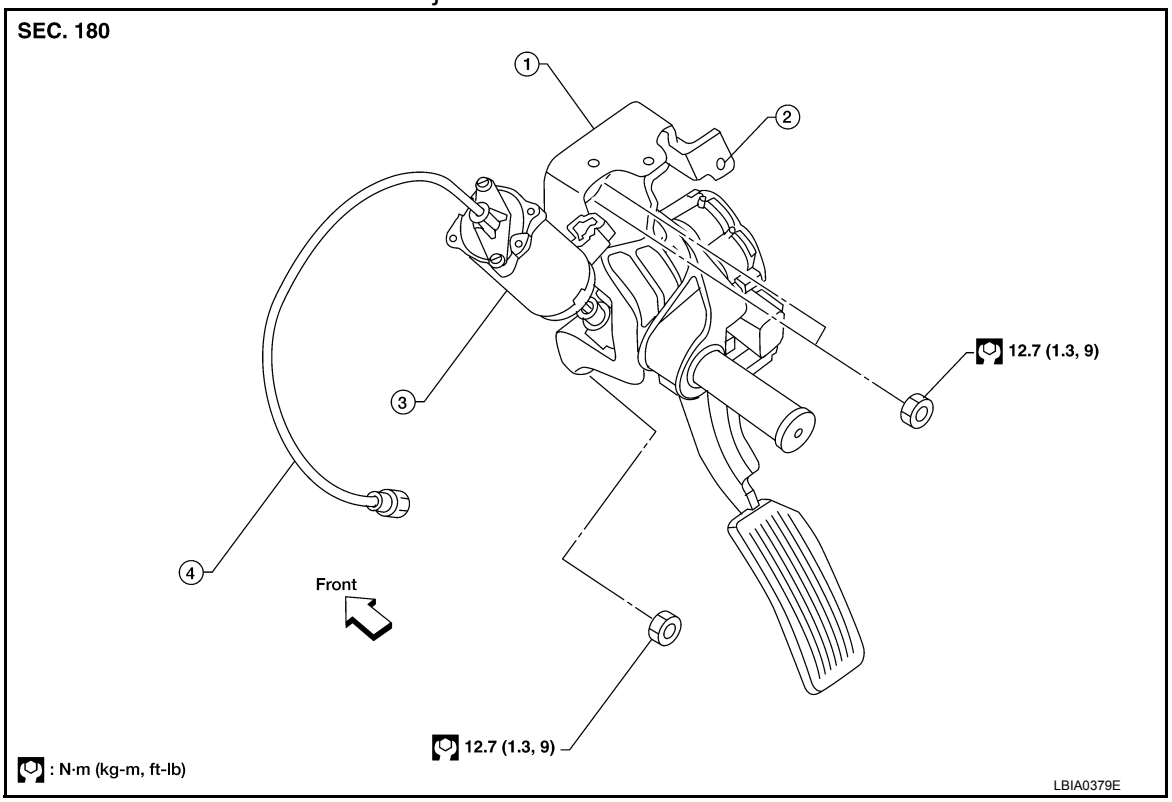
UNIT REMOVAL AND INSTALLATION

ACCELERATOR CONTROL SYSTEM

Removal and Installation

INFOID:0000000009825511

Adjustable Accelerator Pedal



1. Adjustable accelerator pedal assembly
2. A/T control cable mounting bracket (part of the accelerator pedal assembly)
3. Adjustable pedal electric motor (part of the accelerator pedal assembly)
4. Adjustable brake pedal cable (part of the accelerator pedal assembly)

CAUTION:

- **Before removal and installation the accelerator and brake pedals must be in the front most position. This is to align the base position of the accelerator and brake pedals.**
- **Do not disassemble the accelerator pedal assembly.**
- **Do not remove the accelerator pedal position sensor from the accelerator pedal bracket.**
- **Do not disassemble the accelerator pedal adjusting mechanism.**
- **Avoid damage from dropping the accelerator pedal assembly during handling.**
- **Keep the accelerator pedal assembly away from water.**

REMOVAL

1. Move the accelerator and brake pedals to the front most position.
2. Turn the ignition switch OFF and disconnect the negative battery terminal.
3. Disconnect the adjustable brake pedal cable from the adjustable brake pedal.
   - Unlock, then pull the adjustable brake pedal cable to disconnect it from the adjustable brake pedal.

