

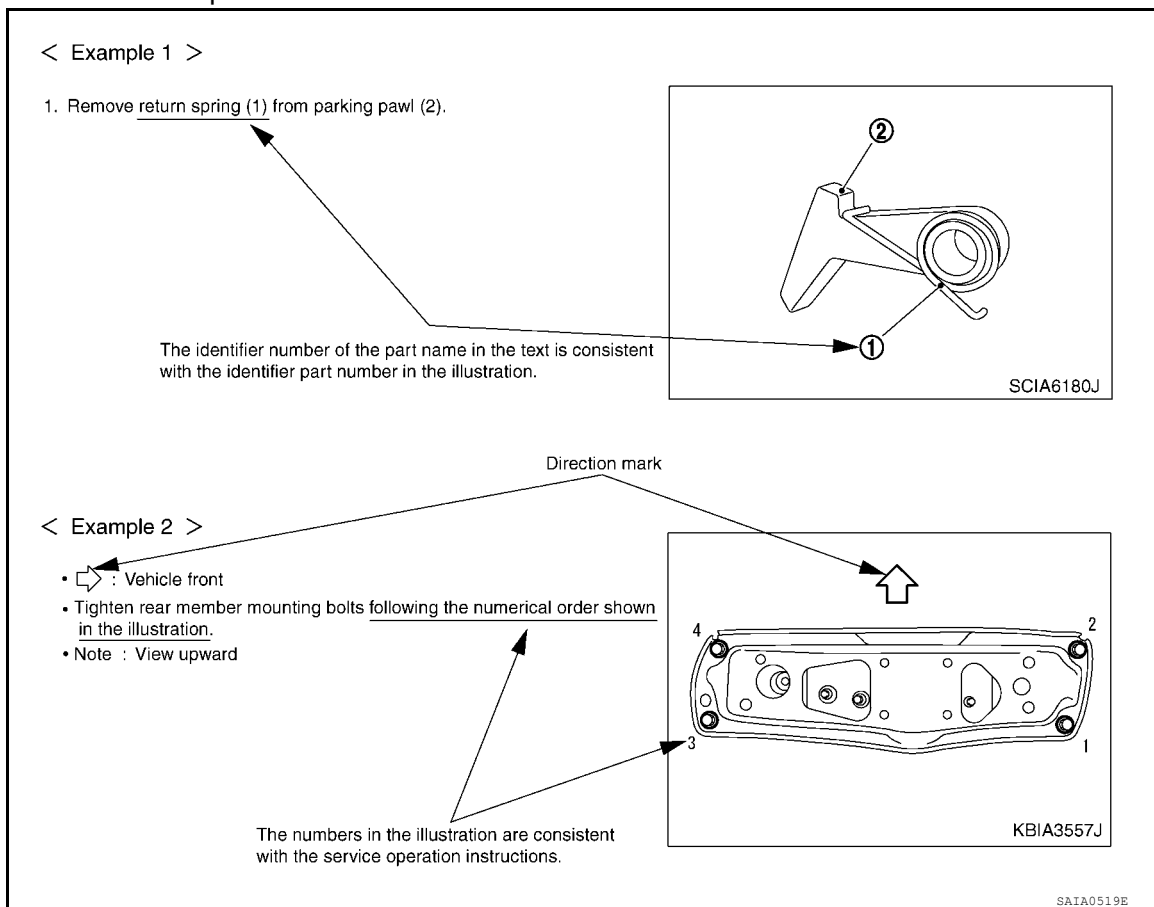
HOW TO USE THIS MANUAL

< HOW TO USE THIS MANUAL >

Relation between Illustrations and Descriptions

INFOID:000000006751602

The following sample explains the relationship between the part description in an illustration, the part name in the text and the service procedures.



Components

INFOID:000000006751603

- **THE LARGE ILLUSTRATIONS** are exploded views (see the following) and contain tightening torques, lubrication points, section number of the **PARTS CATALOG** (e.g. SEC. 440) and other information necessary to perform repairs.

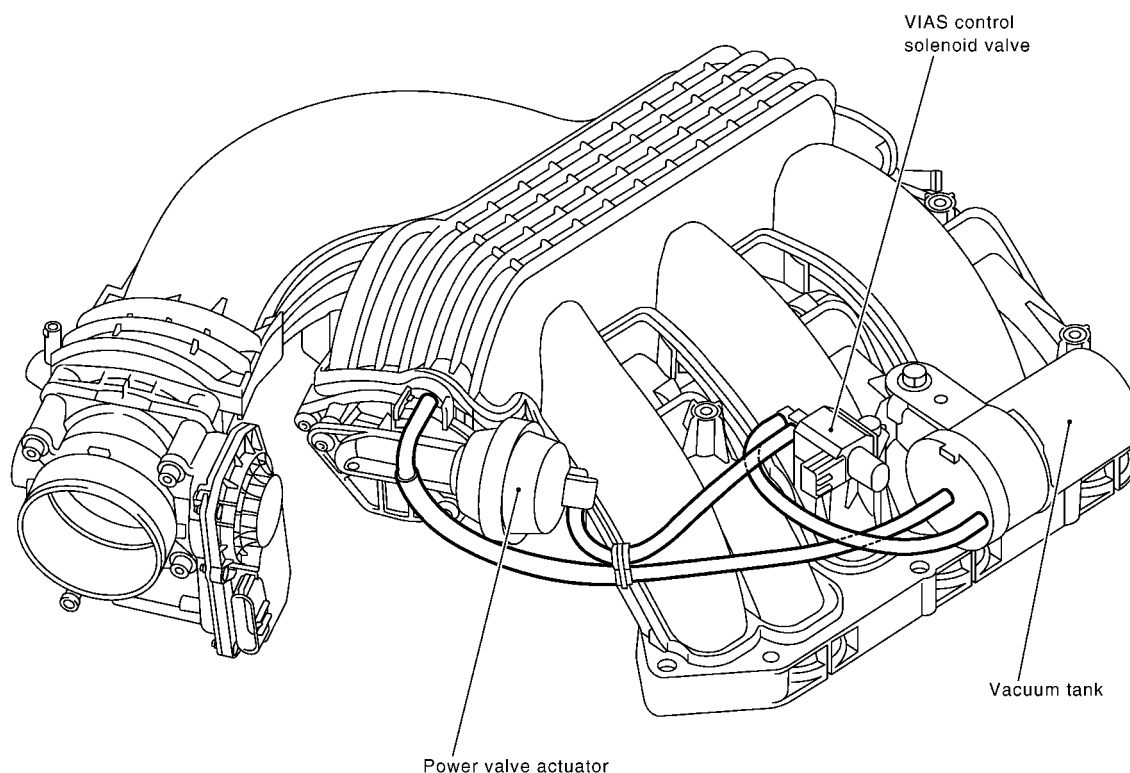
The illustrations should be used in reference to service matters only. When ordering parts, refer to the appropriate **PARTS CATALOG**.

