SECTION DLK
DOOR & LOCK

CONTENTS

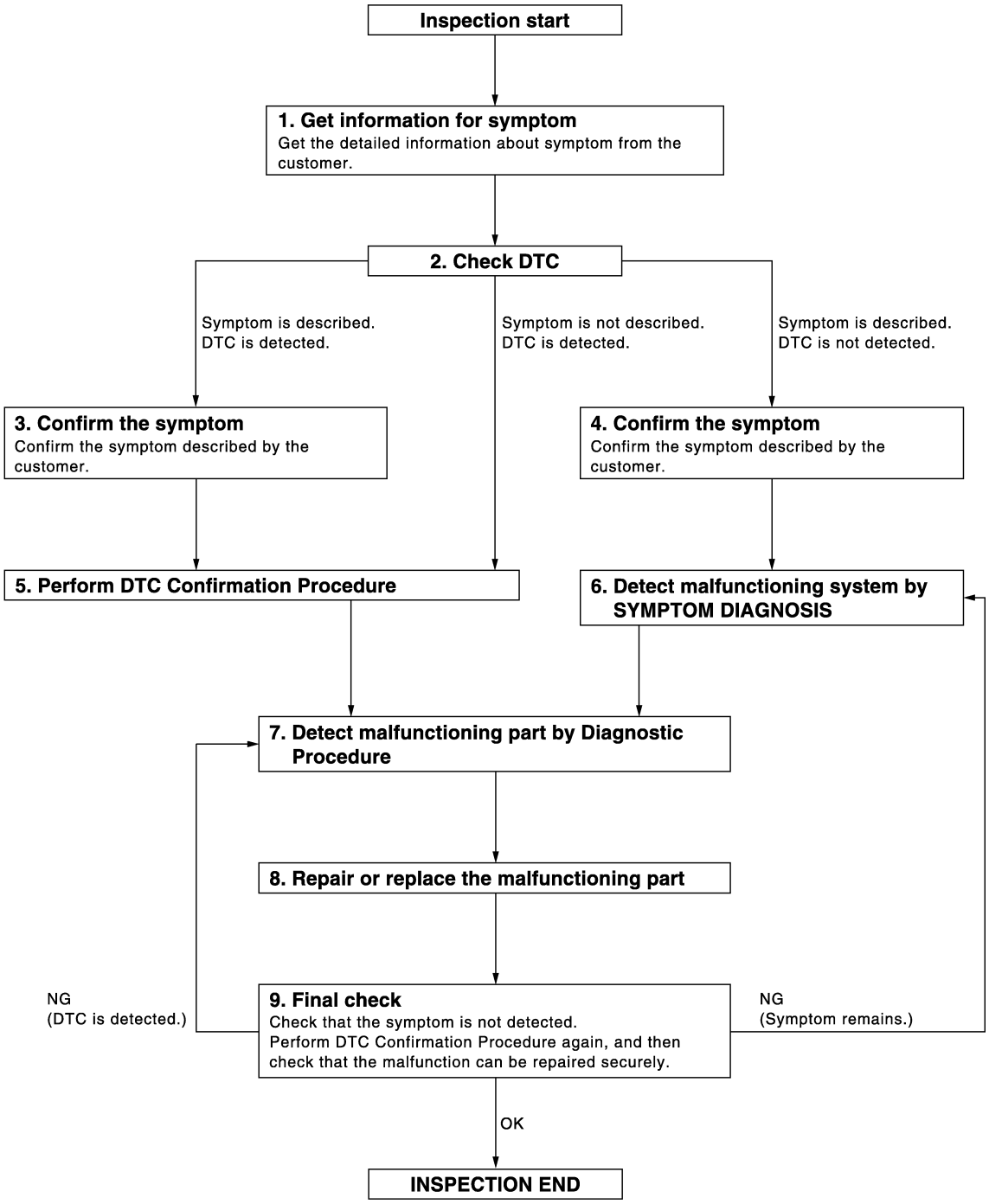
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000003083060

OVERALL SEQUENCE



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DETAILED FLOW

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.

>> 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-80, "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 7
NO >> Refer to GI-37, "Intermittent Incident".

6.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

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

>> GO TO 7

7.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.
NOTE:

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

Is malfunctioning part detected?

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

8. 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 9

9. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been repaired securely.
When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is the inspection result normal?

NO (DTC is detected)>>GO TO 7
NO (Symptom remains)>>GO TO 6
YES >> Inspection End.

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000003083061

Perform the system initialization when replacing BCM, replacing a keyfob or registering an additional keyfob.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000003083062

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

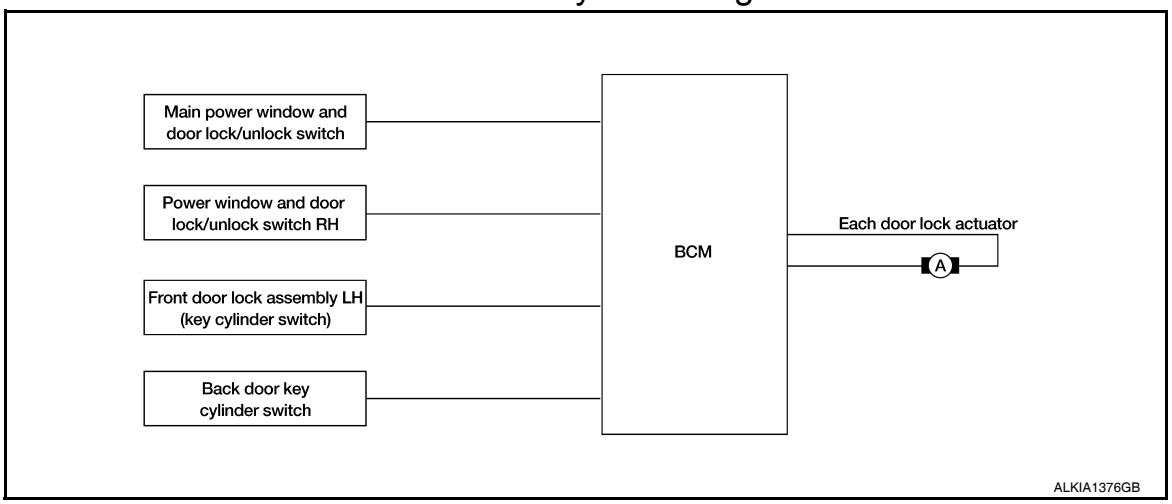
FUNCTION DIAGNOSIS

DOOR LOCK FUNCTION

DOOR LOCK AND UNLOCK SWITCH

DOOR LOCK AND UNLOCK SWITCH : System Diagram

INFOID:0000000003083063



DOOR LOCK AND UNLOCK SWITCH : System Description

INFOID:0000000003083064

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

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

Selective Unlock Operation

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

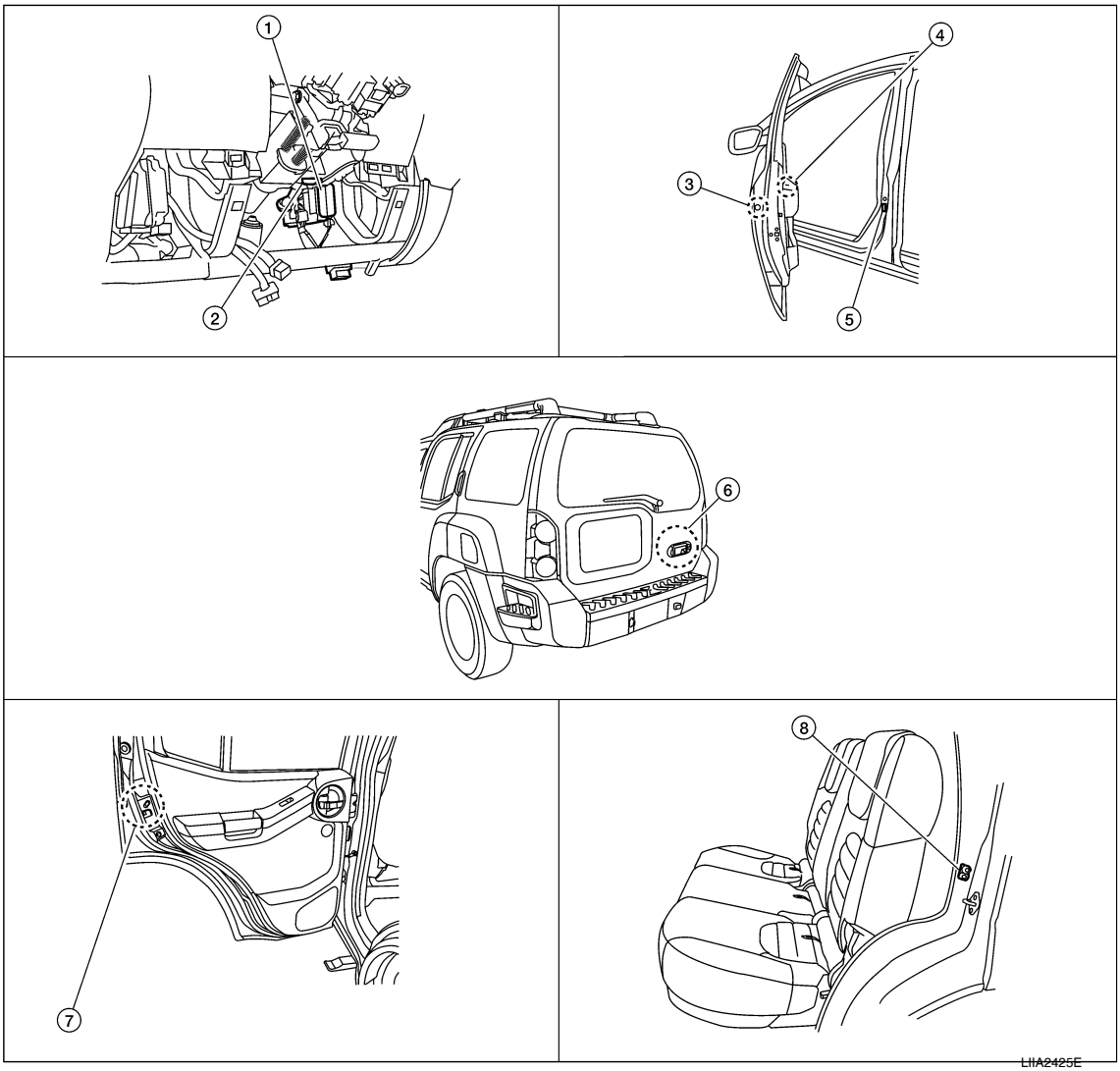
Select unlock operation mode can be changed using DOOR LOCK-UNLOCK SET mode in “WORK SUPPORT”. Refer to DLK-13, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

Key Reminder System

Refer to DLK-46, "Diagnosis Procedure".

DOOR LOCK AND UNLOCK SWITCH : Component Parts Location

INFOID:0000000003083065



1. BCM M18, M19, M20 (view with instrument panel LH removed)
2. Key switch M27
3. Front door lock assembly LH (key cylinder switch) D14
   Front door lock actuator RH D114
4. Main power window and door lock/unlock switch D7
   Power window and door lock/unlock switch RH D105
5. Front door switch
   LH B8
   RH B108
6. Back door switch D502
   Back door key cylinder switch D505
   Back door lock actuator D508
7. Rear door lock actuator
   LH D205
   RH D305
8. Rear door switch
   LH B18
   RH B116

DOOR LOCK AND UNLOCK SWITCH : Component Description

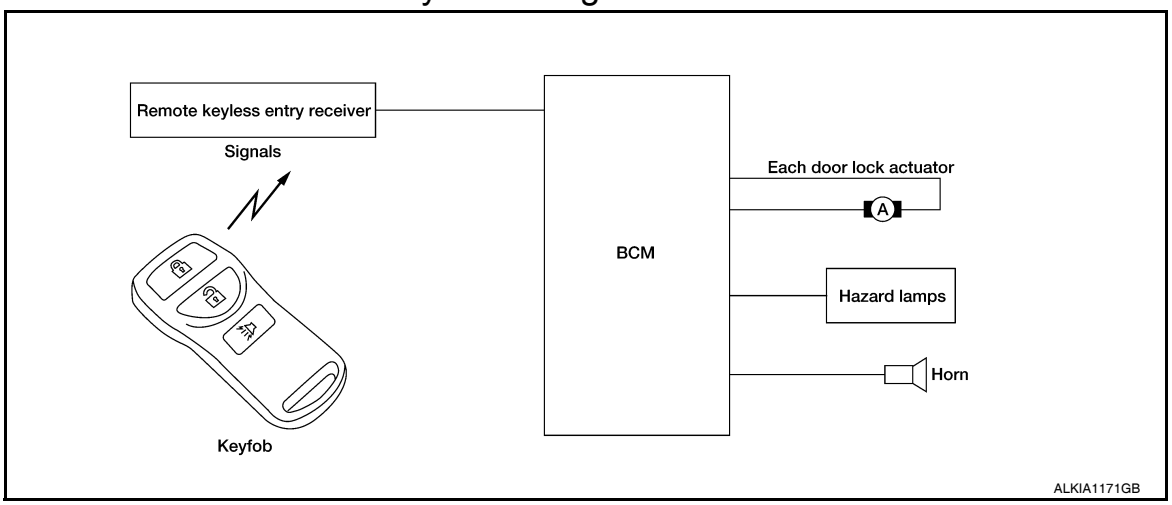
INFOID:0000000003083066

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

REMOTE KEYLESS ENTRY

REMOTE KEYLESS ENTRY : System Diagram

INFOID:0000000003083067



REMOTE KEYLESS ENTRY : System Description

INFOID:0000000003083068

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.
- Keyfob 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.
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

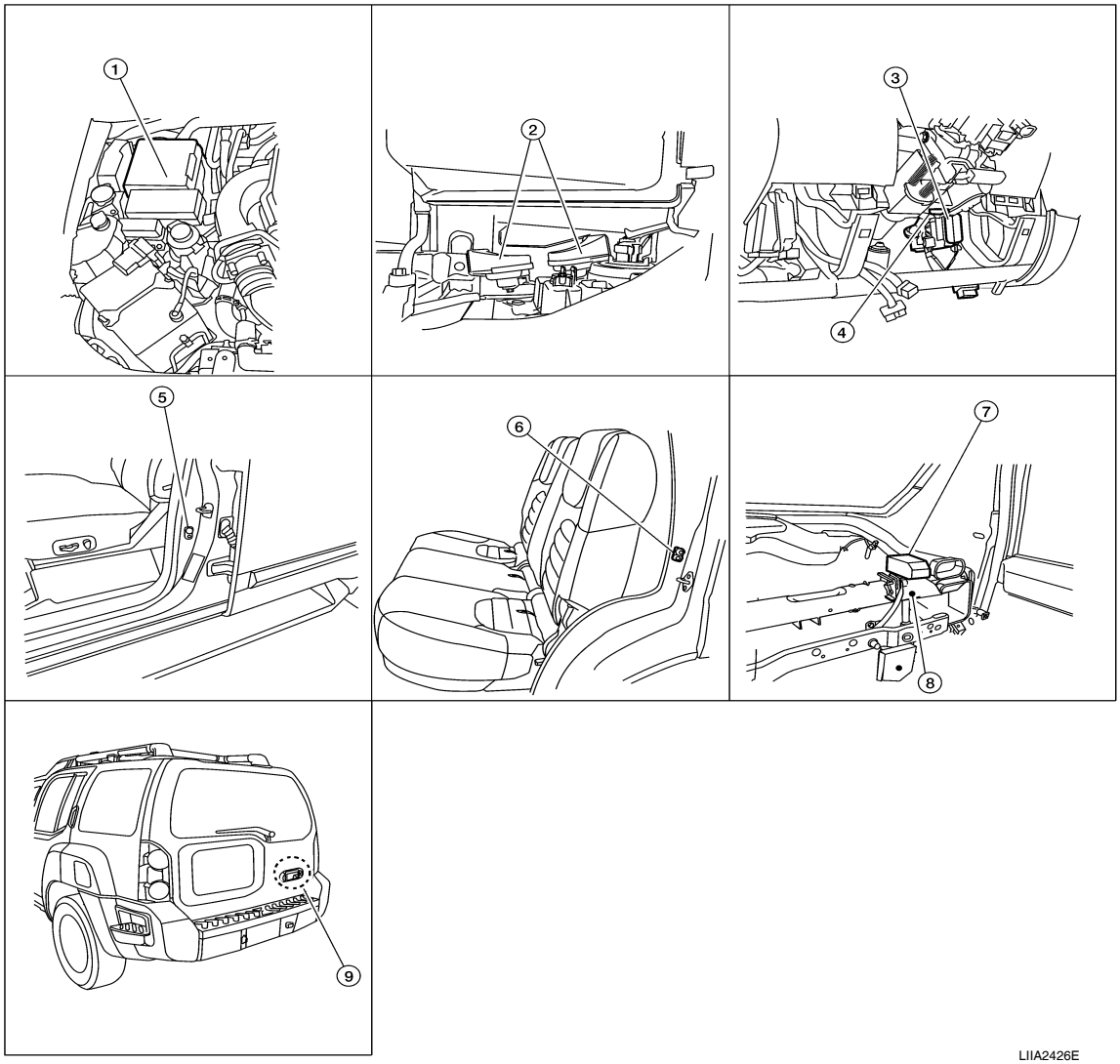
When key switch is OFF (when ignition key is not inserted in key cylinder), remote keyless entry system turns on and off horn and headlamp intermittently with input of PANIC ALARM signal from keyfob.
The alarm automatically turns off after 25 seconds or when BCM receives any signal from keyfob.

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:0000000003083069



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1. IPDM E/R E122, E124
2. Horns
   E3 (with dual note horn)
   E3, E162 (with single note horn)
   (behind front combination lamp LH)
3. BCM M18, M19, M20
   (view with instrument lower panel LH removed)
4. Key switch M27
5. Front door switch
   LH B8
   RH B108
6. Rear door switch
   LH B18
   RH B116
7. Remote keyless entry receiver M120
   (view with instrument panel RH removed)
8. Steering member
9. Back door switch D502

REMOTE KEYLESS ENTRY : Component Description

INFOID:0000000003083070

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.

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

INFOID:0000000004992441

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 BCS-49, "DTC Index".
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	• Enables to read and save the vehicle specification. • Enables to write the vehicle specification when replacing BCM.

SYSTEM APPLICATION
BCM can perform the following functions for each system.
NOTE:
It can perform the diagnosis modes except the following for all sub system selection items.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
BCM	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
RAP (retained accessory power)	RETAINED PWR	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
TPMS (tire pressure monitoring system)	AIR PRESSURE MONITOR	×	×	×
Vehicle security system	PANIC ALARM			×

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

INFOID:0000000004992442

WORK SUPPORT

Work Item	Description
DOOR LOCK-UNLOCK SET	• ON • OFF
ANTI-LOCK OUT SET	• ON • OFF

DATA MONITOR

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

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK/ OTHER UNLOCK].
TRUNK/BACK DOOR	This test is able to check trunk/back door lock operation [LOCK (SET)/UNLOCK (RE-LEASE)].

MULTIREMOTE ENT

MULTIREMOTE ENT : CONSULT-III Function (BCM - MULTIREMOTE ENT)

INFOID:0000000004992443

WORK SUPPORT

Work Item	Description
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. For the detail of the setting, refer to BCS-21, "FLASHER : CONSULT-III Function (BCM - FLASHER)".

DATA MONITOR

Monitor Item [Unit]	Condition
IGN ON SW [ON/OFF]	Indicates condition of ignition switch in ON position
KEY SW [ON/OFF]	Indicates condition of key switch
KEYLESS LOCK [ON/OFF]	Indicates condition of lock signal from keyfob
KEYLESS UNLOCK [ON/OFF]	Indicates condition of unlock signal from keyfob
DOOR SW-DR [ON/OFF]	Indicates condition of front door switch LH

Monitor Item [Unit}	Condition
DOOR SW-AS [ON/OFF]	Indicates condition of front door switch RH
DOOR SW-RR [ON/OFF]	Indicates condition of rear door switch RH
DOOR SW-RL [ON/OFF]	Indicates condition of rear door switch LH
BACK DOOR SW [ON/OFF]	Indicates condition of back door switch
CDL LOCK SW [ON/OFF]	Indicates condition of door lock and unlock switch
CDL UNLOCK SW [ON/OFF]	Indicates condition of door lock and unlock switch
RKE LOCK AND UNLOCK	This item is indicated, but not monitored

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check warning chime in combination meter operation. [ALL LOCK/ALL UNLOCK/DR UNLOCK/OTHER UNLOCK]
INT LAMP	This test is able to check interior lamp operation [ON/OFF].
FLASHER	This test is able to check flasher operation [LH/RH/OFF].

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000003083079

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-46, "CAN Communication Signal Chart".

DTC Logic

INFOID:0000000003083080

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:0000000003083081

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 DLK-16, "Diagnosis Procedure".
NO >> Refer to GI-37, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000003083082

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000003083083

1.REPLACE BCM

When DTC [U1010] is detected, replace BCM. Refer to BCS-53, "Removal and Installation".

>> Replace BCM.

Special Repair Requirement

INFOID:0000000003083084

1.REQUIRED WORK WHEN REPLACING BCM

The BCM must be initialized when replaced. Refer to BCS-53, "Removal and Installation" for BCM configuration.
Initialize NVIS by CONSULT-III. For the details of initialization refer to CONSULT-III Operation Manual.

>> Work End.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000003229661

1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

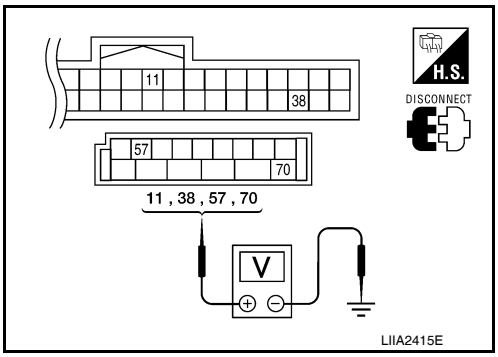
Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	18 (10A)
70		G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

Is the fuse blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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



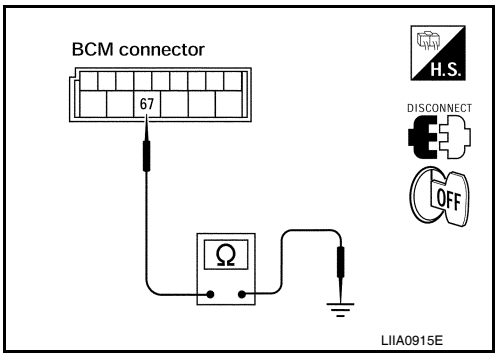
Connector	Terminals (+)	Terminals (-)	Power source	Condition	Voltage (V) (Approx.)
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage
	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage

Is the measurement value normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.



