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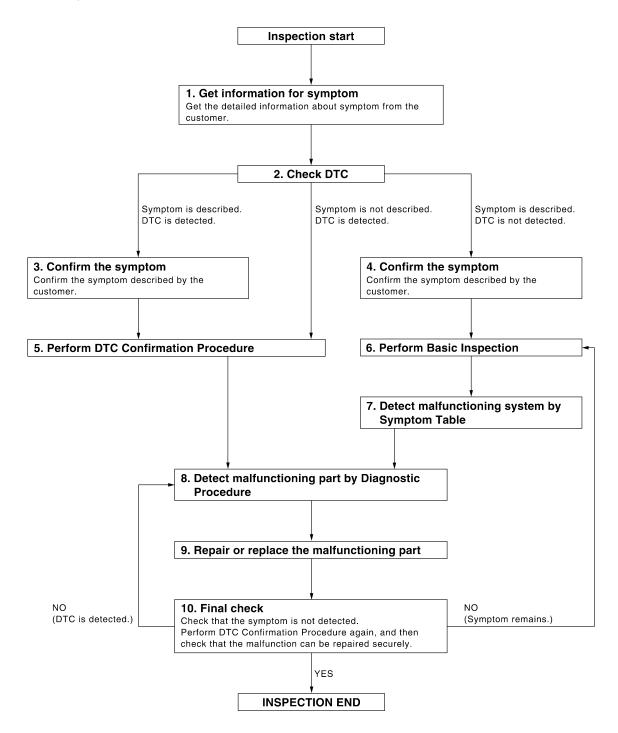
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2.check dtc

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

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.

Symptom is described, DTC is not displayed>>GO TO 4.

Symptom is not described, DTC is displayed>>GO TO 5.

3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

station bottoon the symptom and the contailor thron the symptom is detected

>> GO TO 5.

f 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 DLK-128, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

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

Is DTC detected?

Yes >> GO TO 8.

No >> Refer to GI-51, "Intermittent Incident".

6.PERFORM BASIC INSPECTION

Perform DLK-8, "Work Flow".

Inspection End>>GO TO 7.

7.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to <u>DLK-160</u>, "Symptom Table" based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

>> GO TO 8.

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

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.

<u>Is malfunctioning part detected?</u>

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.

OK or NG

NG (DTC is detected)>>GO TO 8.

NG (Symptom remains)>>GO TO 6.

OK >> INSPECTION END

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III Operation Manual for the initialization procedure.

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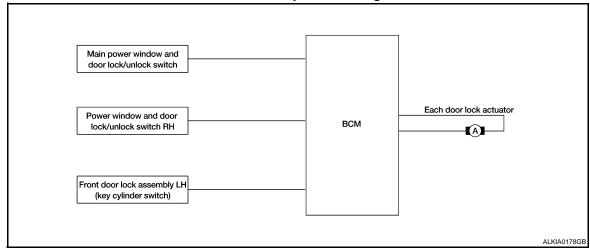
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FUNCTION DIAGNOSIS

DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH: System Diagram

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DOOR LOCK AND UNLOCK SWITCH: System Description

INFOID:0000000001563448

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, back door release switch is disabled.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all door lock actuators are unlocked, back door release switch is enabled.

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, back door release switch is disabled.

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-30</u>, "DOOR LOCK: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

Key Reminder System

Refer to <u>DLK-27</u>, "System Description".

DOOR LOCK AND UNLOCK SWITCH: Component Parts Location

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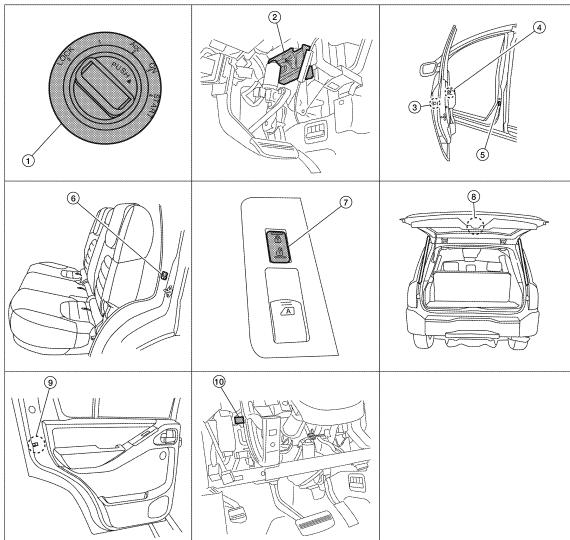
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- Key switch and ignition knob switch M66 2.
- BCM M18, M19, M20 (view with instrument panel removed)
- Main power window and door lock/unlock switch D7, D8
- Front door switch LH B8 **RH B108**
- Power window and door lock/unlock switch RH D105

10. Passenger select unlock relay M11

(view with instrument panel LH removed)

- ajar switch) D502
- Back door cinching latch unit (door Back door lock actuator D508
- Front door lock assembly LH (key cylinder switch) D14 Front door lock actuator RH D114
- Rear door switch LH B18 **RH B116**
- Rear door lock actuator LH D205 RH D305

DOOR LOCK AND UNLOCK SWITCH: Component Description

INFOID:0000000001563450

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.

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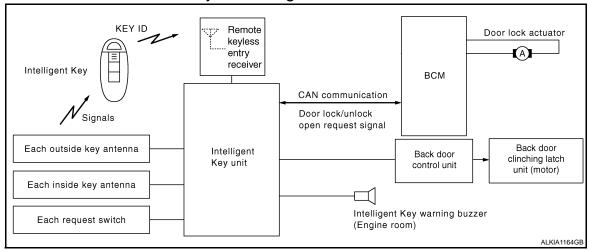
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Item	Function
Door switch	Transmits door open/close condition to BCM.
Passenger select unlock relay	Enables or disables the unlocking of rear doors when this Intelligent Key option is selected.

DOOR REQUEST SWITCH

DOOR REQUEST SWITCH: System Diagram

INFOID:0000000001563451



DOOR REQUEST SWITCH: System Description

INFOID:0000000001563452

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 or unlocked 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 times, unlock: 1 time) at the same time as a reminder.

OPERATION CONDITION

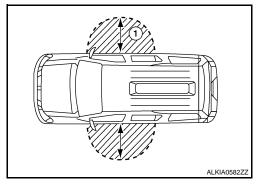
If the following conditions are not satisfied, door lock/unlock operation is not performed even if the request switch is operated.

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

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

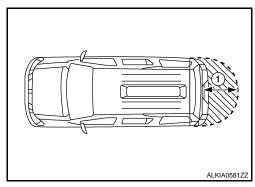
OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver and passenger door handles (1).



OUTSIDE KEY ANTENNA DETECTION AREA

The outside key antenna detection area of back door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the back door handle (1).



SELECTIVE UNLOCK FUNCTION

When a 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 doors will be unlocked.

HAZARD AND BUZZER REMINDER FUNCTION

During lock or unlock 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

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

How to change hazard and buzzer reminder mode

Refer to DLK-33, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

AUTO DOOR LOCK FUNCTION

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DOOR LOCK FUNCTION

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

When all doors are locked, ignition switch is in OFF position and key switch is OFF, 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

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-33</u>, "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 DLK-12, "DOOR LOCK AND UNLOCK SWITCH: System Description".

LIST OF OPERATION RELATED PARTS

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

Door lock function	Intelligent Key	Ignition key switch	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	ВСМ	Hazard warning lamp
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	×	×		×	×	×				×	×	

DOOR REQUEST SWITCH: Component Parts Location

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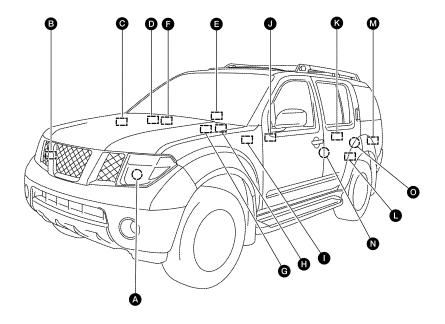
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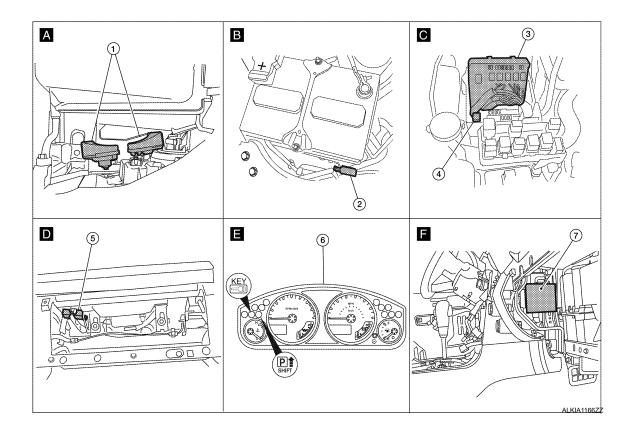
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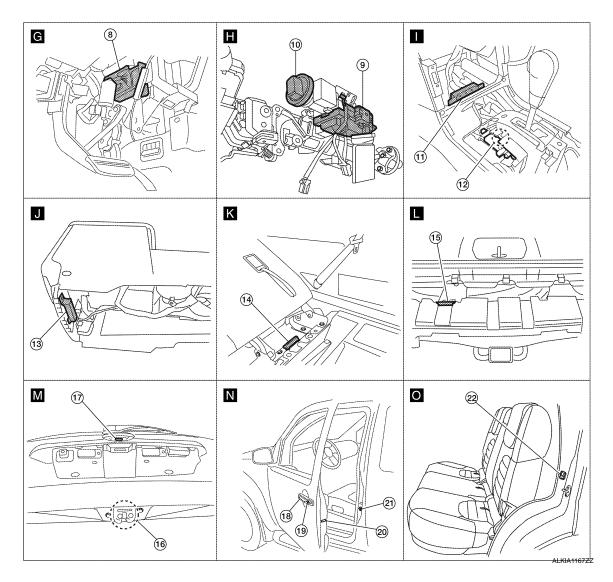


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- Horn E3
 (Behind front combination lamp LH)
- 4. Horn relay H-1
- 7. Intelligent Key unit M164 (view with glove box removed)
- 10. Key switch and ignition knob switch M66
- Inside key antenna 3 (center console)
 M212 (view with center console removed)
- 16. Back door open switch D511
- Front door request switch LH D16
 Front door request switch RH D116
- 22. Rear door switch LH B18 RH B116

- . Intelligent key warning buzzer E60
- Remote keyless entry receiver M67 (view with glove box removed)
- 8. BCM M18, M19, M20 (view with instrument panel LH removed)
- Inside key antenna 1 (instrument panel)
 M68
 (view with center console cover removed)
- Inside key antenna 2 (luggage compartment) B129 (behind right side of 3rd row seat)
- 17. Back door request switch D552
- 20. Front door lock assembly LH (door unlock sensor) D14

- IPDM E/R E122, E124 (view with cover removed)
- 6. Combination meter M24
- Steering lock solenoid M65 (view with steering column removed)
- A/T device (park position switch)
 M156
- 15. Rear bumper antenna C127 (view with rear bumper removed)
- 18. Front outside antenna LH D15
 Front outside antenna RH D115
- 21. Front door switch LH B8 RH B108

DOOR REQUEST SWITCH: Component Description

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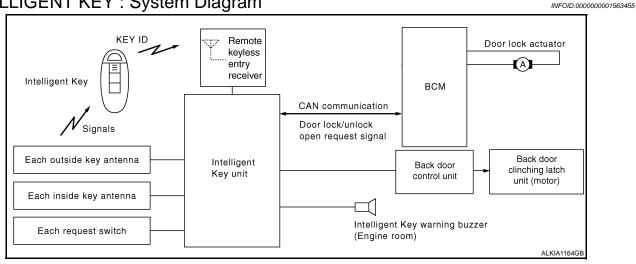
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Item	Function
Intelligent Key unit	Receives lock/unlock signal from remote keyless entry receiver, and then transmits to BCM.
BCM	Controls the door lock function and room lamp function.
Door lock and unlock switch	Transmits lock or unlock signal to 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 Intelligent Key unit.
Request switch	Transmits lock/unlock operation to Intelligent Key unit.
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. In addition to other safety features, it can be used to lock and unlock all doors including the back door.

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 and Intelligent Key unit.
- When BCM receives the door lock/unlock signal, it operates door lock actuator, flashes the hazard lamp (lock: 2 times, unlock: 1 time) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 2 times) as a reminder

OPERATION CONDITION

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

OPERATION AREA

Operating Range

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DOOR LOCK FUNCTION

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

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	Back door open	Lock	Unlock	Back door open
Hazard warning lamp flash	Twice	Once	_	Twice	_	_
Horns sound	Once	_	_	_	_	_

Hazard and horn reminders do not operate if any door switch is ON (any door is OPEN).

How to change hazard and horn reminder mode

(II) With CONSULT-III

Refer to DLK-33, "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, doors are unlocked with Intelligent Key button. When BCM does not receive the following signals within 30 seconds, all doors are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON
- Key switch is ON (mechanical key is inserted in ignition key cylinder)

Auto door lock mode can be changed by DOOR LOCK-UNLOCK SET mode in "WORK SUPPORT". Refer to DLK-30, "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, BCM receives PANIC ALARM signal from Intelligent Key through the remote keyless entry receiver and the Intelligent Key unit. 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-33, "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.

DOOR LOCK FUNCTION

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Keyless power window down operation mode can be changed by PW DOWN SET mode in "WORK SUP-PORT". Refer to <a href="https://documents.org/linearing/linearing/by-nc-nd-edge-nd-e

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 30 seconds) by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <u>DLK-19</u>, "INTELLIGENT KEY: System <u>Description"</u>.

LIST OF OPERATION RELATED PARTS

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

Remote keyless entry functions	Intelligent Key	Intelligent Key unit	Key switch and ignition knob switch	Door request switch (Driver, Passenger)	Door switch	Door lock actuator	Intelligent Key warning buzzer	CAN communication system	BCM	Combination meter	Hazard warning lamps	Horn	IPDM E/R	Head lamp
Door lock/unlock function by remote control button	×	×	×		×	×		×	×					
Hazard and horn reminder function	×	×					×	×	×	×	×	×	×	
Selective unlock function	×	×			×	×		×	×					
Keyless power window down (open) function	×	×	×					×	×					
Auto door lock function	×	×	×		×			×	×					
Panic alarm function	×	×		×				×	×			×	×	×

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 Intelligent Key unit.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Intelligent Key unit	Receives button operation from remote keyless entry receiver and transmits to BCM.
Intelligent key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

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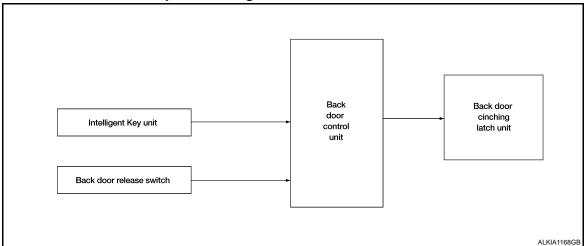
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DLK-21

BACK DOOR OPENER FUNCTION BACK DOOR SWITCH

BACK DOOR SWITCH: System Diagram

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BACK DOOR SWITCH: System Description

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BACK DOOR RELEASE SWITCH OPERATION

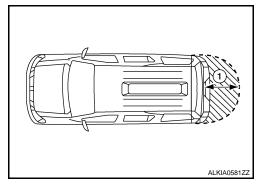
The back door system consists of two units, the back door control unit and the back door cinching latch unit.

· Back door auto closure

When the back door is closed to the halfway state (half-latch) position, the motor automatically drives to rotate the latch lever and pull it in from half latched to full latched.

OUTSIDE KEY ANTENNA DETECTION AREA

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



OPERATION DESCRIPTION

Back Door Release Switch Opening Operation

- When the back door release switch is pressed, the Intelligent Key unit terminal 24 receives signal from the back door release switch terminal 1.
- The back door control unit checks the park/neutral switch position and vehicle speed. If the back door operating enable conditions are met, it sends a signal through terminal 23 to the back door control unit terminal 6.
- When the back door control unit receives the signal, if the back door operating enable conditions are met, it sends a signal through terminals 2 and 3 to operate the cinch latch motor to open the back door to the halflatch position.
- When the back door reaches the half-latch state, the half-latch switch detects this and the signal is sent to the back door control unit terminal 7. Continue to press the back door release switch and pull the back door to the full open position.
- When the back door is open, the neutral position sends a signal to the back door control unit terminal 9.

Back Door Release Switch Closing Operation

- When the back door is pulled toward the close position and when it reaches half-latch, the back door cinching latch unit half switch sends a signal from terminal 6.
- The back door control unit receives this signal and checks door position through terminal 7.

BACK DOOR OPENER FUNCTION

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- When the back door control unit receives the signal, if the back door operating enable conditions are met, it sends a signal through terminals 2 and 3 to operate the cinch latch motor to close the back door.
- When the back door latch operates and full close is detected through terminal 8 of the back door control unit, the cinch latch motor reverses to the neutral position and the back door auto closure operation ends and the door is fully closed.

BACK DOOR SWITCH: Component Parts Location

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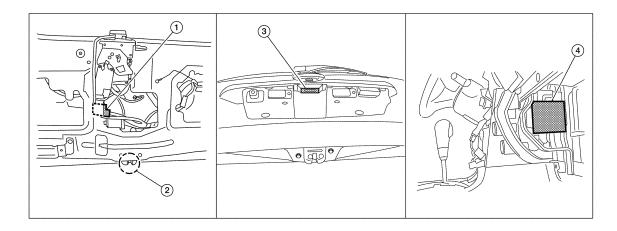
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- Back door control unit D509 (view with back door panel removed)
- Intelligent Key unit M164 (view with glove box removed)
- 2. Back door cinching latch unit D502
- 3. Back door release switch D510

BACK DOOR SWITCH: Component Description

INFOID:0000000001563462

Item	Function
Back door release switch	Transmits back door open operation signal to Intelligent Key unit.
Intelligent Key unit	Transmits back door open operation signal to back door control unit.
Back door control unit	Transmits back door open operation to back door motor.
Back door close switch	Transmits back door close signal to back door control unit.
Back door half switch	Transmits back door half-latch signal to back door control unit.
Back door neutral switch	Transmits back door neutral position to back door control unit.

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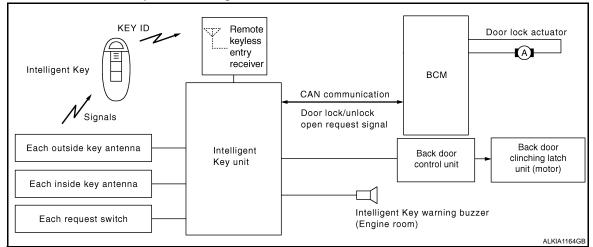
BACK DOOR OPENER FUNCTION

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY: System Diagram

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INTELLIGENT KEY: System Description

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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 back door open button.

OPERATION DESCRIPTION/BACK DOOR OPEN FUNCTION

 When the door unlock button of the Intelligent Key is pressed twice, the back door release switch will be enabled and capable of opening the back door when depressed.

INTELLIGENT KEY: Component Parts Location

INFOID:0000000001563465

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

INTELLIGENT KEY: Component Description

INFOID:0000000001563466

Item	Function
Remote keyless entry receiver	Receives back door open signal from the Intelligent Key, and then transmits to Intelligent Key unit.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Intelligent Key unit	Receives button operation from remote keyless entry receiver and transmits to back door control unit.
Back door control unit	Receives button operation from Intelligent Key unit and operates the back door.

[WITH INTELLIGENT KEY SYSTEM]

WARNING FUNCTION

System Description

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WARNING CHIME/BUZZER/LAMPS FUNCTION

Operation Description

The following warning chime (combination meter), intelligent key warning buzzer (front of vehicle), and warning lamps "KEY" and "P-SHIFT" (combination meter) are given to the user as warning information while using the intelligent key system.

- · Ignition switch warning chime
- · Ignition key warning chime
- OFF position warning chime
- OFF position warning chime (after door closed)
- Take away warning chime
- Take away warning chime (from window)
- · Door lock operation warning chime
- Intelligent key low battery warning
- · P position warning

NOTE:

For key-in-ignition warning chime related issues only, refer to XX-XX, "*****".

Operation Condition

Operation	Condition	Intelligent Key warning sound	Warning lamp il- luminates	Н
Ignition switch warning chime	 Key switch is OFF. Ignition switch is in the ACC, OFF or LOCK position. [ignition switch is pressed (ignition knob switch is ON)]. Driver door is open. 	Chime (Instrument panel)	_	I
Ignition key warning chime (When mechanical key is used)	 Mechanical key is inserted in ignition switch (key switch is ON). Ignition switch is in the ACC, OFF or LOCK position. Driver door is open. 	Chime (Instrument panel)	_	J
OFF position warning chime	 Ignition switch is turned from ACC to OFF. [ignition switch is pressed (ignition knob switch is ON)]. Ignition switch is in the LOCK position and pressed for 1 second. 	Chime (Instrument panel)	_	DL
OFF position warning chime (after door closed)	When driver door is opened and then closed while the OFF position warning chime above is operating.	Buzzer (front of vehicle)	_	
Take away warning chime	Engine is running.Door open to close.Intelligent Key is not found inside vehicle.	Buzzer (front of vehicle)	"KEY" (red) blinking	M
Take away warning chime (from window)	Engine is running.Door is closed.Intelligent Key is not found inside vehicle.	Chime (Instrument panel)	"KEY" (red) blinking	N
Door lock operation warning chime	When request switch is pushed under the following conditions: • All door are closed. • Door is unlocked. • Intelligent Key is inside vehicle.	Buzzer (front of vehicle)	_	O P
Intelligent Key low battery warning	When Intelligent Key battery is low, Intelligent Key unit is detected after ignition switch is turned ON.	_	"KEY" (green) blinking	
P position warning	When selector lever is in other than P position, ignition switch is turned from ON to OFF.	_	"P-SHIFT"	

List of Operation Related Parts

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

Warning and alarm functions	Intelligent Key	Key switch	Ignition knob switch	Ignition switch ACC position input signal	Ignition switch ON position input signal	Door switch	Door request switch	Inside key antenna	Front outside antenna (LH, RH)	Rear bumper antenna	Intelligent Key warning buzzer	Intelligent Key unit	CAN communication system	BCM	Combination meter	CVT device (detention switch key)
Ignition switch warning chime			×		×	×						×				
Ignition key warning chime (When mechanical key used)		×			×	×							×	×	×	
OFF position warning chime			×	×	×						×	×				
OFF position warning chime (after door close)			×	×	×	×					×	×				
Take away warning chime	×		×			×		×			×	×			×	
Take away warning chime (from window)	×		×			×		×			×	×			×	
Door lock operation warning chime	×		×			×	×	×	×		×	×				
Intelligent Key low battery warning	×				×			×				×			×	
P position warning					×							×			×	×

Component Parts Location

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

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*	Right after driver side door is closed under the following conditions Door lock operation is performed Driver side door is opened Driver side door is in unlock state	All doors unlock
Door is open or closed	Right after all doors are closed under the following conditions Intelligent Key is inside the vehicle Any door is opened All doors are locked by door lock and unlock switch or door lock knob	All doors unlock Sounds Intelligent Key warning buzzer
Back door is closed	Right after trunk is closed under the following conditions Intelligent Key is inside luggage compartment All doors are closed All doors are locked	Back door open Sounds Intelligent Key warning buzzer

^{*:}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 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 of vehicle, 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 liftgate 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-21, "INTELLIGENT KEY: Component Parts Location".

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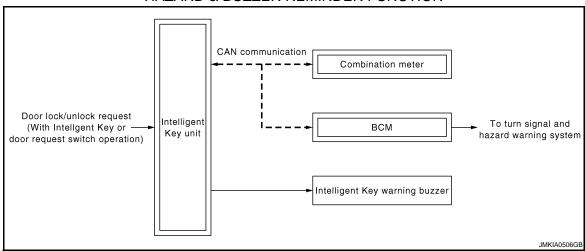
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[WITH INTELLIGENT KEY SYSTEM]

HAZARD AND BUZZER REMINDER FUNCTION

System Diagram INFOID:0000000001563471

HAZARD & BUZZER REMINDER FUNCTION



System Description

INFOID:0000000001563472

HAZARD AND BUZZER REMINDER FUNCTION

When door is locked or unlocked by Intelligent Key or door request switch, Intelligent Key unit sounds buzzer and sends hazard request signal to BCM via CAN communication. Then BCM flashes hazard warning lamps as a reminder.

NOTE:

Hazard and buzzer reminder function mode can be changed with CONSULT-III. Refer to DLK-36, "CONSULT-III Function (INTELLIGENT KEY)".

Component Parts Location

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Refer to DLK-27, "Component Parts Location".

Component Description

INFOID:0000000001563474

Item	Function	
BCM	Controls the hazard and buzzer reminder function (without Intelligent Key).	
Intelligent Key unit	Controls the hazard and buzzer reminder function (with Intelligent Key).	
Combination meter	Turns ON the LOCK indicator, KEY indicator, turn signal indicator and buzzer (built in combination meter) by the request from Intelligent Key unit via CAN communication.	
Intelligent Key warning buzzer	Sounds by the request signal from Intelligent Key unit via CAN communication.	

HOMELINK UNIVERSAL TRANSCEIVER

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HOMELINK UNIVERSAL TRANSCEIVER

Component Description

INFOID:0000000001563475

Item	Function	Reference page
Homelink universal 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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COMMON ITEM

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

INFOID:0000000001563476

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-128, "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 IDENTIFICATION	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		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	×	×	×
Back door open	TRUNK		×	
RAP system	RETAINED PWR		×	

DOOR LOCK

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

INFOID:0000000001563477

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 >

[WITH INTELLIGENT KEY SYSTEM]

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

ACTIVE TEST

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

REMOTE KEYLESS ENTRY

REMOTE KEYLESS ENTRY: CONSULT-III Function (BCM - RKE)

INFOID:0000000001563478

"MULTI REMOTE ENT"

Data Monitor

Monitored Item	Description
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEYLESS PANIC	Indicates [ON/OFF] condition of panic signal from keyfob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from keyfob.
KEYLESS LOCK	Indicates [ON/OFF] condition of lock signal from keyfob.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from door key cylinder switch.
KEYLESS PBD	Indicates [ON/OFF] condition of power back door signal from keyfob.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from lock/unlock switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from lock/unlock switch.

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< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Monitored Item	Description
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
RKE LCK-UNLCK	Indicates [ON/OFF] condition of lock/unlock signal at the same time from keyfob.
RKE KEEP UNLK	Indicates [ON/OFF] condition of unlock signal from keyfob.

Active Test

Test Item	Description
FLASHER	This test is able to check right and left hazard reminder operation. The right hazard lamp turns on when "RH" on CONSULT-III screen is touched and the left hazard lamp turns on when "LH" on CONSULT-III screen is touched.
POWER WINDOW DOWN	This test is able to check power window down operation. The windows are lowered when "ON" on CONSULT-III screen is touched.
HORN	This test is able to check panic alarm and horn reminder operations. The alarm activate for 0.5 seconds after "ON" on CONSULT-III screen is touched.
DOOR LOCK	This test is able to check door lock operation. The doors lock and unlock based on the item on CON-SULT-III screen touched.
TRUNK/BACK DOOR	This test is able to check back door actuator operation. The back door is opened when "OPEN" on CONSULT-III screen is touched.

Work Support

Test Item	Description
REMO CONT ID REGIST	Keyfob ID code can be registered.
REMO CONT ID ERASUR	Keyfob ID code can be erased.
REMO CONT ID CONFIR	It can be checked whether keyfob ID code is registered or not in this mode.
HORN CHIRP SET	Horn chirp function mode can be changed in this mode. The function mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
HAZARD LAMP SET	Hazard lamp function mode can be changed in this mode. The function mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
MULTI ANSWER BACK SET	Hazard and horn reminder mode can be changed in this mode. The reminder mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
AUTO LOCK SET	Auto locking function mode can be changed in this mode. The function mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
PANIC ALRM SET	Panic alarm operation mode can be changed in this mode. The operation mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
TRUNK OPEN SET	Back door opener operation mode can be changed in this mode. The operation mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.
PW DOWN SET	Keyless power window down (open) operation mode can be changed in this mode. The operation mode will be changed when "CHANG SETT" on CONSULT-III screen is touched.

Hazard and horn reminder mode

		DE 1 node)	_	DE 2 node)	МО	DE 3	МО	DE 4	МО	DE 5	MOI	DE 6
Keyfob operation	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Once	Twice	_	_	_	Twice	Once	Twice	_	_	Once
Horn sound	Once	_	_	_	_	_		_	Once	_	Once	_

Auto locking function mode

	MODE 1	MODE 2	MODE 3
Auto locking function	5 minutes	Nothing	1 minute

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Panic alarm operation mode			
	MODE 1	MODE 2	MODE 3
Keyfob operation	0.5 seconds	Nothing	1.5 seconds
Back door open operation mode			
	MODE 1	MODE 2	MODE 3
Keyfob operation	0.5 seconds	Nothing	0.5 seconds
Keyless power window down operate	tion mode		
	MODE 1	MODE 2	MODE 3
Keyfob operation	3 seconds	Nothing	5 seconds

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000001563479

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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.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
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	1
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.	J
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side and passenger side) mode can be changed to operate (ON) or not operate (OFF) with this mode.	DLK
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. • 0.5 sec. • 1.5 sec. • OFF: Non-operation	L
PW DOWN SET	Unlock button pressing time on Intelligent Key button to lower front windows can be selected from the following with this mode. • 3 sec. • 5 sec. • OFF: Non-operation	M
BACK DOOR OPEN DELAY	Back door button pressing time on Intelligent Key button can be selected from the following with this mode. • 0.5 sec. • 1.5 sec. • OFF: No delay	0
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.	Р
ANTI KEY LOCK IN FUNCTION	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.	

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[WITH INTELLIGENT KEY SYSTEM]

Monitor item	Description
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK AND UNLOCK: Lock/unlock operation • OFF: Non operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. • HORN CHIRP: Sound horn • BUZZER: Sound Intelligent Key warning buzzer • OFF: Non-operation
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 DLK-128, "DTC Index".

DATA MONITOR

Monitor Item	Condition
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of 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.
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.
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.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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Monitor Item	Condition				
RKE-TR/BD	Indicates [ON/OFF] condition of BACK DOOR 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 REMOTE 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	This test is able to check warning chime by combination meter operation. • Take out warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched. • P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched. • ACC warning chime sounds when "ACC WARN" on CONSULT-III screen is touched.				
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.				
LCD	This test is able to check meter display information • Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched. • Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched. • Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched. • Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched. • P position warning displays when "P RNG IND" on CONSULT-III screen is touched. • Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched. • Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched. • Take away window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched. • Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched. • OFF position warning display when "IGN OFF WARN" on CONSULT-III screen is touched.				
TRUNK/GLASS HATCH	This test is able to check back door 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 A/T device power supply CVT device power is supplied when "ON" on CONSULT-III screen is touched.				

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DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

CONSULT-III Function (INTELLIGENT KEY)

INFOID:0000000001563480

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with Intelligent Key unit.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by Intelligent Key unit.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from Intelligent Key unit.
DATA MONITOR	The Intelligent Key unit input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from Intelligent Key unit.
ECU IDENTIFICATION	The Intelligent Key unit part number is displayed.

WORK SUPPORT

Support item	Description	Selection item	Condition
CONFIRM KEY FOB ID	It can check whether Intelligent Key ID code is registered or not.	_	_
TAKE OUT FROM WINDOW WARN	Take away warning chime (from window)	ON	Active
TAKE OUT I KOW WINDOW WAKIN	mode can be changed.	OFF	Inactive
LOW BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can	ON	Active
	be changed.	OFF	Inactive
KEYLESS FUNCTION	Door lock function with Intelligent Key can be	ON	Active
RETEESSTONOTION	changed.	OFF	Inactive
ANSWER BACK FUNCTION	Buzzer reminder operation can be changed.	ON	Active
ANOWER BACKT UNCTION	Buzzer reminder operation can be changed.	OFF	Inactive
SELECTIVE UNLOCK FUNCTION	Anti-hijack mode can be changed.	ON	Active
SELECTIVE CIVEOUR FORCHOIN	Anti Injack mode can be changed.	OFF	Inactive
HAZARD ANSWER BACK	Hazard reminder operation mode can be changed.	Refer to <u>DLK-28</u> .	
	Buzzer reminder operation (lock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY LOCK	mode by each door request switch can be changed.	OFF	Inactive
	Buzzer reminder operation (unlock operation)	BUZZER	Active
ANSWER BACK WITH I-KEY UNLOCK	mode by each door request switch can be changed.	OFF	Inactive
AUTO RELOCK TIMER	Auto door lock operation mode can be	OFF	Inactive
AO TO RELOOK TIMER	changed.	2 min	Active
LOCK/UNLOCK BY I-KEY	Door lock function by door request switch can	ON	Active
EGGIVONEGGIV DI I-IVET	be changed.	OFF	Inactive

SELF-DIAG RESULT

Refer to DLK-128, "DTC Index".

DATA MONITOR

Monitor Item	Condition
KEY SW	Indicates [ON (inserted)/OFF (removed)] condition of key switch.
DR REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (driver side).

DIAGNOSIS SYSTEM (INTELLIGENT KEY UNIT)

< FUNCTION DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
AS REQ SW	Indicates [ON (pressed)/OFF (released)] condition of door request switch (passenger side).
IGN SW	Indicates [ON (ON or START position)/OFF (other than ON and START position)] condition of ignition switch ON position.
ACC SW	Indicates [ON/OFF] condition of ignition switch ACC position.
DOOR LOCK SIG	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
DOOR UNLOCK SIG	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
DOOR SW DR	Indicates [OPEN/CLOSE] condition of front door switch (driver side) from BCM via CAN communication.
DOOR SW AS	Indicates [OPEN/CLOSE] condition of front door switch (passenger side) from BCM via CAN communication.
DOOR SW RR	Indicates [OPEN/CLOSE] condition of rear door switch (RH) from BCM via CAN communication.
DOOR SW RL	Indicates [OPEN/CLOSE] condition of rear door switch (LH) from BCM via CAN communication.
DOOR BK SW	Indicates [OPEN/CLOSE] condition of back door switch from BCM via CAN communication.
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h].

ACTIVE TEST

Test item	Description
DOOR LOCK/UNLOCK	This test is able to check door lock/unlock operation. ALL UNLK: All door lock actuators are unlocked. DR UNLK: Door lock actuator (driver side) is unlocked. AS UNLK: Door lock actuator (passenger side) is unlocked. BK UNLK: This item is indicated, but inactive. LOCK: All door lock actuator is locked.
ANTENNA	 This test is able to check Intelligent Key antenna operation. When the following condition are met, hazard warning lamps flash. ROOM ANT1: Inside key antenna (instrument panel) detects Intelligent Key, when "ROOM ANT1" is selected. ROOM ANT2: Inside key antenna (luggage compartment) detects Intelligent Key, when "ROOM ANT2"is selected. ROOM ANT3: Inside key antenna (center console) detects Intelligent Key, when "ROOM ANT3" is selected. DRIVER ANT: Outside key antenna (driver side) detects Intelligent Key, when "DRIVER ANT" is selected. ASSIST ANT: Outside key antenna (passenger side) detects Intelligent Key, when "ASSIST ANT" is selected. BK DOOR ANT: Outside key antenna (rear bumper) detects Intelligent Key, when "BK DOOR ANT" is selected.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. ON OFF
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. TAKE OUT: Take away warning chime sounds. KNOB: Ignition knob switch warning chime sounds. KEY: Key warning chime sounds.

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COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000001563481

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-57, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause	
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds 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)	

Diagnosis Procedure

INFOID:0000000001563483

1.PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 second or more.
- 2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to <u>DLK-38, "Diagnosis Procedure"</u>. NO >> Refer to <u>GI-51, "Intermittent Incident"</u>.

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000001563485

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

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>> Replace BCM.

Special Repair Requirement

INFOID:000000001563486

1. REQUIRED WORK WHEN REPLACING BCM

The BCM must be initialized when replaced. Refer to (Body Control System) for BCM configuration. Initialize NVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

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INSIDE KEY ANTENNA 1 (INSTRUMENT PANEL)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INSIDE KEY ANTENNA 1 (INSTRUMENT PANEL)

Description INFOID:000000001563487

Detects whether Intelligent Key is inside the vehicle.

Component Function Check

INFOID:0000000001563488

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

(P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "INSIDE KEY ANTENNA 1".
- 3. When Intelligent Key is inside key antenna (instrument panel) detection area, hazard lamps flash.

Test Item	Condition	Possible cause
INSIDE KEY ANTENNA 1	An excessive high or low voltage from inside antenna is sent to the Intelligent Key Unit	Inside key antenna 1 (instrument panel) Between Intelligent Key unit and inside key antenna 1 (instrument panel)

Is the inspection result normal?

YES >> Inside key antenna 1 (instrument panel) is OK.

NO >> Refer to <u>DLK-40, "Diagnosis Procedure"</u>.

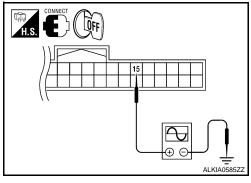
Diagnosis Procedure

INFOID:0000000001563489

1. CHECK INSIDE KEY ANTENNA POWER SUPPLY SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit connector and ground with an oscilloscope.

Connector	Item	Terminals		Condition	Signal (V)	
	itom	(+)	(-)	Condition	(Reference value)	
M164	Intelligent Key unit	15	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0μs PIIB7441E	



Is the inspection result normal?

YES >> Inside key antenna 1 (instrument panel) is OK.

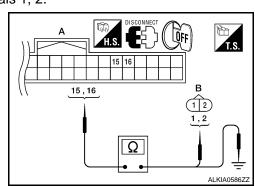
NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA

- 1. Disconnect Intelligent Key unit connector and inside key antenna 1 (instrument panel) connectors.
- 2. Check continuity between Intelligent Key unit harness connector (A) M164 terminals 15, 16 and inside key antenna 1 (instrument panel) harness connector (B) M68 terminals 1, 2.

Intelligent Key unit connector	Terminals	Inside key antenna 1 (instrument panel) connector	Terminals	Continuity
A: M164	15	B: M68	1	Yes
A. W1104	16	D. WOO	2	165

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminals 15, 16 and ground.



INSIDE KEY ANTENNA 1 (INSTRUMENT PANEL)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Item	Connector	Term	Continuity	
Intelligent Key unit	y A: M164	15	Ground	No
	A. W1104	16	Ground	110

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Is the inspection result normal?

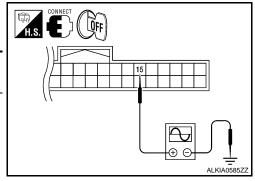
YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna 1 (instrument panel).

3.check inside key antenna power supply singal

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector.
- 3. Check signal between Intelligent Key unit connector and ground with oscilloscope.

Connector	Item	Terminals		Condition	Signal (V)	
Connector	item	(+)	(-)	Condition	(Reference value)	
M164	Intelligent Key unit	15	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0μs	



Is the inspection result normal?

YES >> Replace inside key antenna 1 (instrument panel).

NO >> Replace Intelligent Key unit. Refer to <u>SEC-95, "Removal and Installation"</u>.

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INSIDE KEY ANTENNA 2 (LUGGAGE COMPARTMENT)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INSIDE KEY ANTENNA 2 (LUGGAGE COMPARTMENT)

Description INFOID:000000001563496

Detects whether Intelligent Key is inside the vehicle.

Component Function Check

INFOID:0000000001563497

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

(P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "INSIDE KEY ANTENNA 2".
- 3. When Intelligent Key is inside key antenna (luggage compartment) detection area, hazard lamps flash.

Test Item	Condition	Possible cause
INSIDE KEY ANTENNA 2	An excessive high or low voltage from inside antenna is sent to the Intelligent Key unit	Inside key antenna 2 (luggage compartment) Between Intelligent Key unit and inside key antenna 2 (luggage compartment)

Is the inspection result normal?

YES >> Inside key antenna 2 (luggage compartment) is OK.

NO >> Refer to <u>DLK-42, "Diagnosis Procedure"</u>.

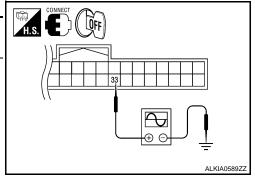
Diagnosis Procedure

INFOID:0000000001563498

1. CHECK INSIDE KEY ANTENNA POWER SUPPLY SIGNAL

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit connector and ground with an oscilloscope.

Connector	Item Terminals		Condition	Signal (V)	
		(+)	(–)	00.10.11.011	(Reference value)
M164	Intelligent Key unit	33	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0 10.0 PIIB7441E



Is the inspection result normal?

YES >> Inside key antenna 2 (luggage compartment) is OK.

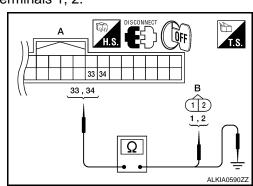
NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA

- 1. Disconnect Intelligent Key unit connector and inside key antenna 2 (luggage compartment) connectors.
- 2. Check continuity between Intelligent Key unit harness connector (A) M164 terminals 33, 34 and inside key antenna 2 (luggage compartment) harness connector (B) B129 terminals 1, 2.

Intelligent Key unit connector	Terminals	Inside key antenna 2 (luggage compart- ment) connector	Terminals	Continuity
A: M164	33	B: B129	1	Yes
A. W1104	34	B. B129	2	163

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminals 33, 34 and ground.



INSIDE KEY ANTENNA 2 (LUGGAGE COMPARTMENT) [WITH INTELLIGENT KEY SYSTEM]

< COMPONENT DIAGNOSIS >

Item	Connector	Terminals		Continuity
Intelligent Key unit	A: M164	33	Ground	No
	A. W104	34	Ground	140

Is the inspection result normal?

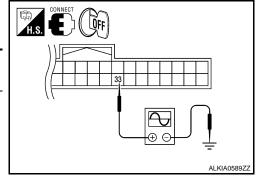
YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna 2 (luggage compartment).

3.check inside key antenna power supply singal

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector.
- 3. Check signal between Intelligent Key unit connector and ground with oscilloscope.

Connector Item		Terminals		Condition	Signal (V)	
Connector	item	(+)	(-)	Condition	(Reference value)	
M164	Intelligent Key unit	33	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0μs PIB7441E	



Is the inspection result normal?

YES >> Replace inside key antenna 2 (luggage compartment).

NO >> Replace Intelligent Key unit. Refer to SEC-95, "Removal and Installation".

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INSIDE KEY ANTENNA 3 (CENTER CONSOLE)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INSIDE KEY ANTENNA 3 (CENTER CONSOLE)

Description - Inside Key Antenna 3 (Center Console)

INFOID:0000000001563493

Detects whether Intelligent Key is inside the vehicle.

Component Function Check

INFOID:0000000001563494

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL

(P)With CONSULT-III

- 1. Check "ANTENNA" in "Active Test" mode with CONSULT-III.
- 2. Touch "INSIDE KEY ANTENNA 3".
- 3. When Intelligent Key is inside key antenna (center console) detection area, hazard lamps flash.

Test Item	Condition	Possible cause
INSIDE KEY ANTENNA 3	An excessive high or low voltage from inside antenna is sent to the Intelligent Key Unit	 Inside key antenna 3 (center console) Between Intelligent Key unit and inside key antenna 3 (center console)

Is the inspection result normal?

YES >> Inside key antenna 3 (center console) is OK.

NO >> Refer to <u>DLK-44, "Diagnosis Procedure"</u>.

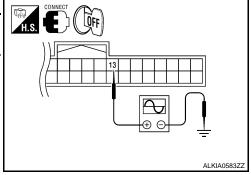
Diagnosis Procedure

INFOID:0000000001563495

1. CHECK INSIDE KEY ANTENNA POWER SUPPLY SIGNAL

- Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit connector and ground with an oscilloscope.

Connector	Item	Terminals (+) (-)		Condition	Signal (V) (Reference value)
M164	Intelligent Key unit	13	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0µs



Is the inspection result normal?

YES >> Inside key antenna 3 (center console) is OK.

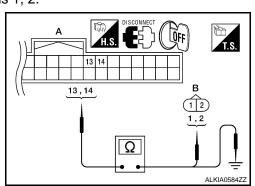
NO >> GO TO 2.

2. CHECK INSIDE KEY ANTENNA

- 1. Disconnect Intelligent Key unit connector and inside key antenna 3 (center console) connectors.
- 2. Check continuity between Intelligent Key unit harness connector (A) M164 terminals 13, 14 and inside key antenna 3 (center console) harness connector (B) M212 terminals 1, 2.

Intelligent Key unit connector	Terminals	Inside key antenna 3 (center console) connector	Terminals	Continuity
A: M164	13	B: M212	1	Yes
A. W104	14	D. IVIZ 12	2	165

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminals 13, 14 and ground.



INSIDE KEY ANTENNA 3 (CENTER CONSOLE)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Item	Connector	Term	Continuity	
Intelligent Key unit	A: M164	13	Ground	No
	A. W1104	14	Ground	

Is the inspection result normal?

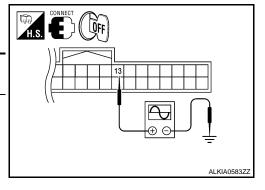
YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and inside key antenna 3 (center console).

3.CHECK INSIDE KEY ANTENNA POWER SUPPLY SINGAL

- 1. Replace inside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector.
- 3. Check signal between Intelligent Key unit connector and ground with oscilloscope.

Connector	Connector Item		rminals	Condition	Signal (V)	
Connector	пеш	(+)	(-)	Condition	(Reference value)	
M164	Intelligent Key unit	13	Ground	Ignition switch is pushed.	(V) 10 5 0 10.0\(\mu\) 10.0\(\mu\) PIIB7441E	



Is the inspection result normal?

YES >> Replace inside key antenna 3 (center console).

NO >> Replace Intelligent Key unit. Refer to <u>SEC-95. "Removal and Installation"</u>.

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POWER SUPPLY AND GROUND CIRCUIT INTELLIGENT KEY UNIT

INTELLIGENT KEY UNIT: Diagnosis Procedure

INFOID:0000000001563499

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect Intelligent Key unit connector.
- 3. Check voltage between Intelligent Key unit harness connector M70 terminals 6, 11 and ground.

Connector	Terminals		Ignition switch position		
	(+)	(–)	OFF	ON	
M70	6	Ground	0V	Battery voltage	
	11	Ground	Battery voltage	Battery voltage	

H.S. DISCONNECT ON OFF

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace Intelligent Key power supply circuit.