Always check with the **PARTS DEPARTMENT** for the latest parts information.

Components shown in an illustration may be identified by a circled number. When this style of illustration is used, the text description of the components will follow the illustration.

VARIABLE INDUCTION AIR SYSTEM : Vacuum Hose Drawing

INFOID:000000007216930



NOTE: Do not use soapy water or any type of solvent while installing vacuum hose or purge hoses.

Refer to [EC-36, "ENGINE CONTROL SYSTEM : System Diagram"](#) for Vacuum Control System.
FUEL FILLER CAP WARNING SYSTEM

PBIB2529E

FUEL PRESSURE CHECK

Work Procedure

INFOID:000000007156249

FUEL PRESSURE RELEASE

1. FUEL PRESSURE RELEASE

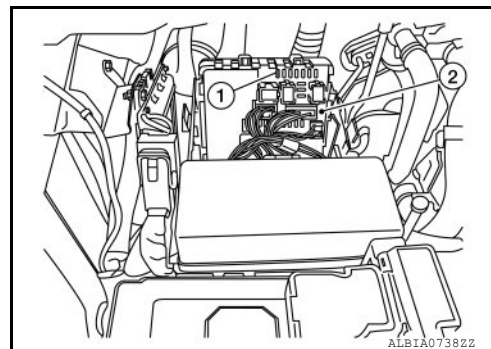
① With CONSULT

1. Turn ignition switch ON.
2. Select ENGINE using CONSULT.
3. Perform "FUEL PRESSURE RELEASE" in "WORK SUPPORT" mode of "ENGINE".
4. Start engine.
5. After engine stalls, crank it two or three times to release all fuel pressure.
6. Turn ignition switch OFF.

② Without CONSULT

1. Remove fuel pump fuse (# 48) located in IPDM E/R.
 1. Fuel pump fuse
 2. IPDM E/R
2. Start engine.
3. After engine stalls, crank it two or three times to release all fuel pressure.
4. Turn ignition switch OFF.
5. Reinstall fuel pump fuse after servicing fuel system.

>> END



FUEL PRESSURE CHECK

1. FUEL PRESSURE CHECK

CAUTION:

Be careful not to scratch or get the fuel hose connection area dirty when servicing, so that the quick connector o-ring maintains sealability.

NOTE:

- Prepare pans or saucers under the disconnected fuel line because the fuel may spill out. The fuel pressure cannot be completely released because this models do not have fuel return system.
- Use Fuel Pressure Gauge Kit [— (J-44321)] and Fuel Pressure Adapter [— (J-44321-6)] to check fuel pressure.

1. Release fuel pressure to zero.
2. Remove fuel hose using Quick Connector Release [— (J-45488)]. Refer to [EM-45, "Removal and Installation"](#).

CAUTION:

- Do not twist or kink fuel hose because it is plastic hose.
- Do not remove fuel hose from quick connector.
- Keep fuel hose connections clean.

3. Install Fuel Pressure Adapter [— (J-44321-6)] and Fuel Pressure Gauge {from kit [— (J-44321)]} as shown in figure.

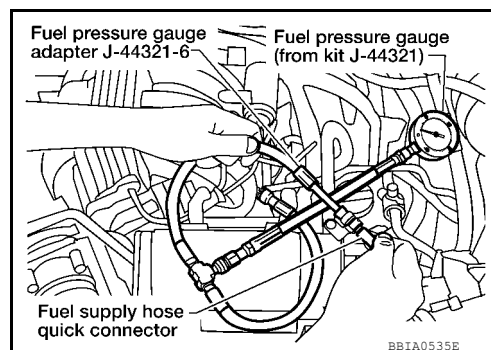
CAUTION:

- Do not distort or bend fuel rail tube when installing fuel pressure gauge adapter.
- When reconnecting fuel hose, check the original fuel hose for damage and abnormality.

4. Turn ignition switch ON (reactivate fuel pump), and check for fuel leakage.
5. Start engine and check for fuel leakage.
6. Read the indication of fuel pressure gauge.

CAUTION:

During fuel pressure check, check for fuel leakage from fuel connection every 3 minutes.



P0451 EVAP CONTROL SYSTEM PRESSURE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[VQ40DE]

P0451 EVAP CONTROL SYSTEM PRESSURE SENSOR

DTC Logic

INFOID:000000007156393

DTC DETECTION LOGIC

NOTE:

If DTC P0451 is displayed with DTC P0643, first perform the trouble diagnosis for DTC P0643. Refer to [EC-344, "DTC Logic"](#).

