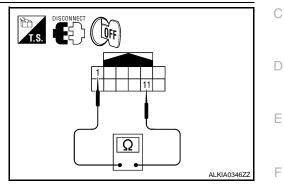
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### **DLK-69**

[COUPE]

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### KEY CYLINDER SWITCH

### Description

INFOID:000000001342801

[COUPE]

For vehicles equipped with LH and RH anti-pinch system, the main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

For vehicles equipped with LH anti-pinch system only, the door lock assembly LH (key cylinder switch) transmits the LOCK or UNLOCK signal directly to the BCM.

#### Component Function Check

INFOID:000000001342802

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-8, "Work Flow"</u>.

Monitor item	Со	ndition	
KEY CYL LK-SW	Lock	: ON	
KET GTE LK-SW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
KET CTL UN-SW	Neutral / Lock	: OFF	

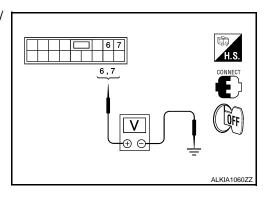
#### Is the inspection result normal?

- YES >> Key cylinder switch is OK.
- NO >> With LH and RH anti-pinch, refer to DLK-70, "Diagnosis Procedure (With LH and RH Anti-Pinch)".
- NO >> With LH anti-pinch only, refer to DLK-72, "Diagnosis Procedure (With LH Anti-Pinch Only)".

### Diagnosis Procedure (With LH and RH Anti-Pinch)

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector and ground.



	Terminals			
(+)				Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	()	Key position	(Approx.)
	6		Lock	0
D7	0	Ground	Neutral / Unlock	5
Di		Ground	Unlock	0
	1		Neutral / Lock	5

Is the inspection result normal?

nlv)".

### **KEY CYLINDER SWITCH**

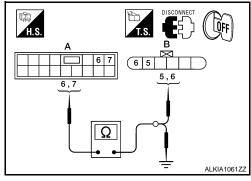
< COMPONENT DIAGNOSIS >

YES >> Replace main power window and door lock/unlock switch. Refer to <u>DLK-198</u>, "FRONT DOOR <u>LOCK : Removal and Installation</u>". After that, Refer to <u>DLK-11</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

NO >> GO TO 2

**2.**CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector and door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/ unlock switch connector and door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/ unlock switch connector	Terminal	Door lock assembly LH (key cylinder switch) con- nector	Terminal	Continuity
A: D7	6	B: D10	6	Yes
A. 07	7	6. 610	5	165

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

Power window main switch connec- tor	Terminal		Continuity
A: D7	6	Ground	No
A. DI	7		NO

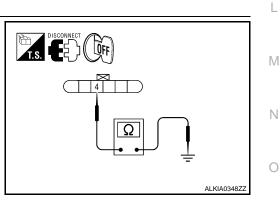
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

#### $\mathbf{3}$ .CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between door lock assembly LH connector and ground.



Door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

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### **DLK-72**

### **4.**CHECK DOOR KEY CYLINDER SWITCH

#### Check door key cylinder switch.

< COMPONENT DIAGNOSIS >

Refer to <u>DLK-73, "Component Inspection"</u>.

### Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace door lock assembly LH (key cylinder switch). Refer to <u>DLK-198, "FRONT DOOR LOCK :</u> <u>Removal and Installation"</u>. After that, Refer to <u>DLK-74, "Special Repair Requirement"</u>.

### Diagnosis Procedure (With LH Anti-Pinch Only)

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

Terminals (+)				
			Key position	Voltage (V) (Approx.)
BCM connector	Terminal	()		(
	50		Lock	0
M18	56	Ground	Neutral / Unlock	5
IVI I O	24	Ground	Unlock	0
	34		Neutral / Lock	5

Is the inspection result normal?

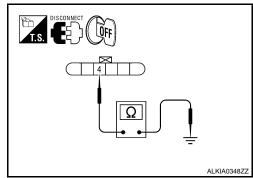
YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-51, "Removal and Installation"</u>. After that, Refer to <u>DLK-11, "ADDITIONAL SERVICE WHEN REPLACING CONTROL</u> <u>UNIT : Special Repair Requirement"</u>.

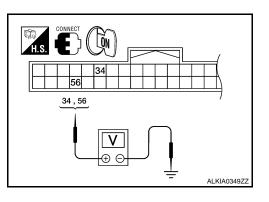
NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

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





### **KEY CYLINDER SWITCH**

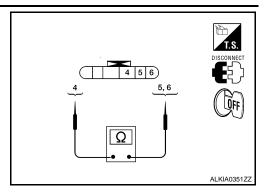
#### < COMPONENT DIAGNOSIS >

Door lock assembly LH conne	ctor	Terminal		Ground		Continuity
D10		4		Ground		Yes
s the inspection result normal? YES >> GO TO 3 NO >> Repair or replace har CHECK DOOR KEY CYLINDE						
. Disconnect BCM connector N						
<ul> <li>Disconnect BCM connector w</li> <li>Check continuity between do switch) connector and BCM c</li> </ul>	or lock a		ey cylinde		ÖFF	际 H.S. B
					34,56	
Door lock assembly LH connector	Terminal		BCM connec	ctor	Terminal	Continuity
A: D10	5 6		B: M18		34 56	Yes
. Check continuity between doo	or lock as	sembly LH (ke	y cylinder	switch) connect	or and gro	ound.
Door lock assembly LH connector	7	Terminal			Co	ontinuity
A: D10		5 Ground No		No		
s the inspection result normal? YES >> GO TO 4 NO >> Repair or replace har CHECK DOOR KEY CYLINDE		СН				
Check door key cylinder switch.						
Refer to DLK-73, "Component Ins         s the inspection result normal?         YES       >> Check intermittent inc         NO       >> Replace door lock as:         Removal and Install         REPLACING CONTR	ident. Re sembly Ll ation". A	H (key cylinder .fter_that, Re	switch). F efer to D	Refer to <u>DLK-198</u> LK-11、"ADDIT	<u>8, "FRON</u> IONAL SI	<u>T DOOR LOCK :</u> ERVICE_WHEN
Component Inspection						INFOID:000000001342805
COMPONENT INSPECTION						
CHECK DOOR KEY CYLINDE		:н				

### **KEY CYLINDER SWITCH**

#### < COMPONENT DIAGNOSIS >

Check door lock assembly LH (key cylinder switch).



Terminal Door lock assembly LH (key cylinder switch) connector		Kay position	Continuity
		Key position	
E	5 4	Unlock	Yes
5		Neutral / Lock	No
6		Lock	Yes
O		Neutral / Unlock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace door lock assembly LH (key cylinder switch). Refer to <u>DLK-198, "FRONT DOOR LOCK :</u> <u>Removal and Installation"</u>. After that, refer to <u>DLK-74, "Special Repair Requirement"</u>.

#### Special Repair Requirement

INFOID:000000001342806

[COUPE]

### **1.**PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>DLK-11</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

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

### **UNLOCK SENSOR**

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### [COUPE] < COMPONENT DIAGNOSIS > **UNLOCK SENSOR** Description INFOID:000000001342807 Detects door lock condition of driver door. **Component Function Check** INFOID:000000001342808 1.CHECK FUNCTION (P)With CONSULT-III Check unlock sensor DR DOOR STATE in "Data Monitor" mode. Monitor item Condition Door lock (driver side) LOCK : OFF DOOR STAT SW (DR DOOR STATE) Door lock (driver side) UNLOCK : ON Is the inspection result normal? YES >> Unlock sensor is OK. NO >> Refer to DLK-75, "Diagnosis Procedure". **Diagnosis** Procedure INFOID:000000001342809 1.CHECK UNLOCK SENSOR POWER SUPPLY Check signal between BCM connector and ground with oscilloscope. H.S. OFF 6 ALKIA0352ZZ DLK Torminolo

	Terminals				1
(+)			Door lock assembly LH condition	Voltage (V) (Approx.)	
BCM connector	Terminal	()		(, ++, -, -, )	
M18	27	Ground	Locked	(V) 15 10 10 ms JPMIA0011GB	M N O
			Unlocked	0	

Is the inspection result normal?

>> GO TO 6 YES

NO >> GO TO 2

2.CHECK UNLOCK SENSOR CIRCUIT

1. Turn ignition switch OFF.

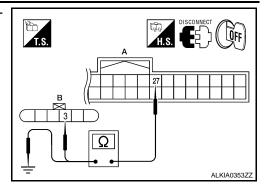
2. Disconnect BCM and door lock assembly LH connector.

### UNLOCK SENSOR

#### < COMPONENT DIAGNOSIS >

### [COUPE]

3. Check continuity between BCM connector and door lock assembly LH connector.



BCM connector	Terminal	Door lock assembly LH connector	Terminal	Continuity
A: M18	27	B: D10	3	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M18	27	Ground	No

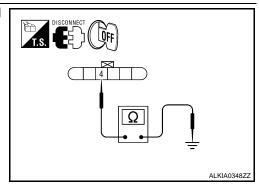
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and door lock assembly LH.

### **3.**CHECK UNLOCK SENSOR GROUND CIRCUIT

Check continuity between door lock assembly LH connector and ground.



Door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Croana	Yes

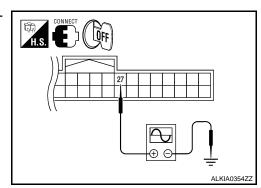
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

### 4.CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM harness connector.
- 2. Check signal between BCM connector and ground with oscilloscope.



### **DLK-76**

### UNLOCK SENSOR

#### < COMPONENT DIAGNOSIS >

[COUPE]

<ul> <li>S &gt;&gt; GO TO 5</li> <li>&gt;&gt; Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.</li> <li>CHECK UNLOCK SENSOR</li> <li>er to <u>DLK-77, "Component Inspection"</u>.</li> <li>he inspection result normal?</li> <li>ES &gt;&gt; GO TO 6</li> <li>&gt;&gt; Replace door lock assembly LH. Refer to <u>DLK-198, "FRONT DOOR LOCK : Removal ar lation"</u>.</li> <li>CHECK INTERMITTENT INCIDENT</li> <li>er to <u>GI-42, "Intermittent Incident"</u>.</li> <li>&gt;&gt; INSPECTION END.</li> <li>mponent Inspection</li> </ul>
BCM connector       Terminal         M18       27       Ground         Image: Second sec
M18       27       Ground       Image: Constraint of the second of the
NO       >> Replace BCM. Refer to BCS-88, "Removal and Installation".         • CHECK UNLOCK SENSOR         efer to DLK-77, "Component Inspection".         the inspection result normal?         YES       >> GO TO 6         NO       >> Replace door lock assembly LH. Refer to DLK-198. "FRONT DOOR LOCK : Removal ar lation".         • CHECK INTERMITTENT INCIDENT         efer to GI-42, "Intermittent Incident".         >> INSPECTION END.         omponent Inspection         • CHECK UNLOCK SENSOR
fer to <u>DLK-77, "Component Inspection"</u> . <u>he inspection result normal?</u> ES >> GO TO 6 O >> Replace door lock assembly LH. Refer to <u>DLK-198, "FRONT DOOR LOCK : Removal ar</u> <u>lation"</u> . CHECK INTERMITTENT INCIDENT fer to <u>GI-42, "Intermittent Incident"</u> . >> INSPECTION END. pmponent Inspection CHECK UNLOCK SENSOR
the inspection result normal?         YES       >> GO TO 6         IO       >> Replace door lock assembly LH. Refer to <u>DLK-198. "FRONT DOOR LOCK : Removal ar lation"</u> .         CHECK INTERMITTENT INCIDENT         offer to <u>GI-42, "Intermittent Incident"</u> .         >> INSPECTION END.         omponent Inspection         .CHECK UNLOCK SENSOR
YES >> GO TO 6 NO >> Replace door lock assembly LH. Refer to <u>DLK-198. "FRONT DOOR LOCK : Removal ar</u> <u>lation"</u> . CHECK INTERMITTENT INCIDENT efer to <u>GI-42, "Intermittent Incident"</u> . >> INSPECTION END. MFOID OC .CHECK UNLOCK SENSOR
CHECK INTERMITTENT INCIDENT efer to <u>GI-42, "Intermittent Incident"</u> . >> INSPECTION END. COMPONENT INSPECTION .CHECK UNLOCK SENSOR
Component Inspection
>> INSPECTION END. omponent Inspection
CHECK UNLOCK SENSOR
CHECK UNLOCK SENSOR
heck unlock sensor.
Terminal
Door lock assembly LH Condition Continuity
Unlock Yes
3 4 Lock No

### **DLK-77**

### TRUNK LID OPENER SWITCH

< COMPONENT DIAGNOSIS >

### TRUNK LID OPENER SWITCH

### Description

Transmits trunk lid open signal to BCM.

**Component Function Check** 

### 1. CHECK TRUNK LID OPENER CANCEL SWITCH

Check trunk lid opener cancel switch position.

Does trunk lid opener cancel switch turn ON (CANCEL)?

Yes >> Turn off trunk lid opener cancel switch.

No >> GO TO 2

2. CHECK FUNCTION

#### (B) With CONSULT-III

Check trunk lid opener switch TR/BD OPEN SW in "Data Monitor mode with CONSULT-III.

• When trunk lid opener switch is turned to "ON".

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

Is the inspection result normal?

YES >> Trunk lid opener switch is OK.

NO >> Refer to <u>DLK-78, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

1.CHECK TRUNK LID OPEN INPUT SIGNAL

1. Remove Intelligent Key from key slot.

- 2. Turn on trunk lid opener cancel switch.
- 3. Check voltage between BCM connector and ground.

[COUPE]

INFOID:000000001342811

INFOID:000000001342812

INFOID:000000001342813

### **TRUNK LID OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

[COUPE]

(·				
	+)		Condition of trunk lid opener switch	Voltage (V)
BCM connector	Terminal	()		(Approx.)
			ON (press and hold)	0
M21	147	Ground	OFF (release)	(V) 15 10 5 0 10 ms JDMIA0011GB

Is the inspection result normal?

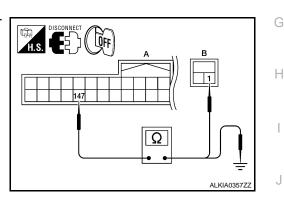
YES >> GO TO 5

NO >> GO TO 2

## 2. CHECK TRUNK LID OPENER SWITCH CIRCUIT

1. Disconnect BCM connector.

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



BCM c	onnector	Terminal	Trunk lid opener switch connector	Terminal	Continuity
A:	M21	147	B: M75	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M21	147	Ground	No

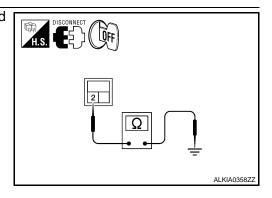
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

 $\mathbf{3.}$  CHECK TRUNK LID OPENER SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch connector and ground.



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### **TRUNK LID OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

[COUPE]

Trunk lid opener switch	Terminal	Ground	Continuity
M75	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK TRUNK LID OPENER SWITCH

Refer to DLK-80, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace trunk lid opener switch.

**5.**CHECK INTERMITTENT INCIDENT

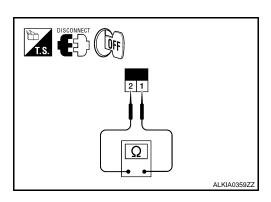
Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

Component Inspection

1. CHECK TRUNK LID OPENER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect trunk lid opener switch connector.
- 3. Check continuity between trunk lid opener switch connector.



Terr	minal	Condition	Continuity
Trunk lid op	pener switch	Condition	Continuity
1	2	ON (press and hold)	Yes
I	2	OFF (release)	No

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace trunk lid opener switch.

INFOID:000000001342814

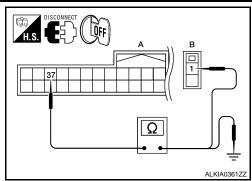
#### **TRUNK LID OPENER CANCEL SWITCH** [COUPE] < COMPONENT DIAGNOSIS > TRUNK LID OPENER CANCEL SWITCH А Description INFOID:000000001342815 Cancels trunk lid open operation. В **Component Function Check** INFOID:000000001342816 1.CHECK FUNCTION (R) With CONSULT-III Check trunk lid opener cancel switch TR CANCEL SW in Data Monitor mode with CONSULT-III. D Monitor item Condition Trunk lid opener cancel switch is turned to "ON": ON Ε TR CANCEL SW Trunk lid opener cancel switch is turned to "OFF": OFF Is the inspection result normal? YES >> Trunk lid opener cancel switch is OK. F NO >> Refer to DLK-81, "Diagnosis Procedure". **Diagnosis** Procedure INFOID:000000001342817 1. CHECK TRUNK LID OPENER CANCEL SIGNAL Check voltage between BCM connector and ground. Н -ALKIA0360ZZ DLK Terminals L Condition of trunk lid opener Voltage (V) (+) cancel switch (Approx.) (-) BCM Terminal connector Μ ON (press and hold) 0 Ν M18 37 Ground OFF (cancel) 10 ms JPMIA0012GB Ρ Is the inspection result normal? YES >> GO TO 5 NO >> GO TO 2 2.CHECK TRUNK LID OPENER CANCEL SWITCH CIRCUIT Disconnect BCM connector. 1.

### **DLK-81**

### **TRUNK LID OPENER CANCEL SWITCH**

#### < COMPONENT DIAGNOSIS >

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



[COUPE]

BCM connector	Terminal	Trunk lid opener cancel switch connector	Terminal	Continuity
A: M18	37	B: M74	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M18	37	Olodina	No

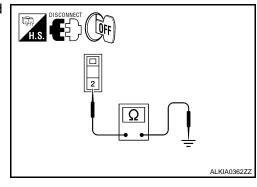
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

### ${f 3.}$ CHECK TRUNK LID OPENER CANCEL SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch connector and ground.



Trunk lid opener cancel switch	Terminal	Ground	Continuity
M74	2	Cround	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK TRUNK LID OPENER CANCEL SWITCH

Refer to DLK-83, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace trunk lid opener cancel switch.

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

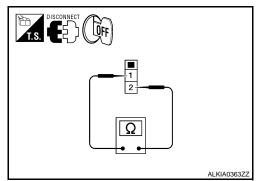
### TRUNK LID OPENER CANCEL SWITCH

### < COMPONENT DIAGNOSIS >

### Component Inspection

## 1. CHECK TRUNK LID OPENER CANCEL SWITCH

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



Terminal	Condition	Continuity	F
Trunk lid opener switch	Condition	Continuity	
1	ON	Yes	G
1 2	OFF (cancel)	No	0

Is the inspection result normal?

- YES >> INSPECTION END.
- NO >> Replace trunk lid opener cancel switch.

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**DLK-83** 

< COMPONENT DIAGNOSIS >

### TRUNK ROOM LAMP SWITCH

#### Description

Detects trunk open/close condition.

**Component Function Check** 

### 1. CHECK FUNCTION

#### With CONSULT-III

Check TRNK/HAT MNTR in Data Monitor mode with CONSULT-III.

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

Is the inspection result normal?

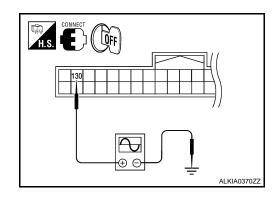
YES >> Trunk room lamp switch is OK.

NO >> Refer to <u>DLK-84, "Diagnosis Procedure"</u>.

#### **Diagnosis Procedure**

1.CHECK TRUNK LAMP SWITCH INPUT SIGNAL

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



(+) BCM connector	Terminal	- (-)	Trunk condition OPEN	Voltage (V) (Approx.) 0
	Terminal			
M21			OPEN	0
M21				
	130	Ground	CLOSE	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result norm

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

NU >> GUTUZ

2. CHECK TRUNK LAMP SWITCH CIRCUIT

1. Disconnect BCM connector.

INFOID:000000001342819

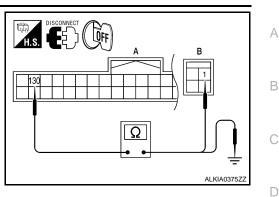
INFOID:000000001342820

INFOID:000000001342821

### **TRUNK ROOM LAMP SWITCH**

#### < COMPONENT DIAGNOSIS >

## 2. Check continuity between BCM connector and trunk lamp switch and trunk release solenoid connector.



BCM connector	Terminal	Trunk lamp switch and trunk release solenoid connector	Terminal	Continuity
A: M21	130	B: T4	1	Yes

3. Check continuity between BCM connector and ground.

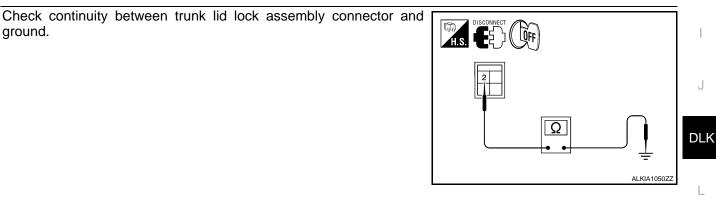
BCM connector	Terminal	Ground	Continuity
A: M21	130	Gibuna	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and trunk lamp switch and trunk release solenoid.

### **3.**CHECK TRUNK LAMP SWITCH GROUND CIRCUIT



	Trunk lamp switch and trunk release solenoid connector	Terminal	Ground	Continuity	M
-	T4	2		Yes	

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace trunk lamp switch and trunk release solenoid ground circuit.

#### **4.**CHECK BCM OUTPUT SIGNAL

1. Insure trunk remains closed during this step.

2. Connect BCM connector.

### DLK-85

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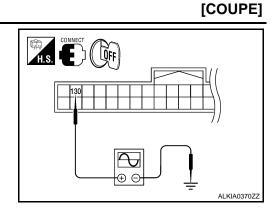
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### **TRUNK ROOM LAMP SWITCH**

#### < COMPONENT DIAGNOSIS >

#### 3. Check voltage between BCM connector and ground.



	Terminals		
(+	+)		Voltage (V) (Approx.)
BCM connector	Terminal	- (-)	( + + )
M21	130	Ground	(V) 15 10 5 0 10 ms JDMIA0011GB

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

5. CHECK TRUNK ROOM LAMP SWITCH

Refer to DLK-86, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace trunk lamp switch and trunk release solenoid.

**6.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

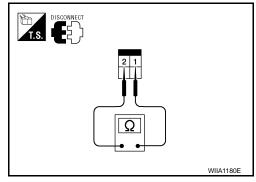
### **Component Inspection**

### 1.CHECK TRUNK LAMP SWITCH

1. Turn ignition switch OFF.

2. Disconnect trunk lamp switch and trunk release solenoid connector.

3. Check trunk lamp switch.



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### **DLK-86**

### **TRUNK ROOM LAMP SWITCH**

#### < COMPONENT DIAGNOSIS >

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Termir	nal	Taun la seu disien	Oractionsity	
Trunk lamp switch and tr	unk release solenoid	Trunk condition	Continuity	
4	0	OPEN	Yes	
1	2	CLOSE	No	
the inspection result no	rmal?			
ES >> INSPECTION	END.			
IO >> Replace trunk	lamp switch and trunk	release solenoid.		

< COMPONENT DIAGNOSIS >

### DOOR REQUEST SWITCH

#### Description

Transmits lock/unlock operation to BCM.

**Component Function Check** 

### 1. CHECK FUNCTION

#### With CONSULT-III

Check door request switch REQ SW-DR, 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?

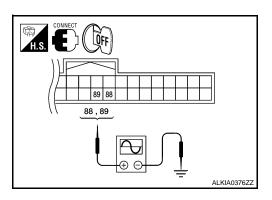
YES >> Door request switch is OK.

NO >> Refer to <u>DLK-88, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

### 1. CHECK DOOR REQUEST SWITCH OUTPUT SIGNAL

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



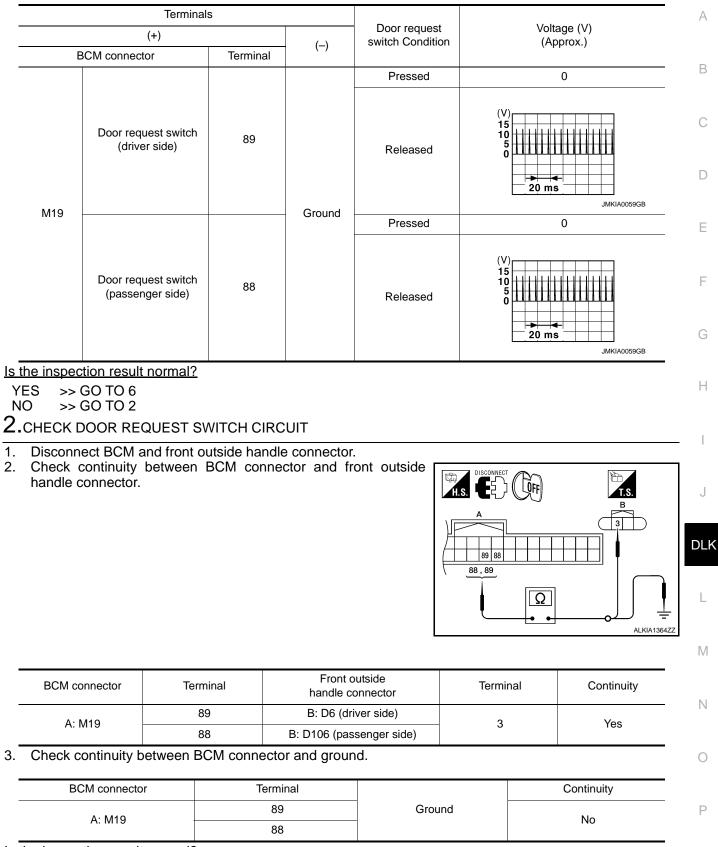
INFOID:000000001342823

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#### < COMPONENT DIAGNOSIS >

[COUPE]



Is the inspection result normal?

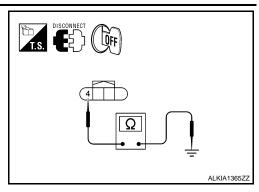
YES >> GO TO 3

NO >> Repair or replace harness between BCM and front outside handle.

 ${\it 3.}$ check door request switch ground circuit

#### < COMPONENT DIAGNOSIS >

Check continuity between front outside handle connector and ground.



Front outside handle connector	Terminal	Ground	Continuity
D6 (driver side)	1		Yes
D106 (passenger side)	- 4		les

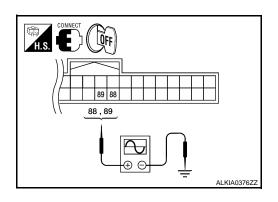
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace front outside handle ground circuit.

**4.**CHECK BCM OUTPUT SIGNAL

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



	Terminals		
(+	(+)		Voltage (V) (Approx.)
BCM connector	Terminal	- (-)	(
	89		
M19	88	Ground	(V) 15 10 5 0 20 ms JMKIA0059GB

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

5. CHECK DOOR REQUEST SWITCH

Refer to <u>DLK-91, "Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 6

#### DLK-90

< COMPONENT DIAGNOSIS >

NO

>> Replace malfunctioning front outside handle.

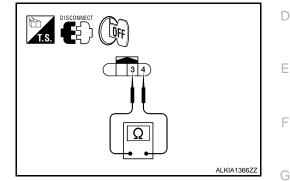
6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### 1. CHECK DOOR REQUEST SWITCH

Check front outside handle (request switch).



Terminal		<ul> <li>Door request switch condition</li> </ul>	Continuity	
Front outside hand	lle (request switch)	Door request switch contaiton	Continuity	
2	Λ	Pressed	Yes	
3	4	Released	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace malfunction front outside handle.

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#### < COMPONENT DIAGNOSIS >

### TRUNK OPENER REQUEST SWITCH

#### Description

Performs trunk lid open request when it is pressed.

#### **Component Function Check**

### **1.**CHECK FUNCTION

#### With CONSULT-III

Check trunk opener request switch REQ SW -BD/TR in Data Monitor mode.

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

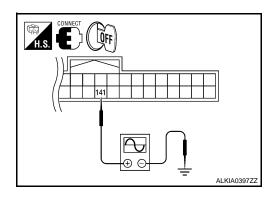
Is the inspection result normal?

YES >> Trunk opener request switch is OK. NO >> Refer to <u>DLK-92, "Diagnosis Procedure"</u>.

#### **Diagnosis Procedure**

### 1. CHECK TRUNK OPENER REQUEST SWITCH OUTPUT SIGNAL

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



	Terminals (+)				
(+			Trunk lid opener request switch condition	Voltage (V) (Approx.)	
BCM connector	Terminal	()		()	
			Pressed	0	
M21	141	Ground	Released	(V) 15 10 5 0 10 ms JPMIA0016GB	

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

2. CHECK TRUNK OPENER REQUEST SWITCH CIRCUIT

1. Disconnect BCM and trunk opener request switch connector.

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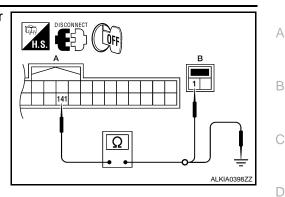
INFOID:000000001342828

INFOID-000000001342829

### TRUNK OPENER REQUEST SWITCH

#### < COMPONENT DIAGNOSIS >

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



-	BCM connector	Terminal	Trunk opener request switch connector	Terminal	Continuity
_	A: M21	141	B: T2	1	Yes

3. Check continuity between BCM connector and ground.

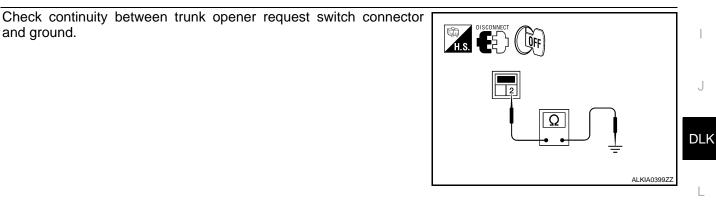
BCM connector			Continuity
A: M21	141	Ground	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and trunk opener request switch.

 $\mathbf{3.}$  CHECK TRUNK OPENER REQUEST SWITCH GROUND CIRCUIT



Trunk opener request switch connector	Terminal	Ground	Continuity	
T2	2	Ground	Yes	M

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace trunk opener request switch ground circuit.

**4.**CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

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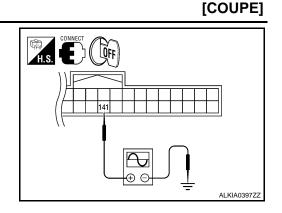
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### **TRUNK OPENER REQUEST SWITCH**

#### < COMPONENT DIAGNOSIS >

2. Check voltage between BCM connector and ground.



Terminals			
(+)	(+)		Voltage (V) (Approx.)
BCM connector	Terminal	(_) (Approx.)	
M21	141	Ground	(V) 15 10 5 0 10 ms JPMIA0016GB

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to <u>BCS-88. "Removal and Installation"</u>.

5. CHECK TRUNK OPENER REQUEST SWITCH

Refer to DLK-94, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace trunk opener request switch.

**6.**CHECK INTERMITTENT INCIDENT

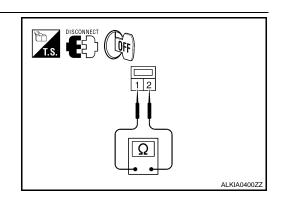
Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

**Component Inspection** 

1.CHECK TRUNK OPENER REQUEST SWITCH

Check trunk opener request switch.



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### TRUNK OPENER REQUEST SWITCH

#### < COMPONENT DIAGNOSIS >

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Te	erminal	Trunk opener request switch condition	Continuity	А
Trunk opene	er request switch	Tunk opener request switch condition	Continuity	
1	2	Pressed	Yes	_
I	2	Released	No	В
s the inspection res	sult normal?			

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace trunk opener request switch.

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### DOOR LOCK ACTUATOR

< COMPONENT 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

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

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

>> Refer to DLK-96, "DRIVER SIDE : Diagnosis Procedure". NO

### **DRIVER SIDE** : Diagnosis Procedure

1. CHECK OUTPUT SIGNAL

Check voltage between BCM connector and ground.

Terminals Condition of door lock and Voltage (V) (+)unlock switch (Approx.) (-) BCM connector Terminal 8  $0 \rightarrow Battery \ voltage \rightarrow 0$ Lock M17 Ground 9 Unlock  $0 \rightarrow Battery \ voltage \rightarrow 0$ 

Is the inspection result normal?

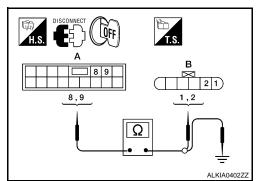
YES >> GO TO 3 NO

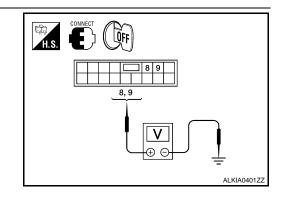
>> GO TO 2

#### 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

- Disconnect BCM and door lock actuator driver side connector. 2.
- Check continuity between BCM connector and door lock actua-3. tor driver side connector.





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INFOID:000000001342832

### DOOR LOCK ACTUATOR

#### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Door lock actuator con- nector	Termina	al Continuity
A: M17	8	B: D10	1	Yes
Check continuity bet	9 ween BCM connecto	or and ground.	2	
BCM connector		Terminal		Continuity
A: M17	8	Gro	bund	No
NO >> Repair or rep CHECK INTERMITTE	or lock actuator LH. place harness. ENT INCIDENT			
efer to <u>GI-42, "Intermitt</u> >> INSPECTIO	N END.			
PASSENGER SID				INFOID:000000001342
ocks/unlocks the door vocks/unlocks the door vocks/unlocks the door vocks/unlocks the door vocks/unlocks/unlocks/	•			INFOID:000000001342
CHECK FUNCTION Use CONSULT-III to Touch "ALL LOCK" of the inspection result net	or "ALL UNLOCK" to	("DOOR LOCK"). check that it works nor	mally.	
YES >> Door lock ac NO >> Refer to DLk		SIDE : Diagnosis Proc	<u>edure"</u> .	
ASSENGER SIDE	: Diagnosis Pro	ocedure		INFOID:000000001342
.CHECK DOOR LOCK				
Check voltage between I	BCM connector and	ground.	H.S.	
				5,8
T(+)	Ferminals	Condition of door		Voltage (V) (Approx.)

(+)		(_)	unlock switch	(Approx.)
BCM connector	Terminal			
M17	8	Ground	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$
IVI I 7	5	Giouna	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$



### DOOR LOCK ACTUATOR

< COMPONENT DIAGNOSIS >

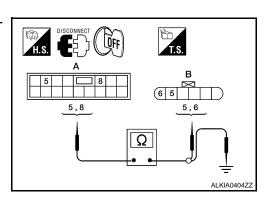
Is the inspection result normal?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM and door lock actuator RH connectors.
- 2. Check continuity between BCM connector and door lock actuator RH.



BCM connector	Terminal	Door lock actuator RH connector	Terminal	Continuity
A: M17	8	B: D108	5	Yes
A. WH /	5	B. D100	6	163

3. Check continuity between BCM connector and ground.

BCM connector	Terr	minal	Continuity
A: M17	8	Ground	No
A. WIT7	5	Ground	NO

Is the inspection result normal?

YES >> Replace door lock actuator RH.

NO >> Repair or replace harness.

**3.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

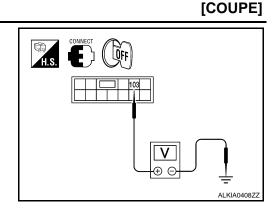
### TRUNK LID OPENER ACTUATOR

	IRUN	K LID OPER	NER ACTUATOR	
< COMPONENT DIAG	NOSIS >			[COUPE]
TRUNK LID OPE	NER ACTI	JATOR		
Description				INFOID:00000000134284
Performs trunk lid open	with cignal from	RCM		
•	•			
Component Functi	ON CHECK			INFOID:00000000134284
<b>1.</b> CHECK TRUNK LID	OPENER CAN	CEL SWITCH		
Check trunk lid opener o			-	
<u>ls trunk lid opener cance</u> Yes >> Turn on trur			<u>)?</u>	
No $>>$ GO TO 2.	ik ilu operiei cai	ICEI SWIICH.		
2. CHECK FUNCTION				
1. Perform Active Test			CONSULT-III.	
<ol> <li>Touch "OPEN" and s the inspection result n</li> </ol>		lid opens.		
YES >> Trunk lid op		OK.		
NO >> Refer to DL	K-99, "Diagnosi	<u>s Procedure"</u> .		
Diagnosis Procedu	re			INFOID:00000000134284
1. СНЕСК ОИТРИТ СИ	RCUIT			
1. Turn ignition switch				
2. Disconnect trunk lar	np switch and ti			
<ol> <li>Check voltage betw solenoid connector</li> </ol>		p switch and		
			F	
				ALKIA1051ZZ
	Terminals			
(+)			Condition of trunk lid open-	Voltage (V)
Trunk lamp switch and trunk release solenoid	Terminal	()	er switch	(Approx.)
connector	Terminal			
T4	3	Ground	$OFF\toON$	$0 \rightarrow Battery \ voltage \rightarrow 0$
s the inspection result n	ormal?			
YES >> GO TO 4 NO >> GO TO 2				
2.CHECK OUTPUT SI	GNAL			
	JINAL			

### TRUNK LID OPENER ACTUATOR

#### < COMPONENT DIAGNOSIS >

#### Check voltage between BCM connector and ground.



	Terminals			
(+)		()	Condition of trunk lid open- er switch	Voltage (V) (Approx.)
BCM connector	Terminal	()		
M20	103	Ground	$OFF\toON$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

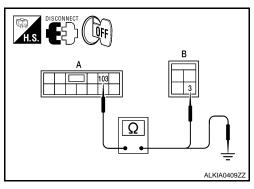
Is the inspection result normal?

YES >> Repair or replace harness.

NO >> GO TO 3

## 3. CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

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



BCM connector	Terminal	trunk lamp switch and trunk re- lease solenoid connector	Terminal	Continuity
A: M20	103	B: T4	3	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terr	ninal	Continuity
A: M20	103	Ground	No

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

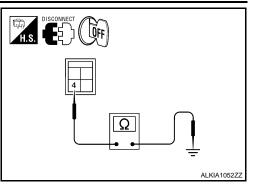
NO >> Repair or replace harness.

### 4. CHECK TRUNK LID OPENER GROUND CIRCUIT

### TRUNK LID OPENER ACTUATOR

#### < COMPONENT DIAGNOSIS >

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



trunk lamp switch and trunk release solenoid connector	Terr	ninal	Continuity
T4	4	Ground	Yes

#### Is the inspection result normal?

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

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#### INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

### INTELLIGENT KEY WARNING BUZZER

#### Description

Answers back and warns for an inappropriate operation.

**Component Function Check** 

**1.**CHECK FUNCTION

(P) With CONSULT-III

Check Intelligent Key warning buzzer OUTSIDE BUZZER in Active Test mode.

Is the inspection result normal?

YES >> Intelligent Key warning buzzer (engine room) is OK.

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

#### **Diagnosis** Procedure

1.CHECK INTELLIGENT KEY WARNING BUZZER

Check voltage between BCM connector and ground.

#### Terminals Warning buzzer opera-Voltage (V) (+) tion condition (Approx.) (-) BCM connector Terminal ON 0 M21 144 Ground OFF Battery voltage

Is the inspection result normal?

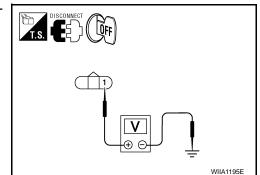
YES >> GO TO 5.

NO >> GO TO 2.

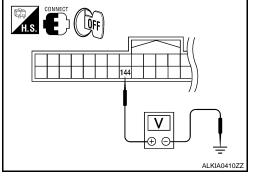
**2.**CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

- Turn ignition switch OFF. 1.
- Disconnect Intelligent Key warning buzzer connector. 2.
- Check voltage between Intelligent Key warning buzzer connec-3. tor and ground.





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INFOID:000000001342846

INFOID:000000001342847

INFOID:000000001342848

### INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

	Terminals	1			
(+	)				Voltage (V)
Intelligent Key warning buzzer connector	Terminal		()		(Approx.)
E73	1		Ground		Battery voltage
NO >> Repair or replace CHECK INTELLIGENT KE Disconnect BCM connec Check continuity betwee warning buzzer connecto	EY WARNING BU	JZZER CIRCU	IT		
BCM connector A: M21	Terminal	Intelligent Key w conne B: E	ector	Terminal 3	Continuity Yes
Check continuity betwee					
		r and groanal			
BCM connector	Terr	ninal	Gro	und	Continuity
A: M21	14	44	010	ana	No
the inspection result norma DK >> GO TO 4. NG >> Repair or replace .CHECK INTELLIGENT KE heck <u>DLK-103, "Componen</u> the inspection result norma	e harness betwee EY WARNING BU <u>t Inspection"</u> .		telligent Key	warning buzz	er.
CHECK INTERMITTENT		ouzzer.			
<ul><li>YES &gt;&gt; GO TO 5.</li><li>NO &gt;&gt; Replace Intellige</li></ul>	NCIDENT	ouzzer.			
YES >> GO TO 5. NO >> Replace Intellige CHECK INTERMITTENT Intermittent Interpretent Intermittent Intermitten	NCIDENT	ouzzer.			
<ul> <li>YES &gt;&gt; GO TO 5.</li> <li>NO &gt;&gt; Replace Intellige</li> <li>CHECK INTERMITTENT</li> <li>CHECK GI-42, "Intermittent Inc.</li> </ul>	NCIDENT				INF01D:00000000

### INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

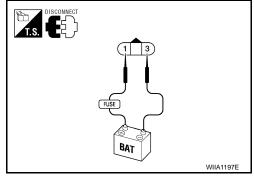
Connect battery power supply to Intelligent Key warning buzzer terminals 1 and 3, and check the operation.

#### 1 (BAT+) - 3 (BAT-)

#### : the buzzer sounds

Is the inspection result normal?

- YES >> INSPECTION END.
- NO >> Replace Intelligent Key warning buzzer.



< COMPONENT DIAGNOSIS >	[COUPE]	
OUTSIDE KEY ANTENNA		Δ
Description	INFOID:000000001342850	7
Detects whether Intelligent Key is outside the vehicle. Integrated in front outside handle (driver side, passenger side) and installed in rear bumper.		В
Component Function Check	INFOID:000000001342851	
1.CHECK DOOR REQUEST SWITCH		C
Check that door request switch operates normally.		Г
Is the inspection result normal?		L
YES >> GO TO 2. NO >> Inspect door request switch. Refer to <u>DLK-88, "Component Function Check"</u> . <b>2.</b> CHECK FUNCTION		E
Be sure that Intelligent Key is in each outside key antenna detection range.		F
Does door lock/unlock when each request switch is pressed?		
YES >> Outside key antenna is OK. NO >> Refer to <u>DLK-105, "Diagnosis Procedure"</u> .		(
Diagnosis Procedure	INFOID:000000001342852	
1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1		ŀ
<ol> <li>Turn ignition switch OFF.</li> <li>Check signal between BCM connector and ground with oscillo- scope.</li> </ol>		I
	63 , 65, 119	J
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#### < COMPONENT DIAGNOSIS >

[COUPE]

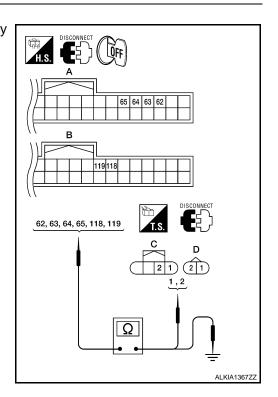
	Term	ninals				<b>.</b>
	(+)		()	] c	Condition	Signal (Reference value.)
BCM	connector	Terminal	(-)			
	Driver side	65				
A: M19	Passenger side	63	Ground	Request switch	When Intelligent Key is in the antenna de- tection area.	(V) 15 10 5 0 1 s JMKIA0061GB
B: M21	Rear bumper	119	Giouna	is pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i> <i>A</i>

Is the inspection result normal?

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

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect BCM and front outside handle connector.
- 2. Check continuity between BCM connector and outside key antenna connector.



#### < COMPONENT DIAGNOSIS >

[COUPE]

BCM connector	Terminal	Outside key antenna	connector	Termina	ıl	Continuity
	65	D6 (driver sic		1		
A: M19	64		ie)	2		
A. 1013	63	D106 (passenge	r cido)	1		Yes
-	62	D 100 (passenge	i side)	2		Tes
B: M21	119	B46 (rear bum	ner)	1		
D. WZ 1	118		per)	2		
Check continuity b	etween BCM cor	nnector and ground.				
BCM connecto	or	Terminal				Continuity
		62	=			
A . M40		63	_			
A: M19		64	G	Fround		No
		65				No
B: M21		118				
		119				
e inspection result S >> GO TO 3. >> Repair or HECK OUTSIDE	replace harness I KEY ANTENNA I	petween BCM and ou NPUT SIGNAL 2		antenna.		
e inspection result S >> GO TO 3. >> Repair or HECK OUTSIDE	replace harness I KEY ANTENNA I	petween BCM and ou NPUT SIGNAL 2		antenna.		
e inspection result S >> GO TO 3. >> Repair or I HECK OUTSIDE Replace outside k Connect BCM and	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)	antenna.		
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an	tenna)	CONNECT	PO	
e inspection result S >> GO TO 3. >> Repair or I HECK OUTSIDE Replace outside k Connect BCM and	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)	antenna.	DEFF)	
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)	CONNECT		
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)	CONNECT		
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			<u>63 , 65 , 119</u>
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			63 , 65, 119
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			63 , 65, 119
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			63,65,119
e inspection result >> GO TO 3. >> Repair or HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			
e inspection result S >> GO TO 3. >> Repair or b HECK OUTSIDE Replace outside k Connect BCM and Check signal betw	replace harness I KEY ANTENNA I ey antenna. (New I outside key ante	between BCM and ou NPUT SIGNAL 2 v antenna or other an enna connector.	tenna)			

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#### < COMPONENT DIAGNOSIS >

[COUPE]

Terminals						Signal
(+)			()	Condition		Signal (Reference value.)
BCM connector Te		Terminal	()			, , , , , , , , , , , , , , , , , , ,
	Driver side	65	Ground			(V) 15 10 5 0 1 s JMKIA0061GB
A: M19	Passenger side	63		Door request switch is pushed	When Intelligent Key is in the antenna de- tection area.	
B: M21	Rear bumper	119			When Intelligent Key is not in the antenna detection area.	(V) 15 0 0 1 s JMKIA0060GB

Is the inspection result normal?

YES >> Replace outside key antenna.

NO >> GO TO 4.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

#### REMOTE KEYLESS ENTRY RECEIVER [COUPE] < COMPONENT DIAGNOSIS > REMOTE KEYLESS ENTRY RECEIVER А Description INFOID:000000001342853 Receives Intelligent Key operation and transmits to BCM. В **Component Function Check** INFOID:000000001342854 **1.**CHECK FUNCTION (R) With CONSULT-III Check remote keyless entry receiver RKE OPE COUN1 in Data Monitor mode with CONSULT-III. D Monitor item Condition **RKE OPE COUN1** Checks whether value changes when operating Intelligent Key. Е Is the inspection result normal? YES >> Remote keyless entry receiver is OK. >> Refer to DLK-109, "Diagnosis Procedure". NO F Diagnosis Procedure INFOID:000000001342855 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL 1. Turn ignition switch OFF. 2. Check signal between remote keyless entry receiver connector H.S. and ground with oscilloscope. Н PIIB6457E DLK Terminals L (+) Signal Condition Remote keyless (Reference value) (-) entry receiver Terminal Μ connector Ν Waiting (All doors closed) 1 ms IMKIA0064GB M27 2 Ground Ρ When signal is received (All doors closed) 1 ms JMKIA0065GB

Is the inspection result normal?

# **REMOTE KEYLESS ENTRY RECEIVER**

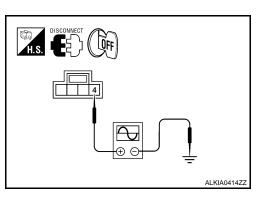
< COMPONENT DIAGNOSIS >

[COUPE]

YES >> GO TO 7. NO >> GO TO 2.

 $2. {\sf CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY}$ 

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



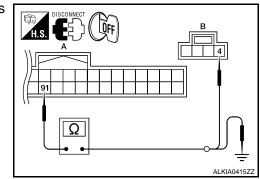
Terminals				
(+)			Signal	
Remote keyless entry re- ceiver connector	Terminal	(-)	(Reference value)	
M27	4	Ground	(V) 15 15 0 15 0 1 1 1 ms JMKIA0064GB	

Is the inspection result normal?

YES	>> GO TO 4.
NO	>> GO TO 3.

**3.**CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

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



BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
A: M19	91	B: M27	4	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	91	Gibuna	No

Is the inspection result normal?

# REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

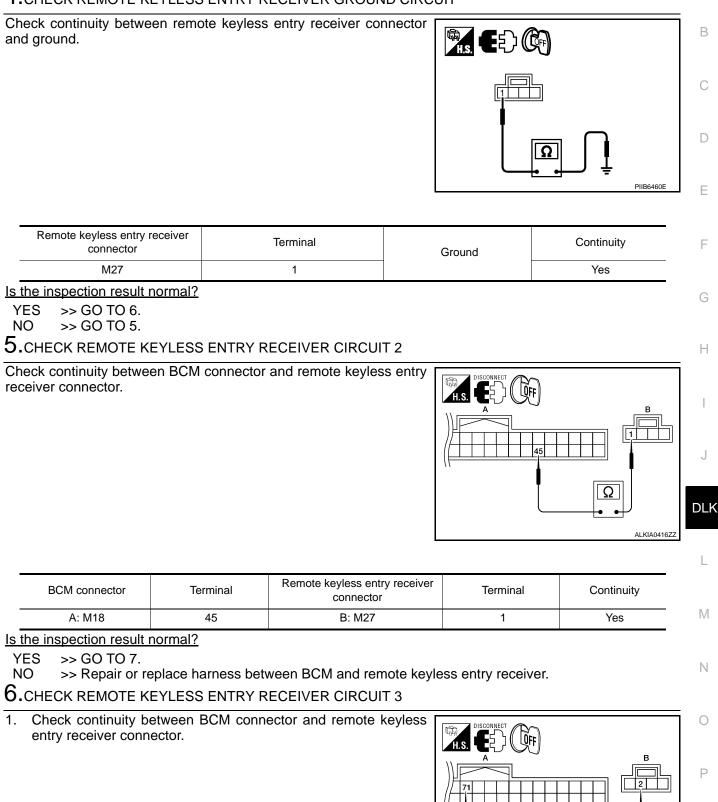
[COUPE]

А

YES >> Reconnect BCM, GO TO 4.

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

4. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT



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# **REMOTE KEYLESS ENTRY RECEIVER**

#### < COMPONENT DIAGNOSIS >

[COUPE]

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
A: M19	71	B: M27	2	Yes

2. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	71	Cround	No

Is the inspection result normal?

YES >> GO TO 7.

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

7. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

# **INTELLIGENT KEY**

# < COMPONENT DIAGNOSIS >

# INTELLIGENT KEY

### Description

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

Door lock/unlock

Trunk open

Remote control entry function and panic alarm function are available when operating the remote buttons.

### **Component Function Check**

### **1.**CHECK FUNCTION

#### With CONSULT-III

Check remote keyless entry receiver RKE OPE COUN1 in Data Monitor mode with CONSULT-III.

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

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

>> Refer to DLK-113, "Diagnosis Procedure". NO

### Diagnosis Procedure

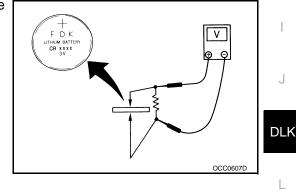
### **1.**CHECK INTELLIGENT KEY BATTERY

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

#### : Approx. 2.5 - 3.0V Standard

Is the measurement value within specification?

- YES >> GO TO 2.
- NO >> Replace Intelligent Key battery.

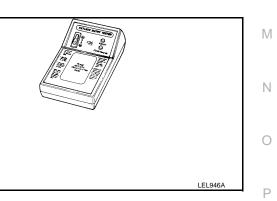


# 2.CHECK KEYFOB FUNCTION

Check keyfob function using Remote Keyless Entry Tester J-43241. Does the test pass?

YES >> Keyfob is OK.

>> Replace keyfob. Refer to CONSULT-III Operation Man-NO ual.



### **Component Inspection**

INFOID:000000001342859

**1.** REPLACE INTELLIGENT KEY BATTERY

1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

# **DLK-113**

[COUPE]

INFOID:000000001342856

INFOID:000000001342857

INFOID:000000001342858

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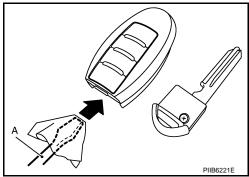
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# INTELLIGENT KEY

#### < COMPONENT DIAGNOSIS >

- Insert a flat-blade screwdriver (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part.
   CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.



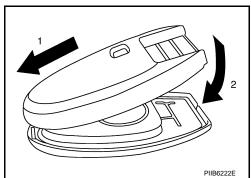
- 3. Replace the battery with new one.
- Align the tips of the upper and lower parts, and then push them together until it is securely closed.
   CAUTION:
  - When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
  - After replacing the battery, check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

Is the inspection result normal?

- YES >> Intelligent Key is OK.
- NO >> Check remote keyless entry receiver. Refer to <u>DLK-109.</u> <u>"Component Function Check"</u>.

#### Special Repair Requirement

Refer to CONSULT-III Operation Manual.



INFOID:000000001342860

[COUPE]

# **KEY SLOT ILLUMINATION**

< COMPONENT DIAGNOSIS >	[COUPE]	
KEY SLOT ILLUMINATION		А
Description	INFOID:000000001342861	
Blinks when Intelligent Key insertion is required.		В
Component Function Check	INFOID:000000001342862	
1.CHECK FUNCTION		С
With CONSULT-III Check key slot illumination KEY SLOT ILLUMI in Active Test mode.		D
<u>Is the inspection result normal?</u> YES >> Key slot function is OK. NO >> Refer to <u>DLK-115, "Diagnosis Procedure"</u> .		Е
Diagnosis Procedure	INFOID:000000001342863	
1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL		F
Check voltage between key slot connector and ground.		G
		Н

-		Terminals				Voltage (V)	-
-	(	+)		Condition	Key slot		DL
-	Key slot connector	Terminal	()		illumination	(Approx.)	
-	M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage	
	10140	0	Giouna	Intelligent Key removed	ON	0	-

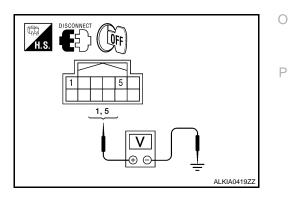
### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

**2.**CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check voltage between slot connector and ground.



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## **DLK-115**

# **KEY SLOT ILLUMINATION**

#### < COMPONENT DIAGNOSIS >

[COUPE]

	Terminals			
(-	(+)		Voltage (V) (Approx.)	
Key slot connector	Terminal	- (-)	( , , , , , , , , , , , , , , , , , , ,	
M40	1	Ground	Pottory voltago	
10140	5	Ground	Battery voltage	

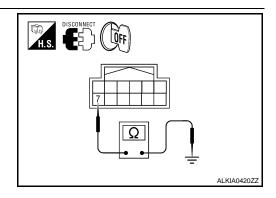
#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

# 3. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



-	Key slot connector	Terminal	Cround	Continuity
-	M40	7	Ground	Yes

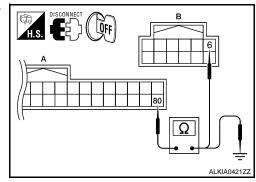
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

# 4.CHECK KEY SLOT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and key slot connector.
- 3. Check continuity between BCM connector and key slot connector.



BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80	Ground	No

Is the inspection result normal?

# **KEY SLOT ILLUMINATION**

< COMPONENT DIAGNOSIS >	[COUPE]	
YES >> GO TO 5.		
NO >> Repair or replace harness between BCM and key slot.		А
5.CHECK KEY SLOT		
Refer to DLK-69, "Component Inspection".		В
Is the inspection result normal?		D
YES >> GO TO 6.		
NO >> Replace key slot.		С
6. CHECK INTERMITTENT INCIDENT		
Refer to GI-42, "Intermittent Incident".		_
		D
>> INSPECTION END.		
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# HORN FUNCTION

### < COMPONENT DIAGNOSIS >

# HORN FUNCTION

### Description

Perform answer-back for each operation with horn.

### **Component Function Check**

# **1.**CHECK FUNCTION

- 1. Select HORN in "ACTIVE TEST" mode with CONSULT-III.
- 2. Check the horn (high/low) operation.

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

#### Is the operation normal?

YES >> INSPECTION END. NO >> Go to <u>DLK-118</u>, "Diagnosis Procedure".

### **Diagnosis** Procedure

### **1.**CHECK HORN FUNCTION

Check horn function with horn switch

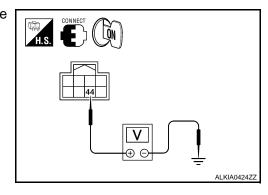
#### Do the horns sound?

YES >> GO TO 2.

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

# 2. CHECK HORN RELAY POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
- 3. Using an oscilloscope or analog voltmeter, check voltage between horn relay harness connector and ground.



Horr	n relay	Ground		Test item	Voltage (V)
Connector	Terminal	Ground		leschem	(Approx.)
H-1	1	Ground	HORN	ON	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage
	I	Ground	HORN	Other than above	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

**3.**CHECK HORN RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R and horn relay connector.

INFOID:000000001342864

INFOID:000000001342865

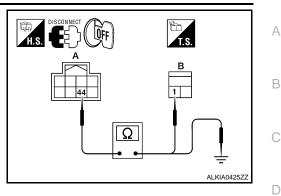
INFOID:000000001342866

# HORN FUNCTION

#### < COMPONENT DIAGNOSIS >

### [COUPE]

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



IPD	M E/R	Horn	relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	44	B: H-1	1	Yes

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

IPD	DM E/R	Ground	Continuity
Connector	Terminal	Ground	Continuity
A: E17	44	Ground	No

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-43. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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### **COMBINATION METER DISPLAY FUNCTION**

#### < COMPONENT DIAGNOSIS >

# COMBINATION METER DISPLAY FUNCTION

### Description

Displays each operation method guide and warning for system malfunction.

**Component Function Check** 

**1.**CHECK FUNCTION

With CONSULT-III

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-120</u>, "Diagnosis Procedure".

Diagnosis Procedure

**1.**CHECK COMBINATION METER

Refer to MWI-92, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check combination meter. Refer to <u>MWI-38, "Diagnosis Description"</u>.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

INFOID:000000001342868

INFOID:000000001342867

INFOID:000000001342869

[COUPE]

## WARNING CHIME FUNCTION

WARNING CHIME FUNCTION		
< COMPONENT DIAGNOSIS >	[COUPE]	
WARNING CHIME FUNCTION		А
Description	INFOID:000000001342870	/ \
Performs operation method guide and warning with buzzer.		В
Component Function Check	INFOID:000000001342871	
1.CHECK FUNCTION		С
<ul> <li>With CONSULT-III</li> <li>Check the operation with "INSIDE BUZZER" in the Active Test.</li> <li>Touch "TAKE OUT", "KNOB" or "KEY" on screen.</li> <li>Is the inspection result normal?</li> <li>YES &gt;&gt; Warning buzzer into combination meter is OK.</li> <li>NO &gt;&gt; Refer to <u>DLK-121, "Diagnosis Procedure"</u>.</li> </ul>		D
Diagnosis Procedure	INFOID:000000001342872	
1. CHECK METER BUZZER CIRCUIT		F
Refer to WCS-18, "Component Function Check".	_	
<u>Is the inspection result normal?</u> YES >> GO TO 2.		G
NO >> Replace combination meter. Refer to <u>MWI-172, "Removal and Installation"</u> .		
2.CHECK INTERMITTENT INCIDENT		Η
Refer to GI-42, "Intermittent Incident".	_	
>> INSPECTION END.		I
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### HAZARD FUNCTION

# < COMPONENT DIAGNOSIS >

# HAZARD FUNCTION

### Description

Perform answer-back for each operation with number of blinks.

**Component Function Check** 

1. CHECK FUNCTION

Check hazard warning lamp ("FLASHER") in Active Test.

#### Is the inspection result normal?

YES

>> Hazard warning lamp circuit is OK.
> Refer to <u>DLK-122, "Diagnosis Procedure"</u>. NO

### **Diagnosis Procedure**

1. CHECK HAZARD SWITCH CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

>> GO TO 2. YES

NO >> Repair or replace hazard warning switch circuit. Refer to EXL-4, "Work Flow".

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

INFOID:000000001342873

INFOID:000000001342874

INFOID:000000001342875

### < COMPONENT DIAGNOSIS >

# HOMELINK UNIVERSAL TRANSCEIVER

FUSE BLOCK (J/B)

10A

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BATTERY

7

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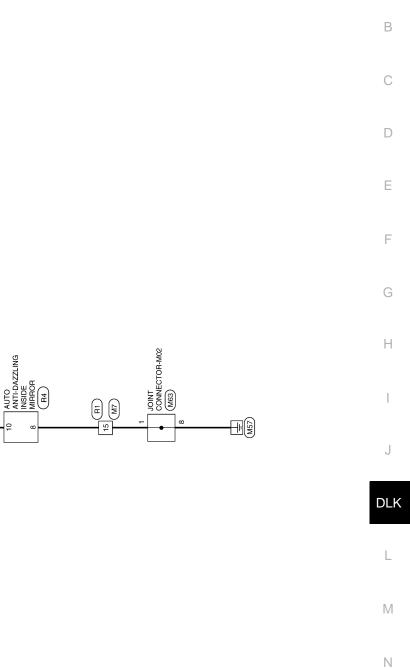
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# Wiring Diagram



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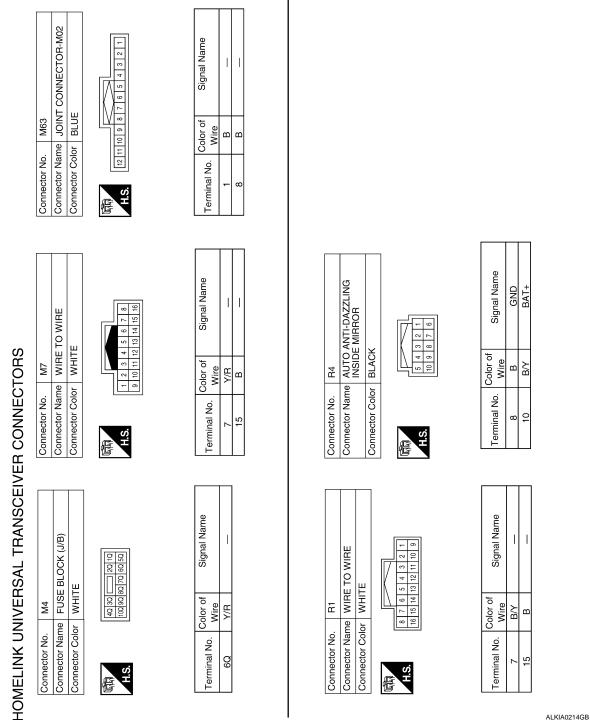




HOMELINK UNIVERSAL TRANSCEIVER

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Description

INFOID:000000001342876

Homelink universal transceiver 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. Homelink universal transceiver power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

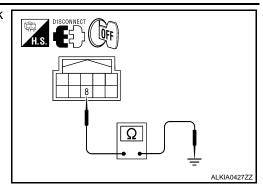
# **DLK-124**

п		INIVERS	AL IRANGCEIVER	
< COMPONENT DIAGNOS				[COUPE]
Component Function	Check			INFOID:000000001342877
1.CHECK FUNCTION				
Check that system receiver (	garage door ope	ener, etc.) o	perates with original hand-l	held transmitter.
Is the inspection result norma	al?			
YES >> GO TO 2. NO >> Receiver or hand	hald transmitte	r io molfund	Hisping	
NO >> Receiver or hand 2.CHECK ILLUMINATE	neid transmitte	r is mallund	cuoning.	
	-,,			
<ol> <li>Turn ignition switch "OFF</li> <li>Press each of the transm</li> </ol>		d watch for	the red light to illuminate w	ith each button.
Is the inspection result norma			0	
YES >> GO TO 3.				
NO >> Refer to <u>DLK-12</u>	5, "Diagnosis Pr	<u>ocedure"</u> .		
3.CHECK TRANSMITTER				
Check transmitter with Tool*. *:For details, refer to Technic	al Service Bullet	in.		
Is the inspection result norma				
			on, not vehicle related.	
NO >> Replace auto a "Removal and In		de mirror	(homelink universal trans	ceiver). Refer to <u>MIR-18.</u>
	<u>otanation</u> .			
Diagnosis Procedure				INFOID:000000001342878
<b>1.</b> CHECK POWER SUPPLY	/			
			k universal transceiver) co	nnector.
<ol> <li>Check voltage betwee (homelink universal trans</li> </ol>			and ground	
(	,			
				ALKIA0426ZZ
				· · · · · · · · · · · · · · · · · · ·
Auto anti-dazzling inside mirror (Homelink universal transceiver)	Termin	al	Condition	Voltage (V)
connector				(Approx.)
R4	10	Ground	Ignition switch position: LOCK	Battery voltage
Is the inspection result norma	<u>al?</u>			
YES >> GO TO 2. NO >> Check the follo	wing			
<ul> <li>10A fuse [No. 6</li> </ul>	6 located in the f			
<ul> <li>Harness for op transceiver).</li> </ul>	en or short betw	een fuse ar	nd auto anti-dazzling inside	mirror (homelink universal
2.CHECK GROUND CIRCL	ШТ			
	/11			

#### < COMPONENT DIAGNOSIS >

[COUPE]

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



Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R4	8		Yes
Is the inspection result normal?			
YES >> GO TO 3. NO >> Repair harness.			

 $3. {\sf CHECK} {\sf INTERMITTENT} {\sf INCIDENT}$ 

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

< ECU DIAGNOSIS >	[COUPE]	
ECU DIAGNOSIS		A
BCM (BODY CONTROL MODULE)		Λ
Reference Value	INFOID:000000001342879	В
VALUES ON THE DIAGNOSIS TOOL Refer to <u>BCS-41, "Reference Value"</u> .		С
TERMINAL LAYOUT Refer to <u>BCS-45, "Terminal Layout"</u> .		D
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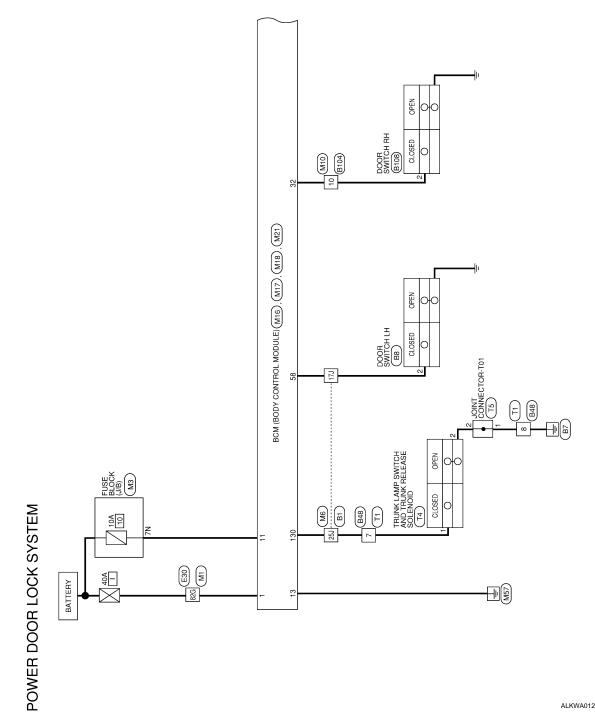
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Wiring Diagram — POWER DOOR LOCK SYSTEM —

INFOID:000000001342880

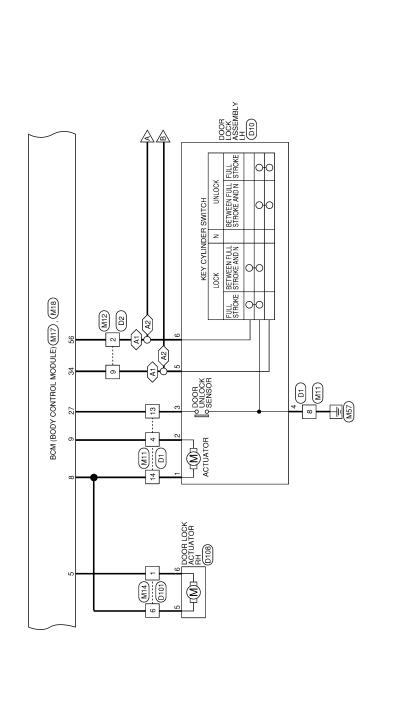
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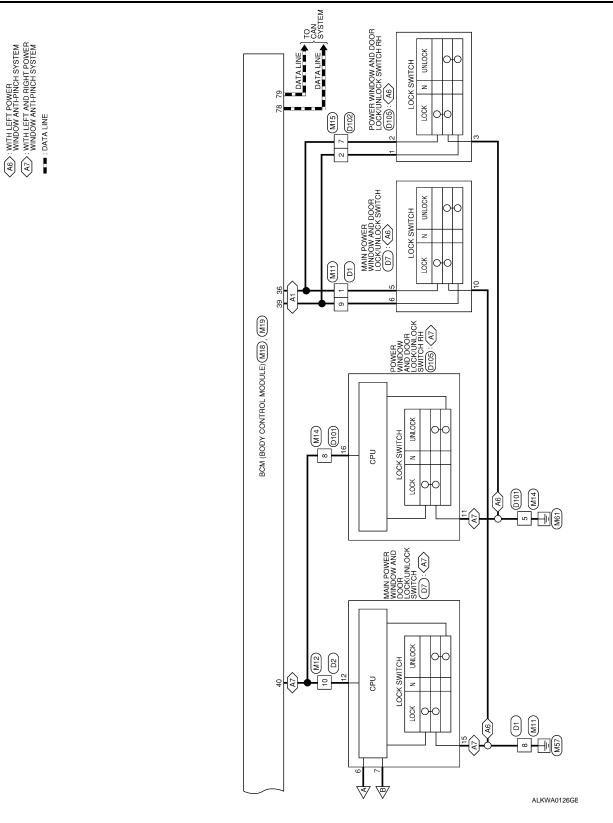
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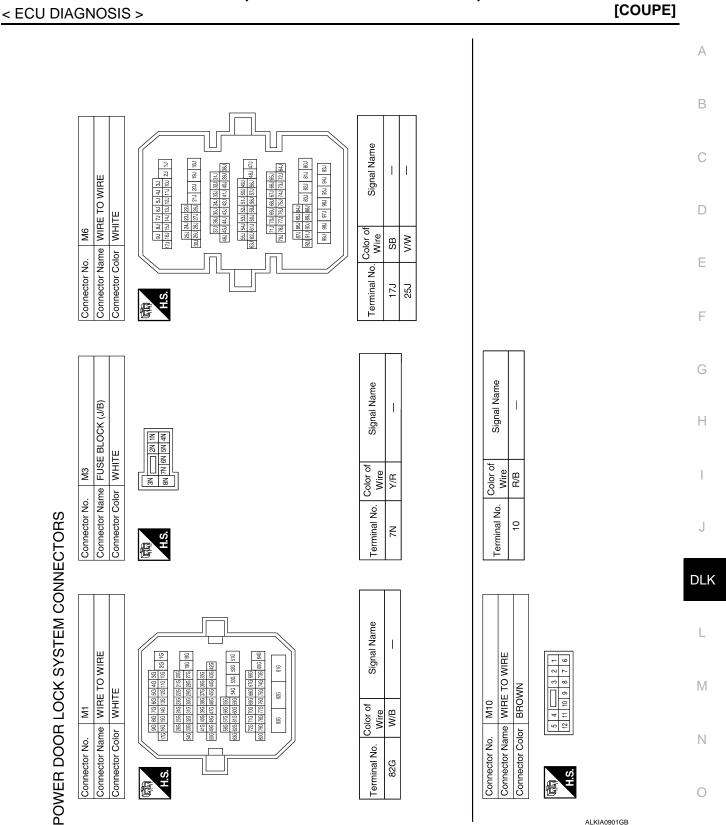
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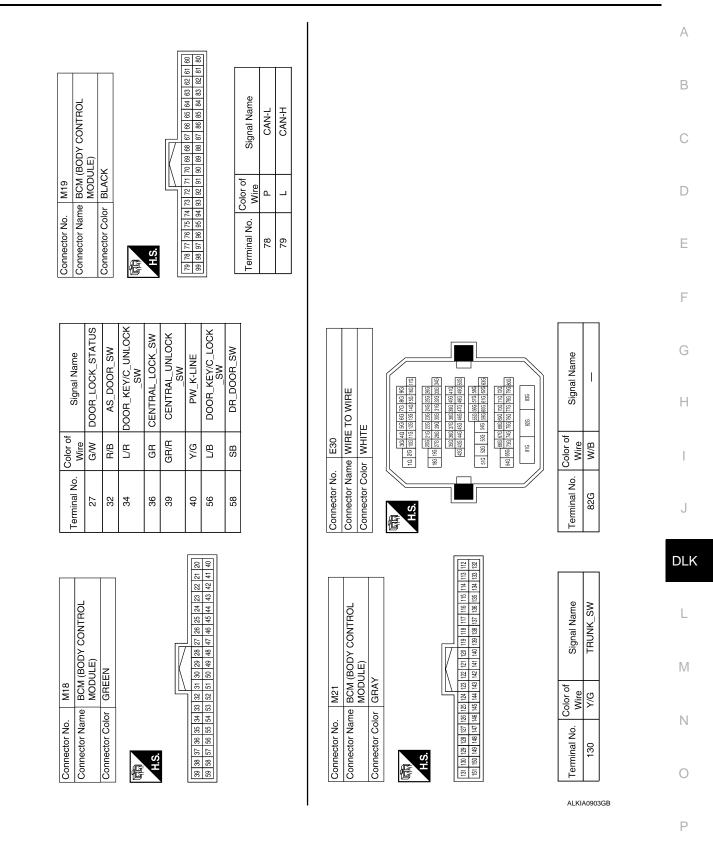
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Connector No. M11 Connector Name WIRE TO WIRE	M11 WIRE T	TO WIRE	Connector No. M12 Connector Name WIRE TO WIRE	. M12 me WIRE	TO WIRE	Connector No. M14 Connector Name WIRE TO WIRE	M14 WIRE	TO WIRE
Connector Color HS	or WHIE 2 3 ■ 4 5 6 7 9 10 11 12 13 14 15 16	4         5         6         7           13         14         15         16	Connector Color H.S.	Ior WHITE 9 10 11 12	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Connector Color H.S.	Or WHITE	8 ■ 10 10 4
Terminal No. 1 8	Color of Wire GR G	Signal Name	Terminal No. 2 9	Color of Wire L/B L/R	Signal Name	Terminal No. 1 5 6	Color of Wire G/Y B B	Signal Name
9 <mark>6 1</mark>	GR/R G/W V	1 1 1				ω	Y/G	1
Connector No. M15 Connector Name WIRE TO WIRE Connector Color WHITE	M15 M M15 me WIRE T lor WHITE		Connector No. Connector Name Connector Color	M16 M26M (BOI M0DULE) M0DULE	Connector No. M16 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	Connector No. Connector Name Connector Color	M17 me BCM (B MODUL or WHITE	Connector No. M17 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE
E H.S.	→ <del>→</del> → → → → → → → → → → → → → → → → →	3         4         5         6           9         10         11         12	同 日 兄			(1) H.S.	4 5 6 7 0 11 12 13 14 1	6 7 <u>1 1 8 9 10</u> 13 14 15 16 17 18 19
Terminal No.	Color of Wire GR GR/R	Signal Name	Terminal No.	Color of Wire W/B	Signal Name BAT_POWER_F/L	Terminal No. 5 8 9 11 11	Color of Wire Color of Wire Color of Wire G/Y V V Y/R Y/R	Signal Name CDL_AS CDL_COMMON CDL_DR/FL BAT_BCM_FUSE GND1

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# **BCM (BODY CONTROL MODULE)**

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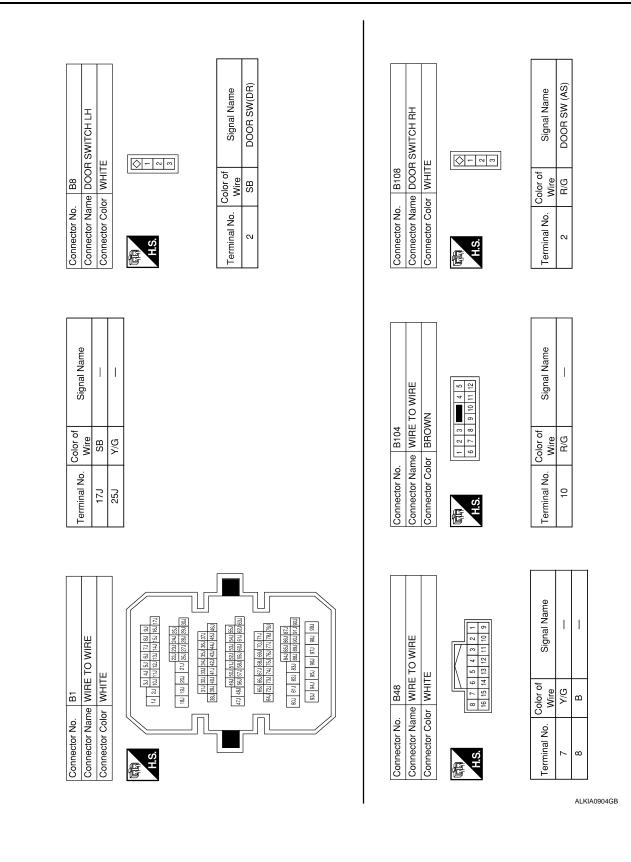


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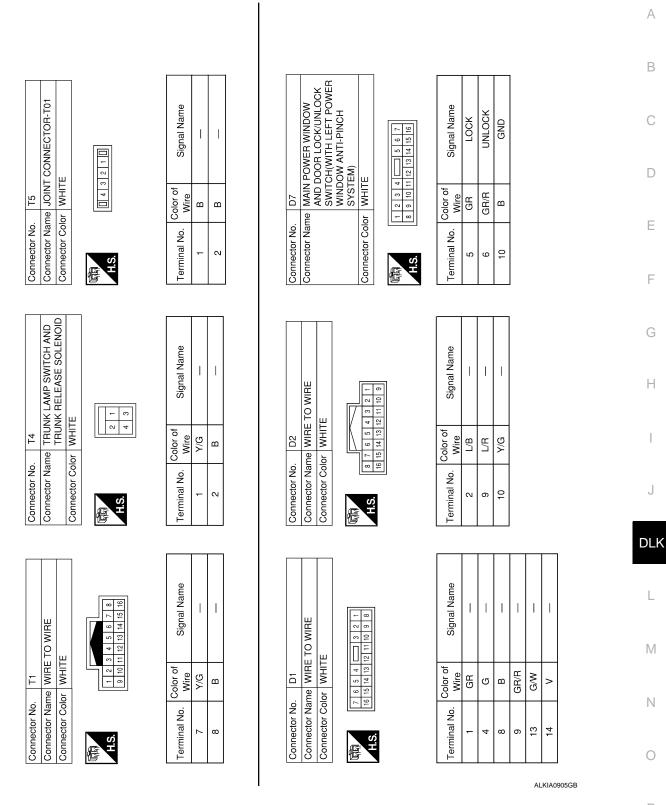
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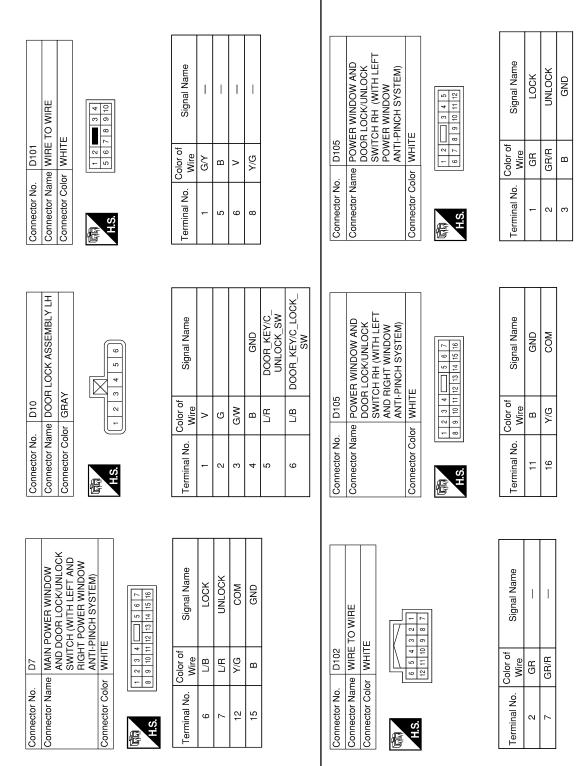


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### **BCM (BODY CONTROL MODULE)**

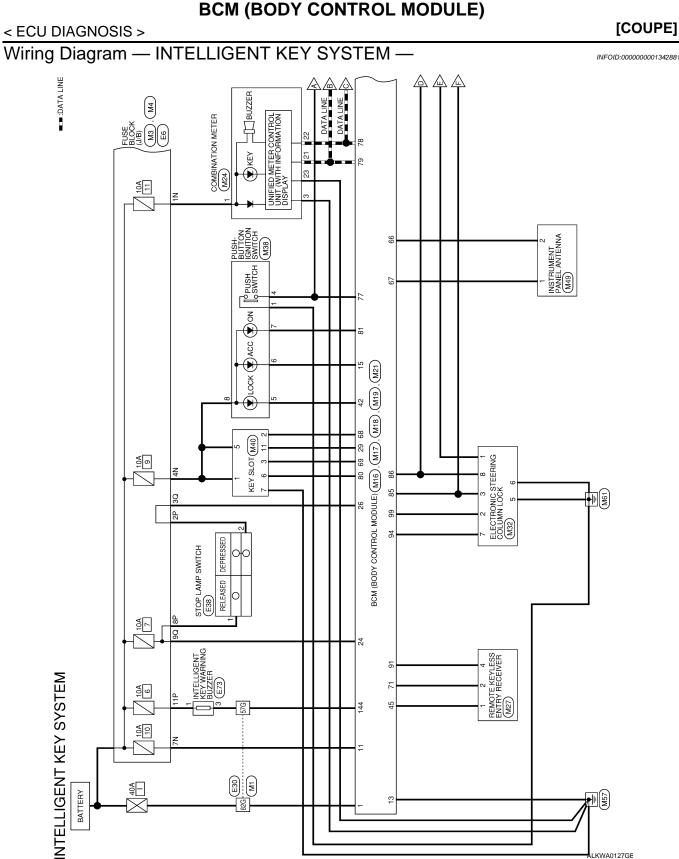
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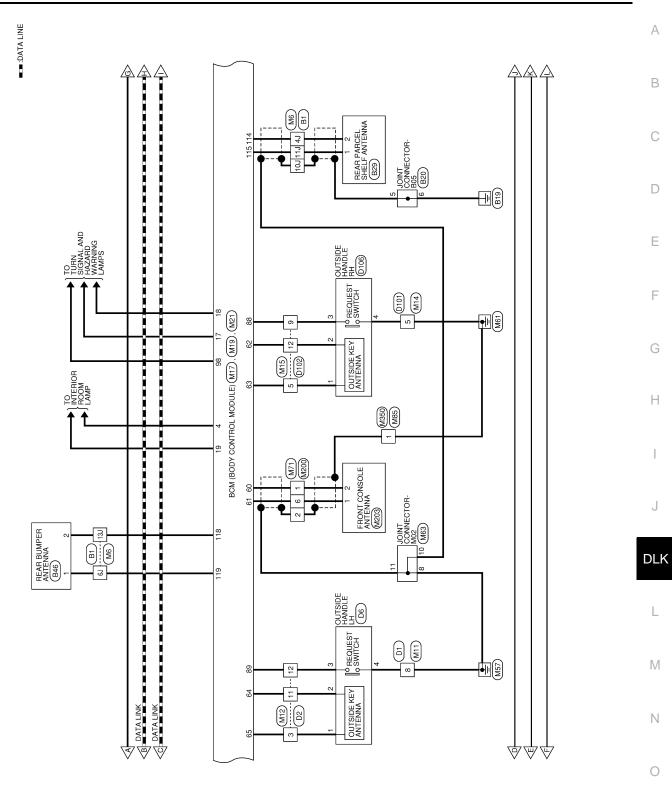
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BCM (BODY CONTROL MODULE DIAGNOSIS >	) [COUPE]
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K ACTUATOR RI	L
OR LOCK AC	Μ
Connector No.     D108       Connector Name     DOOR LOCK ACTUATOR RH       Connector Name     DOOR LOCK ACTUATOR RH       Connector Color     GRAV       Image: Second S	Ν
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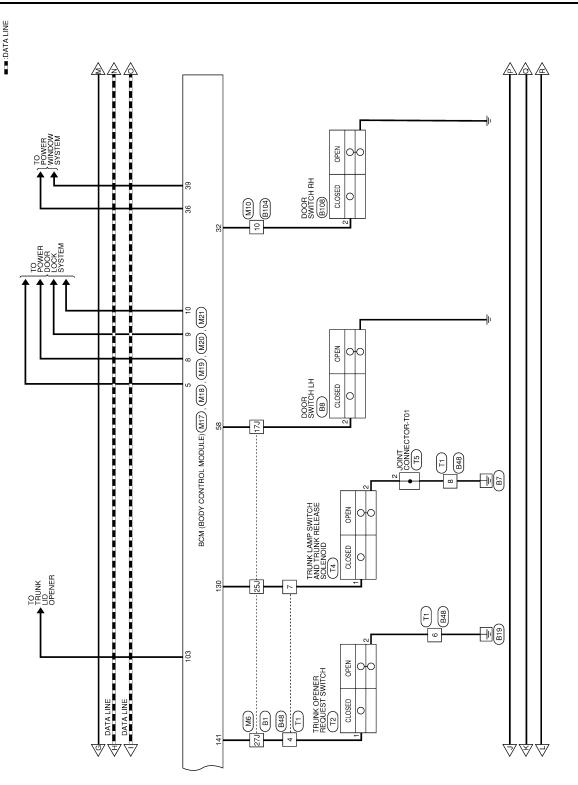
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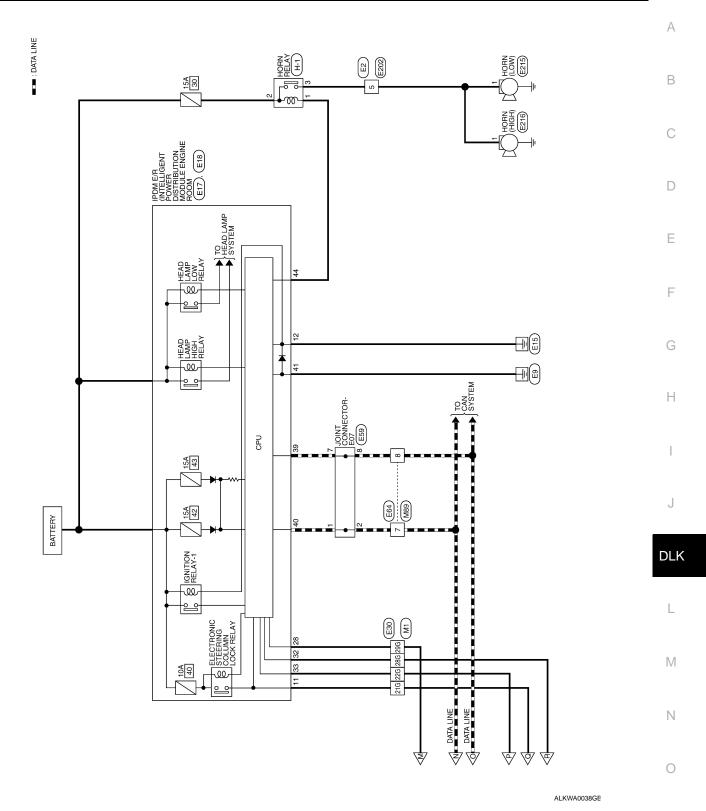
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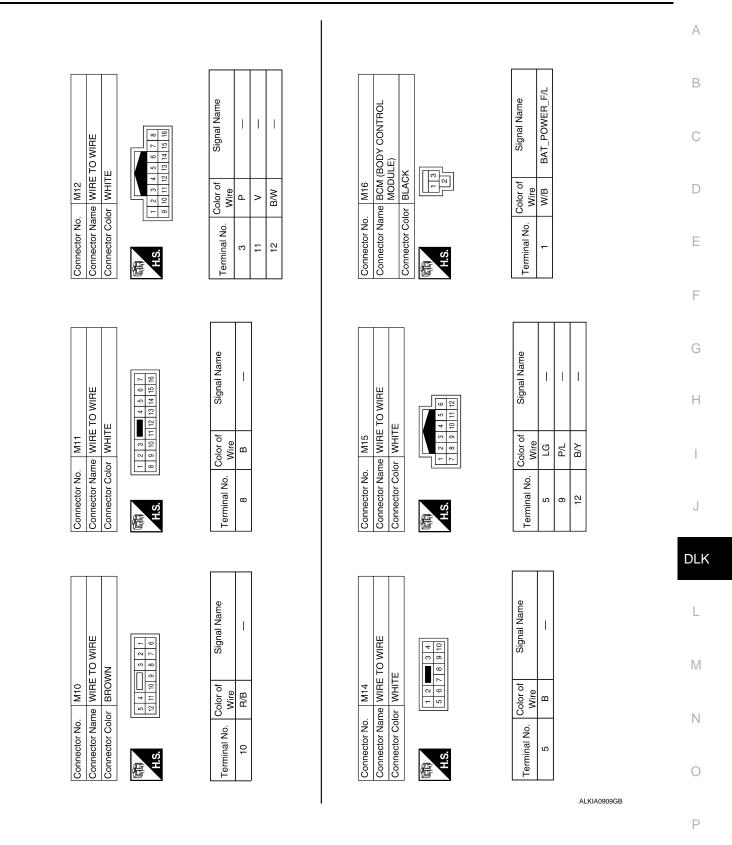
	Connector No. M3 Connector Name FLISE RI OCK (1/R)	Connector Color WHITE			U	_			Terminal No. Color of Signal Name Wire	1N W/L	4N G/Y —	7N Y/R —	Terminal No. Color of Signal Name Wire	4J B —	6J BR/W	10J SHIELD —	11J W	13J L/O –	17J SB —	25J Y/G —	27J G/R —				
ECTORS	Terminal No. Color of Signal Name C		22G G/R –	28G L/O -	29G BR –	57G GR —	82G W/B —		F				Connector No. M6 Connector Name WIRE TO WIRE	Connector Color WHITE			HS and a second a sec		25J 22J 22J 22J 22J 22J 22J 22J 22J 25J 25			651 541 551 551 551 551 950 492 (52) 621 651 551 551 551 451 452		87.2 (80.1 (1)))))))))))))))))))))))))))))))))))	800 800 810 800 820 800 820 800 800
INTELLIGENT KEY SYSTEM CONNECTORS	Connector No.       M1         Connector Name       WIRE TO WIRE         Connector Color       MHL         Milester       Milester         Milester       Milester       Milester         Milester       Milester       Milester         Milester       Milester       Milester         Milester       Milester       Milester											Connector No. M4 Connector Name FUSE BLOCK (J/B)			(1) 10 10 10 10 10 10 10 10 10 10 10 10 10	S.				Terminal No. Color of Signal Name	30 O/L —	90 R/W –		ALKIA	

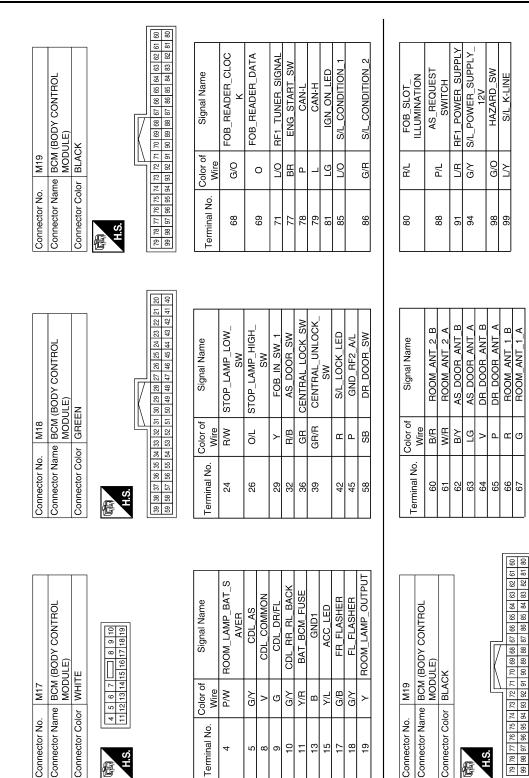
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Terminal No.

Connector Color

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# **BCM (BODY CONTROL MODULE)**

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Connector Name Connector Color

H.S.

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Connector No.

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M24

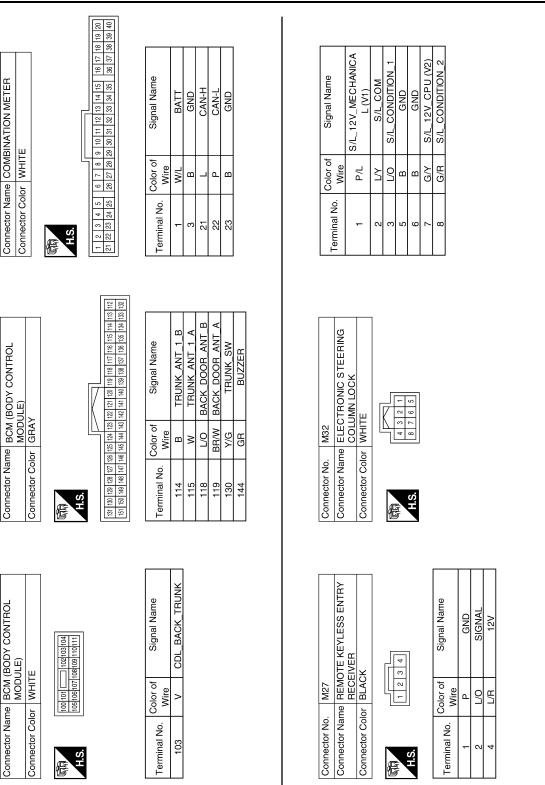
Connector No.

M21

Connector No.

M20

Connector No.



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Connector Name INSTRUMENT PANEL ANTENNA Connector Color GRAY

Connector No. M49

Connector Name KEY SLOT Connector Color WHITE

Connector Name PUSH-BUTTON IGNITION SWITCH

M38

Connector No.

BROWN

Connector Color

H.S.

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Color of Wire

Terminal No.

BB

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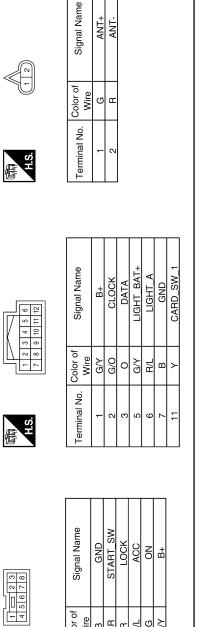
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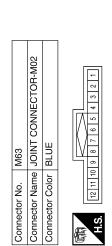
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Connector No. M40



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Connector Name WIRE TO WIRE Connector Color WHITE

Connector No. M71

H.S.

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Terminal No		-		2		9	
Signal Name		I		I			
Color of Wire	>=	ЧĢ	5	Ч	5		

Terminal No.

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# Signal Name I Vo. Color of SHIELD B/B Wire W/R

BCM	(BODY	CONTROL	MODULE)

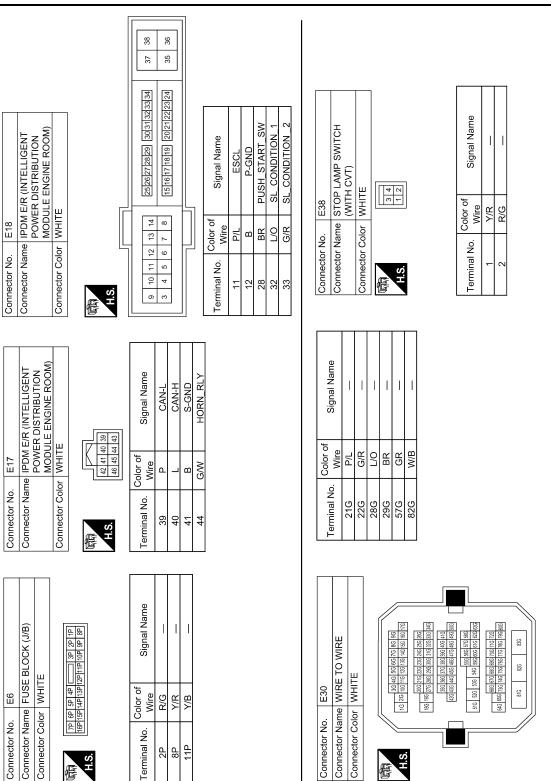
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U DIAGNOSIS >		[COUF	PEJ
			А
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Signal Name		Signal Name	С
M200 MIRE TO WHITE WHITE Color of Wire B/R SHIELD W/R	E2 WIRE TO W MHTE	Color of Wire G	D
	ctor No. ctor Name ctor Color		E
Connector N Connector N Connector C H.S H.S A S A S A S A S A C A S A S A S A S A	Conne Conne H.S.	Terminal No. 5	F
		ω	G
Signal Name	MIRE	Signal Name	Н
Connector No. M89 Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Vire Sign 7 L	Connector No. M350 Connector Name WIRE TO WIRE Connector Color WHITE	B B B	I
Connector No. Connector Name Connector Color A.S. Terminal No. Co	Connector No. M350 Connector Name WIRE T Connector Color WHITE	Terminal No. C	J
Connec Connec Lermin			DLK
Signal Name	Connector No. M203 Connector Name FRONT CONSOLE ANTENNA Connector Color GRAY	Signal Name ANT+ ANT-	L
	3 A CONSO		M
B B B B B B B B B B B B B B B B B B B	Connector No. M203 Connector Name FRON Connector Color GRAY	<ul> <li>Color of Wire</li> <li>W/R</li> <li>B/R</li> </ul>	Ν
Connector No. Connector Nam Connector Col H.S.	Connector No. Connector Nam Connector Colo	Terminal No.	0

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#### ALKIA0251GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Signal Name

Color of Wire

Terminal No.

Signal Name 1

Color of Wire

Terminal No.

Signal Name

Color of Wire

Terminal No.

< ECU DIAGNOSIS >

Connector Name INTELLEGENT KEY WARINING BUZZER Connector Color BROWN

E73

Connector No.

Connector Name WIRE TO WIRE

E64

Connector No.

Connector Color WHITE

Connector Name JOINT CONNECTOR-E07 Connector Color BLUE

E59

Connector No.

123

H.S. F

H.S. E

H.S. E

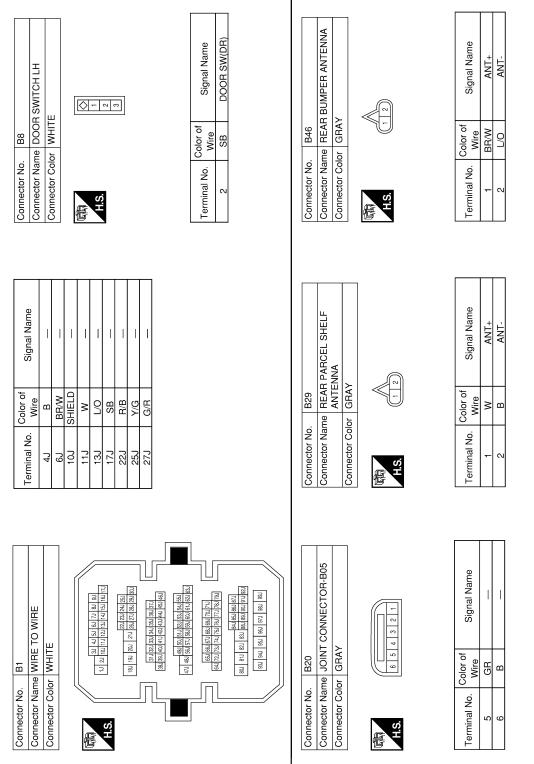
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	B+	BUZZER_SIGNAL								Signal Name	I				С
DIA	Y/B	GR				E216	HORN BI ACK		-	Color of Wire	ъ				D
	-	e				Connector No.	Connector Name HORN				_				Е
						Connec	Connec		品.S.H	Terminal No.	_				F
										Φ					G
	I									Signal Name	I				Η
	_	٩.				E215	ne HORN		-	Color of Wire	ß				I
	7	8				Connector No.	Connector Name HORN		田 H.S.	Terminal No.	-				J
1															DLK
	I	I	I	Ι			) WIRE		- 4	Signal Name	I				L
DIN	L	_	٩	Ρ		E202	e WIRE T(		3 2 2 8 7 6 5	Color of Wire	IJ				Μ
	-	2	7	8		Connector No.	Connector Name WIRE TO WIRE		s.	Terminal No.	5				Ν
						Conr	Conr		E H	Term		١۵	KIA0252GI	8	0
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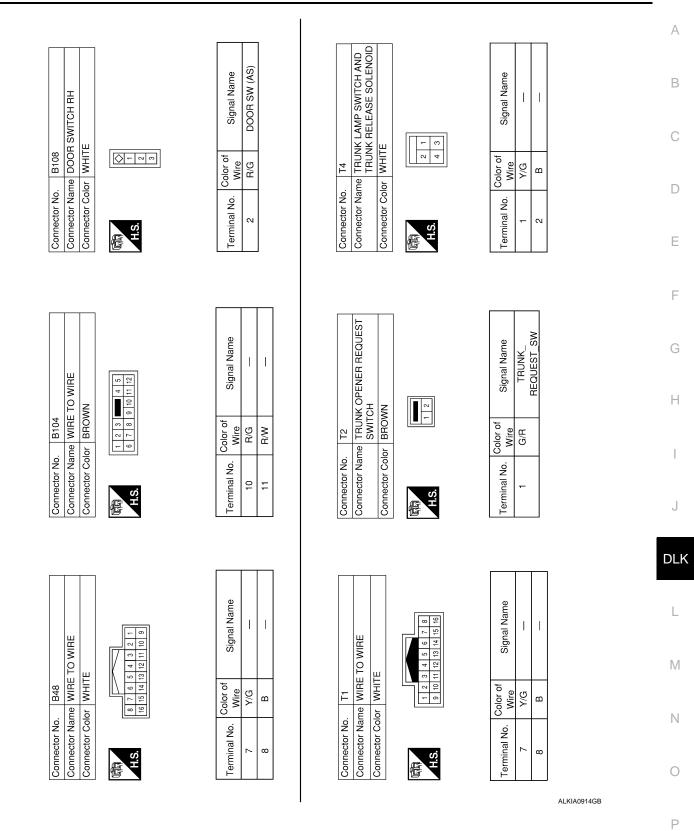
# **BCM (BODY CONTROL MODULE)**



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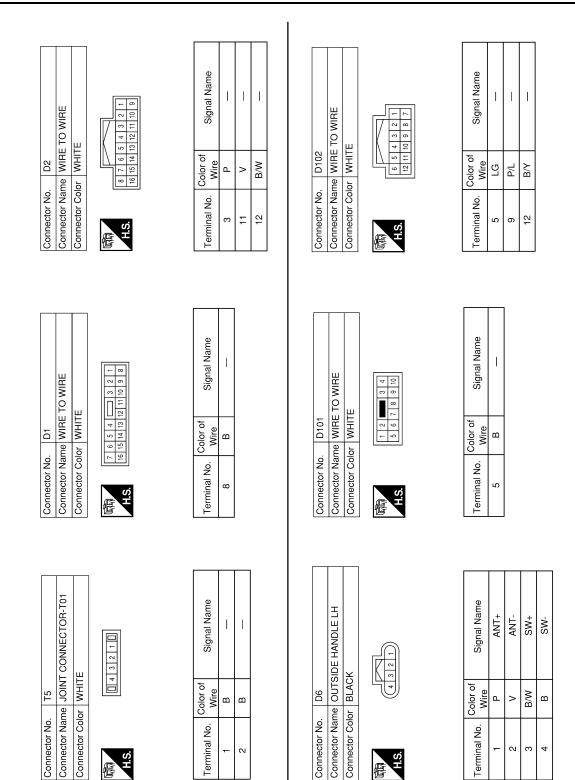
# **BCM (BODY CONTROL MODULE)**

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# **BCM (BODY CONTROL MODULE)**

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Wire	G/W	G/B	J	
I ETTITIAL NO.	-	2	ო	
	1	1	1	
Signal Name	ANT+	ANT-	SW+	SW-
Wire	ГG	B/Y	P/L	в
l erminal No.	-	2	e	4

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Connector No. H-1 Connector Name HORN RELAY Connector Color BLACK

Connector No. D106 Connector Name OUTSIDE HANDLE RH Connector Color BLACK

2 3 1

H.S. F

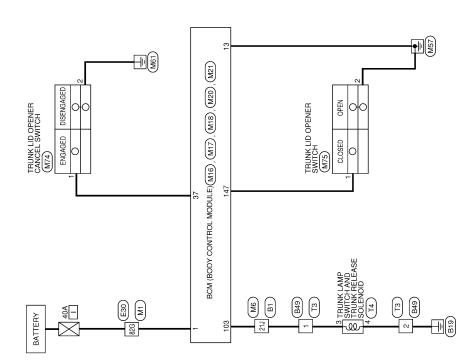
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Wiring Diagram — TRUNK LID OPENER SYSTEM —





**TRUNK LID OPENER** 

ALKWA0131GE

CU DIAGNOSIS >		[COUPE]
Connector No.     M16       Connector Name     BCM (BODY CONTROL       Connector Name     BCM (BODY CONTROL       Connector Color     BLACK       Terminal No.     Color of     Signal Name       Terminal No.     Color of     Signal Name       Terminal No.     Color of     Signal Name	Connector No. M20 Connector Name BCM (BODY CONTROL Connector Color WHITE	Terminal No.     Color of Wire     Signal Name       103     V     CDL_BACK_TRUNK
Connector No.     MG       Connector Name     WIRE TO WIRE       Connector Name     WIRE TO WIRE       Connector Name     WIRE TO WIRE       Mail     Mail       Mail       Mail       Mail <td>Connector No.         M18           Connector Name         BCM (BODY CONTROL           Connector Color         GREEN           MODULE)         MODULE)           Connector Color         GREEN           MS         MS         MS           MS         SS         SS           SS         SS         SS         SS           SS         SS         SS         SS         SS</td> <td>Terminal No. Color of Signal Name 37 0 TRUNK_CANCEL_SW</td>	Connector No.         M18           Connector Name         BCM (BODY CONTROL           Connector Color         GREEN           MODULE)         MODULE)           Connector Color         GREEN           MS         MS         MS           MS         SS         SS           SS         SS         SS         SS           SS         SS         SS         SS         SS	Terminal No. Color of Signal Name 37 0 TRUNK_CANCEL_SW
Image: Designed provided by the provided pro	Connector No.     M17       Connector Name     BCM (BODY CONTROL       Connector Color     WHITE       Connector Color     WHITE	LELENING LELENING LELENING N N COLOC of Signal Name Coloc of Signal Name N N C N N C N N C C N A A A A A A A A A A A A A

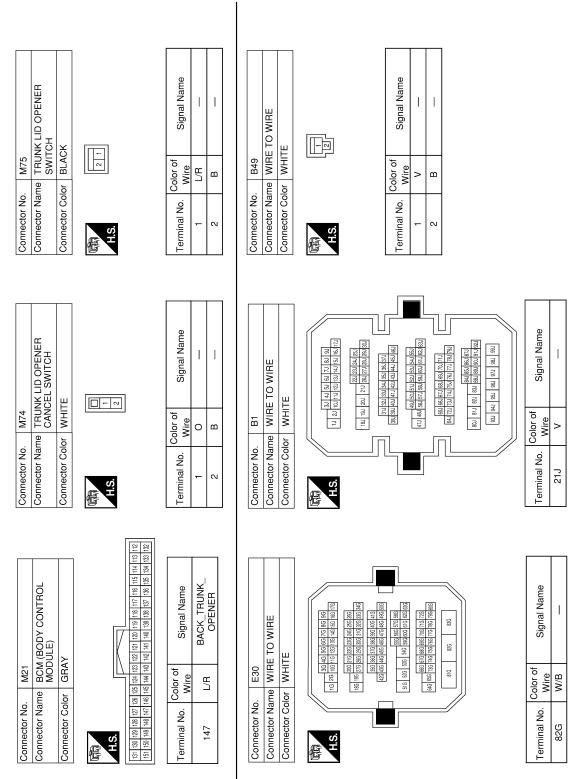
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## **BCM (BODY CONTROL MODULE)**

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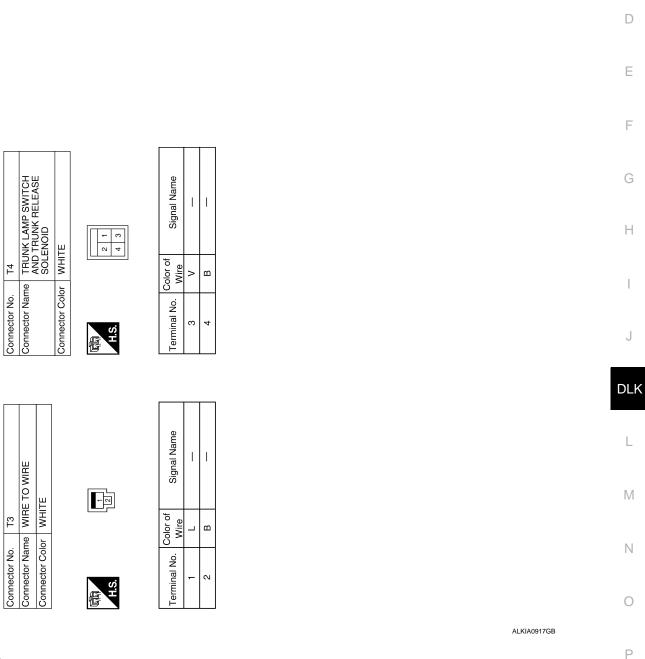