2. CHECK GROUND CIRCUIT

Check continuity between Intelligent Key unit harness connector M70 terminal 12 and ground.

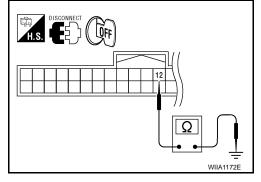
12 - Ground

: Continuity should exist.

Is the inspection result normal?

YES >> Power supply and ground circuits are OK.

NO >> Repair or replace the Intelligent Key unit ground circuit.



BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000001563500

Refer to BCS-32, "Diagnosis Procedure".

BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY: Diagnosis Procedure

INFOID:0000000001724712

AI KIA123877

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect back door control unit connector.
- Check voltage between back door control unit harness connector D509 terminal 1 and ground.

Connector	Term	Voltage (V) (Approx.)	
D509	(+)	(-)	Battery voltage
D309	1	Ground	Dattery Voltage

H.S. CEP OFF

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace back door control unit power supply circuit.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

$\overline{2.}$ CHECK GROUND CIRCUIT

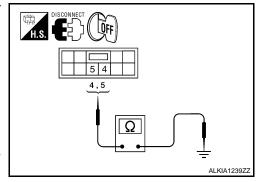
Check continuity between back door control unit harness connector D509 terminals 4, 5 and ground.

Connector	Term	Continuity	
D509	4	Ground	Yes
D509	5	Giodila	163

Is the inspection result normal?

YES >> Power supply and ground circuits are OK.

NO >> Repair or replace the back door control unit ground cir-



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[WITH INTELLIGENT KEY SYSTEM]

DOOR SWITCH

Description INFOID:000000001563502

Detects door open/close condition.

Component Function Check

INFOID:0000000001563503

1. CHECK FUNCTION

(III) With CONSULT-III

Check door switches in data monitor mode with CONSULT-III.

Monitor item	Condition
DOOR SW-DR	
DOOR SW-AS	
DOOR SW-RL	$CLOSE \to OPEN : \; OFF \to ON$
DOOR SW-RR	
BACK DOOR SW	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-48, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001563504

1. CHECK DOOR SWITCHES INPUT SIGNAL

With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR", "BACK DOOR SW") in DATA MONITOR mode with CONSULT-III.

When doors are open:

DOOR SW-AS :ON
DOOR SW-RL :ON
DOOR SW-RR :ON
BACK DOOR SW :ON

· When doors are closed:

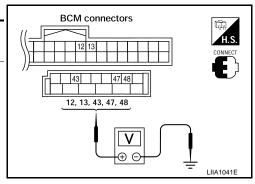
DOOR SW-DR :OFF
DOOR SW-AS :OFF
DOOR SW-RL :OFF
DOOR SW-RR :OFF
BACK DOOR SW :OFF

Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 43, 47, 48 and ground.

[WITH INTELLIGENT KEY SYSTEM]

Connec-	lto m	Term	inals	Condition	Voltage (V) (Approx.)
tor	Item	(+)	(-)		
	Back door switch/latch	43			
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Rear door switch LH	48			
M18	Front door switch RH	12		213000	
IVITO	Rear door switch RH	13			



Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect door switch and BCM.
- Check continuity between BCM connector (A) M18, M19 terminals 12, 13, 43, 47, 48 and door switch connector (B) B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector (C) D502 terminal 7.

2 - 47 :Continuity should exist 2 - 12 :Continuity should exist 2 - 48 :Continuity should exist 2 - 13 :Continuity should exist 7 - 43 :Continuity should exist

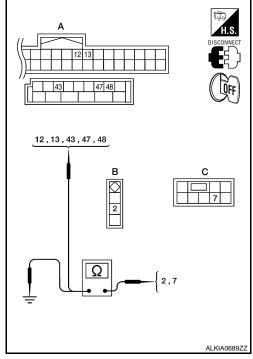
Check continuity between door switch connector (B) B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector (C) D502 terminal 7 and ground.

2 - Ground :Continuity should not exist7 - Ground :Continuity should not exist

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.



3. CHECK DOOR SWITCHES

- · Disconnect door switch harness.
- · Check continuity between door switch connector terminals.

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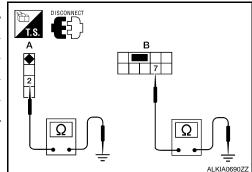
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DOOR SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Switch	Terminals	Condition	Continuity
A: Door switch	2 – Ground	Open	Yes
(front and rear)	2 – Glouria	Closed	No
B: Back door switch	7 – Ground	Open	Yes
D. Dack door switch		Closed	No



Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> (Front and rear doors) Replace door switch.

>> (Back door) GO TO 4. NO

4. CHECK BACK DOOR SWITCH CIRCUIT

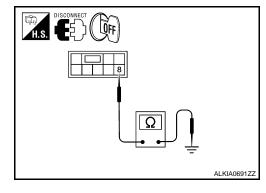
• Check continuity between door switch connector terminal and ground.

Connector	Terminals	Continuity
Back door switch	8 – Ground	Yes

Is the inspection result normal?

YES >> Replace back door switch. NO

>> Repair or replace harness.



< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR LOCK AND UNLOCK SWITCH

DRIVER SIDE

DRIVER SIDE : Description

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001563506

INFOID:0000000001563507

1. CHECK FUNCTION

(P)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	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> refer to <u>DLK-51</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

With CONSULT-III

Check main power window and door lock/unlock switch ("CDL LOCK SW", "CDL UNLOCK SW") in DATA MONITOR mode in CONSULT-III.

When main power window and door lock/unlock switch is turned to LOCK:

CDL LOCK SW :ON

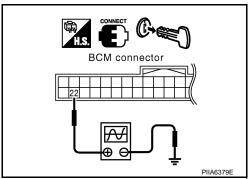
• When main power window and door lock/unlock switch is turned to UNLOCK:

CDL UNLOCK SW :ON

Without CONSULT-III

- 1. Remove key from ignition key cylinder.
- 2. Using an oscilloscope, check the signal between BCM connector M18 terminal 22 and ground when the main power window and door lock/unlock switch is turned to LOCK or UNLOCK.
- Make sure the signals which are shown in the figure below can be detected during 10 seconds just after the door lock/unlock switch is turned to LOCK or UNLOCK.

Connector	Connector Terminal (+) (-)		Voltage (V)
Connector			voltage (v)
M18	22	Ground	(V) 15 10 5 0



Is the inspection result normal?

YES >> Door lock and unlock switch circuit is OK.

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< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> GO TO 2.

2. CHECK BCM OUTPUT SIGNAL

Check ("POWER WINDOW DOWN") in ACTIVE TEST mode for "MULTI REMOTE ENT" with CONSULT-III.

When "ACTIVE TEST" is performed, the front windows should be lowered.

Is the inspection result normal?

YES >> GO TO 3.

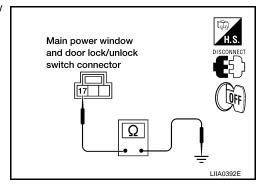
NO >> Replace BCM. Refer to BCS-54, "Removal and Installation".

3.check door lock/unlock switch ground harness

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector D8 terminal 17 and ground.

17 - Ground

: Continuity should exist.



Is the inspection result normal?

YES >> GO TO 4.

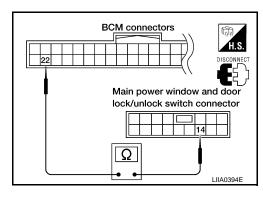
NO >> Repair or replace harness.

4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Disconnect BCM.
- Check continuity between BCM connector M18 terminal 22 and main power window and door lock/unlock switch connector D7 terminal 14.

22 - 14

: Continuity should exist.



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch.

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000001563508

INFOID:0000000001563509

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE: Component Function Check

1. CHECK FUNCTION

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(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 LINI OCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-53</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

PASSENGER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

(I)With CONSULT-III

Check power window and door lock/unlock switch RH ("CDL LOCK SW", "CDL UNLOCK SW") in DATA MONITOR mode in CONSULT-III.

• When power window and door lock/unlock switch RH is turned to LOCK:

CDL LOCK SW :ON

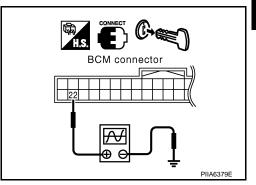
When power window and door lock/unlock switch RH is turned to UNLOCK:

CDL UNLOCK SW :ON

Without CONSULT-III

- Remove key from ignition key cylinder.
- 2. Using an oscilloscope, check the signal between BCM connector M18 terminal 22 and ground when power window and door lock/unlock switch RH is turned to LOCK or UNLOCK.
- 3. Make sure the signals which are shown in the figure below can be detected during 10 seconds just after the power window and door lock/unlock switch RH is turned to LOCK or UNLOCK.

Connector	Terr	minal	Voltage (V)
Comilector	(+)	(-)	voltage (v)
M18	22	Ground	(V) 15 10 5 0 10 ms



Is the inspection normal?

YES >> Power window and door lock/unlock switch RH circuit is OK.

NO >> GO TO 2.

2.CHECK BCM OUTPUT SIGNAL

Check ("POWER WINDOW DOWN") in ACTIVE TEST mode for "MULTI REMOTE ENT" with CONSULT-II.

When "ACTIVE TEST" is performed, the front windows should be lowered.

Is the inspection normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-54, "Removal and Installation".

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[WITH INTELLIGENT KEY SYSTEM]

< COMPONENT DIAGNOSIS >

3.check door lock/unlock switch ground harness

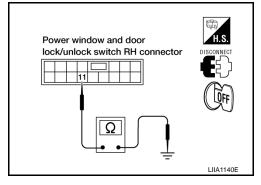
- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector D105 terminal 11 and ground

11 - Ground : Continuity should exist.

Is the inspection normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

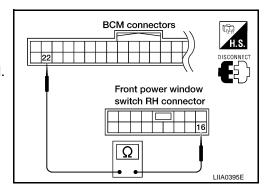
- 1. Disconnect BCM.
- 2. Check continuity between BCM connector M18 terminal 22 and power window and door lock/unlock switch RH connector D105 terminal 16.

22 - 16 : Continuity should exist.

Is the inspection normal?

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

NO >> Repair or replace harness.



KEY CYLINDER SWITCH

Description INFOID:000000001563511

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.

Component Function Check

INFOID:0000000001563512

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1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check "KEY CYL LK-SW" AND "KEY CYL UN-SW" in DATA MONITOR mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III.

Monitor item	Cor	ndition
KEY CYL LK-SW	Lock	: ON
RET CTL EN-SW	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
KEY CYL UN-SW	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>DLK-55</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001563513

1. CHECK DOOR KEY CYLINDER SWITCH LH

(P)With CONSULT-III

Check front door lock assembly LH (key cylinder switch) ("KEY CYL LK-SW") and ("KEY CYL UN-SW) in DATA MONITOR mode with CONSULT-III.

• When key inserted in left front key cylinder is turned to LOCK:

KEY CYL LK-SW : ON

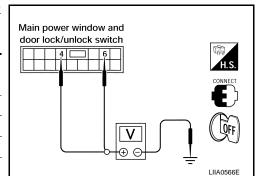
When key inserted in left front key cylinder is turned to UNLOCK:

KEY CYL UN-SW: ON

Without CONSULT-III

Check voltage between main power window and door lock/unlock switch connector D7 terminals 4, 6 and ground.

Connector	Connector (+) (-)		Condition of left front key cylinder	Voltage (V)	
00111100101			condition of lost mont key symmetr	(Approx.)	
	4		Neutral/Unlock	5	
5.7	Gı		0	Lock	0
D7		6	Ground	Neutral/Lock	5
			Unlock	0	



Is the inspection result normal?

YES >> Key cylinder switch signal is OK.

NO >> GÓ TÓ 2.

2.CHECK DOOR KEY CYLINDER SWITCH LH GROUND HARNESS

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly LH (key cylinder switch).

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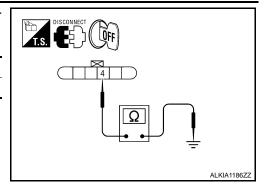
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Check continuity between front door lock assembly LH (key cylinder switch) connector (A) D14 terminal 4 and body ground.

Connector	Terminals	Continuity
D14	4 – Ground	Yes



Is the inspection result normal?

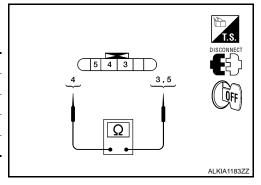
YES >> GO TO 3.

NO >> Repair or replace harness.

3.check door key cylinder switch LH

Check continuity between front door lock assembly LH (key cylinder switch) terminals.

Terminals	Condition	Continuity
3 – 4	Key is turned to LOCK or neutral.	No
3 – 4	Key is turned to UNLOCK.	Yes
4 – 5	Key is turned to UNLOCK or neutral.	No
4 – 3	Key is turned to LOCK.	Yes



Is the inspection result normal?

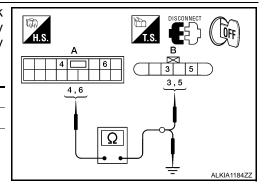
YES >> GO TO 4.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-190, "Removal and Installation"</u>.

4. CHECK DOOR KEY CYLINDER HARNESS

Check continuity between main power window and door lock/unlock switch connector (A) D7 terminals 4, 6 and front door lock assembly LH (key cylinder switch) connector (B) D14 terminals 3, 5 and body ground.

Connector	Terminals	Connector	Terminals	Continuity
A: Main	4	B: Front	5	Yes
power win- dow and door lock/ unlock switch	6	door lock assembly LH (key cylinder switch)	3	Yes
SWITCH	4, 6	G	round	No



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch.

NO >> Repair or replace harness.

FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

Description INFOID:000000001563514

Detects door lock condition of driver door.

Component Function Check

1.CHECK FUNCTION

(F) With CONSULT-III

Check door unlock sensor in DATA MONITOR mode.

Monitor item	Condition
DOOR STAT SW (DR DOOR STATE)	Front door lock (driver side) LOCK : OFF
DOOK STAT SW (DIX DOOK STATE)	Front door lock (driver side) UNLOCK : ON

Is the inspection result normal?

YES >> Door unlock sensor is OK.

NO >> Refer to <u>DLK-57</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK UNLOCK SENSOR POWER SUPPLY

Check voltage between Intelligent Key unit connector terminal 28 and ground.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
			Driver side door lock is locked	5
M164	M164 28 Ground		Driver side door lock is un- locked	0

Is the inspection result normal?

YES >> Front door lock assembly LH (door unlock sensor) is OK.

NO >> GO TO 2.

2.CHECK UNLOCK SENSOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect Intelligent Key unit and front door lock assembly LH (door unlock sensor) connector.
- Check continuity between Intelligent Key unit harness connector (A) M164 terminal 28 and front door lock assembly LH (door unlock sensor) harness connector (B) D14 terminal 6.

28 – 6 : Continuity should exist.

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminal 28 and ground.

28 – Ground : Continuity should not exist.

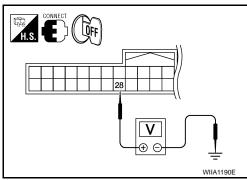
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and front door lock assembly LH (door unlock sensor).

3.check unlock sensor ground circuit

Check continuity between front door lock assembly LH (door unlock sensor) harness connector D14 terminal 4 and ground.



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FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

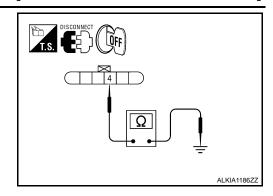
4 - Ground

: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



4. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

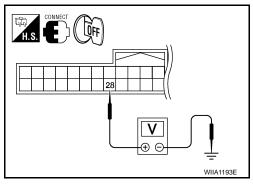
- 1. Connect Intelligent Key unit harness connector.
- 2. Check voltage between Intelligent Key unit harness connector M164 terminal 28 and ground.

28 - Ground : Approx. 5V

Is the inspection result normal?

YES >> Refer to <u>DLK-58</u>, "Component Inspection".

NO >> Replace Intelligent Key unit. Refer to <u>SEC-95, "Removal and Installation"</u>.

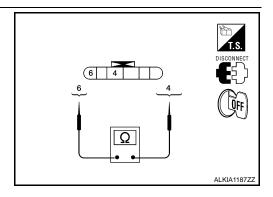


Component Inspection

INFOID:0000000001563517

1. CHECK DOOR UNLOCK SENSOR

Check door unlock sensor.



Terminal Front door lock assembly LH		Front door lock assembly LH condition	Continuity	
		Tront door lock assembly Lift condition		
1	6	Unlock	Yes	
4	0	Lock	No	

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace front lock assembly LH (door unlock sensor). Refer to <u>DLK-190, "Removal and Installation"</u>.

DOOR REQUEST SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR REQUEST SWITCH

FRONT DOOR REQUEST SWITCH

FRONT DOOR REQUEST SWITCH: Description

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Transmits lock/unlock operation to Intelligent Key unit.

FRONT DOOR REQUEST SWITCH: Component Function Check

INFOID:0000000001563519

1. CHECK FUNCTION

(II) With CONSULT-III

Check door request switch "DR REQ SW" and "AS REQ SW" in DATA MONITOR mode.

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

Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to <u>DLK-59</u>, "FRONT DOOR REQUEST SWITCH: Diagnosis Procedure".

FRONT DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000001563520

1. CHECK FRONT DOOR REQUEST SWITCH

(P)With CONSULT-III

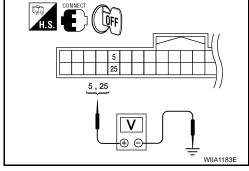
Check front door request switch ("DR REQ SW" or "AS REQ SW") in "DATA MONITOR" mode.

Monitor item	Condition
DR REQ SW	Front door request switch is pressed: ON
AS REQ SW	Front door request switch is released: OFF

Without CONSULT-III

- 1. Turn ignition switch OFF.
- Check voltage between Intelligent Key unit harness connector M70 terminals 5, 25 and ground.

Connector	Item	Terminals		Condition	Voltage (V)
Connector	псп	(+)	(-)	Condition	(Approx.)
	Front door request switch	5		Door request switch is pressed	0
M70	Front door request switch RH	25	Ground	↓ Door request switch is re- leased	Battery voltage



Is the inspection result normal?

YES >> Front door request switch is OK.

NO >> GO TO 2.

2.check front door request switch circuit

- Turn ignition switch OFF.
- 2. Disconnect Intelligent Key unit and front door request switch connectors.
- 3. Check continuity between Intelligent Key unit harness connector (A) M70 terminals 5 (driver door), 25 (passenger door) and front door request switch harness connector (B) D16 (LH), D116 (RH) terminal 2.

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[WITH INTELLIGENT KEY SYSTEM]

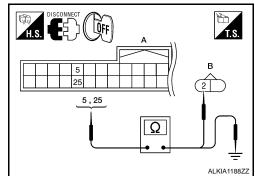
Driver side 5 - 2 : Continuity should exist.

Passenger side 25 - 2 : Continuity should exist.

Check continuity between Intelligent Key unit harness connector

 (A) M70 terminals 5 (driver door), 25 (passenger door) and ground.

5 - Ground : Continuity should not exist.25 - Ground : Continuity should not exist.



Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and front door request switch.

3.check front door request switch ground circuit

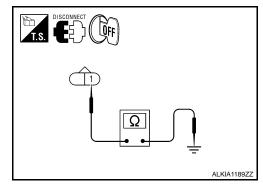
Check continuity between front door request switch harness connector D16 (driver door), D116 (passenger door) terminal 1 and ground.

1 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace door request switch ground circuit.



4. CHECK FRONT DOOR REQUEST SWITCH OPERATION

Refer to DLK-60, "FRONT DOOR REQUEST SWITCH: Component Inspection".

Is the inspection result normal?

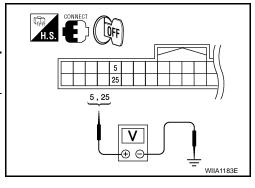
YES >> GO TO 5.

NO >> Replace front door request switch.

${f 5.}$ CHECK FRONT DOOR REQUEST SWITCH SIGNAL

- Connect Intelligent Key unit connector.
- Check voltage between Intelligent Key unit harness connector M70 terminals 5, 25 and ground.

Connector	Item	Terminals		Condition	Voltage (V)
	Item	(+)	(-)	Condition	(Approx.)
	Front door request switch	5		Door request switch is pressed	0
M70	Front door request switch	25	Ground	↓ Door request switch is re- leased	↓ Battery voltage



Is the inspection result normal?

YES >> Refer to Intermittent Incident.

NO >> Replace Intelligent Key unit. Refer to <u>SEC-95, "Removal and Installation"</u>.

FRONT DOOR REQUEST SWITCH: Component Inspection

INFOID:0000000001563521

1. CHECK FRONT DOOR REQUEST SWITCH OPERATION

1. Turn ignition switch OFF.

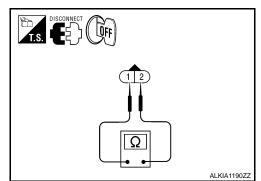
DOOR REQUEST SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- Disconnect front door request switch connector.
- Check continuity between front door request switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Front door request	4		Front door request switch is pressed	Yes
switch (LH or RH)	•	2	Front door request switch is released	No



Is the inspection result normal?

YES >> Inspection end.

>> Replace front door request switch. NO

BACK DOOR REQUEST SWITCH

BACK DOOR REQUEST SWITCH: Description

Transmits lock/unlock operation to Intelligent Key unit.

BACK DOOR REQUEST SWITCH: Component Function Check

INFOID:0000000001723061

INFOID:0000000001723060

1. CHECK FUNCTION

(P)With CONSULT-III

Check door request switch "BD/TR REQ SW" in DATA MONITOR mode.

Monitor item	Condition		
BD/TR REQ SW	Back door request switch is pressed : ON		
BB/TK KEQ 3W	Back door request switch is released : OFF		

Is the inspection result normal?

YES >> Back door request switch is OK.

>> Refer to DLK-61, "BACK DOOR REQUEST SWITCH: Diagnosis Procedure". NO

BACK DOOR REQUEST SWITCH: Diagnosis Procedure

INFOID:0000000001723062

1. CHECK BACK DOOR REQUEST SWITCH

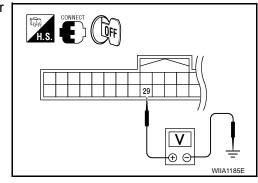
(P)With CONSULT-III

Check back door request switch "BD/TR REQ SW" in "DATA MONITOR" mode.

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

Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Check voltage between Intelligent Key unit harness connector M164 terminal 29 and ground.



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Connector	ltem -	Term	inals	- Condition	Voltage (V)
		(+)	(–)		(Approx.)
M164	Back door request switch	29	Ground	Back door request switch is pressed Back door request switch is released	0 ↓ 5

Is the inspection result normal?

YES >> Back door request switch is OK.

NO >> GO TO 2.

2.check back door request switch circuit

- Turn ignition switch OFF.
- 2. Disconnect Intelligent Key unit and back door request switch connectors.
- 3. Check continuity between Intelligent Key unit harness connector (A) M164 terminal 29 and back door request switch harness connector (B) D552 terminal 1.

29 - 1 : Continuity should exist.

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminal 29 and ground.

29 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between Intelligent Key unit and back door request switch.

3. CHECK BACK DOOR REQUEST SWITCH GROUND CIRCUIT

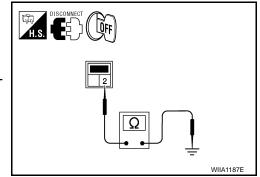
Check continuity between back door request switch harness connector D552 terminal 2 and ground.

2 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace back door request switch ground circuit.



4. CHECK BACK DOOR REQUEST SWITCH OPERATION

Refer to DLK-63, "BACK DOOR REQUEST SWITCH: Component Inspection".

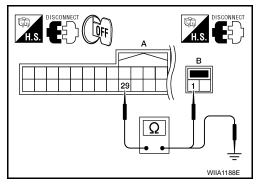
Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door request switch.

5. CHECK BACK DOOR REQUEST SWITCH SIGNAL

1. Connect Intelligent Key unit connector.



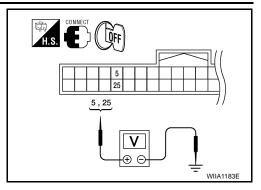
DOOR REQUEST SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check voltage between Intelligent Key unit harness connector M164 terminal 29 and ground.

Connector	ltem -	Terminals		Condition	Voltage (V)
		(+)	(-)	Condition	(Approx.)
M164	back door request switch	29	Ground	Back door request switch is pressed ↓ Back door request switch is released	0 ↓ 5



Is the inspection result normal?

YES >> Refer to Intermittent Incident.

NO >> Replace Intelligent Key unit. Refer to SEC-95, "Removal and Installation".

BACK DOOR REQUEST SWITCH: Component Inspection

1. CHECK BACK DOOR REQUEST SWITCH OPERATION

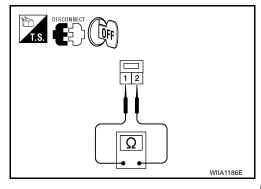
- Turn ignition switch OFF.
- 2. Disconnect back door request switch connector.
- Check continuity between back door request switch terminals 1 and 2.

Component	Terminals		Condition	Continuity
Back door request	1 2		Back door request switch is pressed	Yes
switch	'	2	Back door request switch is released	No

Is the inspection result normal?

YES

>> Inspection end. NO >> Replace back door request switch.



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< COMPONENT DIAGNOSIS >

DOOR LOCK ACTUATOR

DRIVER SIDE

DRIVER SIDE : Description

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Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001563523

INFOID:0000000001563524

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test "DOOR LOCK".
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

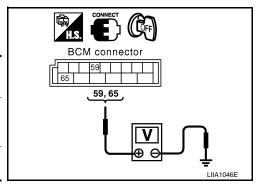
NO >> Refer to <u>DLK-64</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between BCM connector M20 terminals 59, 65 and ground.

Connector	Terr	ninals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	59	Ground	Driver door lock/unlock switch is turned to UN- LOCK	0 → Battery voltage
	65		Driver door lock/unlock switch is turned to LOCK	0 → Battery voltage



Is the inspection result normal?

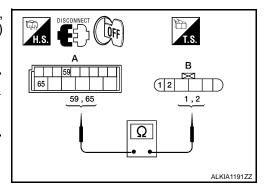
YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK DOOR LOCK ACTUATOR HARNESS

- Disconnect BCM and front door lock assembly LH (actuator).
- Check continuity between BCM connector (A) M20 terminals 59, 65 and front door lock assembly LH (actuator) connector (B) D14 terminals 1, 2.

Connector	Terminals	Connector	Terminals	Continuity
M20	59	D14	2	Yes
IVIZU	65	D14	1	165



Is the inspection result normal?

YES >> Replace front door lock assembly LH (actuator).

NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

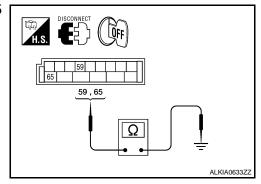
1. Disconnect BCM and front door lock assembly LH (actuator).

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check continuity between BCM connector M20 terminals 59, 65 and ground.

Connector	Terminals		Continuity
M20	59	Ground	No
IVIZU	65	Ground	140



Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-54</u>, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Description

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

1. CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-65, "PASSENGER SIDE : Diagnosis Procedure".

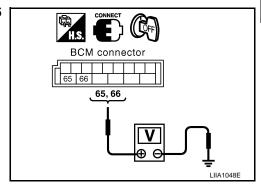
PASSENGER SIDE: Diagnosis Procedure

1. CHECK FRONT DOOR LOCK ACTUATOR RH SIGNAL

1. Turn ignition switch OFF.

Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZU	66	Sibulia	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR HARNESS

Disconnect BCM and front door lock actuator RH.

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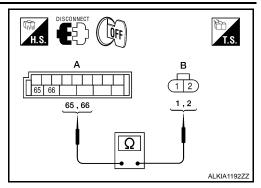
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< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

 Check continuity between BCM connector (A) M20 terminals 65, 66 and front door lock actuator RH (B) D114 terminals 1, 2.

Te	rminal	Continuity
65	2	Yes
66	1	163



Is the inspection result normal?

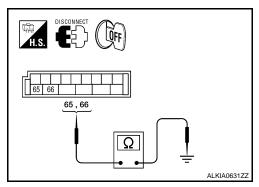
YES >> Replace front door lock actuator RH. Refer to <u>DLK-190</u>, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK DOOR LOCK ACTUATOR HARNESS

- 1. Disconnect BCM and front door lock actuator RH.
- Check continuity between BCM connector M19 terminals 65, 66 and ground.

Ter	minals	Continuity
65	Ground	No
66	Glound	



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

REAR LH: Description

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INFOID:0000000001563529

Locks/unlocks the door with the signal from BCM.

REAR LH: Component Function Check

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test "DOOR LOCK".
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-66</u>, "<u>REAR LH</u>: <u>Diagnosis Procedure</u>".

REAR LH: Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

1. Turn ignition switch OFF.

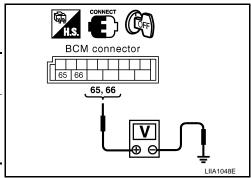
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< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Tern	ninals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZU -	66	Giodila	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

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

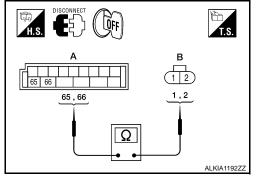
2.CHECK DOOR LOCK ACTUATOR HARNESS

NOTE

The passenger select unlock relay must remain connected during this test.

- 1. Disconnect BCM and rear door lock actuator LH.
- 2. Check continuity between BCM connector (A) M20 terminals 65, 66 and rear door lock actuator LH connector (B) D205 terminals 1, 2.

Ter	minals	Continuity
65	2	Yes
66	1	165



Is the inspection result normal?

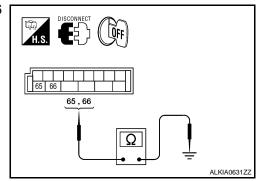
YES >> Replace rear door lock actuator LH.

NO >> Repair or replace harness or passenger select unlock relay.

3.CHECK DOOR LOCK ACTUATOR HARNESS

- 1. Disconnect BCM and each door lock actuator.
- Check continuity between BCM connector M20 terminals 65, 66 and ground.

Ter	minals	Continuity
65	Ground	No
66	Ground	No



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness or passenger select unlock relay.

REAR RH

REAR RH: Description

Locks/unlocks the door with the signal from BCM.

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REAR RH: Component Function Check

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1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test "DOOR LOCK".
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-68</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

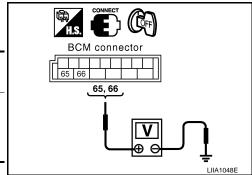
REAR RH: Diagnosis Procedure

INFOID:0000000001563533

1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZO	66	Glound	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

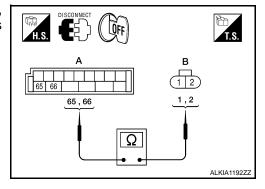
2. CHECK DOOR LOCK ACTUATOR HARNESS

NOTE

The passenger select unlock relay must remain connected during this test.

- 1. Disconnect BCM and rear door lock actuator RH.
- Check continuity between BCM connector (A) M20 terminals 65, 66 and rear door lock actuator RH connector (B) D305 terminals 1, 2.

Ter	minals	Continuity
65	2	Yes
66 1		165



Is the inspection result normal?

YES >> Replace rear door lock actuator RH.

NO >> Repair or replace harness or passenger select unlock relay.

3.CHECK DOOR LOCK ACTUATOR HARNESS

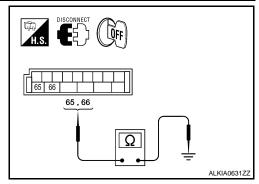
1. Disconnect BCM and rear door lock actuator RH.

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check continuity between BCM connector (A) M20 terminals 65, 66 and ground.

Ter	minals	Continuity
65	Ground	No
66	Ground	



Is the inspection result normal?

YES >> Replace BCM. Refer to BCM REPLACEMENT.

NO >> Repair or replace harness or passenger select unlock relay.

BACK DOOR

BACK DOOR: Description

Locks/unlocks the door with the signal from BCM.

BACK DOOR: Component Function Check

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test DOOR LOCK.
- Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-69, "BACK DOOR: Diagnosis Procedure".

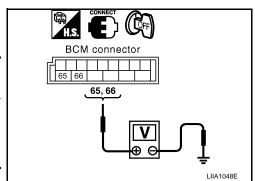
BACK DOOR : Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

Turn ignition switch OFF.

Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Terminals		Condition	Voltage (V)
	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
	66		Door lock/unlock switch is turned to UNLOCK	for 300 ms



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Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR HARNESS

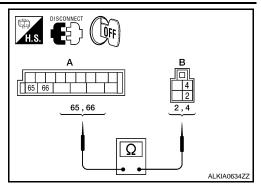
Disconnect BCM and back door lock actuator.

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

 Check continuity between BCM connector (A) M20 terminals 65, 66 and back door lock actuator connector (B) D508 terminals 2, 4.

Ter	minals	Continuity
65	4	Yes
66	2	163



Is the inspection result normal?

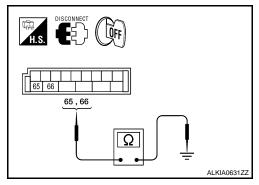
YES >> Replace door lock actuator.

NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

- 1. Disconnect BCM and back door lock actuator.
- Check continuity between BCM connector M20 terminals 65, 66 and ground.

Ter	minals	Continuity	
65	Ground	No	
66	Glound		



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SELECT UNLOCK RELAY

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

PASSENGER SELECT UNLOCK RELAY

Description INFOID:0000000001563535

Controls the operation of both rear door lock actuators and the back door lock actuator.

Component Function Check

1. CHECK FUNCTION

- 1. Ensure "SELECTIVE UNLOCK FUNCTION" in WORK SUPPORT is enabled.
- Use CONSULT-III to perform Active Test "DOOR LOCK".
- Touch "ALL LOCK" or "ALL UNLOCK" to check that both rear doors and back door work normally.

Is the inspection result normal?

YES >> Passenger select unlock relay is OK.

>> Refer to DLK-71, "Component Function Check". NO

Diagnosis Procedure

${f 1}$.CHECK PASSENGER SELECT UNLOCK RELAY CIRCUIT

NOTE:

The passenger select unlock relay must remain connected during this step.

- 1. Turn ignition switch OFF.
- Disconnect BCM and inoperative back or rear door lock actuator.
- 3. Check continuity between BCM connector (A) M20 terminal 65 and rear door lock actuator LH connector (B) D205 terminal 2 or rear door lock actuator RH connector (B) D305 Terminal 2 or back door lock actuator (C) D508 terminal 4.

65 - 2 : Continuity should exist.

65 - 4: Continuity should exist.

Check continuity between BCM connector M20 terminals 66 and body ground.

65 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 4. >> GO TO 2.

NO

2.check passenger select unlock relay input

- Disconnect passenger select unlock relay.
- Check continuity between BCM connector (A) M20 terminal 65 and passenger select unlock relay connector (B) M11 terminal 3.

65 - 3: Continuity should exist.

3. Check continuity between BCM connector (A) M20 terminal 65 and body ground.

65 - Ground : Continuity should not exist.

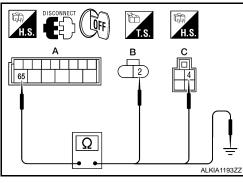
Is the inspection result normal?

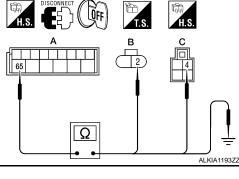
YES >> GO TO 3.

NO >> Repair or replace harness between BCM and relay.

3.check passenger select unlock relay output

Disconnect inoperative rear or back door lock actuator.





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PASSENGER SELECT UNLOCK RELAY

< COMPONENT DIAGNOSIS >

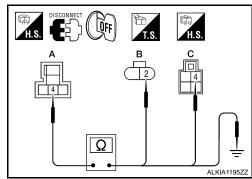
[WITH INTELLIGENT KEY SYSTEM]

Check continuity between passenger select unlock relay connector (A) M11 terminal 4 and rear door lock actuator LH connector (B) D205 terminal 2 or rear door lock actuator RH connector (B) D305 terminal 2 or back door lock actuator connector (C) D508 terminal 4.

4 - 2 : Continuity should exist.4 - 4 : Continuity should exist.

3. Check continuity between passenger select unlock relay connector (A) M11 terminal 4 and ground.

4 - Ground : Continuity should not exist.



Is the inspection result normal?

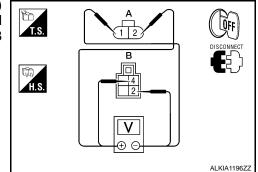
YES >> Replace passenger select unlock relay.

NO >> Repair or replace harness between relay and actuator.

4. CHECK REAR DOOR LOCK ACTUATOR ASSEMBLY

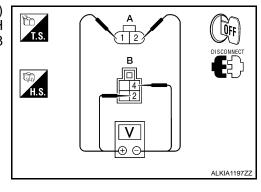
- 1. Reconnect BCM.
- Check voltage between rear door lock actuator connector LH (A) D205 terminals 1 and 2 or rear door lock actuator connector RH (A) D305 terminals 1 and 2 or back door lock actuator (B) D508 terminals 2 and 4.

Connector	Terminals		Condition	Voltage (V)
	(+)	(-)	Condition	(Approx.)
A: D205 (LH) A: D305 (RH)	2	1	Main power window and door lock/unlock switch is turned to LOCK	0 → Battery voltage for 300 msec.
B: D508	4	2		



Check voltage between rear door lock actuator connector LH (A) D205 terminals 1 and 2 or rear door lock actuator connector RH (A) D305 terminals 1 and 2 or back door lock actuator (B) D508 terminals 2 and 4.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
A: D205 (LH) A: D305 (RH)	1	2	Main power window and door lock/unlock switch is turned to UNLOCK	0 → Battery voltage for 300 msec.
B: D508	2	4		



Is the inspection result normal?

YES >> Replace rear or back door lock actuator.

NO >> Repair or replace harness between actuator and splice.

INTELLIGENT KEY WARNING BUZZER

Description INFOID:0000000001563538

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?

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

>> Refer to DLK-73, "Diagnosis Procedure". NO

Diagnosis Procedure

 $1. {\sf CHECK\ INTELLIGENT\ KEY\ WARNING\ BUZZER\ (ENGINE\ ROOM)\ POWER\ SUPPLY\ CIRCUIT}$

- Turn ignition switch OFF.
- Disconnect Intelligent Key warning buzzer (engine room) connector. 2.
- Check voltage between Intelligent Key warning buzzer (engine room) harness connector E60 terminal 1 and ground.

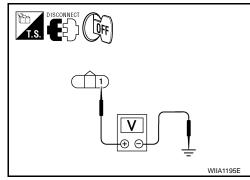
1 - Ground : Battery voltage

Is the inspection normal?

YES >> GO TO 2.

NO

>> Repair or replace Intelligent Key warning buzzer (engine room) power supply circuit.



2.check intelligent key warning buzzer (engine room) circuit

- Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key unit harness connector (A) M164 terminal 4 and Intelligent Key warning buzzer (engine room) harness connector E60 terminal 3.

4 - 3 : Continuity should exist.

3. Check continuity between Intelligent Key warning buzzer (engine room) harness connector E60 terminal 3 and ground.

3 - Ground : Continuity should not exist.

Is the inspection normal?

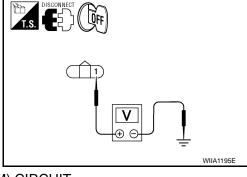
YES >> GO TO 3.

>> Repair or replace harness between Intelligent Key warning buzzer (engine room) and Intelligent NO Key unit.

3.check intelligent key warning buzzer (engine room) operation

Check DLK-74, "Component Inspection".

>> Inspection end.



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INTELLIGENT KEY WARNING BUZZER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Component Inspection

INFOID:0000000001563541

1. CHECK INTELLIGENT KEY WARNING BUZZER

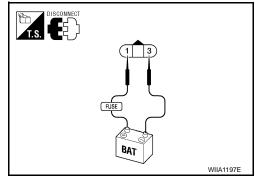
Connect battery power supply to Intelligent Key warning buzzer terminals 1 and 3, and check the operation.

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

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace Intelligent Key warning buzzer.



INTELLIGENT KEY WARNING CHIME (COMBINATION METER)

< COMPONENT DIAGNOSIS > [V	VITH INTELLIGENT KEY SYSTEM]
INTELLIGENT KEY WARNING CHIME (COMBINA	ATION METER)
Description	INFOID:000000001726763
Answers back and warns for an inappropriate operation.	E
Diagnosis Procedure	INFOID:000000001726764
1. CHECK INTELLIGENT KEY WARNING CHIME (COMBINATION ME	ETER) OPERATION
(a) With CONSULT-III Check Intelligent Key warning buzzer "INSIDE BUZZER" in Active Test Is the inspection result normal? YES >> Intelligent Key warning chime (combination meter) is OK.	mode.
NO >> Refer to MWI-3, "Work Flow".	E
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WARNING LAMP

KEY (GREEN)

KEY (GREEN): Description

INFOID:0000000001726767

Illuminates when the ignition knob is pushed with the presence of the Intelligent Key indicating normal operation.

KEY (GREEN): "KEY" Warning Lamp (GREEN) Check

INFOID:0000000001726773

1. CHECK WARNING LAMP OPERATION

(P) With CONSULT-II

- Check "INDICATOR" in "ACTIVE TEST" mode with CONSULT-III.
- Select "BLUE ON".
- "KEY" warning lamp (green) should illuminate.

⋈ Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Ensure Intelligent Key is in your possession inside the vehicle.
- 3. While monitoring the combination meter warning lamps, push the ignition knob switch.
- 4. The "KEY" warning lamp (green) should illuminate indicating that the Intelligent Key is nearby.

OK or NG

OK >> INSPECTION END

NG >> Check combination meter. Refer to MWI-3, "Work Flow".

KEY (RED)

KEY (RED): Description

INFOID:0000000001726774

Illuminates when the ignition knob is pushed without the presence of the Intelligent Key indicating inappropriate operation.

KEY (RED): "KEY" Warning Lamp (RED) Check

INFOID:0000000001726775

1. CHECK WARNING LAMP OPERATION

(P) With CONSULT-II

- Check "INDICATOR" in "ACTIVE TEST" mode with CONSULT-II.
- · Select "RED ON".

N Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Ensure Intelligent Key is outside and away from the vehicle.
- While monitoring the combination meter warning lamps, push the ignition knob switch.
- 4. The "KEY" warning lamp (red) should illuminate indicating that the Intelligent Key is not nearby.

OK or NG

OK >> INSPECTION END

NG >> Check combination meter. Refer to MWI-3, "Work Flow".

WARNING LAMP

WARNING LAMP: Description P-SHIFT

INFOID:0000000001726776

Illuminates when the ignition knob is turned from ON to OFF with the shift lever out-of-park indicating inappropriate operation.

[&]quot;KEY" warning lamp (red) should illuminate.

WARNING LAMP

[WITH INTELLIGENT KEY SYSTEM]

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< COMPONENT DIAGNOSIS > WARNING LAMP: "P-SHIFT" Warning Lamp Check INFOID:0000000001726777 Α 1. CHECK WARNING LAMP OPERATION (P) With CONSULT-II В Check "INDICATOR" in "ACTIVE TEST" mode with CONSULT-II. Select "KNOB ON". "P-SHIFT" warning lamp should illuminate. C Without CONSULT-II Turn ignition switch OFF. While monitoring the combination meter warning lamps, turn ignition switch ON. "P-SHIFT" warning lamp D should illuminate for 1 second to perform a bulb check. Е OK or NG OK >> INSPECTION END NG >> Check combination meter. Refer to MWI-3, "Work Flow". F Н J DLK M Ν

OUTSIDE KEY ANTENNA

Description INFOID:000000001563542

Detects whether the Intelligent Key is in the operating range of the outside antennas.

Front outside antennas are integrated in front outside door handles (driver side, passenger side) to allow locking and unlocking of door locks when the Intelligent Key is present.

Rear bumper antenna is mounted on the rear bumper and is used to allow locking and unlocking of door locks when the Intelligent Key is present.

Component Function Check

INFOID:0000000001563543

1. CHECK DOOR REQUEST SWITCH

Check that door request switches operate normally.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Inspect door request switches. Refer to <u>DLK-59</u>, "FRONT DOOR REQUEST SWITCH : <u>Component Function Check"</u>.

2. CHECK FRONT ANTENNAS 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 <u>DLK-78</u>, "<u>Diagnosis Procedure</u>".

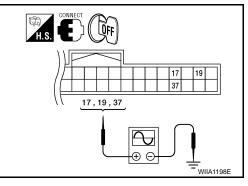
Diagnosis Procedure

INFOID:0000000001563544

1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check signal between Intelligent Key unit connector M164 terminals 17, 19, 37 and ground with an oscilloscope.

Connector	Item	Ter	minals	Condition	Signal
Connector	item	(+)	(-)	Condition	(Reference value)
	Rear bumper antenna	17			(V)
M164	Front out- side an- tenna LH	19	Ground	Request switch is pushed	10 5 0
	Front out- side an- tenna RH	37			10 μs SIIA1910J



Is the inspection result normal?

YES >> Outside key antenna is OK.

NO >> GO TO 2.

2.check outside key antenna circuit

- 1. Disconnect Intelligent Key unit connector and outside key antenna connector.
- Check continuity between each outside key antenna harness connector (B) D15 (driver side) or D115 (passenger side), rear bumper antenna connector (C) C127 terminals 1, 2 and Intelligent Key unit harness connector (A) M164 terminals 17, 18, 19, 20, 37, and 38.

OUTSIDE KEY ANTENNA

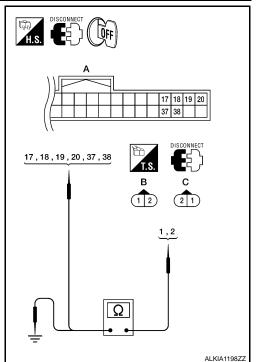
< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Item	Connector	Terminal	Connector	Terminal	Continuity
Rear bumper	C: C127	1		17	
antenna	0.0127	2		18	
Front outside	B: D15	2	A: M164	19	Yes
antenna LH	D. D10	1	71. WITO+	20	103
Front outside	B: D115	2		37	
antenna RH	D. D113	1	ļ	38	

3. Check continuity between each outside key antenna harness connector terminals 1, 2 and ground.

Item	Conr	nector	Terminal	Continuity	
Rear bumper antenna	C: C127	1			
iteai bumpei ameima	0.0127	2			
Front outside antenna	B: D15	1	Ground	No	
LH	D. D13	2	Oround	140	
Front outside antenna	B: D115	1			
RH	D. D113	2			



Is the inspection result normal?