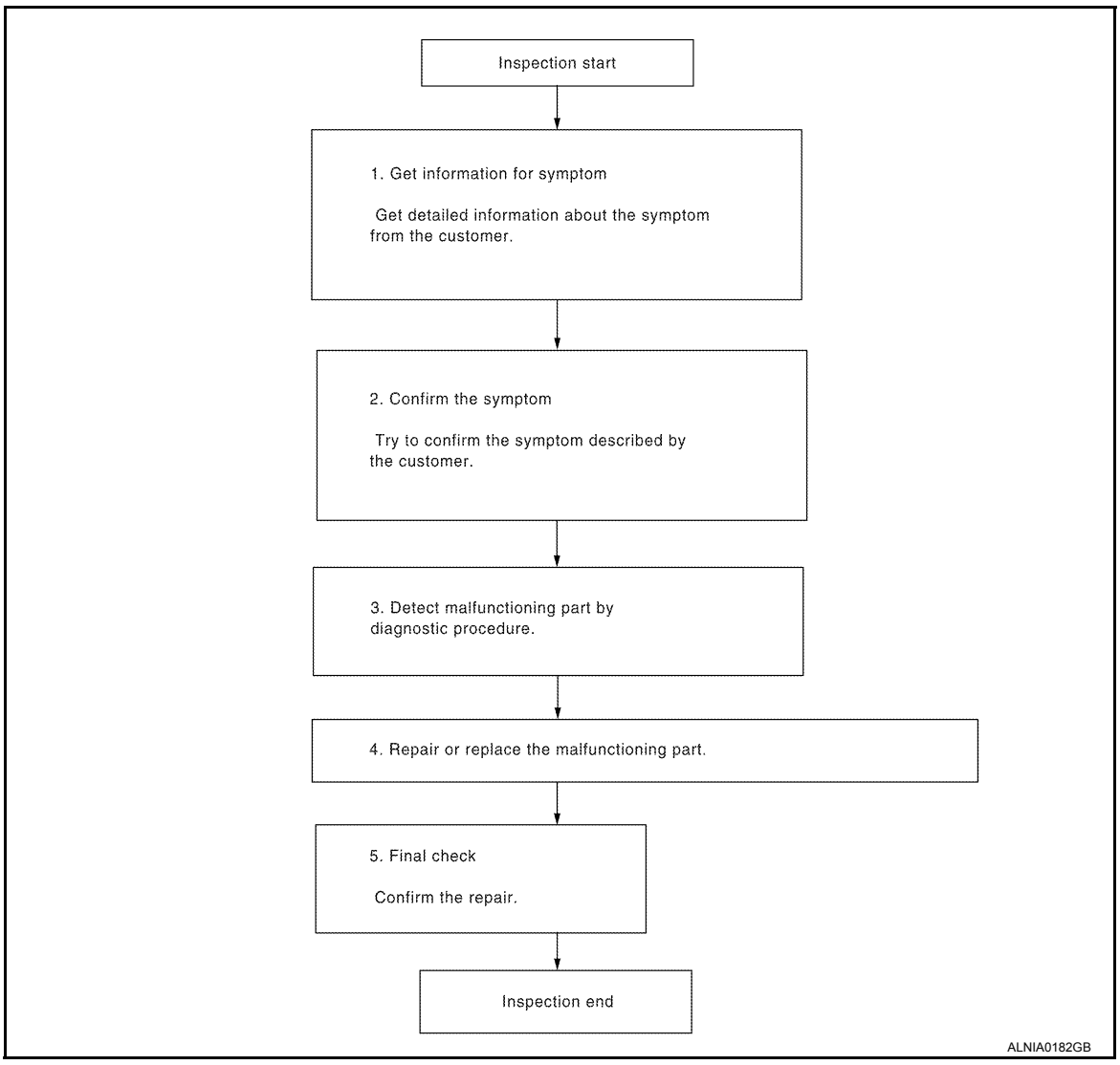
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000009820763

OVERALL SEQUENCE



DETAILED FLOW

1.GET INFORMATION FOR SYMPTOM

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

>> GO TO 2.

2.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 3.

3.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

Connector No.	M45
Connector Name	SATELLITE RADIO TUNER
Connector Color	WHITE

H.S.

22	24	26	32	34	36
21	23	25	27	28	29	30	31	33	35

Terminal No.	Color of Wire	Signal Name
21	B	SAT LH- OUT
22	W	SAT LH+ OUT
23	BR	SAT RH- OUT
24	Y	SAT RH+ OUT
25	SHIELD	SIG SHIELD
26	SHIELD	DATA GND
27	–	–
28	W	REQ1 (SAT-HU)
29	R	TXD (SAT-HU)
30	B	RXD (HU-SAT)
31	–	–
32	Y	BATT
33	–	–
34	–	–
35	–	–
36	V	ACC

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

H.S.