BCM		Ground	Continuity
Connector	Terminal		
M20	67		Yes

Does continuity exist?

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

DOOR SWITCH

Description

INFOID:0000000003083087

Detects door open/close condition.

Component Function Check

INFOID:0000000003083088

1.CHECK FUNCTION

With CONSULT-III

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

Monitor item	Condition
DOOR SW-DR	CLOSE → OPEN: OFF → ON
DOOR SW-AS	
DOOR SW-RL	
DOOR SW-RR	
BACK DOOR SW	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to DLK-19, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003083089

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

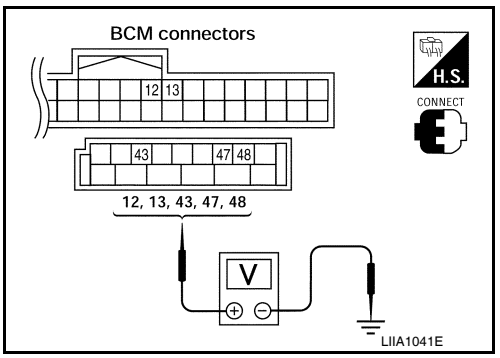
- When doors are closed:

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.

Connector	Item	Terminals		Condition	Voltage (V) (Approx.)
		(+)	(–)		
M19	Back door switch/latch	43	Ground	Open ↓ Closed	0 ↓ Battery voltage
	Front door switch LH	47			
	Rear door switch LH	48			
M18	Front door switch RH	12			
	Rear door switch RH	13			



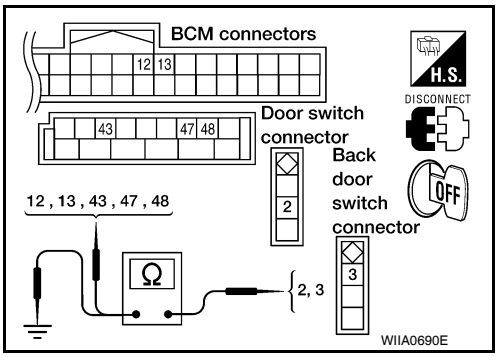
Is the inspection result normal?

YES >> Door switch circuit is OK.
NO >> GO TO 2.

2.CHECK DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door switch and BCM.
3. Check continuity between BCM connector M18, M19 terminals 12, 13, 43, 47, 48 and door switch connector B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector D502 terminal 3.

2 - 47 :Continuity should exist
2 - 12 :Continuity should exist
2 - 48 :Continuity should exist
2 - 13 :Continuity should exist
3 - 43 :Continuity should exist



4. Check continuity between door switch connector B8 (Front LH), B108 (Front RH), B18 (Rear LH), B116 (Rear RH) terminal 2 or back door latch connector (C) D502 terminal 3 and ground.

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

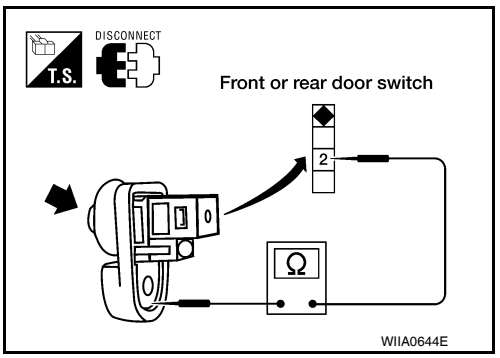
Is the inspection result normal?

YES >> GO TO 3 (front and rear door).
YES >> GO TO 4 (back door).
NO >> Repair or replace harness.

3.CHECK FRONT AND REAR DOOR SWITCHES

Check continuity between door switch connector terminal AND CASE G.

Switch	Terminals	Condition	Continuity
Door switch (front and rear)	2 – Ground	Released	Yes
		Pressed	No



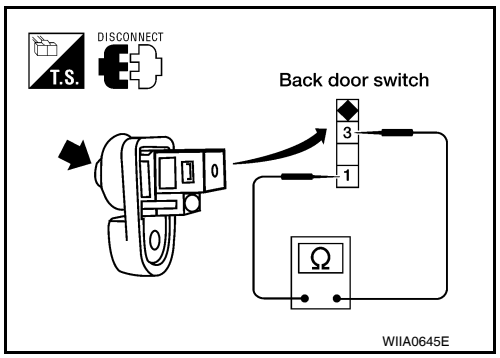
Is the inspection result normal?

YES >> Door switch circuit is OK.
NO >> Replace door switch.

4.CHECK BACK DOOR SWITCH

Check continuity between door switch connector terminals.

Switch	Terminals	Condition	Continuity
Back door switch	1 – 3	Released	Yes
		Pressed	No



Is the inspection result normal?

YES >> Repair or replace back door switch ground circuit.
NO >> Replace back door switch.

DOOR LOCK AND UNLOCK SWITCH

Description

INFOID:0000000003083090

Transmits door lock/unlock operation to BCM.

Component Function Check

INFOID:0000000003083091

1.CHECK FUNCTION

With CONSULT-III

Check CDL LOCK SW, CDL UNLOCK SW in Data Monitor mode with CONSULT-III.

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

Is the inspection result normal?

YES >> Door lock and unlock switch is OK.
NO >> refer to DLK-22, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003229662

1.CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

With CONSULT-III

Check door lock/unlock switch ("CDL LOCK SW", "CDL UNLOCK SW") in DATA MONITOR mode in CONSULT–III. Refer to DLK-13, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

- When door lock/unlock switch is turned to LOCK:

CDL LOCK SW : ON

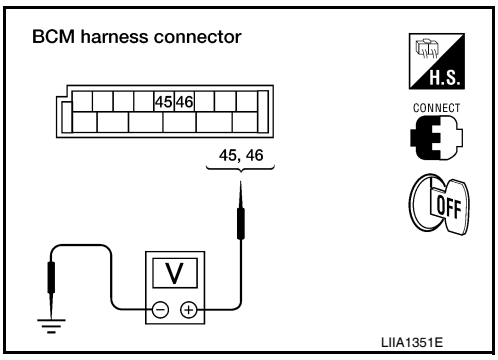
- When door lock/unlock switch is turned to UNLOCK:

CDL UNLOCK SW : ON

Without CONSULT-III

Check voltage between BCM connector M19 terminals 45, 46 and ground.

Connector	Terminals (+)	Terminals (–)	Condition	Voltage (V) (Approx.)
M19	46	Ground	Door lock/unlock switch is neutral.	Battery voltage
			Door lock/unlock switch is turned to UNLOCK.	0
	45	Ground	Door lock/unlock switch is neutral.	Battery voltage
			Door lock/unlock switch is turned to LOCK.	0



Is the inspection result normal?

YES >> Door lock/unlock switch circuit is OK.
NO >> GO TO 2.

2.CHECK DOOR LOCK/UNLOCK SWITCH

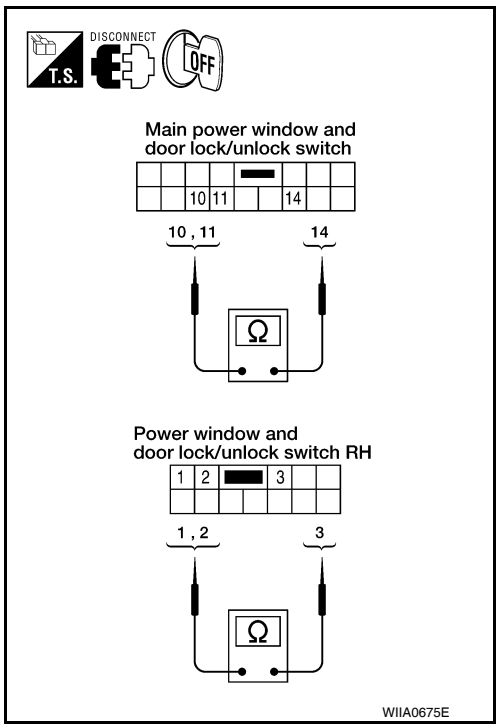
1. Turn ignition switch OFF.
2. Disconnect door lock/unlock switch.

3. Check continuity between main power window and door lock/unlock switch terminals 10, 11 and 14.

Terminal		Condition	Continuity
10	14	Lock	Yes
		Unlock/Neutral	No
11		Unlock	Yes
		Lock/Neutral	No

4. Check continuity between power window and door lock/unlock switch RH terminals 1, 2 and 3.

Terminal		Condition	Continuity
1	3	Lock	Yes
		Unlock/Neutral	No
2		Unlock	Yes
		Lock/Neutral	No



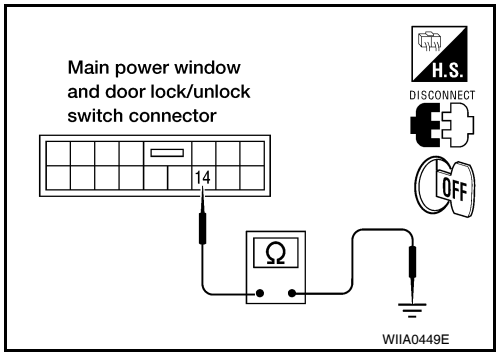
Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace door lock/unlock switch.

3. CHECK DOOR LOCK/UNLOCK SWITCH GROUND HARNESS

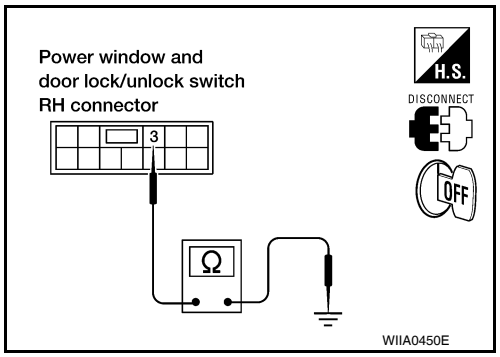
1. Disconnect main power window and door lock/unlock switch or power window and door lock/unlock switch RH.
2. Check continuity between main power window and door lock/unlock switch connector D7 terminal 14 and ground.

14 - Ground : Continuity should exist.



3. Check continuity between power window and door lock/unlock switch RH connector D105 terminal 3 and ground

3 - Ground : Continuity should exist.



Is the inspection result normal?

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

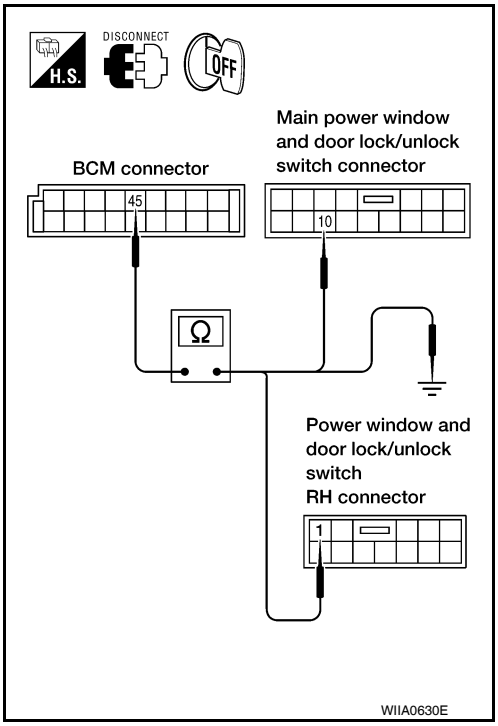
4. CHECK DOOR LOCK SWITCH CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M19 terminal 45 and main power window and door lock/unlock switch connector D7 terminal 10 or power window and door lock/unlock switch RH connector D105 terminal 1.

1 - 45 **: Continuity should exist.**
10 - 45 **: Continuity should exist.**

3. Check continuity between BCM connector M19 terminal 45 and ground.

45 - Ground **: Continuity should not exist.**



4. Check continuity between BCM connector M19 terminal 46 and main power window and door lock/unlock switch LH connector D7 terminal 11 or power window and door lock/unlock switch RH connector D105 terminal 2.

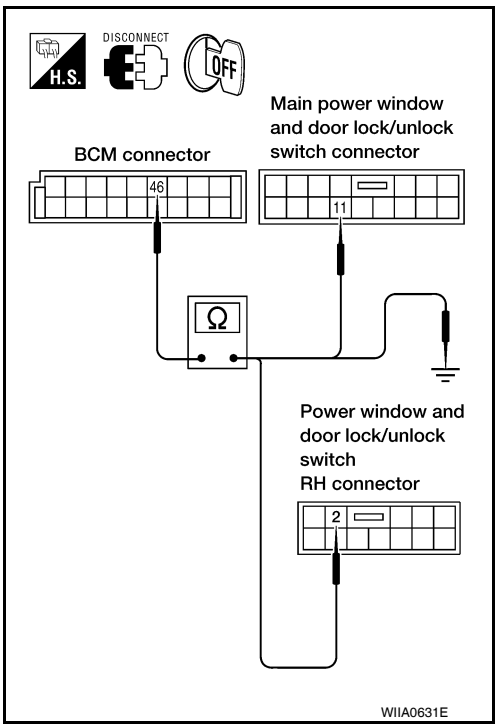
2 - 46 **: Continuity should exist.**
11 - 46 **: Continuity should exist.**

5. Check continuity between BCM connector M19 terminal 46 and ground.

46 - Ground **: Continuity should not exist.**

Is the inspection result normal?

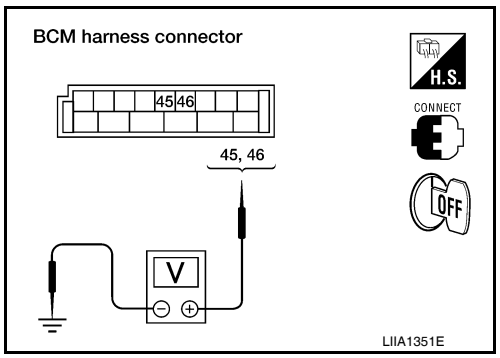
YES >> GO TO 5.
NO >> Repair or replace harness.



5. CHECK BCM OUTPUT VOLTAGE

1. Connect BCM.

2. Check voltage between BCM connector M19 terminals 45, 46 and ground.



45 - Ground	**: Battery voltage**
46 - Ground	**: Battery voltage**

Is the inspection result normal?

YES >> Check condition of the harness and connector.
NO >> Replace BCM. Refer to BCS-53, "Removal and Installation".

KEY CYLINDER SWITCH
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000003229663

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.

DRIVER SIDE : Component Function Check

INFOID:0000000003229664

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
	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Refer to DLK-26, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000003229665

1.CHECK DOOR KEY CYLINDER SWITCH LH

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 in CONSULT–III. Refer to DLK-13, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

- When key inserted in front key cylinder is turned to LOCK:

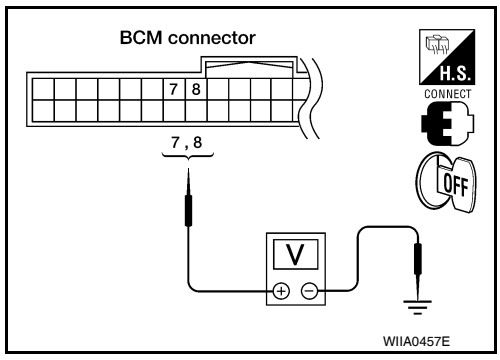
KEY CYL LK-SW : ON

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

KEY CYL UN-SW : ON

Without CONSULT-III

Check voltage between BCM connector M18 terminals 7, 8 and ground.



Connector	Terminals (+)	Terminals (–)	Condition	Voltage (V) (Approx.)
M18	7	Ground	Neutral/Lock	5
			Unlock	0
	8		Neutral/Unlock	5
			Lock	0

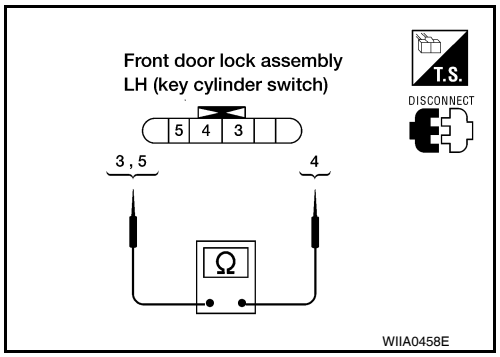
Is the inspection result normal?

YES >> Front door lock assembly LH (key cylinder switch) signal is OK.
NO >> GO TO 2.

2.CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH (key cylinder switch).
3. Check continuity between front door lock assembly LH (key cylinder switch) connector terminals 3, 4 and 5.

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



Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace front door lock assembly LH (key cylinder switch). Refer to DLK-102, "Removal and Installation".

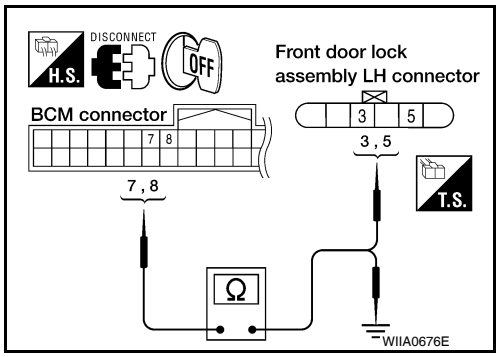
3.CHECK FRONT DOOR LOCK ASSEMBLY LH HARNESS

1. Disconnect BCM.
2. Check continuity between BCM connector M18 terminals 7, 8 and front door lock assembly LH connector D14 terminals 3, 5.

7 - 3 : Continuity should exist.
8 - 5 : Continuity should exist.

3. Check continuity between BCM connector M18 terminals 7, 8 and ground.

7 - Ground : Continuity should not exist.
8 - Ground : Continuity should not exist.



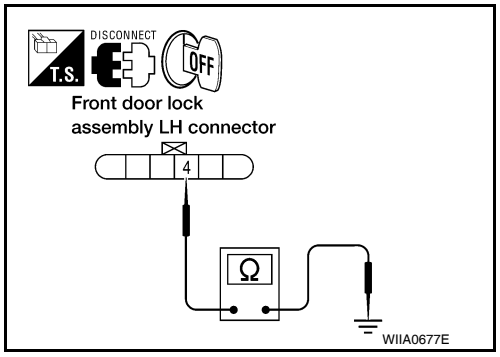
Is the inspection result normal?

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

4.CHECK FRONT DOOR LOCK ASSEMBLY LH GROUND

Check continuity between front door lock assembly LH connector D14 terminal 4 and ground.

4 - Ground : Continuity should exist.



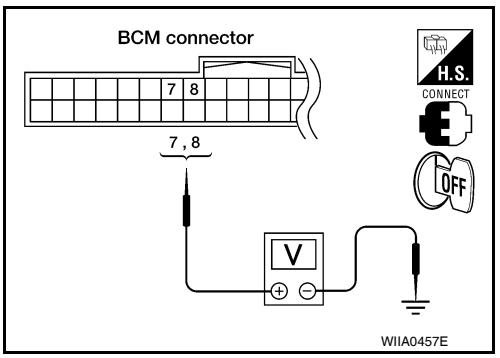
Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK BCM OUTPUT VOLTAGE

1. Connect BCM.

2. Check voltage between BCM connector M18 terminals 7, 8 and ground.



7 - Ground	**: Approx. 5V**
8 - Ground	**: Approx. 5V**

Is the inspection result normal?

YES >> Check condition of the harness and connector.
NO >> Replace BCM. Refer to BCS-53, "Removal and Installation".

BACK DOOR

BACK DOOR : Description

INFOID:0000000003083096

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.

BACK DOOR : Component Function Check

INFOID:0000000003083097

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
	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Refer to DLK-28, "BACK DOOR : Diagnosis Procedure".

BACK DOOR : Diagnosis Procedure

INFOID:0000000003229666

1.CHECK BACK DOOR KEY CYLINDER SWITCH

With CONSULT-III
Check back door key cylinder switch ("KEY CYL LK-SW") and ("KEY CYL UN-SW) in DATA MONITOR mode in CONSULT–III. Refer to DLK-13, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

- When key inserted in back door key cylinder is turned to LOCK:

KEY CYL LK-SW : ON

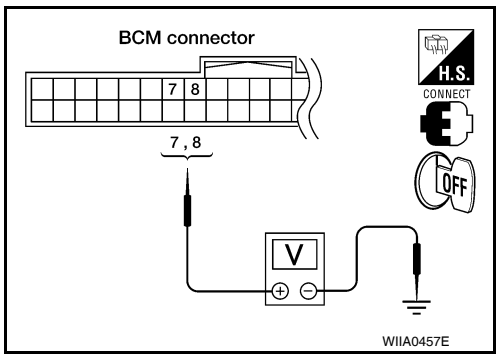
- When key inserted in back door key cylinder is turned to UNLOCK:

KEY CYL UN-SW : ON

Without CONSULT-III

Check voltage between BCM connector M18 terminals 7, 8 and ground.

Connector	Terminals (+)	Terminals (–)	Condition	Voltage (V) (Approx.)
M18	7	Ground	Neutral/Lock	5
			Unlock	0
	8		Neutral/Unlock	5
			Lock	0



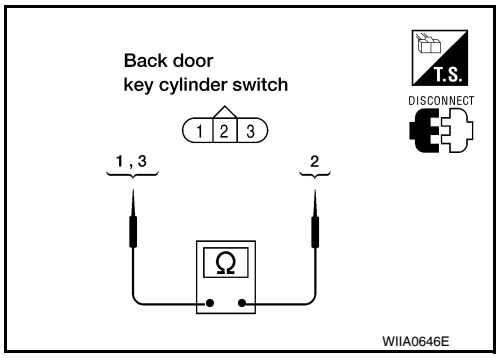
Is the inspection result normal?

YES >> Back door key cylinder switch signal is OK.
NO >> GO TO 2.