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INFOID:000000001342883

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

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2553: IGNITION RELAY	Inhibit engine cranking	2 seconds after the BCM turns the ignition ON, voltage is detected on the ignition input line.
B2555: STOP LAMP	Inhibit engine cranking	500 ms after stop lamp switch engagement, output voltage is present
B2556: PUSH-BTN IGN SW	Inhibit engine cranking	500 ms after the BCM switches to sleep condition, detects that the engine start switch is turned from ON to OFF.
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status has become consistent</li> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2562: LOW VOLTAGE	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	1.5 seconds after power supply voltage increases to above 8.8 V
B2563: HI VOLTAGE	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	500 ms after the power supply voltage decreases to less than 18 V
B2601: SHIFT POSITION	Inhibit steering lock	<ul> <li>500 ms after the following signal reception status becomes consistent</li> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 /h or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions is fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul>
B2605: PNP SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions is fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Power position: IGN</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>Interlock/PNP switch signal (CAN): OFF</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P or N position (battery voltage)</li> <li>PNP switch signal (CAN): ON</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status has become consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>

#### < ECU DIAGNOSIS >

# [COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When the following steering lock conditions agree</li> <li>BCM steering lock control status</li> <li>Steering lock condition No. 1 signal status</li> <li>Steering lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul><li>When any of the following conditions is fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>
B2611: ACC RELAY	<ul> <li>Inhibit engine cranking</li> <li>Inhibit steering lock</li> </ul>	<ul> <li>When any of the following conditions is fulfilled:</li> <li>Accessory input is commanded OFF and no votage is detected by the BCM on that terminal.</li> <li>Accessory input is commanded ON and votage is detected by the BCM on that terminal.</li> </ul>
B2612: S/L STATUS	<ul> <li>Inhibit engine cranking</li> <li>Inhibit steering lock</li> </ul>	<ul> <li>When any of the following conditions is fulfilled</li> <li>Steering lock unit status signal (CAN) is received normally</li> <li>The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2614: ACC RELAY CIRC	Inhibit engine cranking	The status of the accessory terminal detects voltage in ACC position and no voltage in OFF position.
B2615: BLOWER RELAY CIRC	Inhibit engine cranking	The status of the IGN2 terminal detects voltage in IGN2 position and no voltage in OFF position.
B2616: IGN RELAY CIRC	Inhibit engine cranking	The status of the IGN terminal detects voltage in IGN position and no voltage in OFF position.
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
B261A: PUSH-BTN IGN SW	Inhibit engine cranking	BCM initialization
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B261F: ASCD CANCEL SW FAIL ON (M/T without ABS only)		BCM detects ASCD CANCEL switch transition from ON to OFF.
B2620: NEUTRAL SW FAIL ON (M/T without ABS only)	Inhibit engine cranking	BCM detects park/neutral position switch transition from ON to OFF.
B2621: INSIDE ANTENNA 1		Inside antenna 1 (instrument panel) signal received
B2622: INSIDE ANTENNA 2	—	Inside antenna 2 (console) signal received
B2623: INSIDE ANTENNA 3		Inside antenna 3 (rear parcel shelf) signal received
B2624: INSIDE ANTENNA 4		Inside antenna 4 signal received
B2625: INSIDE ANTENNA 5		Inside antenna 5 signal received
B2626: RT DOOR ANT FAIL		Front outside handle RH (outside key antenna) signal received
B2627: LT DOOR ANT FAIL		Front outside handle LH (outside key antenna) signal received
B2628: TRUNK ANT FAIL		Rear bumper antenna signal received

#### < ECU DIAGNOSIS >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2629: VEHICLE SPEED	Inhibit engine cranking	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	<ul><li>When any of the following conditions is fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>

# DTC Inspection Priority Chart

INFOID:000000001342884

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

Priority	DTC
1	B2562: LOW VOLTAGE     B2563: HI VOLTAGE
2	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)
3	<ul> <li>B2190: NATS ANTTENA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> </ul>
4	<ul> <li>B2013: ID DISCORD BCM-S/L</li> <li>B2014: CHAIN OF S/L-BCM</li> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSITION</li> <li>B2606: PNP SW</li> <li>B2606: S/L RELAY</li> <li>B2606: S/L RELAY</li> <li>B2607: S/L RELAY</li> <li>B2607: S/L RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2609: S/L STATUS</li> <li>B2601: GIN RELAY</li> <li>B2609: S/L STATUS</li> <li>B2611: ACC RELAY</li> <li>B2611: ACC RELAY CIRC</li> <li>B2614: ACC RELAY CIRC</li> <li>B2615: BLOWER RELAY CIRC</li> <li>B2616: GIN RELAY CIRC</li> <li>B2616: GIN SUM</li> <li>B2616: VEHICLE TYPE</li> <li>B2616: VEHICLE TYPE</li> <li>B2616: VEHICLE SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED SIG</li> </ul>
5	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA

#### < ECU DIAGNOSIS >

#### • CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF $\rightarrow$ ON again.

• 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1  $\rightarrow$  2  $\rightarrow$  3...38  $\rightarrow$  39 after returning to the normal condition whenever ignition switch OFF  $\rightarrow$  ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch  $\mathsf{OFF} \to \mathsf{ON}$  after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page	
No DTC is detected. further testing may be required.	_	_	_	
U1000: CAN COMM CIRCUIT	-	—	DLK-42	
U1010: CONTROL UNIT (CAN)	_	—	DLK-43	
U0415: VEHICLE SPEED SIG	_	—	BCS-33	
B2013: ID DISCORD BCM-S/L	×	—	<u>SEC-41</u>	
B2014: CHAIN OF S/L-BCM	×	—	<u>SEC-42</u>	
B2190: NATS ANTTENA AMP	×	—	<u>SEC-34</u>	
B2191: DIFFERENCE OF KEY	×	—	<u>SEC-38</u>	
B2192: ID DISCORD BCM-ECM	×	—	<u>SEC-39</u>	
B2193: CHAIN OF BCM-ECM	×	_	<u>SEC-40</u>	
B2553: IGNITION RELAY		_	PCS-56	
B2555: STOP LAMP			<u>SEC-46</u>	
B2556: PUSH-BTN IGN SW		×	<u>SEC-49</u>	
B2557: VEHICLE SPEED	×	×	<u>SEC-51</u>	
B2560: STARTER CONT RELAY	×	×	<u>SEC-52</u>	
B2562: LOW VOLTAGE			BCS-34	
B2563: HI VOLTAGE	×	×	BCS-35	
B2601: SHIFT POSITION	×	×	<u>SEC-53</u>	_
B2602: SHIFT POSITION	×	×	<u>SEC-57</u>	D
B2603: SHIFT POSI STATUS	×	×	<u>SEC-60</u>	
B2604: PNP SW	×	×	<u>SEC-64</u>	
B2605: PNP SW	×	×	<u>SEC-66</u>	
B2606: S/L RELAY	×	×	<u>SEC-68</u>	
B2607: S/L RELAY	×	×	<u>SEC-69</u>	
B2608: STARTER RELAY	×	×	<u>SEC-71</u>	
B2609: S/L STATUS	×	×	<u>SEC-73</u>	
B260A: IGNITION RELAY	×	×	PCS-58	
B260B: STEERING LOCK VNIT		×	<u>SEC-78</u>	
B260C: STEERING LOCK VNIT		×	<u>SEC-79</u>	
B260D: STEERING LOCK VNIT		×	<u>SEC-80</u>	
B260F: ENG STATE SIG LOST	×	×	<u>SEC-81</u>	
B2611: ACC RELAY			PCS-59	
B2612: S/L STATUS	×	×	<u>SEC-83</u>	
B2614: ACC RELAY CIRC		×	PCS-61	
B2615: BLOWER RELAY CIRC		×	PCS-64	
B2616: IGN RELAY CIRC		×	PCS-67	
B2617: STARTER RELAY CIRC	×	×	SEC-88	

**DLK-161** 

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#### < ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page
B2618: BCM	×	×	PCS-70
B2619: BCM	×	×	<u>SEC-90</u>
B261A: PUSH-BTN IGN SW		×	<u>SEC-91</u>
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	<u>SEC-94</u>
B2621: INSIDE ANTENNA	—	—	<u>DLK-44</u>
B2622: INSIDE ANTENNA		_	<u>DLK-47</u>
B2623: INSIDE ANTENNA	—	—	DLK-50
B26E1: ENG STATE NO RES	×	×	<u>SEC-82</u>

## INTELLIGENT KEY SYSTEM SYMPTOMS

# < SYMPTOM DIAGNOSIS > SYMPTOM DIAGNOSIS INTELLIGENT KEY SYSTEM SYMPTOMS

## Symptom Table

# ALL FUNCTIONS OF INTELLIGENT KEY SYSTEM DO NOT OPERATE **NOTE**:

- Before performing the diagnosis in the following table, 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.
   If the following symptoms are detected, check systems shown in the "Diagnosis/service procedure" column
   D
   in this order.

#### Conditions of Vehicle (Operating Conditions)

- "ENGINE START BY I-KEY" and "LOCK/UNLOCK BY I-KEY" are ON when setting on CONSULT-III.
- All doors are closed.

Symptom		Diagnosis/service procedure	Reference page	F
		Check BCM power supply and ground circuit.	DLK-53	
All functions of Intelligent Key system do not operate.	2.	Check Intelligent Key function and battery inspection.	DLK-113	0
All functions of intelligent Key system do not operate.	3.	Check remote keyless entry receiver.	DLK-109	G
		Check Intermittent Incident.	<u>GI-42</u>	

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< SYMPTOM DIAGNOSIS >

DOOR LOCK FUNCTION SYMPTOMS DOOR LOCK AND UNLOCK SWITCH

#### DOOR LOCK AND UNLOCK SWITCH : Symptom Table

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[COUPE]

# DOOR LOCK/UNLOCK FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, 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.
- If the following symptoms are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Intelligent Key is out of key slot.
- All doors are closed.

Symptom		Diagnosis/service proc	edure	Reference page
		Check BCM Power supply and gr	ound circuit.	DLK-53
Power door lock does not operate with door lock and unlock switch.	2.	Check door lock and unlock swite	h.	<u>DLK-57</u>
	3.	Check door lock actuator (driver s	side)	DLK-96
	4.	Check Intermittent Incident.		<u>GI-42</u>
Power door lock does not operate with door	1.	Check key cylinder switch.		<u>DLK-70</u>
key cylinder operation. (Power door lock operate properly with door lock and unlock switch.)	2.	Replace power window main swit	ch.	<u>INT-11</u>
	4	Charle door look optivator	Driver side	<u>DLK-96</u>
Specific door lock actuator does not operate.	1.	Check door lock actuator. Passenger sid	Passenger side	<u>DLK-97</u>
		Check Intermittent Incident.		<u>GI-42</u>

# DOOR REQUEST SWITCH

# DOOR REQUEST SWITCH : Symptom Table

INFOID:000000001342889

# DOOR LOCK/UNLOCK FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, 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.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Intelligent Key is out of key slot.
- All doors are closed.

Symptom		Diagnosis/service procedure	Reference page
	1.	Check BCM power supply and ground circuit.	<u>DLK-53</u>
Door lock/unlock do not operate by door re-	2.	Check door switch.	<u>DLK-54</u>
quest switch.	3.	Check key slot.	DLK-67
	4.	Check Intermittent Incident.	<u>GI-42</u>

# DOOR LOCK FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [COUPE]

Symptom	Diagnosis/service procedure	Reference page
	1. Check door request switch (driver side).	DLK-88
Door lock/unlock does not operate by request switch (driver side).	2. Check outside key antenna (driver side).	DLK-105
	3. Check Intermittent Incident.	<u>GI-42</u>
	1. Check door request switch (passenger side).	DLK-88
Door lock/unlock does not operate by request switch (passenger side).	2. Check outside key antenna (passenger side).	DLK-105
······ (paccogo. c.ac).	3. Check Intermittent Incident.	<u>GI-42</u>
Selective unlock function does not operate by	1. Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".	DLK-36
door request switch (driver side) (other door lock function operate).	2. Check selective unlock function with a remote controller or door key cylinder.	DLK-14
	3. Check Intermittent Incident.	<u>GI-42</u>
Selective unlock function does not operate by door request switch (passenger side) (other	1. Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".	DLK-36
door lock function operate).	2. Check Intermittent Incident.	<u>GI-42</u>
	1. Check "AUTO LOCK SET" setting in "WORK SUP- PORT".	DLK-36
Auto lock function does not operate.	2. Check door switch.	DLK-54
	3. Check key slot.	DLK-67
	4. Check Intermittent Incident.	<u>GI-42</u>

# INTELLIGENT KEY

## **INTELLIGENT KEY : Symptom Table**

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# REMOTE KEYLESS ENTRY FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, 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.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

#### Conditions of Vehicle (Operating Conditions)

- Intelligent Key is out of key slot.
- Ignition switch is in OFF or ACC position.
- All doors are closed.
- Retaind power operation does not operate. Refer to <u>DLK-19, "INTELLIGENT KEY : System Description"</u>.

Symptom	Diagnosis/service procedure	Reference page	N
All of the remote keyless entry functions do	1. Check Intelligent Key battery inspection.	<u>DLK-113</u>	
not operate.	2. Check Intermittent Incident.	<u>GI-42</u>	
Selective unlock function does not operate	1. Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUP- PORT".	DLK-36	C
by Intelligent Key.	2. Check Intelligent Key battery inspection.	<u>DLK-113</u>	
	3. Check Intermittent Incident.	<u>GI-42</u>	P
	1. Check "AUTO LOCK SET" setting in "WORK SUPPORT".	DLK-37	
Auto lock function does not operate nor-	2. Check door switch.	<u>DLK-54</u>	
mally.	3. Check key slot.	DLK-67	
	4. Check Intermittent Incident.	<u>GI-42</u>	

# DOOR LOCK FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [COUPE]

Symptom		Diagnosis/service procedure	Reference page
Power window down function does not op-		Check "PW DOWN SET" setting in "WORK SUPPORT".	DLK-113
erate.	2.	Check Intelligent Key battery inspection.	DLK-113

< SYMPTOM DIAGNOSIS >		[COUPE]
TRUNK OPEN FUNCTION S	YMPTOMS	
TRUNK LID OPENER SWITCH	1	
TRUNK LID OPENER SWITCH	: Symptom Table	INFOID:000000001342891
TRUNK OPEN FUNCTION MALFUNC	CTION	
<ul> <li>Before performing the diagnosis in the fe</li> <li>Check that vehicle is under the conditi check each symptom.</li> </ul>	ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta , check systems shown in the "Diagnosis/service	arting diagnosis, and
Conditions of Vehicle (Operating Conditions • Intelligent Key is out of key slot. • All doors are closed.	)	
Symptom	Diagnosis/service procedure	Reference page
	1. Check trunk opener switch.	<u>DLK-78</u>
Trunk open function does not operate by trunk opener switch.	2. Check trunk lid opener cancel switch.	DLK-81
opener switch.	3. Check Intermittent Incident.	<u>GI-42</u>
TRUNK REQUEST SWITCH : S		INFOID:000000001342892
TRUNK OPEN FUNCTION MALFUNC NOTE: • Before performing the diagnosis in the fe • Check that vehicle is under the conditi check each symptom.	CTION ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service	<u>DLK-8, "Work Flow"</u> . Irting diagnosis, and
<ul> <li>TRUNK OPEN FUNCTION MALFUNC</li> <li>NOTE:</li> <li>Before performing the diagnosis in the fe</li> <li>Check that vehicle is under the conditi check each symptom.</li> <li>If the following "symptoms" are detected in this order.</li> <li>Conditions of Vehicle (Operating Conditions</li> <li>Intelligent Key is out of key slot.</li> </ul>	CTION ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service	DLK-8, "Work Flow". arting diagnosis, and e procedure" column
<ul> <li>TRUNK OPEN FUNCTION MALFUNC</li> <li>NOTE:</li> <li>Before performing the diagnosis in the fermion of the condition of the condition of the condition of the following "symptoms" are detected in this order.</li> <li>Conditions of Vehicle (Operating Conditions</li> <li>Intelligent Key is out of key slot.</li> <li>All doors are closed.</li> </ul>	CTION ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service )	DLK-8, "Work Flow". arting diagnosis, and e procedure" column
TRUNK OPEN FUNCTION MALFUNC NOTE: • Before performing the diagnosis in the fe • Check that vehicle is under the conditi check each symptom. • If the following "symptoms" are detected in this order. Conditions of Vehicle (Operating Conditions • Intelligent Key is out of key slot. • All doors are closed. Symptom Trunk open function does not operate by trunk	CTION ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service ) Diagnosis/service procedure	DLK-8, "Work Flow". arting diagnosis, and e procedure" column Reference page
TRUNK OPEN FUNCTION MALFUNC NOTE: • Before performing the diagnosis in the fe • Check that vehicle is under the conditi check each symptom. • If the following "symptoms" are detected in this order. Conditions of Vehicle (Operating Conditions • Intelligent Key is out of key slot. • All doors are closed. Symptom	CTION ollowing table, check "WORK FLOW". Refer to <u>r</u> on shown in "Conditions of vehicle" before sta l, check systems shown in the "Diagnosis/service ) Diagnosis/service procedure 1. Check trunk opener request switch.	DLK-8, "Work Flow". arting diagnosis, and e procedure" column Reference page DLK-92
TRUNK OPEN FUNCTION MALFUNC         NOTE:         • Before performing the diagnosis in the fe         • Check that vehicle is under the conditi check each symptom.         • If the following "symptoms" are detected in this order.         Conditions of Vehicle (Operating Conditions         • Intelligent Key is out of key slot.         • All doors are closed.         Trunk open function does not operate by trunk opener request switch.	CTION ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service ) Diagnosis/service procedure 1. Check trunk opener request switch. 2. Check trunk lid opener cancel switch.	DLK-8, "Work Flow".         arting diagnosis, and         e procedure" column         Reference page         DLK-92         DLK-81         DLK-105         GI-42
TRUNK OPEN FUNCTION MALFUNC NOTE: • Before performing the diagnosis in the fe • Check that vehicle is under the conditi check each symptom. • If the following "symptoms" are detected in this order. Conditions of Vehicle (Operating Conditions • Intelligent Key is out of key slot. • All doors are closed. <u>Symptom</u> Trunk open function does not operate by trunk opener request switch.	CTION Ollowing table, check "WORK FLOW". Refer to <u>I</u> on shown in "Conditions of vehicle" before sta I, check systems shown in the "Diagnosis/service I, check systems shown in the "Diagnosis/service Diagnosis/service procedure 1. Check trunk opener request switch. 2. Check trunk lid opener cancel switch. 3. Check outside key antenna (trunk room).	DLK-8, "Work Flow". arting diagnosis, and e procedure" column Reference page DLK-92 DLK-81 DLK-105
TRUNK OPEN FUNCTION MALFUNC NOTE: • Before performing the diagnosis in the fe • Check that vehicle is under the conditi check each symptom. • If the following "symptoms" are detected in this order. Conditions of Vehicle (Operating Conditions • Intelligent Key is out of key slot. • All doors are closed. Symptom Trunk open function does not operate by trunk	CTION Ollowing table, check "WORK FLOW". Refer to [ on shown in "Conditions of vehicle" before sta l, check systems shown in the "Diagnosis/service ) Diagnosis/service procedure 1. Check trunk opener request switch. 2. Check trunk lid opener cancel switch. 3. Check outside key antenna (trunk room). 4. Check Intermittent Incident.	DLK-8, "Work Flow".         arting diagnosis, and         e procedure" column         Reference page         DLK-92         DLK-81         DLK-105         GI-42

TRUNK OPEN FUNCTION SYMPTOMS

# **TRUNK OPEN FUNCTION SYMPTOMS**

#### < SYMPTOM DIAGNOSIS >

Symptom	Diagnosis/service procedure	Reference page
	1. Check "TRUNK OPEN DELAY" setting in "WORK SUPPORT".	DLK-37
Trunk open function does not operate by Intel-	2. Check trunk open function.	DLK-27
ligent Key.	3. Check trunk room lamp switch.	DLK-84
	4. Check Intelligent Key battery inspection.	DLK-113
	5. Check Intermittent Incident.	<u>GI-42</u>

# WARNING FUNCTION SYMPTOMS

#### Symptom Table

< SYMPTOM DIAGNOSIS >

#### WARNING FUNCTION MALFUNCTION

#### NOTE:

- Before performing the diagnosis in the following table, 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 С check each symptom.
- If the following "symptoms are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

#### Conditions of Vehicle (Operating Conditions)

Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation.

Sym	ptom	Diagnosis/service procedure	Reference page
		1. Check push button ignition switch position indicator.	<u>SEC-49</u>
	For internal	2. Check door switch.	DLK-54
	FOI Internal	3. Check warning chime function.	DLK-121
OFF position warn-		4. Check Intermittent Incident.	<u>GI-42</u>
ing does not oper- ate.		1. Check push button ignition switch position indicator.	<u>SEC-49</u>
		2. Check door switch.	DLK-54
	For external	3. Check Intelligent Key warning buzzer.	DLK-102
		4. Check Intermittent Incident.	<u>GI-42</u>
	I	1. Check Park position switch.	<u>SEC-64</u>
		2. Check door switch.	DLK-54
		3. Check Intelligent Key warning buzzer.	DLK-102
P position warning d	loes not operate.	4. Check warning chime function.	DLK-121
		5. Check combination meter display function.	DLK-120
		6. Check Intermittent Incident.	<u>GI-42</u>
		1. Check push button ignition switch position indicator.	<u>SEC-49</u>
ACC warning does not operate		2. Check warning chime function.	DLK-121
		3. Check combination meter display function.	DLK-120
		4. Check Intermittent Incident.	<u>GI-42</u>

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# WARNING FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [COUPE]

Symptom			Diagnosis/service proced	Reference page		
		1.	Check door switch.	DLK-54		
				Instrument center	DLK-44	
	2.	Check inside key antenna.	Console	DLK-47		
			Trunk room	DLK-50		
	Door open to close	3.	Check Intelligent Key warning buzzer.	DLK-102		
		4.	DLK-121			
		5.	DLK-115			
		6.	Check combination meter display function	l.	<u>DLK-120</u>	
		7.	Check Intermittent Incident.	<u>GI-42</u>		
		1.	Check push button ignition switch position	indicator.	<u>SEC-49</u>	
				Instrument center	DLK-44	
		2.	Check inside key antenna.	Console	DLK-47	
	Push-button igni-			Trunk room	DLK-50	
	tion switch opera- tion	3.	Check warning chime function.	-	DLK-121	
		4.	Check key slot illumination.	DLK-115		
Take away warning	-	5.	Check combination meter display function	I.	DLK-120	
does not operate.		6.	Check Intermittent Incident.	<u>GI-42</u>		
	Door is open Take away through window	1.	Check push button ignition switch position	<u>SEC-49</u>		
		2.		Instrument center	DLK-44	
			Check inside key antenna.	Console	DLK-47	
				Trunk room	DLK-50	
		3.	Check combination meter display function	<u>DLK-120</u>		
		4.	Check Intermittent Incident.	<u>GI-42</u>		
		1.	Check "TAKE OUT FROM WIN WARN" so SUPPORT".	DLK-37		
				Instrument center	DLK-44	
		2.	Check inside key antenna.	Console	DLK-47	
				Trunk room	DLK-50	
		3.	Check warning chime function.		<u>DLK-121</u>	
		4.	Check key slot illumination.		<u>DLK-115</u>	
		5.	Check combination meter display function	<u>DLK-120</u>		
		6.	Check Intermittent Incident.		<u>GI-42</u>	
		1.	Check key slot.	DLK-67		
			2. Check door switch.			
Kou woming chiese	daga not or crote	3.	DLK-121			
Key warning chime of	uoes not operate.	4. Check key slot illumination.			DLK-115	
		5. Check combination meter display function.			DLK-120	
		6.	Check Intermittent Incident.		<u>GI-42</u>	

## WARNING FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [COUPE]

Symptom		Diagnosis/service procedure			A
	1.	Check door switch.		DLK-54	
Door lock operation warning chime does not operate.	2.	Check key slot illumination.	<u>DLK-115</u>	В	
	3.	Check Intelligent Key warning buzzer.	DLK-102	D	
	4.	Instrume	ent center	<u>DLK-44</u>	
		Check inside key antenna. Console		<u>DLK-47</u>	С
		Trunk ro	om	<u>DLK-50</u>	
	5.	Check Intermittent Incident.		<u>GI-42</u>	D

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# KEY REMINDER FUNCTION SYMPTOMS

Symptom Table

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# KEY REMINDER FUNCTION MALFUNCTION

#### NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to DLK-8, "Work Flow".
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.
- Intelligent Key is out of key slot.

Symptom	Diagnosis/service procedure	Reference page
Key reminder function does not operate.	1. Check "ANTI KEY LOCK IN FUNCTI"setting in "WORK SUPPORT".	DLK-67
	2. Check door switch.	DLK-54
	3. Check inside key antenna.	DLK-121
	4. Check unlock sensor.	<u>DLK-115</u>
	5. Check Intelligent Key battery inspection.	DLK-113
	6. Check Intermittent Incident.	<u>GI-42</u>

## **HAZARD FUNCTION**

#### < SYMPTOM DIAGNOSIS >

# HAZARD FUNCTION

#### Symptom Table

#### HAZARD AND BUZZER REMINDER FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to <u>DLK-8, "Work Flow"</u>.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column С in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.
- · Intelligent Key is out of key slot.

Symptom		Diagnosis/service procedure		
Hazard reminder does not operate by request switch. (Buzzer reminder operate.)	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-37</u>	
	2.	Check hazard function.	DLK-122	
	not operate by request ate.)1.Check "HAZARD ANSWER BACK" setting in SUPPORT".ate.)2.Check hazard function.3.Check Intermittent incident.1.Check "HAZARD ANSWER BACK" setting in SUPPORT".ate.)3.Check "HAZARD ANSWER BACK" setting in SUPPORT".ate.)2.Check "HAZARD ANSWER BACK" setting in SUPPORT".ate.)3.Check hazard function.3.Check Intelligent Key battery inspection.1.Check "ANS BACK I-KEY LOCK" or "ANS BA UNLOCK" setting in "WORK SUPPORT".ate.)3.Check Intelligent Key warning buzzer.3.Check Intermittent incident.1.Check "TRUNK OPEN DELAY" setting in "W 	Check Intermittent incident.	<u>GI-42</u>	
Hazard reminder does not operate by Intelligent Key (Buzzer reminder operate.)	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-37</u>	
	2.	Check hazard function.	DLK-122	
	3.	Check Intelligent Key battery inspection.	DLK-113	
Buzzer reminder does not operate by request	1.	Check "ANS BACK I-KEY LOCK" or "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".	<u>DLK-37</u>	
switch. (Hazard reminder operate.)	2.	Check Intelligent Key warning buzzer.	DLK-102	
	<ol> <li>SUPPORT".</li> <li>Check hazard function.</li> <li>Check Intermittent incident.</li> <li>Check "HAZARD ANSWER BACK" setting in "Wo SUPPORT".</li> <li>Check hazard function.</li> <li>Check hazard function.</li> <li>Check Intelligent Key battery inspection.</li> <li>Check "ANS BACK I-KEY LOCK" or "ANS BACK UNLOCK" setting in "WORK SUPPORT".</li> <li>Check Intelligent Key warning buzzer.</li> <li>Check "TRUNK OPEN DELAY" setting in "WORK PORT".</li> <li>Check Intelligent Key warning buzzer.</li> </ol>	Check Intermittent incident.	<u>GI-42</u>	
	1.	Check "TRUNK OPEN DELAY" setting in "WORK SUP- PORT".	<u>DLK-37</u>	
Buzzer reminder does not operate by trunk opener	2.	Check Intelligent Key warning buzzer.	DLK-102	
request switch.	3.	Check trunk open function.	DLK-24	
	4.	Check Intermittent incident.	<u>GI-42</u>	

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# **HORN FUNCTION**

# < SYMPTOM DIAGNOSIS >

# HORN FUNCTION

## Symptom Table

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# HAZARD AND HORN REMINDER FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to DLK-8, "Work Flow".
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.

Symptom		Diagnosis/service procedure	Reference page
Hazard reminder does not operate by request		Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-37</u>
switch. (Horn reminder operate.)	2.	Check hazard function.	DLK-122
	t       1. Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".         2. Check hazard function.       3. Check Intermittent Incident.         a. Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".       1. Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".         a. Check hazard function.       3. Check Intelligent Key battery inspection.         3. Check Intelligent Key battery inspection.       3. Check Intelligent Key battery inspection.         witch.       2. Check MASWER BACK WITH I-KEY LOCK" or "AN-1. SWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT".         2. Check Intelligent Key warning buzzer.       3. Check Intermittent Incident.         3. Check Intermittent Incident.       1. Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".         4. Key.       2. Check horn function.	<u>GI-42</u>	
Hazard reminder does not operate by Intelligent Key.	1.	•	<u>DLK-37</u>
(Horn reminder operate.)	2.	Check hazard function.	DLK-122
	3.	Check Intelligent Key battery inspection.	
Horn reminder does not operate by request switch.	1.	SWER BACK WITH I-KEY UNLOCK" setting in "WORK	<u>DLK-37</u>
(Hazard reminder operate.)	2.	Check Intelligent Key warning buzzer.	DLK-102
	3.	Check Intermittent Incident.	<u>GI-42</u>
Horn reminder does not operate by Intelligent Key.		6	<u>DLK-37</u>
(Hazard reminder operate.)	2.	Check horn function.	<u>DLK-118</u>
		Check Intermittent Incident.	<u>GI-42</u>

# INTEGRATED HOMELINK TRANSMITTER

# < SYMPTOM DIAGNOSIS > INTEGRATED HOMELINK TRANSMITTER

# Symptom Table

## HOMELINK UNIVERSAL TRANSCEIVER MALFUNCTION

Symptom		Diagnosis/service procedure	Reference page
Homelink universal transceiver does not operate properly.	1.	Check homelink universal transceiver function.	DLK-125
	2.	Check Intermittent Incident.	<u>GI-42</u>

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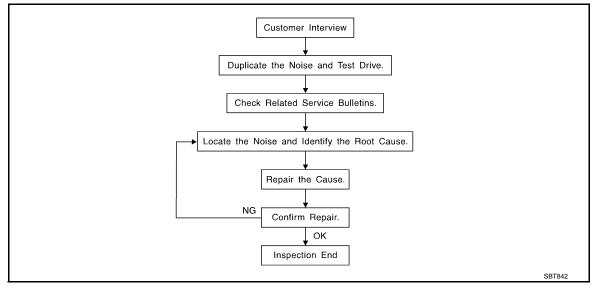
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#### < SYMPTOM DIAGNOSIS >

# 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 customer's comments; refer to <u>DLK-180</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

#### DUPLICATE THE NOISE AND TEST DRIVE

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

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#### < 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 model, drive position on A/T model).
- 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 you suspect the noise is coming from.
   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 you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks. Refer to <u>DLK-178, "Inspection Procedure"</u>.

#### REPAIR THE CAUSE

UHMW (TEFLON) TAPE

- 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 your authorized Nissan Parts Department.

#### **CAUTION:**

# Do not 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,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50  $\times$  50 mm (1.97  $\times$  1.97 in) Ρ INSULATOR (Light foam block) 80845-71L00: 30 mm (1.18 in) thick,  $30 \times 50$  mm (1.18  $\times$  1.97 in) 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

## **DLK-177**

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

#### < SYMPTOM DIAGNOSIS >

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Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Used in place of UHMW tape that will be visible or not fit. Will only last a few months. SILICONE SPRAY Use when grease cannot be applied. DUCT TAPE Use to eliminate movement.

#### CONFIRM THE REPAIR

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

#### Inspection Procedure

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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:

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

#### CENTER CONSOLE

Components to pay attention to include:

- 1. 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:

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

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

#### TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

- 1. Trunk lid 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) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- Sunroof lid, rail, linkage or seals making a rattle or light knocking noise 1.
- 2. Sunvisor shaft shaking in the holder
- Front or rear windshield touching headlining and squeaking 3.

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- 1. Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- The rear seatback lock and bracket 3.

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then Н transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- Engine wall mounts and connectors 3.
- Loose radiator mounting pins
- Hood bumpers out of adjustment 5.
- Hood striker out of adjustment 6.

DLK These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

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< SYMPTOM DIAGNOSIS >

#### Diagnostic Worksheet

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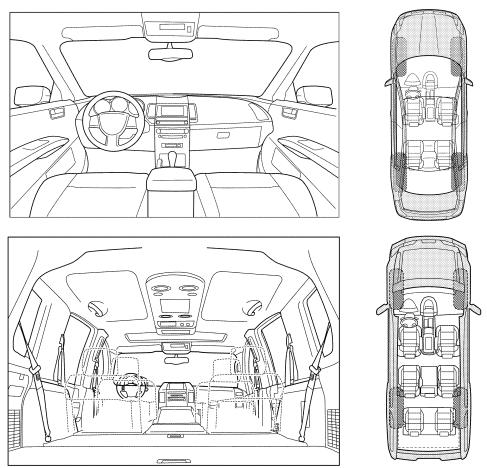
#### Dear Customer:

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

#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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# SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

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Briefly describe the location where the n	oise occurs	»:			
I. WHEN DOES IT OCCUR? (please ch	neck the bo	oxes that app	oly)		
☐ Anytime	🗆 Af	ter sitting ou	ut in the rai	in	
] 1st time in the morning	_	/hen it is rair	-	t	
Only when it is cold outside		ry or dusty c	onditions		
Only when it is hot outside		ther:			
II. WHEN DRIVING:	IV. W		OF NOISE	E	
Through driveways		-		es on a clean floor)	
Over rough roads			-	n old wooden floor)	
Over speed bumps		attle (like sha	-	-	
☐ Only about mph ☐ On acceleration		nock (like a k ck (like a clo		,	
Coming to a stop		ump (heavy			
On turns: left, right or either (circle)		uzz (like a bu			
With passengers or cargo					
Other:					
After driving miles or mi	nutes				
O BE COMPLETED BY DEALERSHIP	PERSONN	IEL			
est Drive Notes:					
		YES	NO	Initials of person performing	
/ehicle test driven with customer		YES	NO	Initials of person performing	
		YES	NO	Initials of person performing	
- Noise verified on test drive - Noise source located and repaired		YES	NO	performing	
- Noise verified on test drive - Noise source located and repaired	rm repair	YES	NO	performing	
/ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confi /IN:				performing	

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# < PRECAUTION > PRECAUTION PRECAUTIONS

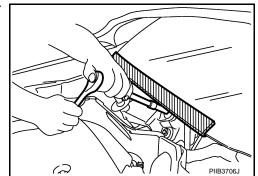
#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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

#### WARNING:

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

### Procedure without Cowl Top Cover



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

# Precaution for work

INFOID:000000001342904

INFOID:000000001342903

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

# PREPARATION

< PREPARATION >

# PREPARATION PREPARATION

# Special Service Tools

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

Tool number (Kent-Moore No.) Tool name		Description	
(J-39570) Chassis ear	SIIA0993E	Locating the noise	
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise	
(J-43241) Remote Keyless Entry Tester	LEL946A	Used to test keyfobs	
nmercial Service Tool	S	INFOID:00000	0000134290
Tool name		Description	
Engine ear	SIIA0995E	Locating the noise	
Power tool			

INFOID:000000001342905

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DLK-184

# < ON-VEHICLE REPAIR > ON-VEHICLE REPAIR

# HOOD

HOOD ASSEMBLY

HOOD ASSEMBLY : Removal and Installation

# REMOVAL

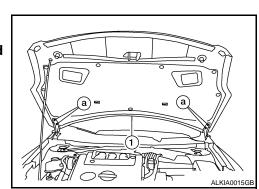
1. Remove the hinge nuts (a) and the hood assembly (1). CAUTION:

Remove using two workers, to avoid damaging the hood assembly.

INSTALLATION Installation is in the reverse order of removal.

HOOD

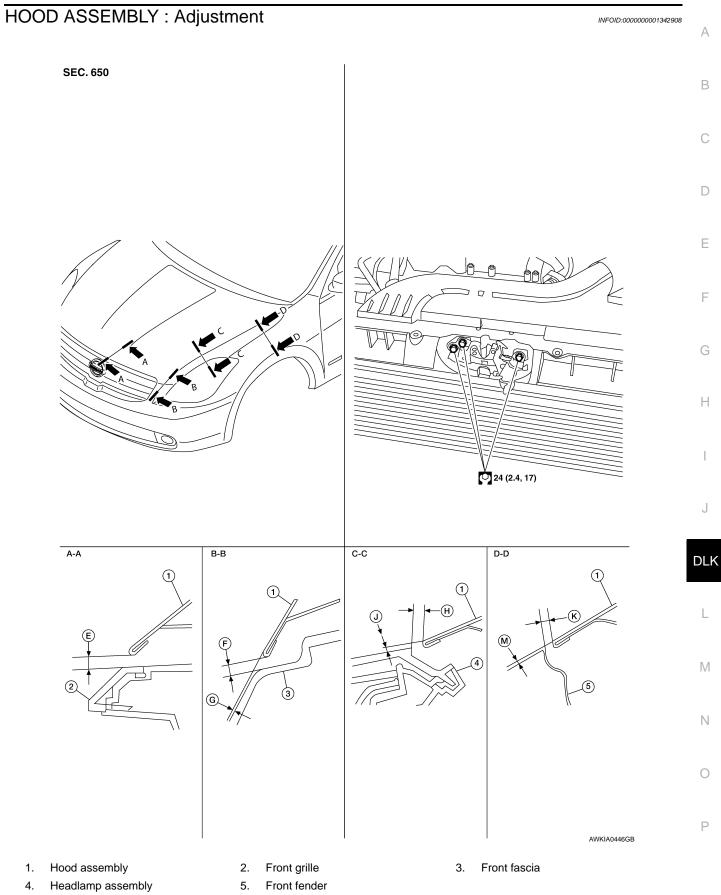
**NOTE:** After installing, perform hood fitting adjustment. Refer to <u>DLK-185, "HOOD ASSEMBLY : Adjustment"</u>.



# [COUPE]

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#### [COUPE]



FRONT END HEIGHT ADJUSTMENT AND LATERAL/LONGITUDUNAL CLEARANCE ADJUST-MENT

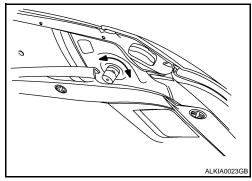
#### < ON-VEHICLE REPAIR >

# [COUPE]

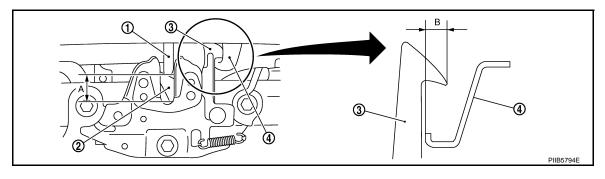
					Unit: mm (in)
Section	Item	Measurement	Standard	Parallelism	Equality
A – A	E	Clearance	5.0 ± 2.5 (0.20 ± 0.10)	<= 2.0 (0.079)	—
B – B	F	Clearance	$5.0\pm2.0~(0.20\pm0.079)$	<= 2.0 (0.079)	<= 2.0 (0.079)
B-B	G	Surface height	0.8 ± 2.0 (0.03 ± 0.079)	<= 2.0 (0.079)	<= 2.0 (0.079)
C – C	Н	Clearance	5.0 ± 2.0 (0.20 ± 0.079)	<= 2.0 (0.079)	2.0 (0.079)
0-0	J	Surface height	1.0 ± 2.0 (0.04 ± 0.079)	—	< 2.0 (0.079)
D – D	К	Clearance	4.0 ± 1.0 (0.16 ± 0.04)	1.0 (0.04)	1.0 (0.04)
0-0	М	Surface height	0.2 ± 1.0 (0.01 ± 0.04)	1.0 (0.04)	1.0 (0.04)

Front End Height Adjustment

- 1. Check the surface height between the hood and each part by visual and tactile feeling.
- 2. Remove the front grille. Refer to EXT-17, "Removal and Installation".
- 3. Remove the hood lock.
- 4. Adjust the surface level difference of the hood, fender and head lamp by rotating the hood bumpers until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.



- 5. Install and align the hood lock center with the center of the hood striker. Engage the lock with the striker and check for looseness.
- 6. Adjust A and B as shown to the following value with hood's own weight by dropping it from approx. 200 mm (7.87 in) height or by pressing the hood closed lightly (approx. 29 N (3 kg)).



1. Hood striker

2. Primary latch

3. Secondary striker

4. Secondary latch

A : 20 mm (0.79 in)

- B : 6.8 mm (0.27 in)
- 7. After adjustment tighten the hood lock bolts to the specified torque.

Lateral/Longitudinal Clearance Adjustment

- 1. Check the clearance between the hood and each part by visual and tactile feeling.
- 2. Loosen the hood hinge bolts.
  - NOTE:

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

# HOOD

HOOD	
< ON-VEHICLE REPAIR >	[COUPE]
3. Move the hood so that the clearance measurements are within specific	ations.
4. Tighten the hood hinge bolts.	A
<b>NOTE:</b> After installation apply touch-up paint onto the hinge bolts and around t	he base of the binge
5. If the clearance measurements between the hood and fender cannot	0
the fender must be adjusted. Refer to DLK-192, "Removal and Installat	
HOOD LOCK CONTROL	
HOOD LOCK CONTROL : Component Parts Location	(NFO/D:000000001342909
	INPOID.000000001342909
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	ALKIA1053ZZ
1.Hood lock assembly2.Hood lock cable3.4.Clip5.Hood lock release handle	Hoodledge reinforcement
HOOD LOCK CONTROL : Removal and Installation	INFOID:000000001342910 J
REMOVAL	
1. Remove the front grill. Refer to <u>EXT-17, "Removal and Installation"</u> .	DL
<ol> <li>Remove the LH fender protector. Refer to <u>EXT-19</u>. "Removal and Installation".</li> </ol>	
<ol> <li>Remove the hood lock assembly bolts.</li> </ol>	
	11 Change K
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4. Disconnect the hood lock cable from the hood lock, and unclip it from the hoodledge.

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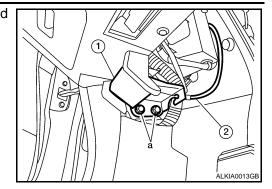
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# HOOD

#### < ON-VEHICLE REPAIR >

#### [COUPE]

5. Remove the screws (a) with power tool, and separate the hood lock release handle (1) from the hood lock release cable (2).

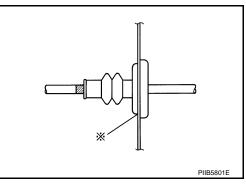


6. Remove the grommet from the upper dash, and pull the hood lock cable into the passenger compartment. CAUTION:

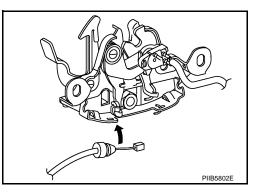
While pulling, be careful not to damage (peel) the outside of the hood lock cable.

#### INSTALLATION

- 1. Pull the hood lock cable through the upper dash into the engine compartment. CAUTION:
  - Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.
- 2. Check that the cable is not offset from the center of the grommet, and seat the grommet into the upper dash hole.
- 3. Apply the sealant around the grommet at \* mark.



- 4. Position the hood lock cable and clip it into place.
- 5. Connect the hood lock cable to the hood lock assembly.
- 6. Loosely install the hood lock assembly.
- 7. Perform hood fitting adjustment. Refer to <u>DLK-185, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.
- 8. Check the hood lock control operation.



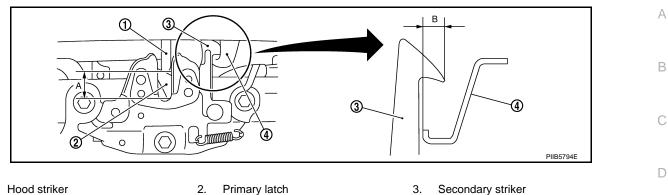
#### INSPECTION CAUTION:

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

1. Check that the secondary latch is properly engaged with the secondary striker (B: 6.8 mm (0.268 in) shown in the figure) with hood's own weight.

# HOOD

#### < ON-VEHICLE REPAIR >

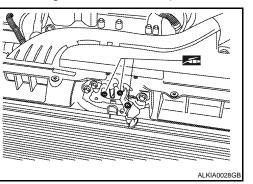


Hood striker 1.

Secondary latch

4.

- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approx. 20 mm (0.79 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating force is less than 49 N (5.0 kg, 11 lb).
- Install so the static closing force of the hood is 343 490.5 N·m (35 50 kg-m, 253 361 ft-lb). 4.
- 5. Check the hood lock lubrication condition. If necessary, apply "body grease" as shown.



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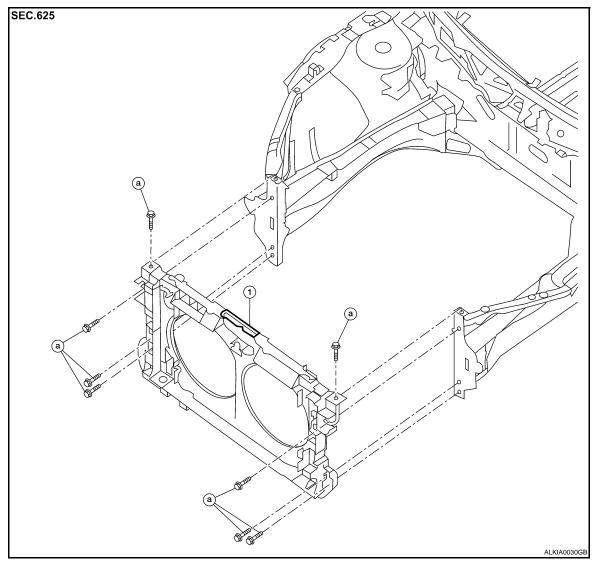
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# RADIATOR CORE SUPPORT

Removal and Installation

INFOID:000000001342911



1. Radiator core support a. Bolts

#### REMOVAL

- 1. Remove front bumper reinforcement. Refer to EXT-13, "Removal and Installation Coupe".
- 2. Remove head lamps (LH/RH). Refer to EXL-248, "Headlamp".
- 3. Remove washer tank. Refer to WW-44, "WASHER TANK : Removal and Installation".
- 4. Remove air duct. Refer to QR25DE, <u>EM-25. "Removal and Installation"</u> VQ35DE <u>EM-129. "Removal and Installation"</u>.
- 5. Remove the radiator cooling fans. Refer to QR25DE <u>CO-17, "Removal and Installation"</u>, VQ35DE <u>CO-39,</u> <u>"Removal and Installation"</u>.
- 6. Remove the radiator. Refer to QR25DE <u>CO-15, "Removal and Installation"</u>, VQ35DE <u>CO-36, "Removal and Installation"</u>.
- 7. Remove the hood lock control. Refer to DLK-187, "HOOD LOCK CONTROL : Removal and Installation".

- 8. Remove ambient sensor. Refer to HA-47, "Removal and Installation".
- 9. Remove crash zone sensor. Refer to SR-12, "Removal and Installation".
- 10. Remove air guides (LH/RH).

# **RADIATOR CORE SUPPORT**

< ON-VEHICLE REPAIR >	[COUPE]
11. Remove power steering tube assembly. Refer to QR25DE <u>ST-22, "QR25DE : Removal and I</u> VQ35DE <u>ST-23, "VQ35DE : Removal and Installation"</u> .	nstallation", A
12. Remove horn (High/Low). Refer to HRN-11, "Removal and Installation".	
13. Remove the harness clips from the radiator core support assembly and position the harness a	side.
14. Remove the bolts and the radiator core support.	В
INSTALLATION Installation is in the reverse order of removal.	С
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# FRONT FENDER

#### < ON-VEHICLE REPAIR >

# FRONT FENDER

# Removal and Installation

REMOVAL

- 1. Remove the head lamp. Refer to EXL-237, "Removal and Installation".
- 2. Remove the front fender protector. Refer to EXT-19, "Removal and Installation".
- 3. Remove the inner fender bolt cover.
- 4. Remove the center mud guard. Refer to EXT-20. "Removal and Installation".
- 5. Remove the bolts and the front fender.

CAUTION:

- While removing, use a shop cloth to protect the body from damage.
- Use care when removing the front fender. The front fender baffle foam adheres the front fender to the body side outer. Carefully release the foam or damage to the fender may occur.

INSTALLATION

Installation is in the reverse order of removal.

### CAUTION:

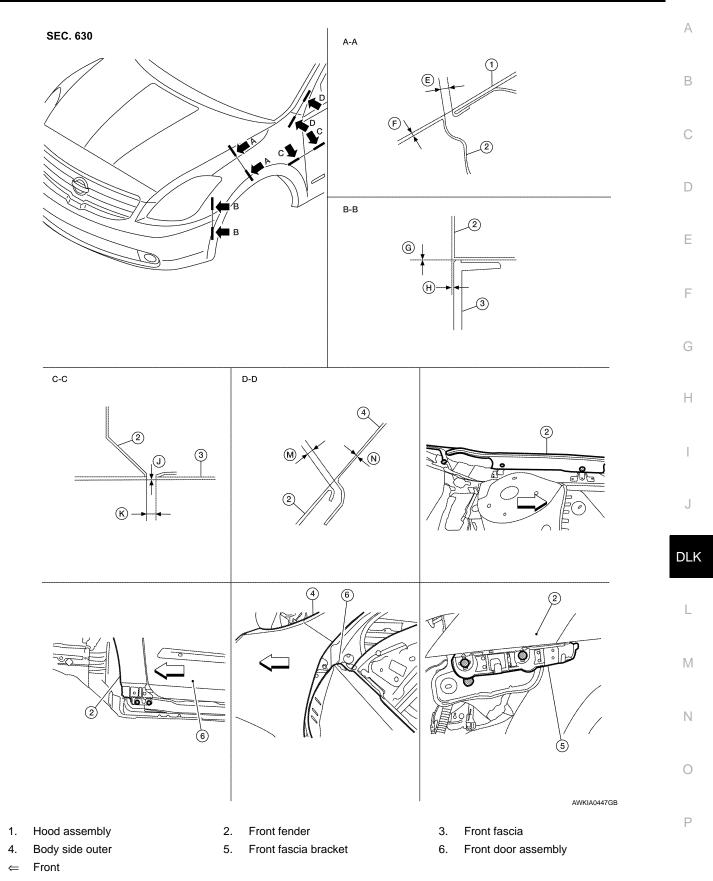
• After installing, apply touch-up paint (the body color) onto the head of the front fender bolts.

ADJUSTMENT

INFOID:000000001342912

[COUPE]

# **FRONT FENDER**



Unit: mm (in)

Section	ltem	Measurement	Standard	Parallelism	Equality
	Е	Clearance	$4.0 \pm 1.0$ (0.16 $\pm$ 0.04)	1.0 (0.04)	1.0 (0.04)
A-A	F	Surface height	$0.2 \pm 1.0 \; (0.01 \pm 0.04)$	1.0 (0.04)	1.0 (0.04)
B-B	G	Clearance	0.0 + 0.8 (0.0 +0.031)	_	_
	Н	Surface height	$0.7 \pm 1.0 \; (0.028 \pm 0.04)$	1.0 (0.04)	1.0 (0.04)
C-C	J	Clearance	$3.6 \pm 1.0 \ (0.14 \pm 0.04)$	1.0 (0.04)	—
0-0	K	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$	_	—
D-D	Μ	Clearance	$\textbf{2.3} \pm \textbf{1.0} \; \textbf{(0.09} \pm \textbf{0.04)}$	1.0 (0.04)	—
0-0	Ν	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$	_	—

- 1. Remove the inner fender bolt cover.
- 2. Remove the front fender protector. Refer to <u>EXT-19</u>, "Removal and Installation".
- 3. Remove the center mudguard. Refer to EXT-20, "Removal and Installation".
- 4. Loosen the front fender bolts and screws.
- 5. Adjust the clearance (J) and surface height (K) between the front fender and the front door.
- 6. Tighten the rear upper and lower front fender bolts.
- 7. Adjust the clearance (E) and surface height (F) between the front fender and the hood.
- 8. Adjust the clearance (M) and surface height (M) between the front fender and the body side outer.
- 9. Tighten the inner front fender bolts.
- 10. Adjust the clearance (G) and the surface height (H) between the front fender and the front fascia.
- 11. Tighten the front fender to front fascia and bracket screws.
- 12. Apply touch-up paint (the body color) onto the head of the front fender bolts.
- 13. Install the center mudguard. Refer to EXT-20, "Removal and Installation".
- 14. Install the front fender protector. Refer to EXT-19, "Removal and Installation".
- 15. Install the inner fender bolt cover.

# < ON-VEHICLE REPAIR > DOOR FRONT DOOR

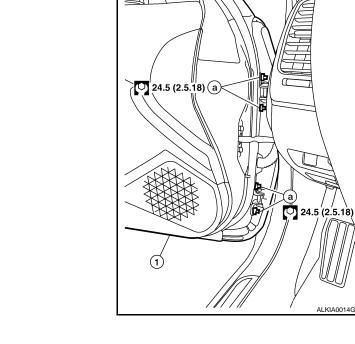
# FRONT DOOR : Removal and Installation

#### CAUTION:

- When removing and installing the front door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing front door assembly, be sure to carry out the fitting adjustment. Refer to <u>DLK-196, "FRONT DOOR : Adjustment"</u>.
- After installing, apply touch-up paint (the body color) onto the head of the hinge nuts.
- Check the hinge rotating parts for lubrication. If necessary, apply "body grease".
- Operate with two workers, because of its heavy weight.
- Check front door open/close operation after installation.

#### REMOVAL

- 1. Pull the grommet and wire harness out of the front pillar until the harness connectors are accessible. Then disconnect the wire harness connectors.
- 2. Remove the check link bolt from the front pillar.
- 3. Remove the door-side hinge nuts (a) and the door assembly (1).



INSTALLATION Installation is in the reverse order of removal. **NOTE:** Adjust the door. Refer to <u>DLK-196, "FRONT DOOR : Adjustment"</u>. А

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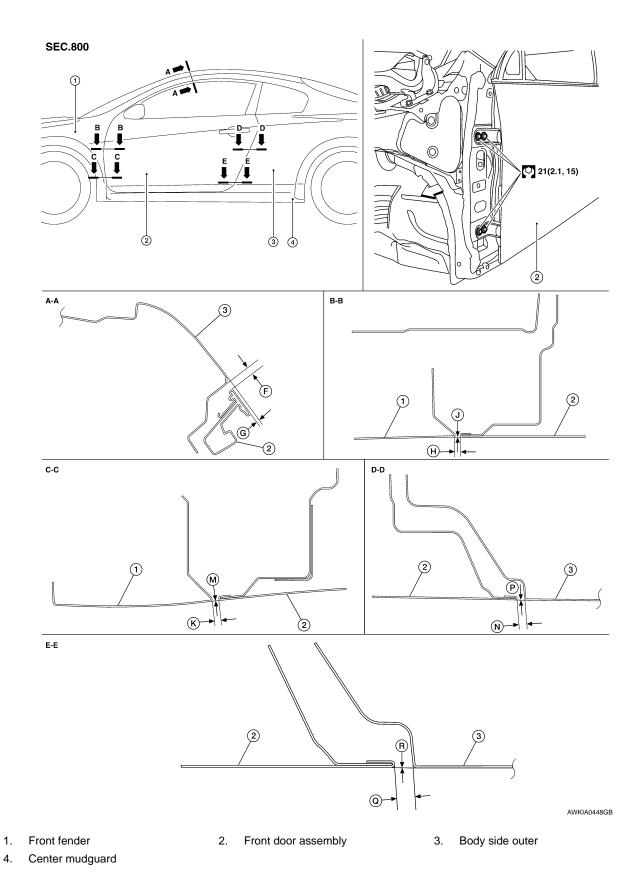
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# FRONT DOOR : Adjustment

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[COUPE]



Section	Item	Measurement	Standard
	F	Clearance	6.1 $\pm$ 1.5 (0.24 $\pm$ 0.06)
A-A	G	Surface height	<b>2.9</b> $\pm$ <b>1.5</b> (0.11 $\pm$ 0.06)
B-B	н	Clearance	$3.6 \pm 1.0$ (0.14 $\pm$ 0.04)
D-D	J	Surface height	$0.0 \pm 1.0$ ( $0.0 \pm 0.04$ )
C-C	K	Clearance	$3.6 \pm 1.0$ (0.14 $\pm$ 0.04)
6-6	Μ	Surface height	$0.0 \pm 1.0$ ( $0.0 \pm 0.04$ )
D-D	Ν	Clearance	$3.6 \pm 1.0$ (0.14 $\pm$ 0.04)
0-0	Р	Surface height	$0.0 \pm 1.0$ ( $0.0 \pm 0.04$ )
E-E	Q	Clearance	$3.6 \pm 1.0$ (0.14 $\pm$ 0.04)
C-C	R	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

#### LONGITUDINAL CLEARANCE

- 1. Remove the front fender. Refer to <u>DLK-192, "Removal and Installation"</u>.
- 2. Loosen the hinge bolts. Raise or lower the front door at rear edge to adjust.
- 3. Install the front fender. Refer to <u>DLK-192, "Removal and Installation"</u>.

#### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the front door hinge nuts.
- 2. Move the top and or bottom in or out as necessary until it is within specifications.
- 3. Tighten the hinge nuts to specifications.

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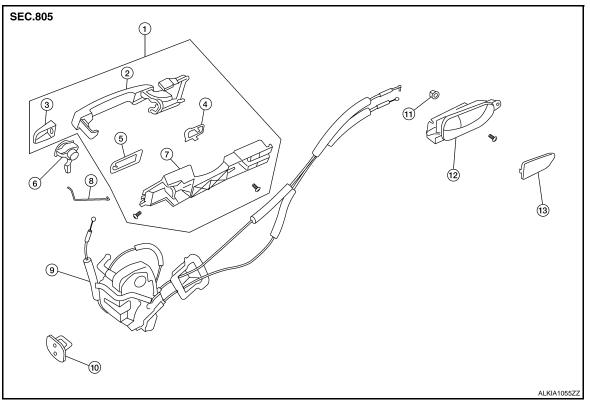
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# DOOR LOCK FRONT DOOR LOCK

FRONT DOOR LOCK : Component Parts Location

INFOID:000000001342916



1. Outside handle assembly

Outside handle bracket

2. Outside handle grip

Rear gasket

11. Grommet

Key cylinder rod (Driver side only)

- Door key cylinder escutcheon (Driver side)
   Outside handle escutcheon (Passenger side)
- Key cylinder assembly (Driver side only)
- 9. Door lock assembly
- 12. Inside door handle assembly

Front door striker
 Cap

Front gasket

# FRONT DOOR LOCK : Removal and Installation

#### REMOVAL

4.

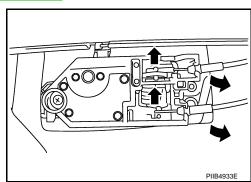
7.

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

5.

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2. Disconnect the inside handle knob cable and lock knob cable from the back side of the front door finisher.



# **DLK-198**

INFOID:000000001342917

# **DOOR LOCK**

#### < ON-VEHICLE REPAIR >

- Remove the front door window and front door module assembly. Refer to GW-16, "Removal and Installa-3. tion".
- 4. Remove door side grommet, and remove door key cylinder assembly (driver side) and outside handle escutcheon (passenger side) bolts (TORX T30) from grommet hole.

5. Disconnect door antenna and door request switch connector and remove harness clamp.

6. Disconnect the key cylinder rod.

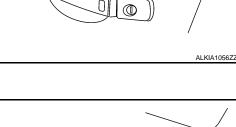
remove outside handle (2).

7. Disconnect door key cylinder switch harness connector.

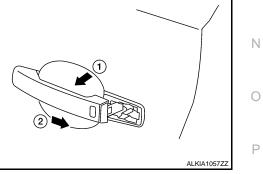
9. Disconnect front door request switch harness connector.

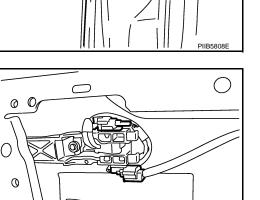
10. While pulling outside handle (1), slide toward rear of vehicle to

8. While pulling the outside handle (1), remove door key cylinder assembly (2).



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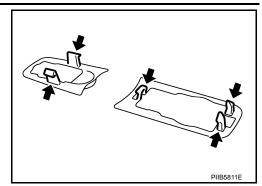
#### < ON-VEHICLE REPAIR >

11. Remove the front gasket and rear gasket.

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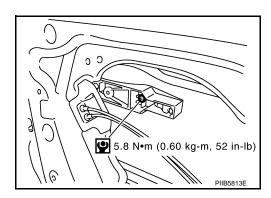
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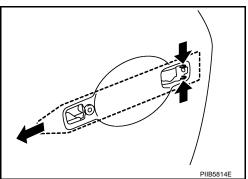
12. Remove the TORX bolts (T30), remove the door lock assembly.

13. Remove the TORX bolt (T30) from the outside handle bracket.

14. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.

- 15. Disconnect the door lock actuator connector and remove the door lock assembly.

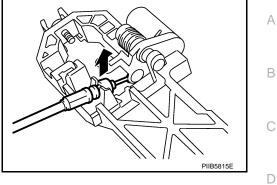




#### < ON-VEHICLE REPAIR >

#### [COUPE]

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



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

When installing the key cylinder rod be sure to rotate the key cylinder rod holder until a click is felt.

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# TRUNK LID

< ON-VEHICLE REPAIR >

# TRUNK LID TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Removal and Installation

INFOID:000000001342920

#### REMOVAL

- 1. Remove the trunk lid lock. Refer to <u>DLK-204, "TRUNK LID LOCK : Removal and Installation"</u>.
- 2. Disconnect the harness clips and pull the harness out of the trunk lid.
- 3. Remove the bolts and the trunk lid assembly.

#### INSTALLATION

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

- After installing, apply touch-up paint (the body color) onto the head of the hinge bolts.
- After installing, check operation.
- After installing, perform fitting adjustment. Refer to <u>DLK-203, "TRUNK LID ASSEMBLY : Adjust-</u><u>ment"</u>.

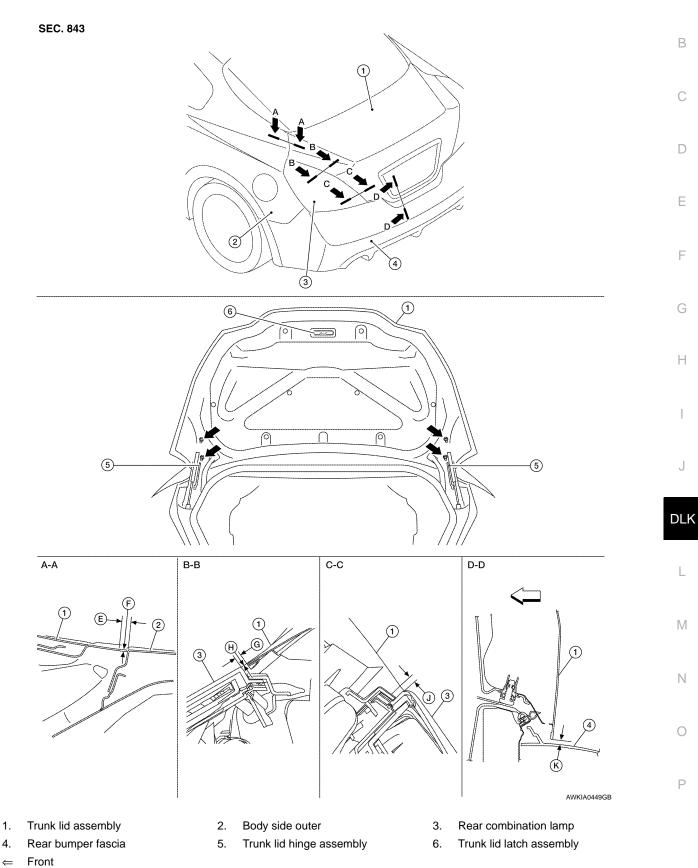
# TRUNK LID

#### < ON-VEHICLE REPAIR >

# TRUNK LID ASSEMBLY : Adjustment

# [COUPE]





#### [COUPE]

					Unit: mm (in)
Section	Item	Measurement	Standard	Parallelism	Right/Left
					Difference
A – A	E	Clearance	4.0 ± 1.6 (0.16 ± 0.06)	1.5 (0.06) MAX	2.0 (0.08) MAX
	F	Surface height	-0.5 ± 1.5 (-0.02 ± 0.06)	1.5 (0.06) MAX	2.0 (0.08) MAX
<b>B</b> – B	G	Clearance	4.0 ± 1.5 (0.16 ± 0.06)	1.5 (0.06) MAX	2.0 (0.08) MAX
	Н	Surface height	-0.5 ± 1.5 (-0.02 ± 0.06)	1.5 (0.06) MAX	2.0 (0.08) MAX
<b>C</b> – <b>C</b>	J	Clearance	4.0 ± 2.0 (0.16 ± 0.08)	1.5 (0.06) MAX	2.0 (0.08) MAX
<b>D</b> – D	K	Clearance	7.5 $\pm$ 2.3 (0.30 $\pm$ 0.09)	2.3 (0.09) MAX	—

#### LONGITUDINAL CLEARANCE

1. Check the clearance and the evenness between the trunk lid and each part by visual and tactile feeling.

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

#### SURFACE HEIGHT ADJUSTMENT

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

# TRUNK LID LOCK

### TRUNK LID LOCK : Removal and Installation

INFOID:000000001342922

#### LOCK

Removal

- 1. Remove the trunk lid inner trim panel (if equipped). Refer to INT-22, "Removal and Installation".
- 2. Remove the bolts, disconnect the electrical connector, separate the emergency release handle, and remove the trunk lid lock

Installation

Installation is in the reverse order of removal

Striker

Removal

- 1. Remove the trunk end finisher. Refer to INT-22, "Removal and Installation".
- 2. Remove the bolts and the striker.

Installation

Installation is in the reverse order of removal.

NOTE:

Align the trunk lid lock. Refer to DLK-203, "TRUNK LID ASSEMBLY : Adjustment".

# **REMOTE KEYLESS ENTRY RECEIVER**

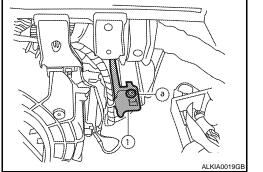
#### < ON-VEHICLE REPAIR >

# REMOTE KEYLESS ENTRY RECEIVER

#### Removal

#### REMOVAL

- 1. Remove glove compartment. Refer to IP-11, "Removal and Installation".
- 2. Remove the screw (a), lower the bracket and remote keyless entry receiver (1), then disconnect the harness and remove the reciever.



#### Installation

Installation is in the reverse order of removal.

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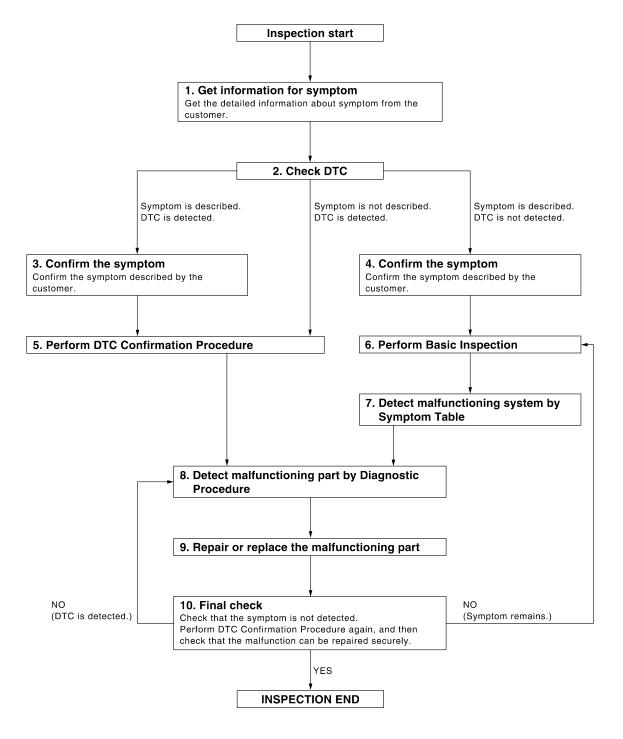
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



INFOID:000000003183460

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN]

1.GET INFORMATION FOR SYMPTOM
Get the detailed information from the customer about the symptom (the condition and the environment whe the incident/malfunction occurred).
>> GO TO 2.
2.снеск дтс
<ol> <li>Check DTC.</li> <li>Perform the following procedure if DTC is displayed.</li> <li>Record DTC and freeze frame data (Print them out with CONSULT-III.)</li> </ol>
<ul> <li>Erase DTC.</li> <li>Study the relationship between the cause detected by DTC and the symptom described by the customer</li> <li>Check related service bulletins for information.</li> </ul>
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.
<b>3.</b> 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
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 6.
5. PERFORM DTC CONFIRMATION PROCEDURE
Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>DLK-363</u> , " <u>DTC Inspection Priority Chart</u> " and determine troubl diagnosis order.
<ul> <li>NOTE:</li> <li>Freeze frame data is useful if the DTC is not detected.</li> </ul>
<ul> <li>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.</li> </ul>
Is DTC detected?
Yes >> GO TO 8. No >> Refer to <u>GI-42, "Intermittent Incident"</u> .
6.PERFORM BASIC INSPECTION
Perform DLK-206, "Work Flow".
Inspection End>>GO TO 7.
7.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE
Detect malfunctioning system according to DLK-366. "Symptom Table" based on the confirmed symptom i

Detect malfunctioning system according to <u>DLK-366. "Symptom Table"</u> based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

# $\mathbf{8}$ . 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.

Is malfunctioning part detected?

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT-III.

9.Repair or replace the malfunctioning part

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

>> GO TO 10.

### **10.**FINAL CHECK

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

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

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8. NO (Symptom remains)>>GO TO 6. YES >> Inspection end.

INSPECTION AND ADJUSTMENT	
< BASIC INSPECTION > [SEDAN]	
INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	А
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	0
Refer to the CONSULT-III Operation Manual for the initialization procedure.	D
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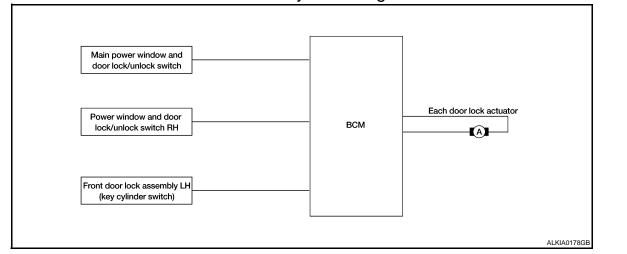
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INFOID:000000003183463

# FUNCTION DIAGNOSIS DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

# DOOR LOCK AND UNLOCK SWITCH : System Diagram



# DOOR LOCK AND UNLOCK SWITCH : System Description

INFOID:000000003183464

Switch	Input/output signal to BCM	BCM function	Actuator
Main power window and door lock/unlock switch			
Power window and door lock/ unlock switch	Door lock/unlock signal	Door lock/unlock control	Door lock actuator
Door key cylinder switch			

# DOOR LOCK FUNCTION

Functions Available by Operating the Door Lock and Unlock Switches on Driver Door and Passenger Door

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

Functions Available by Operating the Key Cylinder Switch on Driver Door

• Interlocked with the locking operation of door key cylinder, door lock actuators of all door lock actuators are locked.

Selective Unlock Operation

- When door key cylinder is unlocked, door lock actuator driver side is unlocked.
- When door key cylinder is unlocked for the second time within 5 seconds after the first operation, door lock actuators on all doors are unlocked.

Select unlock operation mode can be changed using DOOR LOCK-UNLOCK SET mode in "WORK SUP-PORT". Refer to <u>DLK-234, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

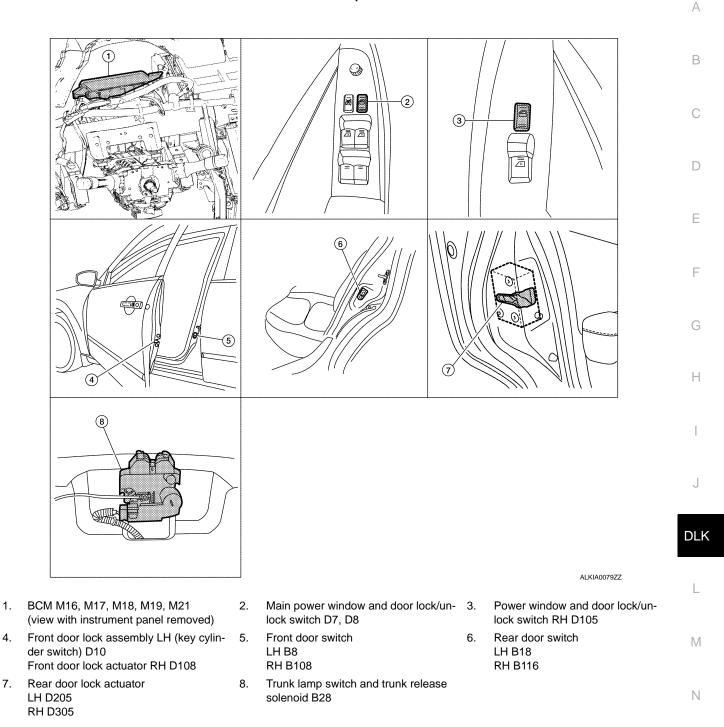
Key Reminder System Refer to <u>DLK-232, "System Description"</u>.

#### < FUNCTION DIAGNOSIS >

# DOOR LOCK AND UNLOCK SWITCH : Component Parts Location

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# DOOR LOCK AND UNLOCK SWITCH : Component Description

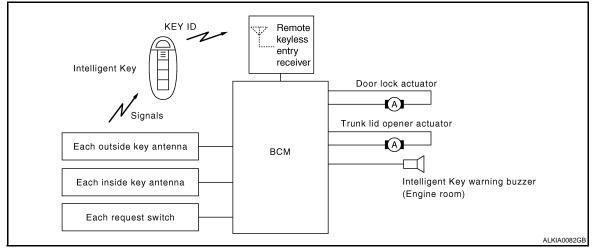
Item	Function	
BCM	Controls the door lock function and room lamp function.	
Door lock and unlock switch	Transmits lock or unlock signal to BCM.	
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.	
Door switch	Transmits door open/close condition to BCM.	

# DOOR REQUEST SWITCH

[SEDAN]

#### < FUNCTION DIAGNOSIS >

### DOOR REQUEST SWITCH : System Diagram



# DOOR REQUEST SWITCH : System Description

INFOID:000000003183468

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

 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 communications between the Intelligent Key and the vehicle (BCM).
 CAUTION:

#### The driver should always carry the Intelligent Key

- If an action that does not meet the operating conditions of the Intelligent Key system is taken, the buzzer goes off to inform the driver (Warning chime function).
- When a door lock is locked, unlocked or trunk open with request switch or remote controller button operation, the hazard lamps flash and the Intelligent Key warning buzzer or horn sounds (Hazard and buzzer/horn reminder function).
- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with the CONSULT-III.

#### OPERATION DESCRIPTION/DOOR LOCK/UNLOCK

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

#### **OPERATION CONDITION**

If the following conditions are not satisfied, door lock/unlock operation is not performed even if the request switch is operated.

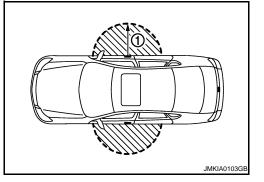
Each request switch operation	Operation condition				
Lock operation	<ul> <li>All doors are closed</li> <li>Ignition switch is in OFF position</li> <li>Intelligent Key is out of key slot</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area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

#### < FUNCTION DIAGNOSIS >

\*: 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).



#### SELECTIVE UNLOCK FUNCTION

When an LOCK signal is sent from door request switch (driver side or passenger side), all doors will be locked. When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door will be unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 5 seconds, all other door will be unlocked.

#### HAZARD AND BUZZER REMINDER FUNCTION

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

When doors are locked, unlocked by each request switch, IPDM E/R honks Intelligent Key warning buzzer as a reminder and transmits hazard request signal to BCM via CAN communication line. BCM flashes hazard warning lamps as a reminder.

#### Operating function of hazard warning lamps and buzzer reminder

- F			
Operation	Hazard warning lamps flash	Intelligent Key warning buzzer honk	
Unlock	Once	Once	_
Lock	Twice	Twice	J
Trunk open	—	Four times	_

#### How to change hazard and buzzer reminder mode

Refer to DLK-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### AUTO DOOR LOCK FUNCTION

When all doors are locked, ignition switch is in 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 are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-235.</u> N "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### ROOM LAMP OPERATION

When the following conditions are met:

• Condition of interior lamp switch is in DOOR position

Door switch OFF (all the doors are closed)

Intelligent Key system turns on interior lamp (for up to 30 seconds maximum) by receiving UNLOCK signal from door request switch. For detailed description, refer to <u>DLK-210, "DOOR LOCK AND UNLOCK SWITCH:</u> <u>System Description"</u>.

#### LIST OF OPERATION RELATED PARTS

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

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#### < FUNCTION DIAGNOSIS >

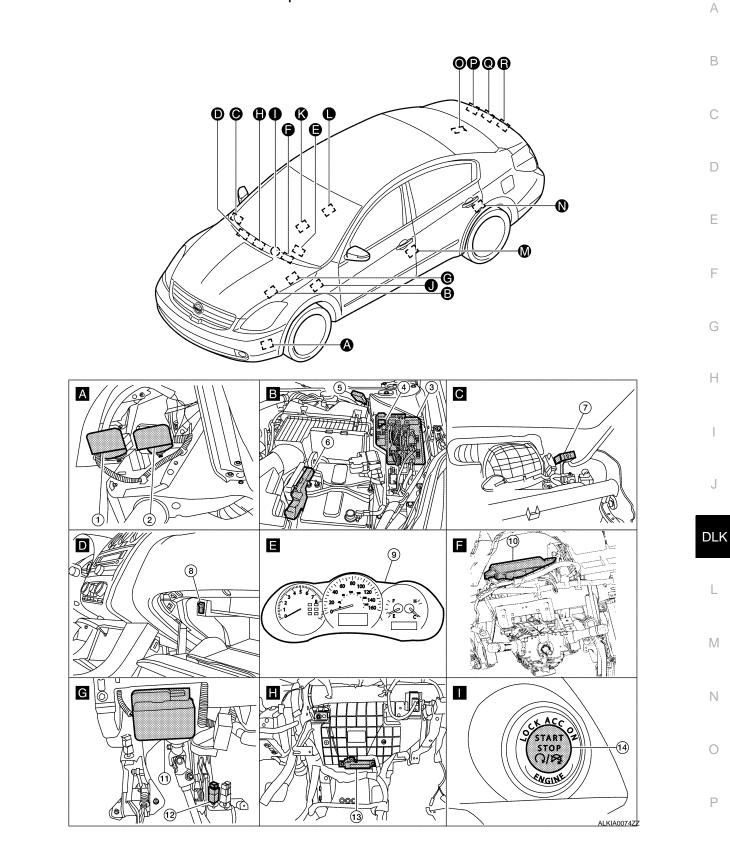
Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch (Driver, Passenger)	Door lock actuator	Inside key antenna	Outside key antenna (Driver, Passenger)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch
Door lock/unlock function by request switch	×	×	×	×	×	×	×	×		×	×		
Hazard and buzzer reminder function for door lock/unlock operation									×	×	×	×	
Key reminder function	×	×	×	×	×	×	×	×	×	×	×	×	
Selective unlock function by request switch (Driver side)	×				×	×	×	×		×	×		
Selective unlock function by request switch (Passenger side)	×				×	×	×	×		×	×		
Auto door lock function	×	×		×	×	×				×	×		×

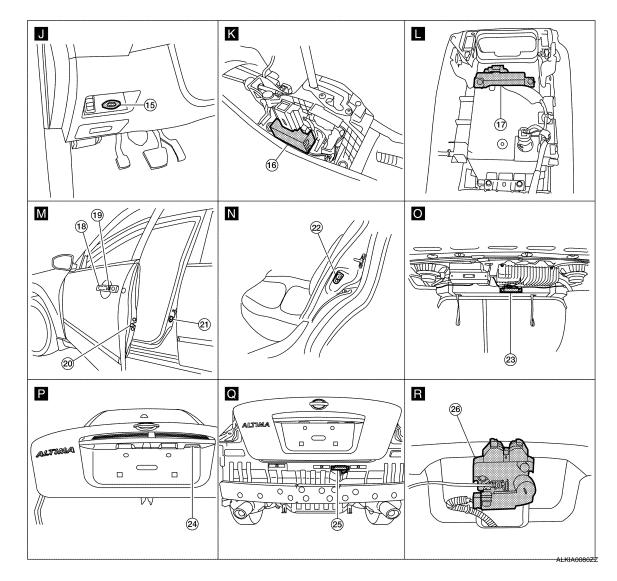
#### < FUNCTION DIAGNOSIS >

# DOOR REQUEST SWITCH : Component Parts Location

### [SEDAN]

INFOID:000000003183469





- Horn (low) E215 (view with front fender protector LH removed)
- 4. Horn relay H-1
- 7. Remote keyless entry receiver M27 (view with instrument panel removed)
- 10. BCM M16, M17, M18, M19, M20, M21 (view with instrument panel removed)
- Instrument panel antenna M49 (view with center console assembly removed)
- 16. CVT device (detent switch)
- Front outside handle LH (request switch) D6
   Front outside handle RH (request switch) D106
- 22. Rear door switch LH B18 RH B116
- 25. Rear bumper antenna B46

- 2. Horn (high) E216
- 5. Intelligent Key warning buzzer E73
- 8. Trunk lid opener cancel switch M74
- 11. Electronic steering column lock M32 (view with instrument panel LH removed)
- 14. Push button ignition switch M38
- Front console antenna M203 (view with center console assembly removed)
- 20. Front door lock assembly LH D10 Front door lock actuator RH D108
- 23. Rear parcel shelf antenna B29
- 26. Trunk lamp switch and trunk release solenoid B28

- 3. IPDM E/R E17, E18
- 6. ECM
- 9. Combination meter M24
- 12. Stop lamp switch E38
- 15. Key slot M40
- Front outside handle LH (outside key antenna) D6
   Front outside handle RH (outside key antenna) D106
- 21. Front door switch LH B8 RH B108
- 24. Trunk opener request switch B33

### DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

### DOOR REQUEST SWITCH : Component Description

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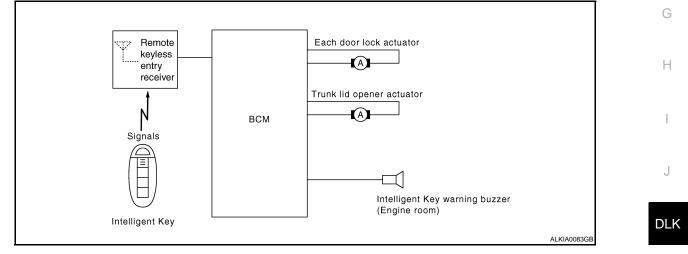
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Item	Function
BCM	Controls the door lock function and room lamp function.
Door lock and unlock switch	Transmits lock or unlock signal to BCM.
Door lock actuator	Receives lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Transmits 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	Transmits 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.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

### INTELLIGENT KEY

## INTELLIGENT KEY : System Diagram



### **INTELLIGENT KEY : System Description**

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

#### OPERATION DESCRIPTION/DOOR LOCK/UNLOCK FUNCTION

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

#### **OPERATION CONDITION**

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

#### **OPERATION AREA**

Operating Range

### DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

[SEDAN]

• To ensure the Intelligent Key works effectively, use within 80 cm range of each doors, however the operable range may differ according to surroundings. The remote control operation range is greater than that of the Intelligent Key. Refer to Owner's Manual for more details.

#### SELECTIVE UNLOCK FUNCTION

When a LOCK signal is transmitted from Intelligent Key, all doors will be locked.

When an UNLOCK signal is transmitted from Intelligent Key once, driver's door will be unlocked.

Then, if an UNLOCK signal is transmitted from Intelligent Key again within 5 seconds, all other doors will be unlocked.

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM flashes hazard warning lamps as a reminder and sends horn chirp signal to IPDM E/R. IPDM E/R sounds horn as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating function of hazard and horn reminder

		C mode				
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open
Hazard warning lamp flash	Twice	Once	_	Twice	—	—
Horns 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-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### **Without CONSULT-III**

Refer to Owner's Manual for instructions.

#### AUTO DOOR LOCK FUNCTION

#### Auto Door Lock Function

When all doors 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 are unlocked with Intelligent Key button. When BCM does not receive the following signals within 60 seconds, all doors 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 DOOR LOCK-UNLOCK SET mode in "WORK SUPPORT". Refer to DLK-234, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

#### 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 flashes 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-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### KEYLESS POWER WINDOW DOWN (OPEN) FUNCTION

Front power windows (with left and right front power window anti-pinch system) open when the unlock button on Intelligent Key is activated and kept 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.

### DLK-218

### DOOR LOCK FUNCTION

#### < FUNCTION DIAGNOSIS >

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Keyless power window down operation mode can be changed by PW DOWN SET mode in "WORK SUP-PORT". Refer to <u>DLK-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u>.

#### ROOM LAMP ILLUMINATION OPERATION

When the following conditions are met:

- Condition of interior lamp switch is in DOOR position
- Door switch OFF (all the doors are closed)

Intelligent Key system turns on interior lamp (for 15 seconds) by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <u>DLK-217, "INTELLIGENT KEY : System Description"</u>.

#### LIST OF OPERATION RELATED PARTS

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

														D
Remote keyless entry functions	Intelligent Key	Key slot	Door request switch (Driver, Passenger)	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamp	Horn	IPDM E/R	Head lamp	E F G
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	×	×		×			×	×						J
Panic alarm function	×	×	×				×	×	×		×	×	×	0

### **INTELLIGENT KEY : Component Parts Location**

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#### Refer to DLK-215, "DOOR REQUEST SWITCH : Component Parts Location".

### **INTELLIGENT KEY : Component Description**

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Item	Function			
BCM	Controls the door lock function and room lamp function.			
Door lock actuator	Receives 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.			
Intelligent Key	Transmits button operation to remote keyless entry receiver.			
Fuel lid opener actuator	Performs lock/unlock of the fuel lid.			
Intelligent key warning buzzer Warns the user of the lock/unlock condition and inappropriate operations with				

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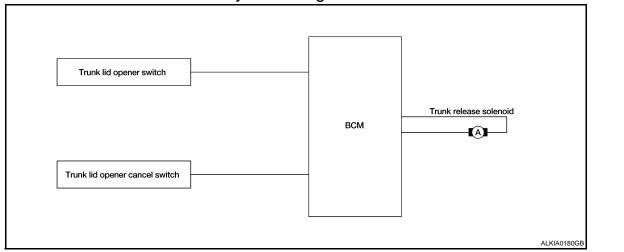
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< FUNCTION DIAGNOSIS >

INFOID:000000003183475

### TRUNK OPEN FUNCTION TRUNK LID OPENER SWITCH

### TRUNK LID OPENER SWITCH : System Diagram



### **TRUNK LID OPENER SWITCH : System Description**

INFOID:000000003183476

Switch	Input/output signal to BCM	BCM function	Actuator			
Trunk lid opener switch	Trunk open signal	Trunk open control	Trunk lid opener actuator			
Trunk lid opener cancel switch	Trank open signal	Hunk open control				

#### TRUNK LID OPENER OPERATION

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

BCM can open trunk lid opener actuator when

vehicle speed is less than 5 km/h (3MPH)

· vehicle security system is disarmed or pre-armed phase

BCM does not open trunk lid opener actuator when

• trunk lid opener cancel switch is OFF (CANCEL)

- vehicle speed is more than 5 km/h (3MPH)
- vehicle security system is armed or alarm phase

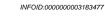
• Within 3 seconds of removing the Intelligent Key from the key slot

#### < FUNCTION DIAGNOSIS >

# TRUNK LID OPENER SWITCH : Component Parts Location



**DLK-221** 



[SEDAN]



- 1. BCM M16, M17, M18, M20, M21
- 2. Trunk lid opener switch M75
- 3. Trunk lid opener cancel switch M74

INFOID:000000003183478

4. Trunk lamp switch and trunk release solenoid B28

# TRUNK LID OPENER SWITCH : Component Description

		DLK
Item	Function	
BCM	Transmits trunk open operation to BCM.	1
Trunk lid opener switch	Transmits trunk open operation to BCM.	
Trunk release solenoid	Opens the trunk with the open signal from BCM	
Trunk lid opener cancel switch	Cancels the trunk open operation.	M
Trunk lid opener cancel switch		

## TRUNK REQUEST SWITCH

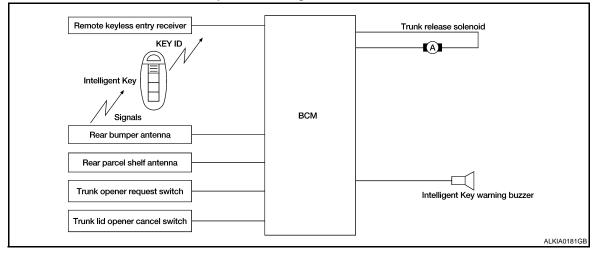
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#### < FUNCTION DIAGNOSIS >

### TRUNK REQUEST SWITCH : System Diagram



### **TRUNK REQUEST SWITCH : System Description**

INFOID:000000003183480

Only when pressing the request switch, it is possible to open the trunk by carrying the Intelligent Key.

The Intelligent Key system is a system that makes it possible to open the trunk (trunk open function) by carrying the Intelligent Key which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (BCM).
 CAUTION:

#### The driver should always carry the Intelligent Key

- If an action that does not meet the operating conditions of the Intelligent Key system is taken, the buzzer goes off to inform the driver (warning chime functions).
- When a trunk open with request switch or remote controller button operation, the hazard lamps flash and the Intelligent Key warning buzzer or horns sound (hazard and buzzer/horn reminder function).
- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be registered.
- It is possible to perform a diagnosis on the system and register an Intelligent Key with the CONSULT-III.

#### OPERATION DESCRIPTION/TRUNK OPEN

- When the BCM detects that trunk open request switch is pressed, it starts the outside key antenna (trunk room) and inside key antenna corresponding to the pressed trunk open request switch and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the trunk.
- If the Intelligent Key is within the outside key antenna (trunk room) detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM transmits the trunk open request signal and sounds Intelligent Key warning buzzer 4 consecutive times.
- When BCM receives the trunk open request signal, it operates the trunk release solenoid and opens the trunk.

#### **OPERATION CONDITION**

If the following conditions are not satisfied, trunk open operation is not performed even if the request switch is operated.

Each request switch operation	Operation condition
Trunk open operation	<ul> <li>Intelligent Key is within outside key antenna (trunk room) detection area*</li> <li>Trunk cancel switch is ON</li> <li>Key reminder functions operate (trunk)</li> </ul>

\*: 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

#### < FUNCTION DIAGNOSIS >

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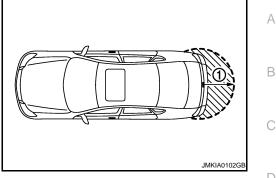
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The outside key antenna detection area of trunk open function is in the range of approximately 80 cm (31.50 in) surrounding Trunk opener request switch (1). However, this operating range depends on the ambient conditions.



#### **KEY REMINDER FUNCTION**

Key reminder function	Operation condition	Operation
Trunk is closed	<ul><li>Right after trunk is closed under the following conditions</li><li>Intelligent Key is inside trunk room</li><li>All doors are closed</li><li>All doors are locked</li></ul>	<ul> <li>Trunk open</li> <li>Honk Intelligent Key warning buzzer</li> </ul>

\*: If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation will be perform at 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, and this function will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.
- When the key reminder function is operated when the trunk is opened/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 trunk is closed, the Intelligent Key is not inside the vehicle
- When any door is open

#### HAZARD AND BUZZER REMINDER FUNCTION

During trunk opening operation by request switch, the hazard warning lamps and Intelligent Key warning buzzer will flash or honk as a reminder.

When trunk open by each request switch, IPDM E/R honks Intelligent Key warning buzzer as a reminder and transmits hazard request signal to BCM via CAN communication line.

BCM flashes hazard warning lamps as a reminder.

#### Operating function of hazard and buzzer reminder

Operation	Hazard warning lamp flash	Intelligent Key warning buzzer honks	M
Trunk open	—	Four times	111

#### How to change hazard and buzzer reminder mode

#### With CONSULT-III

Refer to DLK-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### LIST OF OPERATION RELATED PARTS

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

#### < FUNCTION DIAGNOSIS >

Trunk open function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Trunk room lamp switch	Trunk opener request switch	Trunk release solenoid	Inside key antenna	Outside key antenna (Trunk)	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamps	Trunk lid opener cancel switch
Trunk open function by the trunk opener request switch	×		×		×	×	×	×	×		×	×		×
Hazard and buzzer reminder function for door lock/unlock operation										×	×	×	×	
Buzzer reminder for trunk open operation										×	×	×		
Key reminder function	×	×	×	×				×	×	×	×	×	×	

### TRUNK REQUEST SWITCH : Component Parts Location

# Refer to <u>DLK-219</u>, "INTELLIGENT KEY : Component Parts Location". TRUNK REQUEST SWITCH : Component Description

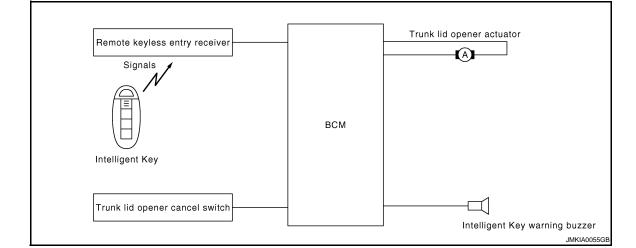
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Item	Function				
BCM	Controls trunk open function.				
Trunk release solenoid	Transmits trunk open operation to BCM.				
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.				
Trunk opener request switch	Transmits trunk open 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.				
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.				

### **INTELLIGENT KEY**

### INTELLIGENT KEY : System Diagram



#### DLK-225

### **TRUNK OPEN FUNCTION**

### **INTELLIGENT KEY : System Description**

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

#### **OPERATION DESCRIPTION/TRUNK OPEN FUNCTION**

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

#### **OPERATION CONDITION**

< FUNCTION DIAGNOSIS >

Remote controller operation	Operation condition	Operation
Trunk open	Press and hold the trunk open button for 0.5 second or more	Trunk open

#### OPERATION AREA

Operating Range

• To ensure the Intelligent Key works effectively, use within 80 cm range of each door, however the operable range may differ according to surroundings.

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key. BCM flashes hazard warning lamps as a reminder and transmits horn chirp signal to IPDM E/R. IPDM E/R sound horns as a reminder.

The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

#### Operating function of hazard and horn reminder

		C mode		S mode					
Intelligent Key operation	Lock	Unlock	Trunk open	Lock	Unlock	Trunk open			
Hazard warning lamp flash	Twice	Once		Twice	-	—			
Horn sound	Once	—	—	_	_	_			

Hazard and horn reminder does not operate if any door switch is ON (any door is OPEN). How to change hazard and horn reminder mode

### With CONSULT-III

#### Refer to DLK-235, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### **Without CONSULT-III**

Refer to Owner's Manual for instructions.

#### LIST OF OPERATION RELATED PARTS

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

Remote keyless entry functions	Intelligent Key	Key slot	Trunk room lamp switch	Trunk release solenoid	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamps	Horns	IPDM E/R	Head lamp	
		-				9	ш	5	-	-	-	-	
Trunk open function by remote control button	×	×	×	×		×	×						F
Hazard and horn reminder function	×				×	×	×	×	×	×	×		

### INTELLIGENT KEY : Component Parts Location

Refer to DLK-219, "INTELLIGENT KEY : Component Parts Location".

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#### < FUNCTION DIAGNOSIS >

# INTELLIGENT KEY : Component Description

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Item	Function
BCM	Controls trunk open function.
Trunk release solenoid	Opens the trunk with the open signal from BCM.
Remote keyless entry receiver	Receives trunk open signal from the Intelligent Key, and then transmits to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with a buzzer sound.

[SEDAN]

### < FUNCTION DIAGNOSIS >

### WARNING FUNCTION

System Description

e warning functions are as follows and are given to the user as warning information and warnings using mbinations of Intelligent Key warning buzzer, KEY warning lamp, key slot illumination and combination	combinations of Intelligent Ke
ter display in combination meter.	
ntelligent Key system malfunction	
	<ul> <li>OFF position warning</li> </ul>
	<ul> <li>P position warning</li> </ul>
0	<ul> <li>ACC warning</li> </ul>
ake away warning	<ul> <li>Take away warning</li> </ul>
Door lock operation warning	<ul> <li>Door lock operation warning</li> </ul>
ley warning	<ul> <li>Key warning</li> </ul>
ntelligent Key insert information	<ul> <li>Intelligent Key insert informa</li> </ul>
ingine start information	<ul> <li>Engine start information</li> </ul>
teering lock information	<ul> <li>Steering lock information</li> </ul>
ntelligent key low battery warning	<ul> <li>Intelligent key low battery was</li> </ul>
iey ID warning	<ul> <li>Key ID warning</li> </ul>

#### **OPERATION CONDITION**

Once the following condition from below is established, alert or warning will be executed.

Warning/Info	rmation functions	Operation procedure				
		When a malfunction is detected on BCM, "KEY" warning lamp will illuminate.				
	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 been closed. <b>NOTE:</b> OFF position (For external) active only when each of the sequence has occurred as below: P position warning $\rightarrow$ ACC warning $\rightarrow$ OFF position warning (For internal) $\rightarrow$ OFF position warning (For internal)	J			
P position warning		<ul><li>Shift position: Except P position</li><li>Engine is running to stopped (Ignition switch is ON to OFF)</li></ul>	DL			
ACC warning		<ul> <li>During P position warning is in active mode, shift position has changed P position.</li> <li>Ignition switch: Except OFF position.</li> </ul>	L			
	Door is open to close	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>	N			
	Door is open	<ul> <li>Door switch: ON (Door is open)</li> <li>Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> </ul>	Ν			
Take away warning	Push-ignition switch oper- ation	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Press ignition switch.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>	C			
	Take away through win- dow	<ul> <li>Engine is running.</li> <li>Key ID verification every 30 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> <li>After vehicle speed verification, the registered Intelligent Key can not be detect inside the vehicle.</li> </ul>	F			
	Intelligent Key is removed from key slot	• When Intelligent Key is removed from key slot, Intelligent Key can not be detected inside the vehicle.				

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#### < FUNCTION DIAGNOSIS >

Warning/Inform	nation functions	Operation procedure
Door lock operation warn-	Request switch operation	<ul><li>When request switch is pushed (lock operation) under the following conditions.</li><li>Door switch: ON (Any door is open).</li><li>Intelligent Key is inside vehicle.</li></ul>
ing	Intelligent Key button op- eration	<ul> <li>When Intelligent Key button is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>For 3 seconds after Intelligent Key is removed from key slot.</li> </ul>
Key warning		<ul> <li>Ignition switch is OFF position.</li> <li>Driver side door switch: ON (Driver side door is open).</li> <li>Intelligent Key is inserted in key slot.</li> </ul>
Intelligent Key insert inforr	nation	<ul> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Ignition switch: OFF to ON position.</li> <li>Intelligent Key is out of key slot.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>
	Ignition switch is ON posi- tion	<ul><li> Ignition switch: ON position.</li><li> Shift position: P position</li><li> Engine is stopped</li></ul>
Engine start information	Ignition switch is except ON position	<ul> <li>Ignition switch: Except ON position.</li> <li>Shift position: P position</li> <li>Intelligent Key is inserted in key slot.</li> <li>Intelligent Key can be detected inside the vehicle.</li> </ul>
Steering lock information		When steering lock can not be released after ignition switch is turned ON.
Intelligent Key low battery	warning	When Intelligent Key has low battery, it is detected by BCM after ignition switch is turned ON.
Key ID warning		When registered intelligent Key cannot be detected inside the vehicle after ig- nition switch is turned ON.

#### WARNING METHOD

The following table shows the alarm or warning methods with chime. Meter display, "KEY" indicator or key slot illumination when the warning conditions are met.

					Warning	g chime
Warning/Informa	ation functions	"KEY" warn- ing lamp	Combination meter display	Key slot il- lumination	Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key syste	m malfunction	Illuminate	—	_	—	_
OFF position warn-	For internal	_	_		Activate	_
ing	For external	—	—	_	—	Activate
P position warning			BIE SHIFT JMKIA0037GB		Activate	_
ACC warning		_	PUSH JMKIA0047GB	_	Activate	_

### **DLK-228**

#### < FUNCTION DIAGNOSIS >

### [SEDAN]

				Key slot il-	Warning	ı chime
Warning/Informa	Warning/Information functions		"KEY" warn- ing lamp Combination meter display		Combination meter buzzer	Intelligent Key warning buzzer
	Door is open to close	—		Flash	Activate	Activate
	Door is open			Flash		
Take away warning	Push-ignition switch operation	_		Flash	Activate	_
āke away warning	Take away through window	_	NO KEY	Flash	Activate	_
	Intelligent Key is removed from key slot	_	JMKIA0036GB	Flash	_	_
Door lock operation	Request switch operation	—	—	_	—	Activate
warning	Intelligent Key operation	_	—	_	—	Activate
Key ID warning			NO KEY			_
Key warning		_	JMKIA0035GB	Flash	Activate	_
Intelligent Key insert information			JMKIA0034GB	Flash	_	_
Engine start infor-	Automatic trans- mission models		BRAKE BRAKE	_	_	_
mation	Manual trans- mission models		CLUTCH ELKIA1326GB		_	_

## DLK-229

#### < FUNCTION DIAGNOSIS >

				Warning chime				
Warning/Information functions	"KEY" warn- ing lamp	Combination meter display	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 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	Park position switch	"KEY" warning lamp
Intelligent Key system ma	lfunction										×	×				×
OFF position warning	For internal				×					×	×	×				
Of T position warning	For external				×				×		×	×				
P position warning				×						×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
Take away warning	Push-ignition switch oper- ation	×		×			×			×	×	×	×	×		
	Take away through win- dow	×					×			×	×	×	×	×		
	Intelligent Key is removed from key slot	×	×				×				×	×	×	×		
Door lock operation warning		×	×		×	×	×	×	×		×	×				
Key ID warning		×	×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert inform	mation	×	×	×	×		×				×	×	×	×		

#### < FUNCTION DIAGNOSIS >

### [SEDAN]

Warnin	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	Park position switch	"KEY" warning lamp	A B C
	Ignition switch is ON posi- tion	×	×	×			×				×	×	×		×		_
Engine start information	Ignition switch is except ON position	×	×	×			×				×	×	×				E
Steering lock information	1			×							×	×	×				
Intelligent Key low battery warning		×					×				×	×	×				F
Component Parts Location							U	U					II	NFOID:00	0000000	3183488	

Refer to DLK-219, "INTELLIGENT KEY : Component Parts Location".

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### KEY REMINDER FUNCTION

### System Description

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

Key reminder function	Operation condition	Operation
Driver door closed*	<ul> <li>Right after driver side door is closed under the following conditions</li> <li>Door lock operation is performed</li> <li>Driver side door is opened</li> <li>Driver side door is in unlock state</li> </ul>	All doors unlock
Door is open or closed	<ul> <li>Right after all doors are closed under the following conditions</li> <li>Intelligent Key is inside the vehicle</li> <li>Any door is opened</li> <li>All doors are locked by door lock and unlock switch or door lock knob</li> </ul>	<ul> <li>All doors unlock</li> <li>Sounds Intelligent Key warning buzzer</li> </ul>
Trunk is closed	<ul><li>Right after trunk is closed under the following conditions</li><li>Intelligent Key is inside trunk room</li><li>All doors are closed</li><li>All doors are locked</li></ul>	<ul> <li>Trunk open</li> <li>Sounds Intelligent Key warning buzzer</li> </ul>

\*: If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation will be 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, and this function will not operate when the Intelligent Key is on the instrument panel, rear parcel shelf, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.
- When the key reminder function is operated when the trunk 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 trunk is closed, the Intelligent Key is not inside the vehicle
- When any door is open

#### Component Parts Location

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Refer to DLK-219, "INTELLIGENT KEY : Component Parts Location".

### HOMELINK UNIVERSAL TRANSCEIVER

#### < FUNCTION DIAGNOSIS >

# HOMELINK UNIVERSAL TRANSCEIVER

# **Component Description**

Item	Function	Reference page
Homelink Liniversal transceiver	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.	Refer to Owner's Manual

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[SEDAN]

# DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000003183492

[SEDAN]

#### 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-DIAG RESULTS	Displays the diagnosis results judged by BCM. Refer to <u>DLK-363, "DTC Index"</u> .
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFUCATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

System	Sub system selection item	Diagnosis mode				
System	Sub system selection item	WORK SUPPORT	DATA MONITOR	ACTIVE TEST		
Door lock	DOOR LOCK	×	×	×		
Warning chime	BUZZER		×	×		
Interior room lamp timer	INT LAMP	×	×	×		
Turn signal and hazard warning lamps	FLASHER	×	×	×		
Intelligent Key system	INTELLIGENT KEY	×	×	×		
BCM	BCM	×				
Interior room lamp battery saver	BATTERY SAVER	×	×	×		
Trunk open	TRUNK		×			
RAP system	RETAINED PWR		×			

### DOOR LOCK

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

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#### 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

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.

#### < FUNCTION DIAGNOSIS >

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 trunk opener 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	NOTE: This item is displayed, but cannot be monitored.	
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 key cylinder.	
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from key cylinder.	

#### ACTIVE TEST

Test item	tem Description	
DOOR LOCK	<ul> <li>This test is able to check door lock/unlock operation.</li> <li>The all door lock actuators are locked when "LOCK" on CONSULT-III screen is touched.</li> <li>The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched.</li> <li>The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched.</li> <li>The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched.</li> <li>The door lock actuator (other) is unlocked when "OTR ULK" on CONSULT-III screen is touched.</li> </ul>	

### INTELLIGENT KEY

# INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) INFOLD:00000003183494

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### BCM CONSULT-III FUNCTION

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

Diagnosis mode	Function Description	L
WORK SUPPORT	Changes the setting for each system function.	
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.	5.4
DATA MONITOR	The BCM input/output signals are displayed.	IVI
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.	

#### WORK SUPPORT

Monitor item	Description	
REMO CONT ID CONFIR	It can be checked whether Intelligent Key ID code is registered or not in this mode.	
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window) mode can be changed to operate (ON) or not operate (OFF) with this mode. The operation mode will be changed when (CHANGE SETT" on CONSULT-III screen is touched.	
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and trunk) mode can be changed to operate (ON) or not operate (OFF) with this mode.	
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.	
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk opener request switch can be changed to operate (ON) or not operate (OFF) with this mode.	

### DLK-235

#### < FUNCTION DIAGNOSIS >

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Monitor item	Description	
Panic alarm button pressing time on Intelligent Key remote control button can be selected following with this mode.         PANIC ALARM SET         • 0.5 sec.         • 1.5 sec.         • OFF: Non-operation		
PW DOWN SET	<ul> <li>Unlock button pressing time on Intelligent Key button to lower front windows can be selected from the following with this mode.</li> <li>3 sec.</li> <li>5 sec.</li> <li>OFF: Non-operation</li> </ul>	
TRUNK OPEN DELAY	<ul> <li>Trunk button pressing time on Intelligent Key button can be selected from the following with this mode.</li> <li>0.5 sec.</li> <li>1.5 sec.</li> <li>OFF: No delay</li> </ul>	
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.	
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.	
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.	
HAZARD ANSWER BACK	<ul> <li>Hazard reminder function mode can be selected from the following with this mode.</li> <li>LOCK ONLY: Door lock operation only</li> <li>UNLOCK ONLY: Door unlock operation only</li> <li>LOCK AND UNLOCK: Lock/unlock operation</li> <li>OFF: Non operation</li> </ul>	
ANS BACK I-KEY LOCK	<ul> <li>Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode.</li> <li>HORN CHIRP: Sound horn</li> <li>BUZZER: Sound Intelligent Key warning buzzer</li> <li>OFF: Non-operation</li> </ul>	
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) with this mode.	
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.	

### SELF-DIAG RESULT Refer to <u>DLK-363, "DTC Index"</u>.

### DATA MONITOR

Manitar Hom	Condition
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 trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (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.

### DLK-236

#### < FUNCTION DIAGNOSIS >

[SEDAN]
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Monitor Item	Condition	
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.	
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.	
SFT P -MET	Indicates [ON/OFF] condition of P position.	
SFT N -MET	Indicates [ON/OFF] condition of N position.	
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.	
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.	
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.	
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].	
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].	
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.	
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.	
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.	
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.	
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	
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	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.	
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.	

### ACTIVE TEST

Test item	Description	
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "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 will be activated after "ON" on CONSULT-III screen is touched.	
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. Intelligent Key warning buzzer sounds when "ON" on CONSULT-III screen is touched.	
INSIDE BUZZER	<ul> <li>This test is able to check warning chime by combination meter operation.</li> <li>Take out warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched.</li> <li>Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched.</li> <li>P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched.</li> <li>ACC warning chime sounds when "ACC WARN" on CONSULT-III screen is touched.</li> </ul>	
INDICATOR	<ul> <li>This test is able to check warning lamp operation.</li> <li>"KEY" Warning lamp illuminates when "KEY IND ON" on CONSULT-III screen is touched.</li> <li>"KEY" Warning lamp flashes when "KEY IND FSH" on CONSULT-III screen is touched.</li> </ul>	
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.	

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#### < FUNCTION DIAGNOSIS >

[SEDAN]

Test item Description		
LCD	<ul> <li>This test is able to check meter display information</li> <li>Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched.</li> <li>Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched.</li> <li>Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched.</li> <li>Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched.</li> <li>P position warning displays when "P RNG IND" on CONSULT-III screen is touched.</li> <li>Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched.</li> <li>Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched.</li> <li>Take away window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched.</li> <li>Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched.</li> <li>OFF position warning display when "IGN OFF WARN" on CONSULT-III screen is touched.</li> </ul>	
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.	
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.	
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.	
IGN CONT2	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.	
P RANGE	This test is able to check CVT device power supply CVT device 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 LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
IGNITION ON IND	This test is able to check INGITION ON indicator in push-ignition switch operation. LOCK indicator in push-ignition switch 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 flash when "ON" on CONSULT-III screen is touched.	

### TRUNK

### TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000003183495

#### 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 switch.	
UNLK SEN -DR	Indicates [ON/OFF] condition of unlock sensor.	
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	Indicates [ON/OFF] condition of trunk lid opener cancel switch.	