1J	2J	3J	4J	5J
6J	7J	8J	9J	10J

11J	12J	13J	14J	15J	16J	17J	18J	19J	20J	21J
22J	23J	24J	25J	26J	27J	28J	29J	30J

31J	32J	33J	34J	35J	36J	37J	38J	39J	40J	41J
42J	43J	44J	45J	46J	47J	48J	49J	50J

51J	52J	53J	54J	55J	56J	57J	58J	59J	60J	61J
62J	63J	64J	65J	66J	67J	68J	69J	70J

71J	72J	73J	74J	75J	76J	77J	78J	79J	80J	81J
82J	83J	84J	85J	86J	87J	88J	89J	90J

91J	92J	93J	94J	95J
96J	97J	98J	99J	100J

Terminal No.	Color of Wire	Signal Name
1J	B/Y	–
7J	SB	–
24J	W	–
25J	B	–
54J	SHIELD	–
57J	G	–
58J	R	–
59J	W/G	–
62J	B	–
66J	B	–
67J	W	–
69J	V	–
96J	R	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
1Q	G/R	–

ABNIA3883GB

C1142 PRESS SENSOR

Description

INFOID:0000000009824054

The front and rear pressure sensors convert the brake fluid pressure to an electric signal and transmit it to the ABS actuator and electric unit (control unit).

DTC Logic

INFOID:0000000009824055

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1142	PRESS SEN CIRCUIT	Pressure sensor signal line is open or shorted, or pressure sensor is malfunctioning.	• Harness or connector • Pressure sensor • ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1.CHECK SELF-DIAGNOSIS RESULTS

Check the self-diagnosis results.

Self-diagnosis results
PRESS SEN CIRCUIT

Is above displayed on the self-diagnosis display?

YES >> Proceed to diagnosis procedure. Refer to BRC-57, "Diagnosis Procedure (Front Pressure Sensor)" or BRC-58, "Diagnosis Procedure (Rear Pressure Sensor)".
NO >> Inspection End

Diagnosis Procedure (Front Pressure Sensor)

INFOID:0000000009824056

Regarding Wiring Diagram information, refer to BRC-92, "Wiring Diagram".

1.CONNECTOR INSPECTION

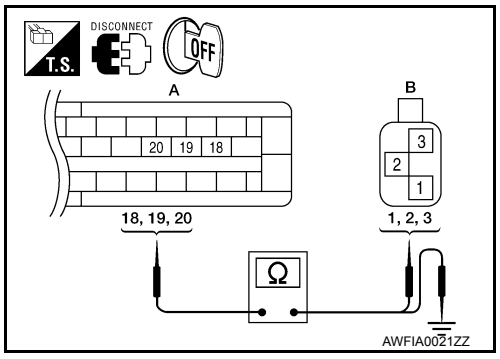
1. Turn the ignition switch OFF.
2. Disconnect the front pressure sensor connector and ABS actuator and electric unit (control unit) connector and inspect the terminals for deformation, disconnection, looseness, or damage.

Is the inspection result normal?

YES >> GO TO 2
NO >> Repair connector.

2.FRONT PRESSURE SENSOR CIRCUIT INSPECTION

1. Measure the continuity between the ABS actuator and electric unit (control unit) connector E125 (A) and front pressure sensor connector E31 (B).



ABS actuator and electric unit (control unit)		Front pressure sensor		Continuity
Connector	Terminal	Connector	Terminal	
E125 (A)	18	E31 (B)	3	Yes
	19		1	
	20		2	

2. Measure the continuity between the ABS actuator and electric unit (control unit) connector E125 (A) and body ground.

KEY REMINDER FUNCTION SYMPTOMS

Symptom Table

INFOID:0000000009822906

KEY REMINDER FUNCTION MALFUNCTION

NOTE:

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

Conditions of Vehicle (Operating Conditions)

- “LOCK/UNLOCK BY I-KEY” is ON when setting on CONSULT.
- “ANSWER BACK FUNCTION” is ON when setting on CONSULT.
- Ignition switch is in OFF position.
- All doors are closed.
- Ignition switch is not depressed.