2.CHECK BACK DOOR KEY CYLINDER SWITCH

1. Turn ignition switch OFF.
2. Disconnect back door key cylinder switch.
3. Check continuity between back door key cylinder switch terminals 1, 2 and 3.

Terminals	Condition	Continuity
1 – 2	Key is turned to LOCK.	Yes
	Key is in N position or turned to UNLOCK	No
3 – 2	Key is turned to UNLOCK.	Yes
	Key is in N position or turned to LOCK	No



Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace back door key cylinder switch.

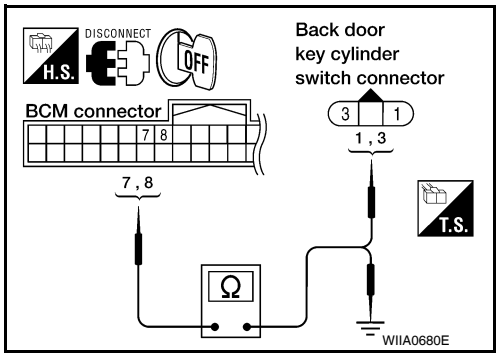
3.CHECK BACK DOOR KEY CYLINDER SWITCH HARNESS

1. Disconnect BCM.
2. Check continuity between BCM connector M18 terminals 7, 8 and back door key cylinder switch connector D505 terminals 3, 1.

7 - 3 : Continuity should exist.
8 - 1 : Continuity should exist.

3. Check continuity between BCM connector M18 terminals 7, 8 and ground.

7 - Ground : Continuity should not exist.
8 - Ground : Continuity should not exist.



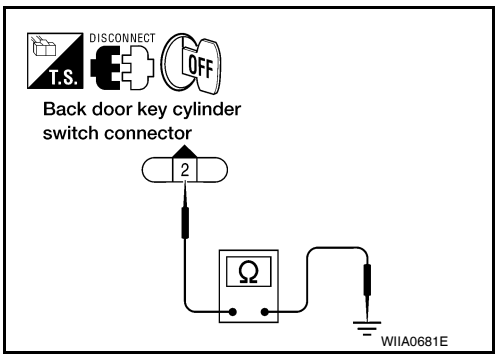
Is the inspection result normal?

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

4.CHECK BACK DOOR KEY CYLINDER SWITCH GROUND

Check continuity between back door key cylinder switch connector D505 terminal 2 and ground.

2 - Ground : Continuity should exist.



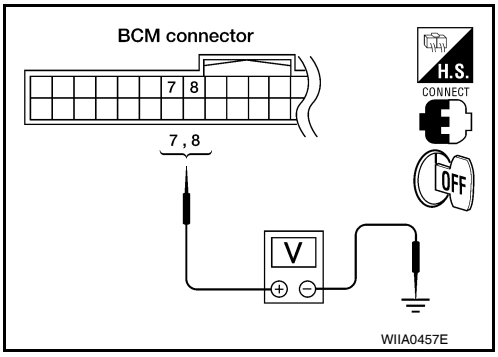
Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5. CHECK BCM OUTPUT VOLTAGE

1. Connect BCM.
2. Check voltage between BCM connector M18 terminals 7, 8 and ground.

7 - Ground : Approx. 5V
8 - Ground : Approx. 5V



Is the inspection result normal?

YES >> Check condition of the harness and connector.
NO >> Replace BCM. Refer to BCS-53, "Removal and Installation".

DOOR LOCK ACTUATOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000003083102

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE : Component Function Check

INFOID:0000000003083103

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-31, "DRIVER SIDE : Diagnosis Procedure".

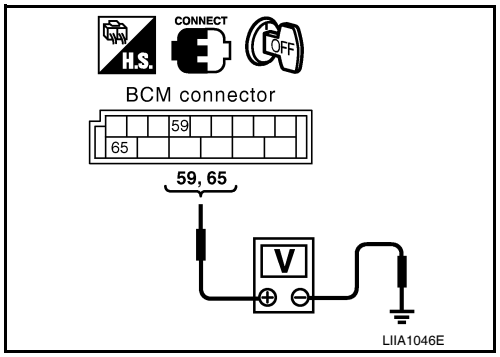
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000003083104

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 (+)	Terminals (-)	Condition	Voltage (V) (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



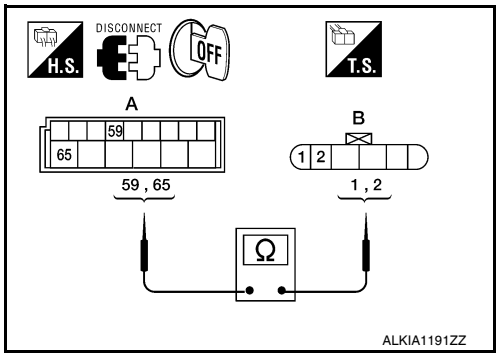
Is the inspection result normal?

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

2.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and front door lock assembly LH (actuator).
2. 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
	65		1	



Is the inspection result normal?

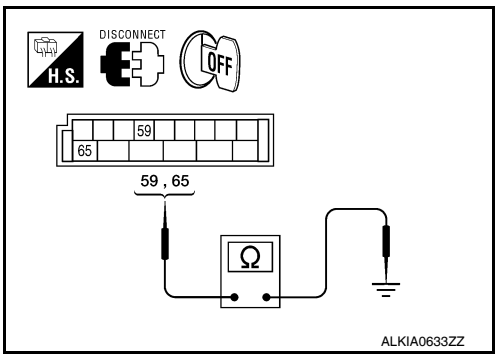
YES >> Replace front door lock assembly LH (actuator).
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

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

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

Connector	Terminals		Continuity
M20	59	Ground	No
	65		



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000003083105

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE : Component Function Check

INFOID:0000000003083106

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-32, "PASSENGER SIDE : Diagnosis Procedure".

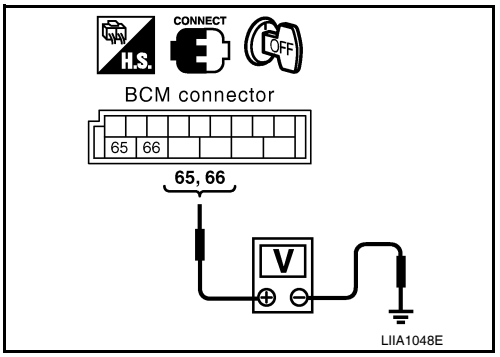
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000003083107

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



Is the inspection result normal?

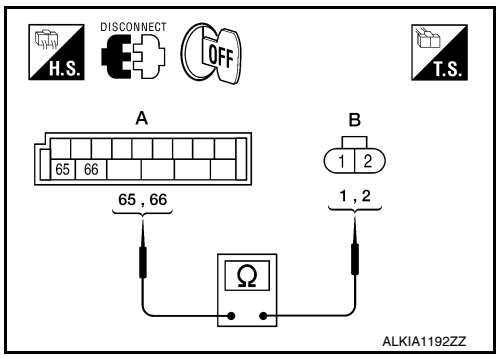
YES >> GO TO 2
NO >> GO TO 3

2.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and front door lock actuator RH.

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

Terminal		Continuity
65	2	Yes
66	1	



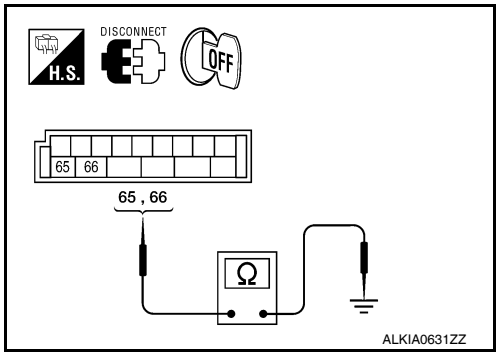
Is the inspection result normal?

YES >> Replace front door lock actuator RH. Refer to DLK-102, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

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

Terminals		Continuity
65	Ground	No
66		



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".
NO >> Repair or replace harness.

REAR LH

REAR LH : Description

INFOID:0000000003083108

Locks/unlocks the door with the signal from BCM.

REAR LH : Component Function Check

INFOID:0000000003083109

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-33, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

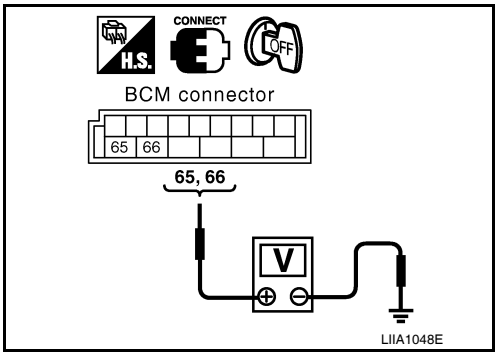
INFOID:0000000003083110

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



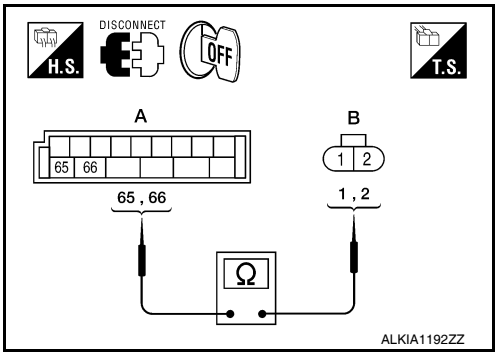
Is the inspection result normal?

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

2. CHECK DOOR LOCK ACTUATOR HARNESS

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.

Terminals		Continuity
65	2	Yes
66	1	



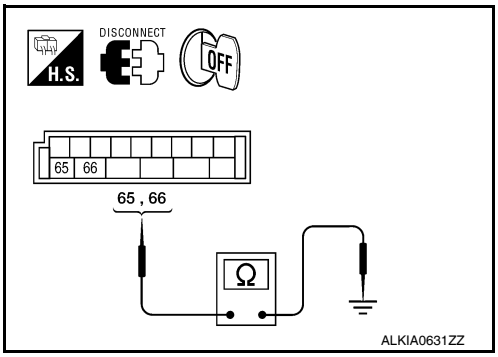
Is the inspection result normal?

YES >> Replace rear door lock actuator LH.
NO >> Repair or replace harness.

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.

Terminals		Continuity
65	Ground	No
66		No



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

REAR RH : Description

INFOID:0000000003083111

Locks/unlocks the door with the signal from BCM.

REAR RH : Component Function Check

INFOID:0000000003083112

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-35, "REAR RH : Diagnosis Procedure".

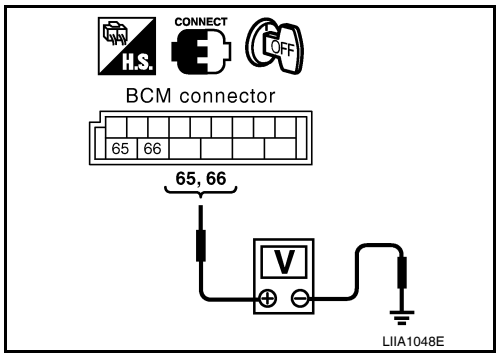
REAR RH : Diagnosis Procedure

INFOID:0000000003083113

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



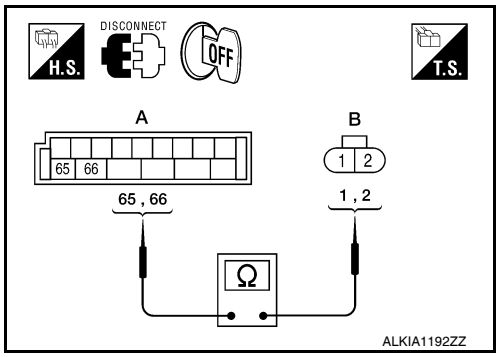
Is the inspection result normal?

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

2.CHECK DOOR LOCK ACTUATOR HARNESS

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

Terminals		Continuity
65	2	Yes
66	1	



Is the inspection result normal?

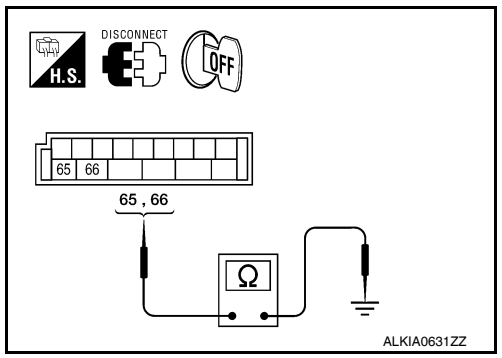
YES >> Replace rear door lock actuator RH.
NO >> Repair or replace harness.

3.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and rear door lock actuator RH.

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

Terminals		Continuity
65	Ground	No
66		



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".
NO >> Repair or replace harness.

BACK DOOR

BACK DOOR : Description

INFOID:0000000003083114

Locks/unlocks the door with the signal from BCM.

BACK DOOR : Component Function Check

INFOID:0000000003083115

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-36, "BACK DOOR : Diagnosis Procedure".

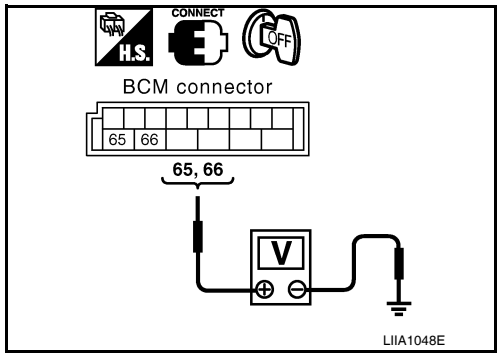
BACK DOOR : Diagnosis Procedure

INFOID:0000000003083116

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



Is the inspection result normal?

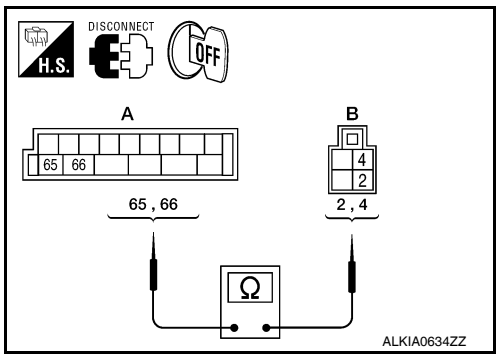
YES >> GO TO 2.
NO >> GO TO 3.

2.CHECK DOOR LOCK ACTUATOR HARNESS

1. Disconnect BCM and back door lock actuator.

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

Terminals		Continuity
65	2	Yes
66	4	



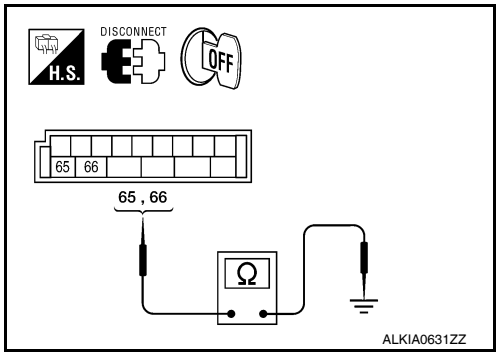
Is the inspection result normal?

YES >> Replace door lock actuator.
NO >> Repair or replace harness.

3. CHECK DOOR LOCK ACTUATOR HARNESS

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

Terminals		Continuity
65	Ground	No
66		



Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-53, "Removal and Installation".
NO >> Repair or replace harness.

REMOTE KEYLESS ENTRY RECEIVER

Description

INFOID:0000000003083117

Receives keyfob operation and transmits to BCM.

Component Function Check

INFOID:0000000003083118

1.CHECK FUNCTION

With CONSULT-III

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

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating key fob.

Is the inspection result normal?

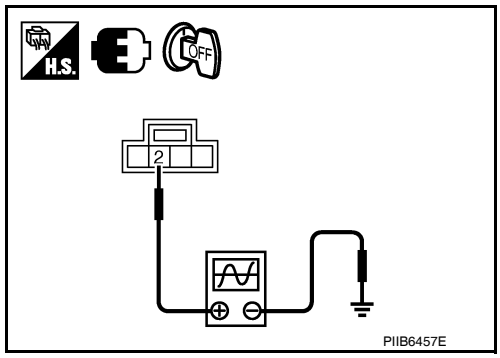
YES >> Remote keyless entry receiver is OK.
NO >> Refer to DLK-38, "Diagnosis Procedure".

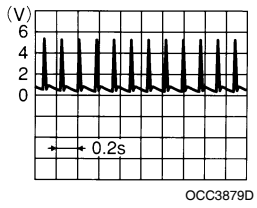
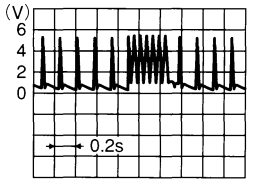
Diagnosis Procedure

INFOID:0000000003083119

1.CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

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



Terminals			Keyfob condition	Signal (Reference value)
(+)		(–)		
Remote keyless entry receiver connector	Terminal			
M120	2	Ground	No function	
			Any button is pressed	

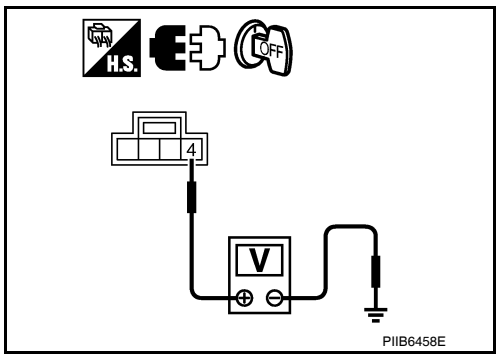
Is the inspection result normal?

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

2.REMOTE KEYLESS ENTRY RECEIVER 5-VOLT CIRCUIT INSPECTION

Check voltage between remote keyless entry receiver connector M120 terminal 4 and ground.

4 - Ground : Approx. 5 volt.



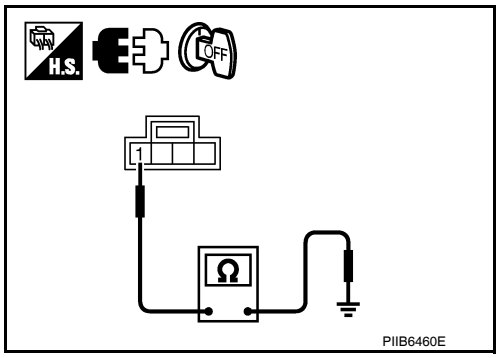
Is the inspection result normal?

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

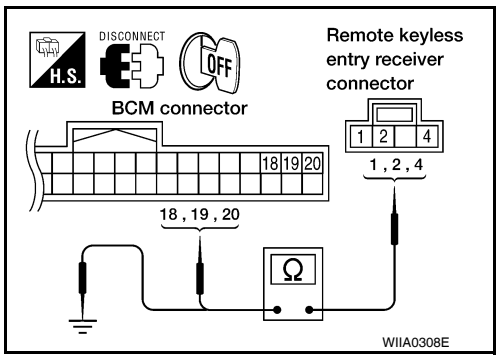
4. HARNESS INSPECTION BETWEEN BCM AND RKE RECEIVER

1. Disconnect remote keyless entry receiver and BCM connectors.
2. 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.



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.

KEYFOB BATTERY AND FUNCTION

Description

INFOID:0000000003083120

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:0000000003083121

1.CHECK FUNCTION

With CONSULT-III

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

Monitor item	Condition
RKE OPE COUN1	Check that the numerical value is changing while operating the key fob.

Is the inspection result normal?

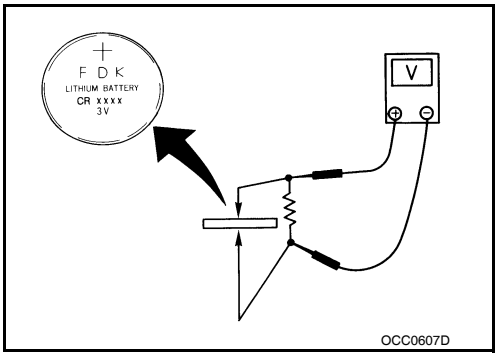
YES >> Keyfob is OK.
NO >> Refer to DLK-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003083122

1.CHECK KEYFOB BATTERY

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



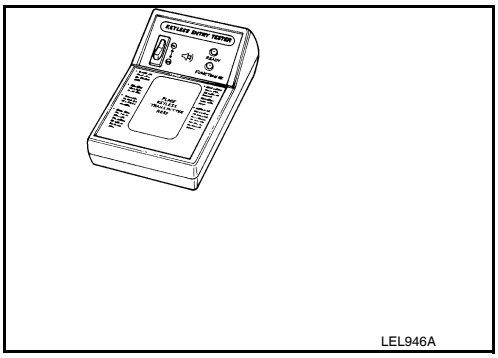
Standard : Approx. 2.5 - 3.0V

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?

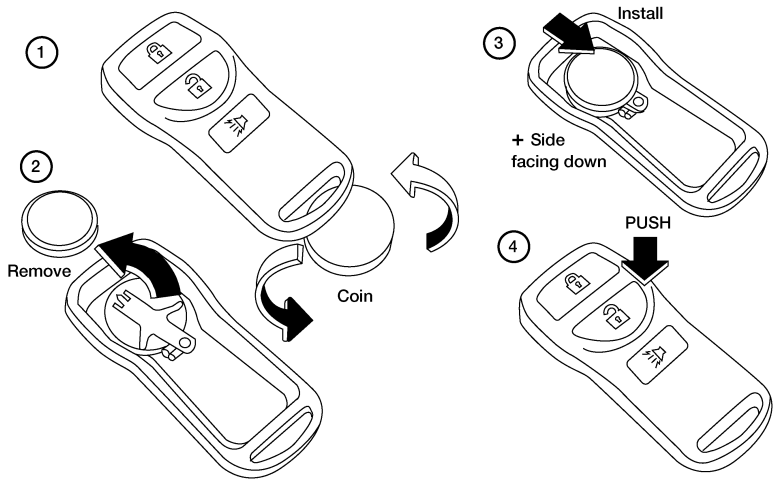
YES >> Key fob is OK.
NO >> Replace key fob. Refer to CONSULT-III Operation Manual.

Component Inspection

INFOID:0000000003083123

1.REPLACING KEYFOB BATTERY

NOTE:
• Be careful not to touch the circuit board or battery terminal.
• The keyfob is water-resistant. However, if it does get wet, immediately wipe it dry.
1. Open the lid using a coin.
2. Remove the battery.
3. Install the new battery, positive side down.
4. Close the lid securely. Push the keyfob buttons two or three times to check operation.