DTC No.	Trouble diagnosis name (Trouble diagnosis content)	DTC detecting condition	Possible cause
P0451	EVAP SYS PRES SEN (EVAP control system pressure sensor performance)	ECM detects a sloshing signal from the EVAP control system pressure sensor	• Harness or connectors (EVAP control system pressure sensor circuit is shorted.) • EVAP control system pressure sensor

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If DTC Confirmation Procedure has been previously conducted, always perform the following procedure before conducting the next test.

1. Turn ignition switch OFF and wait at least 10 seconds.
2. Turn ignition switch ON.
3. Turn ignition switch OFF and wait at least 10 seconds.

>> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch OFF and wait at least 10 seconds.
2. Start engine and wait at least 40 seconds.

NOTE:

Do not depress accelerator pedal even slightly.

3. Check 1st trip DTC.

Is 1st trip DTC detected?

YES >> Proceed to [EC-308, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007156394

1. CHECK EVAP CONTROL SYSTEM PRESSURE SENSOR CONNECTOR FOR WATER

1. Turn ignition switch OFF.
2. Disconnect EVAP control system pressure sensor harness connector.
3. Check sensor harness connector for water.

Water should not exist.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness connector.

2. CHECK EVAP CONTROL SYSTEM PRESSURE SENSOR POWER SUPPLY

1. Turn ignition switch ON.

P1805 BRAKE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[VK56DE]

P1805 BRAKE SWITCH

DTC Logic

INFOID:000000007232474

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name (Trouble diagnosis content)	DTC detecting condition	Possible cause
P1805	BRAKE SW/CIRCUIT (Stop lamp switch)	Stop lamp switch signal is not sent to ECM for extremely long time while the vehicle is being driven.	• Harness or connectors (Stop lamp switch circuit is open or shorted.) • Stop lamp switch

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Fully depress the brake pedal for at least 5 seconds.
3. Erase the DTC.
4. Check 1st trip DTC.

Is 1st trip DTC detected?

- YES >> Proceed to [EC-815. "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000007232475

1.CHECK STOP LAMP SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Check the stop lamp when depressing and releasing the brake pedal.

Brake pedal	Stop lamp
Fully released	Not illuminated
Slightly depressed	Illuminated

Is the inspection result normal?

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

2.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Disconnect stop lamp switch harness connector.
2. Check the voltage between stop lamp switch harness connector and ground.

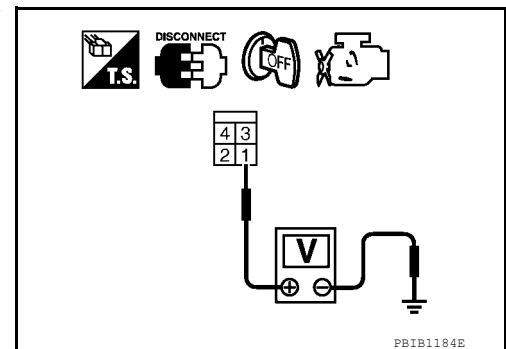
+		-	Voltage
Stop lamp switch			
Connector	Terminal		
E38	1	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Perform the trouble diagnosis for power supply circuit.

3.CHECK STOP LAMP SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect stop lamp switch harness connector.
2. Disconnect ECM harness connector.
3. Check the continuity between stop lamp switch harness connector and ECM harness connector.

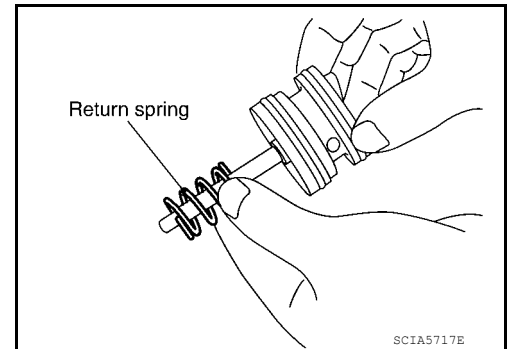


TRANSMISSION ASSEMBLY

< UNIT DISASSEMBLY AND ASSEMBLY >

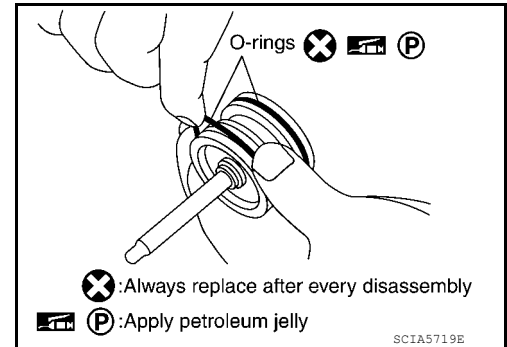
[5AT: RE5R05A]

70. Remove return spring from servo assembly.

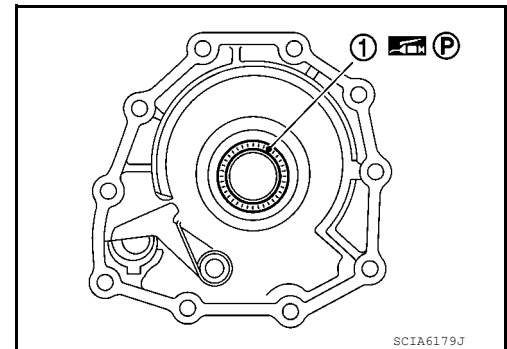


71. Remove O-rings from servo assembly.

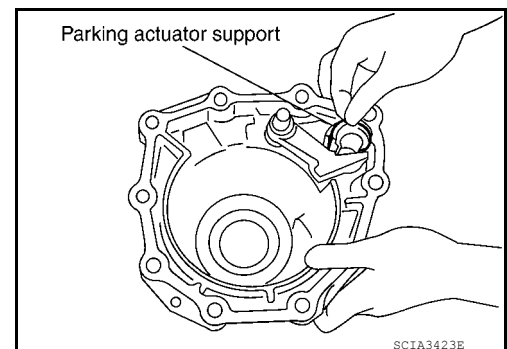
CAUTION:
Do not reuse O-rings.