Symptom	Diagnosis/service procedure		Reference page
Key reminder function does not operate.	1. Check “ANTI KEY LOCK IN FUNCTI”setting in “WORK SUPPORT”.		DLK-58
	2. Check door switch.		DLK-74
	3. Check inside key antennas	Center console area (rear)	DLK-63
		Luggage area	DLK-69
		Center console area (front)	DLK-65
		Overhead console area	DLK-67
	4. Check unlock sensor.		DLK-85
	5. Check Intelligent Key battery inspection.		DLK-108
	6. Check Intermittent Incident.		GI-42

PRECAUTION

PRECAUTIONS

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

INFOID:0000000009824850

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 Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000009824851

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the ″LOCK″ position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.
For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.
If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Use the Intelligent Key or mechanical key to turn the ignition switch to the ″ACC″ position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

4. Also check harness for short to ground and short to power.

OK or NG

OK >> GO TO 4.
NG >> Repair open circuit or short to ground or short to power in harness or connectors.

4.CHECK EVAP CONTROL SYSTEM PRESSURE SENSOR CONNECTOR

1. Disconnect EVAP control system pressure sensor harness connector.
2. Check connectors for water.

Water should not exist.

OK or NG

OK >> GO TO 5.
NG >> Replace EVAP control system pressure sensor. Refer to FL-16.

5.CHECK EVAP CONTROL SYSTEM PRESSURE SENSOR

Refer to EC-317, "Component Inspection".

OK or NG

OK (With CONSULT)>>GO TO 6.
OK (Without CONSULT)>>GO TO 7.
NG >> Replace EVAP control system pressure sensor. Refer to FL-16.

6.CHECK EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE

With CONSULT

1. Turn ignition switch OFF.
2. Reconnect all harness connectors disconnected.
3. Start engine.
4. Perform “PURG VOL CONT/V” in “ACTIVE TEST” mode with CONSULT. Check that engine speed varies according to the valve opening.

OK or NG

OK >> GO TO 8.
NG >> GO TO 7.

7.CHECK EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE

Refer to EC-302, "Component Inspection".

OK or NG

OK >> GO TO 8.
NG >> Replace EVAP canister purge volume control solenoid valve. Refer to EM-27.

8.CHECK RUBBER TUBE FOR CLOGGING

1. Disconnect rubber tube connected to EVAP canister vent control valve.
2. Check the rubber tube for clogging.

OK or NG

OK >> GO TO 9.
NG >> Clean the rubber tube using an air blower.

9.CHECK EVAP CANISTER VENT CONTROL VALVE

Refer to EC-313, "Component Inspection".

OK or NG

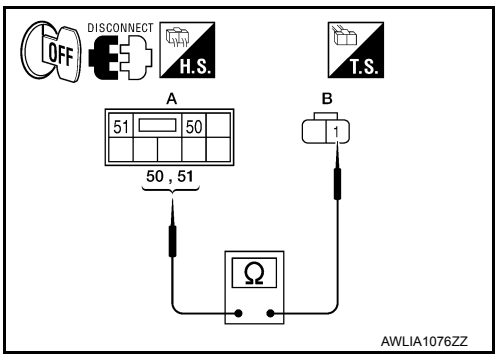
OK >> GO TO 10.
NG >> Replace EVAP canister vent control valve. Refer to FL-16.

10.CHECK IF EVAP CANISTER SATURATED WITH WATER

1. Remove EVAP canister with EVAP canister vent control valve and EVAP control system pressure sensor attached. Refer to FL-16.

3.CHECK FRONT FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector E123.
3. Check continuity between the IPDM E/R harness connector (A) and the front fog lamp harness connector (B).



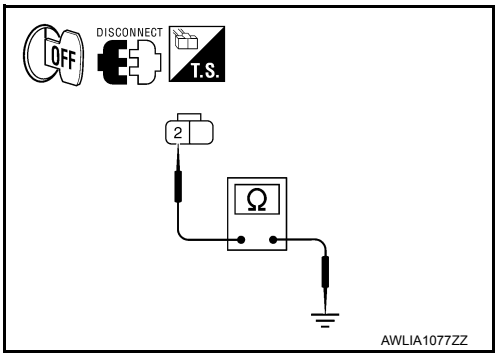
A			B		Continuity
Connector		Terminal	Connector	Terminal	
LH	E123	50	E101	1	Yes
RH		51	E102	1	

Does continuity exist?

YES >> Replace IPDM E/R. Refer to PCS-31, "Removal and Installation of IPDM E/R".
NO >> Repair the harnesses or connectors.

4.CHECK FRONT FOG LAMP GROUND CIRCUIT

1. Disconnect the front fog lamp connector.
2. Check continuity between the front fog lamp harness connector and ground.

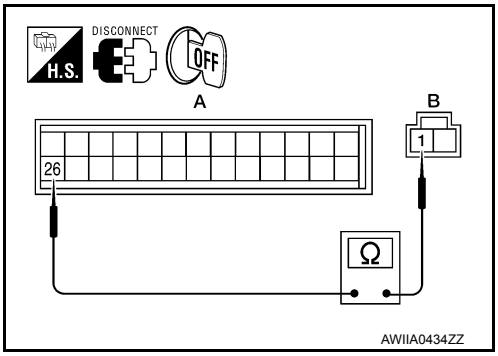


Connector		Terminal	—	Continuity
LH	E101	2	Ground	Yes
RH	E102	2		

Does continuity exist?