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 DLK-38, "Diagnosis Procedure".

Special Repair Requirement

INFOID:0000000003083124

Refer to CONSULT-III Operation Manual.

HORN FUNCTION

Description

INFOID:0000000003083125

Perform answer-back for each operation with horn.

Component Function Check

INFOID:0000000003083126

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 >> Refer to DLK-42, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003083127

1.CHECK HORN FUNCTION

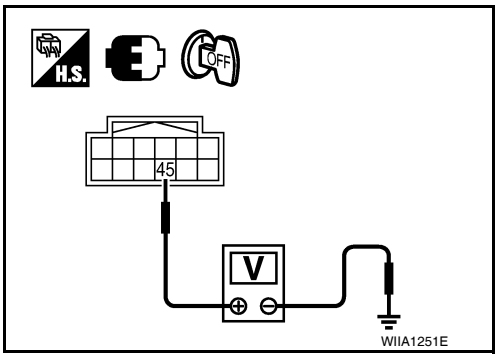
Check horn function with horn switch.

Does the horn sound?

YES >> GO TO 2
NO >> Refer 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) (Approx.)
Connector	Terminal				
E122	45	Ground	HORN	OFF → ON → OFF	Battery voltage → 0 → Battery voltage
				Other than above	Battery voltage

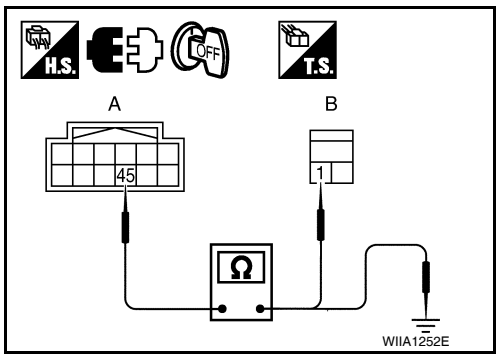
Is the inspection result normal?

YES >> Repair harness for open between IPDM E/R and horn relay.
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.



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

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
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-37, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-34, "Removal and Installation of IPDM E/R".
NO >> Repair or replace the malfunctioning part.

WARNING CHIME FUNCTION

Description

INFOID:0000000003083131

Performs operation method guide and warning with buzzer.

Component Function Check

INFOID:0000000003083132

1.CHECK FUNCTION

With CONSULT-III

Check the operation of "INSIDE BUZZER" in the Active Test. Refer to MWI-3, "Work Flow".

Is the inspection result normal?

Yes >> Warning buzzer into combination meter is OK.
No >> Refer to DLK-44, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003083133

1.CHECK METER BUZZER CIRCUIT

The inoperative warning chime is contained inside the combination meter. Replace combination meter. Refer to MWI-89, "Removal and Installation".

>> Inspection End.

HAZARD FUNCTION

Description

INFOID:0000000003083134

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

Component Function Check

INFOID:0000000003083135

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 DLK-45, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000003083136

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-53, "Removal and Installation".
NO >> Repair or replace hazard warning switch circuit. Refer to EXL-64, "Wiring Diagram".

KEY SWITCH (BCM INPUT)

Diagnosis Procedure

INFOID:0000000003083137

1.CHECK KEY SWITCH INPUT SIGNAL

With CONSULT-III

Check key switch "KEY ON SW" in DATA MONITOR mode with CONSULT–III. Refer to DLK-13, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

- When key is inserted to ignition key cylinder:

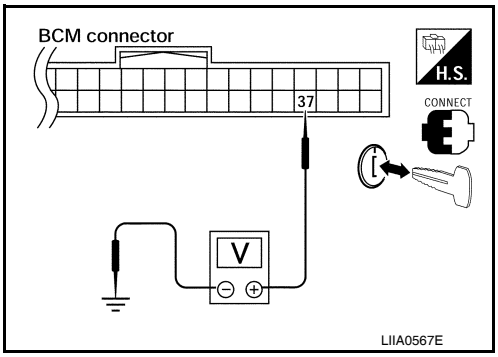
KEY ON SW : ON

- When key is removed from ignition key cylinder:

KEY ON SW : OFF

Without CONSULT-III

Check voltage between BCM connector M18 terminal 37 and ground.



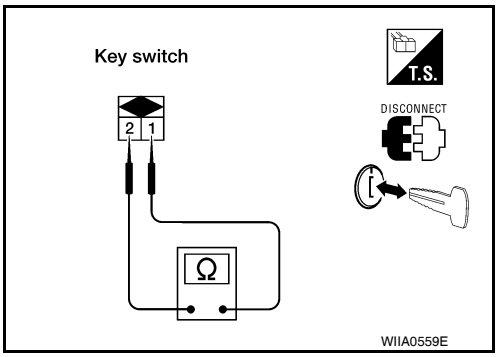
Connector	Terminal (+)	Terminal (–)	Condition	Voltage (V)
M18	37	Ground	Key is inserted.	Battery voltage
			Key is removed.	0

Is the inspection result normal?

YES >> Key switch (insert) circuit is OK.
NO >> 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

Is the inspection result normal?

YES >> Repair or replace harness or fuse.
NO >> Replace key switch.

HEADLAMP FUNCTION

Diagnosis Procedure

INFOID:0000000003083138

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

Diagnosis Procedure

INFOID:0000000003083139

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

ID Code Entry Procedure

INFOID:0000000003083140

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.**

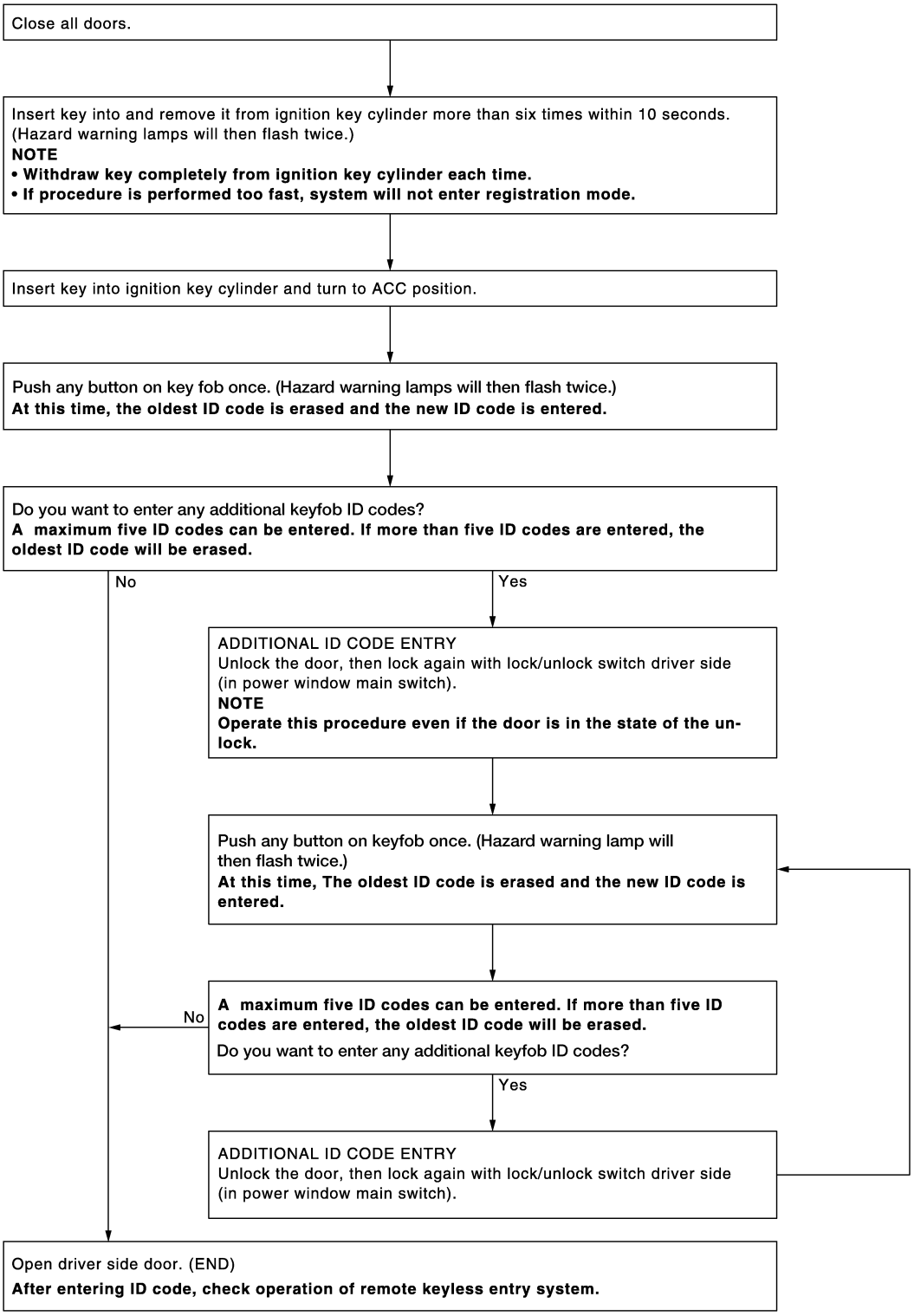
1. Turn ignition switch ON.
2. Select “BCM”.
3. Select “MULTI REMOTE ENT”.
4. Select “WORK SUPPORT”.
5. You can register, erase or confirm a keyfob ID code. To register a new code, select the following option and follow CONSULT-III instructions:
   - “REMO CONT ID REGIST”
     Use this mode to register 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.

KEYFOB ID SET UP WITHOUT CONSULT-III

ID Code Entry Procedure

INFOID:0000000003083141

KEYFOB ID SET UP WITHOUT CONSULT-III



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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-

ler 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.
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.

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000003260967

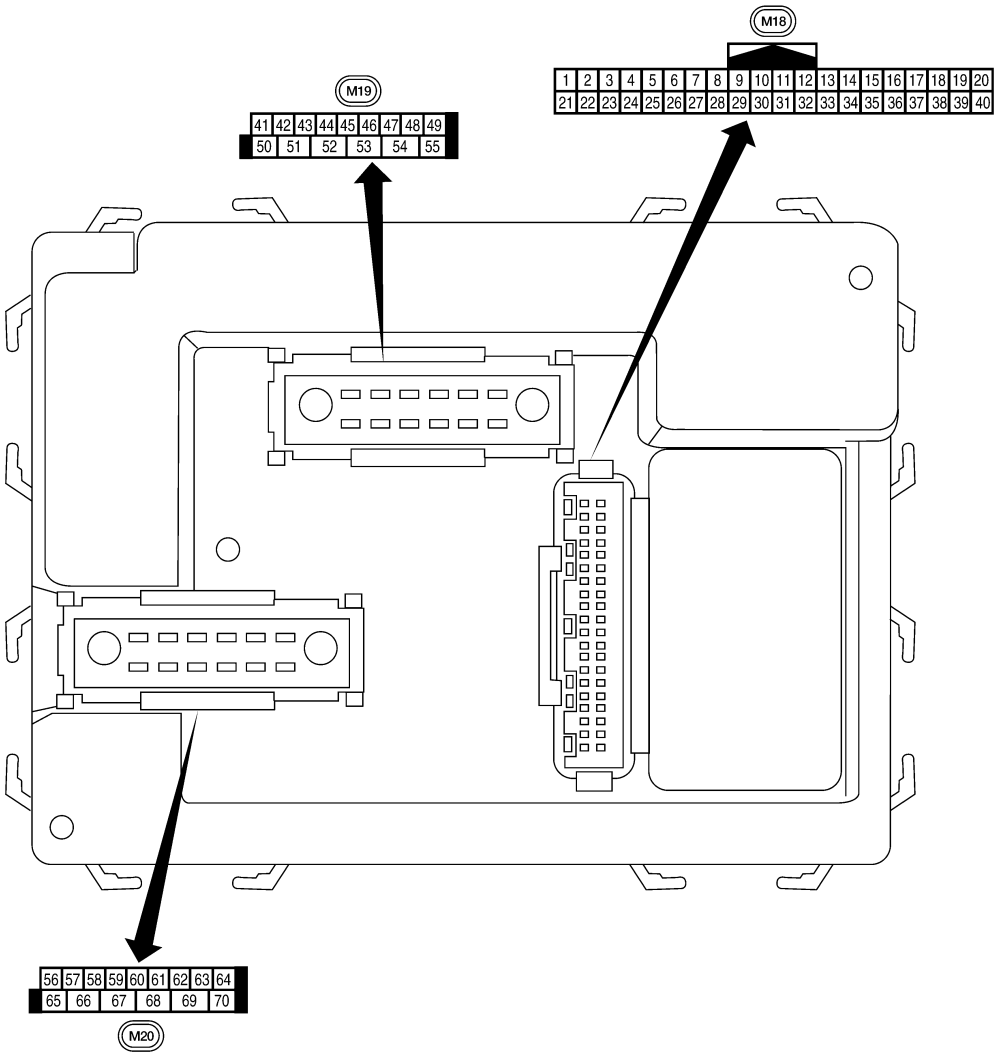
VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
AIR COND SW	A/C switch OFF	OFF
	A/C switch ON	ON
BACK DOOR SW	Back door closed	OFF
	Back door opened	ON
CDL LOCK SW	Door lock/unlock switch does not operate	OFF
	Press door lock/unlock switch to the LOCK side	ON
CDL UNLOCK SW	Door lock/unlock switch does not operate	OFF
	Press door lock/unlock switch to the UNLOCK side	ON
DOOR SW-AS	Front door RH closed	OFF
	Front door RH opened	ON
DOOR SW-DR	Front door LH closed	OFF
	Front door LH opened	ON
DOOR SW-RL	Rear door LH closed	OFF
	Rear door LH opened	ON
DOOR SW-RR	Rear door RH closed	OFF
	Rear door RH opened	ON
ENGINE RUN	Engine stopped	OFF
	Engine running	ON
FR FOG SW	Front fog lamp switch OFF	OFF
	Front fog lamp switch ON	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER LOW	Front wiper switch OFF	OFF
	Front wiper switch LO	ON
FR WIPER HI	Front wiper switch OFF	OFF
	Front wiper switch HI	ON
FR WIPER INT	Front wiper switch OFF	OFF
	Front wiper switch INT	ON
FR WIPER STOP	Any position other than front wiper stop position	OFF
	Front wiper stop position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
LIGHT SW 1ST	Lighting switch OFF	OFF
	Lighting switch 1st	ON
HEADLAMP SW1	Headlamp switch OFF	OFF
	Headlamp switch 1st	ON
HEADLAMP SW2	Headlamp switch OFF	OFF
	Headlamp switch 1st	ON

Monitor Item	Condition	Value/Status
HI BEAM SW	High beam switch OFF	OFF
	High beam switch HI	ON
IGN ON SW	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
IGN SW CAN	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
KEY ON SW	Mechanical key is removed from key cylinder	OFF
	Mechanical key is inserted to key cylinder	ON
KEYLESS LOCK	LOCK button of key fob is not pressed	OFF
	LOCK button of key fob is pressed	ON
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	OFF
	UNLOCK button of key fob is pressed	ON
OIL PRESS SW	• Ignition switch OFF or ACC • Engine running	OFF
	Ignition switch ON	ON
PASSING SW	Other than lighting switch PASS	OFF
	Lighting switch PASS	ON
REAR DEF SW	Rear window defogger switch OFF	OFF
	Rear window defogger switch ON	ON
RR WASHER SW	Rear washer switch OFF	OFF
	Rear washer switch ON	ON
RR WIPER INT	Rear wiper switch OFF	OFF
	Rear wiper switch INT	ON
RR WIPER ON	Rear wiper switch OFF	OFF
	Rear wiper switch ON	ON
RR WIPER STOP	Rear wiper stop position	OFF
	Other than rear wiper stop position	ON
TAIL LAMP SW	Lighting switch OFF	OFF
	Lighting switch 1ST	ON
TRNK OPNR SW	When back door opener switch is not pressed	OFF
	When back door opener switch is pressed	ON
TURN SIGNAL L	Turn signal switch OFF	OFF
	Turn signal switch LH	ON
TURN SIGNAL R	Turn signal switch OFF	OFF
	Turn signal switch RH	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading

Terminal Layout

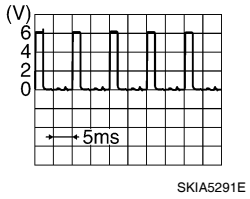
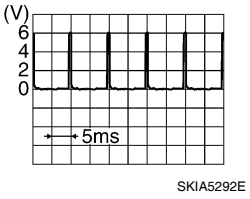
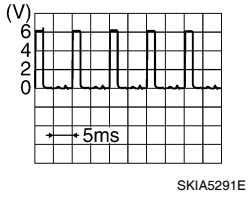
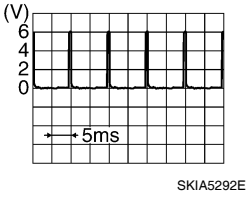
INFOID:0000000003260968

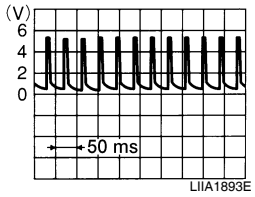
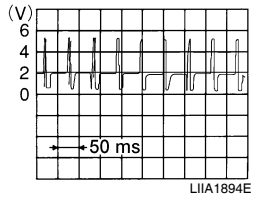
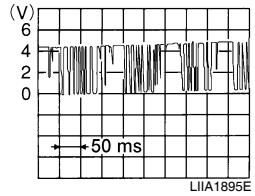


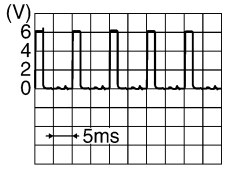
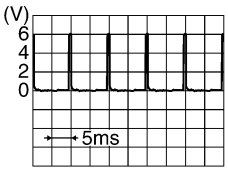
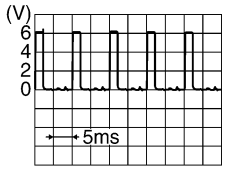
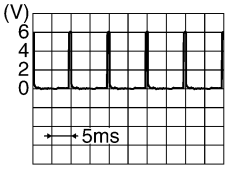
LIIA2443E

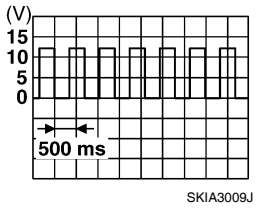
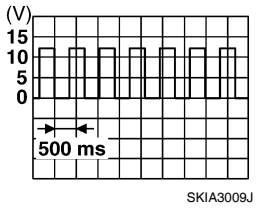
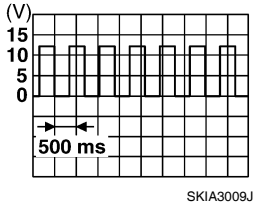
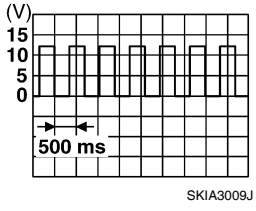
Physical Values

INFOID:0000000003260969

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
1	BR	Ignition keyhole illumination	Output	OFF	Door is locked (SW OFF)	Battery voltage
					Door is unlocked (SW ON)	0V
2	P	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
5	L	Combination switch input 2	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
6	R	Combination switch input 1				
7	GR	Front door lock assembly LH (key cylinder switch) and back door key cylinder switch (unlock)	Input	OFF	ON (open, 2nd turn)	Momentary 1.5V
					OFF (closed)	0V
8	SB	Front door lock assembly LH (key cylinder switch) and back door key cylinder switch (lock)	Input	OFF	ON (open)	Momentary 1.5V
					OFF (closed)	0V
9	Y	Rear window defogger switch	Input	ON	Rear window defogger switch ON	0V
					Rear window defogger switch OFF	5V
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	LG	Front door switch RH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
13	L	Rear door switch RH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	—	5V
18	BR	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	—	0V
19	V	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	
20	G	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	
					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.
27	W	Compressor ON signal	Input	ON	A/C switch OFF	5V
					A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
					Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
					OFF	5V

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
32	O	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
35	BR	Combination switch output 2	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
36	LG	Combination switch output 1				
37	B	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage
					Key inserted	0V
38	W/R	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	—	—	—
40	P	CAN-L	—	—	—	—
43	Y	Back door switch	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
44	O	Rear wiper auto stop switch	Input	ON	Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
					Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating
45	V	Lock switch	Input	OFF	ON (lock)	0V
					OFF	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
46	LG	Unlock switch	Input	OFF	ON (unlock)	0V
					OFF	Battery voltage
47	GR	Front door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
48	P	Rear door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
49	L	Cargo lamp	Output	OFF	Any door open (ON)	0V
					All doors closed (OFF)	Battery voltage
51	G	Trailer turn signal (right)	Output	ON	Turn right ON	 SKIA3009J
52	V	Trailer turn signal (left)	Output	ON	Turn left ON	 SKIA3009J
55	W	Rear wiper output circuit 1	Output	ON	OFF	0
					ON	Battery voltage
56	V	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
				ON	—	Battery voltage
57	R/Y	Battery power supply	Input	OFF	—	Battery voltage
59	GR	Front door lock assembly LH actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
60	LG	Turn signal (left)	Output	ON	Turn left ON	 SKIA3009J
61	G	Turn signal (right)	Output	ON	Turn right ON	 SKIA3009J
63	BR	Interior room/map lamp	Output	OFF	Any door switch: ON (open)	0V
					Any door switch: OFF (closed)	Battery voltage

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral)	0V
					ON (lock)	Battery voltage
66	L	Front door lock actuator RH, rear door lock actuators LH/RH and back door lock actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
67	B	Ground	Input	ON	—	0V
68	O	Power window power supply (RAP)	Output	—	Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage
					More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
70	W	Battery power supply	Input	OFF	—	Battery voltage