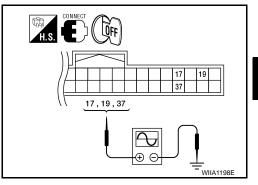
YES >> GO TO 3.

NO >> Repair or replace harness between outside key antenna and Intelligent Key unit.

3.CHECK OUTSIDE KEY ANTENNA POWER SUPPLY

- 1. Replace outside key antenna. (New antenna or other antenna)
- 2. Connect Intelligent Key unit connector and outside key antenna connector.
- 3. Check signal between Intelligent Key unit connector M164 terminals 17, 19, 37 and ground with an oscilloscope.

Connector	Item	Ter	minals	Condition		
	itom	(+)	(-)	Ooridition	(Reference value)	
	Rear bumper	17				
M164	Front outside antenna LH	19	Ground	Ground	Request switch is pushed	(V) 15 10 5
	Front outside antenna RH	37			pu	,



Is the inspection result normal?

YES >> Replace outside key antenna.

NO >> Replace Intelligent Key unit. Refer to <u>SEC-95</u>. "Removal and Installation".

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STEERING LOCK SOLENOID

Diagnosis Procedure

1. CHECK STEERING LOCK SOLENOID POWER SUPPLY

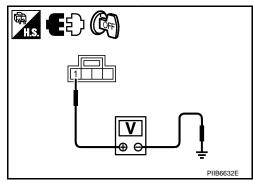
- 1. Turn ignition switch OFF.
- 2. Disconnect steering lock solenoid connector.
- 3. Check voltage between steering lock solenoid harness connector M65 terminal 1 and ground.

1 - Ground : Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace steering lock solenoid power supply circuit.



2. CHECK STEERING LOCK SOLENOID GROUND CIRCUIT

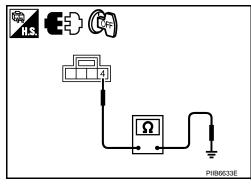
Check continuity between steering lock solenoid harness connector M65 terminal 4 and ground.

4 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the steering lock solenoid ground circuit.



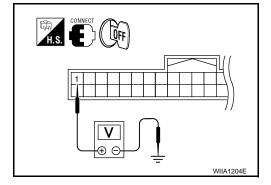
3. CHECK INTELLIGENT KEY UNIT OUTPUT SIGNAL

- 1. Connect steering lock solenoid connector.
- 2. Check voltage between Intelligent Key unit harness connector M164 terminal 1 and ground.

1 - Ground : Approx. 5V

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 6.



4. CHECK STEERING LOCK COMMUNICATION SIGNAL

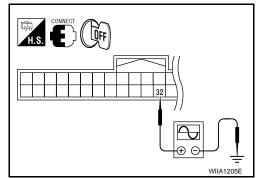
Check signal between Intelligent Key unit connector M164 terminal 32 and ground with oscilloscope.

STEERING LOCK SOLENOID

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Connector	Terminals		Condition	Signal (V)
Connector	(+)	(-)	Condition	(Reference value)
M164	32	Ground	Ignition switch is pushed	(V) 6 4 2 0 2 ms SIIA1911J



Is the inspection result normal?

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

5. CHECK STEERING LOCK SOLENOID COMMUNICATION CIRCUIT FOR OPEN

1. Disconnect Intelligent Key unit and steering lock solenoid connectors.

2. Check continuity between Intelligent Key unit harness connector (B) M164 terminals 1, 32 and steering lock solenoid connector (A) M65 terminals 2, 3.

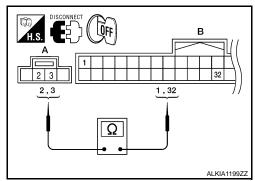
1 - 2 : Continuity should exist. 32 - 3 : Continuity should exist.

Is the inspection result normal?

YES >> Replace steering lock solenoid.

After replacing steering lock solenoid, perform registration procedure. Refer to <u>SEC-20</u>, "COMMON ITEM": CONSULT-III Function (BCM - COMMON ITEM)".

NO >> Repair or replace harness between steering lock solenoid and Intelligent Key unit.



6. CHECK STEERING LOCK SOLENOID COMMUNICATION CIRCUIT FOR SHORT

1. Disconnect Intelligent Key unit and steering lock solenoid connectors.

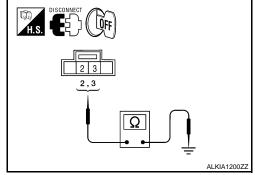
2. Check continuity between steering lock solenoid connector M65 terminals 2, 3 and ground.

2 - Ground : Continuity should not exist.3 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> Replace Intelligent Key unit. Refer to <u>SEC-95</u>, "Removal and Installation".

NO >> Repair or replace harness between steering lock solenoid and Intelligent Key unit.



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A/T DEVICE (DETENTION SWITCH KEY)

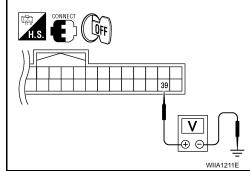
Diagnosis Procedure

INFOID:0000000001563546

1.CHECK A/T DEVICE (DETENTION SWITCH KEY) INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. While pressing the ignition knob switch, check voltage between Intelligent Key unit harness connector M164 terminal 39 and ground.

Connector	Term	ninals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M164	39	Ground	Selector lever is in "P" position	Battery voltage
W1104	39	Giodila	Other than above	0



Is the inspection result normal?

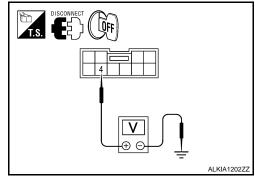
YES >> Replace Intelligent Key unit. Refer to <u>SEC-95, "Removal</u> and Installation".

NO >> GO TO 2.

2.CHECK A/T DEVICE (DETENTION SWITCH KEY) POWER SUPPLY CIRCUIT

- 1. Disconnect A/T device (detention switch key) connector.
- 2. While pressing the ignition knob switch, check voltage between A/T device (detention switch key) harness connector M156 terminal 4 and ground.

4 – Ground : Battery voltage.



Is the inspection result normal?

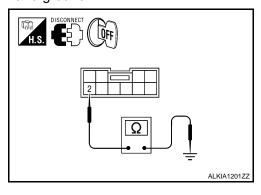
YES >> GO TO 3.

NO >> Repair or replace harness or ignition knob switch.

3.check a/t device (detention switch key) ground supply circuit

Check continuity between A/T device (detention switch key) terminal 2 and ground.

2 - Ground : Continuity should exist.



Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK A/T DEVICE (DETENTION SWITCH KEY)

Check continuity between A/T device (detention switch key) terminals 2 and 4.

A/T DEVICE (DETENTION SWITCH KEY)

< COMPONENT DIAGNOSIS >

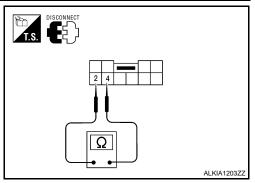
[WITH INTELLIGENT KEY SYSTEM]

Component	Term	ninals	Condition	Continuity
	10111	miaio	Corrainon	Continuity
A/T device			Selector lever is in "P" position	Yes
(detention switch key)	2	4	Other than above	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace A/T device (detention switch key).



5.CHECK A/T DEVICE (DETENTION SWITCH KEY) CIRCUIT

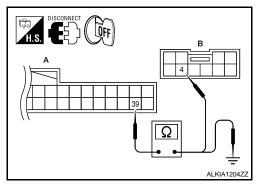
- 1. Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key unit harness connector

 (A) M164 terminal 39 and A/T device (detention switch key) harness connector
 (B) M156 terminal 4.

39 – 4 : Continuity should exist.

Check continuity between Intelligent Key unit harness connector
 (A) M164 terminal 39 and ground.

39 – Ground : Continuity should not exist.



Is the inspection result normal?

YES >> A/T device (detention switch key) circuit is OK.

NO >> Repair or replace harness.

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REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY RECEIVER

Description INFOID:000000001563547

Receives Intelligent Key operation and transmits to Intelligent Key unit.

Component Function Check

INFOID:0000000001563548

1. CHECK FUNCTION

(P)With CONSULT-III

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

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

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

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

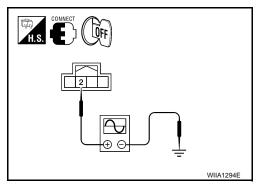
Diagnosis Procedure

INFOID:0000000001563549

1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

- Turn ignition switch OFF.
- 2. Check remote keyless entry receiver signal with an oscilloscope.

	Terminals			
(+	·)			
Remote keyless entry re- ceiver connector	Terminal	(-)	Keyfob condition	Signal (Reference value)
M67	2	Ground	No function	(V) 6 4 2 0 ••• 0.2s
NOT	2	Glound	Any button is pressed	(V) 6 4 2 0 • 0.2s



Is the inspection result normal?

YES >> GO TO 2.

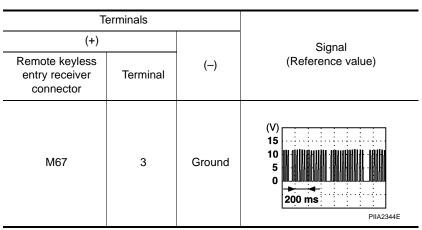
NO \Rightarrow GO TO 5. 2. REMOTE KEYLESS ENTRY RECEIVER VOLTAGE CIRCUIT INSPECTION

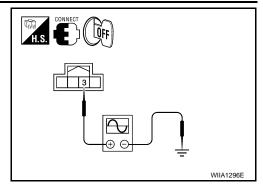
Check voltage between remote keyless entry receiver connector M67 terminal 3 and ground using an oscilloscope.

REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]





Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 5.

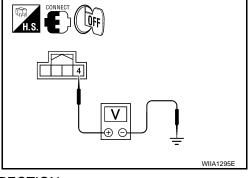
3. REMOTE KEYLESS ENTRY RECEIVER 5-VOLT CIRCUIT INSPECTION

Check voltage between remote keyless entry receiver connector M67 terminal 4 and ground.

4 - Ground : Approx. 5 volt.

Is the inspection result normal?

YES >> GO TO 4. NO >> GO TO 5.



4. REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT INSPECTION

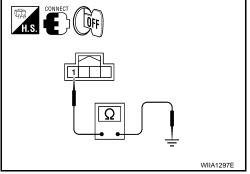
Check continuity between remote keyless entry receiver connector M67 terminal 1 and ground.

1 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>SEC-96</u>, "Removal" and <u>SEC-96</u>, "Installation".

NO >> GO TO 5.



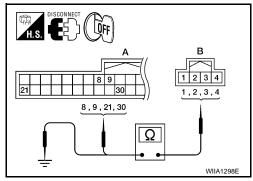
5. HARNESS INSPECTION BETWEEN INTELLIGENT KEY UNIT AND RKE RECEIVER

1. Disconnect remote keyless entry receiver and Intelligent Key unit connectors.

 Check continuity between Intelligent Key unit connector (A) M164 terminals 8, 9, 21, 30 and remote keyless entry receiver connector (B) M67 terminals 1, 2, 3, 4.

1 - 8 : Continuity should exist.
2 - 9 : Continuity should exist.
3 - 21 : Continuity should exist.
4 - 30 : Continuity should exist.

3. Check continuity between remote keyless entry receiver connector (B) M67 terminals 1, 2, 3, 4 and ground.



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REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

1 - Ground : Continuity should not exist.
2 - Ground : Continuity should not exist.
3 - Ground : Continuity should not exist.
4 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> Remote keyless entry receiver circuits are OK.

NO >> Repair or replace the harness between the remote keyless entry receiver and Intelligent Key unit.

INTELLIGENT KEY BATTERY AND FUNCTION

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY BATTERY AND FUNCTION

Description INFOID:0000000001563550

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

- Door lock/unlock
- Back door open

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

Component Function Check

INFOID:0000000001563551

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1. CHECK FUNCTION

(P)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 the Intelligent Key.

Is the inspection result normal?

YES >> Intelligent Key is OK.

>> Refer to DLK-87, "Diagnosis Procedure". NO

Diagnosis Procedure

INFOID:0000000001563552

${f 1}$.CHECK INTELLIGENT KEY BATTERY

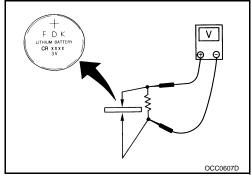
Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA.

: Approx. 2.5 - 3.0V Standard

Is the measurement value within specification?

YES >> GO TO 2.

NO >> Replace Intelligent Key battery.



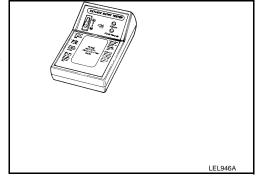
2.CHECK KEYFOB FUNCTION

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

1. REPLACE INTELLIGENT KEY BATTERY

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

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INTELLIGENT KEY BATTERY AND FUNCTION

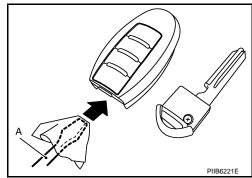
< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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.
- 4. Align the tips of the upper and lower parts, and then push them together until it is securely closed.

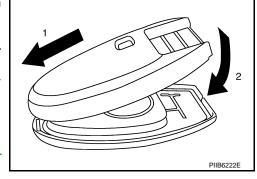
CAUTION:

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- 5. After replacing the battery, check that all Intelligent Key functions work properly.

Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Check remote keyless entry receiver. Refer to <u>DLK-84.</u> "Component Function Check".



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Special Repair Requirement

Refer to CONSULT-III Operation Manual.

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INFOID:0000000001563557

HORN FUNCTION

Description

Perform answer-back for each operation with horn.

Component Function Check

1. CHECK FUNCTION

- 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-89</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK HORN FUNCTION

Check horn function with horn switch

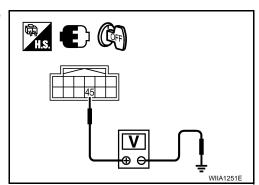
Do the horns sound?

YES >> GO TO 2.

NO >> Go to HRN-3, "Wiring Diagram".

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 IPDM E/R connector E122 terminal 45 and ground.



IPDM E/R		Ground	Test item		Voltage (V)	
Connector	Terminal	Ground	rest item		(Approx.)	
E122	E122 45 Ground HO			$OFF \to ON \to OFF$	Battery voltage \rightarrow 0 \rightarrow Battery voltage	
E122	45	Giodila	HOKN	Other than above	Battery voltage	

Is the inspection result normal?

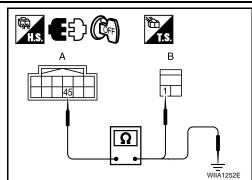
YES >> GO TO 4.

NO >> GO TO 3.

3.check horn relay circuit

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

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



IPD	M E/R	Horn	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: E122	45	B: H-1	1	Yes

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

IPD	M E/R	Ground	Continuity	
Connector Terminal		Ground	Continuity	
E122	45	Ground	No	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-51, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-30, "Removal and Installation of IPDM E/R".

NO >> Repair or replace the malfunctioning part.

COMBINATION METER DISPLAY FUNCTION

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< COMPONENT DIAGNOSIS > [WITH INTELL	IGENT KET STSTEM]
COMBINATION METER DISPLAY FUNCTION	Α
Description	INFOID:000000001563558
Displays each operation method guide and warning for system malfunction.	В
Component Function Check	INFOID:000000001563559
1. CHECK FUNCTION	C
 Turn ignition switch ON. Using Consult-III, activate "P-SHIFT" and "KEY" warning lamp indicators in "ACT Do the warning lamps illuminate? 	VE TEST" mode.
YES >> Combination meter warning lamp indicators are OK. NO >> Refer to <u>DLK-91</u> , " <u>Diagnosis Procedure</u> ".	
Diagnosis Procedure	INFOID:000000001563560
1. CHECK COMBINATION METER	F
Refer to DLK-128, "DTC Index". Is the inspection result normal? YES >> GO TO 2.	G
NO >> Check combination meter. Refer to DLK-91 , "Diagnosis Procedure". 2.CHECK INTERMITTENT INCIDENT	
Refer to GI-51, "Intermittent Incident".	
>> INSPECTION END.	I
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WARNING CHIME FUNCTION

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

WARNING CHIME FUNCTION

Description INFOID:000000001563561

Performs operation method guide and warning with buzzer.

Component Function Check

INFOID:0000000001563562

1. CHECK FUNCTION

(E) With CONSULT-III

- 1. Check the operation with "INSIDE BUZZER" in the Active Test.
- 2. Touch "TAKE OUT", "KNOB" or "KEY" on screen.

Is the inspection result normal?

Yes >> Warning buzzer into combination meter is OK.

No >> Refer to <u>DLK-92</u>. "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001563563

1. CHECK METER BUZZER CIRCUIT

The inoperative warning chime is contained inside the combination meter. Replace combination meter.

>> Inspection end.

HAZARD FUNCTION	
< COMPONENT DIAGNOSIS > [WITH INTELLIGENT KEY SYSTEM COMPONENT DIAGNOSIS COMPONENT D	M]
HAZARD FUNCTION	А
Description	63564
Perform answer-back for each operation with number of blinks.	В
Component Function Check	63565
1.check function	С
Check hazard warning lamp "FLASHER" in ACTIVE TEST mode. Is the inspection result normal? YES >> Hazard warning lamp circuit is OK.	D
NO >> Refer to <u>DLK-93, "Diagnosis Procedure"</u> . Diagnosis Procedure	563566 E
1.check hazard switch circuit	
Operate the hazard lights by turning ON the hazard warning switch. <u>Do the lights operate normally?</u>	F
YES >> Replace the BCM. Refer to BCS for replacement and configuration procedure. NO >> Repair or replace hazard warning switch circuit. Refer to <u>EXL-66</u> , "Wiring Diagram".	G
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KEY SWITCH (INTELLIGENT KEY UNIT INPUT)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

KEY SWITCH (INTELLIGENT KEY UNIT INPUT)

Diagnosis Procedure

INFOID:0000000001563567

1. CHECK KEY SWITCH

(P)With CONSULT-III

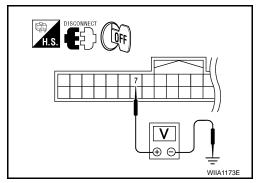
Check key switch ("KEY SW") in "DATA MONITOR" mode with CONSULT-III.

Monitor item	Condition	
KFY SW	Insert mechanical key into ignition switch: ON	
KLT OW	Remove mechanical key from ignition switch: OFF	

Without CONSULT-III

- 1. Turn ignition switch OFF.
- 2. Disconnect Intelligent Key unit harness connector.
- 3. Check voltage between Intelligent Key unit harness connector M164 terminal 7 and ground.

Connector	Term	ninals	Condition	Voltage (V) (Approx.)
	(+)	(-)	Condition	
M164	7 Croun	Ground	Insert mechanical key into ignition switch	Battery voltage
	1	Ground	Remove mechanical key from ignition switch	(Approx.)



Is the inspection result normal?

YES >> Key switch is OK.

NO >> GÓ TO 2.

2.CHECK KEY SWITCH POWER SUPPLY CIRCUIT

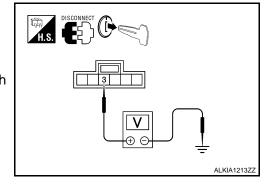
- 1. Remove mechanical key from ignition switch.
- 2. Disconnect key switch and ignition knob switch connector.
- Check voltage between key switch and ignition knob switch harness connector M66 terminal 3 and ground.

3 - Ground : Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key switch and ignition knob switch power supply circuit.



3. CHECK KEY SWITCH OPERATION

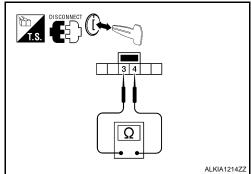
KEY SWITCH (INTELLIGENT KEY UNIT INPUT)

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check continuity between key switch and ignition knob switch terminals 3 and 4.

Component	Terminals		Condition	Continuity
	2	4	Insert mechanical key into ignition switch.	
Key switch	3	4	Remove mechanical key from ignition switch.	No



Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace key cylinder assembly (built-in key switch).

4. CHECK KEY SWITCH CIRCUIT

1. Check continuity between Intelligent Key unit harness connector (A) M164 terminal 7 and key switch and ignition knob switch harness connector (B) M66 terminal 4.

7 - 4 : Continuity should exist.

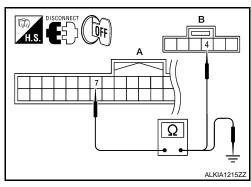
2. Check continuity between Intelligent Key unit harness connector (A) M164 terminal 7 and ground.

7 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> Check the condition of harness and harness connector.

NO >> Repair or replace harness between Intelligent Key unit and key switch and ignition knob switch.



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KEY SWITCH (BCM INPUT)

Diagnosis Procedure

1. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

- Remove mechanical key from ignition switch.
- Disconnect key switch and ignition knob switch connector.
- 3. Check voltage between key switch and ignition knob switch harness connector M66 terminal 3 and ground.

3 - Ground : Battery voltage.

Is the

OK

>> GO TO 2.

NG

>> Check harness between key switch and ignition knob switch and fuse.

2. CHECK KEY SWITCH

Check continuity between key switch and ignition knob switch terminals 3 and 4.

Component	Terminals		Condition	Continuity
Ignition switch	2	4	Insert mechanical key into ignition switch. Yes	
	3	4	Insert mechanical key	

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OK or NG

OK >> GO TO 3.

NG >> Replace key cylinder assembly (built-in key switch).

3.CHECK KEY SWITCH SIGNAL CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector M18 terminal 37 and key switch and ignition knob switch harness connector M66 terminal 4

37 - 4: Continuity should exist.

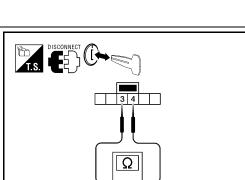
3. Check continuity between BCM harness connector M18 terminal 37 and ground.

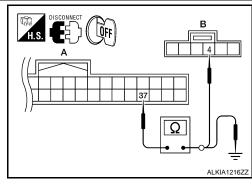
37 – Ground : Continuity should not exist.

OK or NG

OK >> Key switch (BCM input) circuit is OK.

NG >> Repair or replace harness between key switch and ignition knob switch and BCM.





IGNITION KNOB SWITCH

Ignition Knob Switch Check

1. CHECK IGNITION KNOB SWITCH

(II) With CONSULT-III

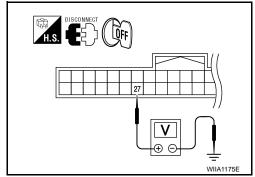
Display "PUSH SW" on DATA MONITOR screen, and check if ON/OFF display is linked to ignition switch operation.

Monitor item	Condition
PUSH SW	Ignition switch is pushed: ON
	Ignition switch is released: OFF

Without CONSULT-III

- Turn ignition switch OFF.
- Disconnect Intelligent Key unit connector.
- 3. Check voltage between Intelligent Key unit harness connector M164 terminal 27 and ground.

Connector	Tern	ninals	Condition Voltage (V)	
	(+)	(-)	Condition	(Approx.)
M164	27	Ground	Ignition switch is pushed Battery voltage	Battery voltage
	21	Ground	Ignition switch is re- leased	(Approx.)



Is the inspection result normal?

YES >> Ignition knob switch is OK.

NO >> GO TO 2.

2.CHECK IGNITION KNOB SWITCH POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect key switch and ignition knob switch connector. 2.
- Check voltage between key switch and ignition knob switch harness connector M66 terminal 1 and ground.

1 - Ground

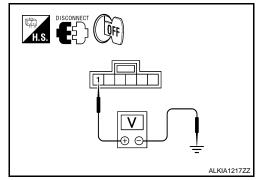
: Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO

>> Repair or replace key switch and ignition knob switch power supply circuit.



3.check ignition knob switch operation

Check continuity between key switch and ignition knob switch terminals 1 and 2.

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IGNITION KNOB SWITCH

< COMPONENT DIAGNOSIS >

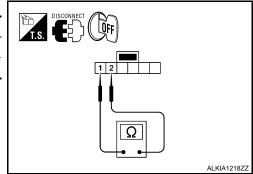
[WITH INTELLIGENT KEY SYSTEM]

Component	Terminals		Condition	Continuity
Ignition knob switch	1	2	Ignition switch is pushed	
	'	2	Ignition switch is released	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace key switch and ignition knob switch.



4. CHECK IGNITION KNOB SWITCH CIRCUIT

1. Check continuity between Intelligent Key unit harness connector (A) M164 terminal 27 and key switch and ignition knob switch harness connector (B) M66 terminal 2.

27 - 2 : Continuity should exist.

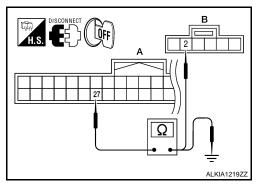
2. Check continuity between Intelligent Key unit harness connector M164 terminal 27 and ground.

27 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> Check the condition of harness and harness connector.

NO >> Repair or replace harness between Intelligent Key unit and key switch and ignition knob switch.



HEADLAMP FUNCTION

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	LLIGENT KEY SYSTEM]
HEADLAMP FUNCTION	
Diagnosis Procedure	INFOID:000000001563570
.CHECK HEADLAMP OPERATION	
Do headlamps operate with headlamp switch? <u>YES or NO</u>	
YES >> Headlamp circuit is OK. NO >> Check headlamp circuit. Refer to EXL-4, "Work Flow".	

MAP LAMP AND IGNITION KEYHOLE ILLUMINATION FUNCTION [WITH INTELLIGENT KEY SYSTEM]

< COMPONENT DIAGNOSIS >

MAP LAMP AND IGNITION KEYHOLE ILLUMINATION FUNCTION

Diagnosis Procedure

INFOID:0000000001563571

1. CHECK MAP LAMP OPERATION

When room lamp switch is in "DOOR" position, open the driver or passenger door. Map lamp and ignition keyhole illumination should illuminate.

Is the inspection result normal?

YES >> Map lamp circuit is OK.

NO >> Check map lamp circuit. Refer to INL-3, "Work Flow".

KEYFOB ID SET UP WITH CONSULT-III

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

KEYFOB ID SET UP WITH CONSULT-III

ID Code Entry Procedure

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KEYFOB ID SET UP WITH CONSULT-III

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If
 five ID codes are stored in memory when an additional code is registered, only the oldest code is
 erased. If less than five codes are stored in memory when an additional code is registered, the new
 ID code is added and no ID codes are erased.
- Entry of a maximum of five ID codes is allowed. When more than five codes are entered, the oldest ID code will be erased.
- Even if the same ID code that is already in memory is input, the same ID code can be entered. The
 code is counted as an additional code.
- 1. Turn ignition switch ON.
- 2. Select "BCM".
- Select "MULTI REMOTE ENT".
- Select "WORK SUPPORT".
- 5. You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT-III instructions:
 - "REMO CONT ID REGIST"

Use this mode to register a keyfob ID code.

NOTE:

Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.

- "REMO CONT ID ERASUR"
 - Use this mode to erase a keyfob ID code.
- "REMO CONT ID CONFIR"

Use this mode to confirm if a keyfob ID code is registered or not.

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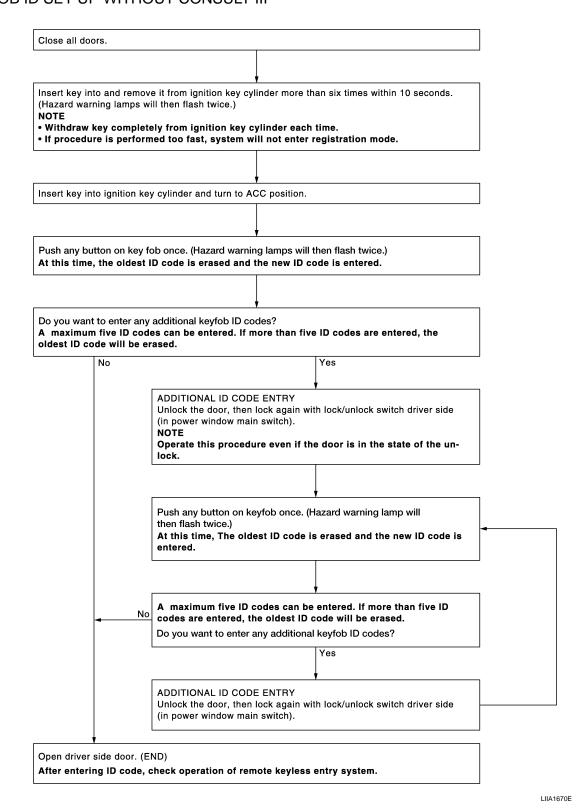
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KEYFOB ID SET UP WITHOUT CONSULT-III

ID Code Entry Procedure

KEYFOB ID SET UP WITHOUT CONSULT-III



NOTE:

• If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all control-

KEYFOB ID SET UP WITHOUT CONSULT-III

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

ler ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new key-fobs must be re-registered.

To erase all ID codes in memory, register one ID code (keyfob) five times. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.

- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- If you need to activate more than two additional new keyfobs, repeat the procedure "Additional ID code entry" for each new keyfob.
- Entry of maximum five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

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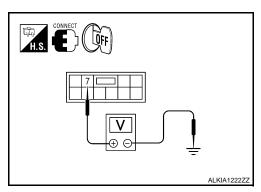
BACK DOOR HALF SWITCH

Diagnosis Procedure

1.BACK DOOR HALF SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- While opening and closing the back door, check voltage between back door control unit connector D509 terminal 7 and ground.

Terminals		Back door position	Voltage (V)
(+)	(-)	Back door position	(Approx.)
7	Ground	Half-latch	0
	Glound	Open/close	Battery voltage



s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR HALF SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 7 and back door cinching latch unit connector (B) D502 terminal 6.

7 - 6 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 7 and ground.

7 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3}$.BACK DOOR HALF SWITCH GROUND INSPECTION

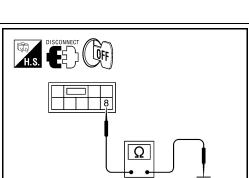
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



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4.BACK DOOR HALF SWITCH SIGNAL INSPECTION

BACK DOOR HALF SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

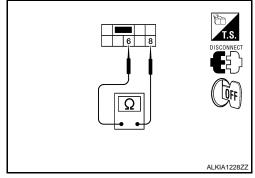
Check continuity between back door cinching latch unit terminals 6 and 8.

Terminals		Back door position	Continuity
6	ρ	Half-latch Yes	Yes
	0	Open/close	No

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



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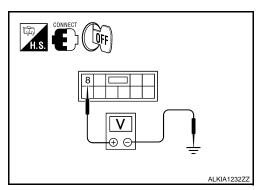
BACK DOOR CLOSE SWITCH SYSTEM

Diagnosis Procedure

1.BACK DOOR CLOSE SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- While opening and closing the back door, check voltage between back door control unit connector D509 terminal 8 and ground.

Terminals		Back door position	Voltage (V)
(+)	(-)	Back door position	(Approx.)
8	Ground	Open/half-latch	Battery voltage
	Glound	Closed 0	0



s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR CLOSE SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 8 and back door cinching latch unit connector (B) D502 terminal 5.

8 - 5 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 8 and ground.

8 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.BACK DOOR CLOSE SWITCH GROUND INSPECTION

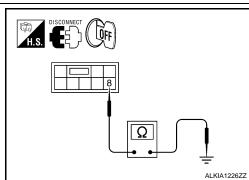
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



4.BACK DOOR CLOSE SWITCH SIGNAL INSPECTION

BACK DOOR CLOSE SWITCH SYSTEM

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

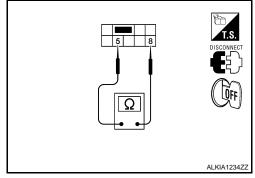
Check continuity between back door cinching latch unit terminals 5 and 8.

Terminals		Back door position	Continuity
5	Q	Half-latch/open	No
	0	Closed	Yes

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



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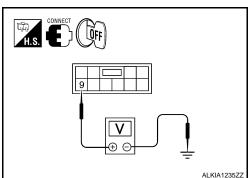
BACK DOOR NEUTRAL SWITCH

Diagnosis Procedure

1.BACK DOOR NEUTRAL SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- While opening and closing the back door, check voltage between back door control unit connector D509 terminal 9 and ground.

Terminals		Back door position	Voltage (V)
(+)	(-)	Back door position	(Approx.)
9	Ground	Half-latch/closed	Battery voltage
	Glound	Open 0	0



s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR NEUTRAL SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 9 and back door cinching latch unit connector (B) D502 terminal 4.

9 - 4 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 9 and ground.

9 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3}$.BACK DOOR NEUTRAL SWITCH GROUND INSPECTION

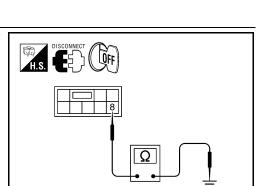
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

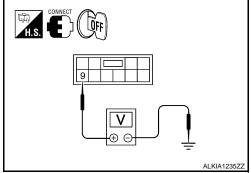
s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



4.BACK DOOR NEUTRAL SWITCH SIGNAL INSPECTION



BACK DOOR NEUTRAL SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

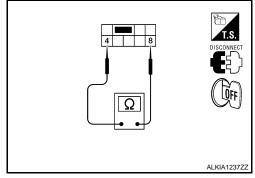
Check continuity between back door cinching latch unit terminals 4 and 8.

Tern	ninals	Back door position	Continuity
4	8	Half-latch/closed	No
7	0	Open	Yes

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



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BACK DOOR RELEASE SWITCH

Diagnosis Procedure

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1. CHECK BACK DOOR RELEASE SWITCH

(P) With CONSULT-II

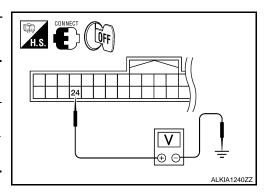
Check back door release switch ("BD/TR REQ SW") in "DATA MONITOR" mode.

Monitor item	Condition
BD/TR REQ SW	Back door release switch is pressed: ON
DD/ TK NEQ 3W	Back door release switch is released: OFF

⋈ Without CONSULT-II

- 1. Turn ignition switch OFF.
- 2. Check voltage between Intelligent Key Unit connector M164 terminal 24 and ground.

Connector	Term	inals	Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
M164	24	Ground	Back door release switch is pressed	0	
101104	24		Back door release switch is released	5	



OK or NG

OK >> GO TO 6. NG >> GO TO 2.

2.CHECK BACK DOOR RELEASE SWITCH OPERATION

- 1. Turn ignition switch OFF.
- 2. Disconnect back door release switch connector.
- Check continuity between back door release switch terminals 1 and 2.

Component	Tern	ninals	Condition	Continuity
back door			Back door release switch is pressed	Yes
release switch	1	2	Back door release switch is released	No

DISCONNECT OFF

OK or NG

OK >> GO TO 3.

NG >> Replace back door release switch.

3.check back door release switch ground circuit

Check continuity between back door release switch harness connector D510 terminal 2 and ground.

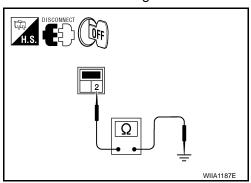
2 - Ground

: Continuity should exist.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace back door release switch ground circuit.



BACK DOOR RELEASE SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

4. CHECK BACK DOOR RELEASE SWITCH CIRCUIT

- 1. Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key Unit harness connector M164 terminals 24 and back door release switch harness connector D510 terminal 1.

24 - 1 : Continuity should exist.

Check continuity between Intelligent Key Unit harness connector M164 terminal 24 and ground.

24 - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between Intelligent Key Unit and back door release switch.

5. CHECK BACK DOOR RELEASE SWITCH SIGNAL

- 1. Connect Intelligent Key Unit connector.
- 2. Check voltage between back door release switch harness connector D510 terminal 1 and ground.

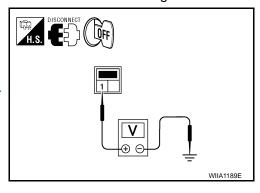
1 - Ground : Approx. 5v

OK or NG

NG

OK >> Check condition of harness and connector.

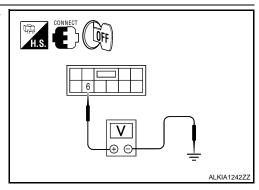
>> Replace Intelligent Key Unit. Refer to <u>SEC-95.</u> "Removal and Installation".



6. CHECK INTELLIGENT KEY UNIT OUTPUT

Check voltage between back door control unit connector D509 terminal 6 and ground.

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(–)	Condition	(Approx.)
D509	6	Ground	Back door release switch is pressed	0
	O	Ground	Back door release switch is released	Battery voltage



OK or NG

OK >> back door release switch is OK.

NG >> GO TO 7.

7. CHECK BACK DOOR CONTROL UNIT

Disconnect Intelligent Key unit and back door control unit connectors.

2. Check continuity between Intelligent Key Unit harness connector M164 terminal 23 and back door control unit connector D509 terminal 6.

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BACK DOOR RELEASE SWITCH

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

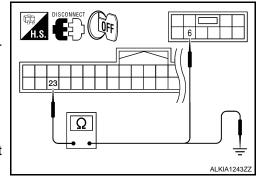
23 - 6 : Continuity should exist.

- 3. Check continuity between Intelligent Key Unit harness connector M164 terminal 23 and ground.
 - 23 Ground : Continuity should not exist.

OK or NG

OK >> Replace back door control unit.

NG >> Repair or replace harness between Intelligent Key Unit and back door control unit.



BACK DOOR CINCHING LATCH UNIT MOTOR

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BACK DOOR CINCHING LATCH UNIT MOTOR

Diagnosis Procedure

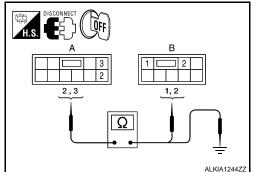
1. CINCH LATCH MOTOR CIRCUIT INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect back door control unit and back door cinching latch unit connectors.
- 3. Check continuity between back door control unit connector (A) D509 terminals 2, 3 and back door cinching latch unit connector D502 (B) terminals 1, 2.

2 - 1 : Continuity should exist.3 - 2 : Continuity should exist.

 Check continuity between back door control unit connector (A) D509 terminals 2, 3 and ground.

2 - Ground : Continuity should not exist.3 - Ground : Continuity should not exist.



Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harness between the back door control unit and the back door cinching latch unit.

2. CINCH LATCH MOTOR OPERATION INSPECTION

Connect battery power to terminals 1 and 2 on the back door cinching latch unit and check motor operation.

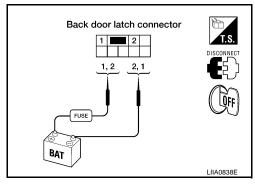
1 (+) - 2 (-) : It operates.

1 (-) - 2 (+) : It operates. (Reverse rotation)

Is the inspection result normal?

YES >> Motor is OK.

NO >> Replace the back door cinching latch unit.



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HOMELINK UNIVERSAL TRANSCEIVER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HOMELINK UNIVERSAL TRANSCEIVER

Description INFOID.000000001563590

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.

Component Function Check

INFOID:0000000001563591

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Receiver or hand-held transmitter is malfunctioning.

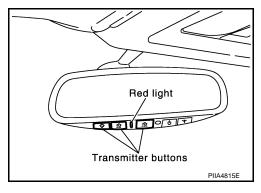
2. CHECK ILLUMINATION

- 1. Turn ignition switch "OFF".
- 2. Press each of the transmitter buttons and watch for the red light to illuminate with each button.

Is the inspection result normal?

YES >> GO TO 3.

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



3. CHECK TRANSMITTER

Check transmitter with Tool*.

*: For details, refer to Technical Service Bulletin.

Is the inspection result normal?

YES >> Receiver or hand-held transmitter malfunction, not vehicle related.

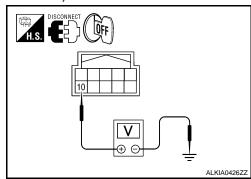
NO >> Replace auto anti-dazzling inside mirror (homelink universal transceiver).

Diagnosis Procedure

INFOID:0000000001563592

1. CHECK POWER SUPPLY

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



HOMELINK UNIVERSAL TRANSCEIVER

< COMPONENT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Termi	nal	Condition	Voltage (V) (Approx.)
R7	10	Ground	Ignition switch position: LOCK	Battery voltage

Is the inspection result normal?

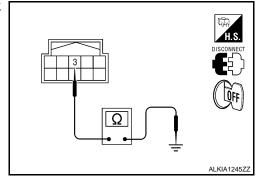
YES >> GO TO 2.

NO >> Check the following.

- 10A fuse [No. 19 located in the fuse block (J/B)]
- Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

2. CHECK GROUND CIRCUIT

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



Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R7	3		Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-51, "Intermittent Incident".

>> INSPECTION END.

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

ECU DIAGNOSIS

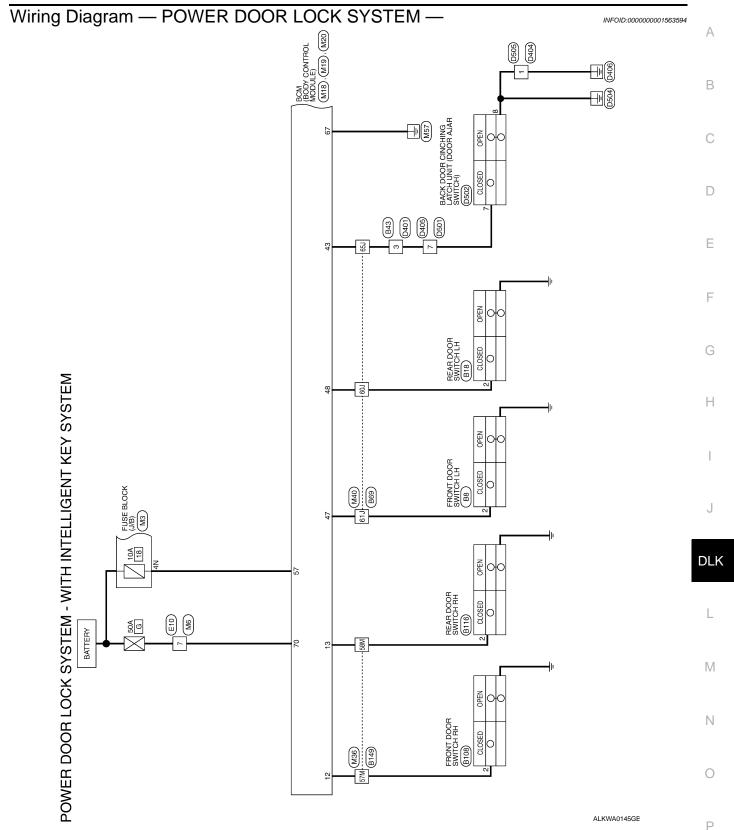
BCM (BODY CONTROL MODULE)

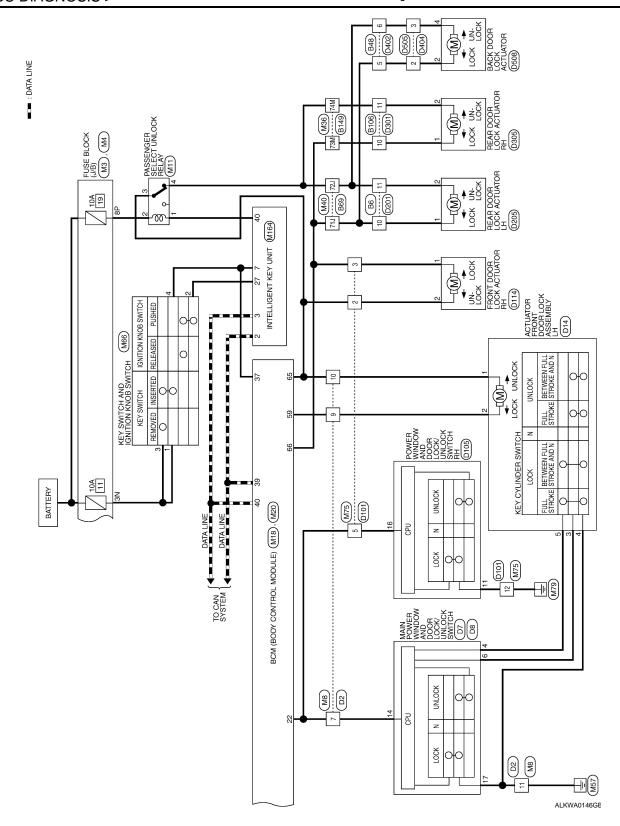
Reference Value

VALUES ON THE DIAGNOSIS TOOL Refer to <u>BCS-38</u>, "Reference Value".

TERMINAL LAYOUT

Refer to BCS-41, "Terminal Layout".