YES >> Inspect the fog lamp bulb.
NO >> Repair the harness.

1. Turn ignition switch OFF.
2. Disconnect A/C auto amp. connector.
3. Check continuity between intake sensor harness connector M146 (B) terminal 1 and A/C auto amp. harness connector M49 (A) terminal 26.



1 - 26 : Continuity should exist.

Is the inspection result normal?

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

3. CHECK INTAKE SENSOR

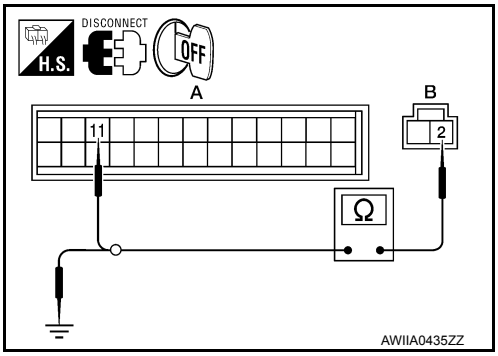
Check intake sensor. Refer to HAC-82, "Intake Sensor Component Inspection".

Is the inspection result normal?

YES >> 1. Replace A/C auto amp. Refer to VTL-7, "Removal and Installation".
2. Using CONSULT, perform “SELF-DIAGNOSIS RESULTS” of HVAC.
NO >> 1. Replace intake sensor. Refer to VTL-11, "Removal and Installation".
2. Using CONSULT, perform “SELF-DIAGNOSIS RESULTS” of HVAC.

4. CHECK CIRCUIT CONTINUITY BETWEEN INTAKE SENSOR AND A/C AUTO AMP.

1. Turn ignition switch OFF.
2. Disconnect A/C auto amp. connector.
3. Check continuity between intake sensor harness connector M146 (B) terminal 2 and A/C auto amp. harness connector M49 (A) terminal 11.



2 - 11 : Continuity should exist.

4. Check continuity between intake sensor harness connector M146 (B) terminal 2 and ground.

2 - Ground : Continuity should not exist.

Is the inspection result normal?

YES >> 1. Replace A/C auto amp. Refer to VTL-7, "Removal and Installation".
2. Using CONSULT, perform “SELF-DIAGNOSIS RESULTS” of HVAC.
NO >> Repair harness or connector.

Intake Sensor Component Inspection

INFOID:0000000009823862

COMPONENT INSPECTION

Intake Sensor

REAR POWER VENT WINDOW MOTOR RH CIRCUIT CHECK

Description

INFOID:0000000009823330

Rear power vent windows OPEN/CLOSE by receiving the signal from rear power vent window switch.

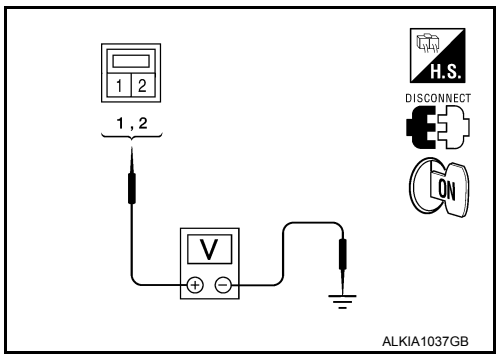
Diagnosis Procedure

INFOID:0000000009823331

Regarding Wiring Diagram information, refer to PWC-66, "Wiring Diagram".

1.CHECK REAR POWER VENT WINDOW SWITCH RH SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear power vent window motor RH.
3. Turn ignition switch ON.
4. Check voltage between rear power vent window motor LH connector B150 terminals 1, 2 and ground.