Wiring Diagram — POWER DOOR LOCK SYSTEM —

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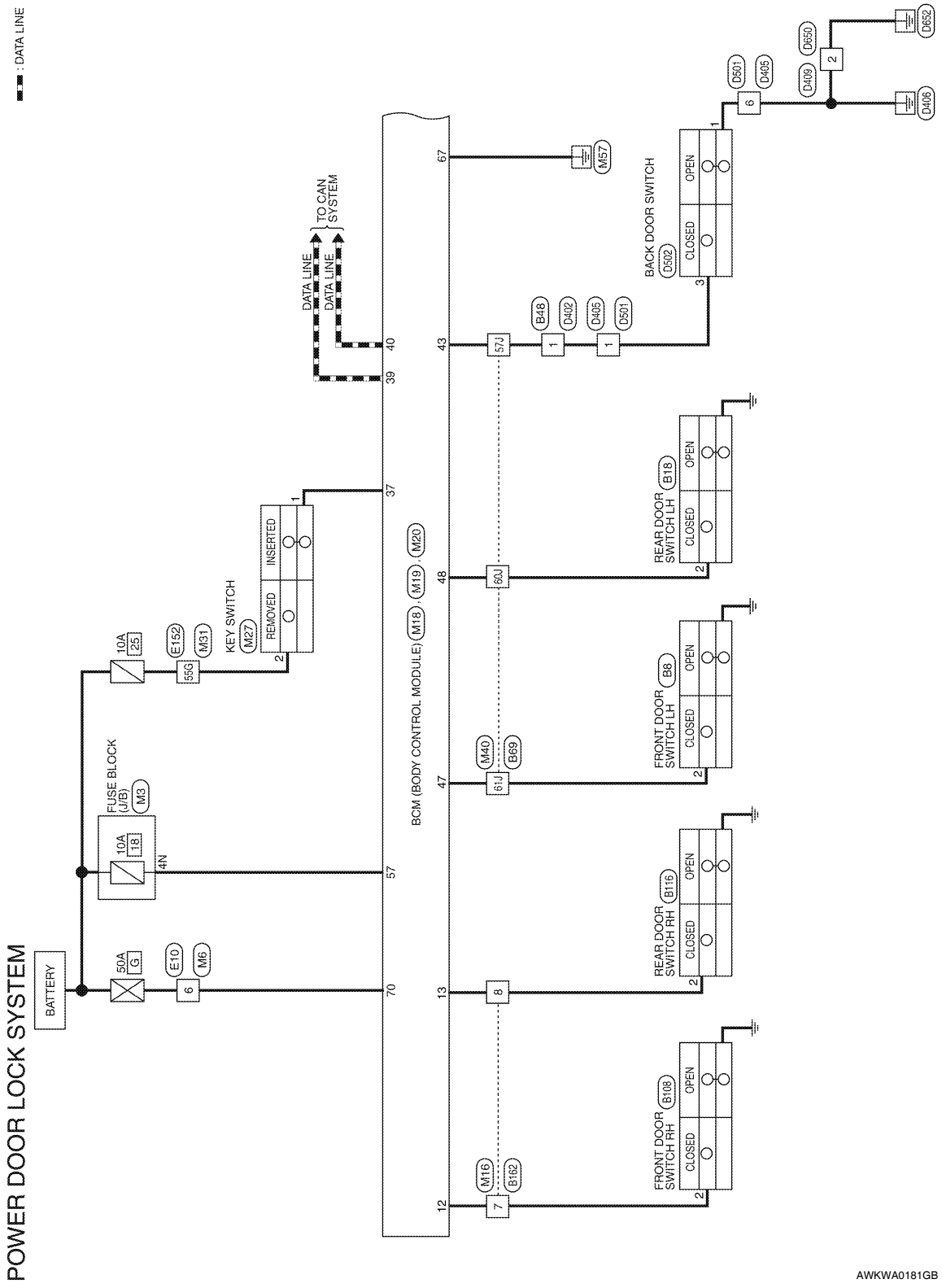
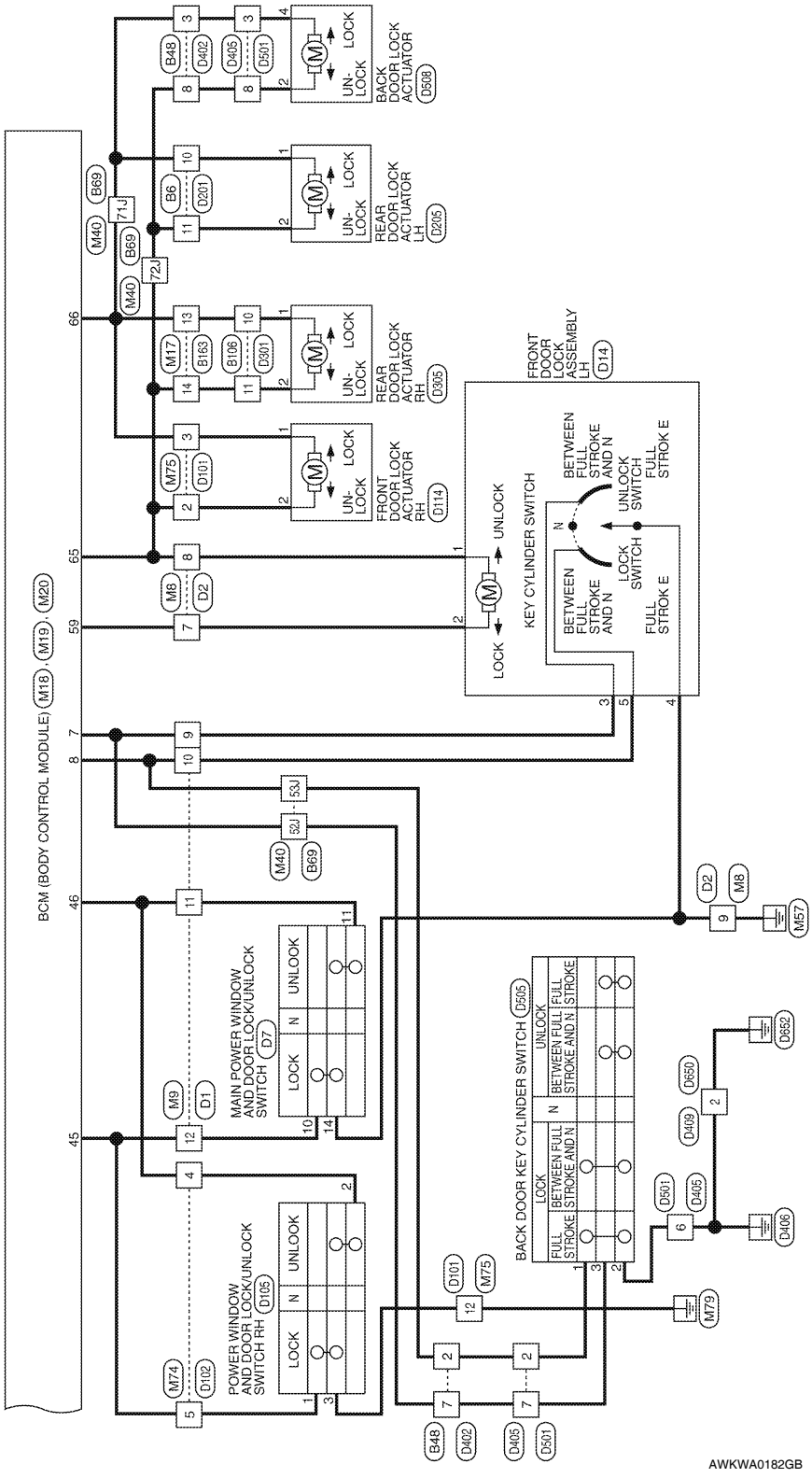
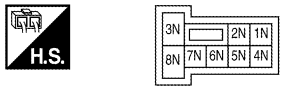



BCM (BODY CONTROL MODULE) M18, M19, M20
FRONT DOOR LOCK ASSEMBLY LH D14
KEY CYLINDER SWITCH
UNLOCK
LOCK
BETWEEN FULL STROKE AND N
FULL STROK E
UNLOCK SWITCH
LOCK SWITCH
FRONT DOOR LOCK ACTUATOR RH D114
REAR DOOR LOCK ACTUATOR RH D305
REAR DOOR LOCK ACTUATOR LH D205
BACK DOOR LOCK ACTUATOR D508
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH D7
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH D105
BACK DOOR KEY CYLINDER SWITCH D505
AWKWA0182GB

POWER DOOR LOCK SYSTEM CONNECTORS

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

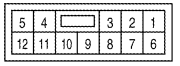


Terminal No.	Color of Wire	Signal Name
4N	R/Y	–

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

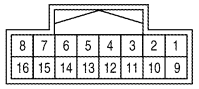
Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	BROWN



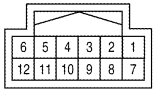
Terminal No.	Color of Wire	Signal Name
7	GR	–
8	V	–
9	B	–

Connector No.	M9
Connector Name	WIRE TO WIRE
Connector Color	WHITE



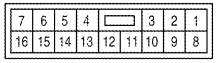
Terminal No.	Color of Wire	Signal Name
9	GR	–
10	SB	–
11	LG	–
12	V	–

Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	M17
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
13	SB	–
14	V	–

AWKIA0453GB

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

H.S.

41	42	43	44	45	46	47	48	49
50	51	52	53	54	55			

Terminal No.	Color of Wire	Signal Name
43	Y	BACK DOOR SW
45	V	CDL LOCK SW
46	LG	CDL UNLOCK SW
47	GR	DOOR SW (DR)
48	P	DOOR SW (RL)

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
55G	Y	–

Connector No.	M27
Connector Name	KEY SWITCH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
7	GR	KEY CYLINDER UNLOCK SW
8	SB	KEY CYLINDER LOCK SW
12	LG	DOOR SW (AS)
13	L	DOOR SW (RR)
37	B	KEY SW
39	L	CAN-H
40	P	CAN-L

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

H.S.

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

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

H.S.

56	57	58	59	60	61	62	63	64
65		66		67	68	69		70

Terminal No.	Color of Wire	Signal Name
57	R/Y	BAT (FUSE)
59	GR	DOOR UNLOCK OUTPUT (DR)
65	V	DOOR LOCK OUTPUT (ALL)
66	L	DOOR UNLOCK OUTPUT (OTHER)
67	B	GND (POWER)
70	W	BAT (F/L)

AWKIA0454GB

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Color	WHITE

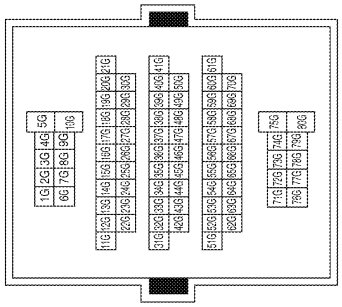
H.S.

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

Terminal No.	Color of Wire	Signal Name
4	LG	–
5	P	–

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

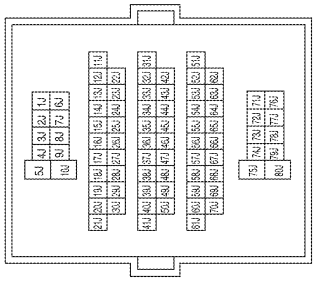


Terminal No.	Color of Wire	Signal Name
55G	Y	–

Terminal No.	Color of Wire	Signal Name
52J	GR	–
53J	SB	–
57J	Y	–
60J	P	–
61J	GR	–
71J	L	–
72J	V	–

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3
4	5	6

Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

5	4		3	2	1
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name
2	V	–
3	L	–
12	B	–

AWKIA0455GB

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
2	P	–

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

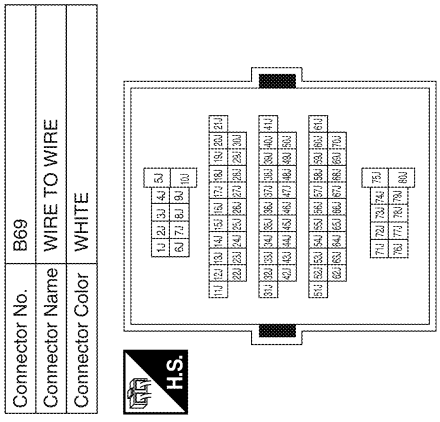
Terminal No.	Color of Wire	Signal Name
2	GR	–

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
10	L	–
11	V	–

Terminal No.	Color of Wire	Signal Name
52J	GR	–
53J	SB	–
57J	Y	–
60J	P	–
61J	GR	–
71J	L	–
72J	V	–

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
3	G	–
7	GR	–
8	V	–

AWKIA0456GB

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3		4	5
6	7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
10	SB	–
11	V	–

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

H.S.

1
2
3

Terminal No.	Color of Wire	Signal Name
2	LG	–

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

H.S.

1
2
3

Terminal No.	Color of Wire	Signal Name
2	L	–

Connector No.	B162
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	B163
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
13	SB	–
14	V	–

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
9	R/W	–
10	SB	–
11	W	–
12	LG	–

AWKIA0457GB

Connector No.	D14
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY

H.S.

6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	V	–
2	G	–
3	R/W	–
4	B	–
5	SB	–

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

H.S.

1	2	3	4	5
6	7	8	9	10	11	12
---	---	---	---	---	---	---

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

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
10	LG	–
11	W	–
14	B	–

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
4	W	–
5	LG	–

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	BROWN

H.S.

1	2	3	4	5
6	7	8	9	10	11	12
---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name
7	G	–
8	V	–
9	B	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3	4	5
6	7	8	9	10	11	12
---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name
2	V	–
3	G/Y	–
12	B	–

ABKIA1487GB

Connector No.	D205
Connector Name	REAR DOOR LOCK ACTUATOR LH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	—
2	V	—

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
10	G	—
11	V	—

Connector No.	D114
Connector Name	FRONT DOOR LOCK ACTUATOR RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	G/Y	—
2	V	—

Connector No.	D402
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	—
2	SB	—
3	G	—
7	GR	—
8	V	—

Connector No.	D305
Connector Name	REAR DOOR LOCK ACTUATOR RH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	—
2	V	—

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE

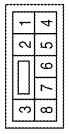
H.S.

Terminal No.	Color of Wire	Signal Name
10	G	—
11	V	—

AWKIA0459GB

Connector No.	D405
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
3	G	–
6	B	–
7	GR	–
8	V	–

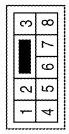
Connector No.	D409
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
3	G	–
6	B	–
7	GR	–
8	V	–

Connector No.	D502
Connector Name	BACK DOOR SWITCH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–
3	Y	–

Connector No.	D505
Connector Name	BACK DOOR KEY CYLINDER SWITCH
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	SB	–
2	B	–
3	GR	–

Connector No.	D508
Connector Name	BACK DOOR LOCK ACTUATOR
Connector Color	WHITE

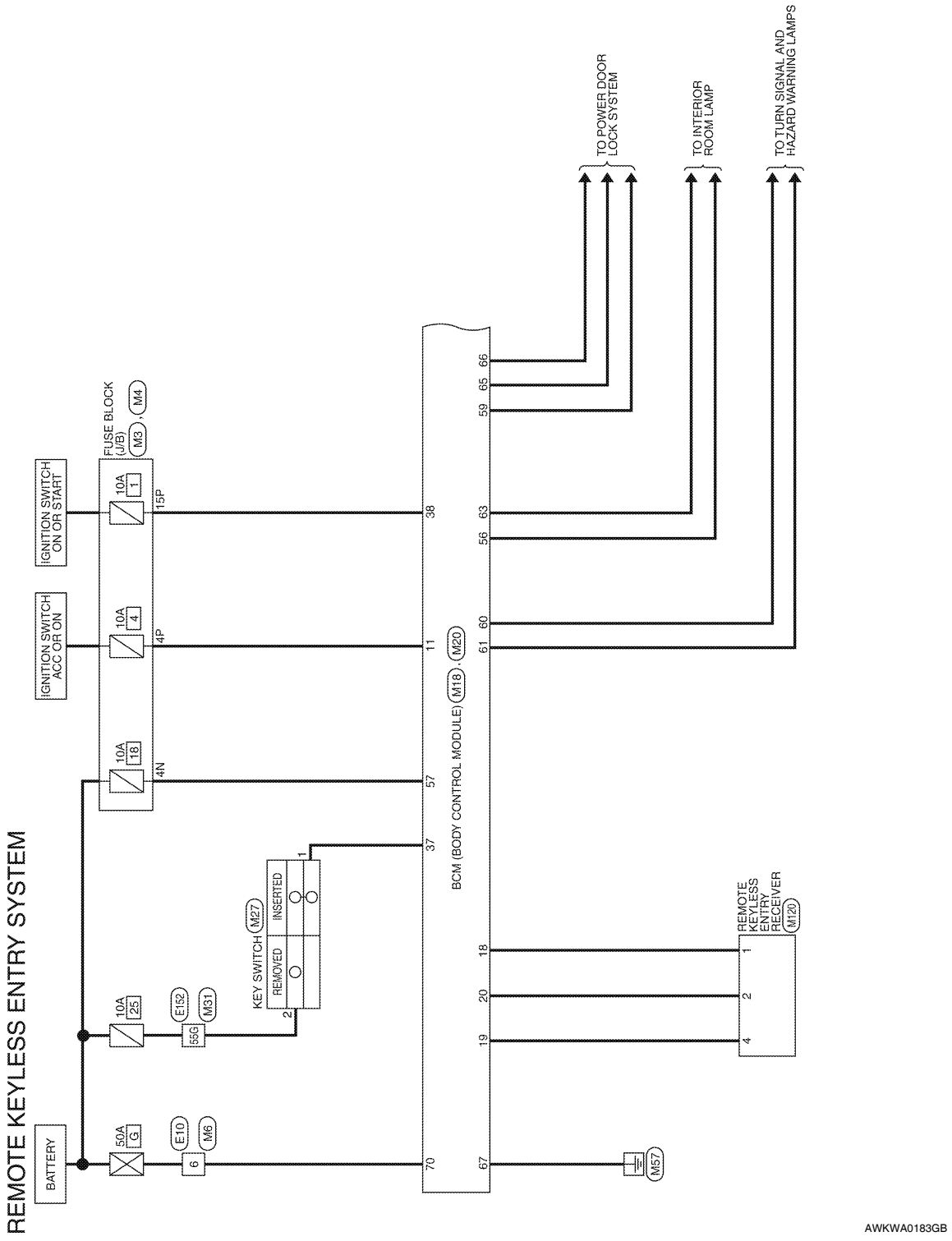
H.S.

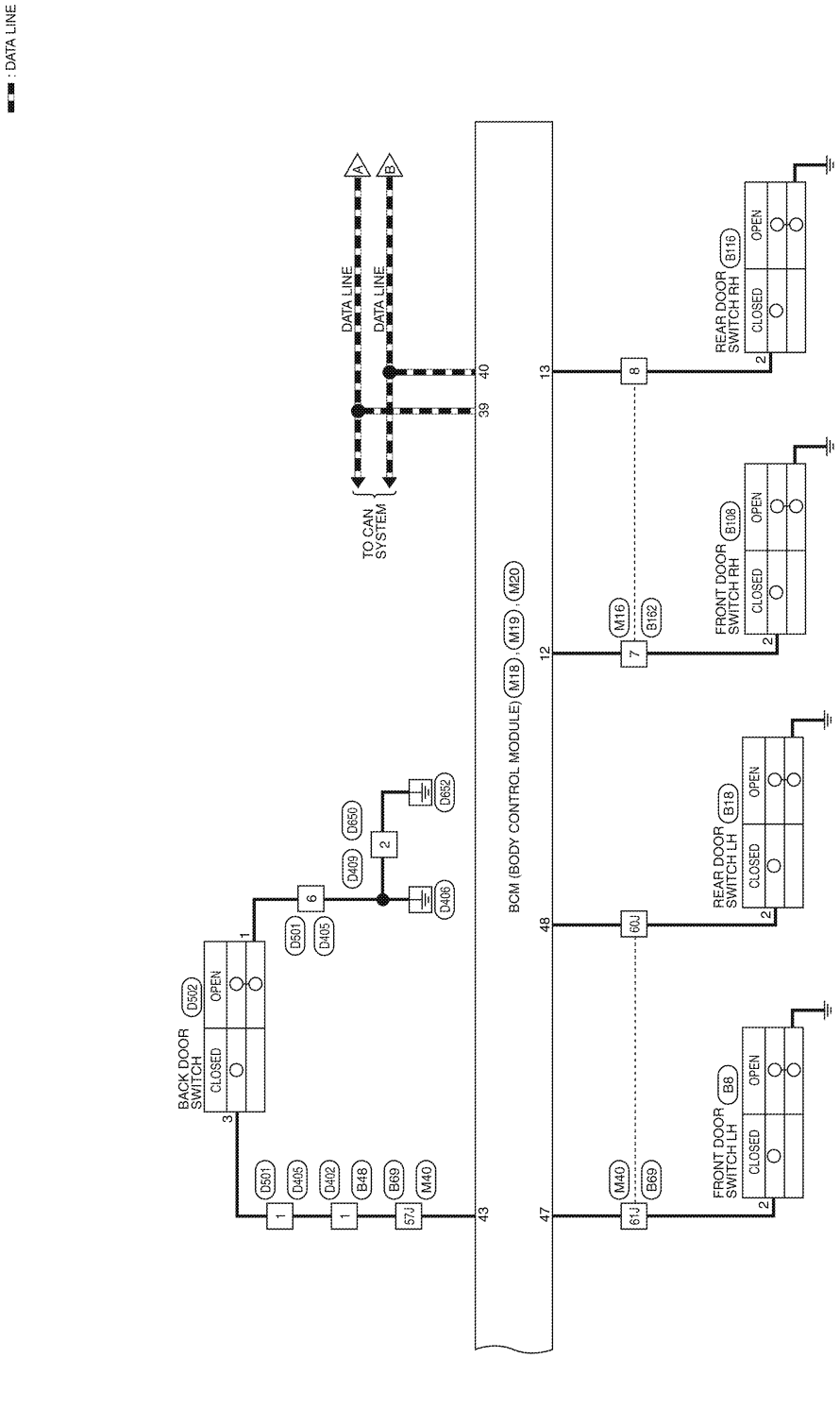
Terminal No.	Color of Wire	Signal Name
2	V	–
4	G	–