### DLK-238

#### < FUNCTION DIAGNOSIS >

### [SEDAN]

Monitor Item	Contents	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk lid opener switch.	A
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk room lamp switch.	_
RKE-TR/BD	Indicates [ON/OFF] condition of trunk open signal from Intelligent Key remote controller button.	В

#### ACTIVE TEST

Test item	Description	С
TRUNK/GLASS HATCH	This test is able to check trunk open operation. Trunk open when "OPEN" on CONSULT-III screen is touched.	

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# COMPONENT DIAGNOSIS U1000 CAN COMM CIRCUIT

### Description

INFOID:000000003183496

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-25, "CAN Communication Signal Chart".

### **DTC Logic**

INFOID:000000003183497

### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN com- munication signal continuously for 2 sec- onds or more.	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (MULTI AV) • Receiving (IPDM E/R)

### Diagnosis Procedure

INFOID:000000003183498

### **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-8. "CAN Communication Control Circuit".
- NO >> Refer to GI-42, "Intermittent Incident".

# U1010 CONTROL UNIT (CAN)

### < COMPONENT DIAGNOSIS >

# U1010 CONTROL UNIT (CAN)

# DTC Logic

DTC	CONSULT-III display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT (CAN)	BCM detected internal CAN communication circuit malfunction.	BCM
Diagno	osis Procedure		INFOID:00000003183500
1.REPI	LACE BCM		
When D	TC [U1010] is detected	d, replace BCM.	
	>> Replace BCM.		
Special Repair Requirement			
1.REQ	UIRED WORK WHEN	REPLACING BCM	
Initialize	NVIS by CONSULT-II	I. For the details of initialization refer to CONSULT-III	Operation Manual.
	>> Work end.		

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### B2621 INSIDE KEY ANTENNA 1

### Description

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

### DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA 1 CIRCUIT	An excessive high or low voltage from inside anten- na is sent to BCM.	<ul> <li>Inside key antenna (instrument panel)</li> <li>Between BCM and Inside key antenna (instrument panel)</li> </ul>

#### DTC CONFIRMATION PROCEDURE

**1.**PERFORM DTC CONFIRMATION PROCEDURE

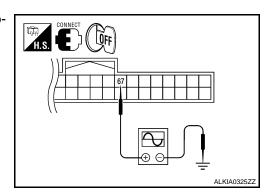
#### With CONSULT-III

- 1. Perform INSIDE ANT DIAGNOSIS on Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.
- Is inside key antenna DTC detected?
- YES >> Refer to <u>DLK-242, "Diagnosis Procedure"</u>.
- NO >> Inside key antenna (instrument panel) is OK.

### **Diagnosis Procedure**

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- Check signal between BCM connector and ground with oscilloscope.



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[SEDAN]

INEQID:000000003183503

### **B2621 INSIDE KEY ANTENNA 1**

#### < COMPONENT DIAGNOSIS >

Terminals А Signal (+) Condition (Reference value.) (-) Terminal BCM connector (V 10 Place Intelligent Key inside the vehicle. 1 s D JMKIA0062GB Instrument M19 67 Ground panel antenna (V Е 15 10 Place Intelligent Key outside the vehicle. F 1 s JMKIA0063GB Is the inspection result normal? YES >> Check the condition of harness and connector. NO >> GO TO 2 2. CHECK INSIDE KEY ANTENNA CIRCUIT Н Disconnect BCM and instrument panel antenna connector. 1. Check continuity between BCM connector and instrument panel 2. antenna connector. 1.2 66, 67 DLK Ω ALKIA0326Z BCM connector Terminal Instrument panel antenna connector Terminal Continuity Μ 66 2 A: M19 B: M49 Instrument center Yes 67 1 Check continuity between BCM connector and ground. 3. Ν BCM connector Terminal Continuity 66 Ground

Is the inspection result normal?

YES >> GO TO 3.

A: M19

NO >> Repair or replace harness between BCM and instrument panel antenna.

**3.**CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

1. Replace instrument panel antenna (New antenna or other antenna).

2. Connect BCM and instrument panel antenna connector.

Instrument panel antenna

### **DLK-243**

67

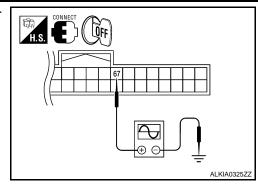
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### **B2621 INSIDE KEY ANTENNA 1**

#### < COMPONENT DIAGNOSIS >

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



[SEDAN]

	Terminals				Cignal
	(+)		()	Condition	Signal (Reference value.)
BCI	V connector	Terminal	( )		
M19	Instrument	67	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
WITE	panel antenna	07	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

Is the inspection result normal?

- YES >> Replace instrument panel antenna. Refer to <u>IP-11, "Removal and Installation"</u>.
- NO >> Replace BCM. Refer to <u>BCS-88. "Removal and Installation"</u>.

# **B2622 INSIDE KEY ANTENNA 2**

### Description

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

### DTC Logic

### DTC DETECTION LOGIC

< COMPONENT DIAGNOSIS >

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	D
B2622	INSIDE ANTENNA 2 CIRCUIT	An excessive high or low voltage from inside anten- na is sent to BCM.	<ul> <li>Front console antenna</li> <li>Between BCM and front console antenna.</li> </ul>	E

### DTC CONFIRMATION PROCEDURE

# 1.PERFORM DTC CONFIRMATION PROCEDURE

#### (P)With CONSULT-III

- Perform front console antenna INSIDE ANT DIAGNOSIS on "Work Support" of "INTELLIGENT KEY". 1.
- Perform "INTELLIGENT KEY" Self Diagnostic Result. 2.

Is front console antenna DTC detected?

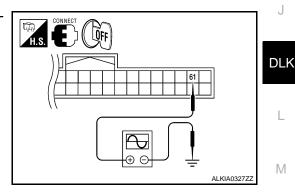
YES >> Refer to DLK-245, "Diagnosis Procedure".

NO >> Front console antenna is OK.

### **Diagnosis** Procedure

### 1. CHECK FRONT CONSOLE ANTENNA INPUT SIGNAL 1

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



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### **B2622 INSIDE KEY ANTENNA 2**

#### < COMPONENT DIAGNOSIS >

Terminals Signal Condition (+) (Reference value.) (-) BCM connector Terminal 15 Place Intelligent Key inside the vehicle. 1 s IMKIA0062GB Front console M19 61 Ground antenna Place Intelligent Key outside the vehicle.

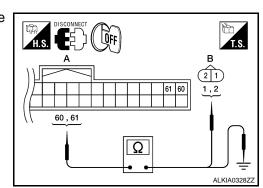
Is the inspection result normal?

YES >> Check the condition of harness and connector.

NO >> GO TO 2

2. CHECK FRONT CONSOLE ANTENNA CIRCUIT

- 1. Disconnect BCM and front console antenna connector.
- 2. Check continuity between BCM connector and front console antenna connector.



1 s

BCM connector	Terminal	Front console antenna connector		Terminal	Continuity
A: M19	60	B: M203	: M203 Console	2	Yes
	61		CONSOLE	1	res

3. Check continuity between BCM connector and ground.

BCM connector		Terminal		Continuity
A: M19	Console	60	Ground	No
A. 10119	CONSOLE	61		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and front console antenna.

**3.**CHECK FRONT CONSOLE ANTENNA INPUT SIGNAL 2

1. Replace front console antenna (New antenna or other antenna).

2. Connect BCM and front console antenna connector.

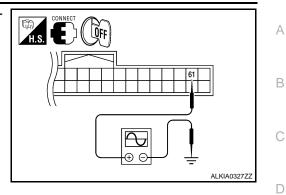
### DLK-246

JMKIA0063GB

### **B2622 INSIDE KEY ANTENNA 2**

#### < COMPONENT DIAGNOSIS >

Check signal between BCM connector and ground with oscillo-3. scope.



[SEDAN]

	Termi	nals			
	(+)		(-)	Condition	Signal (Reference value.)
BC	M connector	Terminal	()		
M19	Front console	61	Ground	Place Intelligent Key inside the vehicle.	(V) 15 0 5 0 1 s JMKIA0062GB
M19	antenna	61	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 •••••••••••••••••••••••••••••
					JMKIA0063GB

Is the inspection result normal?

YES >> Replace front console antenna. Refer to IP-17, "Disassembly and Assembly". >> Replace BCM. Refer to BCS-88, "Removal and Installation". NO

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### B2623 INSIDE KEY ANTENNA 3

### Description

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

### DTC Logic

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA 3 CIRCUIT	An excessive high or low voltage from rear parcel shelf antenna is sent to BCM.	<ul> <li>rear parcel shelf antenna</li> <li>Between BCM and rear parcel shelf antenna</li> </ul>

#### DTC CONFIRMATION PROCEDURE

**1.**PERFORM DTC CONFIRMATION PROCEDURE

#### With CONSULT-III

- 1. Perform rear parcel shelf antenna INSIDE ANT DIAGNOSIS on "Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

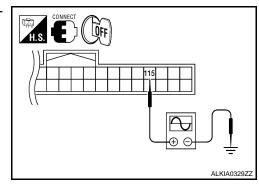
Is rear parcel shelf antenna DTC detected?

- YES >> Refer to <u>DLK-248, "Diagnosis Procedure"</u>.
- NO >> rear parcel shelf antenna is OK.

### **Diagnosis Procedure**

### **1.**CHECK REAR PARCEL SHELF ANTENNA INPUT SIGNAL 1

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



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### **B2623 INSIDE KEY ANTENNA 3**

#### < COMPONENT DIAGNOSIS >

Terminals А Signal Condition (+)(Reference value.) (-) BCM connector Terminal В 15 10 Place Intelligent Key inside the vehicle. 1 s D JMKIA0062GB Rear parcel M21 115 Ground shelf antenna Е 15 10 Place Intelligent Key outside the vehicle. F 1 s JMKIA0063GB Is the inspection result normal? YES >> Check the condition of harness and connector. NO >> GO TO 2 2. CHECK REAR PARCEL SHELF ANTENNA CIRCUIT Н 1. Disconnect BCM and rear parcel shelf antenna connector. Check continuity between BCM connector and rear parcel shelf 2. antenna connector. 21 1,2 1151 114,115 DLK Ω ALKIA0330ZZ BCM connector Terminal Rear parcel shelf antenna connector Terminal Continuity Μ 114 2 A: M21 B: B29 Trunk room Yes 115 1 3. Check continuity between BCM connector and ground. Ν

BCM connector		Terminal		Continuity
A: M21	Trunk room	114	Ground	No
A. WZT	A: M21 Trunk room	115		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and rear parcel shelf antenna.

 $\mathbf{3.}$  CHECK REAR PARCEL SHELF ANTENNA INPUT SIGNAL 2

1. Replace rear parcel shelf antenna (New antenna or other antenna).

2. Connect BCM and rear parcel shelf antenna connector.

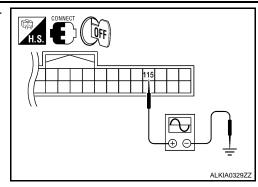
### **DLK-249**

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### **B2623 INSIDE KEY ANTENNA 3**

#### < COMPONENT DIAGNOSIS >

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



[SEDAN]

	Terr	minals			0
	(+)		()	Condition	Signal (Reference value.)
BCI	V connector	Terminal	( )		
M21	Trunk room	115	Ground	Place Intelligent Key inside the vehicle.	(V) 15 0 5 0 1 s JMKIA0062GB
IVIZ I	Hank tooli		Ground	Place Intelligent Key outside the vehicle.	(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

Is the inspection result normal?

- YES >> Replace rear parcel shelf antenna. Refer to INT-36, "Removal and Installation".
- NO >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

<b>POWER SUPPLY AND GROUND CIRCUIT</b> < COMPONENT DIAGNOSIS >	[SEDAN]	
POWER SUPPLY AND GROUND CIRCUIT		А
Diagnosis Procedure	INFOID:000000003183511	Π
Refer to BCS-36, "Diagnosis Procedure".		В
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### < COMPONENT DIAGNOSIS >

### DOOR SWITCH

### Description

Detects door open/close condition.

**Component Function Check** 

### **1.**CHECK FUNCTION

#### With CONSULT-III

Check door switches DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, DOOR SW-RR in Data Monitor mode with CONSULT-III.

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

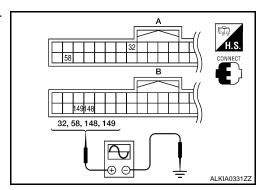
Is the inspection result normal?

- YES >> Door switch is OK.
- NO >> Refer to <u>DLK-252, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

1. CHECK DOOR SWITCH INPUT SIGNAL

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



DLK-252

[SEDAN]

INFOID:000000003183512

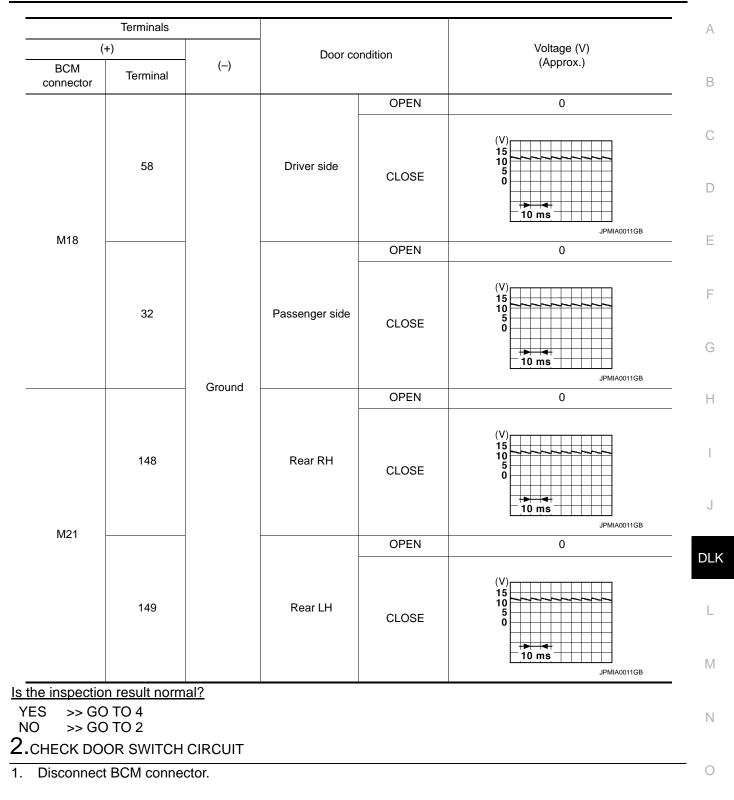
INFOID:000000003183513

### **DOOR SWITCH**

#### < COMPONENT DIAGNOSIS >

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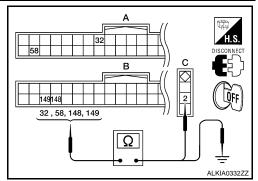
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### **DOOR SWITCH**

#### < COMPONENT DIAGNOSIS >

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



BCM connector	Terminal	Door switch connector	Terminal	Continuity
M18	58	B8 (Driver side)		Yee
IVITO	32	B108 (Passenger side)		
M21	148	B116 (Rear RH)	2	Yes
IVIZ I	149	B18 (Rear LH)		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity	
M18	58			
IM 18	32	Ground	No	
M21	148		NO	
	149			

#### Is the inspection result normal?

YES >> GO TO 3

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

**3.**CHECK DOOR SWITCH

Refer to DLK-254, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### **Component Inspection**

### 1. CHECK DOOR SWITCH

1. Turn ignition switch OFF.

2. Disconnect door switch connector.

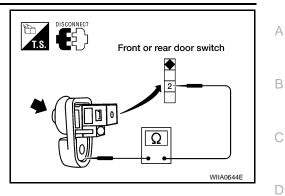
### **DLK-254**

[SEDAN]

INFOID:000000003183515

#### < COMPONENT DIAGNOSIS >

3. Check door switch.



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

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace malfunction door switch.

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< COMPONENT 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

#### (P)With CONSULT-III

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

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

Is the inspection result normal?

- YES >> Door lock and unlock switch is OK.
- NO >> With LH and RH anti-pinch, refer to <u>DLK-256, "DRIVER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch)"</u>.
- NO >> With LH anti-pinch only, refer to <u>DLK-258</u>, "<u>DRIVER SIDE</u> : <u>Diagnosis Procedure (With LH Anti-Pinch Only)</u>".

DRIVER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch)

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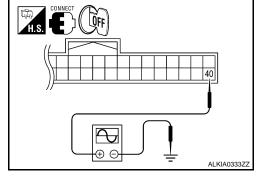
**1.**CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Read voltage signal between BCM connector and ground with oscilloscope when door lock and unlock switch (driver side) is turned "LOCK" or "UNLOCK".

2. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (driver side) is turned "LOCK" or "UNLOCK".

	Terminal					
(+	(+)		Condition Signal (Reference value	Condition (Reference value)	Condition	Signal (Reference value)
BCM connector	Terminal	()				
M18	40	Ground	Door is closed	(V) 15 10 0 0 10 10 10 10 10 10 10 10 10 10 10		

Is the inspection result normal?



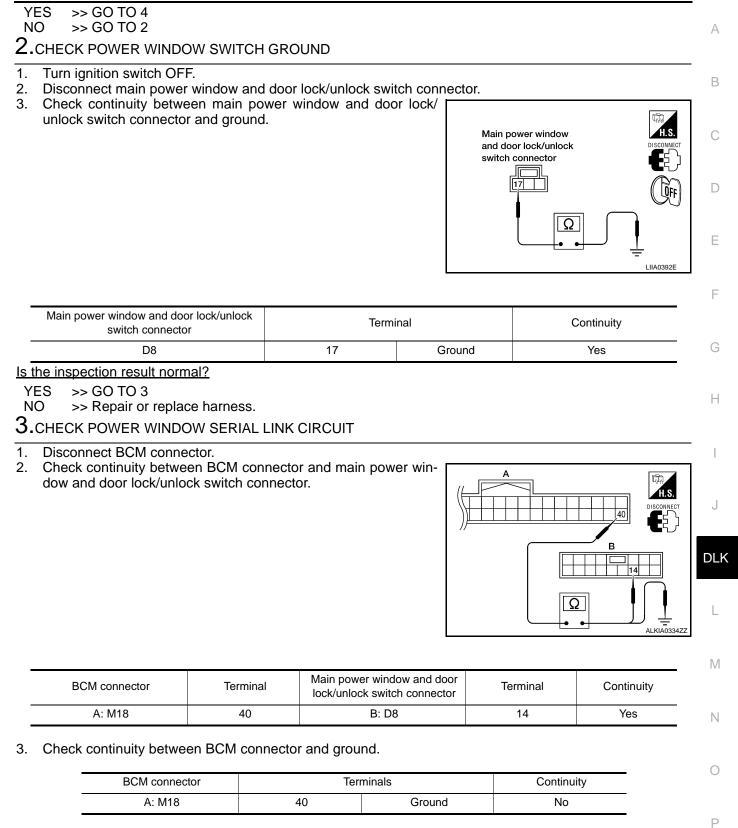
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< COMPONENT DIAGNOSIS >

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Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

< COMPONENT DIAGNOSIS >

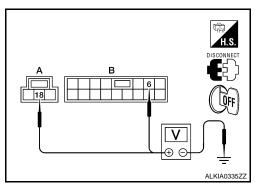
>> INSPECTION END.

DRIVER SIDE : Diagnosis Procedure (With LH Anti-Pinch Only)

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1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage at the main power window and door lock/unlock switch connector when the switch (driver side) is turned to "LOCK" or "UNLOCK".



Connector	Main power window and door lock/un- lock switch state	Terminal		Voltage
D8	Neutral $\rightarrow$ Lock	18	Ground	
D7	Neutral $\rightarrow$ Unlock	6	Glound	Battery voltage $\rightarrow 0$

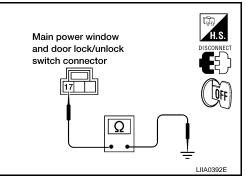
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 2.

2. CHECK POWER WINDOW SWITCH GROUND

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



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

Is the inspection result normal?

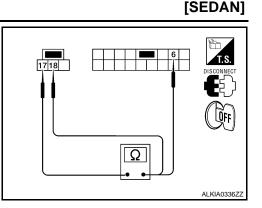
YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK POWER WINDOW SWITCH

#### < COMPONENT DIAGNOSIS >

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



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Main power window and door lock/unlock switch state	Terminals	Continuity
Lock	17 - 18	Yes
Unlock	6 - 17	165
Neutral/Lock	6 - 17	No
Neutral/Unlock	17 - 18	INU

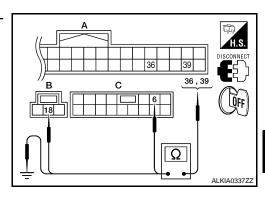
Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace main power window and door lock/unlock switch.

#### **4.**CHECK POWER WINDOW SWITCH CIRCUITS

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



BCM connectorTerminalMain power window and door<br/>lock/unlock switch connectorTerminalContinuityA: M1836B: D818Yes39C: D76

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
A: M18	36	Ground	No
A. MT0	39	Ground	NO

**DLK-259** 

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

< COMPONENT DIAGNOSIS >

>> INSPECTION END.

### DRIVER SIDE : Special Repair Requirement

#### INITIALIZATION PROCEDURE

- 1. Disconnect battery minus terminal or main power window and door lock/unlock switch connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 3 seconds or more.
- 5. Inspect anti-pinch function.

#### CHECK ANTI-PINCH FUNCTION

- 1. Fully open the driver window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the main power window and door lock/unlock switch while lowering.

#### CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>DLK-360, "Fail Safe"</u>
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Retained power operation when ignition switch is OFF.

PASSENGER SIDE

#### PASSENGER SIDE : Description

Transmits door lock/unlock operation to BCM.

#### PASSENGER SIDE : Component Function Check

### **1.**CHECK FUNCTION

#### With CONSULT-III

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

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

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

- NO >> With LH and RH anti-pinch, refer to <u>DLK-260, "PASSENGER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch)"</u>.
- NO >> With LH anti-pinch only, refer to <u>DLK-262</u>, "<u>PASSENGER SIDE</u> : <u>Diagnosis Procedure (With LH</u> <u>Anti-Pinch Only)</u>".

PASSENGER SIDE : Diagnosis Procedure (With LH and RH Anti-Pinch)

**1.**CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

### **DLK-260**

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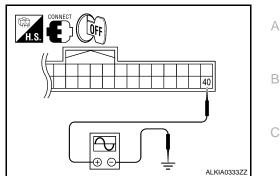
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#### < COMPONENT DIAGNOSIS >

1. Read voltage signal between BCM connector and ground with oscilloscope when door lock and unlock switch (passenger side) is turned to "LOCK" or "UNLOCK".



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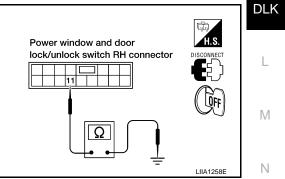
2. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (passenger side) is turned "LOCK" or "UNLOCK".

Terminal						
(+)	(+)				Condition Signal (Reference value)	Signal (Reference value)
BCM connector	Terminal	(-)		(		
M18	40	Ground	Door is closed	(V) 15 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 <b>1</b> 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1		
				PIIA1297E		
e inspection res S >> GO TO 4						

NO >> GO TO 2

### 2. CHECK POWER WINDOW SWITCH GROUND

- Turn ignition switch OFF. 1.
- 2. Disconnect power window and door lock/unlock switch RH connector.
- 3. Check continuity between front power window switch (passenger side) connector and ground.



Power window and door lock/unlock switch RH connector	Terminal		Continuity	(
D105	11	Ground	Yes	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

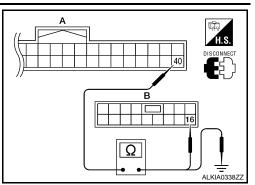
**3.**CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Disconnect BCM connector.

### **DLK-261**

#### < COMPONENT DIAGNOSIS >

2. Check continuity between BCM connector and front power window switch (passenger side) connector.



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BCM connector	Terminal	Front power window switch (passenger side) connector	Terminal	Continuity
A: M18	40	B: D105	16	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminals		Continuity
A: M18	40	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

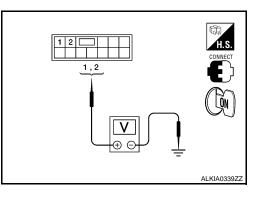
YES >> INSPECTION END.

### PASSENGER SIDE : Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000003183524

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage at the power window and door lock/unlock switch RH connector when the switch (passenger side) is turned to "LOCK" or "UNLOCK".



Connector	Power window and door lock/unlock switch RH state	Terminal		Voltage
D105	Neutral $\rightarrow$ Lock	2	Ground	Battery voltage $\rightarrow 0$
	Neutral $\rightarrow$ Unlock	1	Ground	Dattery voltage $\rightarrow 0$

Is the inspection result normal?

YES >> GO TO 5

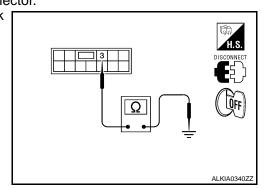
NO >> GO TO 2

2. CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.

#### < COMPONENT DIAGNOSIS >

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



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Power window and door lock/unlock switch RH connector	Terminal		Continuity
D105	3	Ground	Yes

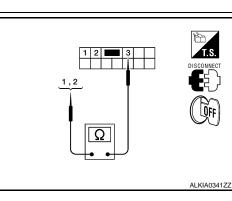
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

**3.**CHECK POWER WINDOW SWITCH

Check	continuity	between	power	window	and	door	lock/unlock
switch	RH termina	ls.					



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Power window and door lock/unlock switch RH state	Terminals	Continuity
Lock	2 - 3	Yes
Unlock	1 - 3	165
Neutral/Unlock	2 - 3	No
Neutral/Lock	1 - 3	INO

#### Is the inspection result normal?

YES >> GO TO 4

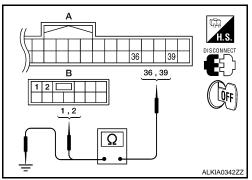
NO >> Replace power window and door lock/unlock switch RH.

**4.**CHECK POWER WINDOW SWITCH CIRCUITS

1. Disconnect BCM connector.

#### < COMPONENT DIAGNOSIS >

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



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BCM connector	Terminal	Power window and door lock/ unlock switch RH connector	Terminal	Continuity
A: M18	36	B: D105		Yes
A. WITO	39	B. D100	2	163

#### 3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
A: M18	36	Ground	No
A. MITO	39	Ground	110

#### Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

**5.**CHECK INTERMITTENT INCIDENT

Refer to <u>GI-42, "Intermittent Incident"</u>.

#### >> INSPECTION END.

### PASSENGER SIDE : Special Repair Requirement

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#### NOTE:

This procedure is applicable to vehicles equipped with front LH and RH anti-pinch windows only.

#### INITIALIZATION PROCEDURE

- 1. Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 3 seconds or more.
- 5. Inspect anti-pinch function.

#### CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

#### **CAUTION:**

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>DLK-360, "Fail Safe"</u>

### **DLK-264**

DOOR LOCK AND UNLOCK SWITCH	
< COMPONENT DIAGNOSIS >	[SEDAN]
<ul> <li>Perform initial setting when auto-up operation or anti-pinch function does not operate nor</li> <li>Finish initial setting. Otherwise, next operation cannot be done.</li> <li>Auto-up operation</li> </ul>	mally. A
2. Anti-pinch function	
3. Retained power operation when ignition switch is OFF.	В
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#### < COMPONENT DIAGNOSIS >

### KEY SLOT

#### Description

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

### **Component Function Check**

### **1.**CHECK FUNCTION

#### With CONSULT-III

Check KEY SW -SLOT in Data Monitor mode with CONSULT-III.

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

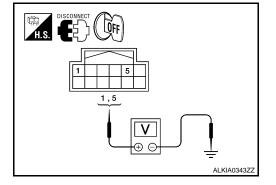
Is the inspection result normal?

- YES >> Key slot is OK.
- NO >> Refer to <u>DLK-266, "Diagnosis Procedure"</u>.

#### **Diagnosis Procedure**

### 1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check voltage between key slot connector and ground.



Terminals				
(+	)	(_)	Voltage (V) (Approx.)	
Key slot connector	Terminal	_ (-)		
M40	1	Ground	Pottony voltage	
IVI40	5	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace key slot power supply circuit.

2. CHECK KEY SLOT GROUND CIRCUIT

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### **KEY SLOT**

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#### Check continuity between key slot connector and ground.

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-	Key slot connector	Terminal	Ground	Continuity
_	M40	7	Clound	Yes

Is the inspection result normal?

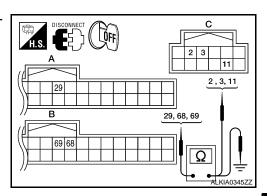
YES >> GO TO 3

NO >> Repair or replace key slot ground circuit.

3. CHECK KEY SLOT CIRCUIT

1. Disconnect BCM connector.

Check continuity between BCM connector and key slot connector.



BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M18	29		11	
P: M10	68	C: M40	2	Yes
B: M19	69		3	

3. Check continuity between BCM connector and ground.

BCM connector	Tern	ninal	Continuity	
A: M18	29			Ν
B: M19	68	Ground	No	
D. WI19	69			

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness between BCM and key slot.

#### CHECK KEY SLOT

Refer to DLK-268, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace key slot.

**5.**CHECK INTERMITTENT INCIDENT

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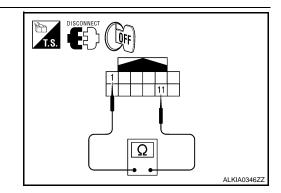
Refer to GI-42, "Intermittent Incident".

#### >> INSPECTION END

### **Component Inspection**

### 1.CHECK KEY SLOT

Check key slot.



Terminal Key slot		Condition	Continuity
		Condition	Continuity
1 11	Intelligent Key inserted	Yes	
	11	Intelligent Key removed	No

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace key slot.

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#### < COMPONENT DIAGNOSIS >

### KEY CYLINDER SWITCH

#### Description

For vehicles equipped with LH and RH anti-pinch system, the main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

For vehicles equipped with LH anti-pinch system only, the front door lock assembly LH (key cylinder switch) c transmits the LOCK or UNLOCK signal directly to the BCM.

#### **Component Function Check**

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### **1.**CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-206, "Work Flow"</u>.

Monitor item	Cc	ondition	F
KEY CYL LK-SW	Lock	: ON	
KET CTL LK-SW	Neutral / Unlock	: OFF	
	Unlock	: ON	G
KEY CYL UN-SW	Neutral / Lock	: OFF	

#### Is the inspection result normal?

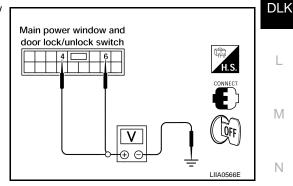
- YES >> Key cylinder switch is OK.
- NO >> With LH and RH anti-pinch, refer to <u>DLK-269</u>, "<u>Diagnosis Procedure (With LH and RH Anti-Pinch)</u>".
- NO >> With LH anti-pinch only, refer to DLK-271, "Diagnosis Procedure (With LH Anti-Pinch Only)".

### Diagnosis Procedure (With LH and RH Anti-Pinch)

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

#### 1. Turn ignition switch ON.

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



	Terminals			
(+)				Voltage (V)
Main power window and door lock/unlock switch connector		(-)	Key position	(Approx.)
D7	4		Lock	0
	4	Ground	Neutral / Unlock	5
	6	Ground	Unlock	0
	6		Neutral / Lock	5