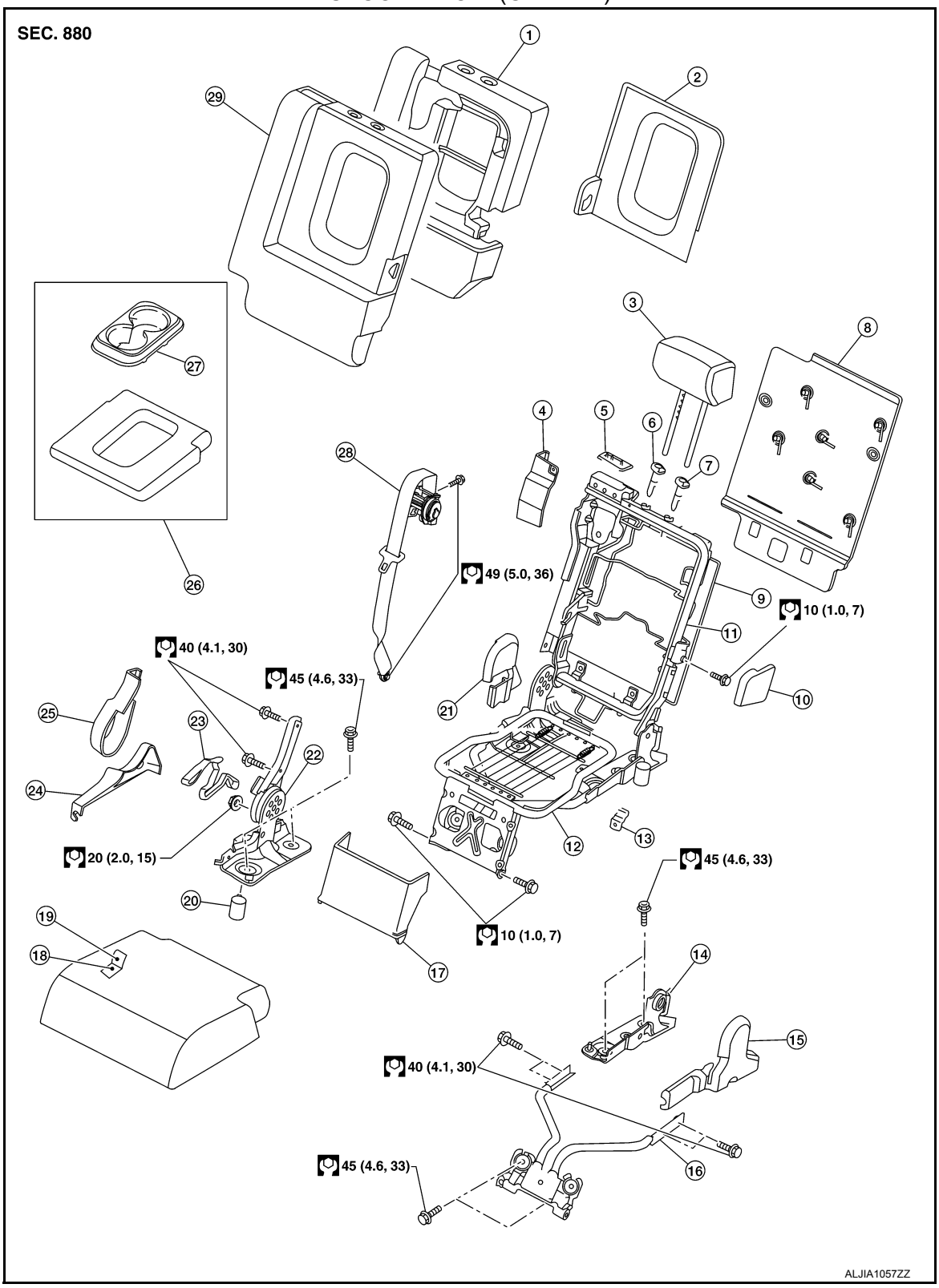
Connector	Terminals		Condition	Voltage (V) (Approx.)
	(+)	(-)		
B150	1	Ground	Opening	Battery voltage
			Closing	0
	2		Opening	0
			Closing	Battery voltage

Is the inspection result normal?

YES >> Replace rear power vent window motor RH. Refer to GW-20, "Removal and Installation (with Rear Power Vent Windows)".

NO >> Repair or replace harness.

SECOND ROW (CENTER)



1. Seatback pad
2. Armrest finisher
3. Headrest
4. Seat belt retractor cover
5. Seat belt retractor finisher
6. Headrest holder (free)
7. Headrest holder (locked)
8. Seatback board
9. Seatback silencer
10. Armrest bracket finisher
11. Seatback frame assembly
12. Seat cushion frame assembly
13. Seat cushion latch assembly
14. Seatback hinge support bracket (LH)
15. Seat frame finisher (LH)
16. Seat base bracket
17. Seat base bracket finisher
18. Seat cushion pad

2.IGNITION SWITCH

After air bag warning lamp lights for 7 seconds, turn ignition switch OFF within 1 second.

>> GO TO 3

3.WAIT TIME

Wait more than 3 seconds.