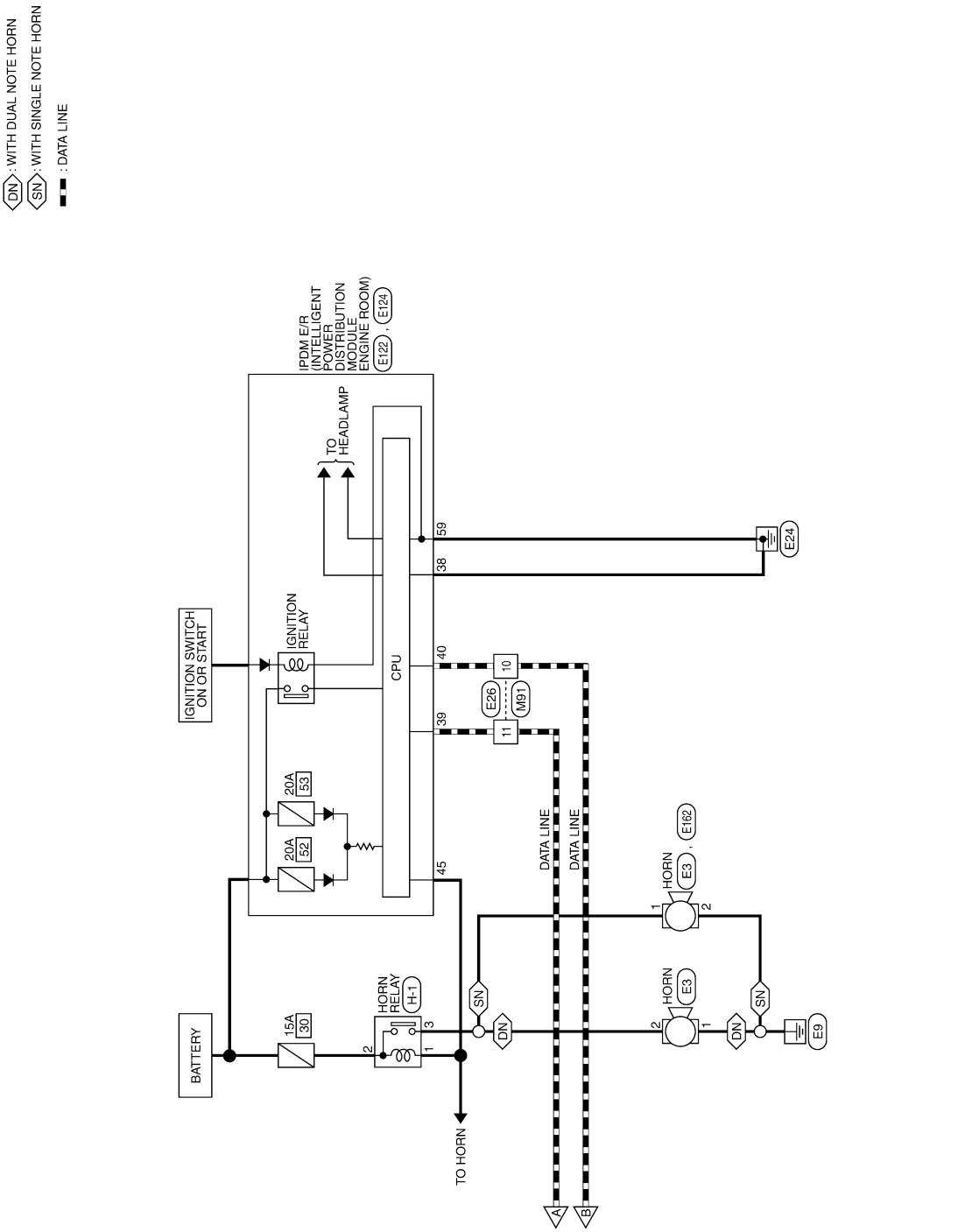
AWKIA0460GB

Wiring Diagram — REMOTE KEYLESS ENTRY SYSTEM —

INFOID:0000000003083153




: DATA LINE
DATA LINE
DATA LINE
TO CAN SYSTEM
BCM (BODY CONTROL MODULE)
M18
M19
M20
REAR DOOR SWITCH RH
B116
FRONT DOOR SWITCH RH
B108
REAR DOOR SWITCH LH
B18
FRONT DOOR SWITCH LH
B8
BACK DOOR SWITCH
D502
OPEN
CLOSED
M16
B162
M40
B69
D501
D405
D402
B48
D650
D652
D409
D406
AWKWA0184GB


DN : WITH DUAL NOTE HORN
SN : WITH SINGLE NOTE HORN
: DATA LINE
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E122 , E124
TO HEADLAMP
CPU
59
38
40
39
45
E24
E26
M91
10
11
IGNITION SWITCH ON OR START
IGNITION RELAY
20A 53
20A 52
DATA LINE
DATA LINE
HORN E3 , E162
HORN E3
HORN RELAY H-1
15A 30
BATTERY
SN
DN
TO HORN
E9
A
B
AWKWA0185GB

REMOTE KEYLESS ENTRY SYSTEM CONNECTORS

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

H.S.

3N		1N
	2N	
7N	6N	5N
8N		4N

Terminal No.	Color of Wire	Signal Name
4N	R/Y	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
4P	G/B	–
15P	W/R	–

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

3	2	1
6	5	4

Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
11	G/B	ACC SW
12	LG	DOOR SW (AS)
13	L	DOOR SW (RR)
18	BR	KEYLESS & AUTO LIGHT SENSOR GND
19	V	KEYLESS TUNER POWER SUPPLY OUTPUT
20	G	KEYLESS TUNER SIGNAL
37	B	KEY SW
38	W/R	IGN SW
39	L	CAN-H
40	P	CAN-L

AWKIA0462GB

Terminal No.	Color of Wire	Signal Name
60	LG	FLASHER OUTPUT (LEFT)
61	G	FLASHER OUTPUT (RIGHT)
63	BR	ROOM LAMP OUTPUT
65	V	DOOR LOCK OUTPUT (ALL)
66	L	DOOR UNLOCK OUTPUT (OTHER)
67	B	GND (POWER)
70	W	BAT (F/L)

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

H.S.

56	57	58	59	60	61	62	63	64
65		66		67	68	69		70

Terminal No.	Color of Wire	Signal Name
56	V	BAT SAVER OUTPUT
57	R/Y	BAT (FUSE)
59	GR	DOOR UNLOCK OUTPUT (DR)

Terminal No.	Color of Wire	Signal Name
55G	Y	–

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

H.S.

41	42	43	44	45	46	47	48	49
50	51	52	53	54	55			

Terminal No.	Color of Wire	Signal Name
43	Y	BACK DOOR SW
47	GR	DOOR SW (DR)
48	P	DOOR SW (RL)

Connector No.	M27
Connector Name	KEY SWITCH
Connector Color	WHITE

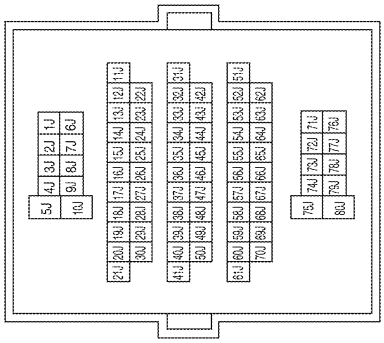
H.S.

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

AWKIA0463GB

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE

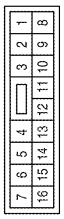
H.S.



Terminal No.	Color of Wire	Signal Name
57J	Y	—
60J	P	—
61J	GR	—

Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

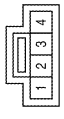
H.S.



Terminal No.	Color of Wire	Signal Name
10	P	—
11	L	—

Connector No.	M120
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	GND
2	G	SIGNAL
4	V	PWR

Connector No.	E3
Connector Name	HORN (WITH DUAL NOTE HORN)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	—
2	G	—

Connector No.	E3
Connector Name	HORN (WITH SINGLE NOTE HORN)
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	—

AWKIA0464GB

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

H.S.

42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L
45	LG	ANT THEFT HORN

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
10	P	–
11	L	–

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE

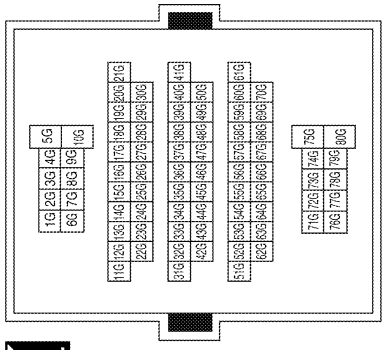
H.S.

1	2	3
4	5	6

Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
55G	Y	–

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

H.S.

59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
59	B	GND (POWER)

AWKIA0465GB

Connector No.	E162
Connector Name	HORN
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	GR	–

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	P	–

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE

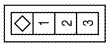
H.S.

Terminal No.	Color of Wire	Signal Name
57J	Y	–
60J	P	–
61J	GR	–

AWKIA0466GB

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

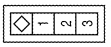
H.S.



Terminal No.	Color of Wire	Signal Name
2	LG	–

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE

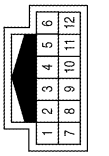
H.S.



Terminal No.	Color of Wire	Signal Name
2	L	–

Connector No.	B162
Connector Name	WIRE TO WIRE
Connector Color	WHITE

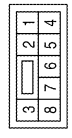
H.S.



Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	D402
Connector Name	WIRE TO WIRE
Connector Color	WHITE

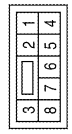
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–

Connector No.	D405
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–
6	B	–

Connector No.	D409
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

AWKIA0467GB

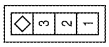
Connector No.	D650
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	D502
Connector Name	BACK DOOR SWITCH
Connector Color	WHITE

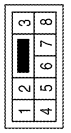
H.S.



Terminal No.	Color of Wire	Signal Name
1	B	–
3	Y	–

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE

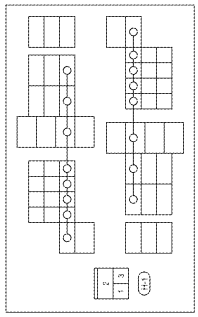
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–
6	B	–

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

H.S.



Terminal No.	Color of Wire	Signal Name
1	BR	–
2	O	–
3	G	–

AWKIA0468GB

Fail Safe

INFOID:0000000003083154

Fail-safe index

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

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:0000000003083155

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

INFOID:0000000003083156

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-III display	Fail-safe	Reference page
No DTC is detected. further testing may be required.	—	—
U1000: CAN COMM CIRCUIT	—	DLK-16
U1010: CONTROL UNIT (CAN)	—	DLK-17

SYMPTOM DIAGNOSIS

DOOR LOCK

Symptom Table

INFOID:0000000003083160

DOOR LOCK SYSTEM

NOTE:

- Before performing the diagnosis in the following table, check “Work flow”. Refer to DLK-4, "Work Flow".
- If the following symptoms” are detected, check systems shown in the “Diagnosis/service procedure” column in this order.

Symptom	Repair order	Refer to page
Key reminder door function does not operate properly.	1. Door switch check	DLK-19
	2. Key switch (Insert) check	DLK-46
	3. Replace BCM.	BCS-53
Power door lock does not operate with door lock and unlock switch on main power window and door lock/unlock switch or power window and door lock/unlock switch RH.	1. Door lock/unlock switch check (driver side)	DLK-22
	2. Door lock/unlock switch check (passenger side)	DLK-22
Specific door lock actuator does not operate.	1. Door lock actuator check (Front LH)	DLK-31
	2. Door lock actuator check (Front RH)	DLK-32
	3. Door lock actuator check (Rear LH)	DLK-33
	4. Door lock actuator check (Rear RH)	DLK-35
	5. Back door	DLK-36
Power door lock does not operate with front door key cylinder LH or back door key cylinder operation.	1. Front door lock assembly LH (key cylinder switch) check	DLK-26
	2. Back door key cylinder switch check	DLK-28
	3. Replace BCM.	BCS-53
Power door lock does not operate.	1. BCM power supply and ground circuit check	BCS-30
	2. Door lock/unlock switch check (driver)	DLK-22
	3. Door lock/unlock switch check (passenger)	DLK-22

REMOTE KEYLESS ENTRY SYSTEM

Symptom Table

INFOID:0000000003083161

REMOTE KEYLESS ENTRY SYSTEM

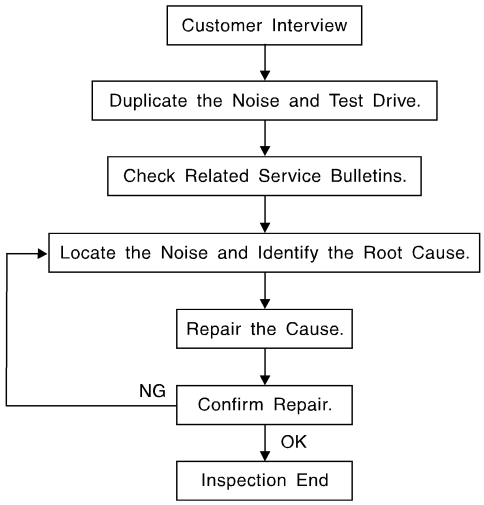
Symptom	Diagnoses/service procedure	Reference page
All functions of remote keyless entry system do not operate.	1. Keyfob battery and function check (use Remote Keyless Entry Tester J-43241) **NOTE:** If the result of keyfob function check is OK, keyfob is not malfunctioning.	DLK-40
	2. Check BCM and remote keyless entry receiver.	DLK-38
The new ID of keyfob cannot be entered.	1. 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-40
	2. Key switch (insert) check	DLK-46
	3. Door switch check	DLK-19
	4. ACC power check	BCS-30
	5. Replace BCM.	BCS-53
Door lock or unlock does not function. (If the power door lock system does not operate manually, check power door lock system)	1. 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-10
	2. Replace BCM.	BCS-53
Hazard and horn reminder does not activate properly when pressing lock or unlock button of keyfob.	1. 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-10
	2. Door switch check	DLK-19
	3. Replace BCM.	BCS-53
Hazard reminder does not activate properly when pressing lock or unlock button of keyfob. (Horn reminder OK)	1. Check hazard reminder mode with CONSULT-III **NOTE:** Hazard reminder mode can be changed. First check the hazard reminder mode setting.	DLK-10
	2. Check hazard function with hazard switch	—
	3. Replace BCM.	BCS-53
Horn reminder does not activate properly when pressing lock or unlock button of keyfob. (Hazard reminder OK)	1. Check horn reminder mode with CONSULT-III **NOTE:** Horn reminder mode can be changed. First check the horn reminder mode setting.	DLK-10
	2. Check horn function with horn switch	—
	3. IPDM E/R operation check	DLK-42
	4. Replace BCM.	BCS-53
Room lamp and ignition keyhole illumination do not operate properly.	1. Room lamp operation check	INL-3
	2. Ignition keyhole illumination operation check	INL-3
	3. Door switch check	DLK-19
	4. Replace BCM.	BCS-53

Symptom	Diagnoses/service procedure	Reference page
Panic alarm (horn and headlamp) does not activate when panic alarm button is continuously pressed.	1. 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-40
	2. Key switch (insert) check	DLK-46
	3. Replace BCM.	BCS-53
Auto door lock operation does not activate properly. (All other remote keyless entry functions OK.)	1. 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-8
	2. Replace BCM.	BCS-53

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow

INFOID:0000000003083163



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CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to DLK-88, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

DUPLICATE THE NOISE AND TEST DRIVE

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

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

1) Close a door.
2) Tap or push/pull around the area where the noise appears to be coming from.
3) Rev the engine.
4) Use a floor jack to recreate vehicle “twist”.
5) At idle, apply engine load (electrical load, 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 DLK-86, "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.

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

INFOID:0000000003083164

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 silicone spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

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

TRUNK

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

1. Trunk lid bumpers out of adjustment
2. Trunk lid striker out of adjustment
3. The trunk lid torsion bars knocking together
4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

SUNROOF/HEADLINING

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

1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
2. Sun visor shaft shaking in the holder
3. Front or rear windshield touching 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:

1. Loose harness or harness connectors.
2. 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
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

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

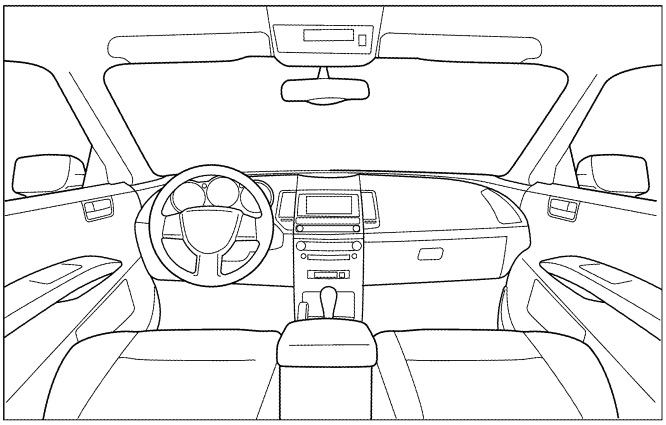
Diagnostic Worksheet

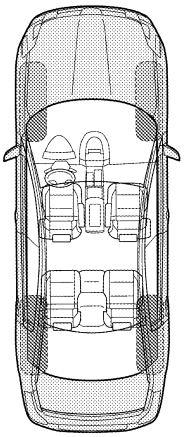
INFOID:0000000003083165

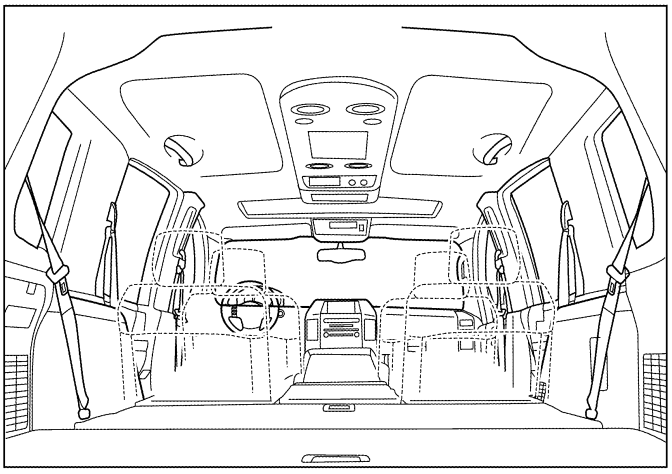
Dear Customer:
We are concerned about your satisfaction with your vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your vehicle right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions.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

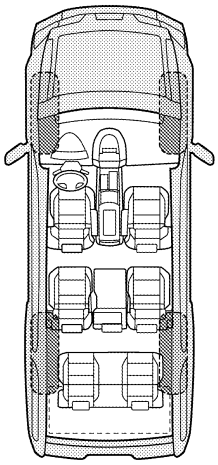
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)
The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.









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

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SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

_____

_____

II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- ☐ Anytime
- ☐ 1st time in the morning
- ☐ Only when it is cold outside
- ☐ Only when it is hot outside
- ☐ After sitting out in the rain
- ☐ When it is raining or wet
- ☐ Dry or dusty conditions
- ☐ Other:

III. WHEN DRIVING:

- ☐ Through driveways
- ☐ Over rough roads
- ☐ Over speed bumps
- ☐ Only about ____ mph
- ☐ On acceleration
- ☐ Coming to a stop
- ☐ On turns: left, right or either (circle)
- ☐ With passengers or cargo
- ☐ Other: _____
- ☐ After driving _____ miles or _____ minutes

IV. WHAT TYPE OF NOISE

- ☐ Squeak (like tennis shoes on a clean floor)
- ☐ Creak (like walking on an old wooden floor)
- ☐ Rattle (like shaking a baby rattle)
- ☐ Knock (like a knock at the door)
- ☐ Tick (like a clock second hand)
- ☐ Thump (heavy muffled knock noise)
- ☐ Buzz (like a bumble bee)

TO BE COMPLETED BY DEALERSHIP PERSONNEL

Test Drive Notes:

_____

_____

_____

	YES	NO	Initials of person performing
Vehicle test driven with customer	☐	☐	_____
- Noise verified on test drive	☐	☐	_____
- Noise source located and repaired	☐	☐	_____
- Follow up test drive performed to confirm repair	☐	☐	_____

VIN: _____ Customer Name _____

W.O.# _____ Date: _____

This form must be attached to Work Order

LAIA0071E

PRECAUTION

PRECAUTIONS

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

INFOID:0000000004900811

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.**

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

WARNING:

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

Precaution for work

INFOID:0000000003083167

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

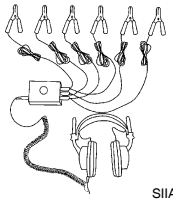
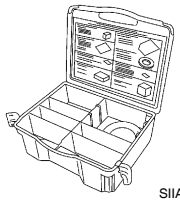
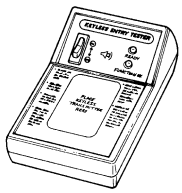
PREPARATION

PREPARATION

Special Service Tool

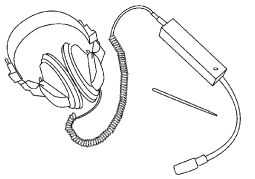
INFOID:0000000003083168

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 Rattle Kit	 SIIA0994E	Repairing the cause of noise
— (J-43241) Remote Keyless Entry Tester	 LEL946A	Used to test keyfobs