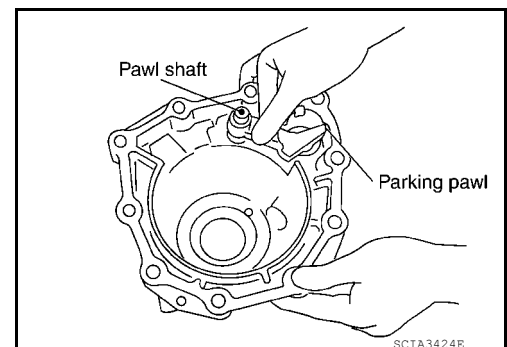
72. Remove needle bearing (1) from rear extension.



73. Remove parking actuator support from rear extension.



74. Remove parking pawl (with return spring) and pawl shaft from rear extension.



COMPONENT PARTS

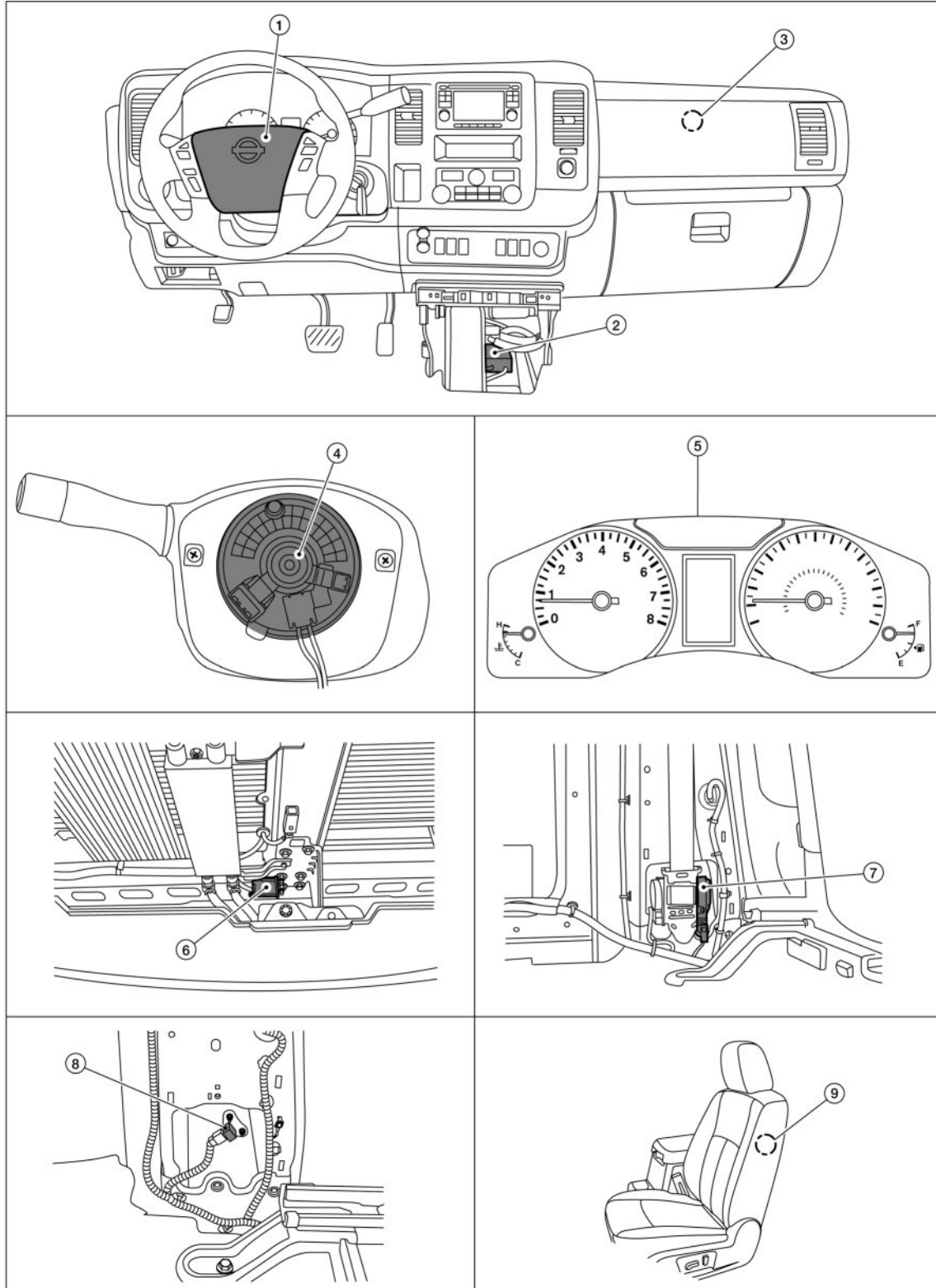
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000006925351