>> GO TO 4

4.REPEAT STEPS

Repeat steps 1 to 3 twice.

>> GO TO 5

5.IGNITION SWITCH

Turn ignition switch ON.

>> GO TO 6

6.DIAGNOSTIC MODE

SRS system is now in diagnostic mode and AIR BAG warning lamp flashes. Refer to SRC-75, "Trouble Diagnosis without CONSULT".

>> **END**

Diagnosis Procedure (Component Diagnosis)

INFOID:0000000009824243

Recheck SRS after each replacement.

1.HARNESS CONNECTOR

Is there any visible damage to the connector?

YES or NO

YES >> Replace the harness.
NO >> GO TO 2

2.WIRING HARNESS

Is there any visible damage to the harness?

YES or NO

YES >> Replace the harness.
NO >> GO TO 3

3.AIR BAG DIAGNOSIS SENSOR UNIT

Replace the air bag diagnosis sensor unit. Refer to SR-18, "Removal and Installation".

>> GO TO 4

4.RELATED HARNESS

Replace the related harness.

>> **END**

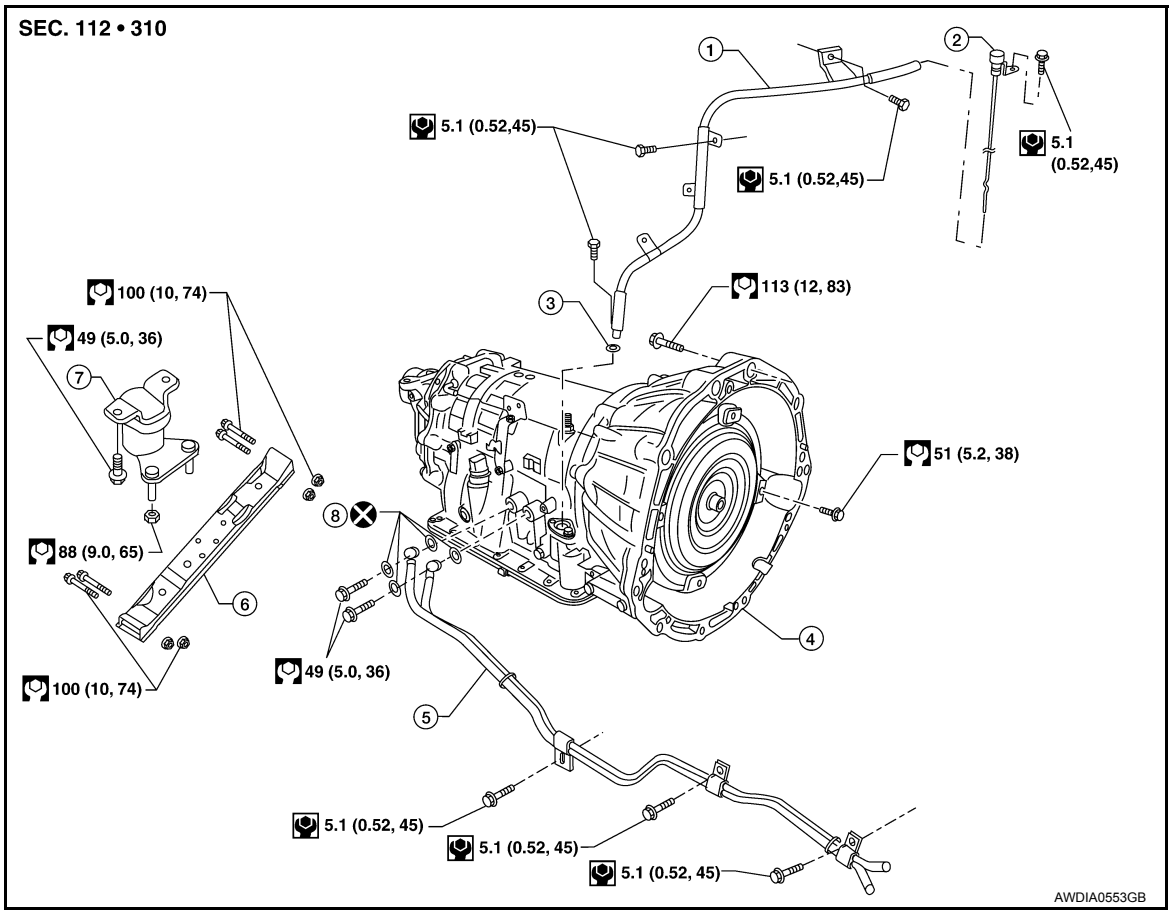
UNIT REMOVAL AND INSTALLATION

TRANSMISSION ASSEMBLY

Removal and Installation (2WD)