Commercial Service Tool

INFOID:0000000003083169

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

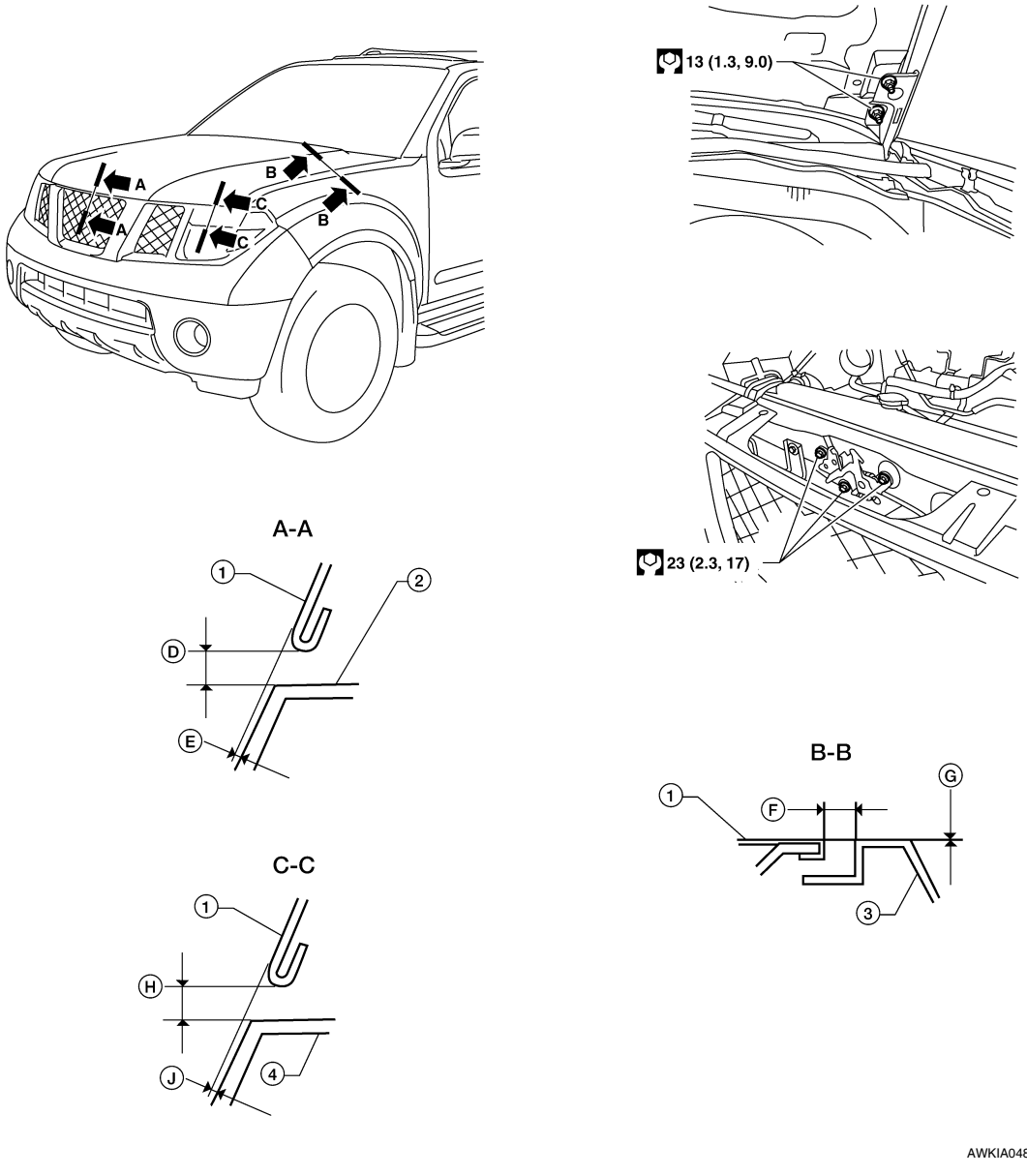
ON-VEHICLE REPAIR

HOOD

Fitting Adjustment

INFOID:0000000003083170

SEC.650



AWKIA0486ZZ

1. Hood
2. Front grille
3. Front fender
4. Headlamp assembly
D. 6.0 mm (0.24 in)
E. 0.7 mm (0.03 in)
F. 4.5 mm (0.18 in)
G. 0.0 mm (0.0 in)
H. 6.0 mm (0.24 in)
J. 0.7 mm (0.03 in)

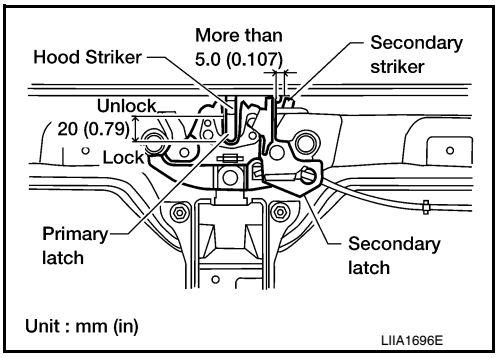
CLEARANCE AND SURFACE HEIGHT ADJUSTMENT

1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
2. 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.

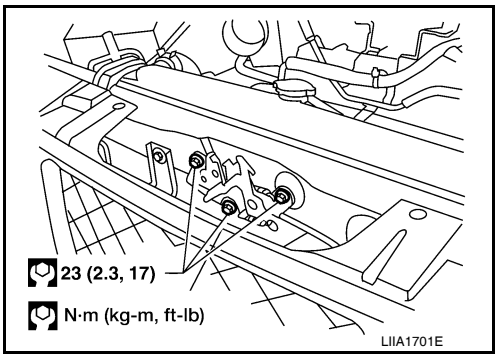
5. Tighten the bolts to specification.
6. Adjust the surface height of the hood according to the fitting standard dimension by rotating right and left rubber bumpers.
7. Install the front grille. Refer to EXT-16, "Removal and Installation".

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).
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.



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

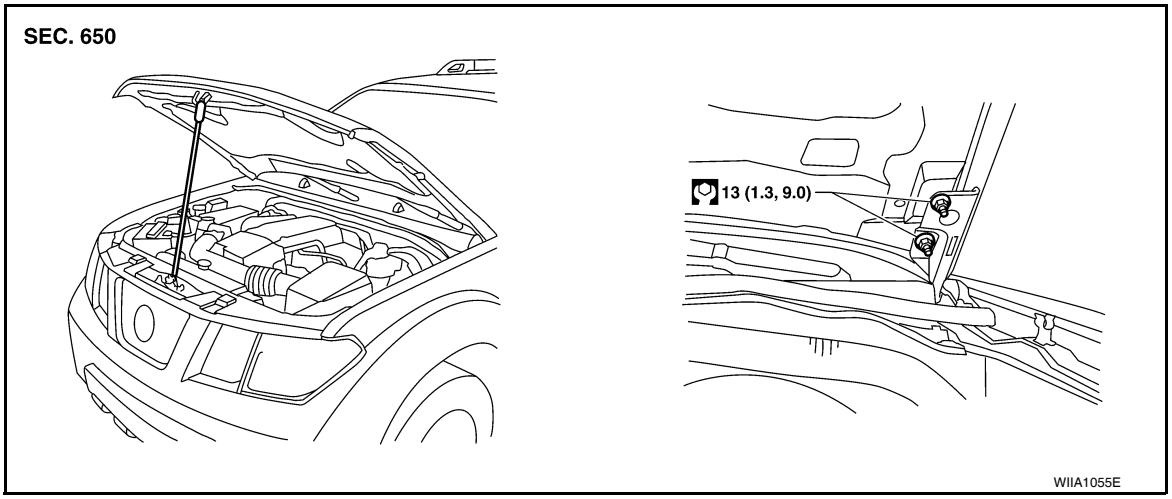


5. Install the front grille. Refer to EXT-16, "Removal and Installation".

Removal and Installation of Hood Assembly

INFOID:0000000003083171

REMOVAL



1. 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.

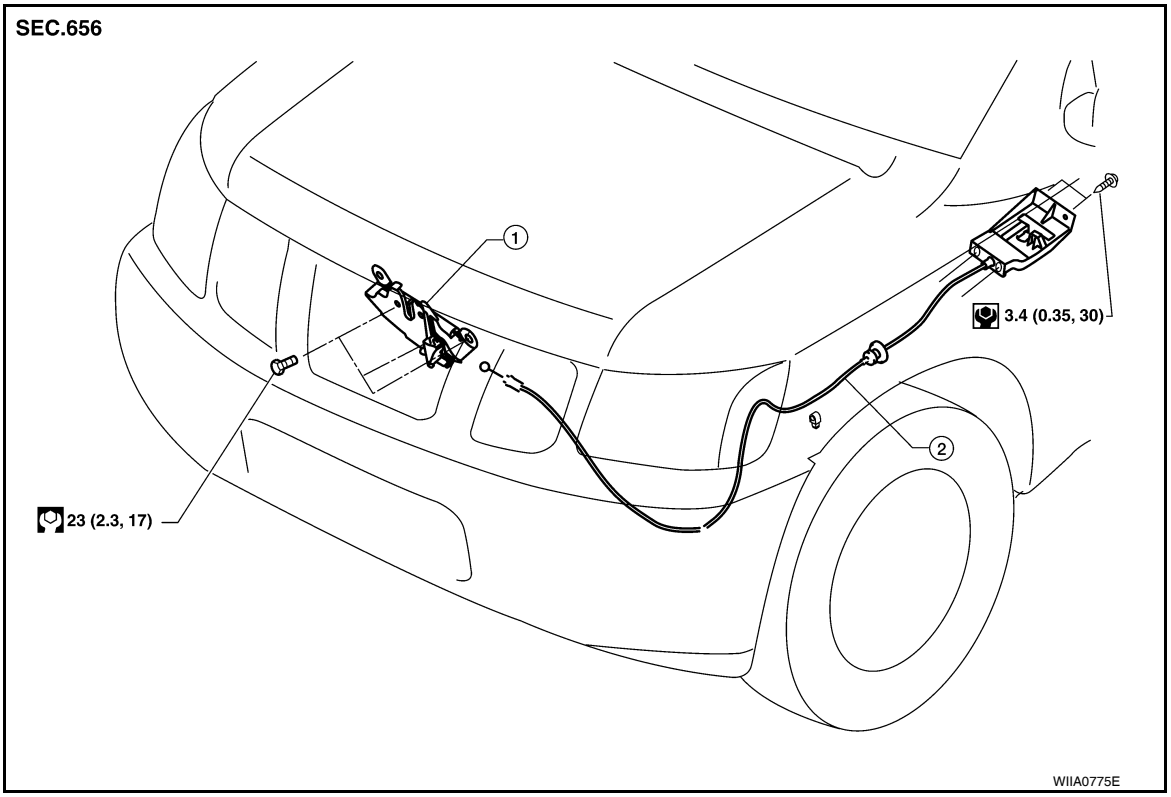
CAUTION:
Operate with two workers, because of its heavy weight.

INSTALLATION

Installation is in the reverse order of removal.

Removal and Installation of Hood Lock Control

INFOID:0000000003083172



1. Hood lock assembly
2. Hood lock cable

REMOVAL

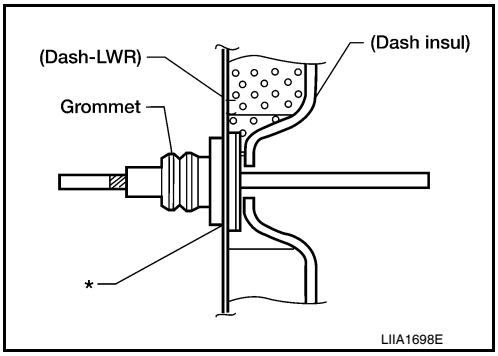
1. Remove the front grille. Refer to EXT-16, "Removal and Installation".
2. Remove the front fender protector (LH). Refer to EXT-19, "Front Fender Protector".
3. Disconnect the hood lock cable from the hood lock, and unclip it from the radiator core support upper and hoodledge.
4. Remove the bolts, and 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

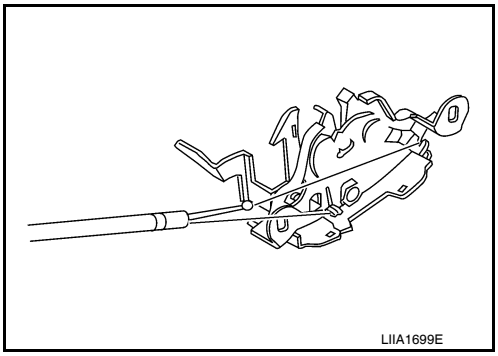
1. Pull the hood lock cable through the lower dash panel hole into the engine room.

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 DLK-96, "Hood Lock Control Inspection".



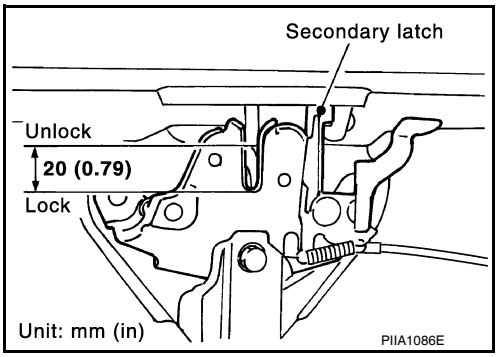
6. Install the front grille. Refer to EXT-16, "Removal and Installation".

Hood Lock Control Inspection

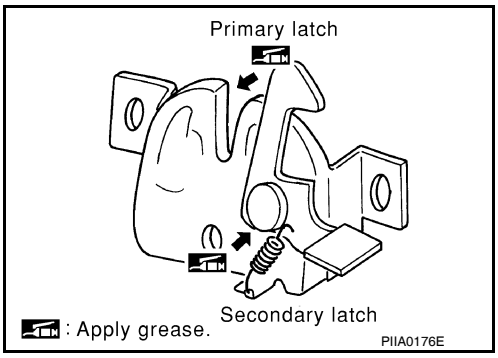
INFOID:0000000003083173

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.

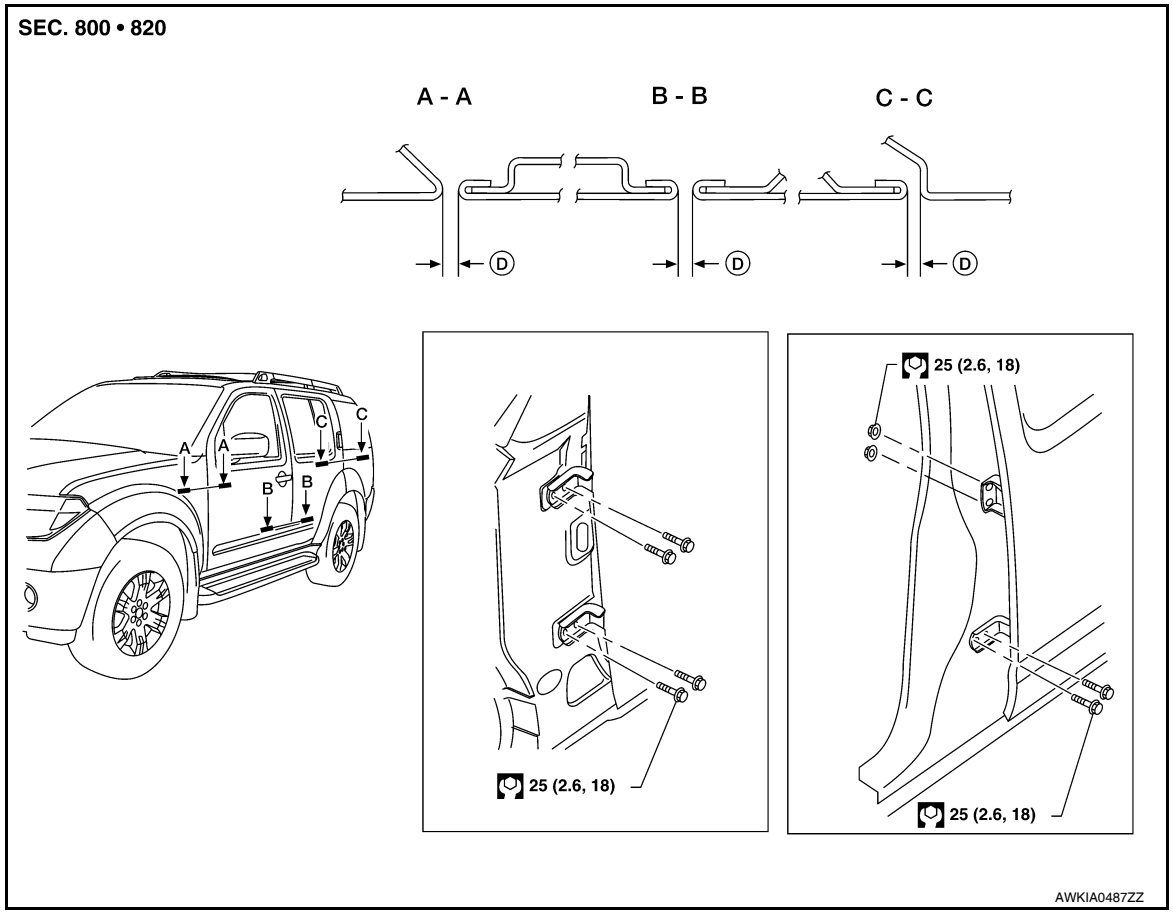


5. Install the front grille. Refer to EXT-16, "Removal and Installation".

DOOR

Fitting Adjustment

INFOID:0000000003083174



D. 4.5 ± 1.0 mm (0.177 ± 0.039 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.
3. Install the fender. Refer to EXT-18, "Removal and Installation".

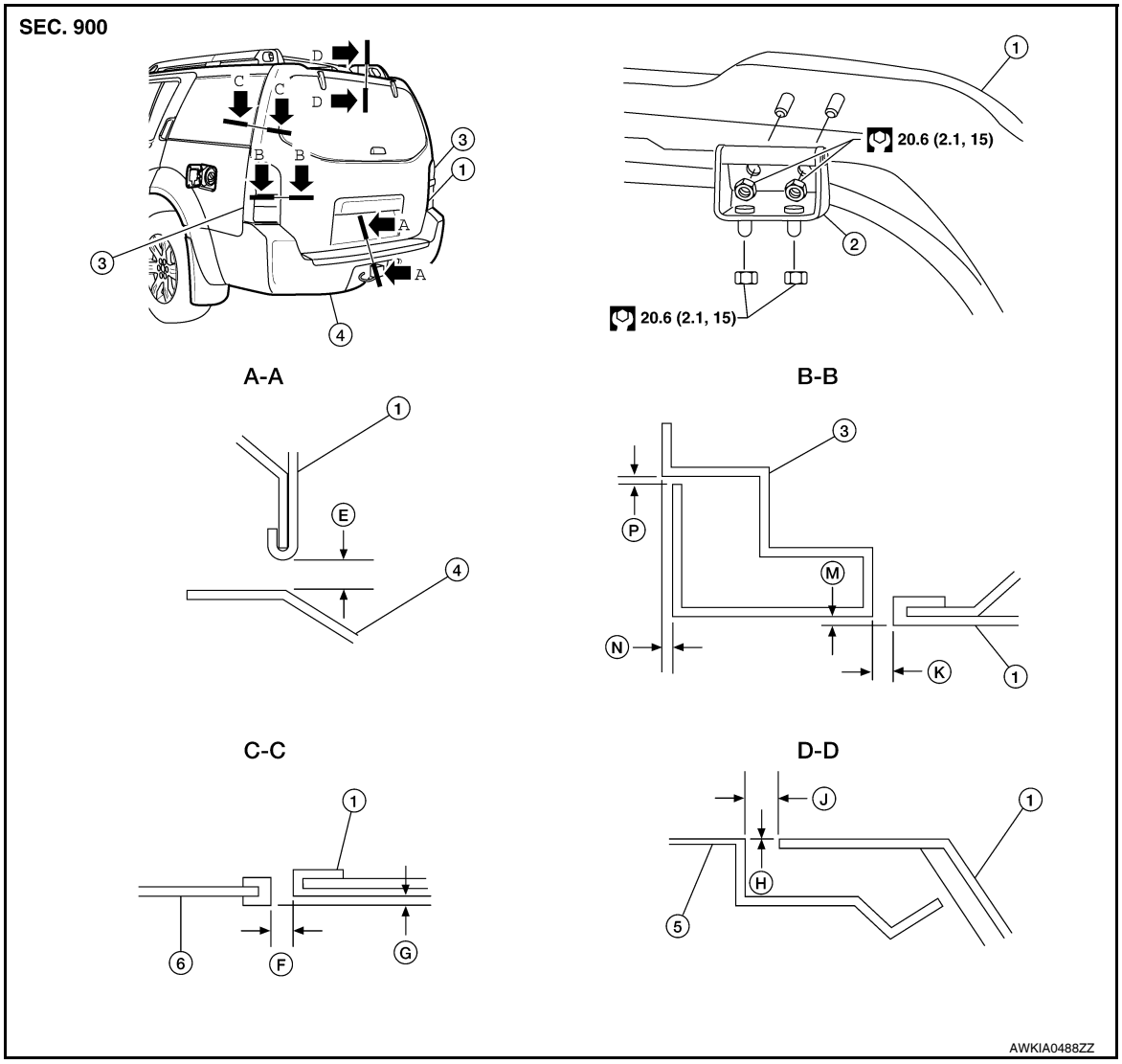
Rear door

Longitudinal clearance and surface height adjustment at front end

1. Remove the center pillar upper finisher. Refer to INT-17, "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-17, "Removal and Installation".

Back door

Longitudinal clearance and surface height adjustment



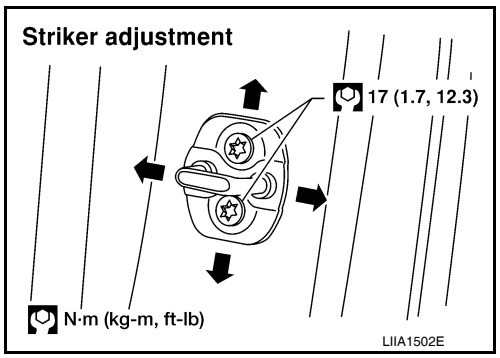
1.	Back door assembly	2.	Back door hinge	3.	Tail lamp assembly
4.	Rear bumper fascia	5.	Roof	6.	Side window glass
E.	7.2 ± 2.0 mm (0.28 ± 0.06 in)	F.	6.0 ± 1.5 mm (0.24 ± 0.06 in)	G.	2.0 ± 2.0 mm (0.08 ± 0.08 in)
H.	1.0 ± 1.5 mm (0.04 ± 0.06 in)	J.	8.0 ± 1.5 mm (0.31 ± 0.06 in)	K.	5.3 ± 2.0 mm (0.21 ± 0.08 in)
M.	0.8 ± 2.0 mm (0.03 ± 0.08 in)	N.	0.8 ± 1.0 mm (0.03 ± 0.04 in)	P.	2.0 ± 1.0 mm (0.08 ± 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

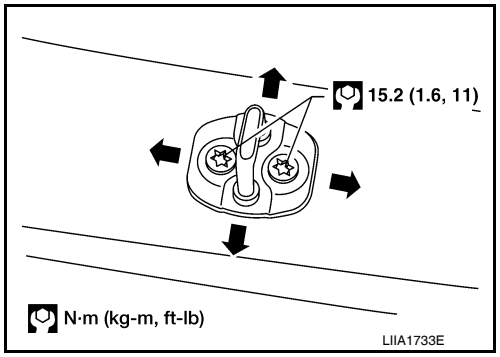
BODY SIDE DOORS

1. 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

INFOID:0000000003083175

FRONT DOOR

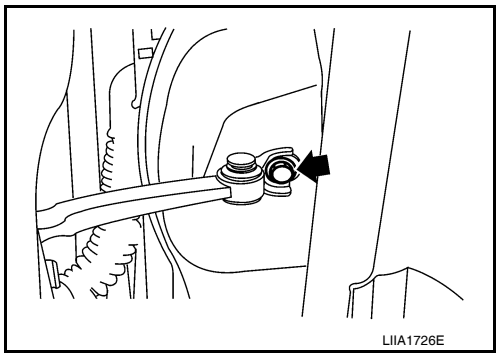
CAUTION:

- **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".**

Removal

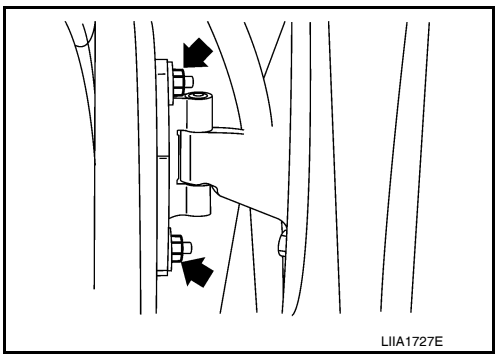
1. Remove the front door glass and regulator. Refer to GW-14, "Front Door Glass Regulator".
2. Remove the door harness.
3. Remove the check link bolt from the hinge pillar.