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DOOR SW (RR) DOOR SW (AS) Signal Name

Terminal No. Wire

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POWER DOOR LOCK SYSTEM - WITH INTELLIGENT KEY SYSTEM CONNECTORS

tor Name	Connector No. M3	Connector No. M4	M4		Connector No. M6	M6	
	Connector Name FUSE BLOCK (J/B)	Connector Nar	Connector Name FUSE BLOCK (J/B)	J/B)	Connector Name	Connector Name WIRE TO WIRE	
Connector Color WHITE	WHITE	Connector Color WHITE	or WHITE		Connector Color WHITE	WHITE	
	3N	赋利 H.S.	7P 6P 5P 4P 3P 2P 1P 8P 1SP 1SP 1P 8P	3P [2P 1P 10P 10P	H.S.	8 7 8 5 1 1 2 2 9 1 2 9 1 2 9 1 9 1 9 1 9 1 9 1	
Terminal No. Wire	lor of Signal Name	Terminal No. Wire		Signal Name	Terminal No. Wire	lor of Signal Name	lame
^		00	2		^		
3N F	R/B –	Lo	\ \ \ \		2	- M	
4N F	R/Y -						

ector Name PA	Connector No. MILI	COLLIGERO INO.	M18
)	Connector Name PASSENGER SELECT UNLOCK RELAY	Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	ACK	Connector Color WHITE	WHITE
H.S.	© © 4 1	研 H.S.	
Terminal No. Wire	Signal Name	1 2 3 4 5 6 7 21 22 23 24 25 26 2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 15 17 12 13 14 15 16 17 12 12 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37
-			

Connector No.	- W8	
Connector Name		WIRE TO WIRE
Connector Color WHITE	lor WH	ITE
H.S.	1 2 3 B 8 9 10 11	4 5 6 7 11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
8	LG	1
6	GR	1
10	۸	_
11	В	1

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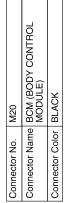
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Signal Name	BAT (FUSE)	DOOR UNLOCK OUTPUT (DR)	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)
Color of Wire	В/Y	GR	^	٦	В
Terminal No.	57	59	92	99	29

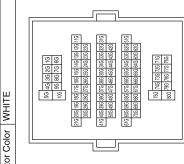
Signal Name	1
Color of Wire	У
Terminal No.	526











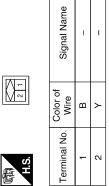




	ODY CONTROL		
M19	BCM (B(WHITE	
Connector No.	Connector Name BCM (BODY CONTROL MODULE)	Connector Color WHITE	

	Signal Name	BACK DOOR SW	(PO) WS (DR)	DOOR SW (RL)
50 51	Color of Wire	SB	GR	Д
明.S.	Terminal No.	43	47	48

M27	KEY SWITCH	WHITE	
Connector No.	Connector Name KEY SWITCH	Connector Color WHITE	



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		Mee	
Connector No.		MDD	
Connector Na	ame	KEY S KNOB	Connector Name KEY SWITCH AND IGNITION KNOB SWITCH
Connector Color		GRAY	
原 H.S.	اتا	2 3	9 0 0
Terminal No.	<u></u>	Color of Wire	Signal Name
1		Ж	1
2		G	-
3	4	R/B	1
4	0,	SB	1

Signal Name	I	1	I	-
Color of Wire	LG	٦	SB	۸
Terminal No.	57M	28M	73M	74M

Signal Name	ı	-	I	ı	ı	
Color of Wire	Д	GR	SB	٦	^	
Terminal No.	609	61J	65J	71)	72.1	

	IRE		9M 8M 7M 6M	5M 14M 13M 12M 11M 5M 24M 23M 22M	5M 34M 33M 32M 31M 5M 44M 43M 42M	5M 54M 53M 52M 51M 5M 64M 63M 62M	7240 7250 7250 7750 7340 7350 7350 7350
M36	WIRE TO WIRE	WHITE	5M 4M 3M 2M 10M 9M 8M 7M	21M 20M 19M 18M 17M 16M 15M 14M 13M 12M 11M 13M 30M 29M 28M 27M 26M 25M 24M 29M 22M	41M 40M 39M 38M 37M 36M 35M 34M 33M 32M 31M 51M 50M 49M 48M 47M 46M 45M 44M 43M 42M	61M 60M 59M 58M 57M 56M 55M 54M 53M 52M 51M 70M 69M 68M 67M 66M 65M 64M 63M 62M	75M 74M 73M 72M 71M 76M 76M 76M 76M 76M
Connector No.	Connector Name	Connector Color	H.S.	2114	411	[61M]	

M40	WIKE 10 WIKE	5.4 4.4 33.1 2.1 1.4 (3.1 2.2) 1.1 1.4 (3.1 2.2)
	Connector Name W	H.S. (201 201

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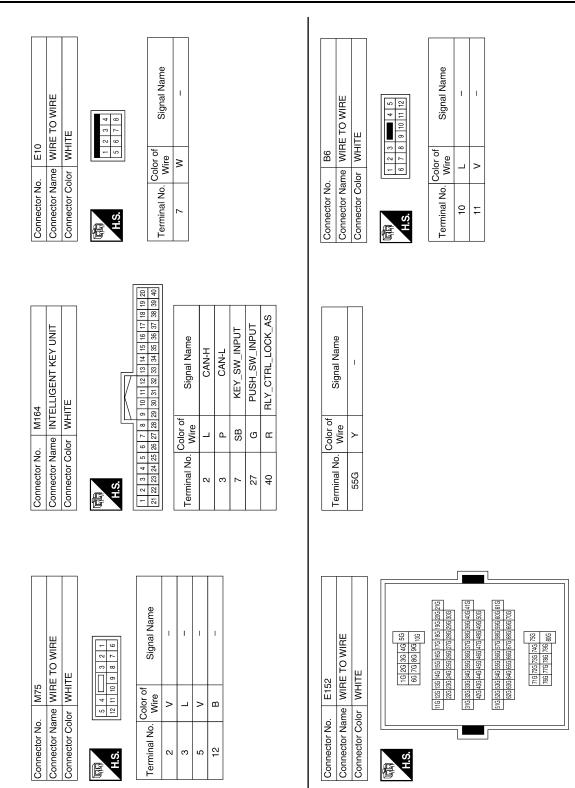
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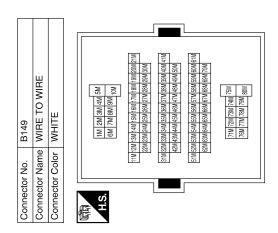


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	WIRE		Signal Name	1		Signal Name	1	ı	ı	1	1					В
B43	WIRE TO WIRE WHITE	1 2 9 7 8 8 4 8	Color of Wire	SB		Color of Wire	<u>a</u>	GR	SB		>					С
Connector No.	Connector Name Connector Color		Terminal No.			Terminal No. V	09	61) (71J	727					D
Conne	Conne	是 H.S.	Termir	က		Termir	9	9	99	7	7.					Е
							T	7					J .	[F
	REAR DOOR SWITCH LH WHITE		Signal Name	1		RE			ſ	23	00	18J 19J 20J 21J 28J 29J 30J	38J 39J 40J 41J	48J 49J 50J	828 (839 (801) (61.1)	G
B18	REAR DOOI	(%) - (%) (%)				B69 WIRE TO WIRE	WHITE			1, 2, 3, 4, 5,	60 72 82 921	11.0 12.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0 22.0 23.0	J 34J 35J 36J 37J	42.) 43.) 44.) 45.) 46.) 47.) 48.) 49.) 50.)	15.1 25.2 5.31 5.41 5.51	Н
	-		Color of Wire				_	_				11.1 12.1 13.1 13.1 22.1 23.	310 320 33	420 43	101 201 201 201 201 201 201 201 201 201	I
Connector No.	Connector Name Connector Color	赋 H.S.	Terminal No.	2		Connector No.	Connector Color		E	H.S.						J
		1						7							1	DLK
	Connector Name FRONT DOOR SWITCH LH Connector Color WHITE		Signal Name			WIRE						Signal Name	1	ı		L
B8	FRONT DO					B48 WIRE TO	WHITE			4 5 6		Color of Wire		₀		M
	Connector Name FRONT Connector Color WHITE		Color of Wire			<u>_</u>	Connector Color					_	>			N
Connector No.	Connect	刷 H.S.	Terminal No.	α		Connector No.	Connect		E	H.S.		Terminal No.	5	9		0
					1										ALKIA0986GB	Р

Connector No. B106	B106		Connecto	Connector No. B108	3108	<u>ප</u>	Connector No. B116	B116	
Connector Name WIRE TO WIRE	ne WIRE	E TO WIRE	Connecto	or Name	Connector Name FRONT DOOR SWITCH RH	ပိ	nnector Nam	e REAR D	Connector Name REAR DOOR SWITCH RH
Connector Color WHITE	or WHIT	Œ	Connecto	Connector Color WHITE	WHITE	ပိ	Connector Color WHITE	r WHITE	
H.S.	1 2 3 8 9	10 11 12	原 H.S.				H.S.	Q-00	
Torminal No.	Color of	Signal Name]]				
	Wire	O'GLAI IVALIA		Color			Č	or of	
10	SB	ı	Terminal	Terminal No. Wire	Signal Name	Te	Terminal No. Wire	Wire	Signal Name
7	>	1	2	LG	ı		2		1

Connector No.). D2	
Connector Name		WIRE TO WIRE
Connector Color WHITE	olor W	= <u>+</u> E
明.S.	7 6 5 14 16 15 14	4
Terminal No.	Color of Wire	Signal Name
7	^	ı
6	g	ı
10	۸	1
11	В	1

Signal Name	-	I	ı	-
Color of Wire	FG	٦	SB	۸
Terminal No.	27M	58M	73M	74M



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BCM (BODY CONTROL MODULE)

[WITH INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS >

Connector No. D14	Connector Name FRONT DOOR LOCK ASSEMBLY LH	Connector Color WHITE		H.S.	Terminal No. Wire Signal Name	- V	2 G –	3 SB	4 B –	
	Connector Name MAIN POWER WINDOW AMD DOOR LOCK/UNLOCK				Signal Name	GND				

Connector No. D114 Connector Name FRONT DOOR LOCK Connector Color WHITE MHITE (21) Terminal No. Color of Wire 1 G/N 2 V		ı		ı				
Connector No. D114 Connector Name FRON Connector Color WHIT H.S. Terminal No. Wire 1 G/Y 2 V		NT DOOR LOCK JATOR RH	3	Ī	<u></u>	Signal Name	-	-
Connector Nam Connector Color Connector Color H.S. 1	D114	e FRON ACTU	WHIT			olor of Wire	G/Y	>
Connector N Connector Conn	9	lam l	Solor					
	Connector N	Connector N	Connector (Ą	明.S.H	Terminal No	-	2

Connector No.	. D105	5
Connector Name		POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	lor WHITE	TE
明.	1 2 3 8 9 10 7	3 4 1 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
11	В	GND
16	>	POWER WINDOW SERIAL LINK

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D7	Connector Name MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	WHITE	1 2 3 4
Connector No.	Connector Name	Connector Color WHITE	H.S.

Signal Name	KEY CYL LOCK SW	KEY CYL UNLOCK SW	POWER WINDOW SERIAL LINK	
Color of Wire	SB	R/W	>	
Terminal No.	4	9	14	

Connector No.). D101	01
Connector Name	ıme WI	WIRE TO WIRE
Connector Color	lor W	WHITE
是 N.S.	6 1 8	8 9 10 11 12
Terminal No.	Color of Wire	Signal Name
2	>	ı
3	G/Y	ı
5	>	1
12	В	1

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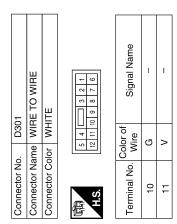
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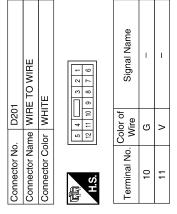
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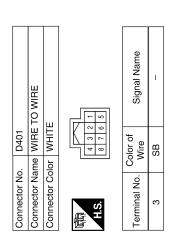
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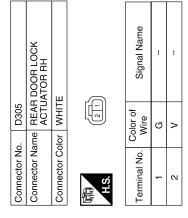
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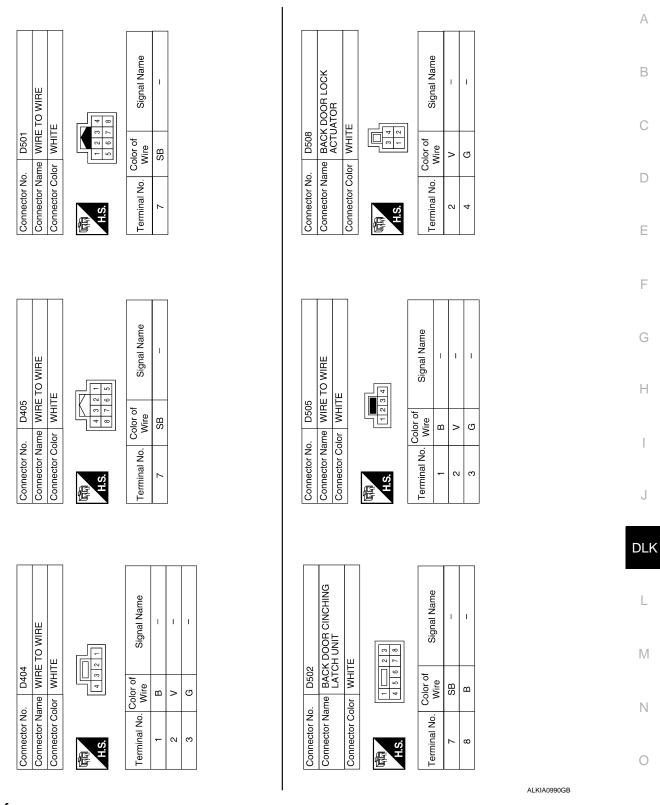
Connector No.		D205	
Connector Name		REAR DOOR LOCK ACTUATOR LH	
Connector Color WHITE	olor W	HITE	
H.S.		<u>[2]</u>	
Terminal No.	Color of Wire	of Signal Name	ө
1	9	-	
2	۸	-	







ALKIA0989GB



Fail Safe

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.
U1010: CONTROL UNIT (CAN)	Inhibit engine cranking	When the BCM re-start communicating with the other modules.

DTC Inspection Priority Chart

INFOID:0000000001563596

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

DTC Index

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → 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-38
U1010: CONTROL UNIT (CAN)	_	_	DLK-39

INTELLIGENT KEY UNIT

Reference Value - Intelligent Key Unit

INFOID:0000000001563598

Α

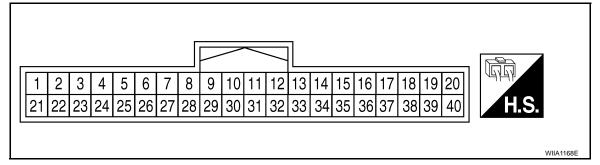
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TERMINAL LAYOUT



PHYSICAL VALUES

				Condition			
Terminal	Wire Color	Item	Ignition Switch Po- sition	Operation or Co	nditions	Voltage (V) Approx.	
1	0	Steering lock sole- noid power supply	LOCK	_		5	•
2	L	CAN-H	_	_		_	•
3	Р	CAN-L	_	_		_	
4	GR	Intelligent Key warn- ing buzzer (front of	LOCK	Operate door request	Buzzer OFF	Battery voltage	-
		vehicle)		switch.	Buzzer ON	0	_
5	LG	Front door request	_	Press front door request	switch LH.	0	_
J		switch LH		Other than above		Battery voltage	_
6	W/G	Ignition switch (ON)	ON	_		Battery voltage	
7	SB	Key switch	LOCK	Insert mechanical key in cylinder.	to ignition key	Battery voltage	I
,	ЭВ	Key Switch	LOCK	Remove mechanical key key cylinder.	/ from ignition	0	. —
8	0	Remote keyless en- try receiver ground	_	_		0	•
		Remote keyless en-		When remote keyless er ceives signal from keyfo		(V) 6 4 2 0	-
9	R	try receiver signal	_	Stand-by		(V) 6 4 2 0 0 0 0 0 0 0	-
11	R/B	Power source (Fuse)	_	_		Battery voltage	-
12	В	Ground	_	_		0	-

				Condition	
Terminal	Wire Color	Item	Ignition Switch Po- sition	Operation or Conditions	Voltage (V) Approx.
13	W	Inside key antenna 3 (center console) (+) signal			(V) 10 A A A A A A A A A A A
14	BR	Inside key antenna 3 (center console) (-) signal	LOCK	Any door open $ ightarrow$ all doors closed	10.0μs PIB7441E
15	V	Inside key antenna 1 (instrument panel) (+) signal			(V)
16	LG	Inside key antenna 1 (instrument panel) (-) signal	LOCK	Any door open \rightarrow all doors closed	10.0µs
17	R	Rear bumper anten- na (+) signal			(V)
18	L	Rear bumper anten- na (-) signal	LOCK	Press back door request switch.	15 10 5 0 10 \(\mu_s\)
19	Υ	Front outside anten- na LH (+) signal			(<u>V)</u>
20	W	Front outside antenna LH (-) signal	LOCK	Press front door request switch LH.	15 10 0 10 μs SIIA1910J
21	BR	Remote keyless en- try receiver RSSI sig- nal	_	_	(V) 15 10 5 0 200 ms
23	G	Back door control unit signal	_	Back door release switch ON.	0
		Back door release		Back door release switch OFF. Back door release switch ON.	Battery voltage 0
24	G	switch input	_	Back door release switch OFF.	5
25	R	Front door request	_	Press front door request switch RH.	0
		switch RH		Other than above	Battery voltage
27	G	Ignition knob switch	_	Press ignition switch. Return ignition switch to LOCK position.	Battery voltage 0
		Unlock sensor		Door (driver side) is locked.	5
28	Р	(driver side)	_	Door (driver side) is unlocked.	0

INTELLIGENT KEY UNIT

< ECU DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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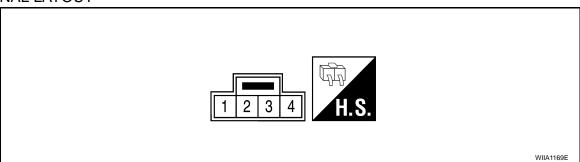
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				Condition	
Terminal	Wire Color	Item	Ignition Switch Po- sition	Operation or Conditions	Voltage (V) Approx.
30	W	Remote keyless entry receiver power supply	-	_	5
32	V	Steering lock sole- noid communication signal	LOCK	When Intelligent Key is inside vehicle, press ignition knob switch.	(V) 6 4 2 0 2 ms SIIA1911J
				Other than above	5
33	G	Inside key antenna 2 (luggage compart- ment) (+) signal			(V) 10 (A A A A A A A A A A A A
34	R	Inside key antenna 2 (luggage compart- ment) (-) signal	LOCK	Press ignition knob switch: ON (Ignition knob switch)	5 0 10.0μs PIIB7441E
37	Р	Front outside antenna (+) signal RH			(V)
38	V	Front outside antenna (-) signal RH	LOCK	Press front door request switch RH.	15 0 0 10 µs SIIA1910J
20	SB	P rango switch	_	Selector lever is in "P" position.	0
39	98	P range switch	_	Other than above	Battery voltage
40	V	AS select unlock out-		UNLOCK with rear door locks disabled.	0
40	V	put		Other than above	Battery voltage

Reference Value - Steering Lock Solenoid

INFOID:0000000001563599





PHYSICAL VALUES

INTELLIGENT KEY UNIT

				Condition	
Terminal	Wire Color	Signal Designation	Ignition Switch Posi- tion	Operation or Conditions	Voltage (V) Approx.
1	R/B	Power source (fuse)	LOCK	_	Battery voltage
2	0	Steering lock solenoid power supply	LOCK	_	5
3	V	Steering lock solenoid communication signal	LOCK	When Intelligent Key is inside vehicle, press ignition knob switch.	(V) 6 4 2 0 2 ms SIIA1911J
				Other than the above	5
4	SB	Steering lock solenoid ground	_	_	0

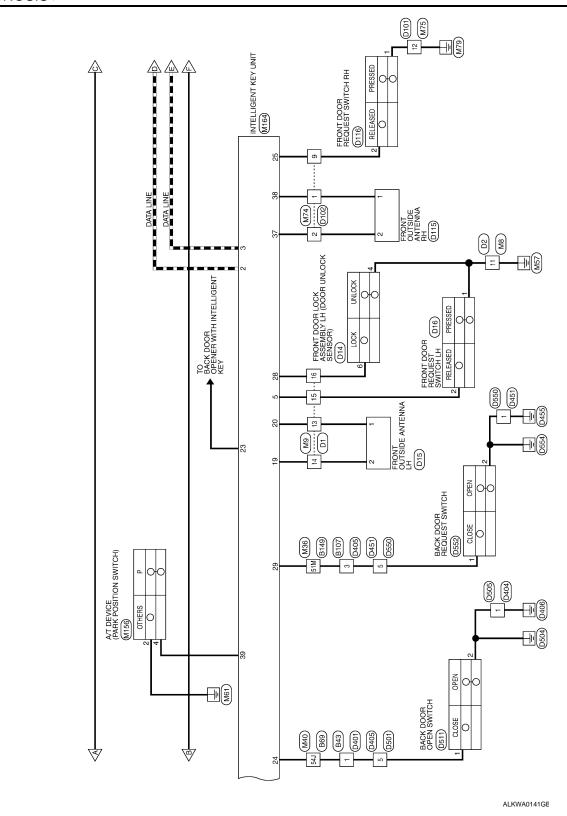
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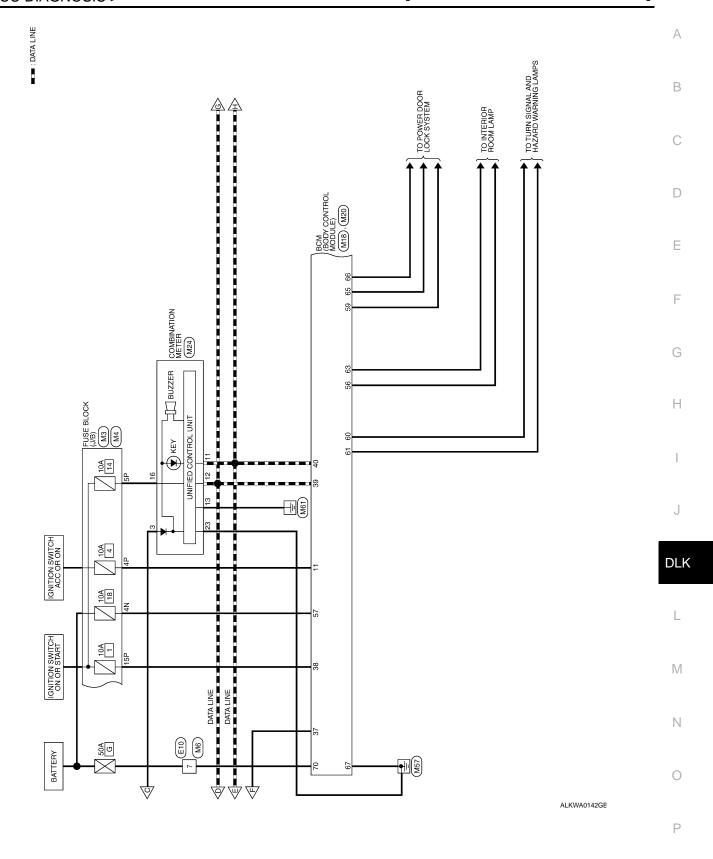
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Wiring Diagram — INTELLIGENT KEY SYSTEM

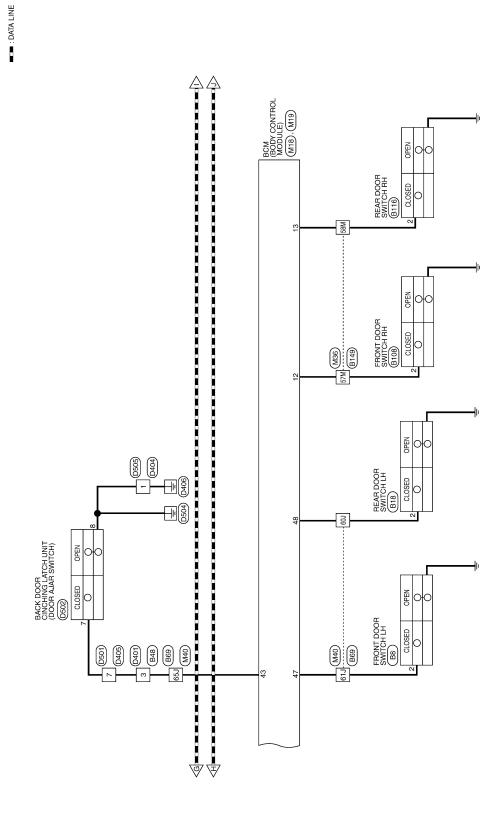
Α В) INTELLIGENT KEY UNIT (M164) C D REAR BUMPER ANTENNA C127 M31 E152 [4] [S] ठि Е FUSE BLOCK (J/B) (M3), (M4) INSIDE KEY ANTENNA 4 (OVER HEAD CONSOLE AREA) (8129) F IGNITION SWITCH ON OR START 10A M36 B149 G INTELLIGENT KEY WARNING BUZZER (E60) Н INSIDE KEY ANTENNA 2 (LUGGAGE COMPARTMENT) (BSZ) (M40) (67) (B69) M31 626 E152 10A 66J STEERING LOCK SOLENOID (M65) INSIDE KEY ANTENNA 3 (FRONT OF CENTER CONSOLE) (M212) J M57 M64 M202 DLK INSIDE KEY ANTENNA1 (REAR OF CENTER CONSOLE) (M68) L IGNITION KNOB SWITCH RELEASED PUSHED INTELLIGENT KEY SYSTEM M REMOTE KEYLESS ENTRY RECEIVER (M67) KEY SWITCH AND IGNITION KNOB SWITCH (M66) REMOVED INSERTED KEY SWITCH Ν BATTERY 0 - [ELW] ALKWA0140GE

■ : DATA LINE





ALKWA0143GE



. DATA LINE

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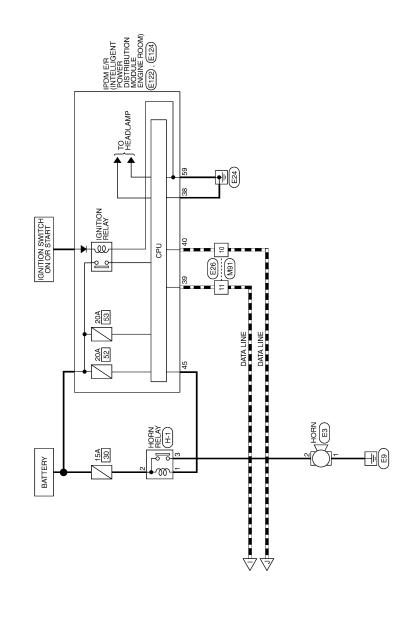
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ALKWA0144GE



INTELLIGENT KEY SYSTEM CONNECTORS

Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color	WHITE

Connector No. M4
Connector Name FUSE BLOCK (J/B)

Connector Color WHITE





Signal Name	-	_
Color of Wire	B/B	R/Υ
Terminal No.	NE	N4

	WIRE TO WIRE	ITE	3 2 1 7 8 8 2 1 8 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	Signal Name	-
. M6		lor WHITE	4 8	Color of Wire	W
Connector No.	Connector Name	Connector Color	崎 H.S.	Terminal No.	2

Signal Name	I	-	_	I	1
Color of Wire	W/G	G/B	M/G	R/Y	W/R
Terminal No.	2P	4P	5P	48	15P

Signal Name	İ	1	-	I	Ī	
Wire	M/G	G/B	M/G	R/Y	W/R	
l erminal No. Wire	2P	4P	2P	48	15P	
	-					

Connector No. M9 Connector Name WIRE TO WIRE Connector Color WHITE To 3 4 5 6 7 8 9 10 111 12 To 3 4 5 6 7 8 9 10 111 12 To 3 4 5 6 7 8 9 10 111 12 To 3 4 5 6 7 8 9 10 111 12	Terminal No. Wire Signal Name	13 W –	14 Y –	15 LG –	16 P
--	-------------------------------	--------	--------	---------	------

Connoctor No	αM	
Connector Name		WIRE TO WIRE
Connector Color	lor WHITE	ITE
		4 5 6 7
H.S.	01 6 8	9 10 11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
11	В	1

ALKIA0968GB

Connector No.	. M19	6
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color	_	WHITE
原 H.S.	41 42 43 4	41 42 43 44 45 46 47 48 49 49 49 49 49 49 49
Terminal No.	Color of Wire	Signal Name
43	SB	BACK DOOR SW
47	GR	DOOR SW (DR)
48	Д	DOOR SW (RL)

Signal Name	ACC SW	DOOR SW (AS)	DOOR SW (RR)	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	G/B	LG	_	В	W/R	T	۵
Terminal No.	11	12	13	37	38	68	40

			ı				19 20	39 40
							10 11 12 13 14 15 16 17 18 19	29 30 31 32 33 34 35 36 37 38 39
	١.						17	37
	ᅵᅥ						16	36
	Æ						15	35
	ľz						4	34
	18					ᆜ	13	33
						117	12	32
						IV.	Ξ	31
	æ∃	ш				IN.	10	30
8	BCM (BOE MODULE)					$\ \cdot \ $	6	29
M18	l‰¥	∣袁					8	28
_	0	F.					7	27
	Ē	<u>ة</u>					9	26
ž	lΫ	ပြ					5	25
or	Connector Name BCM (BODY CONTROL MODULE)	ō					4	21 22 23 24 25 26 27 28
ect	ec	ect				9	က	23
nn	L	Ē			E C	4	2	22
Connector No.	ပိ	Connector Color WHITE		E	1	1	-	21

Signal Name	FLASHER OUTPUT (RIGHT)	ROOM LAMP	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	BAT (F/L)
Color of Wire	g	BB	>	_	В	Μ
Terminal No.	61	63	92	99	29	20

M20	Connector Name BCM (BODY CONTROL MODULE)	BLACK	
Connector No.	Connector Name	Connector Color BLACK	





Signal Name	BAT SAVER	BAT (FUSE)	DOOR UNLOCK OUTPUT (DR)	FLASHER OUTPUT (LEFT)	
Color of Wire	>	R/Υ	GR	LG	
Terminal No.	99	25	59	09	

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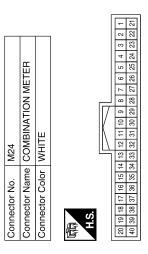
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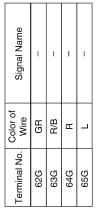
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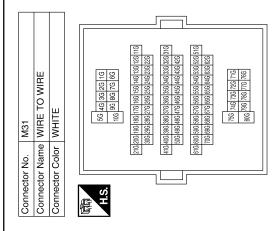
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Signal Name	I	1	I	I	I	1
Color of Wire	R/Υ	а.	_	GR	M/G	В
Terminal No.	3	11	12	13	16	23

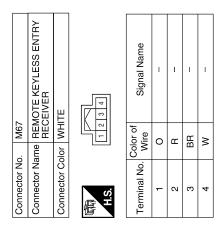






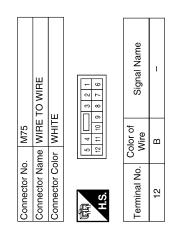
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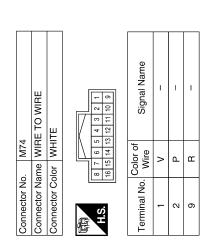
		Α
	Signal Name	В
	M64 M64 Or WHITE Color of Wire W BR	С
		D
	Connector Ny Connector O Connector O Terminal No.	Е
		F
аше	аше	G
Signal Name	Signal Name	Н
Color of Wire GR GR GR LG LG LG LG LG LG COLOR Mire COL	Color of Wire W Wire O O O O O O O O O O O O O O O O O O O	I
51M 53M 57M 58M 63M	7 Terminal No. 54J 60J 61J 65J 66J 67J	J
		DLK
MM MM MM MM MM MM MM MM	E E I I I I I I I I I I I I I I I I I I	L
WIRE TO WIRE	M40 NHIE TO WIRE Su 41 3u 2u 1u Su 42u 3u 2u 1u Su 42u 3u 2u 1u Su 42u 3u 2u 1u Su 5u 4u 3u 2u 1u Su 5u 4u 3u 2u 1u Su 5u 4u 3u 2u 1u Su 6u 6u 6u 6u 6u 6u 6u 6u Tu 6u 6u 6u 6u 6u 6u 6u 6u Tu 6u 6u 6u 6u 6u 6u 6u 6u Tu 6u 6u 6u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u 7u 7u 7u Su 7u 7u 7u 7u 7u 7u 7u 7u 7u Su 7u Su 7u Su 7u Su 7u Su 7u	M
Connector No. M36 Connector Name WIRE TO WIRE Connector Color WHITE SM AM 3M AM 1M SM AM 1M	Connector No. M40 Connector Name WIRE TO WIRE Connector Color WHITE Su 41 30 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Ν
Connector No. Connector Name Connector Color H.S. A.S. SIMP SIM	Connector No. Connector Name Connector Color H.S.	0
	ALKIA0971GB	
		Р



Connector No.	le l	M66 KEY SWITCH AND IGNITION KNOB SWITCH
Connector Color GRAY	or GRA	\\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Terminal No.	Color of Wire	Signal Name
-	æ	I
2	В	ı
3	B/B	_
4	S.	ı

	STEERING LOCK SOLENOID	크	3 4	Signal Name	4B	+5V	SIG	GND
. M65	Ime STE SOL	lor WHI	1 5	Color of Wire	B/B	0	>	SB
Connector No.	Connector Name	Connector Color WHITE	馬 H.S.	Terminal No.	-	2	က	4





	NSIDE KEY ANTENNA 1 (REAR OF CENTER CONSOLE)			Signal Name	1	1	
M68		or GRAY	2 1	Color of Wire	۸	LG	
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	1	2	

ALKIA0972GB

Signal Name	BACKDOOR_AUTO_ CLOSURE	AS_REQUEST_SW	PUSH_SW_INPUT	DR_STATUS_SW_ INPUT	5V	STRG_LOCK_SIG	3RD_ROW_ANT(+)	3RD_ROW_ANT(-)	2ND_ROW_ANT+	2ND_ROW_ANT-	AS_ANTENNA_(+)	AS_ANTENNA_(-)	P_RANGE_SW
Color of Wire	ŋ	Ж	ŋ	А	8	>	g	ш	l l	0	Ь	>	SB
Terminal No.	23	25	27	28	30	32	33	34	35	36	37	38	39

Connector Color WHITE	lor WHIT	E
画 H.S.	2 4 3	2 4 5 6 8 10
Terminal No.	Color of Wire	Signal Name
2	В	_
4	SB	-

Signal Name

Color of Wire P

Terminal No.

1 9

Connector No. M156
Connector Name A/T DEVICE (WITHOUT MANUAL MODE SWITCH)

Connector Name WIRE TO WIRE

Connector No. M91

Connector Color WHITE

	Signal Name	IGN_SW_INPUT	KEY_SW_INPUT	GND	SINGAL	BAT	GND	ANT_2(+)	ANT_2(-)	ANT_1(+)	ANT_1(-)	RR_BUMPER_ANT(+)	RR_BUMPER_ANT(-)	DR_ANTENNA_(+)	DR_ANTENNA_(-)	RSSI
,	Color of Wire	W/G	SB	0	Œ	R/B	В	8	BR	>	LG	æ	Г	Y	>	BB
	Terminal No.	9	7	80	6	=	12	13	14	15	16	17	18	19	20	21

		19 20						
M164	WHITE	9 10 11 12 13 14 15 16 17 18	Signal Name	5V-POWER	CAN-H	CAN-L	BUZZER_DR_OUTPUT	DR_REQUEST_SW
		6 7 8	Color of Wire	0	_	۵	GR	LG
Connector No.	Connector Color	H.S.	Terminal No.	-	2	က	4	5

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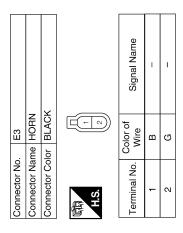
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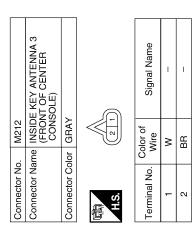
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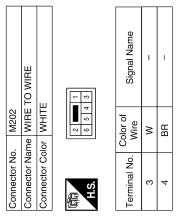
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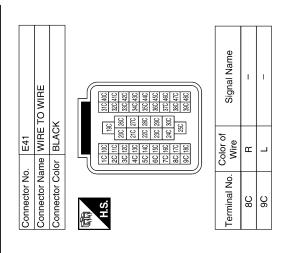
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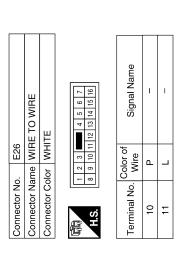
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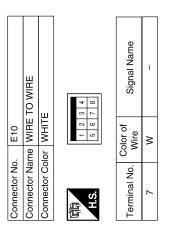








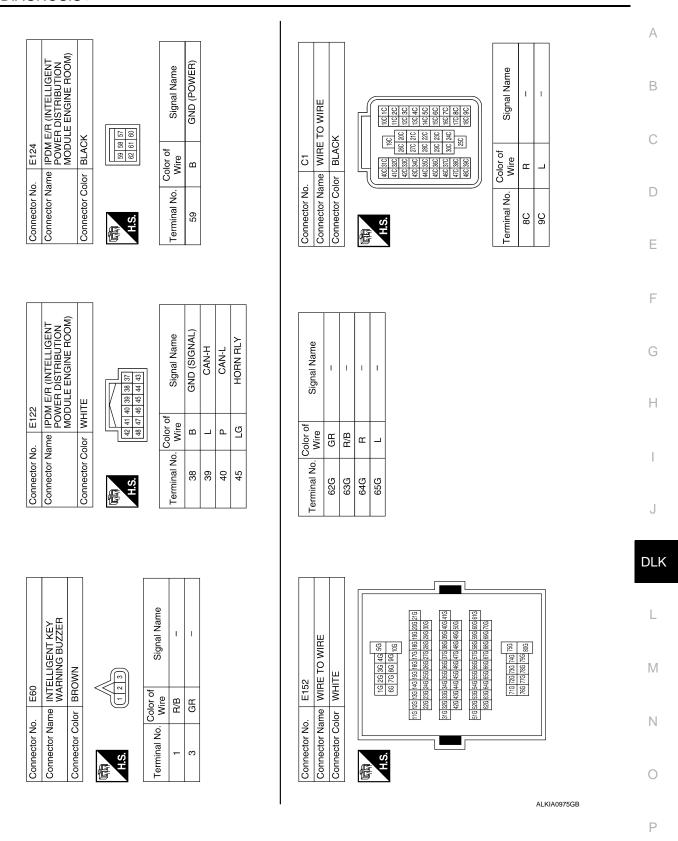


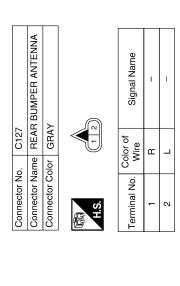


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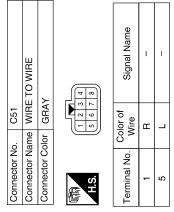
INTELLIGENT KEY UNIT

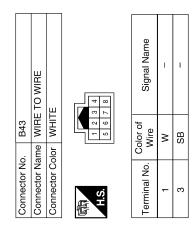
[WITH INTELLIGENT KEY SYSTEM]

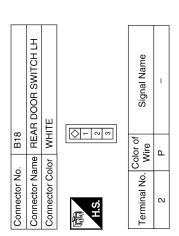


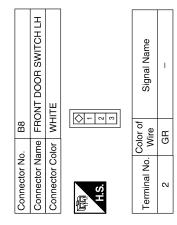


			1			
	WIRE TO WIRE	>	2 1 2 6 5 1	Signal Name	_	_
C125	ne WIRE	or GRAY	4 8	Color of Wire	ш	٦
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	1	2









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INTELLIGENT KEY UNIT

[WITH INTELLIGENT KEY SYSTEM]

							i
Signal Name	ı	ſ	I	ı	ı	I	
Color of Wire	8	۵	GR	SB	٦	0	
Terminal No. Wire	54J	607	61J	65J	66J	67J	
		7					
						19.1 20.1 21.1	

Connector No.	B69	
Connector Name	WIRE TO WIRE	Т —
Connector Color	WHITE	т —
		1
25. E.	1.1 22 33. 4.1 5.1 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1	
]	

	INSIDE KEY ANTENNA 2 (LUGGAGE COMPARTMENT)			Signal Name	ı	1	
B52		or GRAY	2 1	Color of Wire	7	0	
Connector No.	Connector Name	Connector Color GRAY	原动 H.S.	Terminal No.	-	2	

16	REAR DOOR SWITCH RH	WHITE		Signal Name	I
, B116	l	_		Color of Wire	_
Connector No.	Connector Name	Connector Color	邮 H.S.	Terminal No.	2
			- 		

Signal Name	1
Color of Wire	re
Terminal No.	2
	Color of Wire

70	WIRE TO WIRE	IITE	0 N D	Signal Name	ı	
. B107		lor WHITE	4 8	Color of Wire	GR	
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	င	

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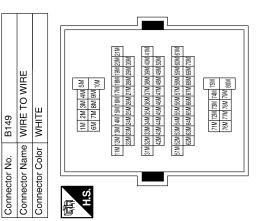
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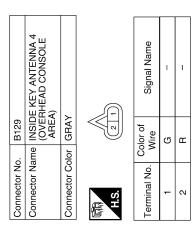
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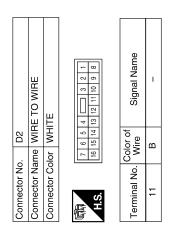
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Signal Name	1	1	1	1	1
Color of Wire	GR	В	FG		н
Terminal No.	51M	E3M	W/2	28M	ME9





-	FRONT DOOR LOCK ASSEMBLY LH	AY	2 2 1	Signal Name	-	-
D14		lor GRAY	9	Color of Wire	В	Ь
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	4	9



Connector No.	. 01	
Connector Name		WIRE TO WIRE
Connector Color	_	WHITE
12	11 10 9	8 7 6 5 4 3 2 1
H.S.	21	19 18 17 16 15
Terminal No.	Color of Wire	Signal Name
13	>	1
14	λ	ı
15	Э٦	_
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INTELLIGENT KEY UNIT

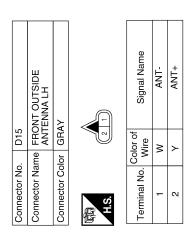
[WITH INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS >

	-	
Connector No.	. D101	•
Connector Name WIRE TO WIRE	me WIR	E TO WIRE
Connector Color WHITE	lor WHI	TE
m H.S.	6 7 8	2
Terminal No.	Color of Wire	Signal Name
12	В	1

1010	WIRE TO	WHITE	2	Color of Wire	В
9	Vame	Solor	[- \oldsymbol{\sigma}]		
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	12

Connector No.). D16	
Connector Name	Ime FRC SWI	FRONT DOOR REQUEST SWITCH LH
Connector Color GRAY	lor GR/	47
用.S.	-	a
Terminal No.	Color of Wire	Signal Name
1	В	-MS
2	ГG	SW+



Connector No.	. D116	9
Connector Name		FRONT DOOR REQUEST SWITCH RH
Connector Color	lor GRAY	11.
H.S.		
Terminal No.	Color of Wire	Signal Name
-	В	-MS
2	В	SW+

5	FRONT OUTSIDE ANTENNA RH	٨t		Signal Name	ANT+	ANT-
. D115		lor GR/		Color of Wire	>	Ь
Connector No.	Connector Name	Connector Color GRAY	研 H.S.	Terminal No.	-	2

	f	
Connector No.). D102	75
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	ITE
H.S.	1 2 1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 2 10 10 10 10 10 10 10 10 10 10 10 10 10
Terminal No.	Color of Wire	Signal Name
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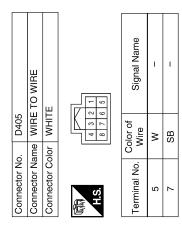
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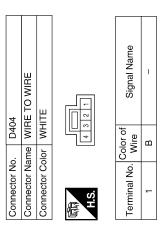
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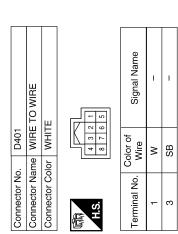
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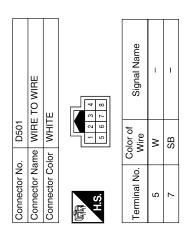
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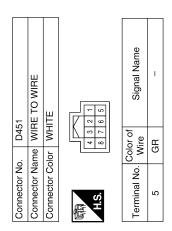
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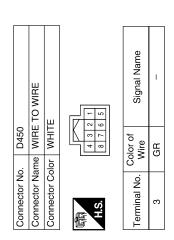






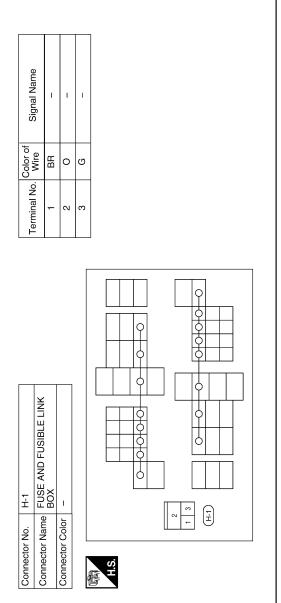






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		А
EN SWITCH Signal Name -		В
BROWN BROWN or of Sig		С
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Connector No. Connector Color Connector Color H.S. Terminal No. W		Е
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WIRE Signal Name	OR REQUEST Signal Name -	G
WHRE TO W WHITE OF	22 22 22 22 22 22 22 22 22 22 22 22 22	Н
		I
Connector No. Connector Color Connector Color H.S. Terminal No. W	Connector No. Connector Color Terminal No. 1 Gold 1 Gold 2 E	J
		DLK
OR CINCHING IIT Signal Name	WIRE Signal Name	L
2 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z		M
nnector No. Innector Name Innector Color Innal No. R	nector No. nector Name nector Color ninal No. S	N
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Fail Safe

Fail-safe operation

The Intelligent Key system operation will be interrupted if the Intelligent Key unit loses power or communication with the BCM.