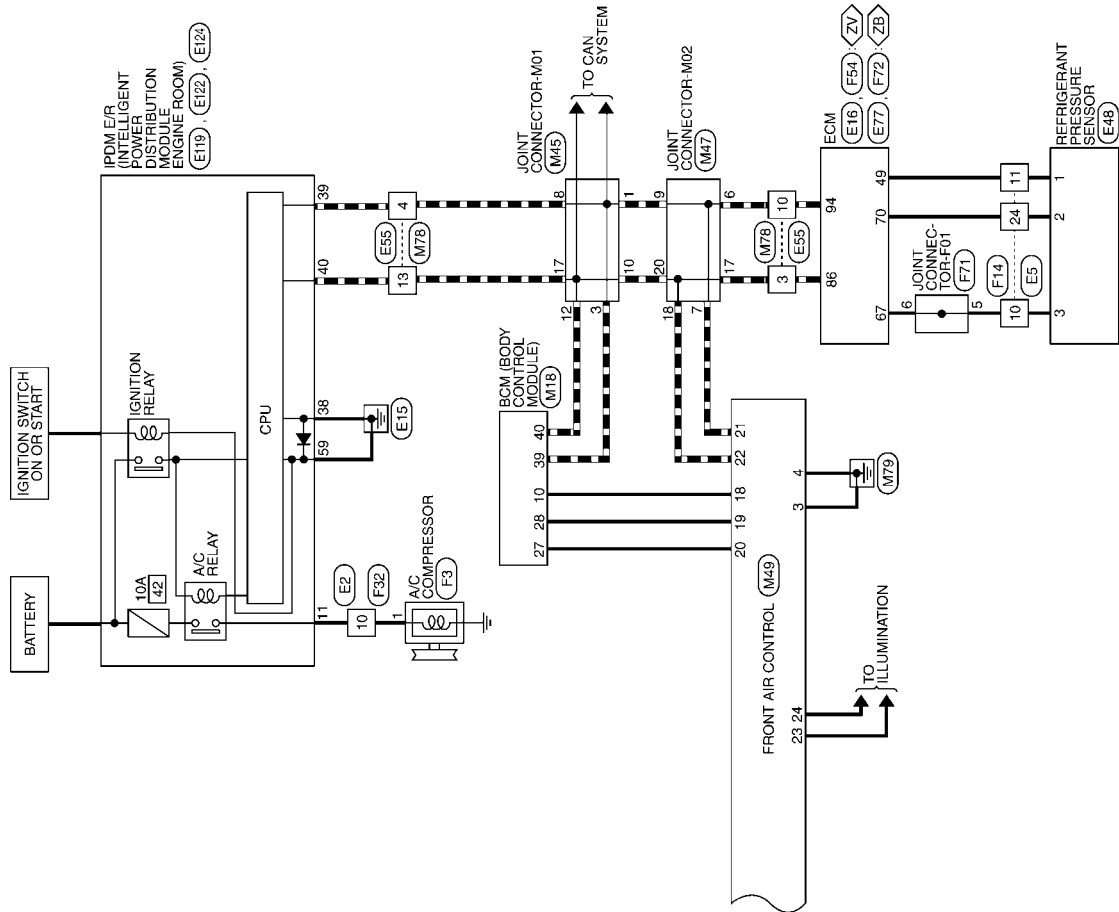
ALHIA021022

AIR CONDITIONER CONTROL

[AUTOMATIC AIR CONDITIONER]