Check link to hinge pillar bolt **14.7 N·m (1.5 kg-m, 11 ft-lb)**



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)**



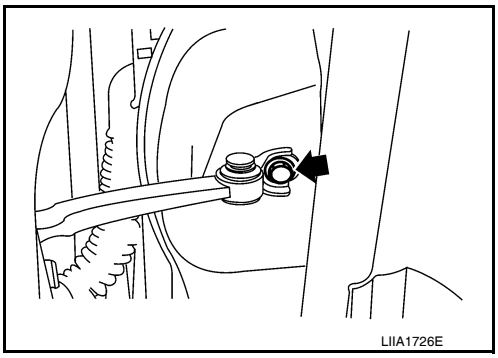
Installation
Installation is in the reverse order of removal.

REAR DOOR

Removal

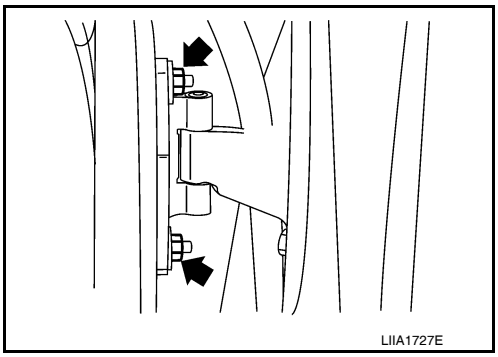
1. Remove the door finisher. Refer to INT-13, "Removal and Installation".
2. Remove the inner seal.
3. Remove the rear door glass and regulator. Refer to GW-18, "Rear Door Glass Regulator".
4. Remove the door harness.
5. Remove the check link bolt from the hinge pillar.

Check link to hinge pillar bolt	**14.7 N·m (1.5 kg-m, 11 ft-lb)**



6. 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
Installation is in the reverse order of removal.

BACK DOOR

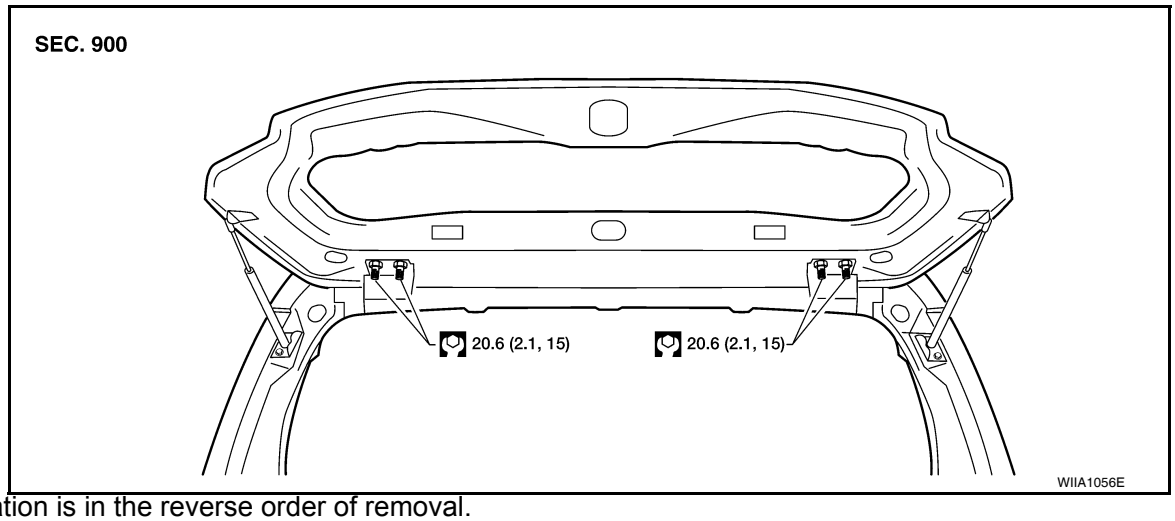
Removal

1. Remove the glass hatch.
2. Remove the back door lock assembly. Refer to DLK-106, "Component Structure".
3. Remove the back door wire harness.
4. Remove the rear washer nozzle and hose from the back door. Refer to WW-80, "Removal and Installation"

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

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

Installation



Installation is in the reverse order of removal.

- Align the back door. Refer to DLK-97, "Fitting Adjustment".

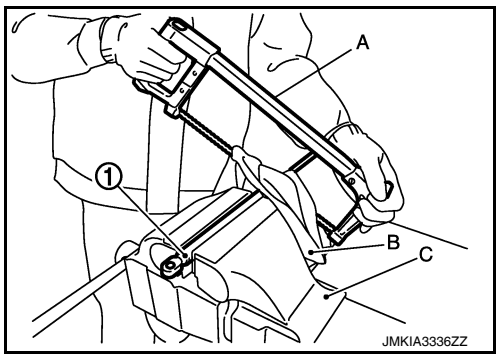
Back Door Stay Disposal

INFOID:0000000006031751

1. Fix back door stay (1) using a vise (C).
2. Using hacksaw (A) slowly make 2 holes in the back door stay, in numerical order as shown in the figure.

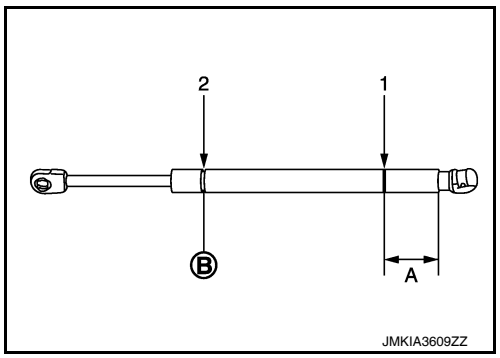
CAUTION:

- **When cutting a hole on back door stay, always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil.**
- **Wear eye protection (safety glasses).**
- **Wear gloves.**



A: 20 mm (0.787 in)

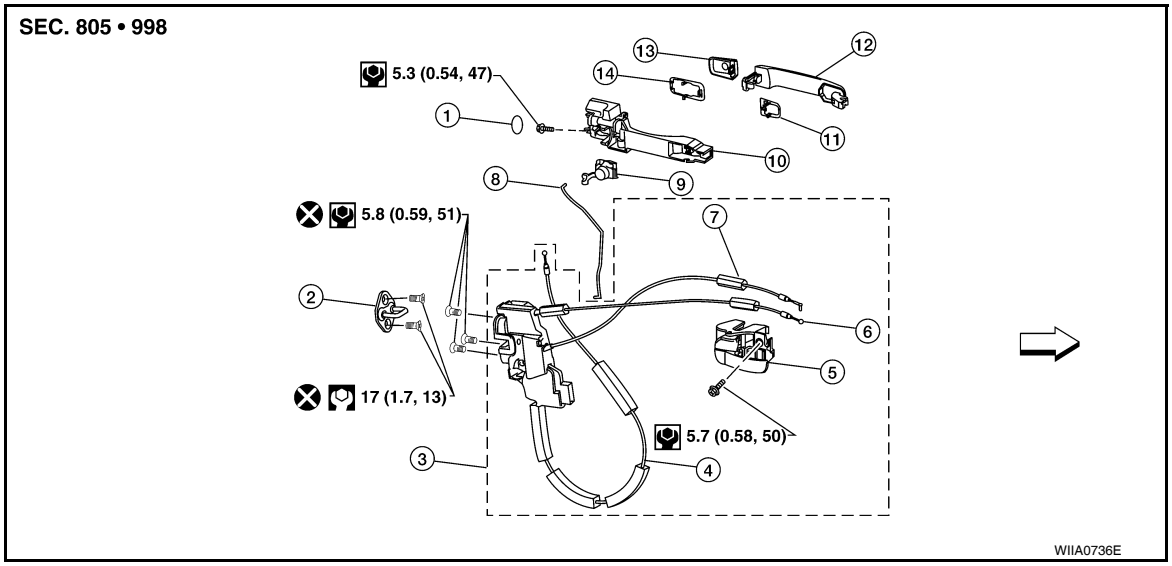
B: Cut at the groove.



FRONT DOOR LOCK

Component Structure

INFOID:0000000003083176



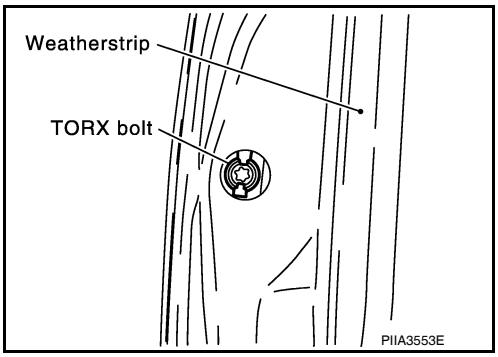
1. Grommet
2. Front door striker
3. Door lock assembly
4. Outside handle cable
5. Inside handle assembly
6. Inside handle cable
7. Door lock cable
8. Key cylinder rod (Driver side only)
9. Door key cylinder
10. Outside handle bracket
11. Front gasket
12. Outside handle
13. Door key cylinder assembly (Driver side) Outside handle escutcheon (Passenger side)
14. Rear gasket
⇐ Vehicle front

Removal and Installation

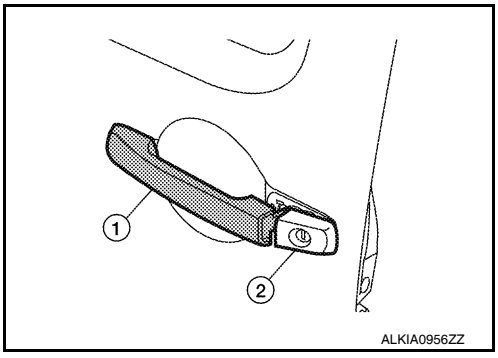
INFOID:0000000003083177

REMOVAL

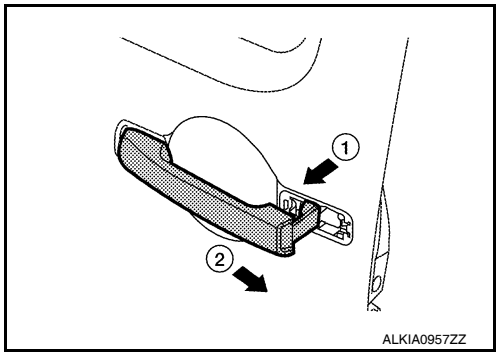
1. Remove the front door window regulator. Refer to GW-14, "Front Door Glass Regulator".
2. Remove door side grommet, and remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side) bolts (TORX T30) from grommet hole.



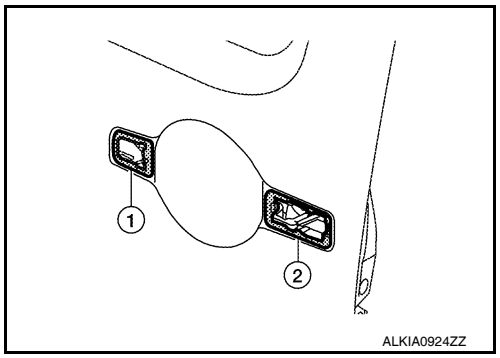
3. While pulling the outside handle (1), remove door key cylinder assembly or escutcheon (2).



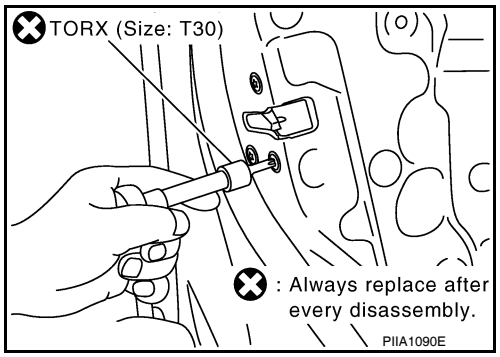
4. If equipped, separate the door key cylinder rod from the door key cylinder assembly.
5. While pulling outside handle (1), slide toward rear of vehicle (2) to remove outside handle.



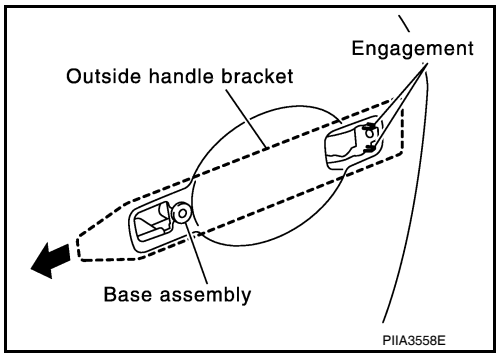
6. Remove the front gasket (1) and rear gasket (2).



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

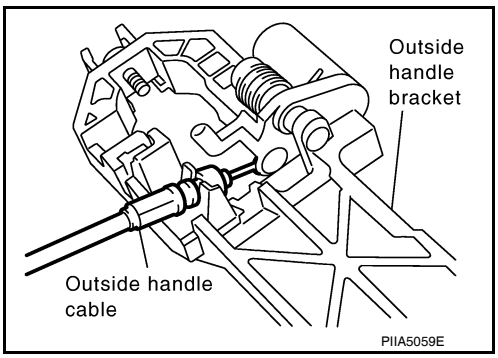


8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket and door lock assembly as shown.



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.

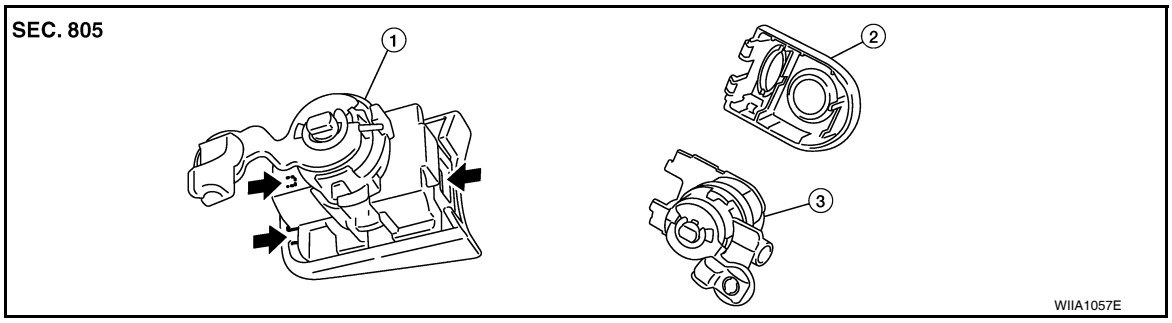
CAUTION:

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

Disassembly and Assembly

INFOID:0000000003083178

DOOR KEY CYLINDER ASSEMBLY



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

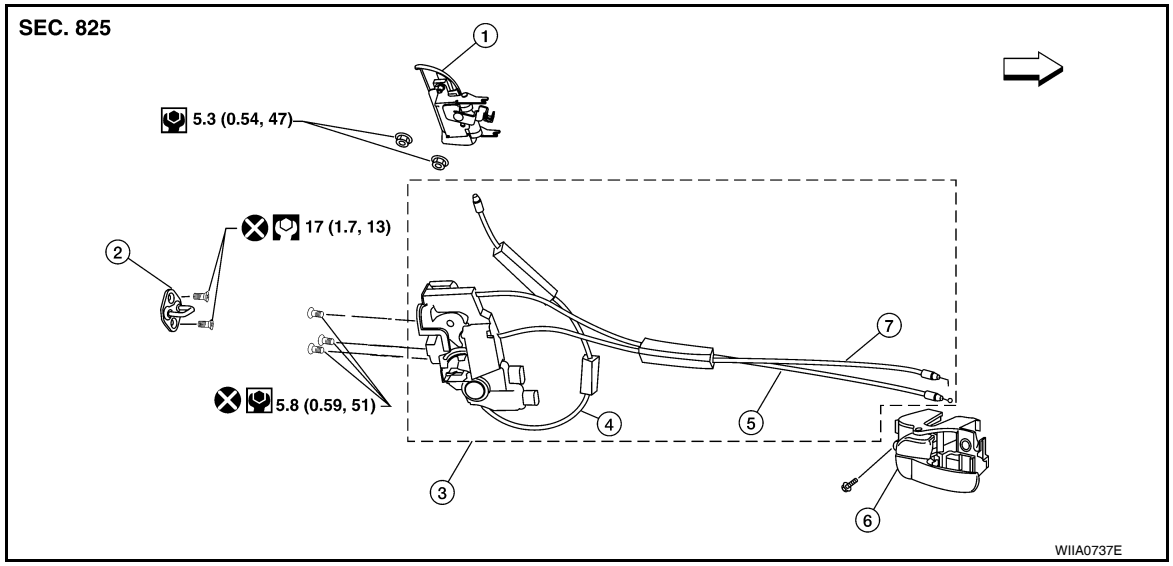
⇐ Pawl

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

REAR DOOR LOCK

Component Structure

INFOID:0000000003083179



1. Outside door handle
2. Rear door striker
3. Rear door lock assembly
4. Outside door handle cable
5. Inside door handle cable
6. Inside door handle assembly
7. Door lock cable
⇐ Vehicle front

Removal and Installation

INFOID:0000000003083180

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.

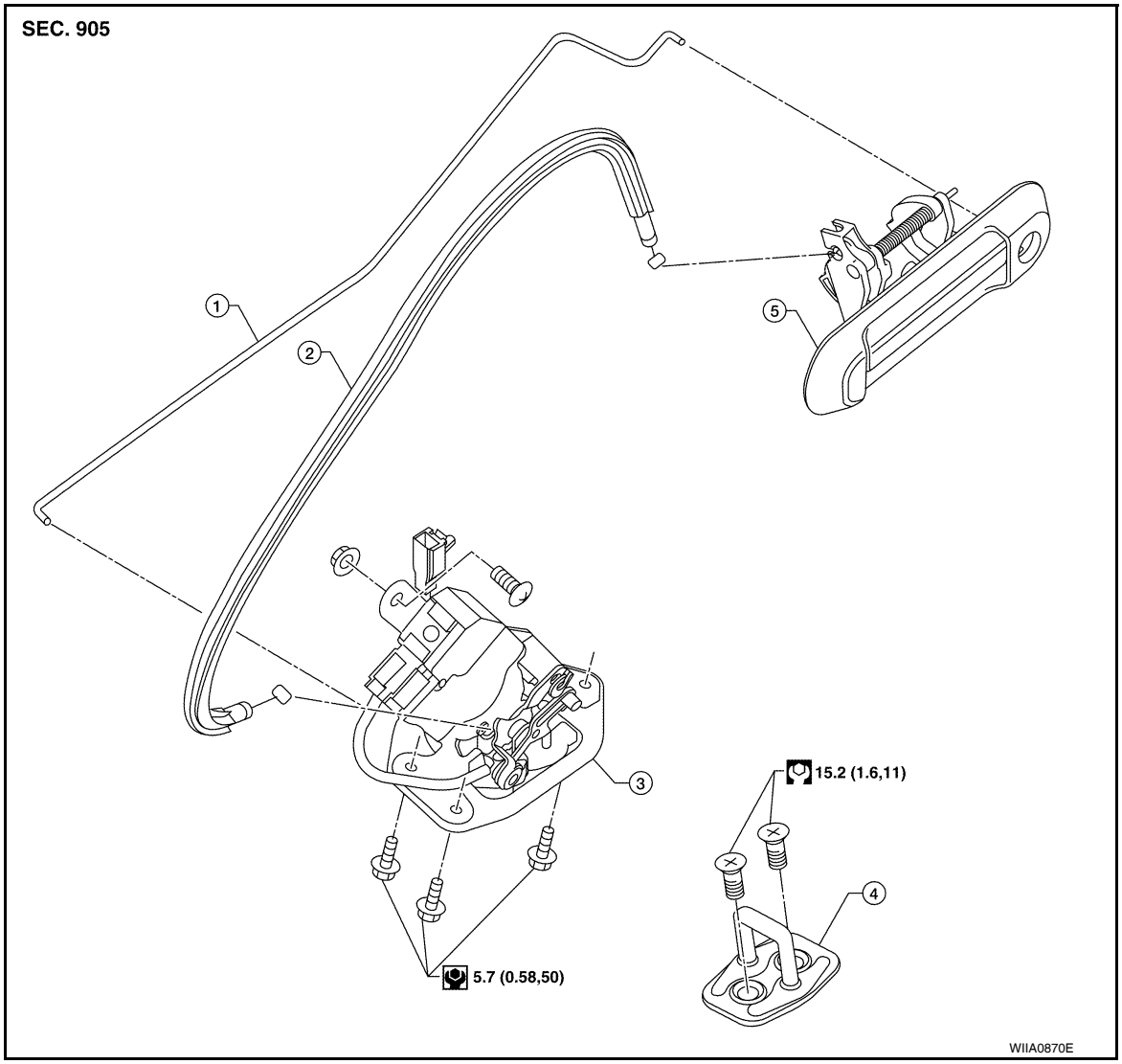
INSTALLATION

Installation is in the reverse order of removal.

BACK DOOR LOCK

Component Structure

INFOID:0000000003292556



1. Back door lock rod
2. Back door latch cable
3. Back door latch
4. Back door striker
5. Back door release handle