BACK DOOR CONTROL UNIT

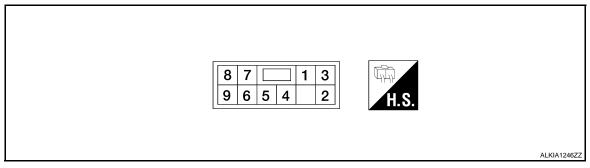
< ECU DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BACK DOOR CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal	Wire Col- or	Item	Condition	Voltage (V) (Approx.)
1	R/B	Battery power supply	_	Battery voltage
2	Y	Back door cinching latch unit	Back door closing	Battery voltage
2	Y	motor	Back door opening	0
2		Back door cinching latch unit	Back door closing	0
3	motor		Back door opening	Battery voltage
4	В	Ground	_	_
5	GR	Ground	_	_
	0	Intelligent Key unit euteur	Back door release switch ON	0
О	6 G Intelligent Key unit output		Back door release switch OFF	Battery voltage
7	DD.	Half awitch aignal	Back door open	0
7 BR Half switch signal		Hall Switch Signal	Back door closed or latching	Battery voltage
8	Р	Class switch signal	Back door open or closed	Battery voltage
0	P	Close switch signal	During opening (5 seconds)	0
9	W	Noutral switch signal	Back door open or closed	Battery voltage
9	VV	Neutral switch signal	During opening (5 seconds)	0

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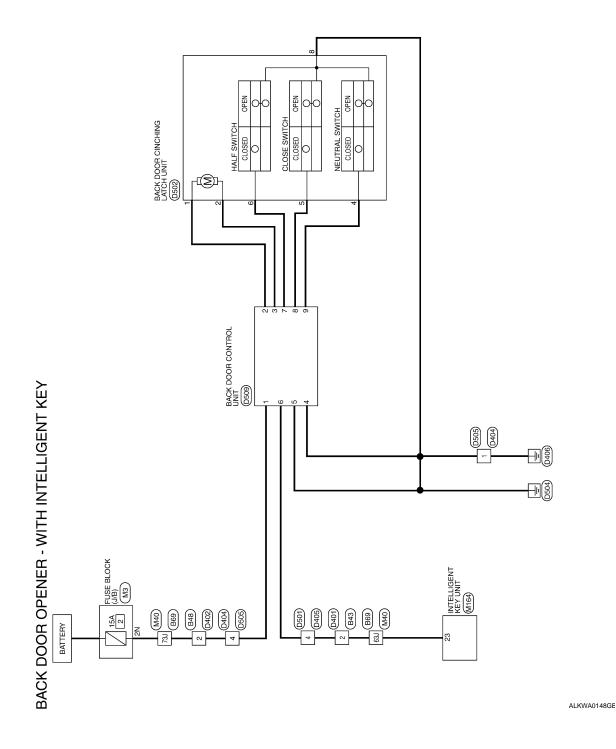
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Wiring Diagram—BACK DOOR OPENER—

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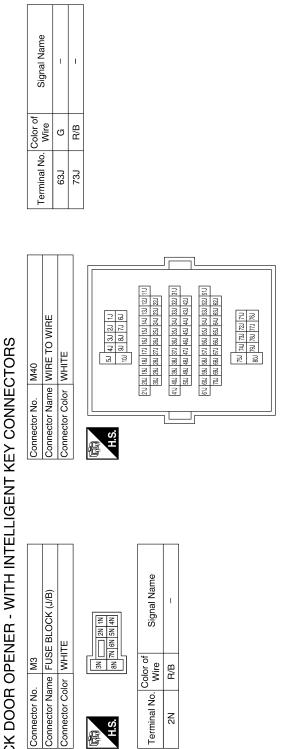
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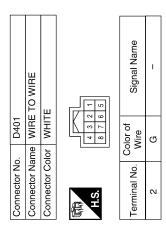
BACK DOOR OPENER - WITH INTELLIGENT KEY CONNECTORS



Connector No.	M164	Connector No. B43	Connector No. B48
Connector Name	Connector Name INTELLIGENT KEY UNIT	Connector Name WIRE TO WIRE	Connector Name WIRE TO WIRE
Connector Color WHITE	WHITE	Connector Color WHITE	Connector Color WHITE
京 H.S.		H.S. 1 2 3 4 5 6 7 8	1 2 3 4 5 6
1 2 3 4 5 6 7 8 21 22 23 24 25 26 27 28	8 9 10 11 12 13 14 15 16 17 18 19 28 29 30 31 32 33 34 35 36 37 38 39	20 Color of Signal Name Avira	Terminal No. Wire Signal Name
			2 R/B –
Terminal No. Wire	or of Signal Name		
23 G	BACKDOOR_AUTO_ CLOSURE		

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BACK DOOR CONTROL UNIT

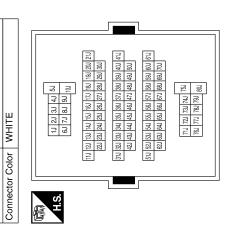


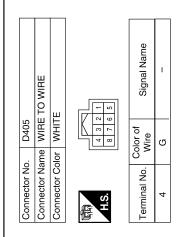
Signal Name	-	I	
Color of Wire	9	B/B	
Terminal No.	ſ£9	73J	

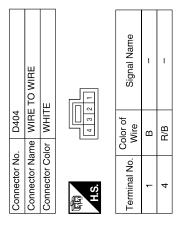
Connector Name WIRE TO WIRE

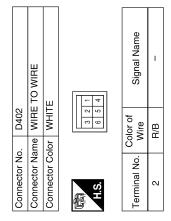
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Connector No.

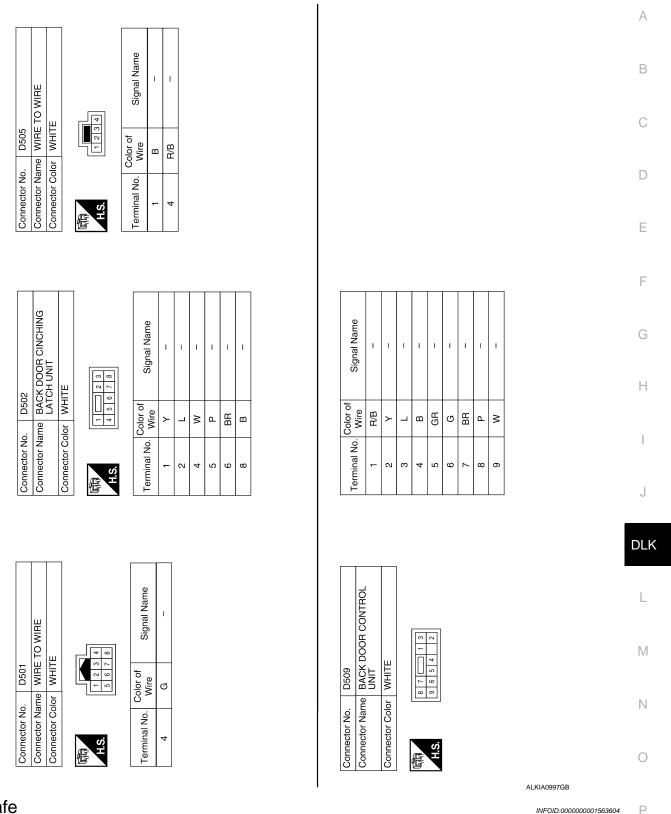








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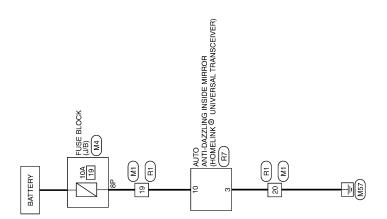
Fail Safe

Fail-safe operation

The back door system operation will be interrupted if the back door control unit loses power.

HOMELINK UNIVERSAL TRANSCEIVER

Wiring Diagram



INTEGRATED HOMELINK TRANSMITTER

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HOMELINK UNIVERSAL TRANSCEIVER

[WITH INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS >

INTEGRATED HOMELINK TRANSMITTER CONNECTORS

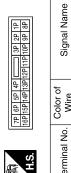
Connector Name WIRE TO WIRE

Connector No. M1

Connector Color WHITE

R1 WIRE TO WIRE WHITE	20 19 18 17 16 15 14 13	Signal Name	ı	-
- e -	24 23 22 21 20	Color of Wire	R/Y	В
Connector No. Connector Name Connector Color	H.S.	Terminal No.	19	20

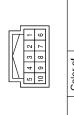
	EBLOCK (J/B)	ш	
Connector No. M4	Connector Name FUSE BLOCK (J/B)	Connector Color WHITE	
Con	Con	Con	





	8 9 10 11 12	13 14 15 16 17 18 19 20 21 22 23 24		-	Signal Ivame		1
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V	7	19					
N	9	18					
N	2	17		ج ا			
	3 4	16		٦	<u>e</u>	≻	В
		15		Color of	⋛	Я/	ш
	2	14		0			
	-	13			<u>.</u>		
	-	Ċ	_	ŀ	i erminai No.	19	20

R7	Connector Name AUTO ANTI-DAZZLING INSIDE MIRROR	BLACK	
Connector No.	Connector Name	Connector Color BLACK	



Signal Nar	GND	В	
Color of Wire	В	R/Y	
erminal No.	3	10	

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INTELLIGENT KEY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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 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)

- "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
	Check Intelligent Key function and battery inspection.	DLK-87
	2. Check Intelligent Key unit power supply and ground circuit.	DLK-46
All doors and ignition switch do not respond to Intelligent Key comand.	Check remote keyless entry receiver.	DLK-84
gen, commen	4. Check BCM power supply and ground circuit.	DLK-46
	5. Replace Intelligent Key unit.	<u>DLK-87</u>

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR LOCK FUNCTION SYMPTOMS DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH: Symptom Table

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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.
- Ignition switch is not depressed.
- All doors are closed.

Symptom		Diagnosis/service procedure	Reference page	
	1.	Check BCM Power supply and ground circuit.	BCS-32	•
Power door lock does not operate with door lock and unlock switch.	2.	Check door lock and unlock switch.	DLK-51	•
	3.	Check door lock actuator (driver side)	<u>DLK-64</u>	•
	4.	Check Intermittent Incident.	<u>GI-51</u>	
Power door lock does not operate with door key	1.	Check key cylinder switch.	DLK-55	•
cylinder operation. (Power door lock operate properly with door lock and unlock switch.)	2.	Replace power window main switch.	PWC-70	-
	1a.	Check driver side door lock actuator.	DLK-64	•
	1b.	Check passenger side door lock actuator.	<u>DLK-65</u>	•
Specific dear leak actuator dese not approte	1c.	Check rear LH side door lock actuator.	DLK-66	
Specific door lock actuator does not operate.	1d.	Check rear RH side door lock actuator.	DLK-68	
	1e.	Check back door lock actuator.	DLK-69	-
	2.	Check Intermittent Incident.	<u>GI-51</u>	
	1.	Door switch check.	DLK-48	
Door lock/unlock do not operate by request switch.	2.	Ignition knob switch check.	DLK-97	•
	3.	Replace Intelligent Key unit.	<u>SEC-93</u>	•
	1.	Front door request switch LH check.	DLK-59	•
Door lock/unlock does not operate by request switch (LH side).	2.	Front outside antenna LH check.	DLK-78	•
S	3.	Replace Intelligent Key unit.	<u>SEC-93</u>	•
	1.	Front door request switch RH check.	DLK-59	•
Door lock/unlock does not operate by request switch (RH side).	2.	Front outside antenna RH check.	DLK-78	•
omion (randido).	3.	Replace Intelligent Key unit.	SEC-93	
	1.	Back door request switch check.	DLK-61	
Door lock/unlock does not operate by request switch (back door).	2.	Rear bumper antenna check.	DLK-78	
SWILCH (DACK GOOL).	3.	Replace Intelligent Key unit.	SEC-93	•
Pear and hack door look actuators do not approte	1.	Passenger select unlock relay check.	DLK-71	•
Rear and back door lock actuators do not operate.	2.	Check Intermittent Incident.	<u>GI-51</u>	•
Selective unlock function does not operate by front door request switch LH (other door lock functions	1.	Check "SELECT UNLOCK FUNCTION" setting in "WORK SUPPORT".	DLK-30	-
operate properly).	2.	Replace Intelligent Key unit.	SEC-93	•

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< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Symptom		Diagnosis/service procedure	Reference page
	1.	Check "AUTO RELOCK TIMER" setting in "WORK SUP-PORT".	DLK-30
	2.	Key switch check (BCM).	<u>DLK-96</u>
Auto lock function does not operate properly.	3.	Ignition knob switch check.	DLK-97
	4.	Door switch check.	DLK-48
	5.	Replace Intelligent Key unit.	<u>SEC-93</u>
	1.	Check "ANTI KEY LOCK IN FUNCTION" setting in "WORK SUPPORT".	DLK-30
	2.	Door switch check.	DLK-48
	3a.	Inside key antenna 1 (instrument panel) check.	DLK-40
Key reminder function does not operate properly.	3b.	Inside key antenna 2 (luggage compartment) check.	DLK-42
	3c.	Inside key antenna 3 (center console) check.	DLK-44
	4.	Front door lock actuator LH (door unlock sensor) check.	DLK-57
	5.	Intelligent Key battery and function inspection.	DLK-87
	6.	Replace Intelligent Key unit.	SEC-93

INTELLIGENT KEY

INTELLIGENT KEY: Symptom Table

INFOID:0000000001563608

REMOTE KEYLESS ENTRY FUNCTION MALFUNCTION NOTE:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to <u>DLK-8, "Work Flow"</u>.
- Make sure 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)

- Ignition switch is not depressed.
- · All doors are closed.

Symptom		Diagnosis/service procedure	Reference page
	1.	Intelligent Key battery and function inspection.	DLK-87
All of the remote keyless entry functions do not operate.	2.	Remote Keyless Entry function check.	DLK-84
crate.	3.	Replace Intelligent Key unit.	SEC-93
Selective unlock function does not operate by Intel-	1.	Check "SELECT UNLOCK FUNCTION" setting in "WORK SUPPORT".	DLK-30
ligent Key remote control button.	2.	Intelligent Key battery inspection.	DLK-87
	3.	Replace Intelligent Key unit.	SEC-93
	1.	Check "AUTO RELOCK TIMER" setting in "WORK SUPPORT".	DLK-30
	2.	Key switch check (BCM).	DLK-96
Auto lock function does not operate properly.	3.	Ignition knob switch check.	DLK-97
	4.	Door switch check.	DLK-48
	5.	Replace Intelligent Key unit.	<u>SEC-93</u>

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Symptom		Diagnosis/service procedure	Reference page
	1.	Check "ANTI KEY LOCK IN FUNCTION" setting in "WORK SUPPORT".	DLK-30
	2.	Door switch check.	DLK-48
	3a.	Inside key antenna 1 (instrument panel) check.	DLK-40
Key reminder function does not operate properly.	3b.	Inside key antenna 2 (luggage compartment) check.	DLK-42
	3c.	Inside key antenna 3 (center console) check.	DLK-44
	4.	Front door lock actuator LH (door unlock sensor) check.	DLK-57
	5.	Intelligent Key battery inspection.	DLK-87
	6.	Replace Intelligent Key unit.	SEC-93
	1.	Check "PANIC ALARM DELAY" setting in "WORK SUPPORT".	DLK-30
	2.	Theft warning operation check.	SEC-17
Panic alarm function does not operate properly.	3.	Intelligent Key battery inspection.	DLK-87
ranic alann function does not operate properly.	4.	Key switch check (BCM).	DLK-96
	5.	Ignition knob switch check.	DLK-97
	6.	Replace Intelligent Key unit.	SEC-93
Back door open function does not operate properly.	1.	Back door diagnosis.	DLK-165
Dower window down function does not exercte	1.	Check "PW DOWN SET" setting in "WORK SUPPORT".	DLK-30
Power window down function does not operate.	2.	Intelligent Key battery inspection.	DLK-87

KEY WARNING LAMP (GREEN) ILLUMINATES

NOTE:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to <u>DLK-8</u>, "Work Flow".
- Make sure 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 "Diagnoses/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

Symptom	Diagnosis/service procedure	Reference page
Ignition switch does not turn on with Intelligent Key.	Steering lock solenoid check.	DLK-80
[KEY warning lamp (green) illuminates].	2. Replace Intelligent Key unit.	<u>SEC-93</u>

KEY WARNING LAMP (RED) ILLUMINATES

NOTE:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to <u>DLK-8, "Work Flow"</u>.
- Make sure 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 "Diagnoses/service procedure" column in this order.

Conditions of Vehicle (Operating Conditions)

- · Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

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[WITH INTELLIGENT KEY SYSTEM]

Symptom	Diagnosis/service procedure	Reference page
	1a. Inside key antenna 1 check.	<u>DLK-40</u>
Ignition switch does not turn on with Intelligent Key.	1b. Inside key antenna 2 check.	DLK-42
[KEY warning lamp (red) illuminates].	1c. Inside key antenna 3 check.	DLK-44
	2. Replace Intelligent Key unit.	SEC-93

KEY WARNING LAMP DOES NOT ILLUMINATE **NOTE**:

- Before performing the diagnosis in the following table, check "Trouble Diagnosis Procedure". Refer to <u>DLK-8, "Work Flow"</u>.
- Make sure 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 "Diagnoses/service procedure" column in this order.
- Check if ignition switch turns using mechanical key. If it turns, check if "ENGINE START BY I-KEY" in "WORK SUPPORT" mode is ON.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is registered.
- Key is not inserted in ignition switch.
- One or more registered Intelligent Keys are in the vehicle.

Symptom		Diagnosis/service procedure	Reference page
	1.	Intelligent Key unit power supply and ground circuit check.	DLK-46
Ignition switch does not turn on with Intelligent	2.	Ignition knob switch check.	DLK-97
Key. [KEY warning lamp does not illuminate].	3.	Key switch check.	DLK-94
	4.	Replace Intelligent Key unit.	SEC-93

BACK DOOR OPENER FUNCTION

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

BACK DOOR OPENER FUNCTION BACK DOOR OPENER SWITCH

BACK DOOR OPENER SWITCH: Symptom Table

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BACK DOOR OPEN 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)

Vehicle is in park.

Symptom	Suspect systems	Refer to
	Power supply and ground circuit check	<u>DLK-46</u>
	Half switch inspection	DLK-104
	Close switch inspection	DLK-106
Back door cinching latch unit inoperative	Neutral switch inspection	DLK-108
	Back door release switch inspection	DLK-110
	Back door cinching latch unit motor inspection	DLK-113
	Check intermittent incident	<u>GI-51</u>

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[WITH INTELLIGENT KEY SYSTEM]

WARNING FUNCTION SYMPTOMS

Symptom Table INFOID:0000000001563612

WARNING FUNCTION MALFUNCTION

- Before performing the diagnosis in the following table, check "WORK FLOW". Refer to <u>DLK-8</u>, "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)

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

Sym	nptom	Diagnosis/service procedure	Reference page
		Check ignition knob switch.	<u>DLK-97</u>
For internal OFF position warn-	For internal	2. Check door switch.	DLK-48
	FOI IIILEITIAI	Check warning chime function.	DLK-92
		4. Check Intermittent Incident.	<u>GI-51</u>
ing does not oper- ate.		Check ignition knob switch.	DLK-97
	For external	2. Check door switch.	DLK-48
	FOI external	Check Intelligent Key warning buzzer.	<u>DLK-73</u>
		4. Check Intermittent Incident.	<u>GI-51</u>
		Check Park position switch.	DLK-82
		2. Check door switch.	DLK-48
P position warning o	loos not operate	Check Intelligent Key warning buzzer.	DLK-73
P position warning c	loes not operate.	Check warning chime function.	DLK-92
		5. Check combination meter display function.	DLK-91
		6. Check Intermittent Incident.	<u>GI-51</u>
		Check ignition knob switch.	DLK-97
ACC warning does r	not operate	Check warning chime function.	DLK-92
ACC waiting does i	ioi operate	Check combination meter display function.	DLK-91
		4. Check Intermittent Incident.	<u>GI-51</u>

WARNING FUNCTION SYMPTOMS

[WITH INTELLIGENT KEY SYSTEM]

Symptom			Reference page			
		1.	Check door switch.		DLK-48	
				Instrument panel	DLK-40	
		2.	Check inside key antennas (1, 2, 3).	Luggage compartment	DLK-42	
			Center console		DLK-44	
	Door open to close	3.	 Check Intelligent Key warning buzzer. Check warning chime function. 			
		4.				
		5.	Check ignition knob switch.		DLK-97	
		6.	Check combination meter display function	n.	DLK-91	
		7.	Check Intermittent Incident.		<u>GI-51</u>	
		1.	Check ignition knob switch.		DLK-97	
				Instrument panel	DLK-40	
	Push-button igni-	2.	Check inside key antennas (1, 2, 3).	Luggage compartment	DLK-42	
	tion switch opera-			Center console	DLK-44	
	tion	3.	Check warning chime function.		DLK-92	
		4.	Check combination meter display function	n.	DLK-91	
ake away warning oes not operate.		5.	Check Intermittent Incident.		<u>GI-51</u>	
•		1.	Check ignition knob switch.		DLK-97	
			2. Check inside key antennas (1, 2, 3).	Instrument panel	DLK-40	
	D	2.		Luggage compartment	DLK-42	
	Door is open			Center console	DLK-44	
		3.	Check combination meter display function. Check Intermittent Incident.			
		4.				
		1.	Check "TAKE OUT FROM WIN WARN" setting in "WORK SUP-PORT".		DLK-33	
				Instrument panel	DLK-40	
		2.	Check inside key antennas (1, 2, 3).	Luggage compartment	DLK-42	
	Take away through			Center console	DLK-44	
	window	3.	Check warning chime function.		DLK-92	
		4.	Check ignition knob switch.		DLK-97	
		5.	Check combination meter display function	n.	DLK-91	
		6.	Check Intermittent Incident.		<u>GI-51</u>	
		1.	Check door switch.		DLK-48	
		2.	Check warning chime function.		DLK-92	
(ey warning chime	does not operate.	3.	Check ignition knob switch.		DLK-97	
		4.	Check combination meter display function	on.	DLK-91	
		5.	' '			
		1.				
		2.				
		3.	Check Intelligent Key warning buzzer.		<u>DLK-73</u>	
•	warning chime does	4. Check inside key antennas (1, 2, 3). Luggage compartment		<u>DLK-40</u>		
ot operate.				<u>DLK-42</u>		
				Center console	DLK-44	
		5.	Check Intermittent Incident.		<u>GI-51</u>	

KEY REMINDER FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

KEY REMINDER FUNCTION SYMPTOMS

Symptom Table

KEY REMINDER FUNCTION MALFUNCTION

NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to <u>DLK-8</u>, "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.
- · Ignition switch is not depressed.

Symptom	Diagnosis/service procedure Refe			
	1.	Check "ANTI KEY LOCK IN FUNCTI' PORT".	DLK-33	
	2.	Check door switch.		DLK-48
			Instrument panel	DLK-40
Key reminder function does not operate.	3.	Check inside key antennas (1, 2, 3)	Luggage compartment	DLK-42
			Center console	DLK-44
	4.	Check unlock sensor.		DLK-57
	5.	Check Intelligent Key battery inspection.		<u>DLK-87</u>
		Check Intermittent Incident.	<u>GI-51</u>	

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</u>, "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.
- Ignition switch is not depressed.

Symptom		Diagnosis/service procedure	
Hazard reminder does not operate by request		Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	DLK-33
switch. (Buzzer reminder operate.)	2.	Check hazard function.	DLK-93
(24220.1335.35.)	3.	Check Intermittent incident.	<u>GI-51</u>
Hazard reminder does not operate by Intelligent Key.		Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	DLK-33
(Buzzer reminder operate.)	2.	Check hazard function.	DLK-93
		Check Intelligent Key battery inspection.	DLK-87
Buzzer reminder does not operate by request		Check "ANS BACK I-KEY LOCK" or "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".	DLK-33
switch. (Hazard reminder operate.)	2.	Check Intelligent Key warning buzzer.	<u>DLK-73</u>
(. azara reminaer operate.)		Check Intermittent incident.	<u>GI-51</u>

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HORN FUNCTION

Symptom Table

HAZARD AND HORN REMINDER FUNCTION MALFUNCTION

- 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	
Hazard reminder does not operate by request switch.		Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	DLK-33
(Horn reminder operate.)	2.	Check hazard function.	DLK-93
		Check Intermittent Incident.	<u>GI-51</u>
Hazard reminder does not operate by Intelligent Key.		Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".	DLK-33
(Horn reminder operate.)	2.	Check hazard function.	DLK-93
		Check Intelligent Key battery inspection.	DLK-87
Horn reminder does not operate by request switch. (Hazard reminder operate.)		Check "ANSWER BACK WITH I-KEY LOCK" or "ANSWER BACK WITH I-KEY UNLOCK" setting in "WORK SUPPORT".	DLK-33
		Check Intelligent Key warning buzzer.	DLK-73
		Check Intermittent Incident.	<u>GI-51</u>
Horn reminder does not operate by Intelligent Key. (Hazard reminder operate.)		Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT".	DLK-33
		Check horn function.	DLK-89
		Check Intermittent Incident.	<u>GI-51</u>

HOMELINK UNIVERSAL TRANSCEIVER

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HOMELINK UNIVERSAL TRANSCEIVER

Symptom Table

HOMELINK UNIVERSAL TRANSCEIVER MALFUNCTION

Symptom		Diagnosis/service procedure	Reference page
Homelink universal transceiver does not operate properly.		Check homelink universal transceiver function.	DLK-114
		Check Intermittent Incident.	<u>GI-51</u>

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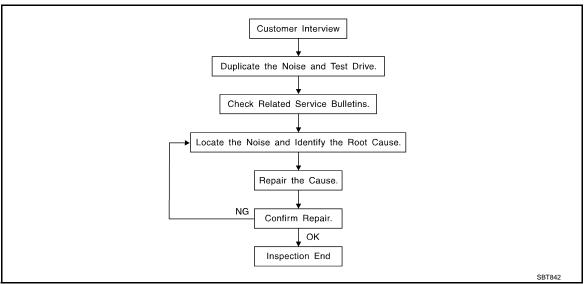
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Work Flow



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 DLK-176, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

DUPLICATE THE NOISE AND TEST DRIVE

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

[WITH INTELLIGENT KEY SYSTEM]

< 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 tem-
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks. Refer to DLK-174, "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.

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: 100×135 mm $(3.94 \times 5.31 \text{ in})/76884-71L01$: 60×85 mm $(2.36 \times 3.35 \text{ in})/76884-71L01$

71L02: $15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in})$

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick, 50×50 mm (1.97 \times 1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick, 50×50 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: 15×25 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

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< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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
- 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:

- 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 >

[WITH INTELLIGENT KEY SYSTEM]

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
- 2. Sunvisor shaft shaking in the holder
- 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
- A squeak between the seat pad cushion and frame
- 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
- Engine wall mounts and connectors
- Loose radiator mounting pins
- Hood bumpers out of adjustment
- 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.

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Diagnostic Worksheet

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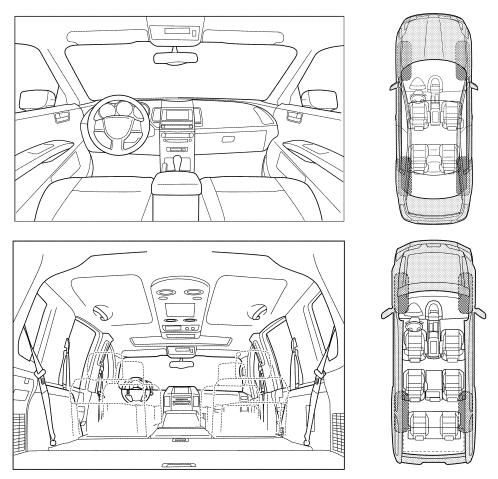
Dear Customer:

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.

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Briefly describe the location where the no	ise occurs:	
		<u> </u>
II. WHEN DOES IT OCCUR? (please che	eck the boxes that apply)	_
Anytime	☐ After sitting out in the rain	
1st time in the morning	☐ When it is raining or wet	
Only when it is cold outside	Dry or dusty conditions	
Only when it is hot outside	Other:	
II. WHEN DRIVING:	IV. WHAT TYPE OF NOISE	
☐ Through driveways	☐ Squeak (like tennis shoes on a clean floor)	
Over rough roads	☐ Creak (like walking on an old wooden floor)	
Over speed bumps	Rattle (like shaking a baby rattle)	
Only about mph	☐ Knock (like a knock at the door)	
On acceleration	Tick (like a clock second hand)	
Coming to a stop	☐ Thump (heavy muffled knock noise)	
On turns: left, right or either (circle)	Buzz (like a bumble bee)	
With passengers or cargo		
Other:		
	utes	_
Other: miles or min		_
Other: miles or min TO BE COMPLETED BY DEALERSHIP F		_
Other: miles or min O BE COMPLETED BY DEALERSHIP F		-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F		-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F	PERSONNEL	-
Other:		-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F	PERSONNEL YES NO Initials of person	-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F Test Drive Notes:	PERSONNEL YES NO Initials of person	-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F Test Drive Notes: Vehicle test driven with customer Noise verified on test drive	YES NO Initials of person performing	-
Other: miles or min TO BE COMPLETED BY DEALERSHIP F Test Drive Notes: Vehicle test driven with customer	YES NO Initials of person performing	
Other: miles or min After driving miles or min TO BE COMPLETED BY DEALERSHIP F Test Drive Notes: Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confin	YES NO Initials of person performing	

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.

Precaution for work

- 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.

[WITH INTELLIGENT KEY SYSTEM]

PREPARATION

PREPARATION

Special Service Tool

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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

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[WITH INTELLIGENT KEY SYSTEM]

Commercial Service Tool

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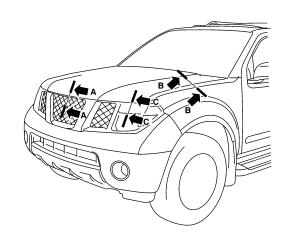
(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear	SIIA0995E	Locating the noise

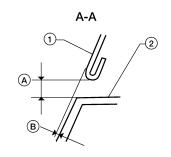
ON-VEHICLE REPAIR

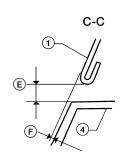
HOOD

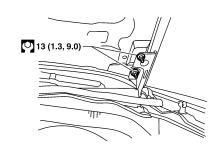
Fitting Adjustment

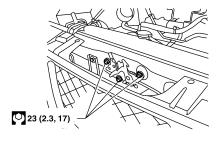
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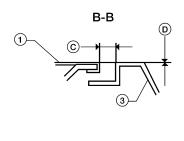












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1. Hood

4. Headlamp assembly

C. 4.5 mm (0.18 in)

F. 0.7 mm (0.03 in)

- 2. Front grille
- A. 6.0 mm (0.24 in)
- D. 0.0 mm (0.0 in)

- 3. Front fender
- B. 0.7 mm (0.03 in)
- E. 6.0 mm (0.24 in)

CLEARANCE AND SURFACE HEIGHT ADJUSTMENT

- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- Loosen the hood lock assembly and adjust the rubber bumpers until the surface height of the hood becomes 1 mm (0.04 in) lower than the fender.
- 3. Engage the hood striker and temporarily tighten.
- 4. Check the lock and striker for looseness.

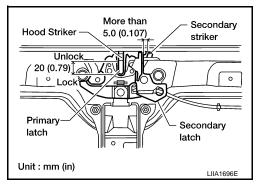
- 5. Tighten the bolts to specification.
- 6. Adjust the surface height of the hood according to the fitting standard dimension by rotating right and left rubber bumpers.
- 7. Install the front grille. Refer to EXT-16, "Removal and Installation".

HOOD LOCK ADJUSTMENT

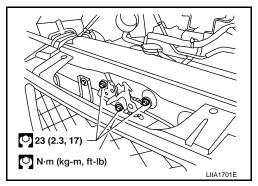
- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- 2. Move the hood lock to the left or right so that striker center is vertically aligned with hood lock center (when viewed from vehicle front).
- Make sure the secondary latch is properly engaged with the secondary striker with hood's own weight by dropping it from approx. 200 mm (7.87 in) height or by pressing it lightly approx. 3 kg (29 N, 7lb).

CAUTION:

Do not drop the hood from 300 mm (11.81 in) height or higher.



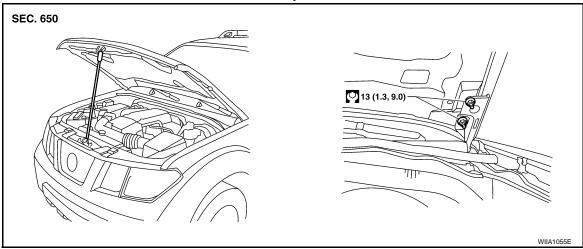
4. After adjusting hood lock, tighten the lock bolts to the specified torque.



5. Install the front grille. Refer to EXT-16, "Removal and Installation".

Removal and Installation of Hood Assembly

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- Support the hood striker with suitable tool to prevent it from falling.
- Remove the hinge nuts from the hood to remove the hood assembly.

CAUTION:

Operate with two workers, because of its heavy weight.

Installation is in the reverse order of removal.

Removal and Installation of Hood Lock Control

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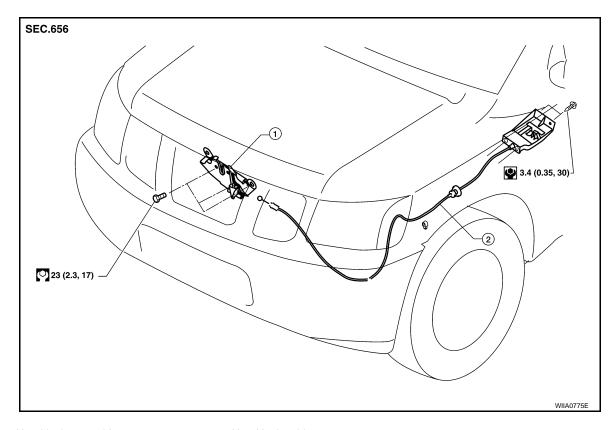
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1. Hood lock assembly

2. Hood lock cable

REMOVAL

- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- 2. Remove the front fender protector (LH). Refer to <u>EXT-20</u>, "Removal and Installation of Front Fender Protector".
- 3. Disconnect the hood lock cable from the hood lock, and unclip it from the radiator core support upper and hoodledge.
- 4. Remove the bolts, and the hood release handle.
- 5. Separate the grommet from the lower dash panel. Pull the hood lock cable out through the passenger compartment.

CAUTION:

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

INSTALLATION

1. Pull the hood lock cable through the lower dash panel hole into the engine room.

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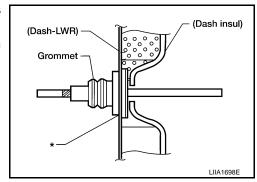
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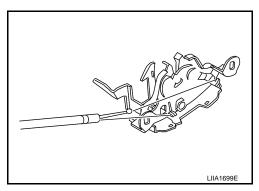
[WITH INTELLIGENT KEY SYSTEM]

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

- 2. Make sure the cable is not offset from the grommet, and push the grommet into the lower dash panel hole securely.
- 3. Apply sealant around the grommet at * mark.



- 4. Install the cable securely to the lock.
- 5. Adjust the hood lock. Refer to <u>DLK-183</u>, "Removal and Installation of Hood Lock Control".



6. Install the front grille. Refer to EXT-16, "Removal and Installation".

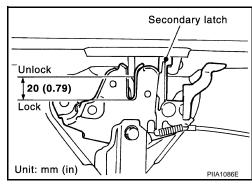
Hood Lock Control Inspection

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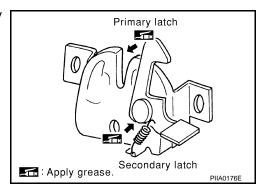
CAUTION:

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

- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- 2. Make sure the secondary latch is properly engaged with the secondary striker with hood's own weight by dropping it from approx. 200 mm (7.87 in) height.
- 3. While operating the hood opener, carefully make sure the front end of the hood is raised by approx. 20 mm (0.79 in). Also make sure the hood opener returns to the original position.



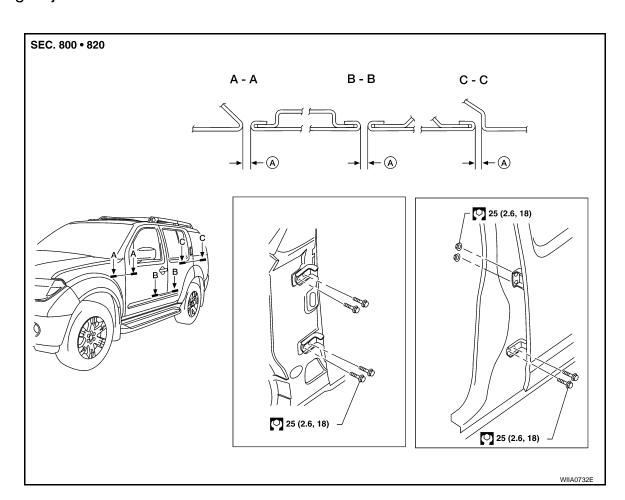
4. Check the hood lock lubrication condition. If necessary, apply "body grease" to the points shown.



5. Install the front grille. Refer to EXT-16, "Removal and Installation".

DOOR

Fitting Adjustment



A. 4.5 ± 1.0 mm $(0.177 \pm 0.039 \text{ in})$

Front door

Longitudinal clearance and surface height adjustment at front end

- 1. Remove the fender. Refer to EXT-18, "Removal and Installation".
- 2. Loosen the hinge bolts. Raise or lower the front door at rear end to adjust.
- Install the fender. Refer to <u>EXT-18</u>, "Removal and Installation".

Rear door

Longitudinal clearance and surface height adjustment at front end

- 1. Remove the center pillar upper finisher. Refer to INT-13, "Removal and Installation".
- 2. Loosen the lower hinge bolts.
- 3. From inside the vehicle, loosen the upper hinge nuts. Open the door, and raise or lower the rear end of the door to adjust.
- 4. Install the center pillar lower finisher. Refer to INT-13, "Removal and Installation".

Back door

Longitudinal clearance and surface height adjustment

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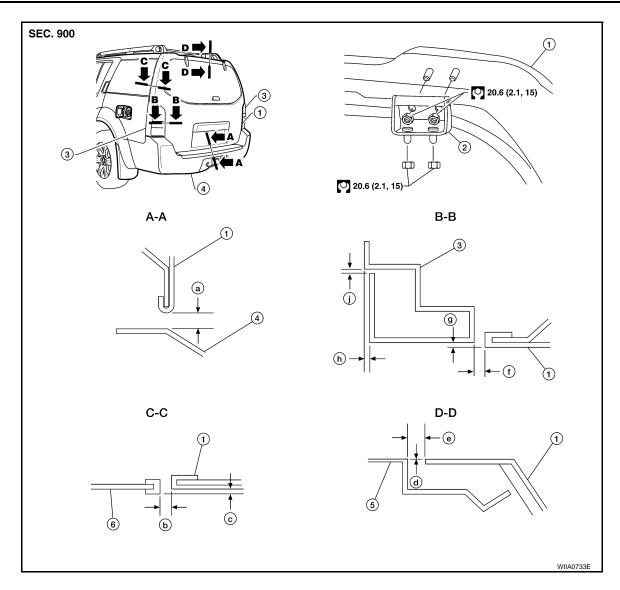
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- 1. Back door assembly
- 4. Rear bumper fascia
- a. $7.2 \pm 2.0 \text{ mm} (0.28 \pm 0.06 \text{ in})$
- d. 1.0 ± 1.5 mm $(0.04 \pm 0.06$ in)
- g. $0.8 \pm 2.0 \text{ mm} (0.03 \pm 0.08 \text{ in})$
- 2. Back door hinge
- 5. Roof
- b. $6.0 \pm 1.5 \text{ mm} (0.24 \pm 0.06 \text{ in})$
- e. 8.0 ± 1.5 mm $(0.31 \pm 0.06$ in)
- h. $0.8 \pm 1.0 \text{ mm} (0.03 \pm 0.04 \text{ in})$
- 3. Tail lamp assembly
- 6. Side window glass
- c. $2.0 \pm 2.0 \text{ mm} (0.08 \pm 0.08 \text{ in})$
- f. $5.3 \pm 2.0 \text{ mm} (0.21 \pm 0.08 \text{ in})$
- 2.0 \pm 1.0 mm (0.08 \pm 0.04 in)

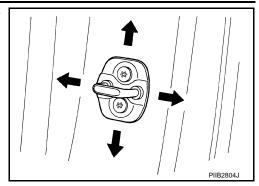
- 1. Open and support the back door.
- 2. Slightly loosen the hinge nuts.
- 3. Reposition the door as necessary and tighten the nuts.
- 4. Confirm the adjustment. Repeat as necessary to obtain the desired fit.

Striker adjustment

BODY SIDE DOORS

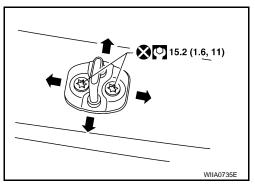
[WITH INTELLIGENT KEY SYSTEM]

Adjust the striker so that it becomes parallel with the lock insertion direction.



BACK DOOR

1. Adjust the striker so that it becomes parallel with the lock insertion direction.



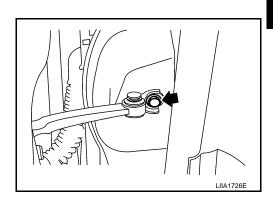
Removal and Installation

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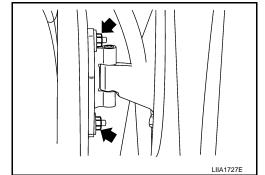
FRONT DOOR

CAUTION:

- When removing and installing the door assembly, support the door with a jack and shop cloth to protect the door and body.
- When removing and installing door assembly, be sure to carry out the fitting adjustment.
- Check the hinge rotating part for poor lubrication. If necessary, apply "body grease".
- 1. Remove the front door glass and regulator. Refer to GW-14, "Front Door Glass Regulator".
- 2. Remove the door harness.
- 3. Remove the check link bolt from the hinge pillar.



4. Remove the door-side hinge nuts, and the door assembly. Installation is in the reverse order of removal.



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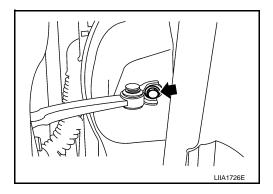
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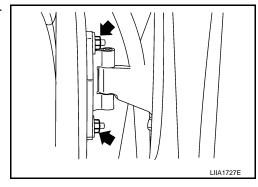
REAR DOOR

- 1. Remove the door finisher. Refer to INT-10, "Removal and Installation".
- 2. Remove the inner seal.
- 3. Remove the rear door glass and regulator. Refer to GW-18, "Rear Door Glass Regulator".
- 4. Remove the door harness.
- 5. Remove the check link bolt from the hinge pillar.



6. Remove the door-side hinge nuts, and remove the door assembly.

Installation is in the reverse order of removal.



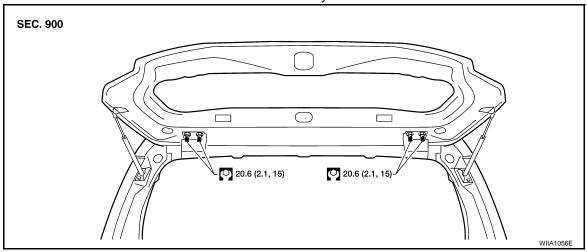
BACK DOOR

- 1. Remove the glass hatch. Refer to GW-23, "Removal and Installation".
- 2. Remove the license lamp finisher. Refer to EXT-19, "Removal and Installation".
- 3. Remove the back door lock assembly. Refer to <u>DLK-194, "Component Structure"</u>.
- 4. Remove the back door wire harness.
- 5. Remove the rear washer nozzle and hose from the back door. Refer to <u>WW-54, "Removal and Installation"</u>

CAUTION:

Two technicians should be used to avoid damaging the back door during removal.

- 6. Support the back door.
- 7. Remove the back door stays.
- 8. Remove the door side nuts and the back door assembly.



Installation is in the reverse order of removal.

• Align the back door. Refer to <u>DLK-185</u>, "Fitting Adjustment".

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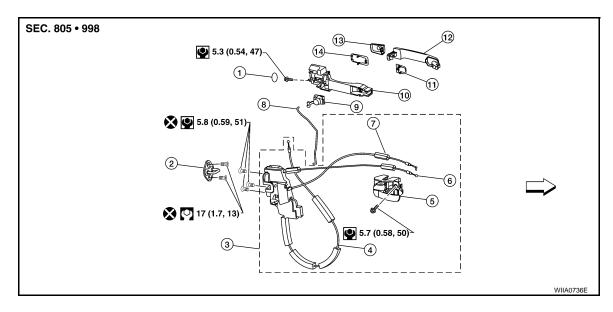
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FRONT DOOR LOCK

Component Structure

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- 1. Grommet
- Outside handle cable
- 7. Door lock cable
- 10. Outside handle bracket
- Door key cylinder assembly (Driver side) Outside handle escutcheon (Passenger side)
- 2. Front door striker
- 5. Inside handle assembly
- 8. Key cylinder rod (Driver side only)
- 11. Front gasket
- 14. Rear gasket

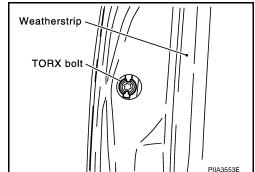
- 3. Door lock assembly
- 6. Inside handle cable
- 9. Door key cylinder
- 12. Outside handle
- ∀ehicle front

Removal and Installation

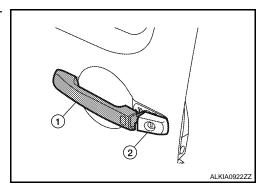
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REMOVAL

- 1. Remove the front door window regulator. Refer to GW-14, "Front Door Glass Regulator".
- 2. Remove door side grommet, and remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side) bolts (TORX T30) from grommet hole.



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

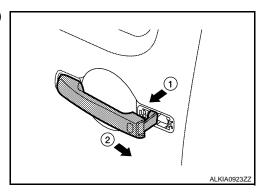


FRONT DOOR LOCK

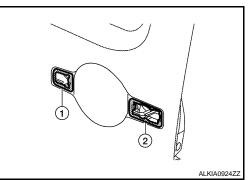
< ON-VEHICLE REPAIR >

[WITH INTELLIGENT KEY SYSTEM]

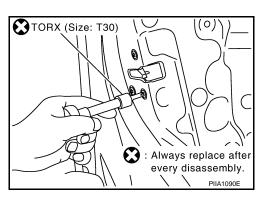
- 4. If equipped, separate the door key cylinder rod from the door key cylinder assembly.
- 5. Disconnect the intelligent key electrical connectors.
- 6. While pulling outside handle (1), slide toward rear of vehicle (2) to remove outside handle.



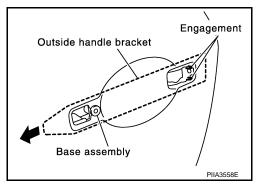
7. Remove the front gasket (1) and rear gasket (2).



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



9. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket and door lock assembly as shown.



10. Disconnect the door lock actuator electrical connector.

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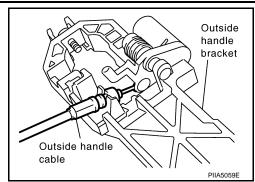
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[WITH INTELLIGENT KEY SYSTEM]

11. Separate the outside handle cable connection from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

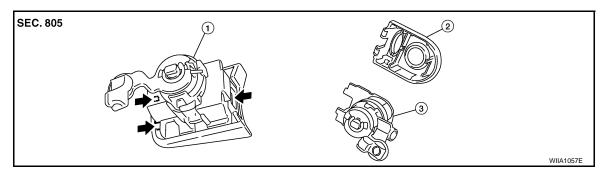
CAUTION:

To install the key cylinder rod, be sure to rotate the key cylinder rod holder until a click is felt.

Disassembly and Assembly

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DOOR KEY CYLINDER ASSEMBLY



- 1. Door key cylinder assembly
- 2. Door key cylinder escutcheon
- 3. Door key cylinder

 \leftarrow Pawl

Release the key cylinder escutcheon pawls to remove the door key cylinder.

REAR DOOR LOCK

Component Structure

SEC. 825

2
5.3 (0.54, 47)

2
5.8 (0.59, 51)

3

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- 1. Outside door handle
- 4. Outside door handle cable
- 7. Door lock cable

- 2. Rear door striker
- 5. Inside door handle cable
- ∀ehicle front

- 3. Rear door lock assembly
- 6. Inside door handle assembly

Removal and Installation

REMOVAL

- 1. Remove the rear door window regulator. Refer to GW-18, "Rear Door Glass Regulator".
- 2. Remove door grommets, and remove outside handle nuts from the hole.
- 3. Remove outside handle.
- 4. Disconnect the outside handle cable connection.
- 5. Remove the inside door handle.
- 6. Disconnect the door lock and inside door handle cables from the inside door handle.
- 7. Disconnect the door lock actuator connector and remove the assembly.