< WIRING DIAGRAM >

ZB : WITH VK56DE
ZV : WITH VQ40DE



AAIWA0109GB

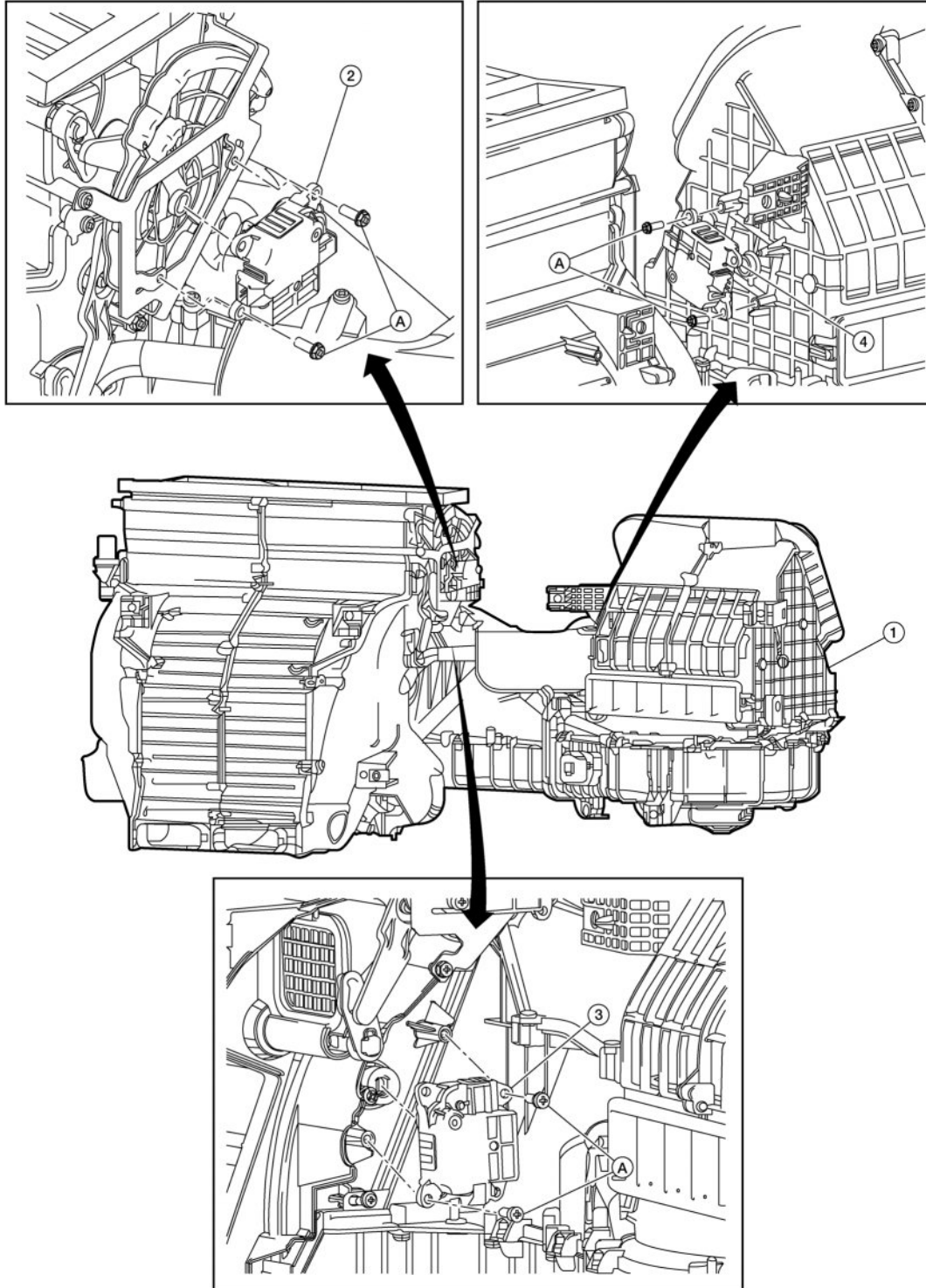
DOOR MOTOR

Components

INFOID:000000007236373

Front Heating and Cooling Unit Assembly

SEC. 270 • 271

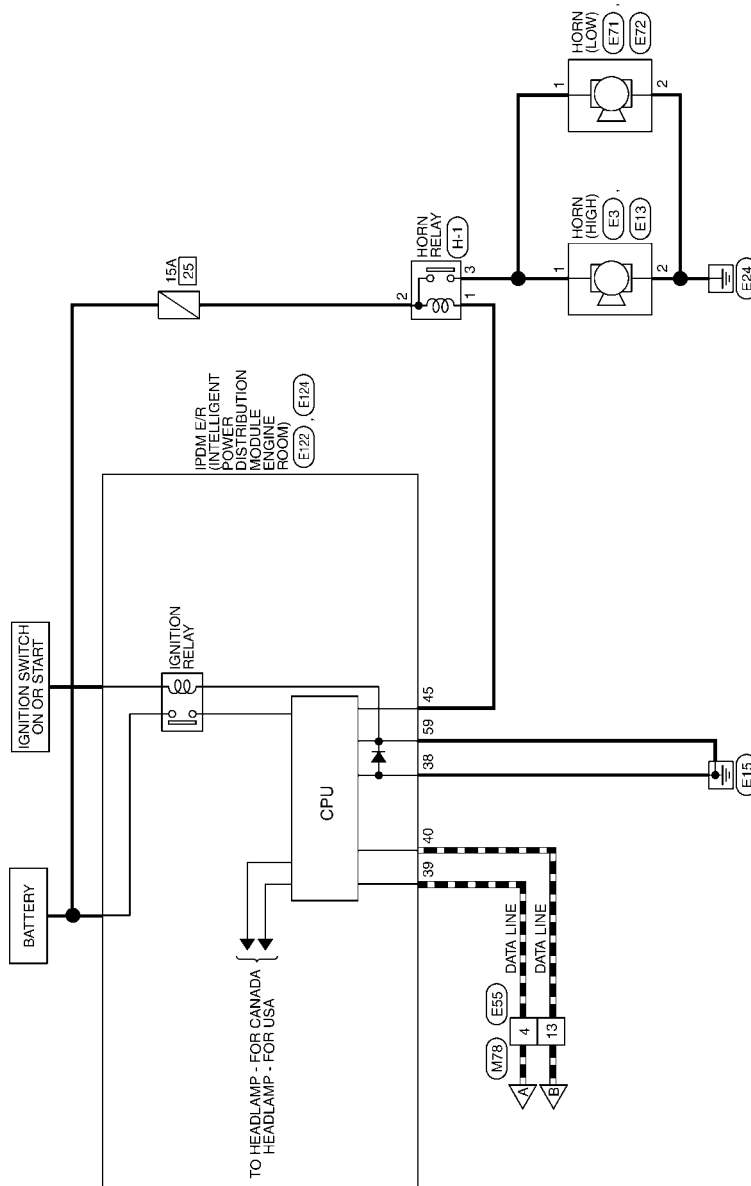


- | | | |
|---------------------------------------|--------------------------|-----------------------------|
| 1. Front heating and cooling assembly | 2. Front mode door motor | 3. Front air mix door motor |
| 4. Intake door motor | A. Bolts | |

ALIIA04652Z

REMOTE KEYLESS ENTRY SYSTEM

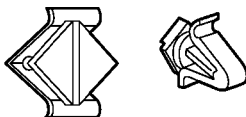
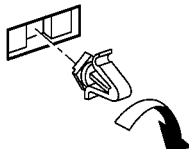
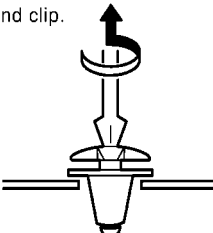
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ABKW1288GB