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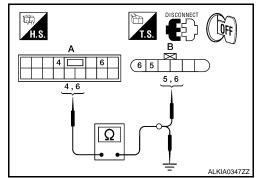
Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>DLK-403, "FRONT DOOR</u> <u>LOCK : Removal and Installation"</u>. After that, Refer to <u>PWC-179, "ADDITIONAL SERVICE WHEN</u> <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

```
NO >> GO TO 2
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2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/ unlock switch connector and front door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/ unlock switch connector	Terminal	Front door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	4	B: D10	6	Yes
	6	B: D10	5	Tes

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

Power window main switch connec- tor	Terminal		Continuity
A: D7	4	Ground	No
	6		NU

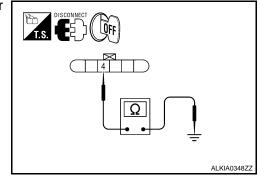
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

### $\mathbf{3}.$ Check door key cylinder switch ground circuit

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



Front door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Orband	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

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#### **4.**CHECK DOOR KEY CYLINDER SWITCH

#### Check door key cylinder switch. Refer to <u>DLK-272</u>, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

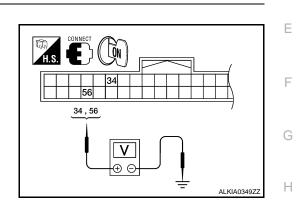
NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-403</u>, "FRONT DOOR <u>LOCK</u> : <u>Removal and Installation</u>". After that, Refer to <u>PWC-179</u>, "<u>ADDITIONAL SERVICE</u> <u>WHEN REPLACING CONTROL UNIT</u> : <u>Special Repair Requirement</u>".

Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000003183533

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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



	Terminals				
(+)	(+)		Key position	Voltage (V) (Approx.)	
BCM connector	Terminal	()		(, pprox.)	
	56 M18 Ground 34	Cround	Lock	0	J
M10			Neutral / Unlock	5	
IVITO		Ground	Unlock	0	DL
	54		Neutral / Lock	5	

#### Is the inspection result normal?

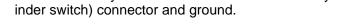
YES >> Replace main power window and door lock/unlock switch. Refer to <u>DLK-403, "FRONT DOOR</u> <u>LOCK : Removal and Installation"</u>. After that, Refer to <u>PWC-179, "ADDITIONAL SERVICE WHEN</u> <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

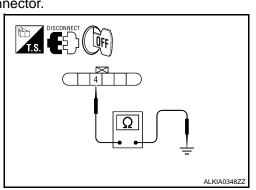
NO >> GO TO 2

**2.**CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect front door lock assembly LH (key cylinder switch) connector.
- 3. Check continuity between front door lock assembly LH (key cyl-





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#### < COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

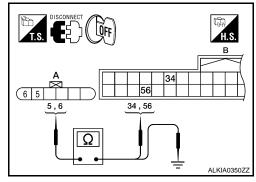
YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M18.

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



Front door lock assembly LH connector	Terminal	BCM connector	Terminal	Continuity
A: D10	5	B: M18	34	Yes
	6	D. MIO	56	165

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

Front door lock assembly LH connector	Terminal		Continuity
A: D10	5	Ground	No
A. 010	6		NO

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to <u>DLK-272, "Component Inspection"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-403</u>, "FRONT DOOR <u>LOCK</u> : <u>Removal and Installation</u>". After that, Refer to <u>PWC-179</u>, "<u>ADDITIONAL SERVICE</u> <u>WHEN REPLACING CONTROL UNIT</u> : <u>Special Repair Requirement</u>".

Component Inspection

INFOID:000000003183534

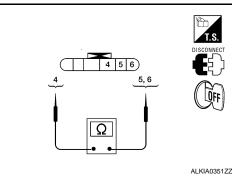
#### COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

**DLK-272** 

#### < COMPONENT DIAGNOSIS >

Check front door lock assembly LH (key cylinder switch).





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Terminal Front door lock assembly LH (key cylinder switch) connector				
		Key position	Continuity	E
F		Unlock	Yes	
5	4	Neutral / Lock	No	F
0	4	Lock	Yes	
6		Neutral / Unlock	No	G

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-403, "FRONT DOOR</u> H <u>LOCK : Removal and Installation"</u>. After that, refer to <u>DLK-273, "Special Repair Requirement"</u>.

#### Special Repair Requirement

**1.**PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>DLK-209</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

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

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[SEDAN]

#### < COMPONENT DIAGNOSIS >

### UNLOCK SENSOR

### Description

Detects door lock condition of driver door.

Component Function Check

### 1. CHECK FUNCTION

#### With CONSULT-III

Check unlock sensor DR DOOR STATE in "Data Monitor" mode.

DOOR STAT SW (	DR DOOR STATE)

<u>Is the inspection result normal?</u> YES >> Unlock sensor is OK.

NO >> Refer to DLK-274, "Diagnosis Procedure".

Monitor item

### **Diagnosis Procedure**

1.CHECK UNLOCK SENSOR POWER SUPPLY

Check signal between BCM connector and ground with oscilloscope.

Front door lock assembly LH condition	Voltage (V) (Approx.)

QFF

Condition

Front door lock (driver side) LOCK : OFF Front door lock (driver side) UNLOCK : ON

	Terminals		Front door lock assembly	
(+)		(+)		Voltage (V) (Approx.)
BCM connector	Terminal	()	LH condition	
M18	27	Ground	Locked	(V) 15 0 0 10 ms JPMIA0011GB
			Unlocked	0

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

2. CHECK UNLOCK SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM and front door lock assembly LH connector.

INFOID:000000003183536

INFOID:000000003183537

INFOID:000000003183538

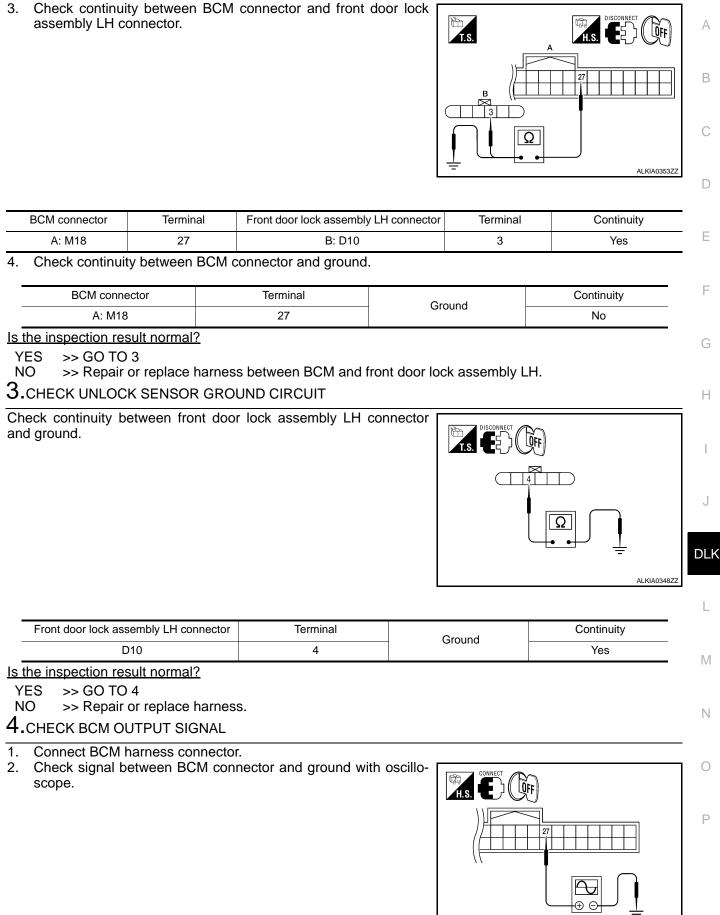
### **UNLOCK SENSOR**

#### < COMPONENT DIAGNOSIS >

#### [SEDAN]

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



### **UNLOCK SENSOR**

#### < COMPONENT DIAGNOSIS >

	Terminals	Voltage (V) (Approx.)	
(+)			
BCM connector	Terminal	- (-)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
M18	27	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to <u>BCS-88</u>, "Removal and Installation"

**5.**CHECK UNLOCK SENSOR

Refer to DLK-276, "Component Inspection".

Is the inspection result normal?

- YES >> GO TO 6
- NO >> Replace front door lock assembly LH. Refer to <u>DLK-403. "FRONT DOOR LOCK : Removal and</u> <u>Installation"</u>.
- 6.CHECK INTERMITTENT INCIDENT

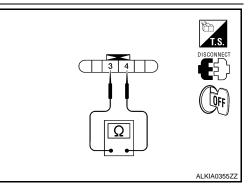
Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

Component Inspection

**1.**CHECK UNLOCK SENSOR

Check unlock sensor.



INFOID:000000003183539

Term	inal	Front door lock assembly LH condition	Continuity	
Front door lock	assembly LH	From door lock assembly En condition		
2	4	Unlock	Yes	
5	4	Lock	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace front lock assembly LH. Refer to <u>DLK-403</u>, "FRONT DOOR LOCK : Removal and Installation".

### DLK-276

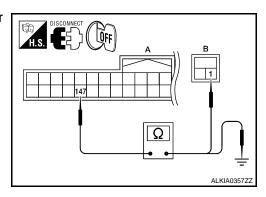
### **TRUNK LID OPENER SWITCH**

	DIAGNOSI	5 >			[SEDAN]
RUNK LID	OPENE	R SWIT	ГСН		
Description					INFOID:000000003183540
ransmits trunk lid	l open signa	I to BCM			
Component F					INEO/D-00000003493544
					INFOID:000000003183541
<b>1</b> .CHECK TRUN				СН	
Check trunk lid op		•			
<u>Does trunk lid ope</u> Yes >> Turn c	off trunk lid c			,	
No >> GO T	02				
2. CHECK FUNC	TION				
With CONSUL     Check trunk lid op     When trunk lid o	pener switch pener switch	h is turned	PEN SW i d to "ON".	n "Data Monitor mode v	
	Monitor iter	m		<b>-</b>	Condition
TR/BD OPEN SW	I			Trunk lid opener switch is p Trunk lid opener switch is n	
s the inspection re	esult normal	2		Trunk lid opener switch is h	
YES >> Trunk	lid opener s to <u>DLK-277</u>	witch is C		ure".	
Diagnosis Pro		<u> </u>		<u></u> .	
	ocuaro				
		I INPUT S	SIGNAL		INFOID:00000003183542
1.CHECK TRUN	K LID OPEN				INFOID:00000003183542
1.CHECK TRUN 1. Remove Intell 2. Turn on trunk	K LID OPEN ligent Key fro lid opener c	om key slo ancel swit	ot. ich.	around	INFOID:00000003183542
CHECK TRUN	K LID OPEN ligent Key fro lid opener c	om key slo ancel swit	ot. ich.	ground.	
L. CHECK TRUN Remove Intell Turn on trunk	K LID OPEN ligent Key fro lid opener c	om key slo ancel swit	ot. ich.	ground.	
CHECK TRUN	K LID OPEN ligent Key fro lid opener c	om key slo ancel swit	ot. ich.	ground.	
1.CHECK TRUN 1. Remove Intell 2. Turn on trunk 3. Check voltage	K LID OPEN ligent Key fro lid opener c	om key slo ancel swit	ot. ich.	ground.	
1.CHECK TRUN 1. Remove Intell 2. Turn on trunk 3. Check voltage	K LID OPEN ligent Key fro lid opener c e between B	om key sk ancel swit CM conne	ot. tch. ector and (	ground.	Voltage (V)
1.CHECK TRUN 1. Remove Intell 2. Turn on trunk 3. Check voltage T (+) BCM	K LID OPEN ligent Key fro lid opener c e between B	om key slo ancel swit	ot. tch. ector and (		CONNECT CON
1. CHECK TRUN 1. Remove Intell 2. Turn on trunk 3. Check voltage T (+) BCM	K LID OPEN ligent Key fro lid opener c e between B	om key sk ancel swit CM conne	ot. ich. ector and ( conditior		Voltage (V)

### **TRUNK LID OPENER SWITCH**

#### < COMPONENT DIAGNOSIS >

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



BCM connector	Terminal	Trunk lid opener switch connector	Terminal	Continuity
A: M21	147	B: M75	1	Yes

#### 3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M21	147	Croana	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

 $\mathbf{3}$ .check trunk lid opener switch ground circuit

Check continuity between trunk lid opener switch connector and ground.

	Trunk lid opener switch	Terminal	Ground	Continuity
-	M75	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

**4.**CHECK TRUNK LID OPENER SWITCH

Refer to DLK-279, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace trunk lid opener switch.

**5.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

### **TRUNK LID OPENER SWITCH**

### < COMPONENT DIAGNOSIS >

### **Component Inspection**

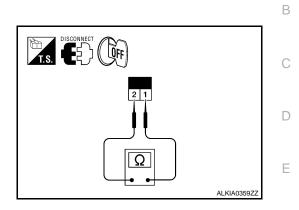
[SEDAN]

А

#### INFOID:000000003183543

# 1. CHECK TRUNK LID OPENER SWITCH

- 1. Turn ignition switch OFF.
- Disconnect trunk lid opener switch connector. 2.
- Check continuity between trunk lid opener switch connector. 3.



Terminal		Condition Continuity			
Trunk lid	opener switch	Condition	Continuity		
4		ON (press and hold)	Yes	G	
I	2	OFF (release)	No		
Is the inspection res	ult normal?	· · · · · ·		Н	

Is the inspection result normal?

- YES >> INSPECTION END.
- NO >> Replace trunk lid opener switch.

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### **TRUNK LID OPENER CANCEL SWITCH**

#### < COMPONENT DIAGNOSIS >

### TRUNK LID OPENER CANCEL SWITCH

#### Description

Cancels trunk lid open operation.

**Component Function Check** 

### 1. CHECK FUNCTION

#### With CONSULT-III

Check trunk lid opener cancel switch TR CANCEL SW in Data Monitor mode with CONSULT-III.

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

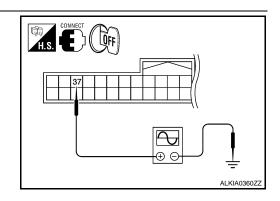
Is the inspection result normal?

YES >> Trunk lid opener cancel switch is OK. NO >> Refer to <u>DLK-280, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

1. CHECK TRUNK LID OPENER CANCEL SIGNAL

Check voltage between BCM connector and ground.



	Terminals (+)				
(-			Condition of trunk lid opener	Voltage (V)	
BCM connector	Terminal	()	cancel switch	(Approx.)	
			ON (press and hold)	0	
M18	37	Ground	OFF (cancel)	(V) 15 10 5 0 10 ms JPMIA0012GB	
s the inspection	result normal?	-			

YES >> GO TO 5

NO >> GO TO 2

2. CHECK TRUNK LID OPENER CANCEL SWITCH CIRCUIT

1. Disconnect BCM connector.

INFOID:000000003183544

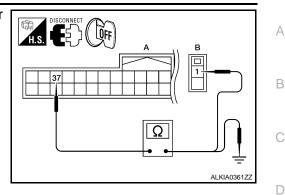
INFOID:000000003183545

INFOID:00000003183546

### TRUNK LID OPENER CANCEL SWITCH

#### < COMPONENT DIAGNOSIS >

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



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BCM connector	Terminal	Trunk lid opener cancel switch connector	Terminal	Continuity
A: M18	37	B: M74	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M18	37	Ground	No

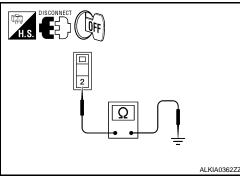
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

### $\mathbf{3.}$ CHECK TRUNK LID OPENER CANCEL SWITCH GROUND CIRCUIT

Check continuity between trunk lid opener switch connector and ground.



Trunk lid opener cancel switch	Terminal	Oneveral	Continuity	
M74	2	Ground	Yes	Б./I
Is the inspection result normal?				M
YES >> GO TO 4				
NO >> Repair or replace harr	iess.			Ν
4.CHECK TRUNK LID OPENER	CANCEL SWITCH			14
Refer to DLK-282, "Component Ins	spection".			
Is the inspection result normal?				0
YES >> GO TO 5				
NO >> Replace trunk lid oper	er cancel switch.			_
<b>5</b>				P

5. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

### TRUNK LID OPENER CANCEL SWITCH

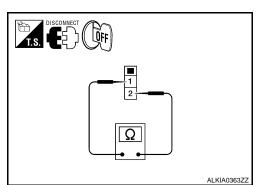
#### < COMPONENT DIAGNOSIS >

### Component Inspection

INFOID:000000003183547

# $1. {\sf CHECK \ TRUNK \ LID \ OPENER \ CANCEL \ SWITCH}$

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



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

Is the inspection result normal?

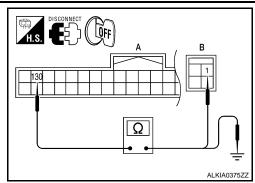
- YES >> INSPECTION END.
- NO >> Replace trunk lid opener cancel switch.

			VI LAIVIP SV	
< COMPONENT D				[SEDAN]
TRUNK ROOI	M LAMP SV	VITCH		
Description				INFOID:00000003183548
Detects trunk open/o	close condition			
-				
Component Fu				INFOID:000000003183549
1.CHECK FUNCTI	ON			
With CONSULT- Check TRNK/HAT M	III INTR in Data Mo	nitor mode with	CONSULT-III.	
N	Ionitor item			Condition
IV			OPEN	: ON
TRNK/HAT MNTR			CLOSE	: OFF
NO >> Refer to	oom lamp switch DLK-283, "Diagi	is OK. nosis Procedure	<u>e"</u> .	
Diagnosis Proce	edure			INFOID:000000003183550
1.CHECK TRUNK	LAMP SWITCH I	NPUT SIGNAL		
1. Turn ignition sw				
<ol><li>Check voltage b</li></ol>	between BCM cor	nnector and gro	ound.	
				· ALL WY COT VAL
	Terminals			
(•	+)		Trunk condition	Voltage (V) (Approx.)
BCM connector	Terminal	- (-)	condition	(Approx.)
			OPEN	0
• • •				(V) 15 10
M21	130	Ground	CLOSE	
				JPMIA0011GB
Is the inspection res	ult normal?			
YES >> GO TO	4			
NO >> GO TO				
2.CHECK TRUNK	LAMP SWITCH (	CIRCUIT		

1. Disconnect BCM connector.

#### < COMPONENT DIAGNOSIS >

# 2. Check continuity between BCM connector and trunk lamp switch and trunk release solenoid connector.



[SEDAN]

BCM connector	Terminal	Trunk lamp switch and trunk release solenoid connector	Terminal	Continuity
A: M21	130	B: B28	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M21	130	Gibana	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and trunk lamp switch and trunk release solenoid.

### **3.**CHECK TRUNK LAMP SWITCH GROUND CIRCUIT

Check continuity between trunk lid lock assembly connector and ground.

Trunk lamp switch and trunk release solenoid connector	Terminal	Ground	Continuity
B28	2		Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace trunk lamp switch and trunk release solenoid ground circuit.

**4.**CHECK BCM OUTPUT SIGNAL

1. Insure trunk remains closed during this step.

2. Connect BCM connector.

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#### < COMPONENT DIAGNOSIS >

#### 3. Check voltage between BCM connector and ground.

3. Check voltage between BCM connector and ground.		H.S. CONNECT		
				В
				С
		L	ALKIA0370ZZ	D
	Terminals			
(+		()	Voltage (V) (Approx.)	E
BCM connector	Terminal			
M21	130	Ground	(V) 15 10 5	F
			0 10 ms JPMIA0011GB	G
Is the inspection result no	rmal?		JFWIROUTIOD	Н
YES >> GO TO 5 NO >> Replace BCM	I. Refer to <u>BCS-88, "Re</u>	movel and Installation	, II	
5.CHECK TRUNK ROOM			<u>L</u> .	
Refer to DLK-285, "Comp				
Is the inspection result no	rmal?			J
YES >> GO TO 6 NO >> Replace trunk	a lamp switch and trunk	release solenoid.		DLK
6.CHECK INTERMITTEN	NT INCIDENT			DLN
Refer to GI-42, "Intermitte	<u>nt Incident"</u> .			I
>> INSPECTION	END.			
Component Inspection	on		INFOID:00000003183551	
1.CHECK TRUNK LAMP	SWITCH			
1. Turn ignition switch O	FF.			N
<ol> <li>Disconnect trunk lamp</li> <li>Check trunk lamp swith</li> </ol>	o switch and trunk relea tch.	ase solenoid connecto		0
				_
				Р

#### < COMPONENT DIAGNOSIS >

[SEDAN]

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

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace trunk lamp switch and trunk release solenoid.

### DOOR REQUEST SWITCH

< COMPONENT DIAGNOSIS >	[SEDAN]
DOOR REQUEST SWITCH	A
Description	INFOID:00000003183552
Transmits lock/unlock operation to BCM.	В
Component Function Check	INFO/D:000000003183553
1.CHECK FUNCTION	С
With CONSULT-III     Check door request switch REQ SW-DR, REQ SV	N-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
<u>Is the inspection result normal?</u> YES >> Door request switch is OK. NO >> Refer to <u>DLK-287, "Diagnosis Proced</u>	l <mark>ure"</mark> .
Diagnosis Procedure	INF0ID:000000003183554
1. CHECK DOOR REQUEST SWITCH OUTPUT	SIGNAL
<ol> <li>Turn ignition switch OFF.</li> <li>Check voltage between BCM harness connect</li> </ol>	ctor and ground.
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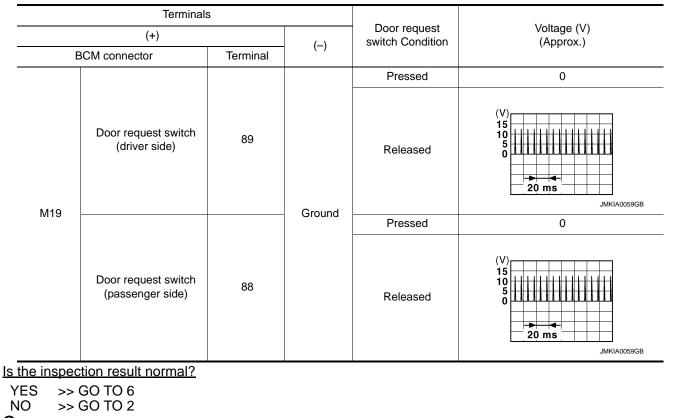
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### DOOR REQUEST SWITCH

#### < COMPONENT DIAGNOSIS >

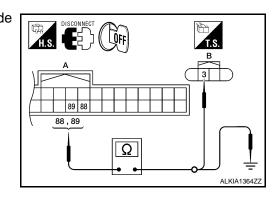
[SEDAN]



2. CHECK DOOR REQUEST SWITCH CIRCUIT

1. Disconnect BCM and front outside handle connector.

2. Check continuity between BCM connector and front outside handle connector.



BCM connector	Terminal	Front outside handle connector	Terminal	Continuity
M19	89	D6 (driver side)	2	Yes
	88	D106 (passenger side)	3	

3. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M19	89	Ground	No
10119	88	-	NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and front outside handle.

 ${f 3.}$  CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

### **DLK-288**

## DOOR REQUEST SWITCH

#### < COMPONENT DIAGNOSIS >

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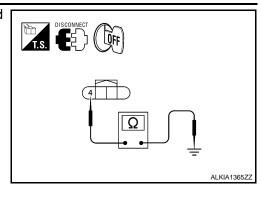
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Check continuity between front outside handle connector and ground.



Front outside handle connector	Terminal	Ground	Continuity
D6 (driver side)	4		Yes
D106 (passenger side)			165

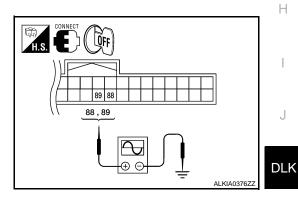
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace front outside handle ground circuit.

**4.**CHECK BCM OUTPUT SIGNAL

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



	Terminals				
(+	·)	()	Voltage (V) (Approx.)		
BCM connector Terminal		- (-)	(		
	89				
M19		Ground		Ν	
	88			20 ms	0

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace BCM. Refer to BCS-88, "Removal and Installation".

5. CHECK DOOR REQUEST SWITCH

Refer to DLK-290, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

## DLK-289

## DOOR REQUEST SWITCH

< COMPONENT DIAGNOSIS >

NO >> Replace malfunctioning front outside handle.

6. CHECK INTERMITTENT INCIDENT

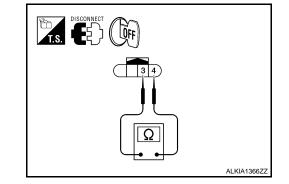
Refer to GI-42, "Intermittent Incident".

### >> INSPECTION END

## **Component Inspection**

## 1. CHECK DOOR REQUEST SWITCH

Check front outside handle (request switch).



Terminal		Door request switch condition	Continuity	
Front outside hand	lle (request switch)	Door request switch condition	Continuity	
2	4	Pressed	Yes	
3		Released	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace malfunction front outside handle.

INFOID:000000003183555

### **TRUNK OPENER REQUEST SWITCH** [SEDAN] < COMPONENT DIAGNOSIS > TRUNK OPENER REQUEST SWITCH А Description INFOID:00000003183556 Performs trunk lid open request when it is pressed. В **Component Function Check** INFOID:000000003183557 **1.**CHECK FUNCTION (P)With CONSULT-III Check trunk opener request switch REQ SW -BD/TR in Data Monitor mode. D Monitor item Condition Trunk opener request switch is pressed : ON Ε **REQ SW -BD/TR** Trunk opener request switch is released : OFF Is the inspection result normal? YES >> Trunk opener request switch is OK. F >> Refer to DLK-291, "Diagnosis Procedure". NO **Diagnosis** Procedure INFOID:000000003183558 1. CHECK TRUNK OPENER REQUEST SWITCH OUTPUT SIGNAL Turn ignition switch OFF. 1. Н 2. Check voltage between BCM connector and ground. DLK ALKIA0397Z

Terminals		Trunk lid opener request		L	
(+)		(+)		Voltage (V) (Approx.)	
BCM connector	Terminal	()	switch condition	(	Ν
			Pressed	0	
M21	141	Ground	Released	(V) 15 10 5 0 	N C
the inspection res	sult normal?			JPMIA0016GB	F

YES >> GO TO 6

NO >> GO TO 2

2.check trunk opener request switch circuit

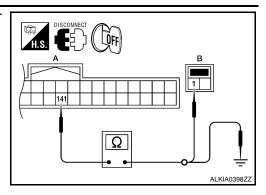
1. Disconnect BCM and trunk opener request switch connector.

## **DLK-291**

## **TRUNK OPENER REQUEST SWITCH**

### < COMPONENT DIAGNOSIS >

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



[SEDAN]

BCM connector	Terminal	Trunk opener request switch connector	Terminal	Continuity
A: M21	141	B: B33	1	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M21	141	Ground	No

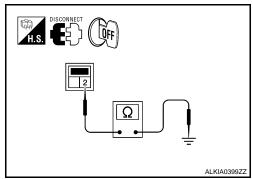
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and trunk opener request switch.

 $\mathbf{3}$ .check trunk opener request switch ground circuit

Check continuity between trunk opener request switch connector and ground.



Trunk opener request switch connector	Terminal	Ground	Continuity
B33	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace trunk opener request switch ground circuit.

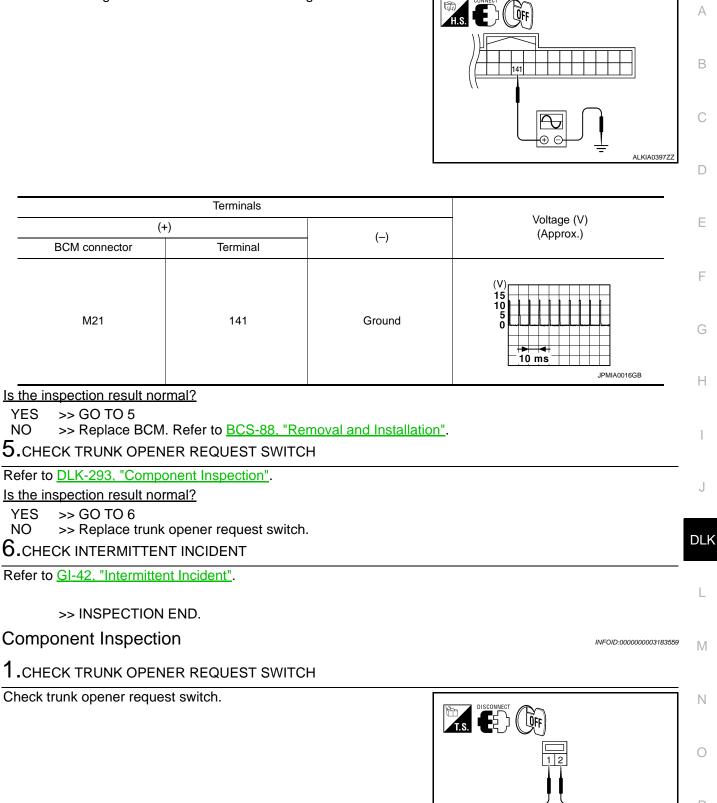
**4.**CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

## **TRUNK OPENER REQUEST SWITCH**

### < COMPONENT DIAGNOSIS >

2. Check voltage between BCM connector and ground.



YES

NO

YES

NO

Check trunk opener request switch.

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## **TRUNK OPENER REQUEST SWITCH**

### < COMPONENT DIAGNOSIS >

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Ter	minal	Trunk opener request switch condition	Continuity	
Trunk opene	r request switch		Continuity	
1	2	Pressed	Yes	
I	2	Released	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace trunk opener request switch.

## DOOR LOCK ACTUATOR

< COMPONENT DIAGNOSIS >	[SEDAN]	
DOOR LOCK ACTUATOR DRIVER SIDE		А
DRIVER SIDE : Description	INFOID:000000003183560	В
Locks/unlocks the door with the signal from BCM.		D
DRIVER SIDE : Component Function Check	INFOID:000000003183561	С
1.CHECK FUNCTION		
<ol> <li>Use CONSULT-III to perform Active Test ("DOOR LOCK").</li> <li>Touch "ALL LOCK" or "ALL UNLOCK" to check that it works norm Is the inspection result normal?</li> </ol>	ally.	D
YES >> Door lock actuator is OK. NO >> Refer to <u>DLK-295, "DRIVER SIDE : Diagnosis Procedure</u>	<u>"</u> .	Е
DRIVER SIDE : Diagnosis Procedure	INFOID:000000003183562	_
1.CHECK OUTPUT SIGNAL		F
Check voltage between BCM connector and ground.	CONNECT COFF	G
	<u>8,9</u>	Н
		I

		Terminals				
_	(+)		()	Condition of door lock and unlock switch	Voltage (V) (Approx.)	DL
_	BCM connector	Terminal	(-)			
_	M17	8	Ground	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	L
		9	Ground	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	_

#### Is the inspection result normal?

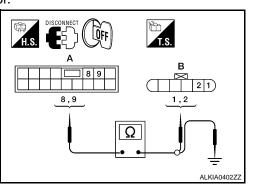
YES >> GO TO 3

NO >> GO TO 2

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Turn ignition switch OFF.

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



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## DOOR LOCK ACTUATOR

### < COMPONENT DIAGNOSIS >

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BCM connector	Terminal	Door lock actuator con- nector	Terminal	Continuity		
A: M17	8	— B: D10	1	Yes		
4. Check continuity bet	ween BCM connecto	r and ground.				
BCM connector		Terminal		Continuity		
A: M17	A: M17 Ground					
	9					
NO >> Repair or rep 3.CHECK INTERMITTE Refer to <u>GI-42, "Intermitte</u> >> INSPECTIO	t door lock actuator l blace harness. ENT INCIDENT ent Incident". N END.	_H.				
PASSENGER SID						
	-	CM		INFOID:00000000318356		
₋ocks/unlocks the door w PASSENGER SIDE	-			INFOID:00000000318356		
<b>1.</b> CHECK FUNCTION 1. Use CONSULT-III to 2. Touch "ALL LOCK" of <u>Is the inspection result no</u> YES >> Door lock ac	perform Active Test or "ALL UNLOCK" to <u>ormal?</u> tuator is OK.					
PASSENGER SIDE		-		INFOID:00000000318356		
1.CHECK DOOR LOCK	ACTUATOR SIGNA	<b>L</b>				
Check voltage between E	3CM connector and g	ground.				

Terminals Condition of door lock and Voltage (V) (+) unlock switch (Approx.) (-) BCM connector Terminal 8 Lock  $0 \rightarrow \text{Battery voltage} \rightarrow 0$ M17 Ground 5 Unlock  $0 \rightarrow \text{Battery voltage} \rightarrow 0$ 

## **DLK-297**

Is the inspection result n	ormal?					Λ
YES >> GO TO 3 NO >> GO TO 2						А
2. CHECK DOOR LOCK	ACTUATOR CIRCU	IT				
	d front door lock actua					В
<ol> <li>Check continuity be actuator RH.</li> </ol>	etween BCM connecto	or and front door loc			B 6 5	C
					5,6 2 	E
		Front door lock actuator				F
BCM connector	Terminal	RH connector	Term	inal	Continuity	0
A: M17 8 B: D108 5 Yes						G
3. Check continuity between BCM connector and ground.						
BCM connector		Terminal		(	Continuity	
A: M17	8	Gr	ound	nd No		
	5		Juna			
Is the inspection result n         YES       >> Replace from         NO       >> Repair or reg         3.CHECK INTERMITTER	nt door lock actuator R place harness.	RH.				J DLK
Refer to GI-42, "Intermitt	ent Incident".					DLN
>> INSPECTIO REAR LH	N END.					L
REAR LH : Descrip	otion				INFOID:000000003183566	M
Locks/unlocks the door w	with the signal from BC	CM.				
REAR LH : Compo	nent Function C	heck			INFOID:000000003183567	Ν
1. CHECK FUNCTION						
	perform Active Test ( or "ALL UNLOCK" to c		mally.			0
Is the inspection result n YES >> Door lock at	ormal?		-			Ρ

**REAR LH : Diagnosis Procedure** 

< COMPONENT DIAGNOSIS >

1. CHECK DOOR LOCK ACTUATOR SIGNAL

[SEDAN]

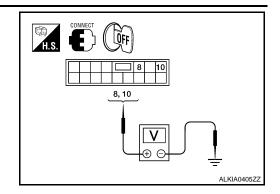
- K

INFOID:000000003183568

## DOOR LOCK ACTUATOR

### < COMPONENT DIAGNOSIS >

### Check voltage between BCM connector and ground.



[SEDAN]

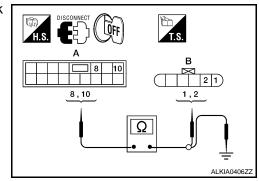
	Terminals			
(+	-)	()	Condition of door lock and unlock switch	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		
M17	8	Ground	Lock	$0 \rightarrow Battery \ voltage \rightarrow 0$
	10	Ground	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$

Is the inspection result normal?

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

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- 1. Disconnect BCM and rear door lock actuator LH connectors.
- 2. Check continuity between BCM connector and rear door lock actuator LH connectors.



BCM connector	Terminal	Door lock actuator con- nector	Terminal	Continuity
A: M17	8	B: D205	1	Yes
Α. ΜΗ	10	D. D203	2	163

3. Check continuity between BCM connector and ground.

BCM connector	Terr	ninal	Continuity
A: M17	8	Ground	No
Α. ΜΗ	10	Ground	NO

Is the inspection result normal?

YES >> Replace rear door lock actuator LH.

NO >> Repair or replace harness.

**3.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

## NOD LOCK ACTUATOD

		DOOR LO	CK ACTUATOR	
< COMPONENT DI	AGNOSIS >			[SEDAN]
REAR RH				
REAR RH : Des	cription			INFOID:00000003183569
Locks/unlocks the do	oor with the signa	I from BCM.		
REAR RH : Com	nponent Fund	ction Chec	k	INFOID:00000003183570
	ON			
Is the inspection resu YES >> Door loc	K" or "ALL UNLC <u>ult normal?</u> k actuator is OK.	OCK" to check	that it works normally.	
NO >> Refer to REAR RH : Diac	<u>DLK-299, "REAF</u> Inosis Procec		sis Procedure".	INF0ID:000000003183571
<b>1.</b> CHECK DOOR LOCK LOCK LOCK			J	
			(研) H.S.	
				8,10
	Terminals		1	I
(+			Condition of door lock and	Voltage (V)
BCM connector	Terminal	()	unlock switch	(Approx.)
	8	Crowned	Lock	$0 \rightarrow Battery voltage \rightarrow 0$
M17		Ground		

Unlock

Is the inspection result normal?

YES >> GO TO 3

M17

NO >> GO TO 2

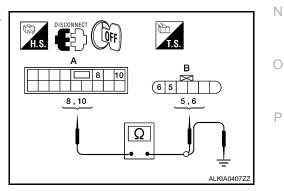
2. CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM and rear door lock actuator RH connectors.

10

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

Ground



 $0 \rightarrow Battery \ voltage \rightarrow 0$ 

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## DOOR LOCK ACTUATOR

### < COMPONENT DIAGNOSIS >

BCM connector	Terminal	Door lock actuator con- nector	Terminal	Continuity
A: M17	8	B: D305	5	Yes
73. WH 7	10	D. 0000	6	163

3. Check continuity between BCM connector and ground.

BCM connector	Terr	minal	Continuity
A: M17	8	Ground	No
Λ. ΙΨΕΤ	10	Cround	NO

Is the inspection result normal?

YES >> Replace rear door lock actuator RH.

NO >> Repair or replace harness.

3. Check intermittent incident

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

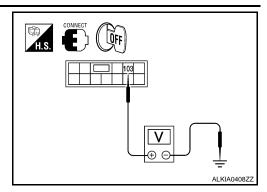
## TRUNK LID OPENER ACTUATOR

COMPONENT DIAG				
				[SEDAN
RUNK LID OPE	NER ACTI	JATOR		
Description				INFOID:0000000031835
erforms trunk lid open	with signal from	BCM		
component Function	-	Bow		
-				INFOID:000000031835
CHECK TRUNK LID	OPENER CAN	CEL SWITCH		
Check trunk lid opener c <u>s trunk lid opener cance</u>	-		.)?	
Yes >> Turn on trun	k lid opener car	ncel switch.		
No >> GO TO 2.				
<ul> <li>Perform Active Test</li> <li>Touch "OPEN" and of</li> </ul>				
s the inspection result n		_		
YES >> Trunk lid ope NO >> Refer to <u>DL</u>				
Diagnosis Procedu	-	<u></u>		
-				INFOID:0000000031835
.CHECK OUTPUT CI	RCUIT			
. Turn ignition switch . Disconnect trunk lan		unk release so	lengid connector	
<ul> <li>Check voltage betv solenoid connector a</li> </ul>	veen trunk lam			
	Terminals			
(+)	Terminals		Condition of trunk lid open-	
	Terminals	()		
(+) Trunk lamp switch and trunk release solenoid		(–) Ground	Condition of trunk lid open-	ALKIA1051Z
(+) Trunk lamp switch and trunk release solenoid connector	Terminal 3		Condition of trunk lid open- er switch	Voltage (V) (Approx.)
(+) Trunk lamp switch and trunk release solenoid connector T4	Terminal 3 ormal?		Condition of trunk lid open- er switch	Voltage (V) (Approx.)

## TRUNK LID OPENER ACTUATOR

### < COMPONENT DIAGNOSIS >

### Check voltage between BCM connector and ground.



	Terminals			
(+)		()	Condition of trunk lid open- er switch	Voltage (V) (Approx.)
BCM connector	Terminal	()		
M20	103	Ground	$OFF\toON$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

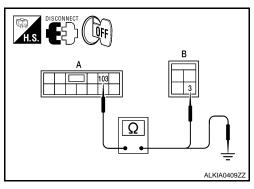
Is the inspection result normal?

YES >> Repair or replace harness.

NO >> GO TO 3

# 3. CHECK TRUNK LID OPENER ACTUATOR CIRCUIT

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



BCM connector	Terminal	trunk lamp switch and trunk re- lease solenoid connector	Terminal	Continuity
A: M20	103	B: T4	3	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terr	ninal	Continuity
A: M20	103	Ground	No

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-88, "Removal and Installation"</u>.

NO >> Repair or replace harness.

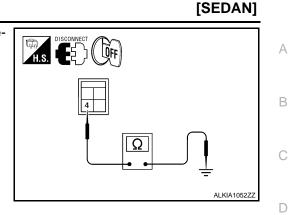
### 4. CHECK TRUNK LID OPENER GROUND CIRCUIT

[SEDAN]

## TRUNK LID OPENER ACTUATOR

#### < COMPONENT DIAGNOSIS >

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



trunk lamp switch and trunk release solenoid connector	Terr	ninal	Continuity
T4	4	Ground	Yes

### Is the inspection result normal?

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

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### < COMPONENT DIAGNOSIS >

## INTELLIGENT KEY WARNING BUZZER

### Description

Answers back and warns for an inappropriate operation.

**Component Function Check** 

**1.**CHECK FUNCTION

### With CONSULT-III

Check Intelligent Key warning buzzer OUTSIDE BUZZER in Active Test mode.

Is the inspection result normal?

YES >> Intelligent Key warning buzzer (engine room) is OK.

NO >> Refer to <u>DLK-304, "Diagnosis Procedure"</u>.

### **Diagnosis Procedure**

1.CHECK INTELLIGENT KEY WARNING BUZZER

Check voltage between BCM connector and ground.

#### Terminals Warning buzzer opera-Voltage (V) (+) tion condition (Approx.) (-) BCM connector Terminal ON 0 M21 144 Ground OFF Battery voltage

Is the inspection result normal?

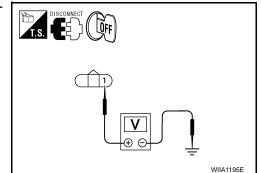
YES >> GO TO 5.

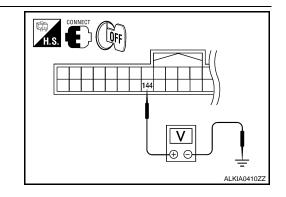
NO >> GO TO 2.

**2.**CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect Intelligent Key warning buzzer connector.
- 3. Check voltage between Intelligent Key warning buzzer connector and ground.







INFOID:000000003183575

[SEDAN]

INFOID:000000003183576

INFOID:000000003183577

## INTELLIGENT KEY WARNING BUZZER

### < COMPONENT DIAGNOSIS >

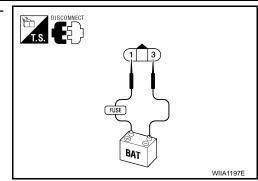
[SEDAN]

	Terminals				
	+)				Voltage (V)
Intelligent Key warning buzzer connector	Terminal		()		(Approx.)
E73	1		Ground		Battery voltage
NO >> Repair or replace CHECK INTELLIGENT K Disconnect BCM connect Check continuity betwee warning buzzer connect	EY WARNING BU	JZZER CIRCL	ЛТ		
A: BCM connector	Terminal	Intelligent Key v	-	Terminal	Continuity
M21	144	B: E	73	3	Yes
Check continuity betwee	T	r and ground.			
BCM connector		ninal	Gro	und	Continuity
A: M21	14	ninal 44	Gro	und	Continuity No
A: M21 the inspection result norm OK >> GO TO 4. NG >> Repair or replace CHECK INTELLIGENT K heck <u>DLK-305, "Compone</u> the inspection result norm YES >> GO TO 5. NO >> Replace Intellig CHECK INTERMITTENT	14 ce harness betwee CEY WARNING BU <u>nt Inspection"</u> . <u>nal?</u> ent Key warning b	<sup>44</sup> en BCM and In JZZER			No
A: M21 the inspection result norm OK >> GO TO 4. NG >> Repair or replace CHECK INTELLIGENT K heck <u>DLK-305, "Compone</u> the inspection result norm YES >> GO TO 5. NO >> Replace Intellig CHECK INTERMITTENT heck <u>GI-42, "Intermittent In</u>	al? ce harness betwee CEY WARNING BU nt Inspection". hal? ent Key warning b INCIDENT ncident".	<sup>44</sup> en BCM and In JZZER			No
A: M21 the inspection result norm OK >> GO TO 4. NG >> Repair or replace CHECK INTELLIGENT K theck <u>DLK-305, "Compone</u> the inspection result norm YES >> GO TO 5. NO >> Replace Intellig CHECK INTERMITTENT theck <u>GI-42, "Intermittent In</u> >> INSPECTION E	al? ce harness betwee CEY WARNING BU <u>nt Inspection"</u> . <u>hal?</u> ent Key warning b INCIDENT <u>hcident"</u> .	<sup>44</sup> en BCM and In JZZER			No
A: M21 the inspection result norm OK >> GO TO 4. NG >> Repair or replace CHECK INTELLIGENT K heck <u>DLK-305, "Compone</u> the inspection result norm YES >> GO TO 5. NO >> Replace Intellig CHECK INTERMITTENT heck <u>GI-42, "Intermittent In</u>	al? ce harness betwee CEY WARNING BU <u>nt Inspection"</u> . <u>hal?</u> ent Key warning b INCIDENT <u>hcident"</u> .	<sup>44</sup> en BCM and In JZZER			No

## INTELLIGENT KEY WARNING BUZZER

#### < COMPONENT DIAGNOSIS >

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.

[SEDAN]

OUTSIDE KET ANTENNA	
< COMPONENT DIAGNOSIS >	[SEDAN]
OUTSIDE KEY ANTENNA	
Description	INFOID:000000003183579
Detects whether Intelligent Key is outside the vehicle. Integrated in front outside handle (driver side, passenger side) and installed in rear bumper.	
Component Function Check	INFOID:000000003183580
1.CHECK DOOR REQUEST SWITCH	
Check that door request switch operates normally.	
Is the inspection result normal? YES >> GO TO 2. NO >> Inspect door request switch. Refer to <u>DLK-287, "Component Function Check"</u> . 2.CHECK FUNCTION	
Be sure that Intelligent Key is in each outside key antenna detection range.	
Does door lock/unlock when each request switch is pressed?         YES       >> Outside key antenna is OK.         NO       >> Refer to DLK-307, "Diagnosis Procedure".	
Diagnosis Procedure	INFOID:000000003183581
1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1	
<ol> <li>Turn ignition switch OFF.</li> <li>Check signal between BCM connector and ground with oscilloscope.</li> </ol>	
	<u>63,65,119</u>

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### < COMPONENT DIAGNOSIS >

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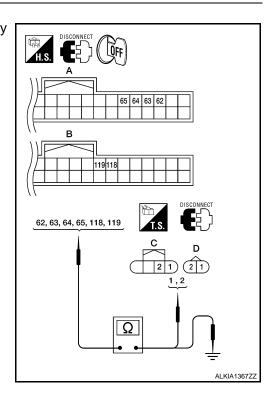
	Term	ninals				<u>.</u>
	(+)		()	Condition		Signal (Reference value.)
BCM	connector	Terminal	(-)			(,
	Driver side	65				
A: M19	Passenger side	63	Ground	Request switch	When Intelligent Key is in the antenna de- tection area.	(V) 15 10 5 0 1 s JMKIA0061GB
B: M21	Rear bumper	119	Ground	is pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0060GB

Is the inspection result normal?

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

2. CHECK OUTSIDE KEY ANTENNA CIRCUIT

- 1. Disconnect BCM and front outside handle connector.
- 2. Check continuity between BCM connector and outside key antenna connector.



### < COMPONENT DIAGNOSIS >

[SEDAN]

BCM connector	Terminal	Outside key antenna	connector	Termina	al	Continuity
	65	D6 (driver sid		1		
M19 64				2		
10113	63	D106 (passenge	r sido)	1		Yes
	62	D 100 (passenge	i side)	2		Tes
M21	119	B46 (rear bum	ner)	1		
1012 1	118			2		
Check continuity b	etween BCM cor	nector and ground.				
BCM connecto	r	Terminal				Continuity
		62				
1440		63	-			
M19		64	G	Ground		N
		65	1			No
M21		118	1			
1012 1		119	-			
	eplace harness b KEY ANTENNA I	etween BCM and ou NPUT SIGNAL 2		antenna.		
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke	eplace harness b KEY ANTENNA I ay antenna. (New	between BCM and ou NPUT SIGNAL 2 7 antenna or other an		antenna.		
S >> GO TO 3. >> Repair or r HECK OUTSIDE F Replace outside ke Connect BCM and	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)	antenna.		
S >> GO TO 3. >> Repair or r HECK OUTSIDE F Replace outside ke Connect BCM and	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 7 antenna or other an	tenna)	CONNECT	OFF	
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)		Left)	
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			63 , 65, 119
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			<u>63,65,119</u>
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			63,65,119
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			63,65,119 () () () () () () () () () ()
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			
S >> GO TO 3. >> Repair or r HECK OUTSIDE P Replace outside ke Connect BCM and Check signal betw	eplace harness to KEY ANTENNA I ey antenna. (New outside key ante	between BCM and ou NPUT SIGNAL 2 antenna or other an nna connector.	tenna)			

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### < COMPONENT DIAGNOSIS >

[SEDAN]

	Terminals					
	(+) (-)		Condition		Signal (Reference value.)	
BCM	connector	Terminal	(-)			· · · · · · · · · · · · · · · · · · ·
	Driver side	65				
A: M19	Passenger side	63		Door request switch is	When Intelligent Key is in the antenna de- tection area.	(V) 15 10 5 0 <i>J</i> <i>J</i> <i>J</i> <i>J</i> <i>J</i> <i>J</i> <i>J</i> <i>J</i>
B: M21	Rear bumper	119	Ground	pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0060GB

Is the inspection result normal?

YES >> Replace outside key antenna.

NO >> GO TO 4.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

#### REMOTE KEYLESS ENTRY RECEIVER [SEDAN] < COMPONENT DIAGNOSIS > REMOTE KEYLESS ENTRY RECEIVER А Description INFOID:000000003183582 Receives Intelligent Key operation and transmits to BCM. В **Component Function Check** INFOID:000000003183583 **1.**CHECK FUNCTION With CONSULT-III Check remote keyless entry receiver RKE OPE COUN1 in Data Monitor mode with CONSULT-III. D Monitor item Condition **RKE OPE COUN1** Checks whether value changes when operating Intelligent Key. Е Is the inspection result normal? >> Remote keyless entry receiver is OK. YES >> Refer to DLK-311, "Diagnosis Procedure". NO F Diagnosis Procedure INFOID:000000003183584 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL 1. Turn ignition switch OFF. 2. Check signal between remote keyless entry receiver connector H.S. and ground with oscilloscope. Н PIIB6457E DLK Terminals L (+) Signal Condition Remote keyless (Reference value) (-) entry receiver Terminal Μ connector Ν Waiting (All doors closed) 1 ms IMKIA0064GB M27 2 Ground Ρ When signal is received (All doors closed) 1 ms JMKIA0065GB

Is the inspection result normal?

## **REMOTE KEYLESS ENTRY RECEIVER**

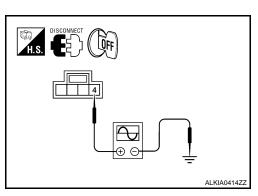
< COMPONENT DIAGNOSIS >

[SEDAN]

YES >> GO TO 7. NO >> GO TO 2.

 $2. {\sf CHECK REMOTE KEYLESS ENTRY RECEIVER POWER SUPPLY}$ 

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



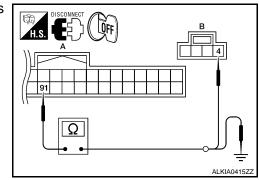
Terminals				
(+)	(+)		Signal	
Remote keyless entry re- ceiver connector	Terminal	()	(Reference value)	
M27	4	Ground	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 3.

**3.**CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

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



BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
A: M19	91	B: M27	4	Yes

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	91	Gibuna	No

Is the inspection result normal?

## **REMOTE KEYLESS ENTRY RECEIVER**

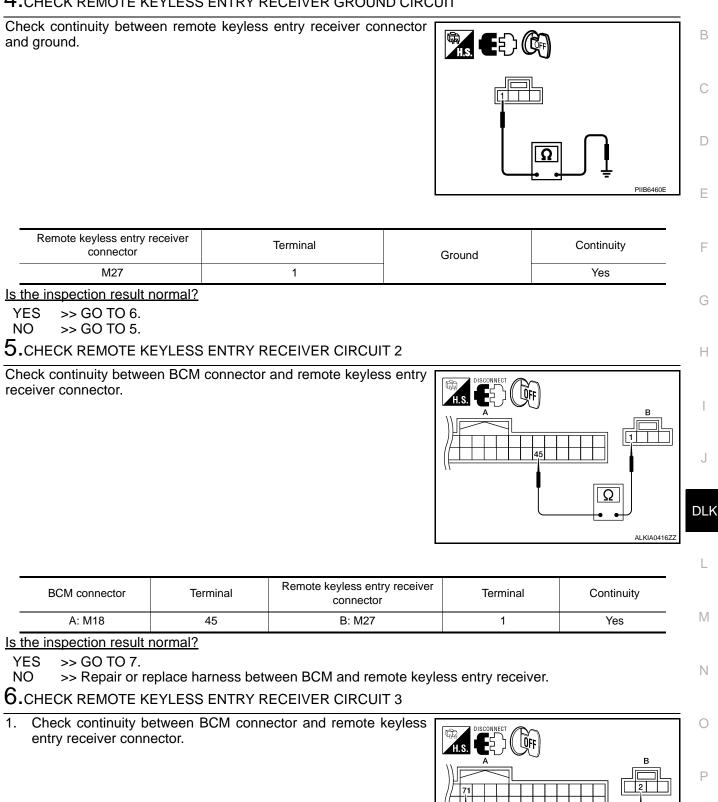
< COMPONENT DIAGNOSIS >

А

YES >> Reconnect BCM, GO TO 4.

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

4.CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT



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## **REMOTE KEYLESS ENTRY RECEIVER**

### < COMPONENT DIAGNOSIS >

[SEDAN]

BCM connector	Terminal	Remote keyless entry receiver connector	Terminal	Continuity
A: M19	71	B: M27	2	Yes

2. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	71	Oround	No

Is the inspection result normal?

YES >> GO TO 7.

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

7. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

## **INTELLIGENT KEY**

## < COMPONENT DIAGNOSIS >

## INTELLIGENT KEY

### Description

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

Door lock/unlock

Trunk open

Remote control entry function and panic alarm function are available when operating the remote buttons.

### **Component Function Check**

### **1.**CHECK FUNCTION

### With CONSULT-III

Check remote keyless entry receiver RKE OPE COUN1 in Data Monitor mode with CONSULT-III.

	Monitor item	Condition	•
	RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.	-
lo.	the increation result normal?		F

#### Is the inspection result normal?

YES >> Intelligent Key is OK.

>> Refer to DLK-315, "Diagnosis Procedure". NO

### Diagnosis Procedure

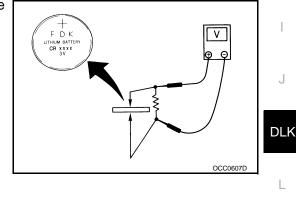
### **1.**CHECK INTELLIGENT KEY BATTERY

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

#### : Approx. 2.5 - 3.0V Standard

Is the measurement value within specification?

- YES >> GO TO 2.
- NO >> Replace Intelligent Key battery.

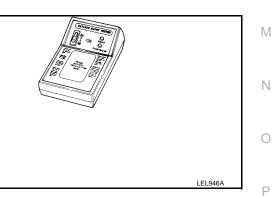


## 2.CHECK KEYFOB FUNCTION

Check keyfob function using Remote Keyless Entry Tester J-43241. Does the test pass?

YES >> Keyfob is OK.

>> Replace keyfob. Refer to CONSULT-III Operation Man-NO ual.



### **Component Inspection**

INFOID:000000003183588

**1.** REPLACE INTELLIGENT KEY BATTERY

1. Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

## **DLK-315**

[SEDAN]

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INFOID:000000003183587

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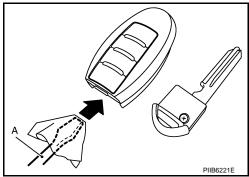
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## INTELLIGENT KEY

### < COMPONENT DIAGNOSIS >

- Insert a flat-blade screwdriver (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part.
   CAUTION:
  - Do not touch the circuit board or battery terminal.
  - The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.



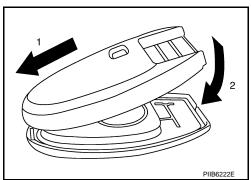
- 3. Replace the battery with new one.
- Align the tips of the upper and lower parts, and then push them together until it is securely closed.
   CAUTION:
  - When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
  - After replacing the battery, check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

Is the inspection result normal?

- YES >> Intelligent Key is OK.
- NO >> Check remote keyless entry receiver. Refer to <u>DLK-311.</u> <u>"Component Function Check"</u>.

### Special Repair Requirement

Refer to CONSULT-III Operation Manual.



INFOID:000000003183589

### [SEDAN]

## **KEY SLOT ILLUMINATION**

< COMPONENT DIAGNOSIS >	[SEDAN]	
KEY SLOT ILLUMINATION		А
Description	INFOID:000000003183590	$\cap$
Blinks when Intelligent Key insertion is required.		В
Component Function Check	INFOID:000000003183591	
1.CHECK FUNCTION		С
With CONSULT-III Check key slot illumination KEY SLOT ILLUMI in Active Test mode.		D
<u>Is the inspection result normal?</u> YES >> Key slot function is OK. NO >> Refer to <u>DLK-317, "Diagnosis Procedure"</u> .		E
Diagnosis Procedure	INFOID:000000003183592	
1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL		F
Check voltage between key slot connector and ground.		G
		Н

-		Terminals				Voltage (V)	
-	(	+)		Condition	Key slot		DLk
_	Key slot connector	Terminal	()		illumination	(Approx.)	
_	M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage	L
	M40	0	Giouna	Intelligent Key removed	ON	0	-

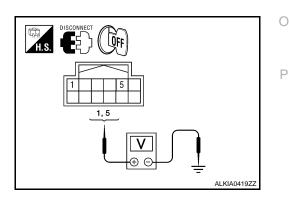
### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

**2.**CHECK KEY SLOT POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check voltage between slot connector and ground.



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## **KEY SLOT ILLUMINATION**

### < COMPONENT DIAGNOSIS >

Terminals				
(+)		(-)	Voltage (V) (Approx.)	
Key slot connector	Terminal	- (-)	()	
M40	1	- Ground	Pottony voltage	
IVI4U	5		Battery voltage	

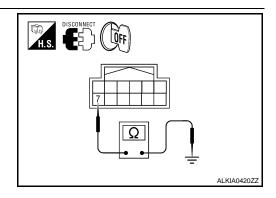
### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

## 3. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



	Key slot connector	Terminal	Ground	Continuity
_	M40	7	Ground	Yes

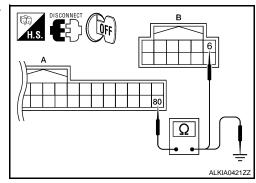
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

## 4.CHECK KEY SLOT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and key slot connector.
- 3. Check continuity between BCM connector and key slot connector.



BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity	
A: M19	80	Ground	No	

Is the inspection result normal?

## **KEY SLOT ILLUMINATION**

< COMPONENT DIAGNOSIS >	[SEDAN]	
YES >> GO TO 5. NO >> Repair or replace harness between BCM and key slot.		А
5.CHECK KEY SLOT		
Refer to DLK-268, "Component Inspection".		В
Is the inspection result normal?		
YES >> GO TO 6. NO >> Replace key slot.		С
6. CHECK INTERMITTENT INCIDENT		-
Refer to GI-42, "Intermittent Incident".		D
>> INSPECTION END.		D
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## HORN FUNCTION

### < COMPONENT DIAGNOSIS >

## HORN FUNCTION

## Description

Perform answer-back for each operation with horn.

### **Component Function Check**

## **1.**CHECK FUNCTION

- 1. Select HORN in "ACTIVE TEST" mode with CONSULT-III.
- 2. Check the horn (high/low) operation.

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

#### Is the operation normal?

YES >> INSPECTION END. NO >> Go to <u>DLK-320</u>, "Diagnosis Procedure".

### **Diagnosis** Procedure

### **1.**CHECK HORN FUNCTION

Check horn function with horn switch

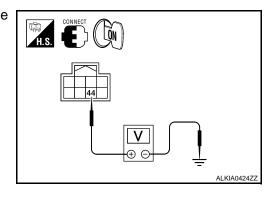
### Do the horns sound?

YES >> GO TO 2.

NO >> Go to <u>HRN-7, "Wiring Diagram - Sedan"</u>.

# 2. CHECK HORN RELAY POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
- 3. Using an oscilloscope or analog voltmeter, check voltage between horn relay harness connector and ground.



Horr	n relay	Ground	Test item		Voltage (V)
Connector	Terminal	Ground			(Approx.)
H-1	1	Ground HORN		ON	Battery voltage $\rightarrow 0 \rightarrow$ Battery voltage
	I		HORN	Other than above	Battery voltage

### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

**3.**CHECK HORN RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R and horn relay connector.

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INFOID:000000003183594

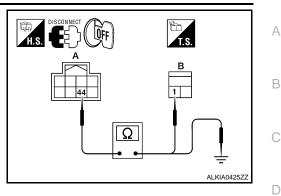
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## HORN FUNCTION

### < COMPONENT DIAGNOSIS >

### [SEDAN]

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



IPD	IPDM E/R		Horn relay		
Connector	Terminal	Connector Terminal		Continuity	
A: E17	44	B: H-1	1	Yes	

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

IPDM E/R		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: E17	44	Ground	No	

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-43. "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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### **COMBINATION METER DISPLAY FUNCTION**

### < COMPONENT DIAGNOSIS >

## COMBINATION METER DISPLAY FUNCTION

### Description

Displays each operation method guide and warning for system malfunction.

**Component Function Check** 

**1.**CHECK FUNCTION

With CONSULT-III

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 DLK-322, "Diagnosis Procedure".

Diagnosis Procedure

**1.**CHECK COMBINATION METER

Refer to DLK-363, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check combination meter. Refer to <u>MWI-38, "Diagnosis Description"</u>.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

### [SEDAN]

INFOID:000000003183596

INFOID:000000003183597

INFOID:000000003183598

## WARNING CHIME FUNCTION

WARNING CHIME FUNCTION		
< COMPONENT DIAGNOSIS >	[SEDAN]	
WARNING CHIME FUNCTION	A	
Description	INFOID:000000003183599	
Performs operation method guide and warning with buzzer.	В	
Component Function Check	INFOID:000000003183600	
1.CHECK FUNCTION	С	
<ul> <li>With CONSULT-III</li> <li>Check the operation with "INSIDE BUZZER" in the Active Test.</li> <li>Touch "TAKE OUT", "KNOB" or "KEY" on screen.</li> <li>Is the inspection result normal?</li> <li>YES &gt;&gt; Warning buzzer into combination meter is OK.</li> <li>NO &gt;&gt; Refer to <u>DLK-323, "Diagnosis Procedure"</u>.</li> </ul>	D	
Diagnosis Procedure	INFOID:000000003183601	
1.CHECK METER BUZZER CIRCUIT	F	
Refer to WCS-18, "Component Function Check".		
<u>Is the inspection result normal?</u> YES >> GO TO 2.	G	
NO >> Replace combination meter. Refer to <u>MWI-172, "Removal and Installation"</u> .	Н	
2.CHECK INTERMITTENT INCIDENT Refer to <u>GI-42, "Intermittent Incident"</u> .		
Kelei to <u>GI-42, Intermittent incident</u> .	I	
>> INSPECTION END.		
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### HAZARD FUNCTION

## < COMPONENT DIAGNOSIS >

## HAZARD FUNCTION

## Description

Perform answer-back for each operation with number of blinks.

Component Function Check

**1.**CHECK FUNCTION

Check hazard warning lamp ("FLASHER") in Active Test.

### Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>EXL-127, "Wiring Diagram - Sedan"</u>.

## Diagnosis Procedure

1. CHECK HAZARD SWITCH CIRCUIT

Operate the hazard lights by turning ON the hazard warning switch.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace hazard warning switch circuit. Refer to <u>EXL-4, "Work Flow"</u>.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

INFOID:000000003183602

INFOID:000000003183603

INFOID:000000003183604

### HOMELINK UNIVERSAL TRANSCEIVER

### < COMPONENT DIAGNOSIS >

# HOMELINK UNIVERSAL TRANSCEIVER

# Wiring Diagram



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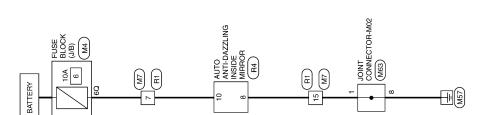
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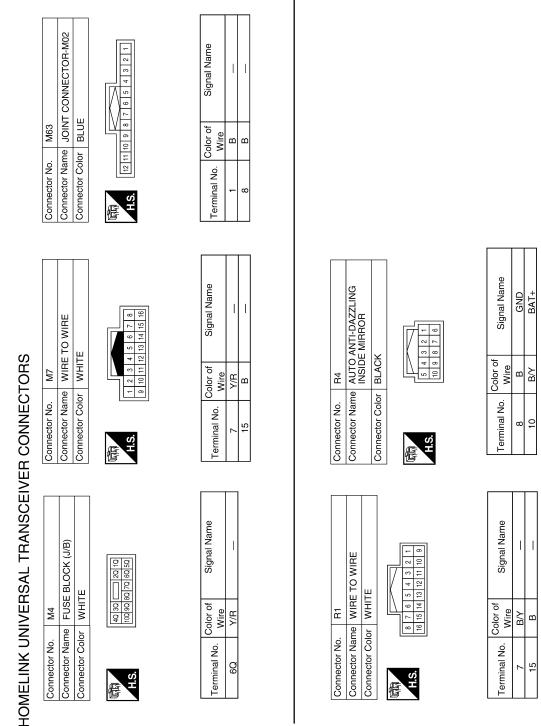
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HOMELINK UNIVERSAL TRANSCEIVER

ALKWA0025GE

# < COMPONENT DIAGNOSIS >



# Description



ALKIA0214GB

Homelink universal transceiver 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.

Homelink universal transceiver power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

## HOMELINK UNIVERSAL TRANSCEIVER

[SEDAN]

# HOMELINK UNIVERSAL TRANSCEIVER

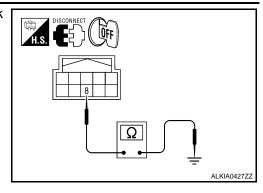
		DAL IKANGCEIVER				
< COMPONENT DIAGNOS			[SEDAN]			
Component Function	ponent Function Check					
<b>1.</b> CHECK FUNCTION						
Check that system receiver (	garage door opener, etc.) c	perates with original hand-h	eld transmitter.			
Is the inspection result norma	<u>  ?</u>					
YES >> GO TO 2. NO >> Receiver or hand	-held transmitter is malfun	ctioning				
2.CHECK ILLUMINATE		storning.				
1. Turn ignition switch "OFF	" •					
2. Press each of the transm	itter buttons and watch for	the red light to illuminate wi	th each button.			
Is the inspection result norma	<u>  ?</u>					
YES >> GO TO 3. NO >> Refer to DLK-327	, "Diagnosis Procedure".					
<b>3.</b> CHECK TRANSMITTER						
Check transmitter with Tool*.						
*:For details, refer to Technica						
Is the inspection result norma		an maturahiala selete d				
	-held transmitter malfunctint hti-dazzling inside mirror	on, not venicle related. (homelink universal transc	eiver). Refer to MIR-18,			
"Removal and In		<b>X</b>	,			
Diagnosis Procedure			INFOID:000000003183608			
1.CHECK POWER SUPPLY						
		k universal transceiver) con	nector			
2. Check voltage betwee	en auto anti-dazzling ir					
(homelink universal trans	ceiver) harness connector	and ground.	<b>Off</b>			
		l I				
Auto anti-dazzling inside mirror			Voltage (V)			
(Homelink universal transceiver) connector	Terminal	Condition	(Approx.)			
R4	10 Ground	Ignition switch position: LOCK	Battery voltage			
Κ4		5 ·····				
	l?					
Is the inspection result norma YES >> GO TO 2.	<u>11?</u>					
Is the inspection result norma YES >> GO TO 2. NO >> Check the follo	wing.	1/0)1				
Is the inspection result norma YES >> GO TO 2. NO >> Check the follo • 10A fuse [No. 6	wing. S located in the fuse block (		mirror (homelink universal			
Is the inspection result norma YES >> GO TO 2. NO >> Check the follo • 10A fuse [No. 6	wing. S located in the fuse block (	J/B)] nd auto anti-dazzling inside	mirror (homelink universal			

# HOMELINK UNIVERSAL TRANSCEIVER

### < COMPONENT DIAGNOSIS >

[SEDAN]

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



Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity		
R4	8		Yes		
the inspection result normal?					
YES >> GO TO 3.					
NO >> Repair harness.					

3. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

< ECU DIAGNOSIS >	[SEDAN]	
ECU DIAGNOSIS		А
BCM (BODY CONTROL MODULE)		
Reference Value	INFOID:00000003123173	В
VALUES ON THE DIAGNOSIS TOOL Refer to <u>BCS-41. "Reference Value"</u> . TERMINAL LAYOUT		С
Refer to <u>BCS-45, "Terminal Layout"</u> .		D
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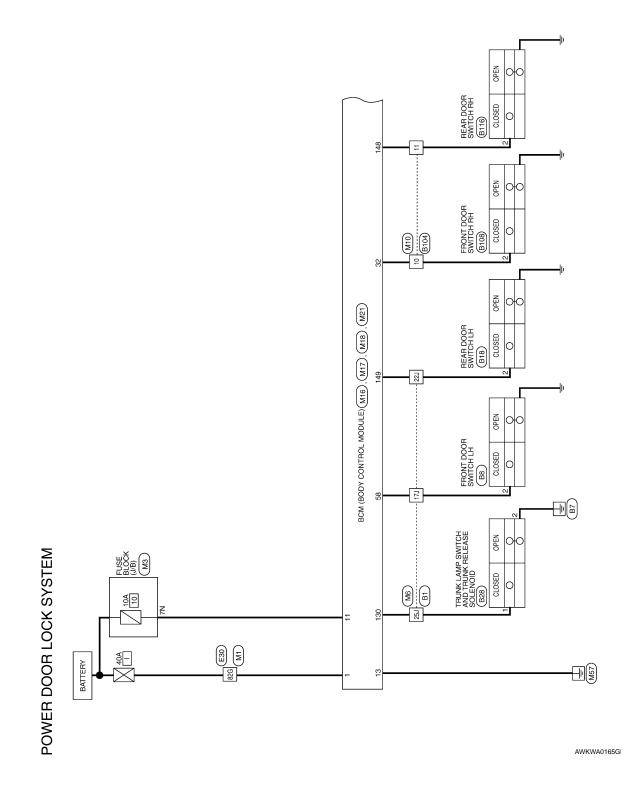
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< ECU DIAGNOSIS >

Wiring Diagram — POWER DOOR LOCK SYSTEM —

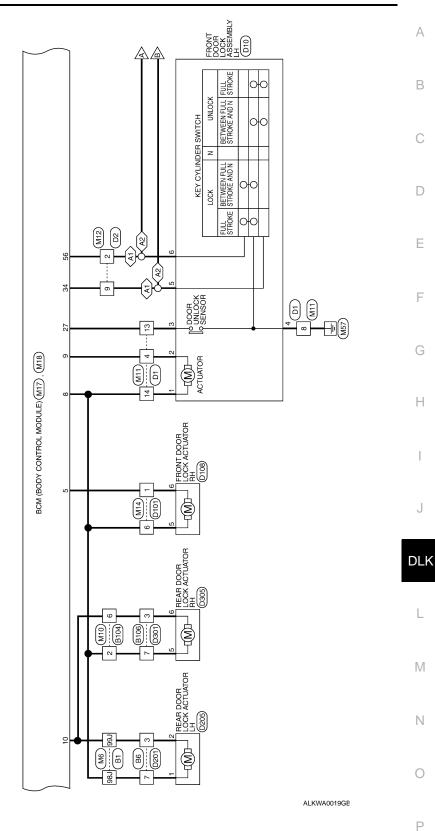
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[SEDAN]



#### < ECU DIAGNOSIS >

[SEDAN]



 (A1) : WITH LEFT FRONT ONLY POWER

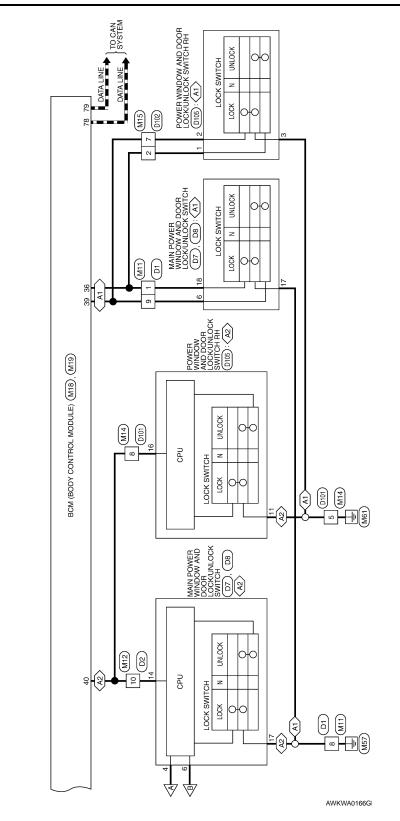
 WINDOW ANTI-PINCH SYSTEM

 (A2) : WITH LEFT AND RIGHT FRONT POWER

 (A2) : WINDOW ANTI-PINCH SYSTEM

#### < ECU DIAGNOSIS >

[SEDAN]



 AT
 WITH LEFT FRONT ONLY POWER

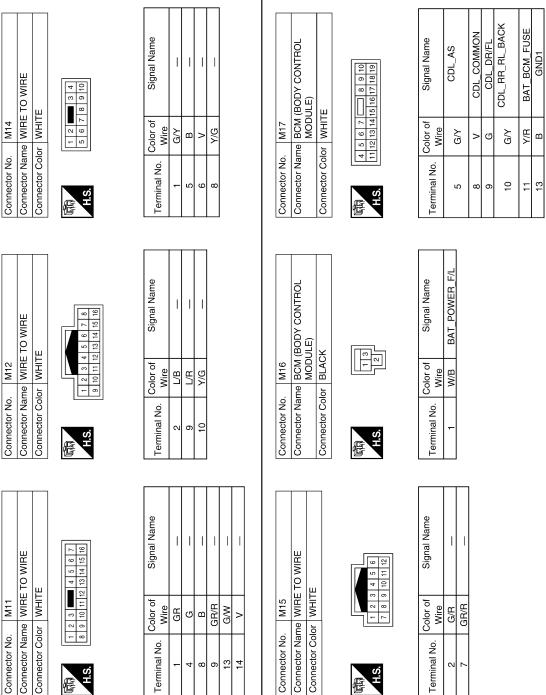
 WINDOW ANTI-PINCH SYSTEM

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 WINDOW ANTI-PINCH SYSTEM

 WINDOW ANTI-PINCH SYSTEM

 AT
 LINE

< ECU DIAGNOSIS >	BCM (BODY CONTI		=)	[SEDAN]
				A
				В
		Signal Name		С
M6 WIRE TO WIRE WHITE	91         81         7.0         61         61         41	Color of Wire SB SB AVIA		D
Connector No. Connector Name Connector Color		Terminal No. Col 17J C 22J R 98J Y		E
Conne Conne Conne	H.S.			F
		ame	ame	G
M3 M3 FIUSE BLOCK (J/B) WHITE	5N 4N	Signal Name	Signal Name	Н
	31 C	Color of Wire Y/R	Color of Wire G/Y B/B R/B R/B	I
CTORS Connector No. Connector Name Connector Color	H.S.	Terminal No. 7N	Terminal No. 2 6 11	J
				DLK
YSTEM	500 500 500 500 500 500 500 500 500 500	Signal Name	*	L
LOCK SYS M1 WIRE TO WIRE WHITE	70         60         50         40         30           141         130         110         110         110         110           446         130         110         110         110         110         110           446         130         130         110         <		M10 me WIRE TO W M110 BROWN 12 11 10 9 8 7 12 11 10 9 8 7	Μ
POWER DOOR LOCK SYSTEM CONNECTORS Connector No. M1 Connector Name WIRE TO WIRE Connector No. M1 Connector No. Connector No. Connec		Terminal No. Color o Wire 82G W/B	ctor No. ctor Nam ctor Colc	Ν
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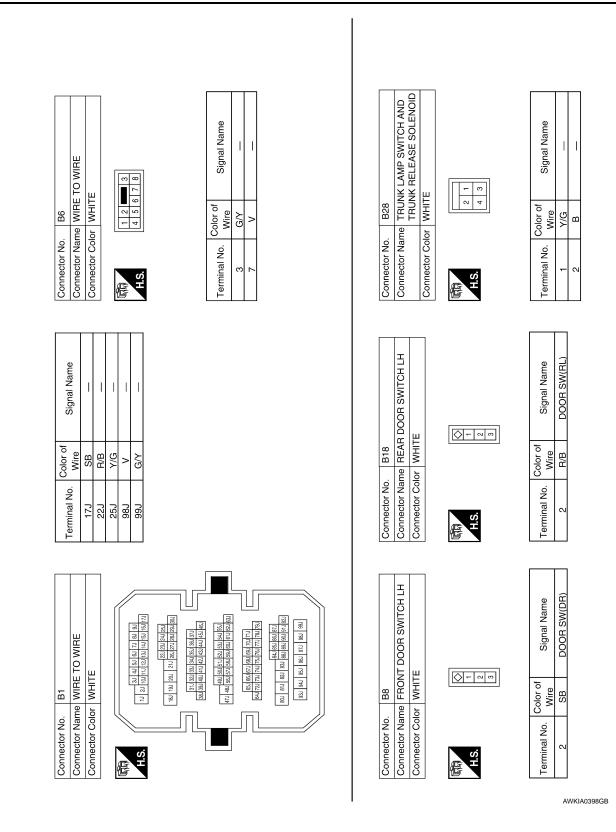
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লিঞ্জ		
Connector No.         M21           Connector Name         BCM (BOPY CONTROL           Connector Name         BCM (BOPY CONTROL           Connector Name         M21           Connector Signal Name         M31 (M1 M1 M		
m21       m021		
Connector No Connector Name Connector Color L.S. L.S. 130 14.8 130 14.8 130 14.9 14.8 14.8 14.9 1		
Connector No. M19 Connector Name BCM (BODY CONTROL Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	Signal Name	
BODY CONTROL LE) Signal Name CAN-H CAN-H	Signal	
m         M19           m         BCM (BOULE)           or         BLACK           All 3/2         7/1           All 3/2         7/1           Mile         20           Multice         1           Nite         P           L         P	Color of W/B W/B	
Connector No.     M19       Connector Name     BCM (BODY CONTROL MODULE)       Connector Color     BLACK       MoDULE)     Module)       Tarminal No.     Color of L     Signal Name       79     P     Can-L       79     L     Conna	Terminal No.	
COCK ATUS		
Connector No.         M18           Connector Name         BCM (BODY CONTROL           MODUE         MODUE           Signal Name         Mathematical No.           Color of         Signal Name           Z7         G/M         DOOR_LOCK_STATUS           32         R/B         AS_DOOR_SW           34         L/R         DOOR_LOCK SW           39         GR/R         CENTRAL_UNLOCK           39         GR/R         CENTRAL_LOCK SW           56         L/B         DOOR_KEV/C_UNCK           50         PDOOR_KEV/C_UNCK         SW           50         DOOR_KEV/C_UNCK         SW           50         DOOR_KEV/C_UNCK         SW           50         DOOR_KEV/C_UNCK         SW	866 868 868 868 868 868 868 868 868 868	_
M18 M0DULE) MODULE GREEN GREEN Cor of MB DOO MB DOO	Image: Constraint of the second sec	
Connector No.         Connector Name           Connector Name         Connector Name           Connector Name         Connector Color           Image: State Sta	Connector No.         E30           Connector Name         WIRE TO WIRE           Connector Name         WHE TO WIRE           Connector sector Sector         Sector	
	ALKIA0197GB	

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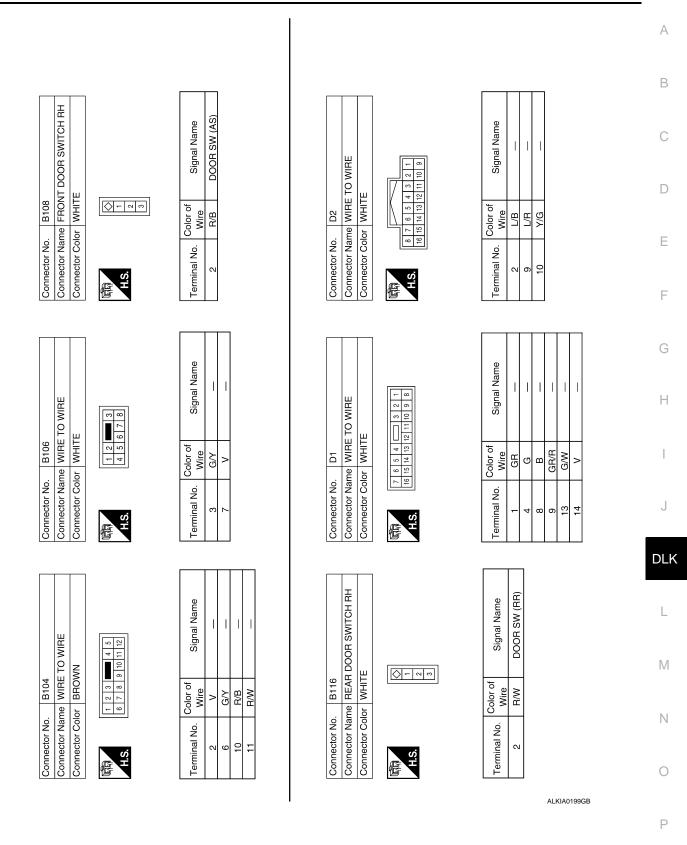
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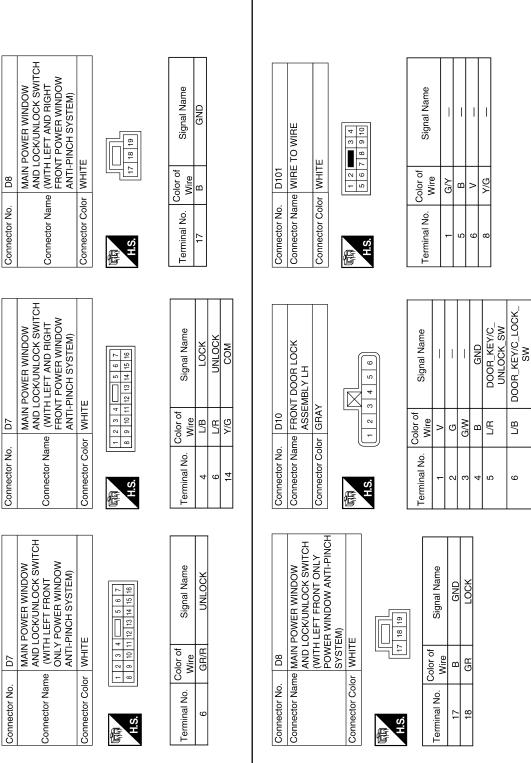


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Connector No. D105 Connector Name POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT WITY POWER WINDOW ANTI-PINCH SYSTEM) Connector Color WHITE	Signal Name LOCK UNLOCK GND	D205 REAR DOOR LOCK ACTUATOR LH GRAY 2 3 4 5 6	Signal Name	
D105 POWER WIND DOOR LOCK/U SWITCH RH CWTH LEFT FF ONLY POWER ONLY POWER MHITE		D205 REAR DOOR LC ACTUATOR LH GRAY 2 3 4 5 6		
P105 PD0R1 SWITCI WITH L ONDY F ANTI-P1 ANTI-P1 6 7 8	Color of Wire GR/R B		Color of Wire V	
Connector No. Connector Name Connector Color		Connector No. Connector Name Connector Color		
Connec Connec H.S.	Terminal No.	Connec Connec H.S.	Terminal No.	
⊖× "⊥				
D105 POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM) WHITE	Signal Name GND COM	щ.	Signal Name	
D105           POWER WINDOW           DOOD LOCK/UNL           SWITCH RH           RWITCH RH           RIGHT FRONT PC           WINDOW ANTI-PIL           WINDOW ANTI-PIL           WINDOW ANTI-PIL           WINDOW ANTI-PIL           WINDOW ANTI-PIL           BOUTOR PLOTE           NINDOW ANTI-PIL           MINDOW ANTI-PIL           WINDOW ANTI-PIL           MINDOW ANTI-PIL		Connector No. D201 Connector Name WIRE TO WIRE Connector Color WHITE		
	Color of Wire B Y/G	D201 D201 MHITE T WHITE 8 7 6	Color of Wite Color V	
Connector No. Connector Name Connector Color		Connector No. Connector Name Connector Color		
Connector Nar Connector Nar Connector Col	Terminal No. 11 16	Connec Connec H.S.	Terminal No. 3 7	I
	ame		e	
	Signal Name		Signal Name	
		D108 FRONT DOOR I ACTUATOR RH GRAY 2 3 4 5 6		
D102 me WIRE T wHITE 1211109	Color of Wire GR/ GR/R	D108 me FRON or GRAY	Color of Wire V	
Connector No. D102 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No. 2 7	Connector No. D108 Connector Name FRONT DOOR LOCK ACTUATOR RH ACTUATOR RH Connector Color GRAY	Terminal No. 5 6	
Conne Conne H.S	L Lermi	Conni Conni H.S	Termi	
			AWKIA0400GB	

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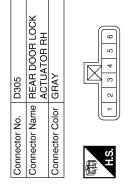
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D301	WIRE TO WIRE	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	



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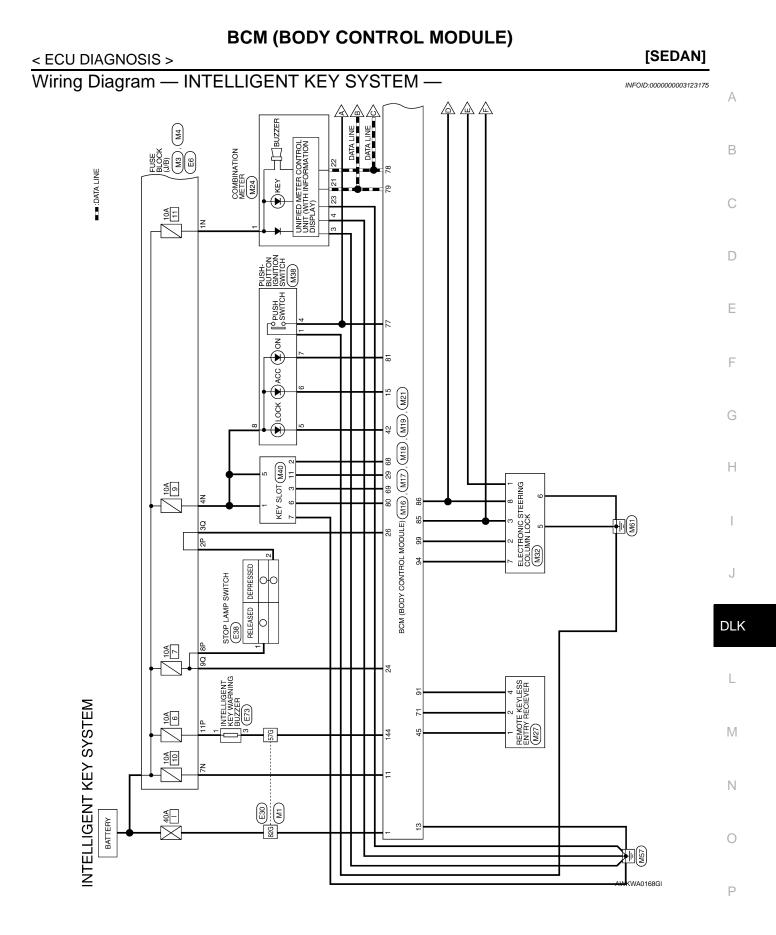
Signal Name	-	-
Color of Wire	٨	G/Y
Terminal No.	2	9

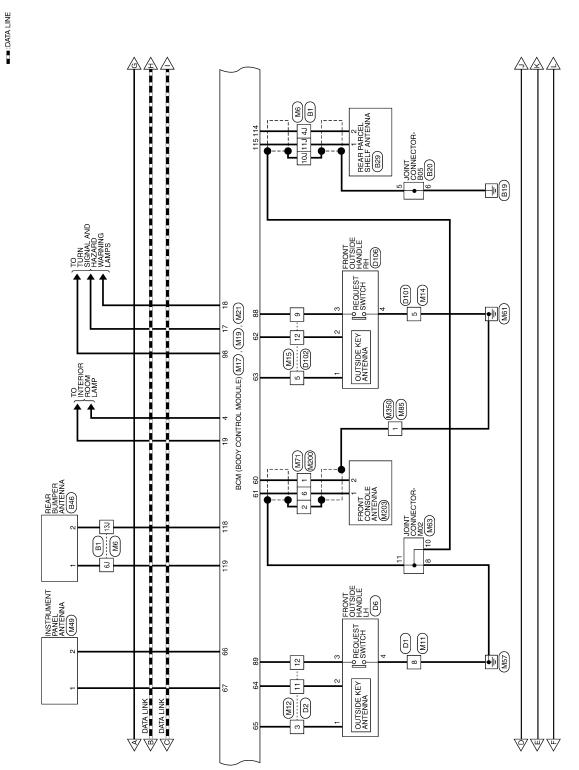
Signal Name

Color of Wire G/Y

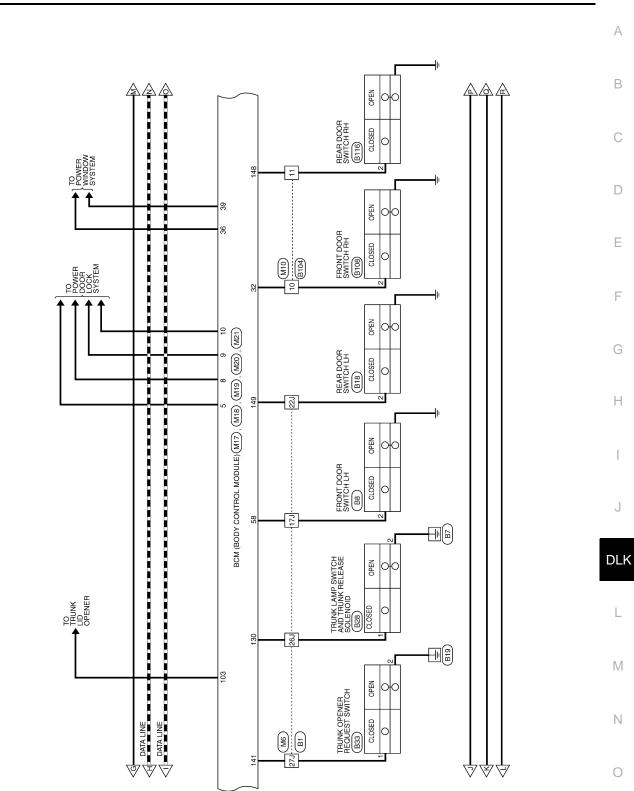
> Terminal No. 3

**BCM (BODY CONTROL MODULE)** 





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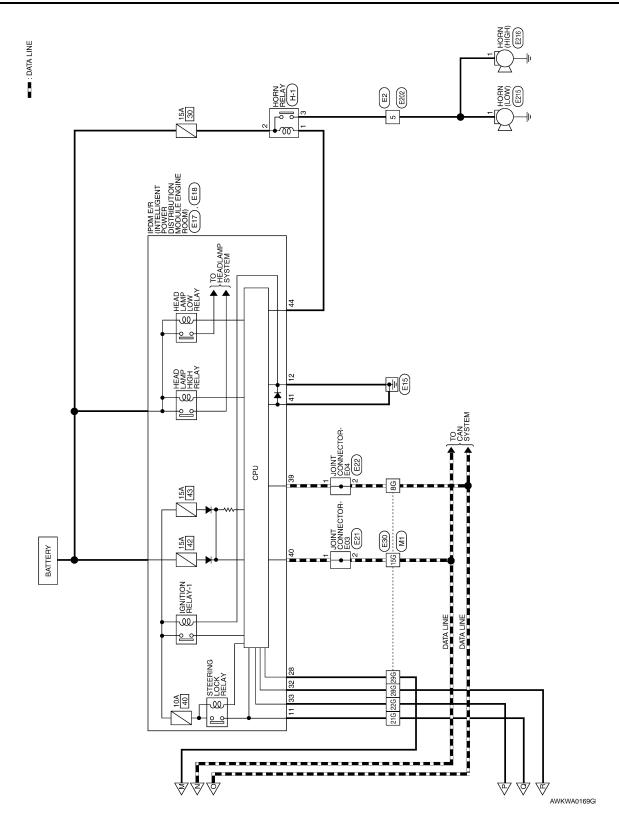
# BCM (BODY CONTROL MODULE)

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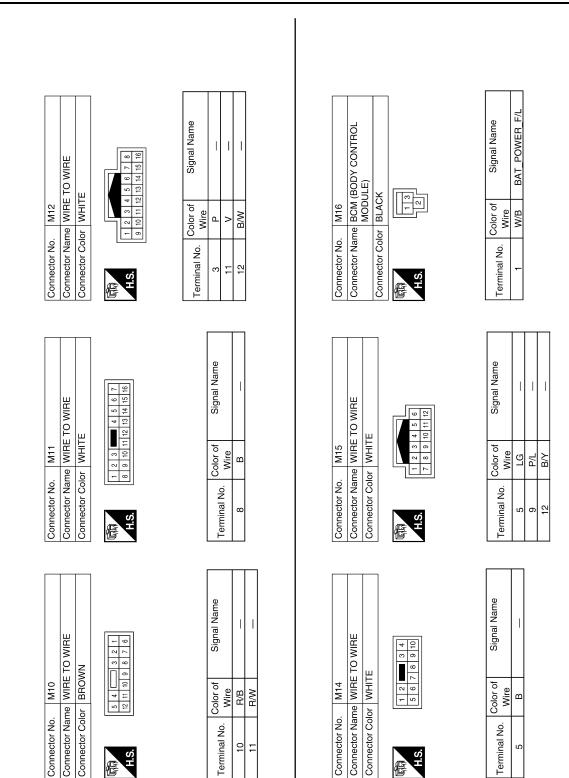


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Signal Name	Signal Signal Name Name Signal Name Name Name Name Name Name Name Name	С
		D
Ctor No. Ctor Name ctor Name ctor Color	Terminal No.         Color of Wire           4J         BRW           6J         BRW           10J         SHIELD           11J         W           13J         U/O           17J         SB           22J         R/B           26J         V/W           27J         G/R	E
Conne Conne Conne H.S.		F
		G
Signal Name		Н
Color of Color of Wire P L/O BR G/R G/R W/B BR W/B C Color of Colo	Connector No.         M6           Connector Name         WIRE TO WIRE           Connector Name         WIRE 10 WIRE           M6         M1         M6           M1         M1         M1         M1           M6         WIRE 10 WIRE         M6         M1         M7           M1         M1         M1         M1         M1         M1           M1         M1         M1         M2         M1         M1         M1           M1         M1         M1         M2         M1         M2         M1         M2           M1         M2         M2         M3         M3         M3         M3         M3         M3         M3           M2         M3         M3         M3         M3         M3         M3         M3         M3           M3         M3         M3         M3         M3         M3         M3         M3         M3           M3         M3         M3         M3         M3         M3         M3         M3         M3         M3           M3         M3         M3         M3         M3         M3 <thm3< th="">         M3         M3</thm3<>	I
ORS Terminal No. 86 156 226 296 576 826	Connector No.	J
	Conne Conne HIS	
		DLK
	Name (	L
MEY SYSTEN           M1         M1           M2         M1         M2           M3         M3         M3         M3           M3         M3         M3         M3         M3           M3 <th< td=""><td>Signal Name</td><td>5.4</td></th<>	Signal Name	5.4
KEY SYSTE           ne         WIRE TO WIRE           nile         Mile	M4       M4       M6       M1E       M1E       Mire       OL       OL	Μ
	A Name FUS Name FUS NHH RMM RMM RMM	Ν
INTELLIGENT KEY SYSTEM COI	Connector No. M4 Connector Name FUSE BLOCK (J/B) Connector Color WHITE Connector Color of Signal N Mire 3Q 0/L – –	0
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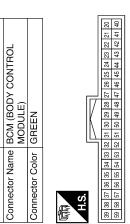
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Signal Name	STOP_LAMP_LOW_ SW	STOP_LAMP_HIGH_ SW	FOB IN SW 1	AS_DOOR_SW	CENTRAL LOCK SW	CENTRAL_UNLOCK_ SW	S/L_LOCK_LED	GND_RF2_A/L	DR DOOR SW
Color of Wire	ΜN	O/L	≻	R/B	GR	GR/R	н	٩.	SB
Terminal No.	24	26	29	32	36	39	42	45	58



M18

Connector No.

Connector Name BCM (BODY CONTROL MODULE)

M17

Connector No.

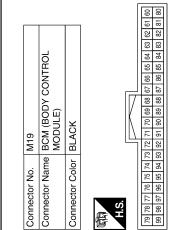
WHITE

Connector Color

4 5 6 7 - 8 9 10 11 12 13 14 15 16 17 18 19	Signal Name	ROOM_LAMP_BAT_S AVER	CDL_AS	CDL_COMMON	CDL_DR/FL	CDL_RR_RL_BACK	BAT_BCM_FUSE	GND1	ACC_LED	FR_FLASHER	FL_FLASHER	ROOM_LAMP_OUTPUT	
4 5 6 7 11 12 13 14	Color of Wire	P/W	G/Y	^	g	G/Y	Y/R	В	Y/L	G/B	G/Y	≻	
H.S.	Terminal No.	4	5	8	6	10	11	13	15	17	18	19	

Signal Name	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	S/L_CONDITION_1	S/L_CONDITION_2	AS_REQUEST SWITCH	RF1_POWER_SUPPLY	S/L_POWER_SUPPLY_ 12V	S/L_K-LINE
Color of Wire	Ч	Γ	R/L	ГG	L/0	G/R	P/L	L/R	G∕Y	ΓΛ
Terminal No.	78	79	80	81	85	86	88	91	94	66

Signal Name	ROOM ANT 2 B	ROOM ANT 2 A	AS DOOR ANT B	AS DOOR ANT A	DR_DOOR_ANT_B	DR DOOR ANT A	ROOM ANT 1 B	ROOM_ANT_1_A	FOB_READER_CLOCK	FOB_READER_DATA	RF1_TUNER_SIGNAL	ENG_START_SW
Color of Wire	B/R	W/R	B/Y	LG	٧	Ρ	В	G	G/O	0	L/0	BR
Terminal No.	60	61	62	63	64	65	66	29	68	69	71	22



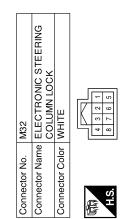


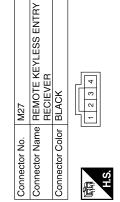
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		1 19 20 3 39 40							
Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE		8 9 10 11 12 13 14 15 16 17 18 19 20 20 23 34 35 38 34 35 38 37 38 39 40	Signal Name	BATT	GND	GND	CAN-H	CAN-L	GND
M24 ne COMB or WHITE		6 7 8 9 26 27 28 29	Color of Wire	W/L	в	В	_	٩	в
Connector No. M24 Connector Name COMBII Connector Color WHITE	雨 H.S.	1         2         3         4         5           21         22         23         24         25	Terminal No.	+	3	4	21	22	23
		113 112 133 132							
Connector No. M21 Connector Name BCM (BODY CONTROL MODULE) Connector Color GRAY			Signal Name	TRUNK ANT 1 B	TRUNK ANT 1 A	BACK_DOOR_ANT_B	BACK DOOR ANT A	TRUNK_SW	BUZZER
M21 BCM (BOE MODULE) GRAY		125 124 123	Color of Wire	В	N	L/O	BR/W	γ/G	GR
Connector No. M21 Connector Name BCM ( MODL Connector Color GRAY	际 H.S.	131 130 129 128 127 128 151 150 149 148 147 146	Terminal No.	114	115	118	119	130	144
(BODY CONTROL ULE) E	□ 102103104 1081091110111		Signal Name	CDL_BACK_TRUNK					
M20 Ie BCM (BOE MODULE)	100 101 102 102 102 102 102 102 102 102		Color of Wire	٧					
Connector No. M20 Connector Name BCM (BODY MODULE) Connector Color WHITE	雨 H.S.		Terminal No. Wire	103					

Signal Name	S/L_12V_MECHANICA L (V1)	S/L_COM	S/L_CONDITION_1	GND	GND	S/L_12V_CPU (V2)	S/L_CONDITION_2
Color of Wire	P/L	ΓΛ	Г/О	В	В	G/Y	G/R
Terminal No.	1	2	3	5	6	7	8





Terminal No.	Color of Wire	Signal Name
-	٩	GND
2	Г/О	SIGNAL
4	L/R	12V

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RR DOOR SW RL DOOR SW

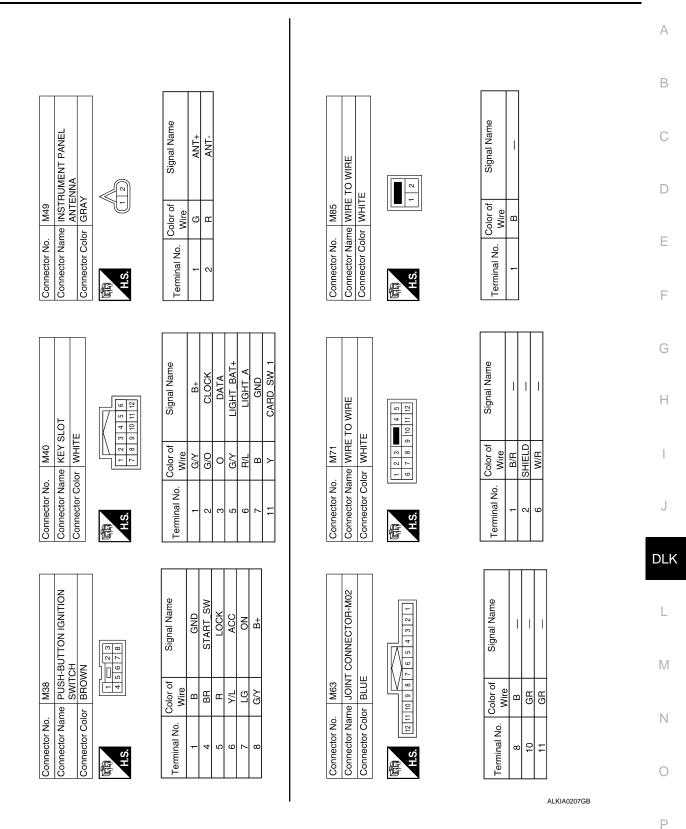
R/B B/B GR Y/G

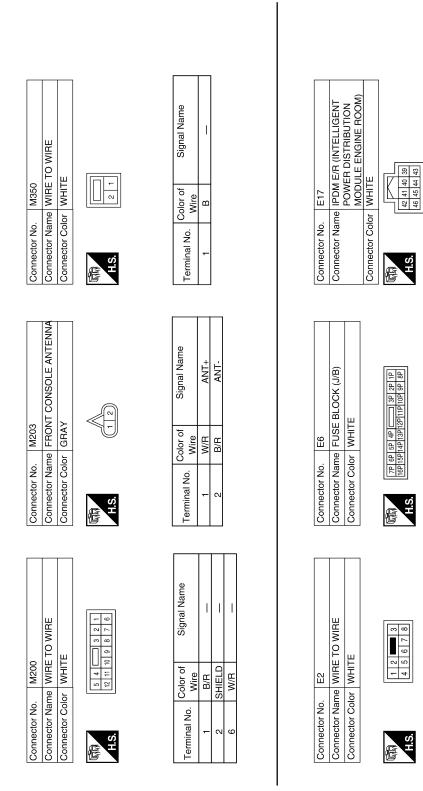
148 149

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Signal Name	CAN-L	CAN-H	S-GND	HORN_RLY
Color of Wire	Ч	_	В	G/W
Terminal No.	39	40	41	44

H.S.

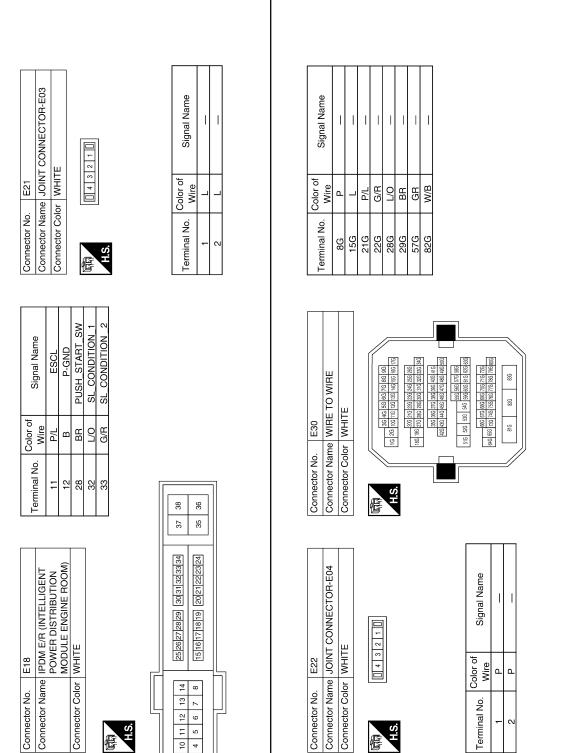
H.S.

H.S.

Signal Name			
Color of Wire	R/G	Υ/R	γ/B
Terminal No.	2P	8P	11P

Signal Name	I	
Color of Wire	9	
Terminal No.	5	

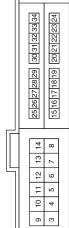
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Connector No.





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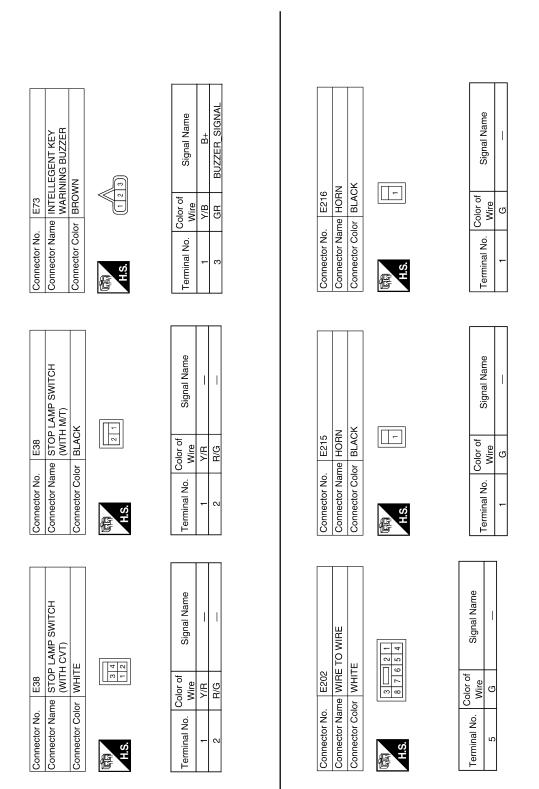
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Terminal No.

H.S.

E

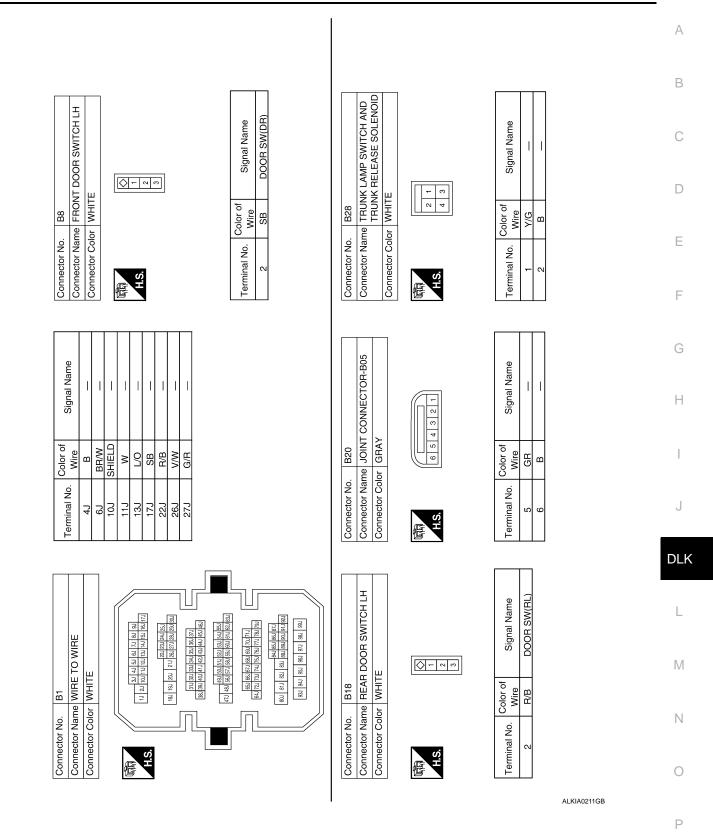
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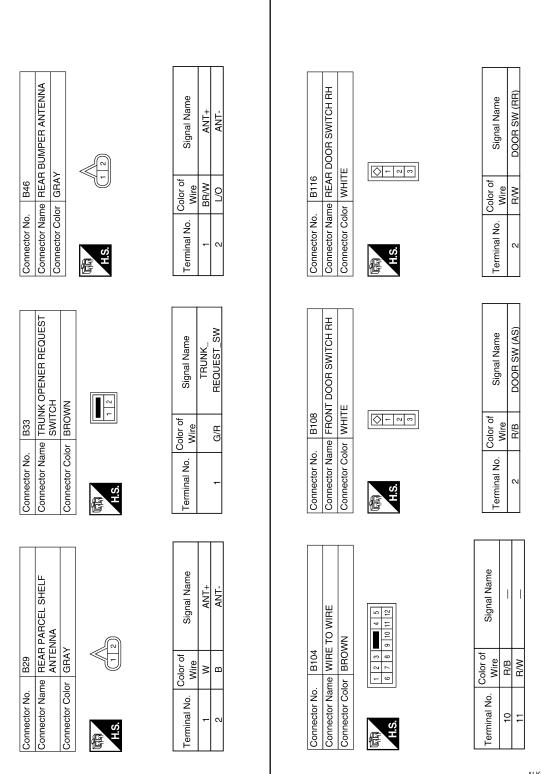


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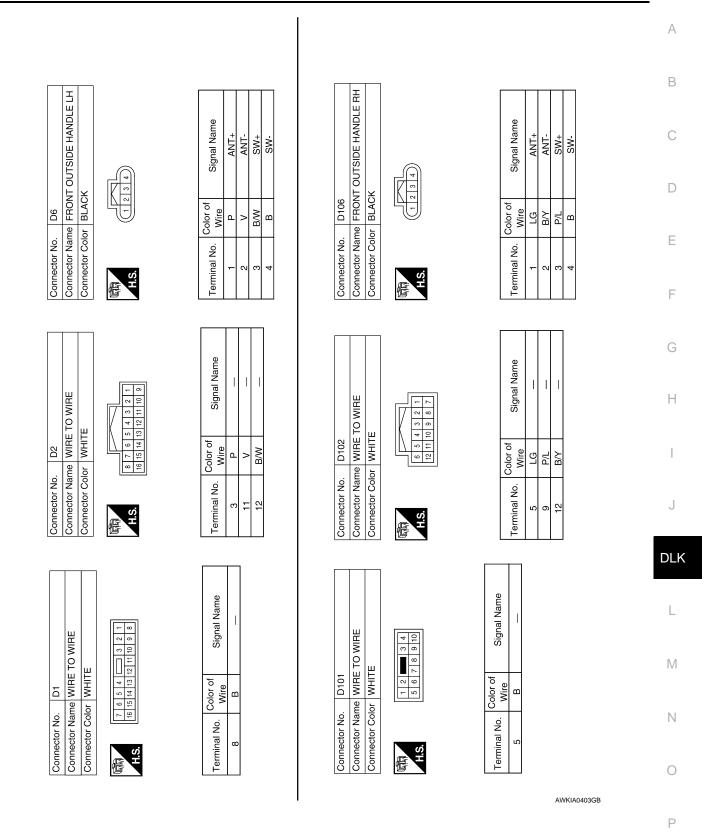


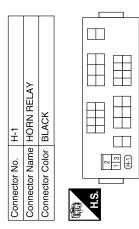
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# BCM (BODY CONTROL MODULE)

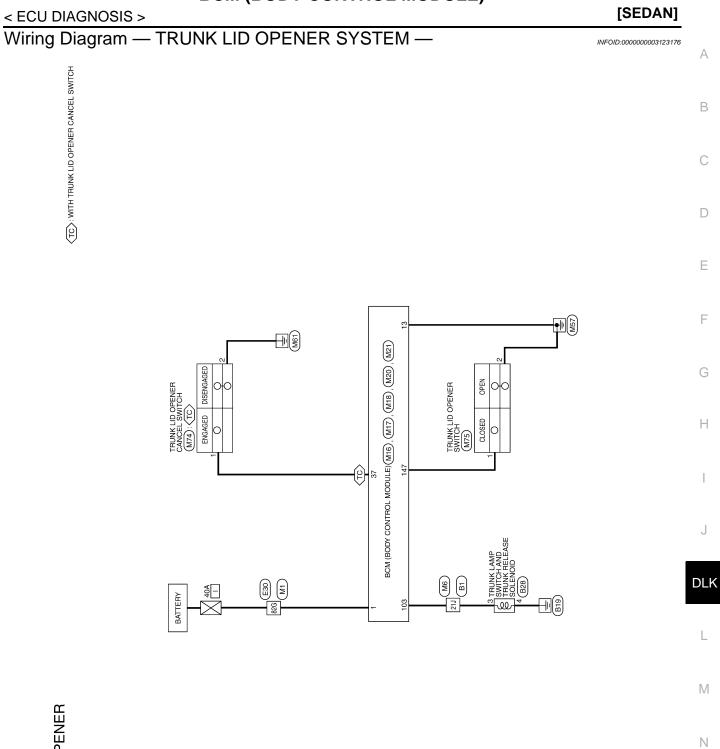
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Cianal Namo	olgilal Naille		-	-
Color of	Wire	G/W	G/B	g
Terminal No.		1	2	3

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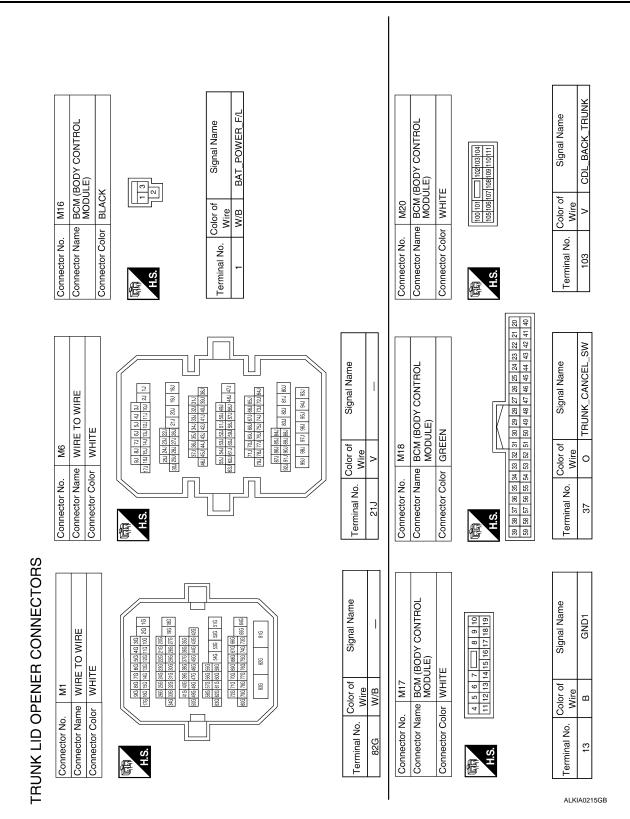


**TRUNK LID OPENER** 

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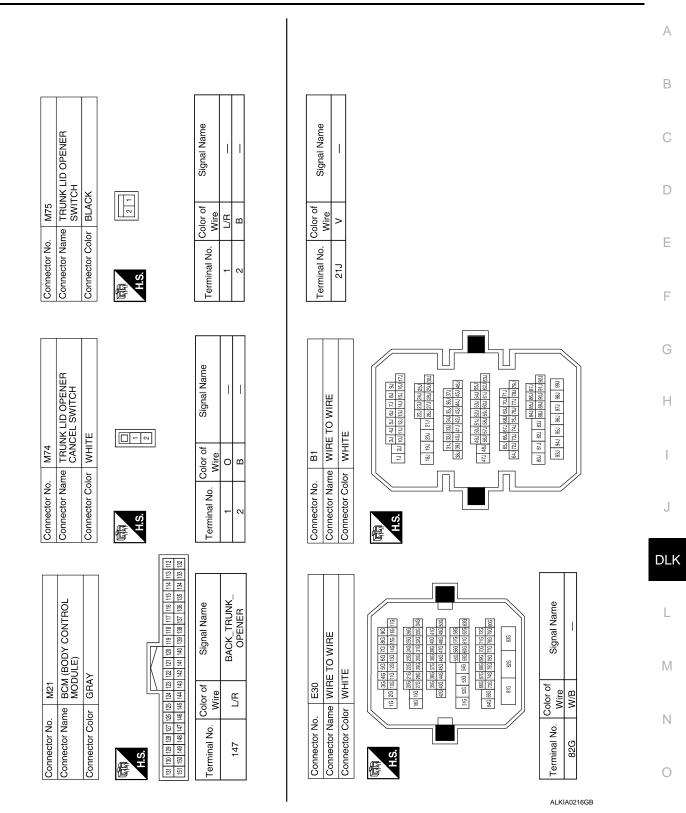
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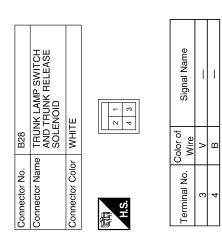


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### Fail Safe

ALKIA0217GB

INFOID:000000003123177

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

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### [SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
B2553: IGNITION RELAY	Inhibit engine cranking	2 seconds after the BCM turns the ignition ON, voltage is detected on the ignition input line.
B2555: STOP LAMP	Inhibit engine cranking	500 ms after stop lamp switch engagement, output voltage is present
B2556: PUSH-BTN IGN SW	Inhibit engine cranking	500 ms after the BCM switches to sleep condition, detects that the engine start switch is turned from ON to OFF.
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status has become consistent</li> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2562: LOW VOLTAGE	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	1.5 seconds after power supply voltage increases to above 8.8 V
B2563: HI VOLTAGE	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	500 ms after the power supply voltage decreases to less than 18 V
B2601: SHIFT POSITION	Inhibit steering lock	<ul> <li>500 ms after the following signal reception status becomes consistent</li> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 /h or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions is fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul>
B2605: PNP SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions is fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Power position: IGN</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>Interlock/PNP switch signal (CAN): OFF</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P or N position (battery voltage)</li> <li>PNP switch signal (CAN): ON</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status has become consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>

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Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When the following steering lock conditions agree</li> <li>BCM steering lock control status</li> <li>Steering lock condition No. 1 signal status</li> <li>Steering lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul><li>When any of the following conditions is fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>
B2611: ACC RELAY	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When any of the following conditions is fulfilled:</li> <li>Accessory input is commanded OFF and no votage is detected by the BCM on that terminal.</li> <li>Accessory input is commanded ON and votage is detected by the BCM on that terminal.</li> </ul>
B2612: S/L STATUS	<ul><li>Inhibit engine cranking</li><li>Inhibit steering lock</li></ul>	<ul> <li>When any of the following conditions is fulfilled</li> <li>Steering lock unit status signal (CAN) is received normally</li> <li>The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2614: ACC RELAY CIRC	Inhibit engine cranking	The status of the accessory terminal detects voltage in ACC posi- tion and no voltage in OFF position.
B2615: BLOWER RELAY CIRC	Inhibit engine cranking	The status of the IGN2 terminal detects voltage in IGN2 position and no voltage in OFF position.
B2616: IGN RELAY CIRC	Inhibit engine cranking	The status of the IGN terminal detects voltage in IGN position and no voltage in OFF position.
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
B261A: PUSH-BTN IGN SW	Inhibit engine cranking	BCM initialization
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B261F: ASCD CANCEL SW FAIL ON (M/T without ABS only)		BCM detects ASCD CANCEL switch transition from ON to OFF.
B2620: NEUTRAL SW FAIL ON (M/T without ABS only)	Inhibit engine cranking	BCM detects park/neutral position switch transition from ON to OFF.
B2621: INSIDE ANTENNA 1		Inside antenna 1 (instrument panel) signal received
B2622: INSIDE ANTENNA 2		Inside antenna 2 (console) signal received
B2623: INSIDE ANTENNA 3		Inside antenna 3 (rear parcel shelf) signal received
B2624: INSIDE ANTENNA 4		Inside antenna 4 signal received
B2625: INSIDE ANTENNA 5		Inside antenna 5 signal received
B2626: RT DOOR ANT FAIL		Front outside handle RH (outside key antenna) signal received
B2627: LT DOOR ANT FAIL		Front outside handle LH (outside key antenna) signal received
B2628: TRUNK ANT FAIL		Rear bumper antenna signal received

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Display contents of CONSULT	Fail-safe	Cancellation	^
B2629: VEHICLE SPEED	Inhibit engine cranking	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms	A
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	<ul><li>When any of the following conditions is fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>	В

# DTC Inspection Priority Chart

INFOID:000000003123178

INFOID:000000003123179

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

Priority	DTC	
1	B2562: LOW VOLTAGE     B2563: HI VOLTAGE	E
2	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)	
3	<ul> <li>B2190: NATS ANTTENA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> </ul>	F
	<ul> <li>B2013: ID DISCORD BCM-S/L</li> <li>B2014: CHAIN OF S/L-BCM</li> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> </ul>	H
	<ul> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSI STATUS</li> <li>B2604: PNP SW</li> <li>B2605: PNP SW</li> <li>B2606: S/L RELAY</li> <li>B2607: S/L RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2609: S/L STATUS</li> </ul>	J
4	<ul> <li>B260A: IGNITION RELAY</li> <li>B260B: STEERING LOCK UNIT</li> <li>B260C: STEERING LOCK UNIT</li> <li>B260D: STEERING LOCK UNIT</li> <li>B260F: ENG STATE SIG LOST</li> </ul>	L
	<ul> <li>B2611: ACC RELAY</li> <li>B2612: S/L STATUS</li> <li>B2614: ACC RELAY CIRC</li> <li>B2615: BLOWER RELAY CIRC</li> <li>B2616: IGN RELAY CIRC</li> </ul>	Μ
	<ul> <li>B2617: STARETE RELAY CIRC</li> <li>B2618: BCM</li> <li>B2619: BCM</li> <li>B261A: PUSH-BTN IGN SW</li> </ul>	N
	<ul> <li>B261E: VEHICLE TYPE</li> <li>B26E1: ENG STATE NO RECIV</li> <li>C1729: VHCL SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED SIG</li> </ul>	O
5	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA	F

## DTC Index

## [SEDAN]

< ECU DIAGNOSIS >

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF  $\rightarrow$  ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page
No DTC is detected. further testing may be required.	-	-	_
U1000: CAN COMM CIRCUIT	—	—	DLK-240
U1010: CONTROL UNIT (CAN)	—	—	DLK-241
U0415: VEHICLE SPEED SIG	—	—	<u>BCS-33</u>
B2013: ID DISCORD BCM-S/L	×	—	<u>SEC-209</u>
B2014: CHAIN OF S/L-BCM	×	—	<u>SEC-210</u>
B2190: NATS ANTTENA AMP	×	—	<u>SEC-214</u>
B2191: DIFFERENCE OF KEY	×	—	<u>SEC-218</u>
B2192: ID DISCORD BCM-ECM	×	—	<u>SEC-219</u>
B2193: CHAIN OF BCM-ECM	×	—	<u>SEC-220</u>
B2553: IGNITION RELAY	_	_	PCS-56
B2555: STOP LAMP	_	—	<u>SEC-221</u>
B2556: PUSH-BTN IGN SW	_	×	<u>SEC-224</u>
B2557: VEHICLE SPEED	×	×	<u>SEC-226</u>
B2560: STARTER CONT RELAY	×	×	<u>SEC-227</u>
B2562: LOW VOLTAGE	_	—	<u>BCS-34</u>
B2563: HI VOLTAGE	×	×	BCS-35
B2601: SHIFT POSITION	×	×	<u>SEC-228</u>
B2602: SHIFT POSITION	×	×	<u>SEC-232</u>
B2603: SHIFT POSI STATUS	×	×	<u>SEC-235</u>
B2604: PNP SW	×	×	<u>SEC-239</u>
B2605: PNP SW	×	×	<u>SEC-241</u>
B2606: S/L RELAY	×	×	<u>SEC-243</u>
B2607: S/L RELAY	×	×	<u>SEC-244</u>
B2608: STARTER RELAY	×	×	<u>SEC-246</u>
B2609: S/L STATUS	×	×	<u>SEC-248</u>
B260A: IGNITION RELAY	×	×	PCS-58
B260B: STEERING LOCK VNIT	_	×	<u>SEC-253</u>
B260C: STEERING LOCK VNIT	_	×	<u>SEC-254</u>
B260D: STEERING LOCK VNIT	—	×	<u>SEC-255</u>
B260F: ENG STATE SIG LOST	×	×	<u>SEC-256</u>
B2611: ACC RELAY	—	_	PCS-59
B2612: S/L STATUS	×	×	<u>SEC-258</u>
B2614: ACC RELAY CIRC	—	×	PCS-61
B2615: BLOWER RELAY CIRC	—	×	PCS-64
B2616: IGN RELAY CIRC	—	×	PCS-67
B2617: STARETE RECAY CIRC	×	×	<u>SEC-263</u>

#### < ECU DIAGNOSIS >

# [SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Reference page
32618: BCM	×	×	PCS-70
2619: BCM	×	×	<u>SEC-265</u>
3261A: PUSH-BTN IGN SW	—	×	<u>SEC-266</u>
3261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	<u>SEC-269</u>
2621: INSIDE ANTENNA	_	—	DLK-242
2622: INSIDE ANTENNA	_	—	DLK-245
2623: INSIDE ANTENNA	—	—	DLK-248
26E1: ENG STATE NO RES	×	×	<u>SEC-257</u>

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# SYMPTOM DIAGNOSIS

# INTELLIGENT KEY SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000003184433

# ALL FUNCTIONS OF INTELLIGENT KEY SYSTEM DO NOT OPERATE **NOTE**:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

• "ENGINE START BY I-KEY" and "LOCK/UNLOCK BY I-KEY" are ON when setting on CONSULT-III.

• All doors are closed.

Symptom	Diagnosis/service procedure		Reference page
All functions of Intelligent Key system do not operate.	1.	Check BCM power supply and ground circuit.	<u>DLK-251</u>
	2.	Check Intelligent Key function and battery inspection.	DLK-315
	3.	Check remote keyless entry receiver.	DLK-311
	4.	Check Intermittent Incident.	<u>GI-42</u>

DOOR L	OCI	K FUNCTION SYMPT	OMS		
< SYMPTOM DIAGNOSIS >				[SEDAN]	_
DOOR LOCK FUNCTION SY DOOR LOCK AND UNLOCK S					A
DOOR LOCK AND UNLOCK SV	VIT	CH : Symptom Table		INFOID:00000000318443	4 B
DOOR LOCK/UNLOCK FUNCTION N NOTE: • Before performing the diagnosis in the					c C
<ul> <li>Before performing the diagnosis in the <u>Flow</u>".</li> <li>Check that vehicle is under the condit check each symptom.</li> <li>If the following symptoms are detected in this order.</li> </ul>	ion	shown in "Conditions of veh	nicle" before startin	ig diagnosis, and	d D
<ul> <li>Conditions of Vehicle (Operating Conditions</li> <li>"LOCK/UNLOCK BY I-KEY" is ON whe</li> <li>Intelligent Key is out of key slot.</li> <li>All doors are closed.</li> </ul>		tting on CONSULT-III.			E
Symptom		Diagnosis/service pro	cedure	Reference page	
	1.	Check BCM Power supply and g	ground circuit.	DLK-251	G
Power door lock does not operate with door	2.	Check door lock and unlock swi	tch.	DLK-256	
lock and unlock switch.	3. Check door lock actuator (driver side)			DLK-295	Н
	4. Check Intermittent Incident.			<u>GI-42</u>	
Power door lock does not operate with door	1.	Check key cylinder switch.		DLK-269	
key cylinder operation. (Power door lock operate properly with door lock and unlock switch.)	2.	Replace power window main sw	itch.	PWC-255	I
			Driver side	DLK-295	J
			Passenger side	DLK-296	J
Specific door lock actuator does not operate.	1.	Check door lock actuator.	Rear LH	DLK-297	
			Rear RH	DLK-299	DLk
	2.	Check Intermittent Incident.		<u>GI-42</u>	

# DOOR REQUEST SWITCH

# DOOR REQUEST SWITCH : Symptom Table

INFOID:000000003184435

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DOOR LOCK/UNLOCK FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to DLK-206, "Work Flow".
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column 0 in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- Intelligent Key is out of key slot.
- All doors are closed.

# DOOR LOCK FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [SEDAN]

Symptom		Diagnosis/service procedure	Reference page
		Check BCM power supply and ground circuit.	DLK-251
Door lock/unlock do not operate by door re- quest switch.	2.	Check door switch.	DLK-252
	3.	Check key slot.	DLK-266
	4.	Check Intermittent Incident.	<u>GI-42</u>
	1.	Check door request switch (driver side).	DLK-287
Door lock/unlock does not operate by request switch (driver side).	2.	Check outside key antenna (driver side).	DLK-307
	3.	Check Intermittent Incident.	<u>GI-42</u>
	1.	Check door request switch (passenger side).	DLK-287
Door lock/unlock does not operate by request switch (passenger side).	2.	Check outside key antenna (passenger side).	DLK-307
	3.	Check Intermittent Incident.	<u>GI-42</u>
Selective unlock function does not operate by	1.	Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".	DLK-234
door request switch (driver side) (other door lock function operate).	2.	Check selective unlock function with a remote controller or door key cylinder.	DLK-212
	3.	Check Intermittent Incident.	<u>GI-42</u>
Selective unlock function does not operate by door request switch (passenger side) (other		Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".	DLK-234
door lock function operate).	2.	Check Intermittent Incident.	<u>GI-42</u>
Auto lock function does not operate.	1.	Check "AUTO LOCK SET" setting in "WORK SUP- PORT".	DLK-234
	2.	Check door switch.	DLK-252
	3.	Check key slot.	DLK-266
	4.	Check Intermittent Incident.	<u>GI-42</u>

# INTELLIGENT KEY

# **INTELLIGENT KEY : Symptom Table**

INFOID:000000003184436

# REMOTE KEYLESS ENTRY FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206. "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is out of key slot.
- Ignition switch is in OFF or ACC position.
- All doors are closed.
- Retaind power operation does not operate. Refer to <u>DLK-217, "INTELLIGENT KEY : System Description"</u>.

Symptom	Diagnosis/service procedure		Reference page