INSTALLATION

Installation is in the reverse order of removal.

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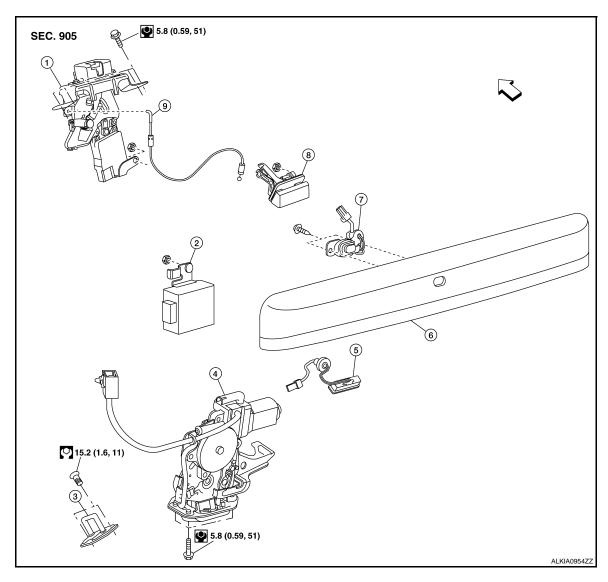
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BACK DOOR LOCK

Component Structure

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- 1. Glass hatch latch assembly
- 4. Back door latch assembly
- 7. Key button
- ∀ehicle front

- 2. Back door control assembly
- 5. Back door release button
- 8. Glass hatch release handle
- 3. Back door striker
- 6. Back door finisher
- 9. Glass hatch release cable

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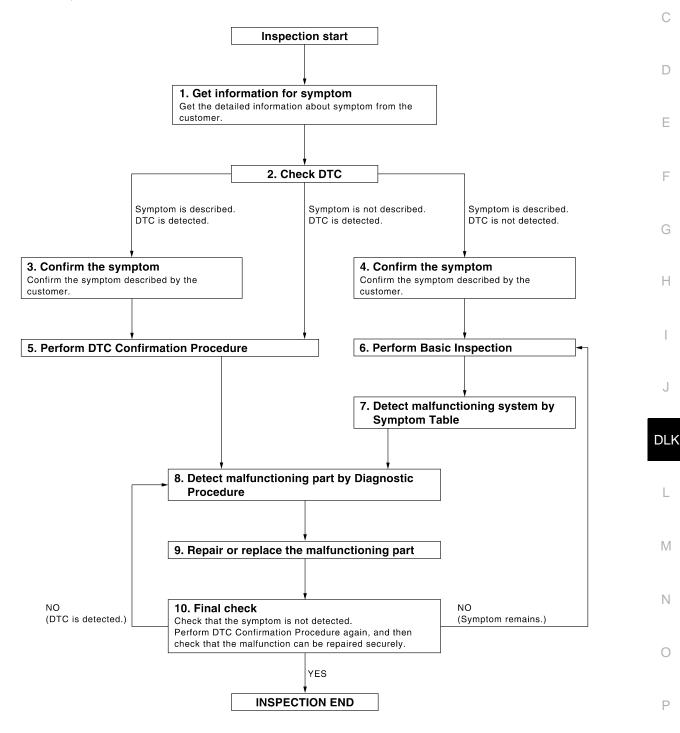
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000001563655 В

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

[WITHOUT INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2. CHECK DTC

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

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.

Symptom is described, DTC is not displayed>>GO TO 4.

Symptom is not described, DTC is displayed>>GO TO 5.

${f 3.}$ CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4. CONFIRM THE SYMPTOM

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 DLK-284, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

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

Is DTC detected?

Yes >> GO TO 8.

No >> Refer to GI-51, "Intermittent Incident".

6.PERFORM BASIC INSPECTION

Perform DLK-195, "Work Flow".

Inspection End>>GO TO 7.

7.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to <u>DLK-291</u>, "<u>Symptom Table</u>" based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

>> GO TO 8.

DIAGNOSIS AND REPAIR WORKFLOW [WITHOUT INTELLIGENT KEY SYSTEM]

< 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.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
- 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.

OK or NG

NG (DTC is detected)>>GO TO 8.

NG (Symptom remains)>>GO TO 6.

OK >> INSPECTION END

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III Operation Manual for the initialization procedure.

FUNCTION DIAGNOSIS

DOOR LOCK FUNCTION DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH: System Diagram

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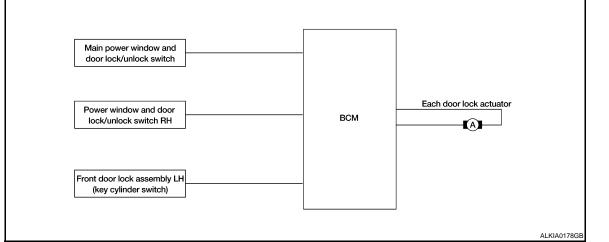
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DOOR LOCK AND UNLOCK SWITCH: System Description

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Switch	Input/output signal to BCM	BCM function	Actuator
Main power window and door lock/unlock switch			
Power window and door lock/ unlock switch	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 <a href="https://documents.org/linearing-new-normal-new-norm

Key Reminder System

Refer to <u>DLK-241</u>, "<u>Diagnosis Procedure</u>".

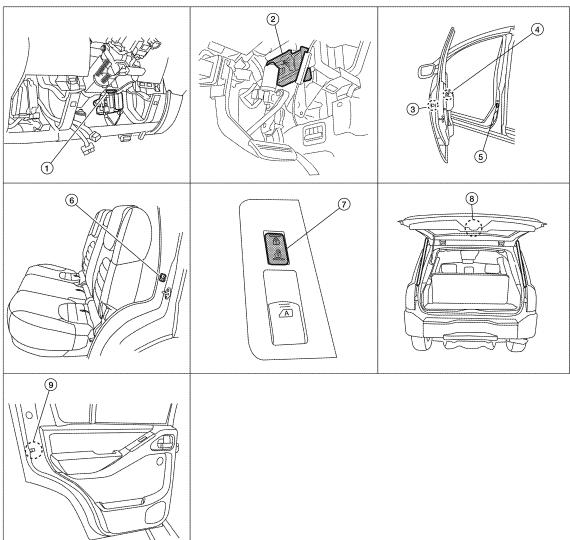
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DOOR LOCK AND UNLOCK SWITCH: Component Parts Location

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1. Key switch M27

- BCM M18, M19, M20 (view with instrument panel LH removed)
- Main power window and door lock/unlock D7, D8
- Front door switch LH B8 RH B108
- Power window and door lock/unlock switch RH D105
- Back door cinching latch unit (door ajar switch) D502
 Back door lock actuator D508
- Front door lock assembly LH (key cylinder switch) D14
 Front door lock actuator RH D114
- 6. Rear door switch LH B18 RH B116
- 9. Rear door lock actuator LH D205 RH D305

DOOR LOCK AND UNLOCK SWITCH: Component Description

INFOID:0000000001563661

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.

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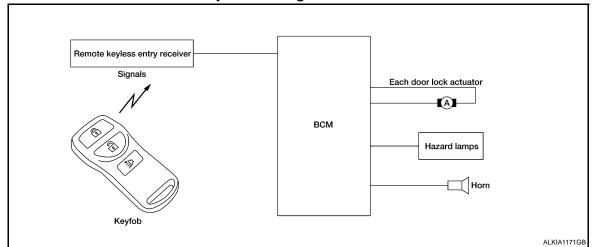
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REMOTE KEYLESS ENTRY: System Diagram



REMOTE KEYLESS ENTRY: System Description

OPERATED PROCEDURE

- When the keyfob is operated, the signal from the keyfob is sent and the remote keyless entry receiver receives the signal and sends it to the BCM. The BCM only locks/unlocks the doors if the ID number matches. (Remote control entry functions)
- Using the keyfob, the transmitter sends radio waves to the remote keyless entry receiver, which then sends the received waves to the BCM. Only if the ID number matches does the BCM lock/unlock the doors. (Remote control door function)
- Unless the key is inserted into the ignition key cylinder or one of the doors is opened within 1 minute after the UNLOCK switch on the keyfob is pressed, all the doors are automatically locked. (Auto lock function)
- When a door is locked or unlocked, the vehicle turn signal lamps flash and the horn sounds to verify operation. (Active check function)
- When the key is in the ignition key cylinder (when the key switch is ON) and one of the doors is open, the door lock function does not work even when the door lock is operated with the keyfob.
- · Kevfob ID set up is available.
- If a keyfob is lost, a new keyfob can be set up. A maximum of 5 IDs can be set up simultaneously.

REMOTE CONTROL ENTRY FUNCTIONS

- When a button on the keyfob is operated, the signal is sent from the keyfob and received by the remote keyless entry receiver.
- The received signal is sent to the BCM and compared with the registered ID number.
- If the ID number matches, the BCM sends the lock/unlock signal to each door lock actuator.
- When the door lock actuators receive this signal, each operates to lock/unlock its door.
- BCM locks all doors with input of LOCK signal from keyfob.
- When an UNLOCK signal is sent from keyfob once, driver's door will be unlocked.
- Then, if an UNLOCK signal is sent from keyfob again within 5 seconds, all other doors will be unlocked.

REMOTE CONTROL ENTRY OPERATION CONDITIONS

Keyfob operation	Operation condition
Door lock operation (locking)	With key removed (key switch: OFF)Closing all doors (door switch: OFF)
Door lock operation (unlocking)	With key removed (key switch: OFF)

AUTO LOCK FUNCTION

Operation Description

 Unless the key is inserted into the ignition key cylinder, one of the doors is opened, or the keyfob is operated within 1 minute after a door lock is unlocked by keyfob operation, all the doors are automatically locked. The 1 minute timer count is executed by the BCM and after 1 minute, the BCM sends the lock signal to all doors.

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DOOR LOCK FUNCTION

Lock operations are the same as for the remote control entry function.

ACTIVE CHECK FUNCTION

Operation Description

When a door is locked or unlocked by keyfob operation, the vehicle turn signals flash and the horn sounds to verify operation.

- When a button on the keyfob is operated, the signal is sent from the remote controller and received by the keyless remote entry receiver.
- The received signal is sent to the BCM and compared with the registered ID number.
- If the ID number matches, the BCM uses communication to send the turn signal flashing and horn signal to the IPDM E/R.
- The IPDM E/R flashes the turn signal lamps and sounds the horn for each keyfob operation.

Operating function of hazard and horn reminder

	C mode		S mode	
Keyfob operation	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Once	Twice	_
Horn sound	Once	_	_	_

HAZARD AND HORN REMINDER

BCM output to IPDM E/R for horn reminder signal as DATA LINE (CAN-H line and CAN-L line).

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

How to change hazard and horn reminder mode

With CONSULT-III

Hazard and horn reminder can be changed using "WORK SUPPORT" mode in "MULTI ANSWER BACK SET".

Without CONSULT-III

Refer to Owner's Manual for instructions.

INTERIOR LAMP OPERATION

When the following input signals are both supplied:

- all door switches are in the OFF position. (when all the doors are closed);
- interior lamp switch is in DOOR position.

Remote keyless entry system turns on interior lamp and ignition keyhole illumination (for 30 seconds) with input of UNLOCK signal from keyfob.

PANIC ALARM OPERATION

When key switch is OFF (when ignition key is not inserted in key cylinder), remote keyless entry system turns on and off horn and headlamp intermittently with input of PANIC ALARM signal from keyfob.

The alarm automatically turns off after 25 seconds or when BCM receives any signal from keyfob.

KEYLESS POWER WINDOW DOWN (OPEN) OPERATION

When keyfob unlock switch is turned ON with ignition switch OFF, and the switch is detected to be ON continuously for more than 1 second, the driver's door and passenger's door power windows are simultaneously opened.

Power window is operated to open and the operation continues as long as the keyfob unlock switch is pressed.

REMOTE KEYLESS ENTRY: Component Parts Location

INFOID:0000000001563664

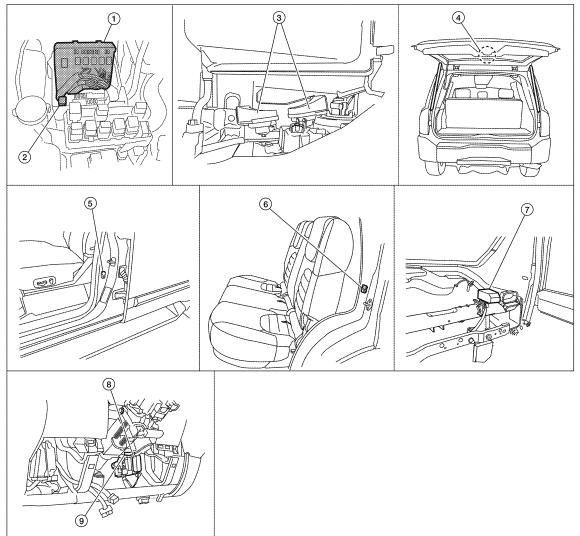
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- 1. IPDM E/R E122, E124
- 4. Back door cinching latch unit (door ajar switch) D502
- Remote keyless entry receiver M120 (view with instrument panel RH removed)
- 2. Horn relay H-1 (view with cover removed)
- 5. Front door switch LH B8 RH B108
- 8. BCM M18, M19, M20 (view with instrument panel LH removed)
- 3. Horn E3 (behind front combination lamp LH)
- 6. Rear door switch LH B18 RH B116
- 9. Key switch M27

REMOTE KEYLESS ENTRY: Component Description

INFOID:0000000001563665

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 switch	Transmits door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the keyfob, and then transmits to BCM.

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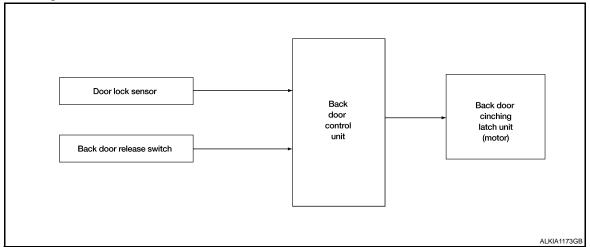
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BACK DOOR OPENER FUNCTION

System Diagram

INFOID:0000000001563666



System Description

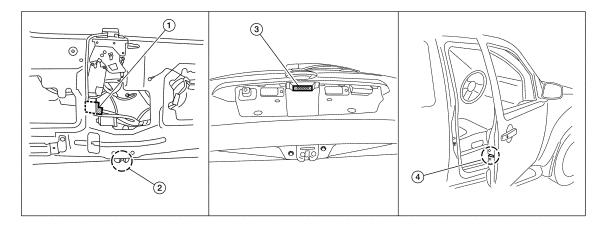
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BACK DOOR OPENER OPERATION

The back door system consists of back door release switch, back door control unit, and back door cinching latch unit which contains a motor to pull the back door completely shut during closing. Back door lock opening is allowed when the right front door is open only.

Component Parts Location

INFOID:0000000001563668



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- Back door control unit D509 (view with back door panel removed)
- 2. Back door cinching latch unit D502
- 3. Back door release switch D510

4. Door lock sensor D103

Component Description

INFOID:0000000001563669

Item	Function
Back door release switch	Transmits back door open operation signal to back door control unit.
Back door control unit	Transmits back door open operation to back door motor.
Back door close switch	Transmits back door close switch signal to back door control unit.
Back door neutral switch	Transmits back door neutral switch signal to back door control unit.

BACK DOOR OPENER FUNCTION

< FUNCTION DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Item	Function	
Back door half switch	Transmits back door half switch signal to back door control unit.	
Door lock sensor	Transmits right front door unlock position to back door control unit.	

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HOMELINK UNIVERSAL TRANSCEIVER

< FUNCTION DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HOMELINK UNIVERSAL TRANSCEIVER

Component Description

INFOID:0000000001563670

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

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

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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-284, "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		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	×	×	×
BCM	ВСМ	×		
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	
RAP system	RETAINED PWR		×	

DOOR LOCK

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

INFOID:0000000001563672

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.

DATA MONITOR

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

ACTIVE TEST

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

REMOTE KEYLESS ENTRY

REMOTE KEYLESS ENTRY : CONSULT-III Function (BCM - RKE)

INFOID:0000000001563673

"MULTI REMOTE ENT"

Data Monitor

Monitored Item	Description
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEYLESS PANIC	Indicates [ON/OFF] condition of panic signal from keyfob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from keyfob.
KEYLESS LOCK	Indicates [ON/OFF] condition of lock signal from keyfob.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from door key cylinder switch.
KEYLESS PBD	Indicates [ON/OFF] condition of power back door signal from keyfob.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from lock/unlock switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from lock/unlock switch.

DIAGNOSIS SYSTEM (BCM)

Auto locking function

< FUNCTION DIAGNOSIS >					[WITHOUT INTELLIGENT KEY SYSTEM]								
Monito	ed Item				Description								
DOOR SW-RL				Indicates [ON/OFF] condition of rear door switch LH.									
DOOR SW-RR			Indica	tes [ON/C	OFF] cond	lition of re	ar door s	witch RH.					
RKE LCK-UNLCK			Indica	tes [ON/C	OFF] cond	lition of lo	ck/unlock	signal at	the same	time fron	n keyfob.		
RKE KEEP UNLK			Indica	tes [ON/C	OFF] cond	lition of ur	nlock sign	al from ke	eyfob.				
Active Test													
Test Iter	n							Descrip	otion				
FLASHER			wher	า "RH" on		T-III scre					right haz		turns on " on CON-
POWER WINDOW	DOWN				le to chec screen is		window do	own opera	ation. The	windows	are lowe	red when	"ON" on
HORN							larm and screen is			rations. T	he alarm	activate fo	or 0.5 sec-
DOOR LOCK					le to chec en touche		ck operation	on. The d	oors lock	and unloc	ck based o	on the iten	n on CON-
TRUNK/BACK DOO	OR				le to chec screen is		oor actuat	or operat	ion. The b	ack door	is opened	d when "C	PEN" on
Work Support													
Test Iter	n			Description									
REMO CONT ID R	EGIST		Keyf	ob ID code can be registered.									
REMO CONT ID EI	RASUR		Keyf	fob ID code can be erased.									
REMO CONT ID C	ONFIR		It car	n be chec	ked whet	her keyfo	b ID code	is registe	ered or no	t in this m	node.		
HORN CHIRP SET							changed I screen is			function n	node will l	be change	ed when
HAZARD LAMP SE	Т						be change I screen is			e functior	n mode wi	ll be chan	ged when
MULTI ANSWER B	ACK SET						can be ch ULT-III sc			e. The rer	minder mo	ode will be	changed
AUTO LOCK SET							oe change I screen is			e function	mode wil	ll be chan	ged when
PANIC ALRM SET							be change I screen is			operatio	n mode w	ill be chan	iged when
TRUNK OPEN SET	-						e can be c ULT-III sc	-		e. The op	eration m	ode will be	e changed
										in this mo		peration	
Hazard and horn remi	nder mode)											
		DE 1 node)	1		DE 2 node)	MOI	DE 3	МО	DE 4	МО	DE 5	МО	DE 6
Keyfob operation	Lock	Unl	ock	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Or	nce	Twice	_	_	_	Twice	Once	Twice	_	_	Once
Horn sound	Once	_	_	_	_	_	_	_	_	Once	_	Once	_
Horn sound Once — Auto locking function mode			N	ODE 1	_	_	— MODE	2	Once	—	Once	_	

Nothing

5 minutes

1 minute

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Panic alarm operation mode				
	MODE 1	MODE 2	MODE 3	
Keyfob operation	n 0.5 seconds N		1.5 seconds	
Back door open operation mode				
	MODE 1	MODE 2	MODE 3	
Keyfob operation	0.5 seconds	Nothing	0.5 seconds	
eyless power window down operation	tion mode			
	MODE 1	MODE 2	MODE 3	
Keyfob operation	3 seconds	Nothing	5 seconds	

U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000001728445

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-57, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause	
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds 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)	

Diagnosis Procedure

1.PERFORM SELF DIAGNOSTIC

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

2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to <u>DLK-211</u>, "<u>Diagnosis Procedure</u>".

NO >> Refer to GI-51, "Intermittent Incident".

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U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000001728449

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM.

Special Repair Requirement

INFOID:0000000001728450

1. REQUIRED WORK WHEN REPLACING BCM

The BCM must be initialized when replaced. Refer to (Body Control System) for BCM configuration. Initialize NVIS by CONSULT-III. For the details of initialization refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

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Refer to BCS-32, "Diagnosis Procedure".

BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY: Diagnosis Procedure

INFOID:0000000001728462

1. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect back door control unit connector. 2.
- Check voltage between back door control unit harness connector D509 terminal 1 and ground.

Connector	Term	Voltage (V) (Approx.)	
D509	(+)	(-)	Battery voltage
D 303	1	Ground	Battery voltage

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Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace back door control unit power supply circuit.

2.CHECK GROUND CIRCUIT

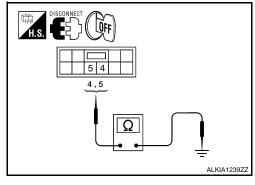
Check continuity between back door control unit harness connector D509 terminals 4, 5 and ground.

Connector	Term	Continuity	
D509	4	Ground	Yes
D000	5	Giodila	103

Is the inspection result normal?

YES >> Power supply and ground circuits are OK.

NO >> Repair or replace the back door control unit ground cir-



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[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR SWITCH

Description INFOID:000000001728463

Detects door open/close condition.

Component Function Check

INFOID:0000000001728464

1. CHECK FUNCTION

(II) With CONSULT-III

Check door switches in data monitor mode with CONSULT-III.

Monitor item	Condition
DOOR SW-DR	
DOOR SW-AS	
DOOR SW-RL	$CLOSE \to OPEN : \; OFF \to ON$
DOOR SW-RR	
BACK DOOR SW	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-214</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001728465

1. CHECK DOOR SWITCHES INPUT SIGNAL

With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR", "BACK DOOR SW") in DATA MONITOR mode with CONSULT-III.

• When doors are open:

DOOR SW-AS :ON
DOOR SW-RL :ON
DOOR SW-RR :ON
BACK DOOR SW :ON

· When doors are closed:

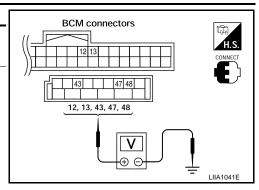
DOOR SW-DR :OFF
DOOR SW-AS :OFF
DOOR SW-RL :OFF
DOOR SW-RR :OFF
BACK DOOR SW :OFF

Without CONSULT-III

Check voltage between BCM connector M18 or M19 terminals 12, 13, 43, 47, 48 and ground.

[WITHOUT INTELLIGENT KEY SYSTEM]

Connec-	Item	Term	inals	Condition	Voltage (V) (Approx.)	
tor	item	(+)	(-)	Condition		
	Back door switch/latch	43				
M19	Front door switch LH	47	Ground	Open ↓ Closed	0 ↓ Battery voltage	
	Rear door switch LH	48				
M18	Front door switch RH	12				
IVITO	Rear door switch RH	13				



Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect door switch and BCM.
- Check continuity between BCM connector (A) M18, M19 terminals 12, 13, 43, 47, 48 and door switch connector (B) B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector (C) D502 terminal 7.

2 - 47 :Continuity should exist 2 - 12 :Continuity should exist 2 - 48 :Continuity should exist 2 - 13 :Continuity should exist 7 - 43 :Continuity should exist

Check continuity between door switch connector (B) B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector (C) D502 terminal 7 and ground.

2 - Ground :Continuity should not exist7 - Ground :Continuity should not exist

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

A DISCONNECT 12,13,43,47,48 B C 2,7 ALKIA0689ZZ

3. CHECK DOOR SWITCHES

- · Disconnect door switch harness.
- · Check continuity between door switch connector terminals.

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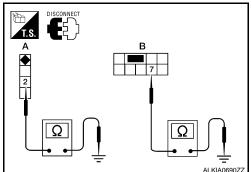
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DOOR SWITCH

[WITHOUT INTELLIGENT KEY SYSTEM]

Switch	Terminals	Condition	Continuity
A: Door switch	2 – Ground	Open	Yes
(front and rear)	2 – Giodila	Closed	No
B: Back door switch	7 – Ground	Open	Yes
D. Dack door switch	7 – Glodila	Closed	No



Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> (Front and rear doors) Replace door switch.

NO >> (Back door) GO TO 4.

4. CHECK BACK DOOR SWITCH CIRCUIT

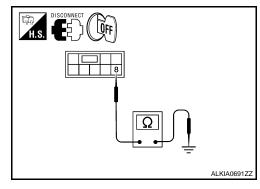
• Check continuity between door switch connector terminal and ground.

Connector	Terminals	Continuity
Back door switch	8 – Ground	Yes

Is the inspection result normal?

YES >> Replace back door switch. NO

>> Repair or replace harness.



< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

DOOR LOCK AND UNLOCK SWITCH

DRIVER SIDE

DRIVER SIDE : Description

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Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

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1. CHECK FUNCTION

(P)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	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
ODE DINEOUR SVV	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> refer to <u>DLK-217</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

With CONSULT-III

Check main power window and door lock/unlock switch ("CDL LOCK SW", "CDL UNLOCK SW") in DATA MONITOR mode in CONSULT-III.

When main power window and door lock/unlock switch is turned to LOCK:

CDL LOCK SW :ON

• When main power window and door lock/unlock switch is turned to UNLOCK:

CDL UNLOCK SW :ON

Without CONSULT-III

- 1. Remove key from ignition key cylinder.
- 2. Using an oscilloscope, check the signal between BCM connector M18 terminal 22 and ground when the main power window and door lock/unlock switch is turned to LOCK or UNLOCK.
- Make sure the signals which are shown in the figure below can be detected during 10 seconds just after the door lock/unlock switch is turned to LOCK or UNLOCK.

Connector	Terminal		Voltage (V)
Connector	(+)	(-)	voltage (v)
M18	22	Ground	(V) 15 10 5 0

BCM connector

22

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Is the inspection result normal?

YES >> Door lock and unlock switch circuit is OK.

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< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

NO >> GO TO 2.

2.CHECK BCM OUTPUT SIGNAL

Check ("POWER WINDOW DOWN") in ACTIVE TEST mode for "MULTI REMOTE ENT" with CONSULT-III.

When "ACTIVE TEST" is performed, the front windows should be lowered.

Is the inspection result normal?

YES >> GO TO 3.

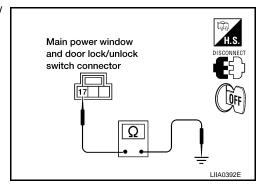
NO >> Replace BCM. Refer to BCS-54, "Removal and Installation".

3.check door lock/unlock switch ground harness

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector D8 terminal 17 and ground.

17 - Ground

: Continuity should exist.



Is the inspection result normal?

YES >> GO TO 4.

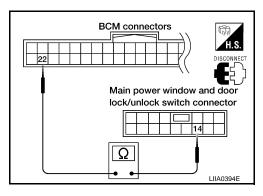
NO >> Repair or replace harness.

4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Disconnect BCM.
- Check continuity between BCM connector M18 terminal 22 and main power window and door lock/unlock switch connector D7 terminal 14.

22 - 14

: Continuity should exist.



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch.

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000001728469

INFOID:0000000001728470

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE: Component Function Check

1. CHECK FUNCTION

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

(P)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	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SVV	UNLOCK	: ON	

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-219</u>, "PASSENGER SIDE : <u>Diagnosis Procedure"</u>.

PASSENGER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

With CONSULT-III

Check power window and door lock/unlock switch RH ("CDL LOCK SW", "CDL UNLOCK SW") in DATA MONITOR mode in CONSULT-III.

• When power window and door lock/unlock switch RH is turned to LOCK:

CDL LOCK SW :ON

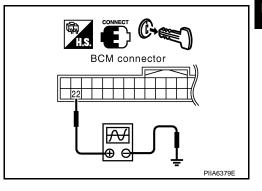
When power window and door lock/unlock switch RH is turned to UNLOCK:

CDL UNLOCK SW :ON

Without CONSULT-III

- Remove key from ignition key cylinder.
- 2. Using an oscilloscope, check the signal between BCM connector M18 terminal 22 and ground when power window and door lock/unlock switch RH is turned to LOCK or UNLOCK.
- 3. Make sure the signals which are shown in the figure below can be detected during 10 seconds just after the power window and door lock/unlock switch RH is turned to LOCK or UNLOCK.

Connector	Terr	ninal	Voltage (V)	
Connector	(+)	(-)	voltage (v)	
M18	22	Ground	(V) 15 10 5 0 10 ms	



Is the inspection normal?

YES >> Power window and door lock/unlock switch RH circuit is OK.

NO >> GO TO 2.

2. CHECK BCM OUTPUT SIGNAL

Check ("POWER WINDOW DOWN") in ACTIVE TEST mode for "MULTI REMOTE ENT" with CONSULT-II.

When "ACTIVE TEST" is performed, the front windows should be lowered.

Is the inspection normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-54, "Removal and Installation".

DLK-219

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< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

3.check door lock/unlock switch ground harness

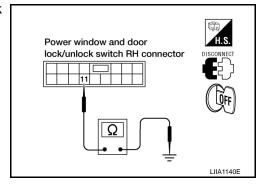
- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector D105 terminal 11 and ground

11 - Ground : Continuity should exist.

Is the inspection normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

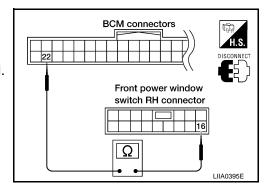
- 1. Disconnect BCM.
- 2. Check continuity between BCM connector M18 terminal 22 and power window and door lock/unlock switch RH connector D105 terminal 16.

22 - 16 : Continuity should exist.

Is the inspection normal?

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

NO >> Repair or replace harness.



KEY CYLINDER SWITCH

Description INFOID:000000001728472

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.

Component Function Check

INFOID:0000000001728473

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1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check "KEY CYL LK-SW" AND "KEY CYL UN-SW" in DATA MONITOR mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III.

Monitor item	Condition	
KEY CYL LK-SW	Lock	: ON
RET CTL LN-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 >> Refer to <u>DLK-221, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001728474

1. CHECK DOOR KEY CYLINDER SWITCH LH

(P)With CONSULT-III

Check front door lock assembly LH (key cylinder switch) ("KEY CYL LK-SW") and ("KEY CYL UN-SW) in DATA MONITOR mode with CONSULT-III.

When key inserted in left front key cylinder is turned to LOCK:

KEY CYL LK-SW : ON

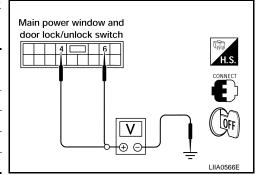
When key inserted in left front key cylinder is turned to UNLOCK:

KEY CYL UN-SW : ON

Without CONSULT-III

Check voltage between main power window and door lock/unlock switch connector D7 terminals 4, 6 and ground.

Connector	Terminals		Terminals Condition of left front key cylinder	
Commodia	(+)	(-)	condition of lost from key symmetr	(Approx.)
	4 Ground		Neutral/Unlock	5
5.7			Lock	0
D7		Neutral/Lock	5	
		Unlock	0	



Is the inspection result normal?

YES >> Key cylinder switch signal is OK.

NO >> GÓ TÓ 2.

2.CHECK DOOR KEY CYLINDER SWITCH LH GROUND HARNESS

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly LH (key cylinder switch).

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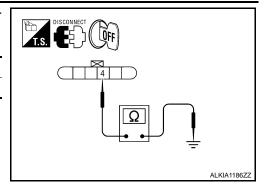
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Check continuity between front door lock assembly LH (key cylinder switch) connector (A) D14 terminal 4 and body ground.

Connector	Terminals	Continuity
D14	4 – Ground	Yes



Is the inspection result normal?

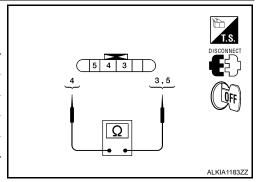
YES >> GO TO 3.

NO >> Repair or replace harness.

3.check door key cylinder switch LH

Check continuity between front door lock assembly LH (key cylinder switch) terminals.

Terminals	Condition	Continuity
3 – 4	Key is turned to LOCK or neutral.	No
3 – 4	Key is turned to UNLOCK.	Yes
4 – 5	Key is turned to UNLOCK or neutral.	No
4 – 5	Key is turned to LOCK.	Yes



Is the inspection result normal?

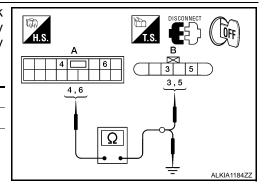
YES >> GO TO 4.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-313, "Removal and Installation"</u>.

4. CHECK DOOR KEY CYLINDER HARNESS

Check continuity between main power window and door lock/unlock switch connector (A) D7 terminals 4, 6 and front door lock assembly LH (key cylinder switch) connector (B) D14 terminals 3, 5 and body ground.

Connector	Terminals	Connector	Terminals	Continuity
A: Main	4	B: Front	5	Yes
power win- dow and door lock/ unlock switch	6	door lock assembly LH (key cylinder switch)	3	Yes
SWILCH	4, 6		round	No



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch.

NO >> Repair or replace harness.

FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

Description - RF Door

Detects door lock condition of passenger door.

Diagnosis Procedure - RF Door

1. CHECK LOCK SENSOR POWER SUPPLY

Check voltage between back door control unit connector terminal 5 and ground.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
D509	5	Ground	Passenger side door lock is locked	Battery voltage
			Passenger side door lock is unlocked	0

Is the inspection result normal?

YES >> Front door lock assembly RH (door lock sensor) is OK. NO >> GO TO 2.

2.check lock sensor circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect back door control unit and front door lock assembly RH (door lock sensor) connector.
- 3. Check continuity between back door control unit harness connector (A) D509 terminal 5 and front door lock assembly RH (door lock sensor) harness connector (B) D103 terminal 1.

5 – 1 : Continuity should exist.

4. Check continuity between back door control unit harness connector (A) D509 terminal 5 and ground.

5 – Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between back door control unit and front door lock assembly RH (door lock sensor).

3.CHECK LOCK SENSOR GROUND CIRCUIT

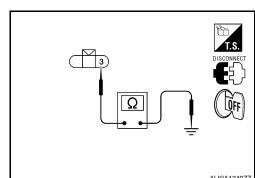
Check continuity between front door lock assembly RH (door lock sensor) harness connector D103 terminal 3 and ground.

3 – Ground : Continuity should exist.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



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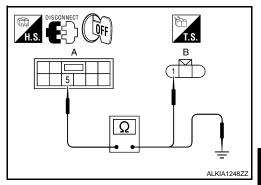
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4. CHECK BACK DOOR CONTROL UNIT OUTPUT SIGNAL

- Connect back door control unit harness connector.
- 2. Check voltage between back door control unit harness connector D509 terminal 5 and ground.



FRONT DOOR LOCK ACTUATOR LH (DOOR UNLOCK SENSOR)

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

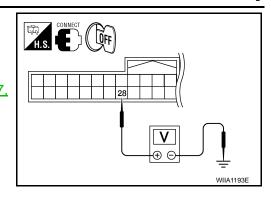
5 – Ground

Is the inspection result normal?

YES >> Refer to <u>DLK-224</u>, "Component Inspection - RF Door".

: Battery voltage

NO >> Replace back door control unit. Refer to <u>DLK-317</u>, "Component Structure".

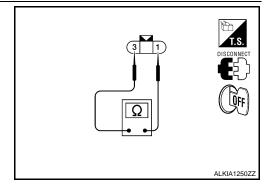


Component Inspection - RF Door

INFOID:0000000001728478

1. CHECK DOOR LOCK SENSOR

Check door lock sensor.



Terr	minal	Front door lock assembly RH condition	Continuity
Front door loc	k assembly RH	1 Tork door lock assembly KIT condition	Continuity
1	2	Unlocked	Yes
ı	3	Locked	No

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace front lock assembly RH (door lock sensor). Refer to <u>DLK-313, "Removal and Installation"</u>.

< COMPONENT DIAGNOSIS >

DOOR LOCK ACTUATOR

DRIVER SIDE

DRIVER SIDE : Description

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Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000001728488

INFOID:0000000001728489

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test "DOOR LOCK".
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

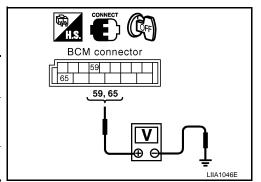
NO >> Refer to <u>DLK-225</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

DRIVER SIDE: Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between BCM connector M20 terminals 59, 65 and ground.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	59	Ground	Driver door lock/unlock switch is turned to UN- LOCK	0 → Battery voltage
	65		Driver door lock/unlock switch is turned to LOCK	0 → Battery voltage



Is the inspection result normal?

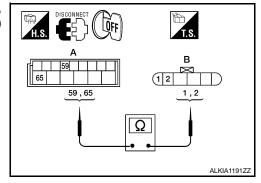
YES >> GO TO 2.

NO >> GO TO 3.

2.check door lock actuator harness

- Disconnect BCM and front door lock assembly LH (actuator).
- Check continuity between BCM connector (A) M20 terminals 59, 65 and front door lock assembly LH (actuator) connector (B) D14 terminals 1, 2.

Connector	Terminals	Connector	Terminals	Continuity
M20	59	D14	2	Yes
IVIZU	65	D14	1	



Is the inspection result normal?

YES >> Replace front door lock assembly LH (actuator).

NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and front door lock assembly LH (actuator).

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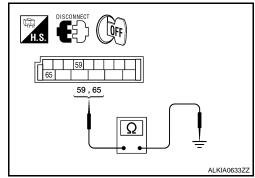
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< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

2. Check continuity between BCM connector M20 terminals 59, 65 and ground.

Connector	Terminals		Continuity
M20	59	Ground	No
IVIZO	65	Glound	140



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000001728490

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000001728491

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test DOOR LOCK.
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-226, "PASSENGER SIDE : Diagnosis Procedure".

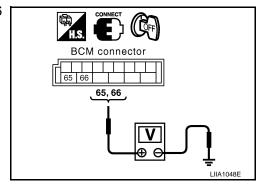
PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000001728492

1. CHECK FRONT DOOR LOCK ACTUATOR RH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZU	M20 66	Sibulia	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR HARNESS

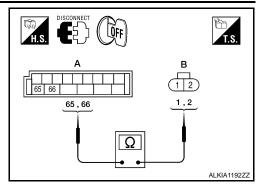
1. Disconnect BCM and front door lock actuator RH.

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

 Check continuity between BCM connector (A) M20 terminals 65, 66 and front door lock actuator RH (B) D114 terminals 1, 2.

Te	rminal	Continuity
65	2	Yes
66	1	163



Is the inspection result normal?

YES >> Replace front door lock actuator RH. Refer to <u>DLK-313</u>, "Removal and Installation".

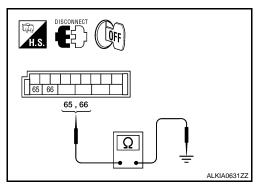
NO >> Repair or replace harness.

3. CHECK DOOR LOCK ACTUATOR HARNESS

Disconnect BCM and front door lock actuator RH.

Check continuity between BCM connector M19 terminals 65, 66 and ground.

Ter	minals	Continuity	
65	Ground	No	
66	Glound	NO	



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

REAR LH: Description

Locks/unlocks the door with the signal from BCM.

REAR LH: Component Function Check

1.CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-227, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

1. Turn ignition switch OFF.

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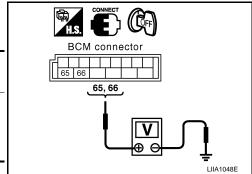
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< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Terminals		Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZO	66	Glound	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

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

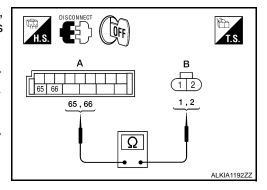
2.CHECK DOOR LOCK ACTUATOR HARNESS

NOTE

The passenger select unlock relay must remain connected during this test.

- 1. Disconnect BCM and rear door lock actuator LH.
- 2. Check continuity between BCM connector (A) M20 terminals 65, 66 and rear door lock actuator LH connector (B) D205 terminals 1, 2.

Ter	minals	Continuity
65	2	Yes
66	1	165



Is the inspection result normal?

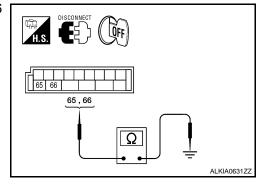
YES >> Replace rear door lock actuator LH.

NO >> Repair or replace harness or passenger select unlock relay.

3.CHECK DOOR LOCK ACTUATOR HARNESS

- 1. Disconnect BCM and each door lock actuator.
- 2. Check continuity between BCM connector M20 terminals 65, 66 and ground.

Ter	minals	Continuity
65	Ground	No
66		No



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness or passenger select unlock relay.

REAR RH

REAR RH: Description

INFOID:0000000001728496

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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REAR RH: Component Function Check

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test "DOOR LOCK".
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

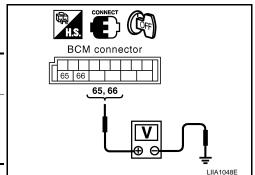
NO >> Refer to <u>DLK-229</u>, "REAR RH: Diagnosis Procedure".

REAR RH: Diagnosis Procedure

1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Tern	ninals	Condition	Voltage (V) (Approx.)
Connector	(+)	(-)		
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZU	66	Giodila	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

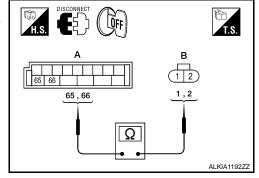
2. CHECK DOOR LOCK ACTUATOR HARNESS

NOTE:

The passenger select unlock relay must remain connected during this test.

- 1. Disconnect BCM and rear door lock actuator RH.
- Check continuity between BCM connector (A) M20 terminals 65, 66 and rear door lock actuator RH connector (B) D305 terminals 1, 2.

Ter	minals	Continuity	
65	2	Yes	
66	1	165	



Is the inspection result normal?

YES >> Replace rear door lock actuator RH.

NO >> Repair or replace harness or passenger select unlock relay.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and rear door lock actuator RH.

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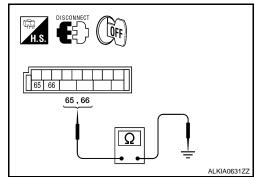
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< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Check continuity between BCM connector (A) M20 terminals 65, 66 and ground.

Ter	minals	Continuity	
65	Ground	No	
66	Glound	NO	



Is the inspection result normal?

YES >> Replace BCM. Refer to BCM REPLACEMENT.

NO >> Repair or replace harness or passenger select unlock relay.

BACK DOOR

BACK DOOR : Description

INFOID:0000000001728499

Locks/unlocks the door with the signal from BCM.

BACK DOOR: Component Function Check

INFOID:0000000001728500

1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test DOOR LOCK.
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to DLK-230, "BACK DOOR: Diagnosis Procedure".

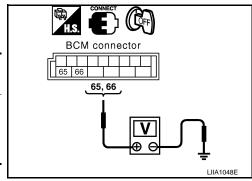
BACK DOOR: Diagnosis Procedure

INFOID:0000000001728501

1.CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check voltage between BCM connector M20 terminals 65, 66 and ground.

Connector	Tern	ninals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M20	65	Ground	Door lock/unlock switch is turned to LOCK	0 → Battery voltage
IVIZO	66	Glound	Door lock/unlock switch is turned to UNLOCK	for 300 ms



Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR HARNESS

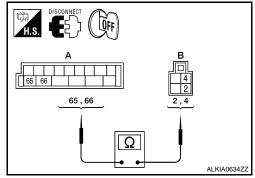
1. Disconnect BCM and back door lock actuator.

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

 Check continuity between BCM connector (A) M20 terminals 65, 66 and back door lock actuator connector (B) D508 terminals 2, 4.

Terminals		Continuity
65	4	Yes
66	2	163



Is the inspection result normal?

YES >> Replace door lock actuator.

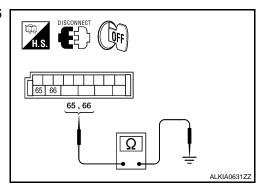
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and back door lock actuator.

Check continuity between BCM connector M20 terminals 65, 66 and ground.

Ter	minals	Continuity
65	Ground	No
66	Giodila	140



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-54, "Removal and Installation".

NO >> Repair or replace harness.

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REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

REMOTE KEYLESS ENTRY RECEIVER

Description INFOID:000000001728522

Receives keyfob operation and transmits to BCM.

Component Function Check

INFOID:0000000001728523

1. CHECK FUNCTION

(P)With CONSULT-III

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

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating key fob.

Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to <u>DLK-232</u>, "<u>Diagnosis Procedure</u>".

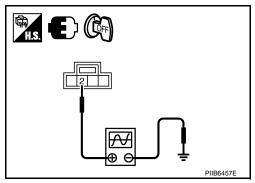
Diagnosis Procedure

INFOID:0000000001728524

1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Check remote keyless entry receiver signal with an oscilloscope.

	Terminals				
(+)					
Remote keyless entry re- ceiver connector	Terminal	(–)	Keyfob condition	Signal (Reference value)	
M120	2	Ground	No function	(V) 6 4 2 0 • • 0.2s	
IVITZU	2	Glound	Any button is pressed	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	



Is the inspection result normal?

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

2. REMOTE KEYLESS ENTRY RECEIVER 5-VOLT CIRCUIT INSPECTION

REMOTE KEYLESS ENTRY RECEIVER

< COMPONENT DIAGNOSIS >

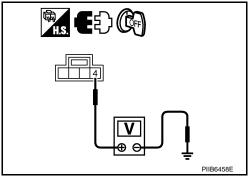
[WITHOUT INTELLIGENT KEY SYSTEM]

Check voltage between remote keyless entry receiver connector M120 terminal 4 and ground.

4 - Ground : Approx. 5 volt.

Is the inspection result normal?

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



3. REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT INSPECTION

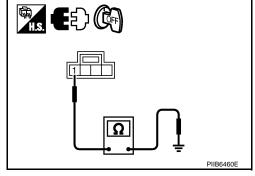
Check continuity between remote keyless entry receiver connector M120 terminal 1 and ground.

1 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> Replace remote keyless entry receiver.

NO >> GO TO 4



4. HARNESS INSPECTION BETWEEN BCM AND RKE RECEIVER

Disconnect remote keyless entry receiver and BCM connectors.

 Check continuity between BCM connector M18 terminals 18, 19, 20 and remote keyless entry receiver connector M120 terminals 1, 2, 4.