CLIP LIST

< PREPARATION >

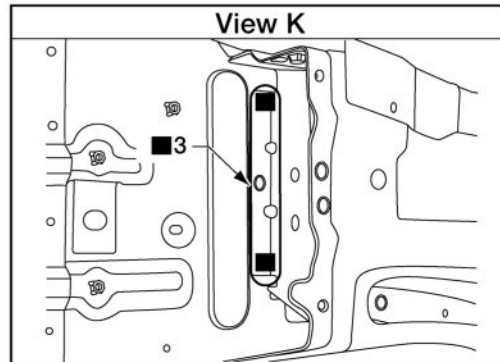
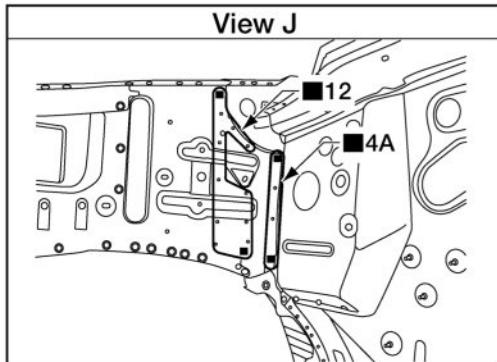
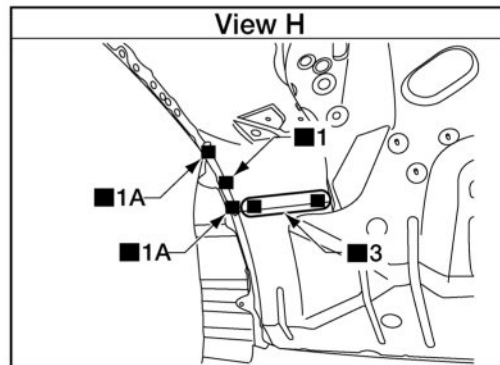
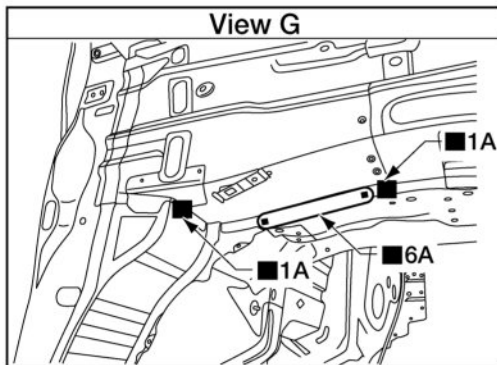
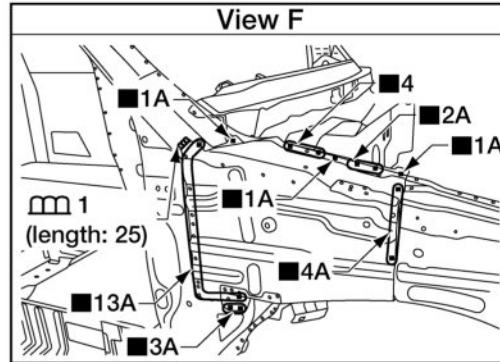
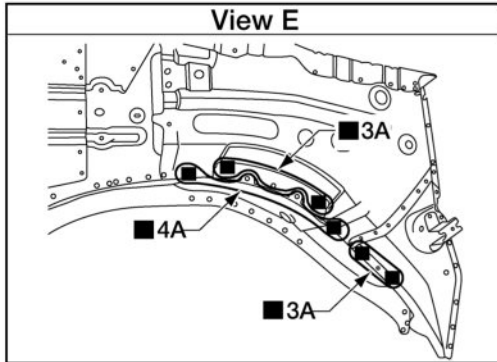
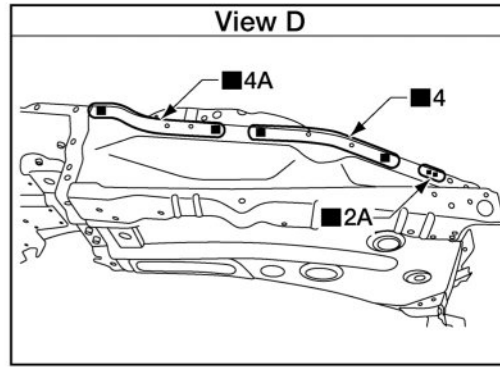
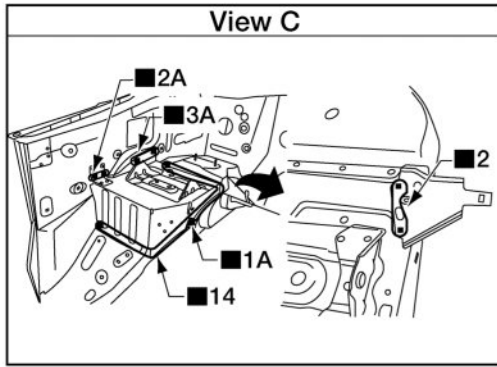
Symbol No.	Shapes	Removal & Installation	
CG101 		Removal:  Rotate 45° to remove	Installation: 
		Removal: 	
CS102 			
CS113 		Removal: Disconnect upper connection of clip with a flat-bladed screwdriver, then remove clip while inserting a flat-bladed screwdriver between body panel and clip. 	
C111 			

SIIA0317E

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[HIGH ROOF - CARGO VAN]



ALKIA2183GB

ROOF

Front Roof

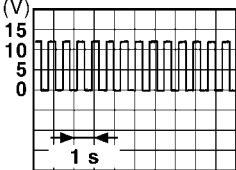
A
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BRM

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

5. With turn signal switch operating, check the voltage between the rear combination lamp harness connector and ground.

(+)			(-)	Voltage
Connector		Terminal		
LH	R16	6	Ground	
RH	R17	6		

Is voltage reading as specified?

- YES >> GO TO 5
 NO >> GO TO 3

3.CHECK TURN SIGNAL LAMP CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect BCM connector M20.
3. Check continuity between the BCM harness connector M20 and the front combination lamp connector.

Connector		Terminal	Connector	Terminal	Continuity
Front LH	M20	60	E11	3	Yes
Front RH		61	E107		

4. Check continuity between the BCM harness connector M20 and the rear combination lamp connector.

Connector		Terminal	Connector	Terminal	Continuity
Rear LH	M20	60	R16	6	Yes
Rear RH		61	R17	6	

Are continuity test results as specified?