All of the remote keyless entry functions do	1.	Check Intelligent Key battery inspection.	DLK-315
not operate.	2.	Check Intermittent Incident.	<u>GI-42</u>
Selective unlock function does not operate by Intelligent Key.	1.	Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUP- PORT".	DLK-234
	2.	Check Intelligent Key battery inspection.	DLK-315
	3.	Check Intermittent Incident.	<u>GI-42</u>

# DOOR LOCK FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [SEDAN]

Symptom	Diagnosis/service procedure	Reference page	А
	1. Check "AUTO LOCK SET" setting in "WORK SUPPORT".	DLK-235	-
Auto lock function does not operate nor-	2. Check door switch.	DLK-252	B
mally.	3. Check key slot.	DLK-266	D
	4. Check Intermittent Incident.	<u>GI-42</u>	-
Power window down function does not op-	1. Check "PW DOWN SET" setting in "WORK SUPPORT".	DLK-315	С
erate.	2. Check Intelligent Key battery inspection.	DLK-315	-

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< SYMPTOM DIAGNOSIS >

# TRUNK OPEN FUNCTION SYMPTOMS TRUNK LID OPENER SWITCH

### TRUNK LID OPENER SWITCH : Symptom Table

INFOID:000000003184437

# TRUNK OPEN FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206. "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is out of key slot.
- All doors are closed.

Symptom	Diagnosis/service procedure	Reference page
	1. Check trunk opener switch.	<u>DLK-277</u>
Trunk open function does not operate by trunk opener switch.	2. Check trunk lid opener cancel switch.	DLK-280
	3. Check Intermittent Incident.	<u>GI-42</u>

# TRUNK REQUEST SWITCH

## TRUNK REQUEST SWITCH : Symptom Table

INFOID:000000003184438

# TRUNK OPEN FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206. "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following "symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is out of key slot.
- All doors are closed.

Symptom	Diagnosis/service procedure	Reference page
	1. Check trunk opener request switch.	DLK-291
Trunk open function does not operate by trunk	2. Check trunk lid opener cancel switch.	DLK-280
opener request switch.	3. Check outside key antenna (trunk room).	DLK-307
	4. Check Intermittent Incident.	<u>GI-42</u>

# INTELLIGENT KEY

## INTELLIGENT KEY : Symptom Table

INFOID:000000003184439

#### TRUNK OPEN FUNCTION MALFUNCTION

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206, "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

# **TRUNK OPEN FUNCTION SYMPTOMS**

#### < SYMPTOM DIAGNOSIS >

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is out of key slot.All doors are closed.

Symptom		Diagnosis/service procedure	Reference page	
	1.	Check "TRUNK OPEN DELAY" setting in "WORK SUPPORT".	DLK-235	
Trunk open function does not operate by Intel-	2.	Check trunk open function.	DLK-225	
ligent Key.	3.	Check trunk room lamp switch.	DLK-283	
	4.	Check Intelligent Key battery inspection.	DLK-315	
	5.	Check Intermittent Incident.	<u>GI-42</u>	

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#### < SYMPTOM DIAGNOSIS >

# WARNING FUNCTION SYMPTOMS

# Symptom Table

WARNING FUNCTION MALFUNCTION

#### NOTE:

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-206, "Work</u> <u>Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.
- If the following "symptoms are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

#### **Conditions of Vehicle (Operating Conditions)**

Warning chime functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation.

Sym	ptom	Diagnosis/service procedure	Reference page
		1. Check push button ignition switch position indicator.	<u>SEC-266</u>
	For internal	2. Check door switch.	DLK-252
	For Internal	3. Check warning chime function.	DLK-323
OFF position warn-		4. Check Intermittent Incident.	<u>GI-42</u>
ing does not oper- ate.		1. Check push button ignition switch position indicator.	<u>SEC-266</u>
For e	For external	2. Check door switch.	DLK-252
	For external 3.	3. Check Intelligent Key warning buzzer.	DLK-304
		4. Check Intermittent Incident.	<u>GI-42</u>
		1. Check Park position switch.	<u>SEC-239</u>
		2. Check door switch.	DLK-252
D position worning d	and not operate	3. Check Intelligent Key warning buzzer.	DLK-304
P position warning d	des not operate.	4. Check warning chime function.	DLK-323
		5. Check combination meter display function.	DLK-322
		6. Check Intermittent Incident.	<u>GI-42</u>
		1. Check push button ignition switch position indicator.	<u>SEC-266</u>
ACC warning doop r	at aparata	2. Check warning chime function.	DLK-323
ACC warning does r	ioi operate	3. Check combination meter display function.	DLK-322
		4. Check Intermittent Incident.	<u>GI-42</u>

INFOID:000000003184440

## WARNING FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [SEDAN]

Symptom		Diagnosis/service pro	cedure	Reference page
		1. Check door switch.		DLK-252
			Instrument center	DLK-242
		2. Check inside key antenna.	Console	DLK-245
			Trunk room	DLK-248
	Door open to close	3. Check Intelligent Key warning buzzer.	Check Intelligent Key warning buzzer.	
		<ol> <li>Check warning chime function.</li> <li>Check key slot illumination.</li> </ol>		DLK-323
				DLK-317
		6. Check combination meter display func	tion.	DLK-322
		7. Check Intermittent Incident.		<u>GI-42</u>
		1. Check push button ignition switch pos	ition indicator.	<u>SEC-266</u>
			Instrument center	DLK-242
		2. Check inside key antenna.	Console	DLK-245
	Push-button igni-		Trunk room	DLK-248
	tion switch opera- tion	3. Check warning chime function.		DLK-323
		4. Check key slot illumination.	DLK-317	
Take away warning		5. Check combination meter display fund	DLK-322	
does not operate.		6. Check Intermittent Incident.		<u>GI-42</u>
		1. Check push button ignition switch pos	ition indicator.	<u>SEC-266</u>
			Instrument center	DLK-242
		2. Check inside key antenna.	Console	DLK-245
	Door is open		Trunk room	DLK-248
		3. Check combination meter display function.		DLK-322
		4. Check Intermittent Incident.		<u>GI-42</u>
		Check "TAKE OUT FROM WIN WARN SUPPORT".	N" setting in "WORK	DLK-235
			Instrument center	DLK-242
		2. Check inside key antenna.	Console	DLK-245
	Take away through		Trunk room	DLK-248
	window	3. Check warning chime function.	l	DLK-323
		4. Check key slot illumination.		DLK-317
		5. Check combination meter display func	tion.	DLK-322
		6. Check Intermittent Incident.		<u>GI-42</u>
	1	1. Check key slot.		DLK-266
		2. Check door switch.		DLK-252
		3. Check warning chime function.		DLK-323
Key warning chime of	toes not operate.	4. Check key slot illumination.		DLK-317
		5. Check combination meter display fund	tion.	DLK-322
		6. Check Intermittent Incident.		<u>GI-42</u>

## WARNING FUNCTION SYMPTOMS

#### < SYMPTOM DIAGNOSIS >

#### [SEDAN]

Symptom		Diagnosis/service proced	ure	Reference page
	1.	Check door switch.		DLK-252
	2.	Check key slot illumination.		DLK-317
	3.	Check Intelligent Key warning buzzer.	DLK-304	
Door lock operation warning chime does not operate.			Instrument center	DLK-242
	4.	Check inside key antenna.	Console	DLK-245
			Trunk room	DLK-248
	5.	Check Intermittent Incident.		<u>GI-42</u>

### **KEY REMINDER FUNCTION SYMPTOMS**

#### < SYMPTOM DIAGNOSIS >

## KEY REMINDER FUNCTION SYMPTOMS

#### Symptom Table

# KEY REMINDER FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to DLK-206, "Work Flow".
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.
- Intelligent Key is out of key slot.

Symptom	Diagnosis/service procedure	Reference page
	1. Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".	DLK-266
	2. Check door switch.	DLK-252
Key reminder function does not operate.	3. Check inside key antenna.	DLK-323
	4. Check unlock sensor.	<u>DLK-317</u>
	5. Check Intelligent Key battery inspection.	DLK-315
	6. Check Intermittent Incident.	<u>GI-42</u>

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## HAZARD FUNCTION

### < SYMPTOM DIAGNOSIS >

# HAZARD FUNCTION

### Symptom Table

INFOID:000000003184442

# HAZARD AND BUZZER REMINDER FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to <u>DLK-206, "Work Flow"</u>.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "LOCK/UNLOCK BY I-KEY" is ON when setting on CONSULT-III.
- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.
- Intelligent Key is out of key slot.

Symptom		Diagnosis/service procedure	Reference page
Hazard reminder does not operate by request	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-235</u>
switch. (Buzzer reminder operate.)	2.	Check hazard function.	DLK-324
	3.	Check Intermittent incident.	<u>GI-42</u>
Hazard reminder does not operate by Intelligent Key.	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	DLK-235
(Buzzer reminder operate.)	2.	Check hazard function.	DLK-324
	3.	Check Intelligent Key battery inspection.	DLK-315
Buzzer reminder does not operate by request	1.	Check "ANS BACK I-KEY LOCK" or "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".	DLK-235
switch. (Hazard reminder operate.)	2.	Check Intelligent Key warning buzzer.	DLK-304
	3.	Check Intermittent incident.	<u>GI-42</u>
	1.	Check "TRUNK OPEN DELAY" setting in "WORK SUP- PORT".	DLK-235
Buzzer reminder does not operate by trunk opener	2.	Check Intelligent Key warning buzzer.	DLK-304
request switch.	3.	Check trunk open function.	DLK-222
	4.	Check Intermittent incident.	<u>GI-42</u>

## **HORN FUNCTION**

# < SYMPTOM DIAGNOSIS >

# HORN FUNCTION

# Symptom Table

# HAZARD AND HORN REMINDER FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to <u>DLK-206, "Work Flow"</u>.
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- "ANSWER BACK FUNCTION" is ON when setting on CONSULT-III.
- Ignition switch is in OFF position.
- All doors are closed.

Symptom		Diagnosis/service procedure	Reference page
Hazard reminder does not operate by request	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-235</u>
switch. (Horn reminder operate.)	2.	Check hazard function.	DLK-324
	3.	Check Intermittent Incident.	<u>GI-42</u>
Hazard reminder does not operate by Intelligent Key. (Horn reminder operate.)	1.	Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	<u>DLK-235</u>
	2.	Check hazard function.	DLK-324
	3.	Check Intelligent Key battery inspection.	
Horn reminder does not operate by request switch.	1.	Check "ANSWER BACK WITH I-KEY LOCK" or "AN- SWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT".	DLK-235
(Hazard reminder operate.)	2.	Check Intelligent Key warning buzzer.	DLK-304
	3.	Check Intermittent Incident.	<u>GI-42</u>
Horn reminder does not operate by Intelligent Key.	1.	Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".	<u>DLK-235</u>
(Hazard reminder operate.)	2.	Check horn function.	DLK-320
	3.	Check Intermittent Incident.	<u>GI-42</u>

**DLK-377** 

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## INTEGRATED HOMELINK TRANSMITTER

#### < SYMPTOM DIAGNOSIS >

# INTEGRATED HOMELINK TRANSMITTER

# Symptom Table

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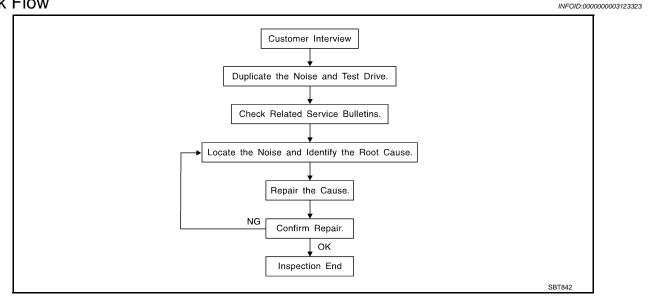
#### HOMELINK UNIVERSAL TRANSCEIVER MALFUNCTION

Symptom		Diagnosis/service procedure	Reference page
Homelink universal transceiver does not operate properly.	1.	Check homelink universal transceiver function.	DLK-327
nomennik universal transceiver does not operate propeny.	2.	Check Intermittent Incident.	<u>GI-42</u>

#### < 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 ustomer's comments; refer to <u>DLK-383</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

#### DUPLICATE THE NOISE AND TEST DRIVE

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

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#### < SYMPTOM DIAGNOSIS >

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If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on A/T model).
- 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 you suspect the noise is coming from.
   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 you suspect is causing the noise.
   Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks. Refer to <u>DLK-381</u>, "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 your authorized Nissan Parts Department.

#### CAUTION:

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

Always check with the Parts Department for the latest parts information.

The 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]

Insulates connectors, harness, etc.

76268-9E005: 100  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  3.35 in)/76884-71L02: 15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick,  $30 \times 50$  mm (1.18  $\times$  1.97 in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15  $\times$  25 mm (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE

SQUEAK AND RATTLE TROUBLE DIAGNOSES	
< SYMPTOM DIAGNOSIS > [SEDAN]	
Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE	А
Used in place of UHMW tape that will be visible or not fit. Will only last a few months. SILICONE SPRAY	
Use when grease cannot be applied.	В
DUCT TAPE Use to eliminate movement.	
CONFIRM THE REPAIR Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.	С
Inspection Procedure	D
Refer to Table of Contents for specific component removal and installation information.	
INSTRUMENT PANEL	Е
Most incidents are caused by contact and movement between:	
1. The cluster lid A and instrument panel	
2. Acrylic lens and combination meter housing	F
3. Instrument panel to front pillar garnish	
4. Instrument panel to windshield	
5. Instrument panel mounting pins	G
<ol> <li>6. Wiring harnesses behind the combination meter</li> </ol>	
<ol> <li>7. A/C defroster duct and duct joint</li> </ol>	
These incidents can usually be located by tapping or moving the components to duplicate the noise or by	Н
pressing on the components while driving to stop the noise. Most of these incidents can be repaired by apply- ing felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring har- ness.	I
CAUTION: Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.	J
CENTER CONSOLE	
Components to pay attention to include:	
1. Shifter assembly cover to finisher	DLK
2. A/C control unit and cluster lid C	
3. Wiring harnesses behind audio and A/C control unit	1
The instrument panel repair and isolation procedures also apply to the center console.	
DOORS	
Pay attention to the:	M
1. Finisher and inner panel making a slapping noise	
2. Inside handle escutcheon to door finisher	
3. Wiring harnesses tapping	Ν
4. Door striker out of alignment causing a popping noise on starts and stops	
Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.	0
TRUNK	Р
Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:	ſ
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

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#### < SYMPTOM DIAGNOSIS >

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- 1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- 2. Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

- 1. Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- 3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- 6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

< SYMPTOM DIAGNOSIS >

#### Diagnostic Worksheet

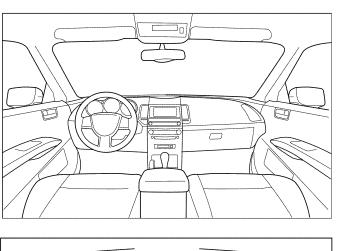
#### Dear Customer:

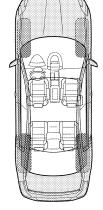
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

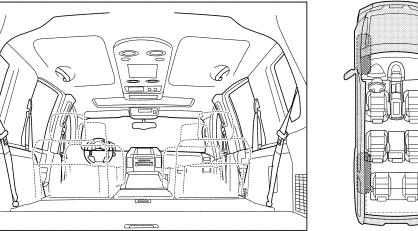
#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.







Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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#### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

II.	WHEN DOES IT OCCUR? (please check	k the	boxes that apply)
	Anytime 1 st 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 Only about mph On acceleration Coming to a stop On turns: left, right or either (circle) With passengers or cargo Other:		Squeak (like tennis shoes on a clean floor) Creak (like walking on an old wooden floor) Rattle (like shaking a baby rattle) Knock (like a knock at the door) Tick (like a clock second hand) Thump (heavy muffled knock noise) Buzz (like a bumble bee)
	After driving miles or minute	s	

#### TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

	YES	NO	Initials of persor performing
/ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm repa			
/IN: C	Customer Name		
W.O.# C			

This form must be attached to Work Order

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# PRECAUTION PRECAUTIONS

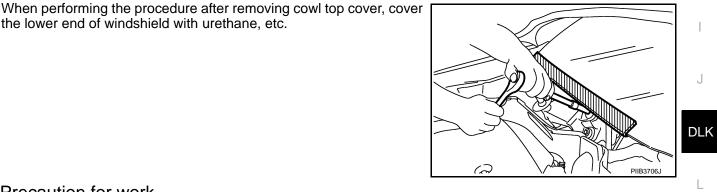
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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

#### WARNING:

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

## Procedure without Cowl Top Cover



## Precaution for work

INFOID:000000003123328

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- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

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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.

Tool number (Kent-Moore No.) Tool name		Description
(J-39570) Chassis ear	SIIA0993E	Locating the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise
(J-43241) Remote Keyless Entry Tester	LEL946A	Used to test keyfobs

# **Commercial Service Tools**

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Tool name		Description
Engine ear	SIIA0995E	Locating the noise
Power tool	PIIB1407E	

# < ON-VEHICLE REPAIR > ON-VEHICLE REPAIR

# HOOD

HOOD ASSEMBLY

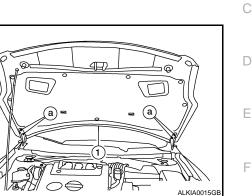
HOOD ASSEMBLY : Removal and Installation

#### REMOVAL

Remove the hinge nuts (a) and the hood assembly (1).
 CAUTION:
 Operate with two workers, because of its large size.

INSTALLATION Installation is in the reverse order of removal. **NOTE:** After installing, perform hood fitting adjustment. Refer to <u>DLK-388, "HOOD ASSEMBLY : Adjustment"</u>.

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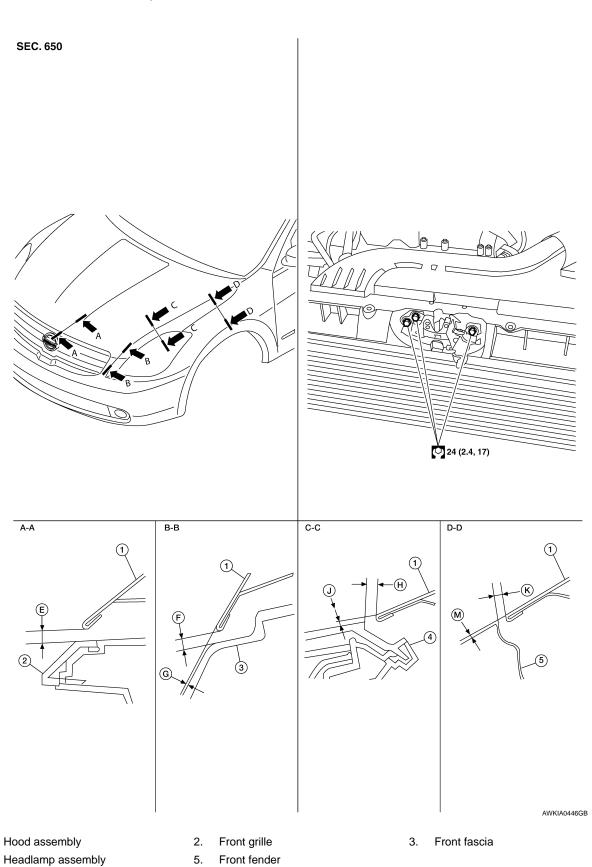
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# HOOD ASSEMBLY : Adjustment



HOOD

FRONT END HEIGHT ADJUSTMENT AND LATERAL/LONGITUDUNAL CLEARANCE ADJUST-MENT

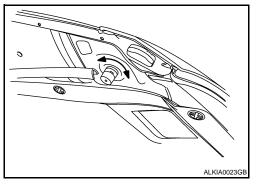
### < ON-VEHICLE REPAIR >

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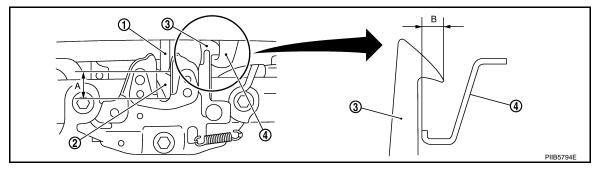
Section	Item	Measurement	Standard	Parallelism	Equality
A – A	E	Clearance	$5.0\pm2.0\;(0.20\pm0.079)$	<= 2.0 (0.079)	—
B – B	F	Clearance	$5.0\pm2.0\;(0.20\pm0.079)$	<= 2.0 (0.079)	<= 2.2 (0.087)
	G	Surface height	$1.0 \pm 2.0 \; (0.04 \pm 0.079)$	<= 2.0 (0.079)	<= 2.0 (0.079)
C – C	Н	Clearance	$4.5 \pm (0.18 \pm 0.079)$	—	2.1 (0.083)
	J	Surface height	$1.0 \pm 2.1 \; (0.04 \pm 0.083)$	—	< 2.0 (0.079)
D – D	К	Clearance	$4.0\pm 1.0\;(0.16\pm 0.04)$	1.0 (0.04)	1.0 (0.04)
	М	Surface height	$0.2 \pm 1.0 \; (0.01 \pm 0.04)$	1.0 (0.04)	1.0 (0.04)

FRONT END HEIGHT ADJUSTMENT

- 1. Check the surface height between the hood and each part by visual and tactile feeling.
- 2. Remove the front grille. Refer to EXT-38, "Removal and Installation".
- 3. Remove the hood lock.
- 4. Adjust the surface level difference of the hood, fender and head lamp by rotating the hood bumpers until the hood becomes 1 to 1.5 mm (0.04 to 0.059 in) lower than the fender.



- 5. Install and align the hood lock center with the center of the hood striker. Engage the lock with the striker and check for looseness.
- 6. Adjust A and B shown in the figure to the following value with hood's own weight by dropping it from approx. 200 mm (7.87 in) height or by pressing the hood closed lightly (approx. 29 N (3 kg)).



3.

Secondary striker

1. Hood striker

Primary latch

4. Secondary latch

A : 20 mm (0.79 in)

- B : 6.8 mm (0.27 in)
- 7. After adjustment tighten the hood lock bolts to the specified torque.

LATERAL/LONGITUDUNAL CLEARANCE ADJUSTMENT

- 1. Check the clearance between the hood and each part by visual and tactile feeling.
- 2. Loosen the hood hinge bolts.

NOTE:

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

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# HOOD

#### < ON-VEHICLE REPAIR >

- 3. Move the hood so that the clearance measurements are within specifications.
- 4. Tighten the hood hinge bolts. **NOTE:**

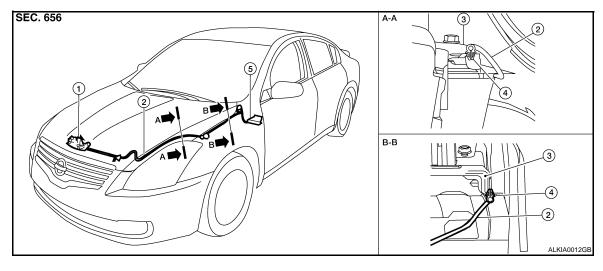
After installation apply touch-up paint onto the hinge bolts and around the base of the hinge.

5. If the clearance measurements between the hood and fender cannot be corrected by moving the hood, the fender must be adjusted. Refer to <u>DLK-395, "Removal and Installation"</u>.

## HOOD LOCK CONTROL

# HOOD LOCK CONTROL : Component Parts Location

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- 1. Hood lock assembly
- 2. Hood lock cable
- 5. Hood lock release handle

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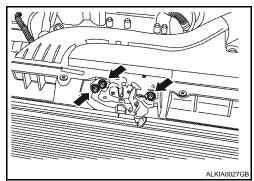
# HOOD LOCK CONTROL : Removal and Installation

#### REMOVAL

Clip

4.

- 1. Remove the front grill. Refer to EXT-38. "Removal and Installation".
- 2. Remove the LH fender protector. Refer to EXT-40, "Removal and Installation".
- 3. Remove the hood lock assembly bolts.



Hoodledge reinforcement

3.

4. Disconnect the hood lock cable from the hood lock, and unclip it from the hoodledge.

## HOOD

#### < ON-VEHICLE REPAIR >

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5. Remove the screws (a) with power tool, and separate the hood lock release handle (1) from the hood lock release cable (2).

 Remove the grommet from the upper dash, and pull the hood lock cable into the passenger compartment. CAUTION:

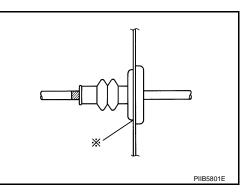
# While pulling, be careful not to damage (peel) the outside of the hood lock cable.

#### INSTALLATION

1. Pull the hood lock cable through the upper dash into the engine compartment. CAUTION:

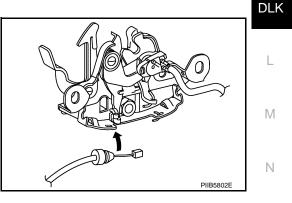
#### Be careful not to bend the cable too much, keep the radius 100 mm (3.94 in) or more.

- 2. Check that the cable is not offset from the center of the grommet, and seat the grommet into the upper dash hole.
- 3. Apply the sealant around the grommet at \* mark.



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- 4. Position the hood lock cable and clip it into place.
- 5. Connect the hood lock cable to the hood lock assembly.
- 6. Loosely install the hood lock assembly.
- Perform hood fitting adjustment. Refer to <u>DLK-388, "HOOD</u> <u>ASSEMBLY : Adjustment"</u>.
- 8. Check the hood lock control operation.



# INSPECTION CAUTION:

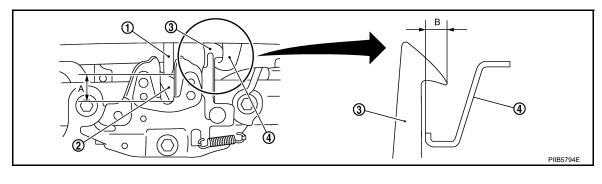
#### If the hood lock cable is bent or deformed, replace it.

1. Check that the secondary latch is properly engaged with the secondary striker (B: 6.8 mm (0.268 in) shown in the figure) with hood's own weight.

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## HOOD

#### < ON-VEHICLE REPAIR >

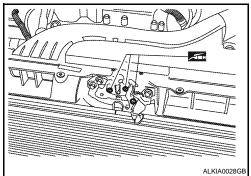


2. Primary latch 3. Secondary striker

Hood striker 4. Secondary latch

1.

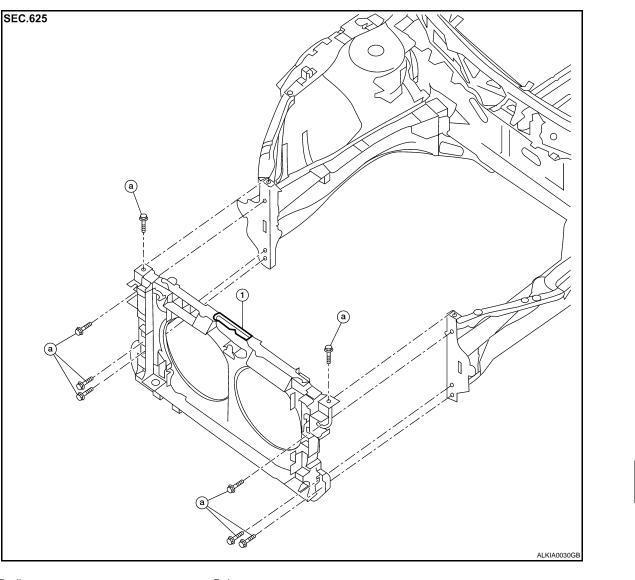
- 2. While operating the hood opener, carefully check that the front end of the hood is raised by approx. 20 mm (0.79 in). Also check that the hood opener returns to the original position.
- 3. Check that the hood opener operating is 294 N (30 kg) or below.
- Install so the static closing force of the hood is 392 441 N·m (35– 44 kg-m). 4.
- 5. Check the hood lock lubrication condition. If necessary, apply "body grease" as shown.



# RADIATOR CORE SUPPORT

Removal and Installation

INFOID:000000003123335



1. Radiator core support a. Bolts

#### REMOVAL

- 1. Remove front bumper reinforcement. Refer to EXT-34, "Removal and Installation".
- 2. Remove head lamps (LH/RH). Refer to EXL-237, "Removal and Installation".
- 3. Remove washer tank. Refer to WW-44, "WASHER TANK : Removal and Installation".
- Remove air duct. Refer to <u>EM-19, "Removal and Installation"</u> QR25DE, <u>EM-123, "Removal and Installa-</u> <u>tion"</u> VQ35DE.
- 5. Remove the radiator cooling fans. Refer to <u>CO-17, "Removal and Installation"</u> QR25DE, <u>CO-39,</u> <u>"Removal and Installation"</u> VQ35DE.
- Remove the radiator. Refer to <u>CO-15, "Removal and Installation"</u> QR25DE, <u>CO-36, "Removal and Installation"</u> VQ35DE.
- 7. Remove the hood lock control. Refer to DLK-390, "HOOD LOCK CONTROL : Removal and Installation".
- 8. Remove ambient sensor. Refer to HA-47, "Removal and Installation".
- 9. Remove crash zone sensor. Refer to SR-12, "Removal and Installation".
- 10. Remove air guides (LH/RH).

## DLK-393

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# **RADIATOR CORE SUPPORT**

#### < ON-VEHICLE REPAIR >

- 11. Remove power steering tube assembly. Refer to <u>ST-22, "QR25DE : Removal and Installation"</u> QR25DE, <u>ST-23, "VQ35DE : Removal and Installation"</u> VQ35DE.
- 12. Remove horn (High/Low). Refer to HRN-11, "Removal and Installation".
- 13. Remove the harness clips from the radiator core support assembly, the harness is separate.
- 14. Remove the bolts and the radiator core support.

#### INSTALLATION

Installation is in the reverse order of removal.

## **FRONT FENDER**

< ON-VEHICLE REPAIR >

# [SEDAN]

FF	RONT FENDER		Δ
Re	emoval and Installation	INFOID:000000003123336	A
RE	EMOVAL		В
1.	Remove the head lamp. Refer to EXL-237, "Removal and Installation".		
2.	Remove the front fender protector. Refer to EXT-40, "Removal and Installation".		
3.	Remove the inner fender bolt cover.		С
4.	Remove the center mud guard. Refer to EXT-41, "Removal and Installation".		
5.	Remove the bolts and the front fender.		D
• V • l	AUTION: While removing use a shop cloth to protect body from damaging. Jse care when removing the front fender. The front fender baffle foam adheres the front body side outer. Carefully release the foam or damage to the fender may occur.	fender to the	E
Ins CA	STALLATION stallation is in the reverse order of removal. AUTION: After installing, apply touch-up paint (the body color) onto the head of the front fender	bolts.	F
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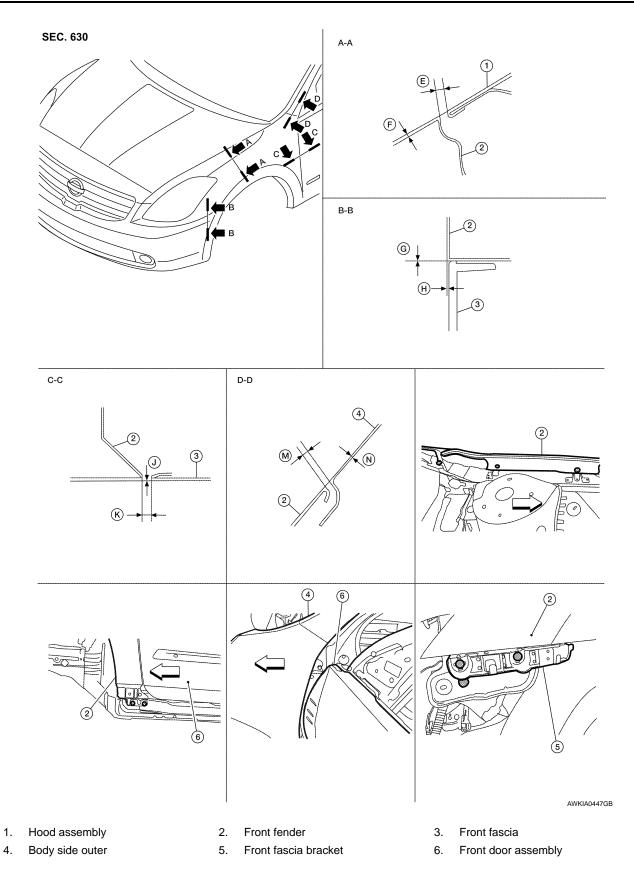
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# FRONT FENDER



Unit: mm (in) **Measurement** Standard **Parallelism** Section ltem Equality  $4.0 \pm 1.0 \; \textbf{(0.16 \pm 0.04)}$ Е Clearance 1.0 (0.04) 1.0 (0.04) A-A  $0.2 \pm 1.0 \ (0.01 \pm 0.04)$ F 1.0 (0.04) 1.0 (0.04) Surface height

# **FRONT FENDER**

# < ON-VEHICLE REPAIR >

	Section	ltem	Measurement	Standard	Parallelism	Equality
	в-в		Clearance	0.0 + 0.8 (0.0 +0.031)	—	—
		Н	Surface height	$0.7 \pm 1.0 \ (0.028 \pm 0.04)$	1.0 (0.04)	1.0 (0.04)
	C-C J		Clearance	$3.6 \pm 1.0 \; \textbf{(0.14 \pm 0.04)}$	1.0 (0.04)	_
	C-C	K	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$	_	_
	D-D	Μ	Clearance	$2.3 \pm 1.0 \; (0.09 \pm 0.04)$	1.0 (0.04)	_
	0-0	Ν	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$	_	_
1. R	emove the	inner fe	nder bolt cover.	·	•	
2. R	emove the	front fe	nder protector. Ref	er to EXT-40, "Removal a	and Installation".	
3. R	Remove the center mud guard. Refer to EXT-41, "Removal and Installation".					
4. L	Loosen the front fender bolts and screws.					
5. A	Adjust the clearance (J) and surface height (K) between the front fender and the front door.					
6. T	Tighten the rear upper and lower front fender bolts.					
7. A	Adjust the clearance (E) and surface height (F) between the front fender and the hood.					
8. A	djust the cl	earance	e (M) and surface h	eight (N) between the fro	nt fender and the b	ody side outer.
9. T	ighten the i	nner fro	nt fender bolts.			
10. A	djust the cl	earance	e (G) and the surfa	ce height (H) between the	e front fender and t	he front fascia.
11. T	. Tighten the front fender to front fascia and bracket screws.					
12. A	. Apply touch-up paint (the body color) onto the head of the front fender bolts.					
	Install the center mud guard. Refer to EXT-41, "Removal and Installation".					
13. Ir	Install the front fender protector. Refer to EXT-40, "Removal and Installation".					
	stall the fro	nt fend	er protector. Refer	to EXT-40, "Removal and	l Installation".	

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## DOOR FRONT DOOR

## FRONT DOOR : Removal and Installation

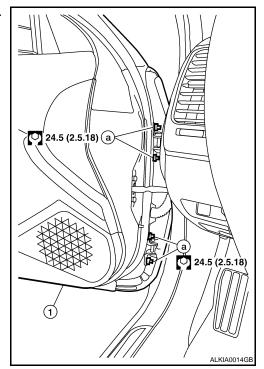
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[SEDAN]

#### REMOVAL

#### CAUTION:

- When removing and installing the front door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing front door assembly, be sure to carry out the fitting adjustment. Refer to <u>DLK-399, "FRONT DOOR : Adjustment"</u>.
- After installing, apply touch-up paint (the body color) onto the head of the hinge nuts.
- Check the hinge rotating parts for lubrication. If necessary, apply "body grease".
- Operate with two workers, because of its heavy weight.
- Check front door open/close operation after installation.
- 1. Pull the grommet and wire harness out of the front pillar until the harness connectors are accessible. Then disconnect the wire harness connectors.
- 2. Remove the check link bolt from the front pillar.
- 3. Remove the door-side hinge nuts (a) and the door assembly (1).



INSTALLATION Installation is in the reverse order of removal. **NOTE:** Adjust the door. Refer to <u>DLK-399, "FRONT DOOR : Adjustment"</u>.

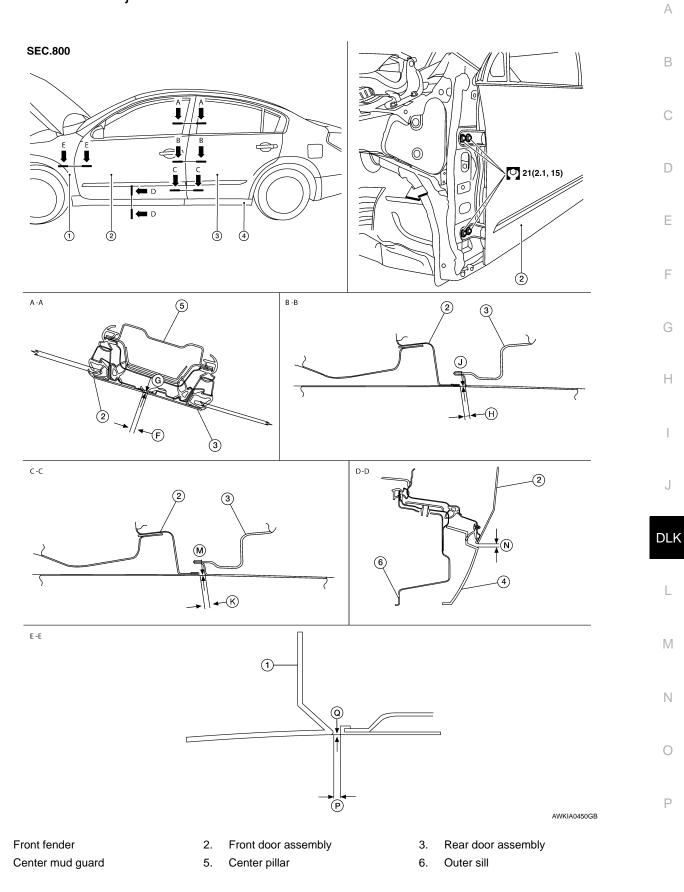
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# FRONT DOOR : Adjustment

[SEDAN]





0			Unit: mm (in)
Section	Item	Measurement	Standard
A-A	F	Clearance	4.5 $\pm$ 1.5 (0.18 $\pm$ 0.06)
A-A	G	Surface height	$0.0 \pm 1.5$ (0.0 $\pm$ 0.06)
B-B	Н	Clearance	4.2 $\pm$ 1.0 (0.17 $\pm$ 0.04)
0-0	J	Surface height	0.0 ± 1.0 (0.0 ± 0.04)
C-C	K	Clearance	4.2 $\pm$ 1.0 (0.17 $\pm$ 0.04)
0-0	М	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$
D-D	N	Clearance	5.1 ± 1.7 (0.20 ± 0.07)
E-E	Р	Clearance	$3.6 \pm 1.0 \ (0.14 \pm 0.04)$
E-E	Q	Surface height	0.0 ± 1.0 (0.0 ± 0.04)

#### LONGITUDINAL CLEARANCE

- 1. Confirm the back door adjustments and adjust if necessary. Refer to <u>DLK-400, "BACK DOOR : Removal</u> <u>and Installation"</u>.
- 2. Remove the front fender. Refer to DLK-395, "Removal and Installation".
- 3. Loosen the hinge bolts. Raise or lower the front door at rear edge to adjust.
- 4. Install the front fender. Refer to <u>DLK-395, "Removal and Installation"</u>.

#### SURFACE HEIGHT ADJUSTMENT

- 1. Loosen the front door hinge nuts.
- 2. Move the top and or bottom in or out as necessary until it is within specifications.
- 3. Tighten the hinge nuts to specifications.

## BACK DOOR

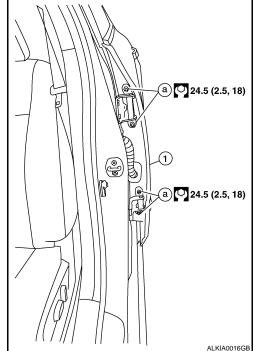
#### BACK DOOR : Removal and Installation

REMOVAL

- 1. Pull out grommet and disconnect rear door harness connector.
- 2. Remove the check link bolt from the center pillar.

3. Remove the door-side hinge nuts (a) and the door assembly (1). **CAUTION:** 

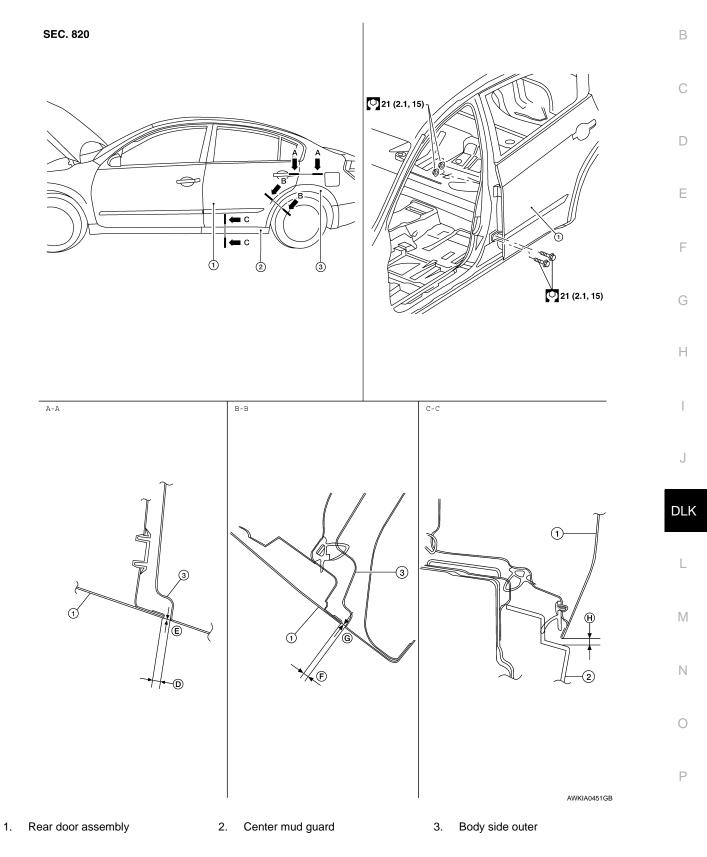
- When removing and installing the rear door assembly, support the door with a jack and cloth to protect the door and body.
- When removing and installing rear door assembly, be sure to carry out the fitting adjustment.
- Check the hinge rotating parts for poor lubrication. If necessary, apply "body grease".
- After installing, apply touch-up paint (the body color) onto the head of the hinge nuts.
- Operate with two workers, because of its heavy weight.
- Check rear door open/close operation after installation.



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# Installation is in the reverse order of removal.

#### ADJUSTMENT



# **DLK-401**

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	Jnit:	mm	(in)
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Section	Section Item Measurement		Standard	
A-A	D	Clearance	3.6 $\pm$ 1.0 (0.14 $\pm$ 0.04)	
A-A	E	Surface height	$0.0 \pm 1.0 \ (0.0 \pm 0.04)$	
B-B	F	Clearance	$3.6 \pm 1.0 \ (0.14 \pm 0.04)$	
8-8	G	Surface height	0.0 ± 1.0 (0.0 ± 0.04)	
C-C H		Clearance	5.3 ± 1.7 (0.21 ± 0.07)	

#### LONGITUDINAL CLEARANCE

- 1. Remove the center pillar upper and lower trim. Refer to INT-34, "Removal and Installation".
- 2. Loosen the upper pillar hinge nuts.
- 3. Loosen the lower pillar hinge bolts.
- 4. Raise or lower the door at the rear edge to adjust.
- 5. Tighten the lower pillar hinge bolts.
- 6. Tighten the upper pillar hinge nuts.
- 7. Install the center pillar upper and lower trim. Refer to INT-34, "Removal and Installation".

#### SURFACE HEIGHT ADJUSTMENT

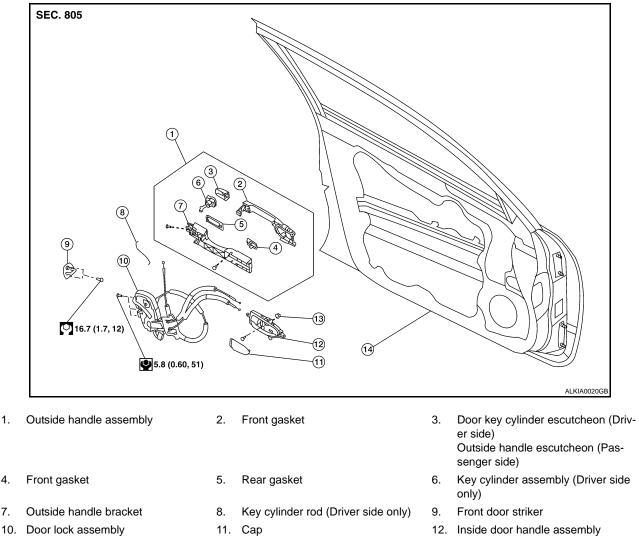
- 1. Loosen the hinge nuts.
- 2. Move the top and or the bottom in or out as necessary until it is within specification.
- 3. Tighten the hinge nuts to specification.

[SEDAN]

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# DOOR LOCK FRONT DOOR LOCK

FRONT DOOR LOCK : Component Parts Location



13. Grommet

- 14. Front door assembly

**DLK-403** 

# FRONT DOOR LOCK : Removal and Installation

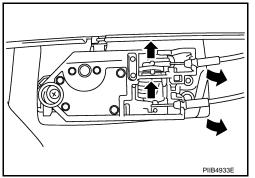
#### REMOVAL

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- Remove the front door finisher. Refer to INT-32, "Removal and Installation". 1.
- Disconnect the inside handle knob cable and lock knob cable 2. from the back side of the front door finisher.



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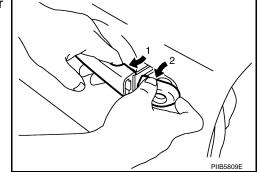
# **DOOR LOCK**

#### < ON-VEHICLE REPAIR >

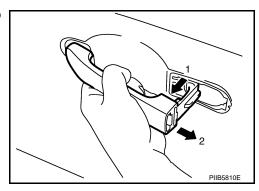
- 3. Remove the front door window and front door module assembly. Refer to <u>GW-16</u>, "<u>Removal and Installa-</u><u>tion</u>".
- 4. Remove door side grommet, and remove door key cylinder assembly (driver side) and outside handle escutcheon (passenger side) bolts (TORX T30) from grommet hole.

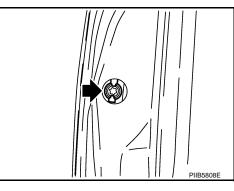
5. Disconnect door antenna and door request switch connector and remove harness clamp.

- 6. Disconnect the key cylinder rod.
- 7. Disconnect door key cylinder switch harness connector.
- 8. While pulling the outside handle (1), remove door key cylinder assembly (2).



- 9. Disconnect front door request switch harness connector.
- 10. While pulling outside handle (2), slide toward rear of vehicle to remove outside handle (1).





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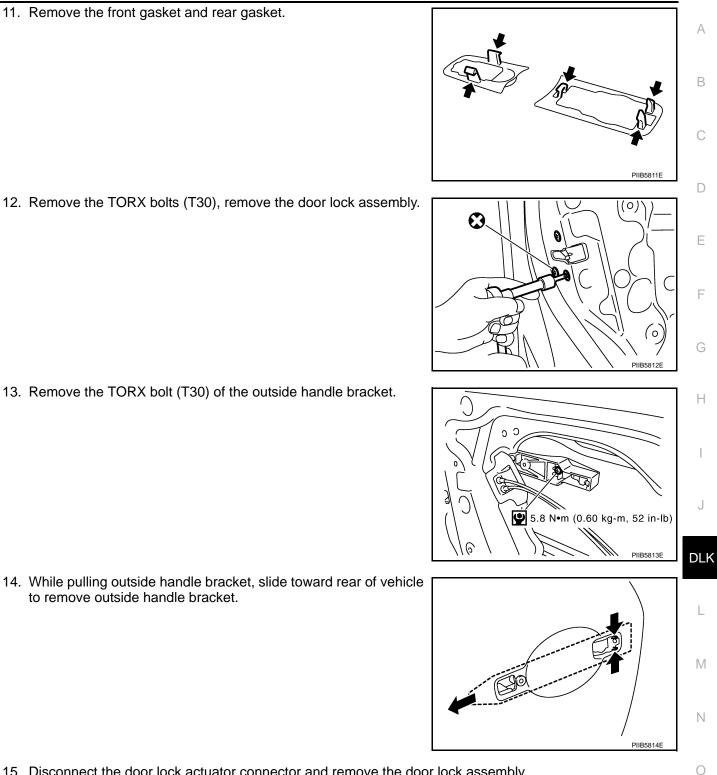
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11. Remove the front gasket and rear gasket.

13. Remove the TORX bolt (T30) of the outside handle bracket.

to remove outside handle bracket.

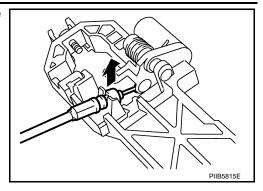


15. Disconnect the door lock actuator connector and remove the door lock assembly.

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

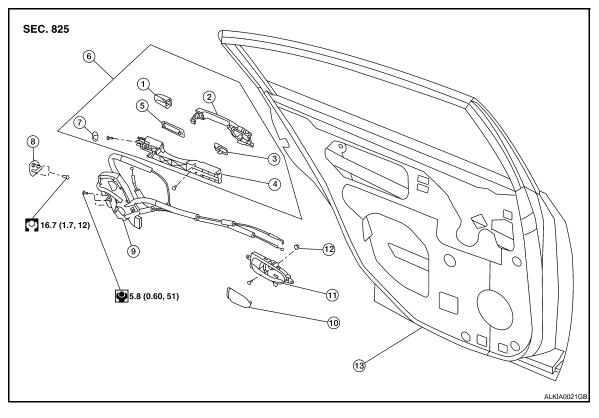


INSTALLATION Installation is in the reverse order of removal.

When installing the key cylinder rod be sure to rotate the rod holder until a click is felt. BACK DOOR LOCK

## BACK DOOR LOCK : Component Parts Location

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- 1. Outside handle escutcheon
- 4. Outside handle bracket
- 7. Hole plug
- 10. Cap
- 13. Rear door assembly

#### 2. Outside handle

- 5. Rear gasket
- 8. Rear door striker
- 11. Inside handle assembly
- 3. Front gasket
- 6. Outside handle assembly
- 9. Rear door lock assembly
- 12. Grommet

# BACK DOOR LOCK : Removal and Installation

#### INFOID:000000003123343

#### REMOVAL

1. Remove the rear door finisher. Refer to INT-32, "Removal and Installation".

# DOOR LOCK

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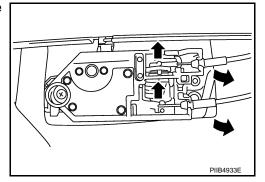
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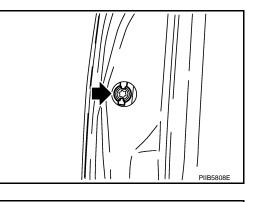
2. Disconnect the inside handle knob cable and lock knob cable from the back side of the inside door handle.

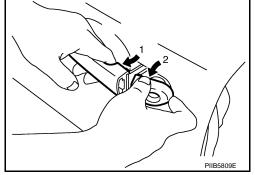


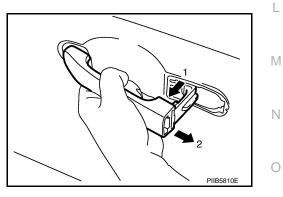
- 3. Remove the rear door sash. Refer to EXT-43. "Removal and Installation".
- 4. Remove the rear door window and rear door screen assembly.
- 5. Remove door side grommet, and remove outside handle escutcheon bolt (TORX T30) from grommet hole.

6. While pulling the outside handle (1), remove outside handle escutcheon (2).

7. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle (2).







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8. Remove the front gasket and rear gasket.

**DLK-408** 

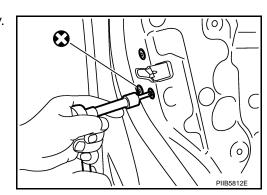
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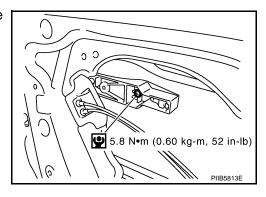
9. Remove the TORX bolts (T30), remove the door lock assembly.

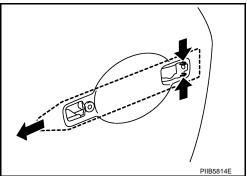
10. Remove the TORX bolt (T30), and remove the outside handle bracket.

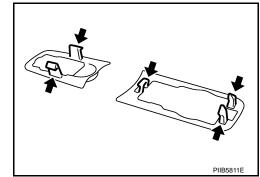
11. While pulling outside handle, slide toward rear of vehicle to remove outside handle.

12. Disconnect the door lock actuator connector and remove the door lock assembly.





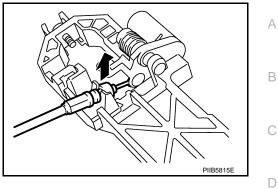




# DOOR LOCK

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# 13. Disconnect the outside handle cable from the outside handle bracket.



INSTALLATION Installation is in the reverse order of removal.



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# DLK-409

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# TRUNK LID

# TRUNK LID TRUNK LID ASSEMBLY

TRUNK LID ASSEMBLY : Removal and Installation

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#### REMOVAL

- 1. Remove trunk lid finisher. Refer to INT-44, "Removal and Installation".
- 2. Disconnect the connectors in the trunk lid, and remove the harness clips to pull the harness out of the trunk lid.
- 3. Remove the bolts, and remove the trunk lid assembly.

#### INSTALLATION

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

- After installing, apply touch-up paint (the body color) onto the head of the hinge bolts.
- After installing, check operation.
- After installing, perform fitting adjustment. Refer to <u>DLK-411, "TRUNK LID ASSEMBLY : Adjustment"</u>.

# TRUNK LID ASSEMBLY : Adjustment

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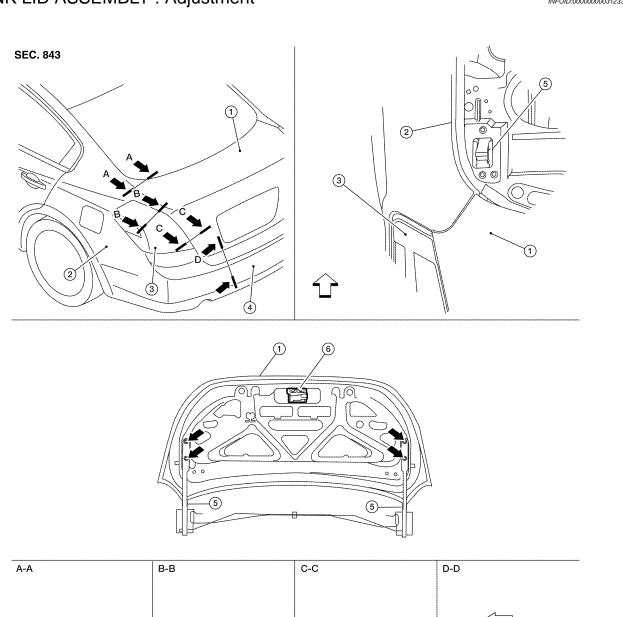
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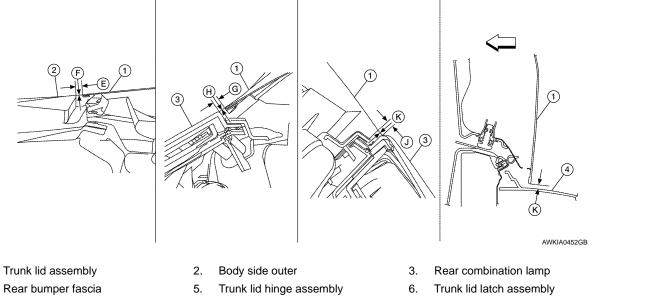
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Unit: mm (in)

Parts		Standard	Right/left clearance (MAX)	
A-A E		4.0 $\pm$ 1.0 (0.16 $\pm$ 0.04)	2.0 (0.08)	
	F	-0.5 $\pm$ 1.0 (-0.02 $\pm$ 0.04)	2.0 (0.08)	
B – B	G	4.0 $\pm$ 1.5 (0.16 $\pm$ 0.06)	2.0 (0.08)	
	н	-0.5 $\pm$ 1.5 (-0.02 $\pm$ 0.06)	2.0 (0.08)	
C – C	J	4.0 $\pm$ 2.0 (0.16 $\pm$ 0.08)	_	
D – D	K	5.9 ± 2.0 (0.23 ± 0.08)	_	

#### LONGITUDINAL CLEARANCE

Trunk Lid Removed From Hinge

- 1. Check the clearance and the evenness between the trunk lid and each part by visual and tactile feeling.
- 2. Loosen the trunk lid to hinge bolts.
- 3. Move the trunk lid so that the clearance measurements are within specifications.
- 4. Tighten the trunk lid to hinge bolts.

Trunk Lid Hinge Removed From Vehicle

- 1. Remove the parcel shelf trim. Refer to INT-36. "Removal and Installation".
- 2. Loosen the hinge to parcel shelf bolts.
- 3. Move the trunk lid so that the clearance measurements are within specifications.
- 4. Tighten the hinge to parcel shelf bolts.
- 5. Install the parcel shelf trim. Refer to INT-36. "Removal and Installation".

#### SURFACE HEIGHT ADJUSTMENT

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

#### TRUNK LID LOCK

#### TRUNK LID LOCK : Removal and Installation

INFOID:000000003123346

#### LOCK

Removal

- 1. Remove the trunk lid inner trim panel. Refer to INT-44, "Removal and Installation".
- 2. Remove the bolts, disconnect the electrical connector, separate the emergency release handle, and remove the trunk lid lock

#### Installation

Installation is in the reverse order of removal

#### Striker

Removal

- 1. Remove the trunk end finisher. Refer to INT-44, "Removal and Installation".
- 2. Remove the bolts and the striker.

#### Installation

Installation is in the reverse order of removal.

#### NOTE:

Align the trunk lid lock. Refer to DLK-411, "TRUNK LID ASSEMBLY : Adjustment".

# **REMOTE KEYLESS ENTRY RECEIVER**

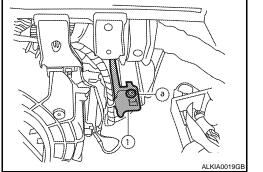
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# REMOTE KEYLESS ENTRY RECEIVER

#### Removal

#### REMOVAL

- 1. Remove glove compartment. Refer to IP-11, "Removal and Installation".
- 2. Remove the screw (a), lower the bracket and remote keyless entry receiver (1), then disconnect the harness and remove the reciever.



#### Installation

Installation is in the reverse order of removal.

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