1 - 18 : Continuity should exist.
2 - 20 : Continuity should exist.
4 - 19 : Continuity should exist.

3. Check continuity between remote keyless entry receiver connector M120 terminals 1, 2, 4 and ground.

1 - Ground : Continuity should not exist.2 - Ground : Continuity should not exist.4 - Ground : Continuity should not exist.

Remote keyless entry receiver connector

BCM connector

18,19,20

WIIA0308E

Is the inspection result normal?

YES >> Replace remote keyless entry receiver.

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

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KEYFOB BATTERY AND FUNCTION

Description INFOID:000000001728525

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

- Door lock/unlock
- Panic alarm

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

Component Function Check

INFOID:0000000001728526

1. CHECK FUNCTION

(P)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 the key fob.

Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to <u>DLK-234</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001728527

1. CHECK KEYFOB BATTERY

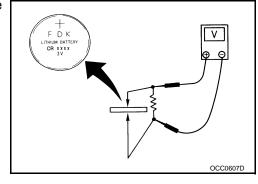
Check by connecting a resistance (approximately 300Ω) so that the current value becomes about 10 mA.

Standard: Approx. 2.5 - 3.0V

Is the measurement value within specification?

YES >> GO TO 2.

NO >> Replace key fob battery.



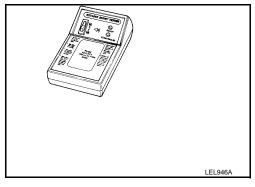
2. CHECK KEYFOB FUNCTION

Check keyfob function using Remote Keyless Entry Tester J-43241.

Does the test pass?

YES >> Key fob is OK.

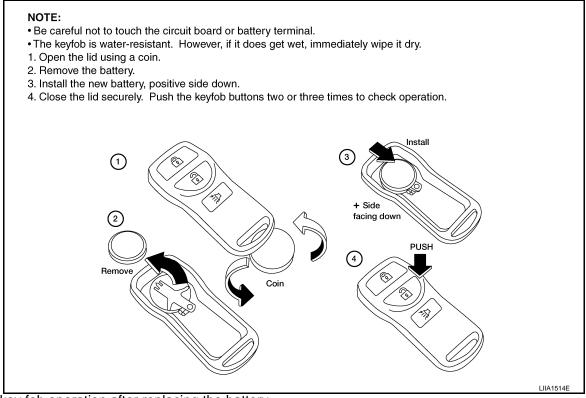
NO >> Replace key fob. Refer to CONSULT-III Operation Man-



Component Inspection

INFOID:0000000001728589

1. REPLACING KEYFOB BATTERY



Check key fob operation after replacing the battery.

Is the inspection result normal?

YES >> Keyfob is OK.

NO >> Check remote keyless entry receiver. Refer to <u>DLK-232</u>, "<u>Diagnosis Procedure</u>".

Special Repair Requirement

Refer to CONSULT-III Operation Manual.

INFOID:0000000001728529

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HORN FUNCTION

Description INFOID:000000001728530

Perform answer-back for each operation with horn.

Component Function Check

INFOID:0000000001728531

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-236</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001728532

1. CHECK HORN FUNCTION

Check horn function with horn switch

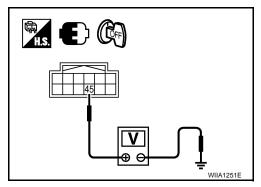
Do the horns sound?

YES >> GO TO 2.

NO >> Go to HRN-3, "Wiring Diagram".

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 IPDM E/R connector E122 terminal 45 and ground.



IPDI	M E/R	Ground	Test item		Voltage (V) (Approx.)
Connector	Terminal	Glound			
E122 45	45 Ground	Ground HORN	$OFF \to ON \to OFF$	Battery voltage \rightarrow 0 \rightarrow Battery voltage	
L 122	43	Giodila	TIORN	Other than above	Battery voltage

Is the inspection result normal?

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

3.CHECK HORN RELAY CIRCUIT

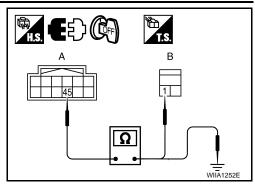
- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R and horn relay connector.

HORN FUNCTION

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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



IPDM E/R		Horn	relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E122	45	B: H-1	1	Yes

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

IPD	M E/R	Ground	Continuity
Connector	Terminal	Giodila	Continuity
E122	45	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-51, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-30, "Removal and Installation of IPDM E/R".

NO >> Repair or replace the malfunctioning part.

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COMBINATION METER DISPLAY FUNCTION

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

COMBINATION METER DISPLAY FUNCTION

Description INFOID:000000001728533

Displays each operation method guide and warning for system malfunction.

Component Function Check

INFOID:0000000001728534

1. CHECK FUNCTION

- 1. Turn ignition switch ON.
- 2. Using Consult-III, activate "P-SHIFT" and "KEY" warning lamp indicators in "ACTIVATE TEST" mode.

Do the warning lamps illuminate?

YES >> Combination meter warning lamp indicators are OK.

NO >> Refer to <u>DLK-238</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000001728535

1. CHECK COMBINATION METER

Refer to DLK-284, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check combination meter. Refer to MWI-23, "Diagnosis Description".

2.CHECK INTERMITTENT INCIDENT

Refer to GI-51, "Intermittent Incident".

>> INSPECTION END.

WARNING CHIME FUNCTION [WITHOUT INTELLIGENT KEY SYSTEM] < COMPONENT DIAGNOSIS > WARNING CHIME FUNCTION Description INFOID:0000000001728536 Performs operation method guide and warning with buzzer. Component Function Check INFOID:0000000001728537 1. CHECK FUNCTION (P) With CONSULT-III Check the operation with "INSIDE BUZZER" in the Active Test. Touch "TAKE OUT", "KNOB" or "KEY" on screen. Is the inspection result normal? Yes >> Warning buzzer into combination meter is OK. No >> Refer to <u>DLK-239</u>, "<u>Diagnosis Procedure</u>". Diagnosis Procedure INFOID:0000000001728538

1. CHECK METER BUZZER CIRCUIT

The inoperative warning chime is contained inside the combination meter. Replace combination meter.

>> Inspection end.

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HAZARD FUNCTION

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HAZARD FUNCTION

Description INFOID:000000001728539

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

Component Function Check

INFOID:0000000001728540

1. CHECK FUNCTION

Check hazard warning lamp "FLASHER" in ACTIVE TEST.

Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-240, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000001728541

1. CHECK HAZARD SWITCH CIRCUIT

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

Do the lights operate normally?

YES >> Replace the BCM. Refer to BCS for replacement and configuration procedure.

NO >> Repair or replace hazard warning switch circuit. Refer to <u>EXL-66</u>, "Wiring Diagram".

KEY SWITCH (BCM INPUT)

Diagnosis Procedure

INFOID:0000000001728561

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1. CHECK KEY SWITCH INPUT SIGNAL

With CONSULT-II

Check key switch "KEY ON SW" in DATA MONITOR mode with CONSULT-III. Refer to <u>DLK-207</u>, "DOOR <u>LOCK</u>: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

• When key is inserted to ignition key cylinder:

KEY ON SW : ON

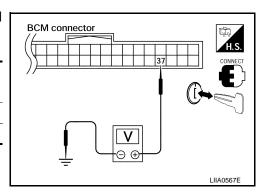
• When key is removed from ignition key cylinder:

KEY ON SW : OFF

Without CONSULT-II

Check voltage between BCM connector M18 terminal 37 and ground.

Connec- Terminal		Condition	Voltage (V)	
tor	(+)	(-)	Condition	voltage (v)
M19 37	VI18 37 Ground	Key is inserted.	Battery voltage	
	37	Ground	Key is removed.	0



OK or NG

OK >> Key switch (insert) circuit is OK.

NG >> GO TO 2.

2.CHECK KEY SWITCH (INSERT)

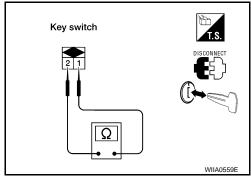
- 1. Turn ignition switch OFF.
- 2. Disconnect key switch connector.
- 3. Check continuity between key switch terminals.

Terminals	Condition	Continuity
1 – 2	Key is inserted.	Yes
	Key is removed.	No

OK or NG

OK >> Repair or replace harness or fuse.

NG >> Replace key switch.



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HEADLAMP FUNCTION

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HEADLAMP FUNCTION

Diagnosis Procedure

INFOID:0000000001728545

1. CHECK HEADLAMP OPERATION

Do headlamps operate with headlamp switch?

YES or NO

YES >> Headlamp circuit is OK.

NO >> Check headlamp circuit. Refer to EXL-4, "Work Flow".

MAP LAMP AND IGNITION KEYHOLE ILLUMINATION FUNCTION [WITHOUT INTELLIGENT KEY SYSTEM]

[WITHOUT INTELLIGENT KEY SYSTEM] < COMPONENT DIAGNOSIS > MAP LAMP AND IGNITION KEYHOLE ILLUMINATION FUNCTION Α Diagnosis Procedure INFOID:0000000001728546 1. CHECK MAP LAMP OPERATION В When room lamp switch is in "DOOR" position, open the driver or passenger door. Map lamp and ignition keyhole illumination should illuminate. C Is the inspection result normal? YES >> Map lamp circuit is OK. NO >> Check map lamp circuit. Refer to INL-3, "Work Flow". D Е F

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KEYFOB ID SET UP WITH CONSULT-III

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

KEYFOB ID SET UP WITH CONSULT-III

ID Code Entry Procedure

INFOID:0000000001728547

KEYFOB ID SET UP WITH CONSULT-III

NOTE:

- If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all controller ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If
 five ID codes are stored in memory when an additional code is registered, only the oldest code is
 erased. If less than five codes are stored in memory when an additional code is registered, the new
 ID code is added and no ID codes are erased.
- Entry of a maximum of five ID codes is allowed. When more than five codes are entered, the oldest ID code will be erased.
- Even if the same ID code that is already in memory is input, the same ID code can be entered. The
 code is counted as an additional code.
- 1. Turn ignition switch ON.
- Select "BCM".
- Select "MULTI REMOTE ENT".
- 4. Select "WORK SUPPORT".
- You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT-III instructions:
 - "REMO CONT ID REGIST"
 - Use this mode to register a keyfob ID code.

NOTE:

Register the ID code when keyfob or BCM is replaced, or when additional keyfob is required.

- "REMO CONT ID ERASUR"
 - Use this mode to erase a keyfob ID code.
- "REMO CONT ID CONFIR"
 - Use this mode to confirm if a keyfob ID code is registered or not.

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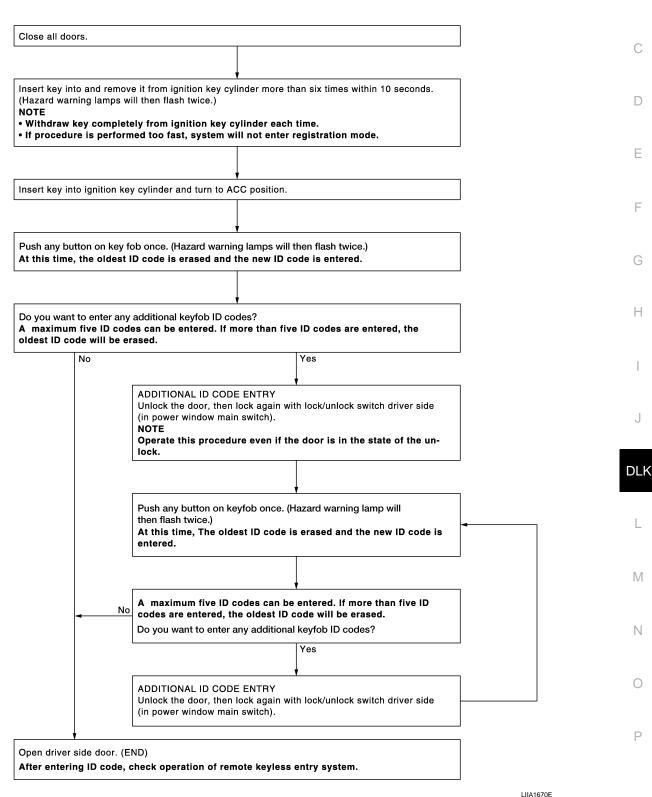
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INFOID:0000000001728548

KEYFOB ID SET UP WITHOUT CONSULT-III

ID Code Entry Procedure

KEYFOB ID SET UP WITHOUT CONSULT-III



NOTE:

• If a keyfob is lost, the ID code of the lost keyfob must be erased to prevent unauthorized use. A specific ID code can be erased with CONSULT-III. However, when the ID code of a lost keyfob is not known, all control-

KEYFOB ID SET UP WITHOUT CONSULT-III

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

ler ID codes should be erased. After all ID codes are erased, the ID codes of all remaining and/or new key-fobs must be re-registered.

- To erase all ID codes in memory, register one ID code (keyfob) five times. After all ID codes are erased, the ID codes of all remaining and/or new keyfobs must be re-registered.
- When registering an additional keyfob, the existing ID codes in memory may or may not be erased. If five ID codes are stored in memory, when an additional code is registered, only the oldest code is erased. If less than five ID codes are stored in memory, when an additional ID code is registered, the new ID code is added and no ID codes are erased.
- If you need to activate more than two additional new keyfobs, repeat the procedure "Additional ID code entry" for each new keyfob.
- Entry of maximum five ID codes is allowed. When more than five ID codes are entered, the oldest ID code will be erased.
- Even if same ID code that is already in the memory is input, the same ID code can be entered. The code is counted as an additional code.

BACK DOOR HALF SWITCH

Diagnosis Procedure

${f 1}$.BACK DOOR HALF SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- 2. While opening and closing the back door, check voltage between back door control unit connector D509 terminal 7 and around.

Terminals		Back door position	Voltage (V)	
(+)	(-)	Back door position	(Approx.)	
7	7 Ground	Half-latch	0	
,		Open/close	Battery voltage	

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s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR HALF SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 7 and back door cinching latch unit connector (B) D502 terminal 6.

7 - 6 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 7 and ground.

7 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$oldsymbol{3}$.BACK DOOR HALF SWITCH GROUND INSPECTION

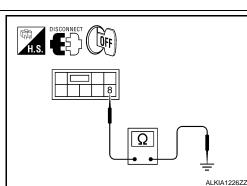
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



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4.BACK DOOR HALF SWITCH SIGNAL INSPECTION

BACK DOOR HALF SWITCH

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

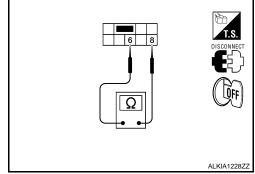
Check continuity between back door cinching latch unit terminals 6 and 8.

Tern	ninals	Back door position	Continuity
6	Ω	Half-latch	Yes
0 0	0	Open/close	No

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



BACK DOOR CLOSE SWITCH SYSTEM

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BACK DOOR CLOSE SWITCH SYSTEM

Diagnosis Procedure

1.BACK DOOR CLOSE SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- While opening and closing the back door, check voltage between back door control unit connector D509 terminal 8 and ground.

Terminals		Back door position	Voltage (V)
(+)	(-)	Back door position	(Approx.)
8	Ground	Open/half-latch	Battery voltage
	Giodila	Closed 0	0

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s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR CLOSE SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 8 and back door cinching latch unit connector (B) D502 terminal 5.

8 - 5 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 8 and ground.

8 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

$oldsymbol{3}$.BACK DOOR CLOSE SWITCH GROUND INSPECTION

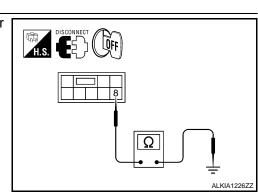
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



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4.BACK DOOR CLOSE SWITCH SIGNAL INSPECTION

BACK DOOR CLOSE SWITCH SYSTEM

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

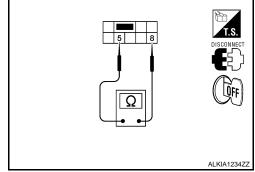
Check continuity between back door cinching latch unit terminals 5 and 8.

Tern	ninals	Back door position	Continuity
5	8	Half-latch/open	No
	0	Closed	Yes

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



BACK DOOR NEUTRAL SWITCH

Diagnosis Procedure

${f 1}$.BACK DOOR NEUTRAL SWITCH SIGNAL INSPECTION

- Turn ignition switch OFF.
- While opening and closing the back door, check voltage between back door control unit connector D509 terminal 9 and ground.

Terminals		Back door position	Voltage (V)
(+)	(-)	Back door position	(Approx.)
ο.	9 Ground Half-latch/cl	Half-latch/closed	Battery voltage
		Open	0

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s the inspection result normal?

YES >> Switch is OK.

NO >> GO TO 2.

2.BACK DOOR NEUTRAL SWITCH CIRCUIT INSPECTION

- Disconnect back door control unit and back door cinching latch unit connectors.
- 2. Check continuity between back door control unit connector (A) D509 terminal 9 and back door cinching latch unit connector (B) D502 terminal 4.

9 - 4 : Continuity should exist.

3. Check continuity between back door control unit connector (A) D509 terminal 9 and ground.

9 - Ground : Continuity should not exist.

s the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3}$.BACK DOOR NEUTRAL SWITCH GROUND INSPECTION

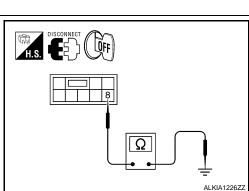
Check continuity between back door cinching latch unit connector D502 terminal 8 and ground.

: Continuity should exist. 8 - Ground

s the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.



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4.BACK DOOR NEUTRAL SWITCH SIGNAL INSPECTION

BACK DOOR NEUTRAL SWITCH

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

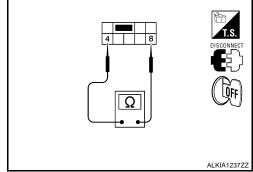
Check continuity between back door cinching latch unit terminals 4 and 8.

Tern	ninals	Back door position	Continuity
1	Ω	Half-latch/closed	No
4 0	0	Open	Yes

s the inspection result normal?

YES >> Replace back door control unit.

NO >> Replace back door cinching latch unit.



BACK DOOR RELEASE SWITCH

Diagnosis Procedure

1. CHECK BACK DOOR RELEASE SWITCH

(P) With CONSULT-II

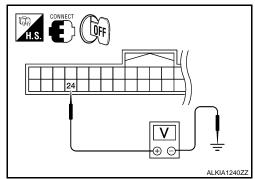
Check back door release switch ("BD/TR REQ SW") in "DATA MONITOR" mode.

Monitor item	Condition
BD/TR REQ SW	Back door release switch is pressed: ON
DD/ TK NEQ 5W	Back door release switch is released: OFF

Without CONSULT-II

- Turn ignition switch OFF.
- Check voltage between Intelligent Key Unit connector M164 terminal 24 and ground.

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
M164	24	Ground	Back door release switch is pressed	0
IVI I 04	24	Ground	Back door release switch is released	5



OK or NG

OK >> GO TO 6. NG >> GO TO 2.

2.CHECK BACK DOOR RELEASE SWITCH OPERATION

- Turn ignition switch OFF.
- Disconnect back door release switch connector. 2.
- Check continuity between back door release switch terminals 1 and 2.

Component	Tern	ninals	Condition	Continuity
back door			Back door release switch is pressed	Yes
release switch	1	2	Back door release switch is released	No

OK or NG

OK >> GO TO 3.

NG >> Replace back door release switch.

3.check back door release switch ground circuit

Check continuity between back door release switch harness connector D510 terminal 2 and ground.

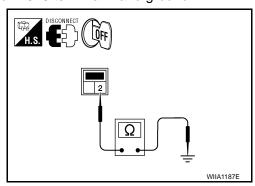
2 - Ground

: Continuity should exist.

OK or NG

OK >> GO TO 4.

NG >> Repair or replace back door release switch ground circuit.



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4. CHECK BACK DOOR RELEASE SWITCH CIRCUIT

- 1. Disconnect Intelligent Key unit connector.
- Check continuity between Intelligent Key Unit harness connector M164 terminals 24 and back door release switch harness connector D510 terminal 1.

24 - 1 : Continuity should exist.

Check continuity between Intelligent Key Unit harness connector M164 terminal 24 and ground.

24 - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness between Intelligent Key Unit and back door release switch.

5. CHECK BACK DOOR RELEASE SWITCH SIGNAL

- 1. Connect Intelligent Key Unit connector.
- 2. Check voltage between back door release switch harness connector D510 terminal 1 and ground.

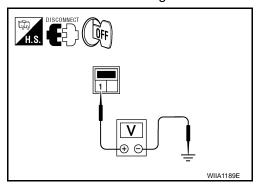
1 - Ground : Approx. 5v

OK or NG

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OK >> Check condition of harness and connector.

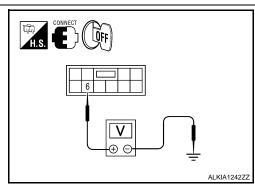
>> Replace Intelligent Key Unit. Refer to <u>SEC-95</u>, "Removal and Installation".



6. CHECK INTELLIGENT KEY UNIT OUTPUT

Check voltage between back door control unit connector D509 terminal 6 and ground.

Connector	Term	inals	Condition	Voltage (V)
Connector	(+)	(-)	Condition	(Approx.)
D509	6	Ground	Back door release switch is pressed	0
D309	O	Ground	Back door release switch is released	Battery voltage



OK or NG

OK >> back door release switch is OK.

NG >> GO TO 7.

7. CHECK BACK DOOR CONTROL UNIT

- 1. Disconnect Intelligent Key unit and back door control unit connectors.
- 2. Check continuity between Intelligent Key Unit harness connector M164 terminal 23 and back door control unit connector D509 terminal 6.

BACK DOOR RELEASE SWITCH

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

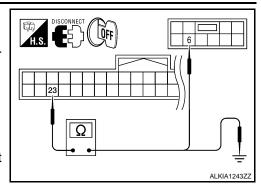
23 - 6 : Continuity should exist.

3. Check continuity between Intelligent Key Unit harness connector M164 terminal 23 and ground.

23 - Ground : Continuity should not exist.

OK or NG

- OK >> Replace back door control unit.
- NG >> Repair or replace harness between Intelligent Key Unit and back door control unit.



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BACK DOOR CINCHING LATCH UNIT MOTOR

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

INFOID:0000000001728553

BACK DOOR CINCHING LATCH UNIT MOTOR

Diagnosis Procedure

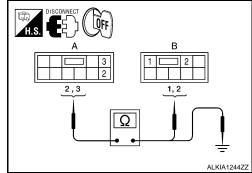
1. CINCH LATCH MOTOR CIRCUIT INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect back door control unit and back door cinching latch unit connectors.
- Check continuity between back door control unit connector (A) D509 terminals 2, 3 and back door cinching latch unit connector D502 (B) terminals 1, 2.

2 - 1 : Continuity should exist.3 - 2 : Continuity should exist.

 Check continuity between back door control unit connector (A) D509 terminals 2, 3 and ground.

2 - Ground : Continuity should not exist.3 - Ground : Continuity should not exist.



Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harness between the back door control unit and the back door cinching latch unit.

2. CINCH LATCH MOTOR OPERATION INSPECTION

Connect battery power to terminals 1 and 2 on the back door cinching latch unit and check motor operation.

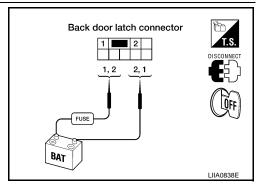
1 (+) - 2 (-) : It operates.

1 (-) - 2 (+) : It operates. (Reverse rotation)

Is the inspection result normal?

YES >> Motor is OK.

NO >> Replace the back door cinching latch unit.



HOMELINK UNIVERSAL TRANSCEIVER

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

HOMELINK UNIVERSAL TRANSCEIVER

Description INFOID:0000000001728554

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.

Component Function Check

1. CHECK FUNCTION

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

Is the inspection result normal?

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

2.CHECK ILLUMINATION

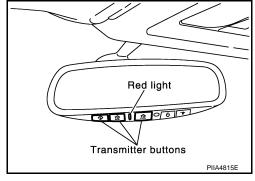
YES

- Turn ignition switch "OFF".
- Press each of the transmitter buttons and watch for the red light to illuminate with each button.

Is the inspection result normal?

YES >> GO TO 3.

>> Refer to <u>DLK-257</u>, "Diagnosis Procedure". NO



3.check transmitter

Check transmitter with Tool*.

*: For details, refer to Technical Service Bulletin.

Is the inspection result normal?

YES >> Receiver or hand-held transmitter malfunction, not vehicle related.

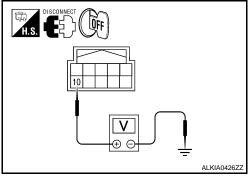
NO >> Replace auto anti-dazzling inside mirror (homelink universal transceiver).

Diagnosis Procedure

1. CHECK POWER SUPPLY

Disconnect auto anti-dazzling inside mirror (homelink universal transceiver) connector.

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



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HOMELINK UNIVERSAL TRANSCEIVER

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Termi	nal	Condition	Voltage (V) (Approx.)
R7	10	Ground	Ignition switch position: LOCK	Battery voltage

Is the inspection result normal?

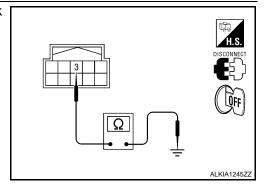
YES >> GO TO 2.

NO >> Check the following.

- 10A fuse [No. 19 located in the fuse block (J/B)]
- Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

2. CHECK GROUND CIRCUIT

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



Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R7	3		Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-51, "Intermittent Incident".

>> INSPECTION END.

HOMELINK UNIVERSAL TRANSCEIVER

< COMPONENT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Wiring Diagram INFOID:0000000001563756 Α В С D Е AUTO
ANTI-DAZZLING INSIDE MIRROR
(HOMELINK ® UNIVERSAL TRANSCEIVER)
(R7) F FUSE BLOCK (J/B) (M4) G Н 19 M | 20 | M1 | M1 10A BATTERY J

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INTEGRATED HOMELINK TRANSMITTER

Connector Name WIRE TO WIRE WHITE

Connector Color

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Connector No.

INTEGRATED HOMELINK TRANSMITTER CONNECTORS







H.S.

Signal Name

Color of Wire

Terminal No. 19 20

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1



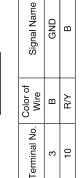
Signal Name



Signal Name	1	1	
Color of Wire	R/Y	В	
Terminal No.	19	20	







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< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Refer to BCS-38, "Reference Value".

TERMINAL LAYOUT

Refer to BCS-41, "Terminal Layout".

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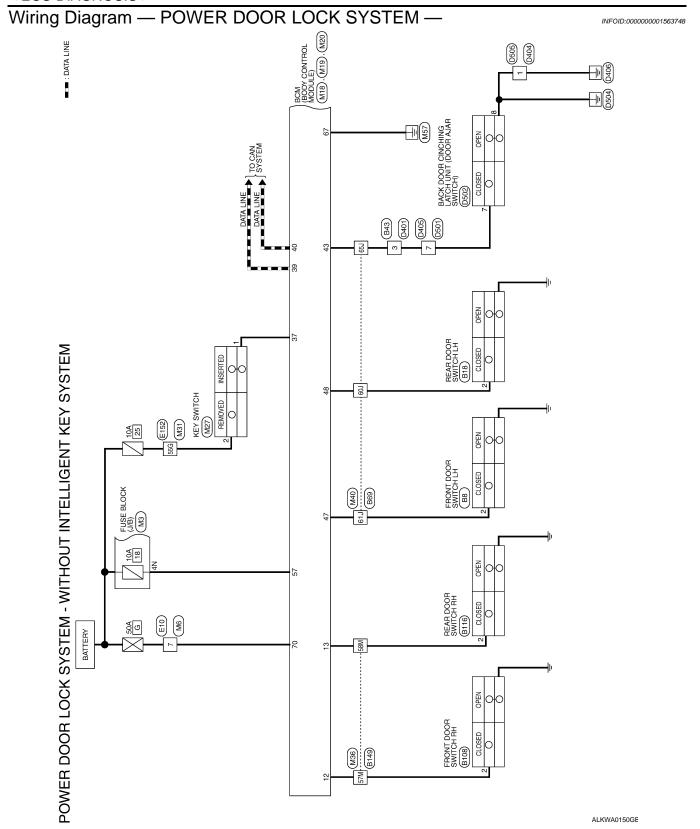
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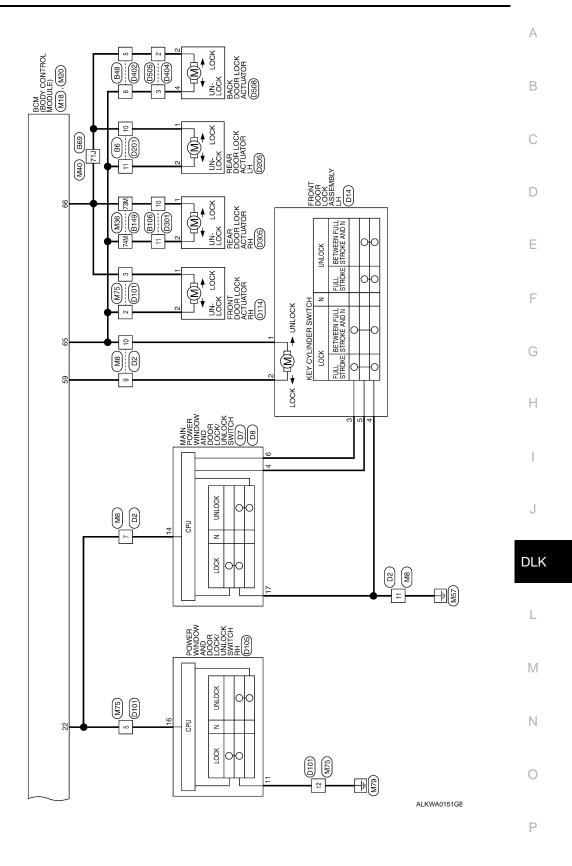
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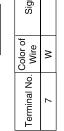
	o. M8	Sonnector Name WIRE TO WIRE
SHS	Connector No	Connector Na
CONNECTO		
OCK SYSTEM - WITHOUT INTELLIGENT KEY SYSTEM CONNECTORS	M6	WIRE TO WIRE
INTELLIGE	Connector No.	Connector Name WIRE TO
VITHOUT		
LOCK SYSTEM - V	M3	FUSE BLOCK (J/B)
POWER DOOR LO	Connector No.	Connector Name
PO		

Connector No.	M3
onnector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

_	M3	 ŏ
1-	FUSE BLOCK (J/B)	lŏ
_	WHITE	ŏ
(,, w	3N	

NS N	Signal Name	1
<u> </u>	Color of Wire	R/Υ
2	Terminal No.	4N

Connector No.	M6
Connector Name	Connector Name WIRE TO WIRE
Connector Color WHITE	WHITE



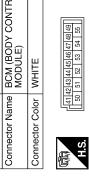
7 8 2 1	Signal Name	-	
4 ®	Color of Wire	M	
丽 H.S.	Terminal No.	7	

Signal Name	ı	1	ı	ı	
Color of Wire	۸	GR	۸	В	
Terminal No. Wire	2	6	10	11	

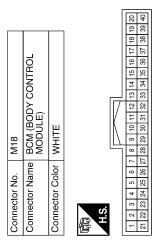
WHITE

Connector Color

WHITE	Connector Color
Connector Name BCM (BODY CONTR MODULE)	Connector Name
M19	Connector No.



Signal Name	DOOR SW (AS)	(RR) WS ROOD	SNB	WEY SW	CAN-H	CAN-L
Color of Wire	ГG	Γ	^	В	٦	Ь
Terminal No.	12	13	22	37	39	40



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BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

Connector No.). M27	
Connector Name KEY SWITCH	ame KEY	SWITCH
Connector Color WHITE	olor WHIT	且
in		\ <u>\</u>
Terminal No.	Color of Wire	Signal Name
1	В	_
٥	>	1

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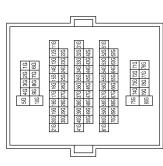
Signal Name	BAT (FUSE)	DOOR UNLOCK OUTPUT (DR)	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	BAT (F/L)
Color of Wire	R/Y	GR	>		В	>
Terminal No.	22	59	65	99	29	70

Connector No.	M20
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK
雨 H.S.	565 567 569 590 611 621 631 641 65 66 677 68 69 70



Signal Name

Terminal No. Wire 55G



M31	WIRE TO WIRE	WHITE	56 46 36 26 16 100 96 86 76 66
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.

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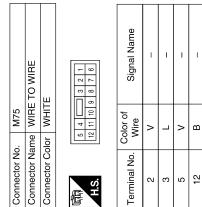
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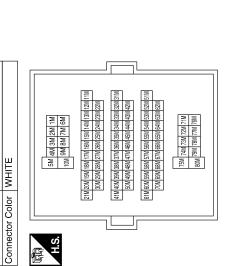


	M75	WIRE TO WIF
	Connector No.	Connector Name

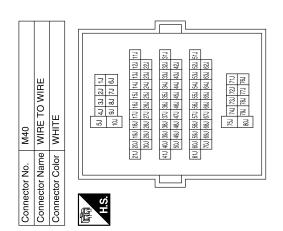
Signal Name	ı	ı	I	I	
Color of Wire	LG	_	SB	^	
Terminal No.	27M	28M	73M	74M	

Connector Name WIRE TO WIRE

Connector No. M36



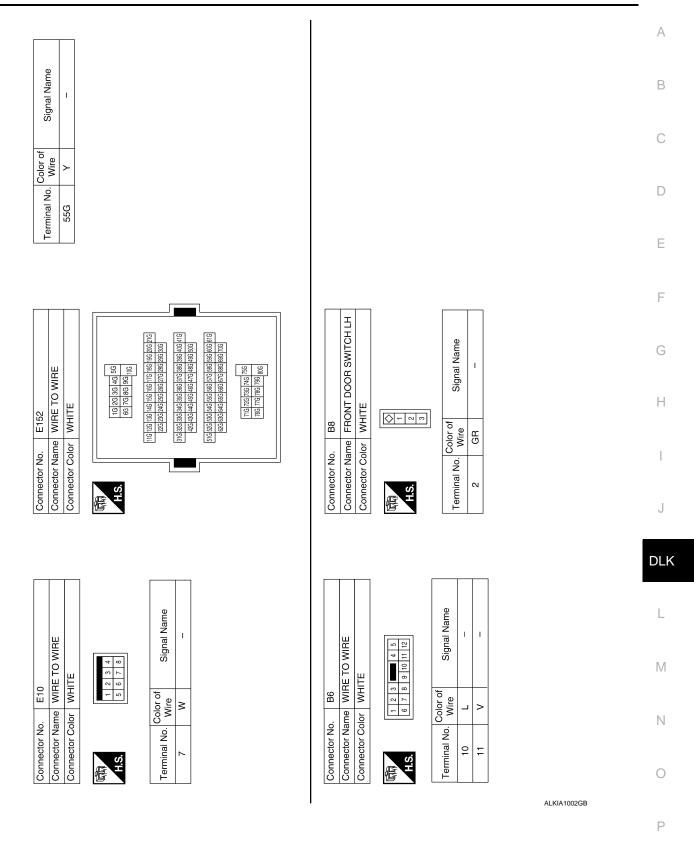
Signal Name	I	ı	1	1	1
Color of Wire	Д	GR	SB	٦	^
Terminal No.	P09	61J	PS9	717	727

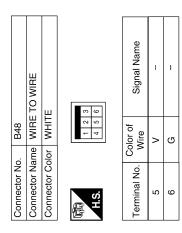


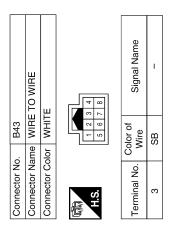
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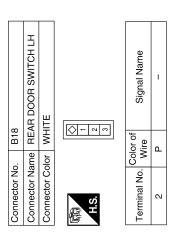
BCM (BODY CONTROL MODULE)

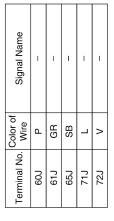
[WITHOUT INTELLIGENT KEY SYSTEM]

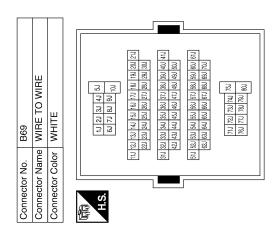










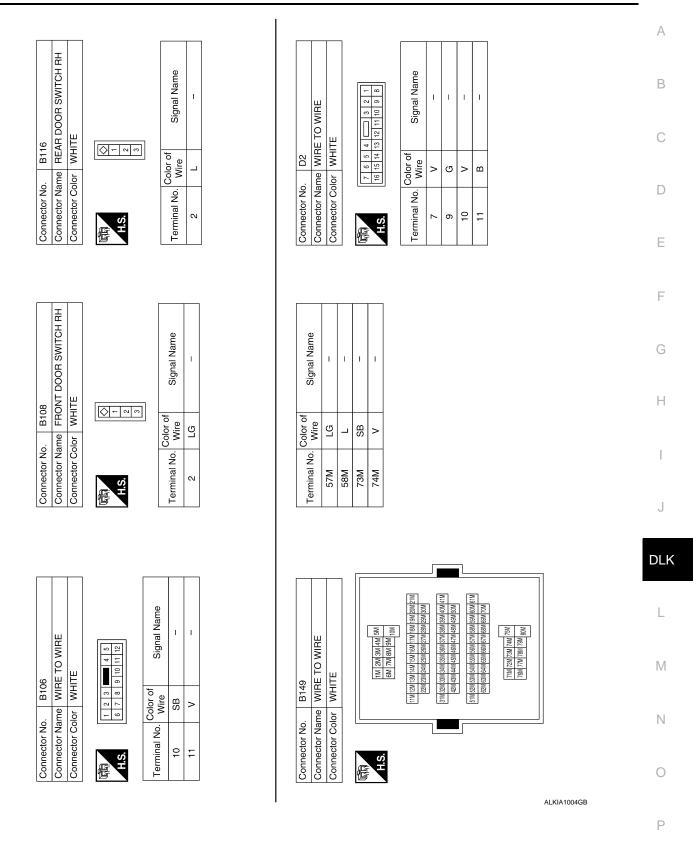


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BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

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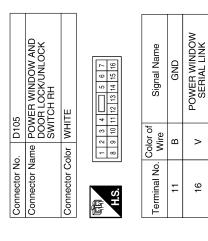
	FRONT DOOR LOCK ASSEMBLY LH	٩Y	2 5 1	Signal Name	I	ı	I	_	1
. D14		lor GRAY	9	Color of Wire	>	ഗ	SB	В	B/W
Connector No.	Connector Name	Connector Color	崎 H.S.	Terminal No.	-	2	3	4	5

2 2 1	Signal Name	1	1	ı	-	ı
0 2	Color of Wire	^	В	SB	В	R/W
原列 H.S.	Terminal No.	1	2	3	4	5

	FRONT DOOR LOCK ACTUATOR RH	Ē	9	Signal Name	-	-
D114	ne FRON ACTU	or WHIT	[2]	Color of Wire	G/Y	^
Connector No.	Connector Name	Connector Color WHITE	明.S.	Terminal No.	1	2

Г	90
COLINECTOR INC.	°
Connector Name	Connector Name MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	WHITE
	17 18 19

Signal Name	GND	
Color of Wire	В	
Terminal No.	17	



16

20	Connector Name MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



Signal Name	KEY CYL LOCK SW	R/W KEY CYL UNLOCK SW	POWER WINDOW SERIAL LINK
Color of Wire	SB	B/W	^
Terminal No. Wire	4	9	14

Connector No. D101 Connector Name WIRE T Connector Color WHITE H.S. Color of Color of Wire 2 V 2 V 3 G/Y	D101 MRE I01 MHIT	D101 WIRE TO WIRE WHITE 2
5	>	I
12	В	1

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BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

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	Connector No. D301	01
Connector Name	ne WIF	WIRE TO WIRE
Connector Color WHITE	or WH	IITE
是 H.S.	5 4 11 11	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Terminal No. Wire	color of Wire	Signal Name
10	G	ı
1-	>	ı

Connector No.). D205	
Connector Na	ame REAF ACTU	Connector Name REAR DOOR LOCK ACTUATOR LH
Connector Color WHITE	olor WHIT	E
H.S.		5
Terminal No.	Color of Wire	Signal Name
-	5	_
2	۸	ı

	E TO WIRE	TE	9 0 0	Signal Name	ı	1
. D201	me WIR	lor WHI	5 4 11 10 9	Color of Wire	ŋ	>
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.	Terminal No.	10	11

	ı					
	TO WIRE	ш	4 1	Signal Name	I	I
D402	ne WIRE	or WHIT	6 3	Color of Wire	>	G
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	(中) H.S.	Terminal No.	5	9

	WIRE TO WIRE		رم ب	Signal Name	_
. D401	me WIRE	lor WHITE	8 4 3 2 6 6 7	Color of Wire	SB
Connector No.	Connector Name	Connector Color WHITE	(南) H.S.	Terminal No.	3

Connector No.	D305	
Connector Name		REAR DOOR LOCK ACTUATOR RH
Connector Color	olor WHITE	E
H.S.		
Terminal No.	Color of Wire	Signal Name
1	Э	_
2	^	-

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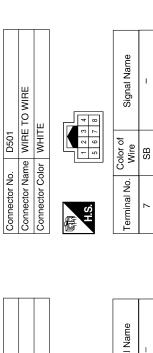
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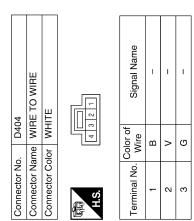
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	WIRE TO WIRE	ш	2 0 2 0	Signal Name	1
D405		or WHITE	4 8	Color of Wire	SB
Connector No.	Connector Name	Connector Color	献 H.S.	Terminal No.	7

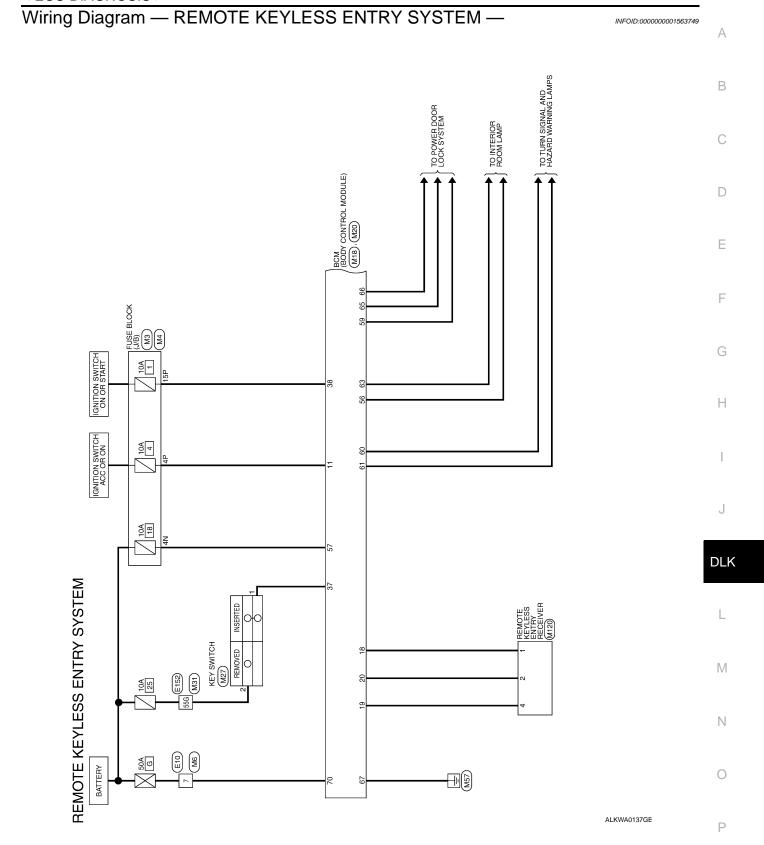


			1			
	BACK DOOR LOCK ACTUATOR	Ę	- F	Signal Name	-	1
D508		or WHITE	<u> </u>	Color of Wire	^	G
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	4

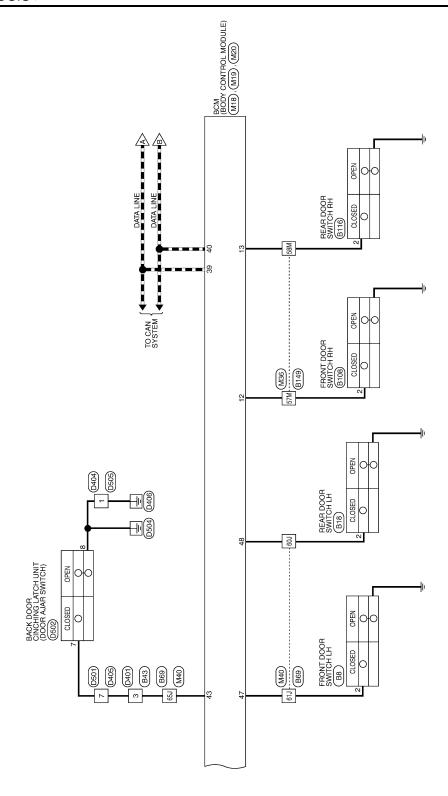
)5	WIRE TO WIRE	ITE	234	Signal Name	ı	I	ı
. D505	me WII	lor WF		Color of Wire	Ф	>	٣
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No.	-	2	ď
							_

D502	BACK DOOR CINCHING LATCH UNIT	WHITE	2 3 8 V 9 P P P P P P P P P P P P P P P P P P	Signal Name	1	1
			- 4 - c	Color of Wire	SB	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	7	8

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■ : DATA LINE

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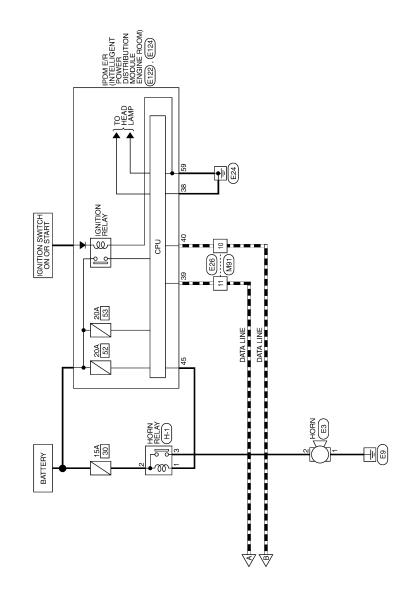
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WHITE

BACK DOOR SW DOOR SW (DR) DOOR SW (RL)

SB ۵

43 44 48

Signal Name

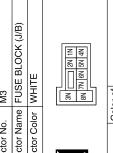
Color of Wire

REMOTE KEYLESS ENTRY SYSTEM CONNECTORS

Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE
ą	

Connector No. M4
Connector Name FUSE BLOCK (J/B)

Connector Color WHITE



3N	Signal Name	ı
NS N	Color of Wire	Rγ
H.S.	Terminal No.	4N

Signal Name

Color of Wire

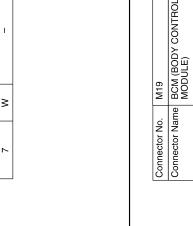
Terminal No.