- YES >> GO TO 4.
 NO >> Repair the harness or connector.

4.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector M20 and ground.

Connector		Terminal	—	Continuity
LH	M20	60	Ground	No
RH		61		

Does continuity exist?

- YES >> Repair the harness or connector.
 NO >> Replace BCM. Refer to [BCS-55. "Removal and Installation"](#).

5.CHECK TURN SIGNAL LAMP GROUND CIRCUIT

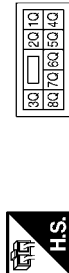
1. Check continuity between the front combination lamp harness connector and ground.

Connector		Terminal	—	Continuity
Front LH	E11	5	Ground	Yes
Front RH	E107			

REAR WINDOW DEFOGGER

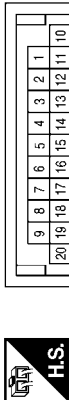
< WIRING DIAGRAM >

Connector No.	M39
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



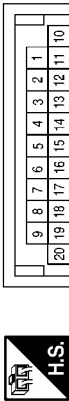
Terminal No.	Color of Wire	Signal Name
1Q	R	-
4Q	Y	-

Connector No.	M45
Connector Name	JOINT CONNECTOR-M01
Connector Color	BLUE



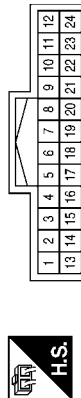
Terminal No.	Color of Wire	Signal Name
1	L	-
3	L	-
8	L	-
10	P	-
12	P	-
17	P	-

Connector No.	M47
Connector Name	JOINT CONNECTOR-M02
Connector Color	GREEN



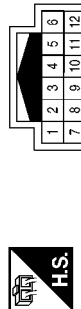
Terminal No.	Color of Wire	Signal Name
7	L	-
9	L	-
18	P	-
20	P	-

Connector No.	M49
Connector Name	FRONT AIR CONTROL
Connector Color	WHITE



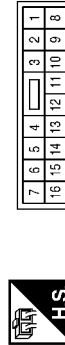
Terminal No.	Color of Wire	Signal Name
1	Y	BAT
2	R	IGN
3	B	GND
4	B	POWER GND
18	BR	R. DEF ON
21	L	CAN-H
22	P	CAN-L

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



Terminal No.	Color of Wire	Signal Name
7	B	-
8	G	-

Connector No.	M78
Connector Name	WIRE TO WIRE
Connector Color	WHITE



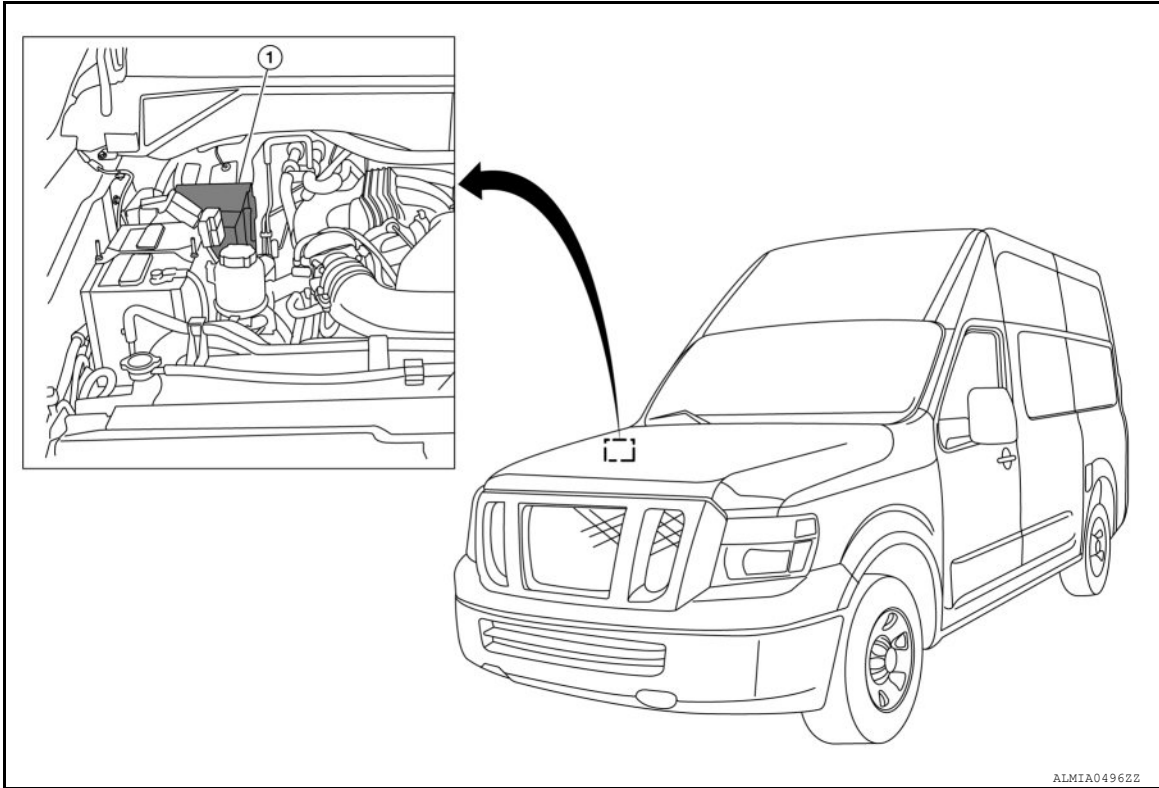
Terminal No.	Color of Wire	Signal Name
4	L	-
13	P	-

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000006737552



1. IPDM E/R

PCS