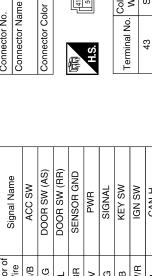
W/R G/B

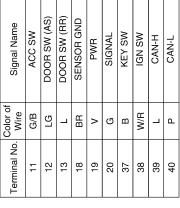
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	WIRE TO WIRE	IITE	7 6 5	Signal Name	I
. M6	me WIF	lor WHITE	4 8	Color of Wire	W
Connector No.	Connector Name	Connector Color	雨 H.S.	Terminal No.	2
		•			

7P 6P 5P 4P 3P 2P 1P 1P 1P 1P 9P 8P







Connector No. M18 Connector Name BCM (BOD MODULE) Connector Color WHITE	M18 BCM (BODY CONTROL	E)
onnector Color WHI MD MD H.S. 12 3 4 5 6 7 8 9		
onnector Name onnector Color H.S. 1	BC BC	M M
onnector Nc onnector Cc M.S. H.S.	. ame	olor
onnecto	2 2	Š
	ect ect	ecto
	u lu	- Lu

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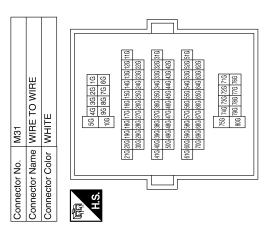
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	<u> </u>	H
1.S.		Connector Name KEY & Connector Color WHIT
	nnector Color WHITE	Connector Name KEY SWITCH Connector Color WHITE

		F		_	√ £		
Signal Name	FLASHER OUTPUT (LEFT)	FLASHER OUTPUT (RIGHT)	ROOM LAMP	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	BAT (F/L)
Color of Wire	ГС	9	BR	^	٦	В	M
Terminal No.	09	61	63	99	99	29	0/

Connector No.). M20	0
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color	\vdash	BLACK
SH.	56 57 58 65 66	56 57 58 59 60 61 62 63 64 6 6 7 68 69 70 1
Terminal No.	Color of Wire	Signal Name
26	۸	BAT SAVER
22	R/Υ	BAT (FUSE)
59	GR	DOOR UNLOCK OUTPUT (DR)

Signal Name	-
Color of Wire	\
Terminal No.	55G



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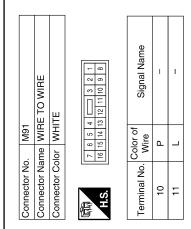
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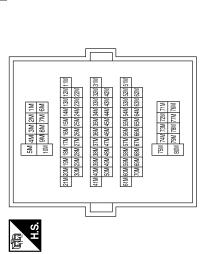
Signal Name	1	1	
Color of Wire	ГG	Т	
Terminal No.	22M	28M	

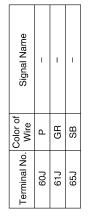
Connector Name | WIRE TO WIRE

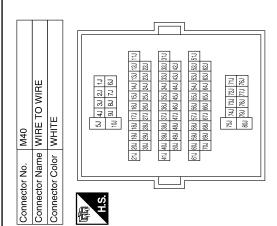
M36

Connector No.

Connector Color WHITE







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BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS >

Connector No.	. E10	
Connector Name WIRE TO WIRE	me WIRE	TO WIRE
Connector Color WHITE	lor WHITI	111
咸可 H.S.	- ru - a	3 4 4 7 8 8
Terminal No.	Color of Wire	Signal Name
	Μ	1

•	Signal Name	I	
0 / 0 6	Color of Wire	Μ	
H.3.	Terminal No.	7	
_			

	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	*	85 85 57 16 60 H3	Signal Name	GND (POWER)
E124		or BLAC	59 58 62 61	Color of Wire	В
Connector No.	Connector Name	Connector Color BLACK	励 H.S.	Terminal No.	59

Connector No.	. E3	
Connector Name	me HORN	7
Connector Color	olor BLACK	*
H.S.	2	
Terminal No.	Color of Wire	Signal Name
1	В	I
٥	C	I

ЭС			
Signal Name	1	1	
Color of Wire	В	ŋ	
Terminal No.	1	2	

Connector No.). E122	2
Connector Name		IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	olor WHITE	ITE
H.S.	42 41 4	40 39 38 37
Terminal No.	Color of Wire	Signal Name
38	В	GND (SIGNAL)
39	_	CAN-H
40	۵	CAN-L

Connector No.		M120	0
Connector Name	ame	REC	REMOTE KEYLESS ENTRY RECEIVER
Connector Color		WHITE	TE
H.S.		2	4
Terminal No.	Color of Wire	r of	Signal Name
-	BR	٠	GND
2	g		SIGNAL
4	^		PWR

Connector No.). E26	
Connector Name		WIRE TO WIRE
Connector Color WHITE	olor WH	11
H.S.	8 9 10 11	3
Terminal No.	Color of Wire	Signal Name
10	d	-
11	7	1

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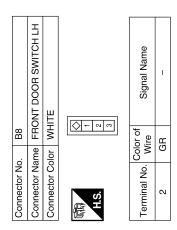
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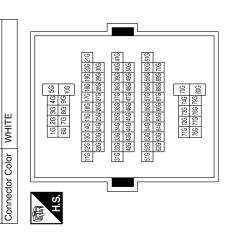
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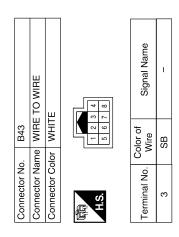


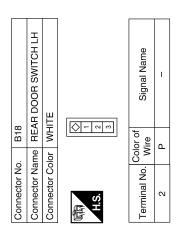
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Color of Wire	+	
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Connector Name WIRE TO WIRE

Connector No. E152





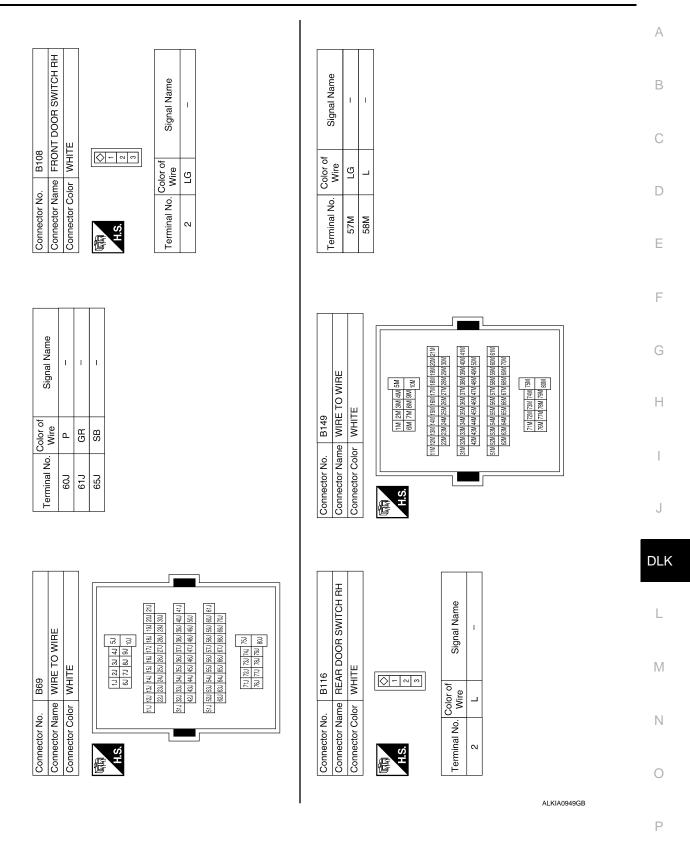


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BCM (BODY CONTROL MODULE)

[WITHOUT INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS >



Connector Name WIRE TO WIRE Connector Color WHITE

Connector Name BACK DOOR CINCHING LATCH UNIT

Connector Color WHITE

Signal Name

Color of Wire В

Terminal No.

Signal Name

Color of Wire SB a

Terminal No.

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Connector No.

D401

Connector No.

		Connector No. D405	. D405	
WIRE	•	Connector Name WIRE TO WIRE	me WIRE	TO WIRE
	•	Connector Color WHITE	lor WHIT	ш
		南南 H.S.	4 8 8 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	
Signal Name		Terminal No. Wire	Color of Wire	Signal Name
ı		7	SB	1

Signal Name Connector Name WIRE TO WIRE Connector Color WHITE Connector No. D501 Color of Wire SB Terminal No.

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Connector Name FUSE AND FUSIBLE LINK Connector Name FUSE AND FUSIBLE LINK Connector Color - Connector Color - A.S. G - 0 - 3 - - 3 G - - - - - - 3 G - -					
	Signal Name	ı	1	1	
	Color of Wire	BR	0	ŋ	
	Terminal No.	-	2	က	
Sonnecti Sonnecti Sonnecti H.S.	Connector No. H-1 Connector Name FUSE AND FUSIBLE LINK	BOX	stor Color -		

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Fail Safe

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.
U1010: CONTROL UNIT (CAN)	Inhibit engine cranking	When the BCM re-start communicating with the other modules.

DTC Inspection Priority Chart

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

DTC Index

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → 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-38
U1010: CONTROL UNIT (CAN)	_	_	DLK-39

BACK DOOR CONTROL UNIT

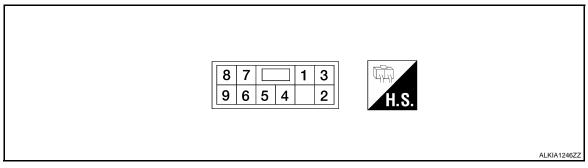
< ECU DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BACK DOOR CONTROL UNIT

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal	Wire Col- or	ltem	Condition	Voltage (V) (Approx.)
1	R/B	Battery power supply	_	Battery voltage
2	Y	Back door cinching latch unit	Back door closing	Battery voltage
2	ī	motor	Back door opening	0
3		Back door cinching latch unit	Back door closing	0
3	L	motor	Back door opening	Battery voltage
4	В	Ground	_	_
5	GR	Door lock sensor output	RF door door lock UNLOCKED	0
5	GK	Door lock serisor output	RF door door lock LOCKED	Battery voltage
6	G	Pools door rologge quitab output	Back door release switch ON	0
O	G	Back door release switch output	Back door release switch OFF	Battery voltage
7	BR	Half quitab aignal	Back door open	0
1	DK	Half switch signal	Back door closed or latching	Battery voltage
8	Р	Close switch signal	Back door open or closed	Battery voltage
0	F	Close switch signal	During opening (5 seconds)	0
9	W	Noutral awitch signal	Back door open or closed	Battery voltage
y	VV	Neutral switch signal	During opening (5 seconds)	0

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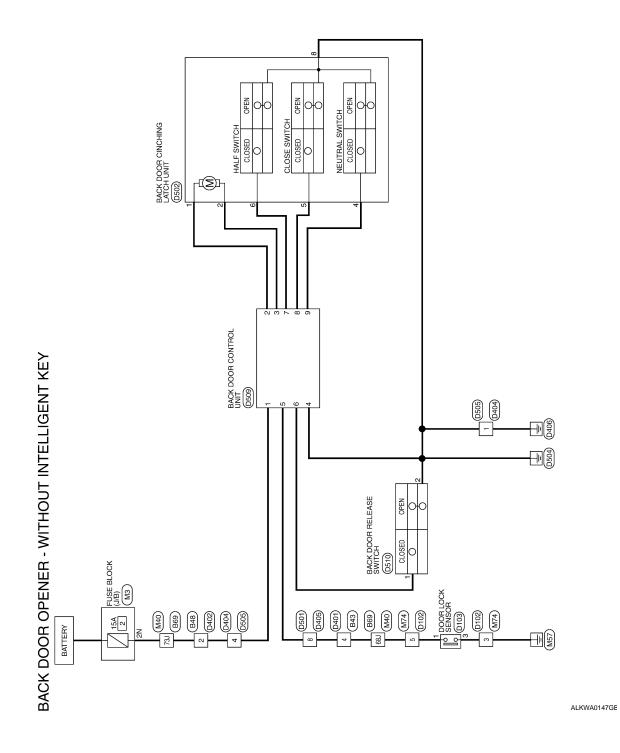
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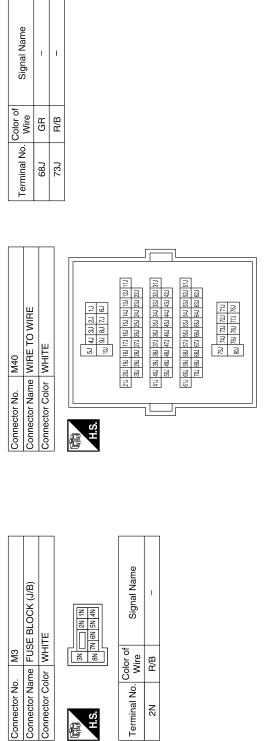
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BACK DOOR OPENER - WITHOUT INTELLIGENT KEY CONNECTORS



B48 WIRE TO WIRE		5 6 6	Signal Name	I
me WIR	or MH	1 4	Color of Wire	B/B
Connector No.	Connector Color WHITE	画 H.S.	Terminal No. Wire	2

WHITE WHITE WHO Signal Name Street ı		
	GR	
Connector No. Connector Color H.S. Terminal No. Color	4	

	E TO WIRE	11	5 4 3 2 1	Signal Name	-	ı
. M74	me WIF	lor WH	8 7 6 5 4 3 16 15 14 13 12 11	Color of Wire	В	GR
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	in H.S.	Terminal No.	3	5

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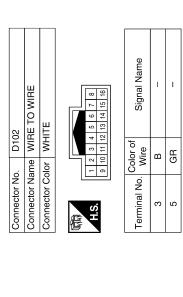
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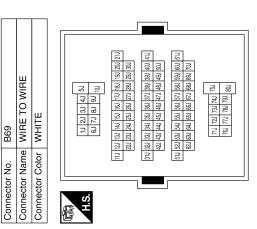
BACK DOOR CONTROL UNIT

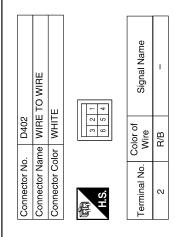
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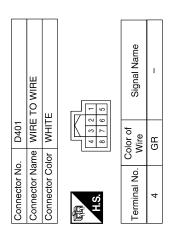


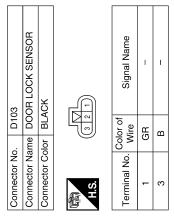
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Signal Name	_	1	
Color of Wire	GR	B/B	
Terminal No.	681	73J	

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BACK DOOR CONTROL UNIT

[WITHOUT INTELLIGENT KEY SYSTEM]

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60	BACK DOOR CONTROL UNIT	WHITE	5 4 1 2	Signal Name	-	-	-	-	-	_	I	-	_
. D509			8 6	Color of Wire	R/B	γ	٦	В	GR	G	BR	Ь	Μ
Connector No.	Connector Name	Connector Color	麻 H.S.	Terminal No.	1	2	3	4	2	9	2	8	6

	WIRE TO WIRE	щ	4	Signal Name	_	_
D505		or WHITE	1 2 3 4 4	Color of Wire	В	R/B
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	٢	4

02	BACK DOOR CINCHING LATCH UNIT	WHITE	S S S S S S S S S S	Signal Name	_	I	-	-	-	-
. D502		-	1 4	Color of Wire	>	_	8	Ъ	BR	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	-	2	4	5	9	8

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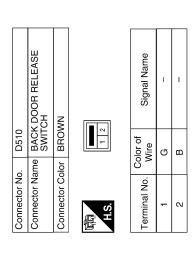
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Fail Safe

Fail-safe operation

The back door system operation will be interrupted if the back door control unit loses power.

SYMPTOM DIAGNOSIS

DOOR LOCK

Symptom Table

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DOOR LOCK SYSTEM

NOTE:

- Before performing the diagnosis in the following table, check "Work flow". Refer to <u>DLK-195, "Work Flow".</u>
- If the following symptoms" are detected, check systems shown in the "Diagnosis/service procedure" column in this order.

Symptom	Repair order	Refer to page
	1. Door switch check	DLK-214
Key reminder door function does not operate properly.	2. Key switch (Insert) check	DLK-241
property.	3. Replace BCM.	BCS-54
Power door lock does not operate with door lock	Door lock/unlock switch check (driver side)	<u>DLK-217</u>
and unlock switch on main power window and door lock/unlock switch or power window and door lock/unlock switch RH.	Door lock/unlock switch check (passenger side)	DLK-218
	Door lock actuator check (Front LH)	<u>DLK-225</u>
	2. Door lock actuator check (Front RH)	<u>DLK-226</u>
Specific door lock actuator does not operate.	3. Door lock actuator check (Rear LH)	DLK-227
	4. Door lock actuator check (Rear RH)	<u>DLK-229</u>
	5. Back door	DLK-230
Power door lock does not operate with front door	Front door lock assembly LH (key cylinder switch) check	DLK-221
key cylinder LH operation.	2. Replace BCM.	BCS-54
	BCM power supply and ground circuit check	BCS-32
Power door lock does not operate.	2. Door lock/unlock switch check (driver)	<u>DLK-217</u>
	3. Door lock/unlock switch check (passenger)	DLK-218

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REMOTE KEYLESS ENTRY SYSTEM

REMOTE KEYLESS ENTRY SYSTEM

Symptom Table

REMOTE KEYLESS ENTRY SYSTEM

Symptom	Diagnoses/service procedure	Reference page
All functions of remote keyless entry system do not operate.	Keyfob battery and function check (use Remote Keyless Entry Tester J-43241) NOTE: If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-234
	2. Check BCM and remote keyless entry receiver.	DLK-232
	Keyfob battery and function check (use Remote Keyless Entry Tester J-43241) NOTE: If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-234
The new ID of keyfob cannot be entered.	2. Key switch (insert) check	DLK-241
	3. Door switch check	DLK-214
	4. ACC power check	BCS-32
	5. Replace BCM.	BCS-54
Door lock or unlock does not function. (If the power door lock system does not operate manually, check power door lock system)	Keyfob battery and function check (use Remote Keyless Entry Tester J-43241) NOTE: If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-201
	2. Replace BCM.	BCS-54
Hazard and horn reminder does not activate properly when pressing lock or unlock button of keyfob.	Check hazard and horn reminder mode with CONSULT-III NOTE: Hazard and horn reminder mode can be changed. First check the hazard and horn reminder mode setting.	DLK-201
men processing rook or anneak station or keyloss.	2. Door switch check	DLK-214
	3. Replace BCM.	BCS-54
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob.	Check hazard reminder mode with CONSULT-III NOTE: Hazard reminder mode can be changed. First check the hazard reminder mode setting.	DLK-201
(Horn reminder OK)	2. Check hazard function with hazard switch	_
	3. Replace BCM.	BCS-54
Horn reminder does not activate properly when pressing lock or unlock button of keyfob.	Check horn reminder mode with CONSULT-III NOTE: Horn reminder mode can be changed. First check the horn reminder mode setting.	DLK-201
(Hazard reminder OK)	2. Check horn function with horn switch	
	3. IPDM E/R operation check	DLK-236
	4. Replace BCM.	BCS-54

REMOTE KEYLESS ENTRY SYSTEM

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Symptom	Diagnoses/service procedure	Reference page
Back door open/close operation is not carried out with keyfob operation.	Keyfob battery and function check (use Remote Keyless Entry Tester J-43241) NOTE: If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-234
(The automatic back door system is normal.)	2. Key switch (insert) check	DLK-241
	3. Remote keyless entry receiver system inspection	DLK-232
	4. Replace BCM.	BCS-54
	1. Room lamp operation check	INL-3
Room lamp and ignition keyhole illumination do not	2. Ignition keyhole illumination operation check	INL-3
operate properly.	3. Door switch check	
	4. Replace BCM.	BCS-54
Panic alarm (horn and headlamp) does not activate when panic alarm button is continuously pressed.		
	2. Key switch (insert) check	DLK-241
	3. Replace BCM.	BCS-54
Auto door lock operation does not activate properly. (All other remote keyless entry functions OK.)	Check auto door lock operation mode with CONSULT-III NOTE: Auto door lock operation mode can be changed. First check the auto door lock operation mode setting.	DLK-199
	2. Replace BCM.	BCS-54
Keyless power window down (open) operation does not activate properly.	Check power window down operation mode with CONSULT-III NOTE: Power window down operation mode can be changed. First check the power window down operation mode setting.	PWC-9
(All other remote keyless entry functions OK.)	2. Check power window function with switch	PWC-5
	3. Replace BCM.	BCS-54

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HOMELINK UNIVERSAL TRANSCEIVER

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

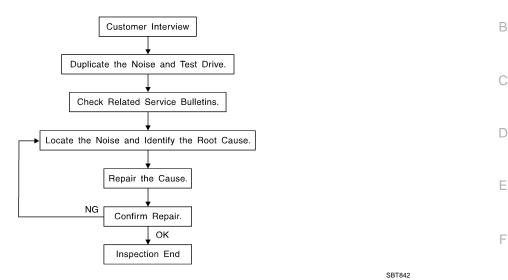
HOMELINK UNIVERSAL TRANSCEIVER

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-257
Tiomelink universal transceiver does not operate properly.	2.	Check Intermittent Incident.	<u>GI-51</u>

Work Flow INFOID:0000000001563762



CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to DLK-299, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

DUPLICATE THE NOISE AND TEST DRIVE

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

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< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
- 2) Tap or push/pull around the area where the noise appears to be coming from.
- 3) Rev the engine.
- 4) Use a floor jack to recreate vehicle "twist".
- 5) At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on 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: J-39565 and mechanic's stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
- removing the components in the area that you suspect the noise is coming from.
 Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
- tapping or pushing/pulling the component that you suspect is causing the noise.
 Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
- feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the
 noise.
- placing a piece of paper between components that you suspect are causing the noise.
- looking for loose components and contact marks.
 Refer to <u>DLK-297</u>, "Generic Squeak and Rattle Troubleshooting".

REPAIR THE CAUSE

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

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: 100×135 mm (3.94×5.31 in)/76884-71L01: 60×85 mm (2.36×3.35 in)/76884-71L02: 15×25 mm (0.59×0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick, 50×50 mm (1.97×1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50×50 mm (1.97×1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in)

FELT CLOTH TAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15×25 mm (0.59×0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll. The following materials not found in the kit can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

Insulates where slight movement is present. Ideal for instrument panel applications.

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

SILICONE GREASE

Used instead of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

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

Generic Squeak and Rattle Troubleshooting

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
- Acrylic lens and combination meter housing
- Instrument panel to front pillar garnish
- Instrument panel to windshield
- Instrument panel mounting pins
- Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

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

CAUTION:

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. 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:

- Trunk lid bumpers out of adjustment
- Trunk lid striker out of adjustment
- The trunk lid torsion bars knocking together
- A loose license plate or bracket

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< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

SUNROOF/HEADLINING

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

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

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

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for:

- Loose harness or harness connectors.
- Front console map/reading lamp lense loose.
- 3. Loose screws at console attachment points.

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- Components that pass through the engine wall
- 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 >

[WITHOUT INTELLIGENT KEY SYSTEM]

Diagnostic Worksheet

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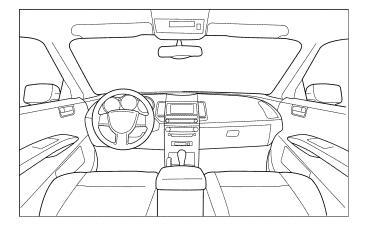
Dear Customer:

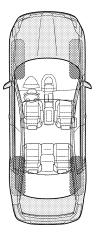
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked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

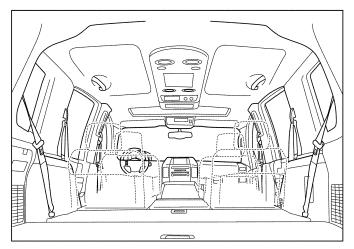
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

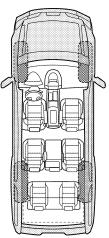
I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

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









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

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< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

SQUEAK & RATTLE DIAGNOSTIC WORKSH	EE	T - page 2					
Briefly describe the location where the noise of	CCI	urs:					
II. WHEN DOES IT OCCUR? (please check the	he	boxes that apply)				
1st time in the morning		After sitting out in the rain When it is raining or wet Dry or dusty conditions Other:					
III. WHEN DRIVING:	V.	WHAT TYPE O	F NOIS	E			
□ Over rough roads □ □ Over speed bumps □ □ Only about mph □ □ On acceleration □	Squeak (like tennis shoes on a clean floor) Creak (like walking on an old wooden floor) Rattle (like shaking a baby rattle) Knock (like a knock at the door) Tick (like a clock second hand) Thump (heavy muffled knock noise) Buzz (like a bumble bee)						
TO BE COMPLETED BY DEALERSHIP PERS Test Drive Notes:	0	NNEL					
		YES	NO	Initials of person performing			
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired - Follow up test drive performed to confirm rep	oai						
VIN:	C	ustomer Name					
W.O.#	D	ate:					

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.

Precaution for work

- 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

Special Service Tool

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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

PREPARATION

< PREPARATION >

Commercial Service Tool

[WITHOUT INTELLIGENT KEY SYSTEM]

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(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear	SIIA0995E	Locating the noise

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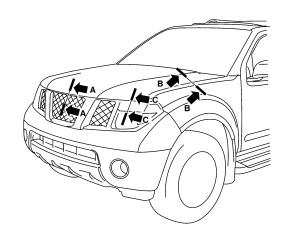
ON-VEHICLE REPAIR

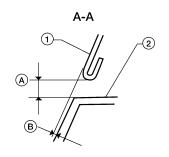
HOOD

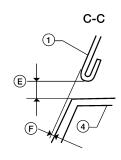
Fitting Adjustment

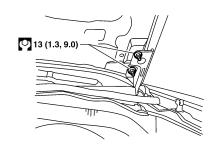
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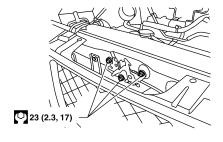
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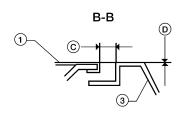












WIIA0774E

- 1. Hood
- 4. Headlamp assembly
- C. 4.5 mm (0.18 in)
- F. 0.7 mm (0.03 in)

- 2. Front grille
- A. 6.0 mm (0.24 in)
- D. 0.0 mm (0.0 in)

- 3. Front fender
- B. 0.7 mm (0.03 in)
- E. 6.0 mm (0.24 in)

CLEARANCE AND SURFACE HEIGHT ADJUSTMENT

- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- Loosen the hood lock assembly and adjust the rubber bumpers until the surface height of the hood becomes 1 mm (0.04 in) lower than the fender.
- 3. Engage the hood striker and temporarily tighten.
- 4. Check the lock and striker for looseness.

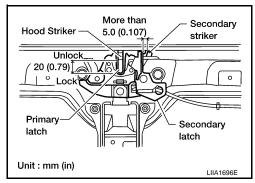
- Tighten the bolts to specification.
- 6. Adjust the surface height of the hood according to the fitting standard dimension by rotating right and left rubber bumpers.
- Install the front grille. Refer to <u>EXT-16</u>, "Removal and Installation".

HOOD LOCK ADJUSTMENT

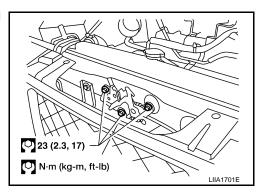
- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- 2. Move the hood lock to the left or right so that striker center is vertically aligned with hood lock center (when viewed from vehicle front).
- 3. Make sure the secondary latch is properly engaged with the secondary striker with hood's own weight by dropping it from approx. 200 mm (7.87 in) height or by pressing it lightly approx. 3 kg (29 N, 7lb).

CAUTION:

Do not drop the hood from 300 mm (11.81 in) height or higher.

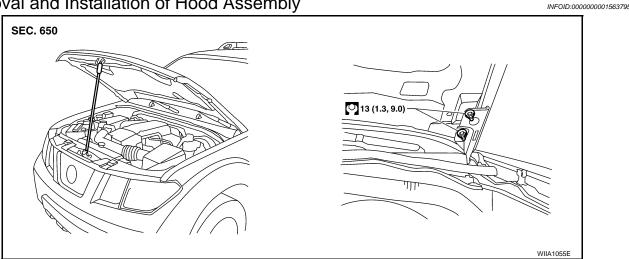


After adjusting hood lock, tighten the lock bolts to the specified torque.



5. Install the front grille. Refer to EXT-16, "Removal and Installation".

Removal and Installation of Hood Assembly



- Support the hood striker with suitable tool to prevent it from falling.
- 2. Remove the hinge nuts from the hood to remove the hood assembly.

Operate with two workers, because of its heavy weight.

Installation is in the reverse order of removal.

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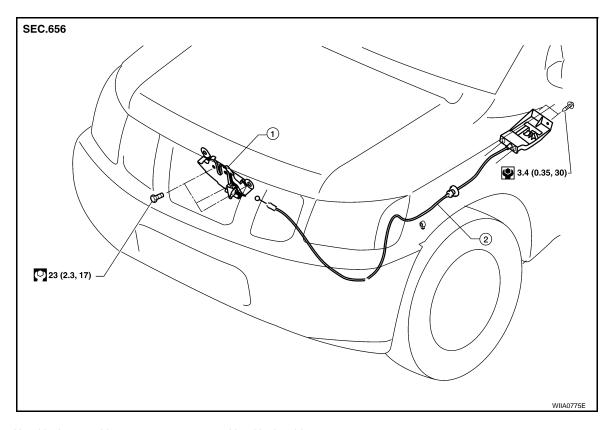
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Removal and Installation of Hood Lock Control

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- 1. Hood lock assembly
- 2. Hood lock cable

REMOVAL

- 1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
- 2. Remove the front fender protector (LH). Refer to <u>EXT-20</u>, "Removal and Installation of Front Fender Protector".
- 3. Disconnect the hood lock cable from the hood lock, and unclip it from the radiator core support upper and hoodledge.
- 4. Remove the bolts, and the hood release handle.
- 5. Separate the grommet from the lower dash panel. Pull the hood lock cable out through the passenger compartment.

CAUTION:

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

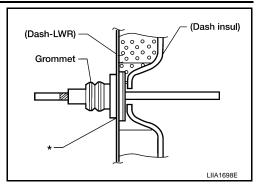
INSTALLATION

Pull the hood lock cable through the lower dash panel hole into the engine room.

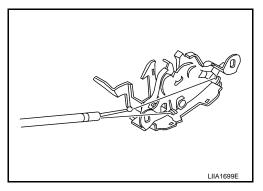
[WITHOUT INTELLIGENT KEY SYSTEM]

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

- 2. Make sure the cable is not offset from the grommet, and push the grommet into the lower dash panel hole securely.
- 3. Apply sealant around the grommet at * mark.



- 4. Install the cable securely to the lock.
- 5. Adjust the hood lock. Refer to <u>DLK-307</u>, "<u>Hood Lock Control Inspection</u>".



6. Install the front grille. Refer to EXT-16, "Removal and Installation".

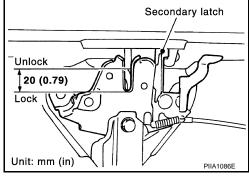
Hood Lock Control Inspection

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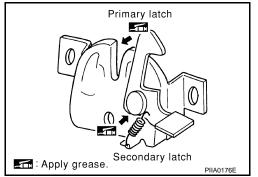
CAUTION:

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

- Remove the front grille. Refer to <u>EXT-16</u>, "Removal and Installation".
- 2. Make sure the secondary latch is properly engaged with the secondary striker with hood's own weight by dropping it from approx. 200 mm (7.87 in) height.
- 3. While operating the hood opener, carefully make sure the front end of the hood is raised by approx. 20 mm (0.79 in). Also make sure the hood opener returns to the original position.



Check the hood lock lubrication condition. If necessary, apply "body grease" to the points shown.



5. Install the front grille. Refer to EXT-16, "Removal and Installation".

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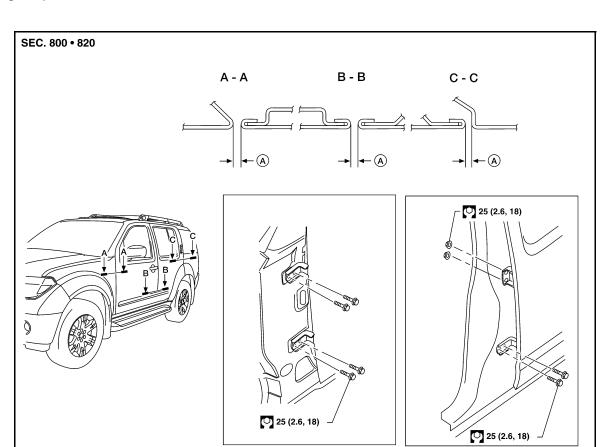
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DOOR

Fitting Adjustment



A. $4.5 \pm 1.0 \text{ mm} (0.177 \pm 0.039 \text{ in})$

Front door

Longitudinal clearance and surface height adjustment at front end

- Remove the fender. Refer to <u>EXT-18</u>, "Removal and Installation".
- 2. Loosen the hinge bolts. Raise or lower the front door at rear end to adjust.
- Install the fender. Refer to <u>EXT-18</u>, "Removal and Installation".

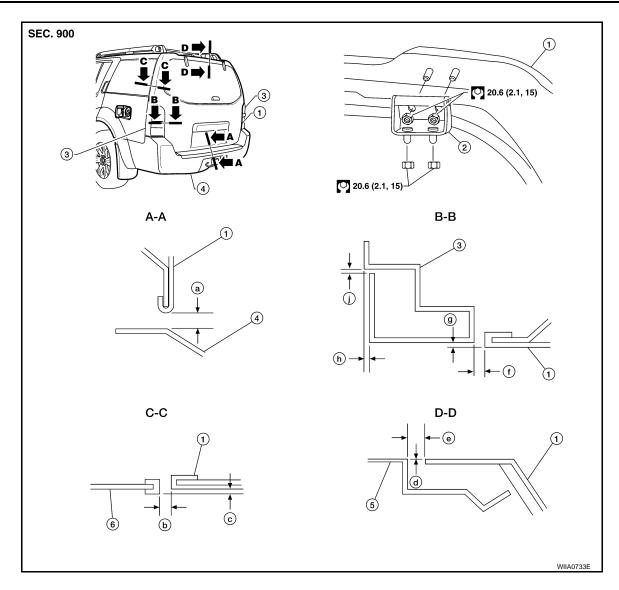
Rear door

Longitudinal clearance and surface height adjustment at front end

- 1. Remove the center pillar upper finisher. Refer to INT-13, "Removal and Installation".
- 2. Loosen the lower hinge bolts.
- From inside the vehicle, loosen the upper hinge nuts. Open the door, and raise or lower the rear end of the door to adjust.
- 4. Install the center pillar lower finisher. Refer to INT-13, "Removal and Installation".

Back door

Longitudinal clearance and surface height adjustment



- 1. Back door assembly
- 4. Rear bumper fascia
- a. $7.2 \pm 2.0 \text{ mm} (0.28 \pm 0.06 \text{ in})$
- d. $1.0 \pm 1.5 \text{ mm} (0.04 \pm 0.06 \text{ in})$
- g. $0.8 \pm 2.0 \text{ mm} (0.03 \pm 0.08 \text{ in})$
- 2. Back door hinge
- 5. Roof
- b. $6.0 \pm 1.5 \text{ mm} (0.24 \pm 0.06 \text{ in})$
- e. 8.0 ± 1.5 mm $(0.31 \pm 0.06$ in)
- h. $0.8 \pm 1.0 \text{ mm} (0.03 \pm 0.04 \text{ in})$
- 3. Tail lamp assembly
- 6. Side window glass
- c. $2.0 \pm 2.0 \text{ mm} (0.08 \pm 0.08 \text{ in})$
- f. $5.3 \pm 2.0 \text{ mm} (0.21 \pm 0.08 \text{ in})$
- j. $2.0 \pm 1.0 \text{ mm} (0.08 \pm 0.04 \text{ in})$

- 1. Open and support the back door.
- 2. Slightly loosen the hinge nuts.
- 3. Reposition the door as necessary and tighten the nuts.
- 4. Confirm the adjustment. Repeat as necessary to obtain the desired fit.

Striker adjustment

BODY SIDE DOORS

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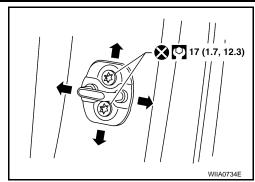
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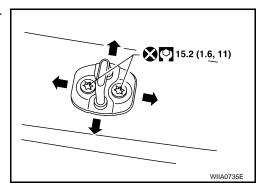
[WITHOUT INTELLIGENT KEY SYSTEM]

Adjust the striker so that it becomes parallel with the lock insertion direction.



BACK DOOR

Adjust the striker so that it becomes parallel with the lock insertion direction.



Removal and Installation

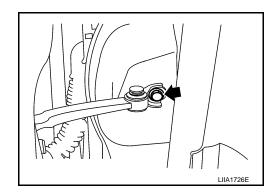
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FRONT DOOR

CAUTION:

- When removing and installing the door assembly, support the door with a jack and shop cloth to protect the door and body.
- When removing and installing door assembly, be sure to carry out the fitting adjustment.
- Check the hinge rotating part for poor lubrication. If necessary, apply "body grease".
- 1. Remove the front door glass and regulator. Refer to GW-14, "Front Door Glass Regulator".
- 2. Remove the door harness.
- 3. Remove the check link bolt from the hinge pillar.

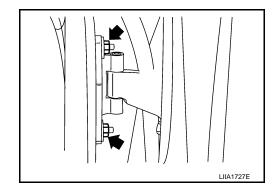
Check link to hinge pillar 14.7 N·m (1.5 kg-m, 11 ft-lb) bolt



4. Remove the door-side hinge nuts, and the door assembly.

Door hinge nuts 24.5 N-m (2.5 kg-m, 18 ft-lb)

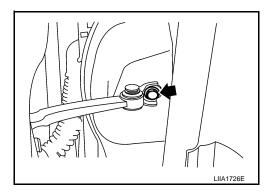
Installation is in the reverse order of removal.



REAR DOOR

- 1. Remove the door finisher. Refer to INT-10, "Removal and Installation".
- 2. Remove the inner seal.
- 3. Remove the rear door glass and regulator. Refer to GW-18, "Rear Door Glass Regulator".
- 4. Remove the door harness.
- 5. Remove the check link bolt from the hinge pillar.

Check link to hinge pillar 14.7 N·m (1.5 kg-m, 11 ft-lb) bolt

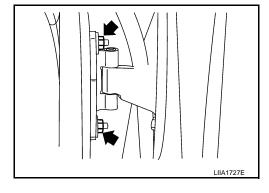


Remove the door-side hinge nuts, and remove the door assembly.

Door hinge nuts

24.5 N·m (2.5 kg-m, 18 ft-lb)

Installation is in the reverse order of removal.



BACK DOOR

- 1. Remove the glass hatch. Refer to GW-23, "Removal and Installation".
- Remove the license lamp finisher. Refer to <u>EXT-19</u>, "Removal and Installation".
- 3. Remove the back door lock assembly. Refer to DLK-317, "Component Structure".
- 4. Remove the back door wire harness.
- 5. Remove the rear washer nozzle and hose from the back door. Refer to <u>WW-54, "Removal and Installation"</u>

CAUTION:

Two technicians should be used to avoid damaging the back door during removal.

- 6. Support the back door.
- 7. Remove the back door stays.

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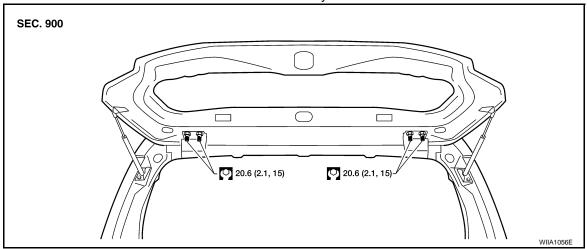
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8. Remove the door side nuts and the back door assembly.



Installation is in the reverse order of removal.

• Align the back door. Refer to <u>DLK-308</u>, "Fitting Adjustment".

FRONT DOOR LOCK

Component Structure

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5.8 (0.59, 51)

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5.7 (0.58, 50)

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- 1. Grommet
- 4. Outside handle cable
- 7. Door lock cable
- 10. Outside handle bracket
- Door key cylinder assembly (Driver side) Outside handle escutcheon (Passenger side)
- 2. Front door striker
- 5. Inside handle assembly
- 8. Key cylinder rod (Driver side only)
- 11. Front gasket
- 14. Rear gasket

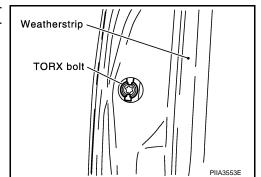
- 3. Door lock assembly
- 6. Inside handle cable
- 9. Door key cylinder
- 12. Outside handle
- Vehicle front

Removal and Installation

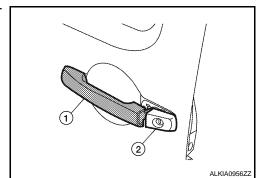
REMOVAL

Remove the front door window regulator. Refer to <u>GW-14, "Front Door Glass Regulator"</u>.

Remove door side grommet, and remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side) bolts (TORX T30) from grommet hole.



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



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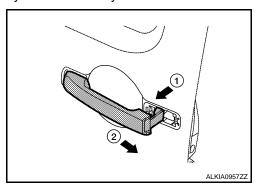
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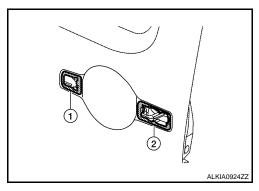
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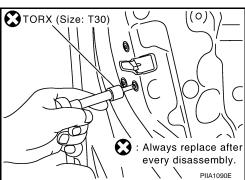
- 4. If equipped, separate the door key cylinder rod from the door key cylinder assembly.
- 5. While pulling outside handle (1), slide toward rear of vehicle (2) to remove outside handle.



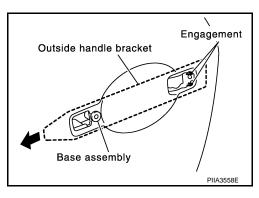
6. Remove the front gasket (1) and rear gasket (2).



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

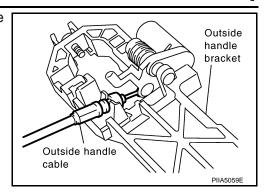


8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket and door lock assembly as shown.



9. Disconnect the door lock actuator electrical connector.

10. Separate the outside handle cable connection from the outside handle bracket.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

To install the key cylinder rod, be sure to rotate the key cylinder rod holder until a click is felt.

Disassembly and Assembly

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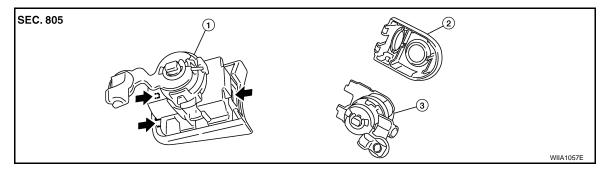
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DOOR KEY CYLINDER ASSEMBLY



- 1. Door key cylinder assembly
- 2. Door key cylinder escutcheon
- 3. Door key cylinder

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Release the key cylinder escutcheon pawls to remove the door key cylinder.

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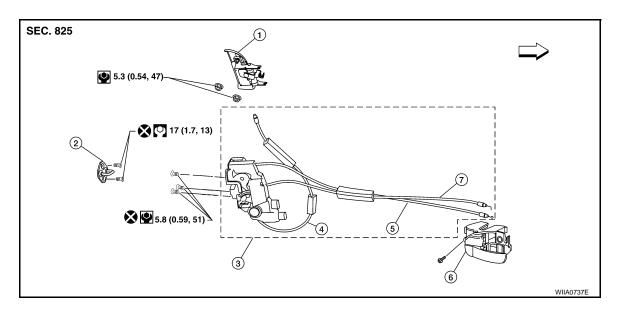
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REAR DOOR LOCK

Component Structure

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- 1. Outside door handle
- 4. Outside door handle cable
- 7. Door lock cable

- Rear door striker
- 5. Inside door handle cable
- ∀ehicle front

- 3. Rear door lock assembly
- Inside door handle assembly

Removal and Installation

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REMOVAL

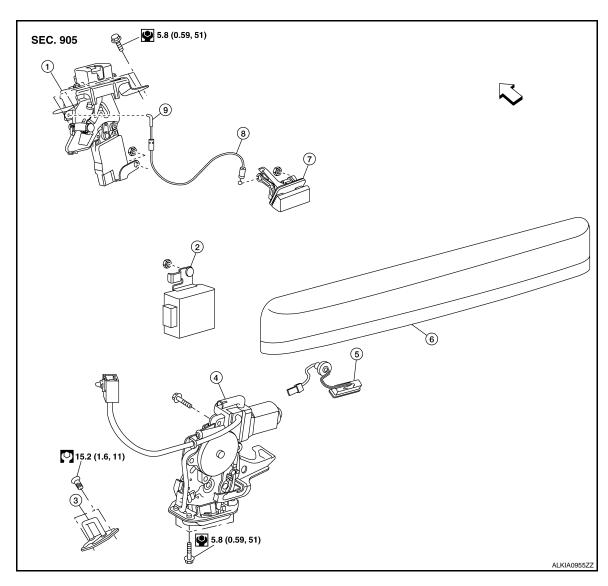
- 1. Remove the rear door window regulator. Refer to GW-18, "Rear Door Glass Regulator".
- 2. Remove door grommets, and remove outside handle nuts from the hole.
- 3. Remove outside handle.
- 4. Disconnect the outside handle cable connection.
- 5. Remove the inside door handle.
- 6. Disconnect the door lock and inside door handle cables from the inside door handle.
- 7. Disconnect the door lock actuator connector and remove the assembly.

INSTALLATION

Installation is in the reverse order of removal.

BACK DOOR LOCK

Component Structure



- Glass hatch latch assembly
- 4. Back door latch assembly
- 7. Glass hatch release handle
- 2. Back door control assembly
- 5. Back door release button
- 8. Glass latch release cable
- 3. Back door striker
- 6. Back door finisher
- ∀ehicle front

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