INFOID:0000000009824655

COMPONENTS



1. A/T fluid indicator pipe
2. A/T fluid indicator
3. O-ring
4. Transmission assembly
5. Fluid cooler tube
6. A/T cross member
7. Insulator
8. Copper sealing washers

CAUTION:

- **Before replacing transmission assembly, perform "ADDITIONAL SERVICE WHEN REPLACING TRANSMISSION ASSEMBLY". Refer to TM-8, "ADDITIONAL SERVICE WHEN REPLACING TRANSMISSION ASSEMBLY : Special Repair Requirement".**
- **When removing the A/T assembly from engine, first remove the crankshaft position sensor (POS) from the A/T assembly. Be careful not to damage sensor edge.**

NOTE:

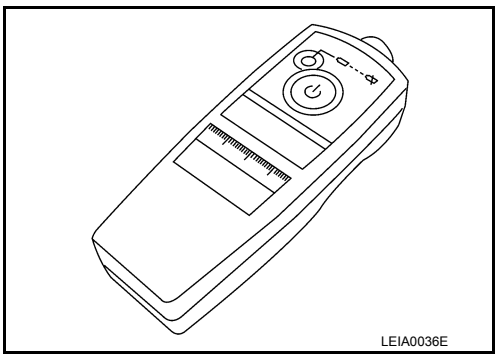
When removing components such as hoses, tubes/lines, etc., cap or plug openings to prevent fluid from spilling.

REMOVAL

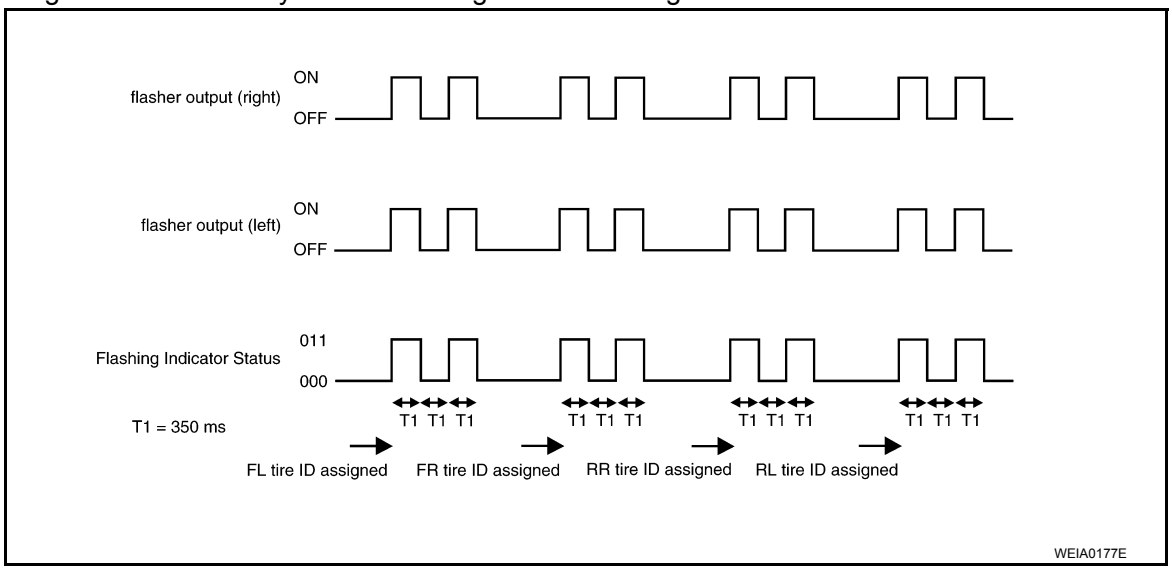
1. Disconnect the battery negative terminal. Refer to PG-77, "Removal and Installation".
2. Remove A/T fluid indicator.
3. Remove engine under cover using power tool. Refer to EXT-15, "Removal and Installation".

1. Turn ignition switch ON. Push the transmitter activation tool against the tire near the front left transmitter. Press the button for 5 seconds. The hazard warning lamps flash per the following diagram.

Tool number : (J-45295)



2. Repeat this procedure for each tire in the following order: FL, FR, RR, RL.
3. When the BCM finishes assigning each tire ID, the BCM flashes the hazard warning lamps and sends flashing indicator status by CAN according to the following time chart.



4. After completing wake up of all transmitters, make sure low tire pressure warning lamp goes out.

ID Registration Procedure

INFOID:0000000009824372

NOTE:
The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs

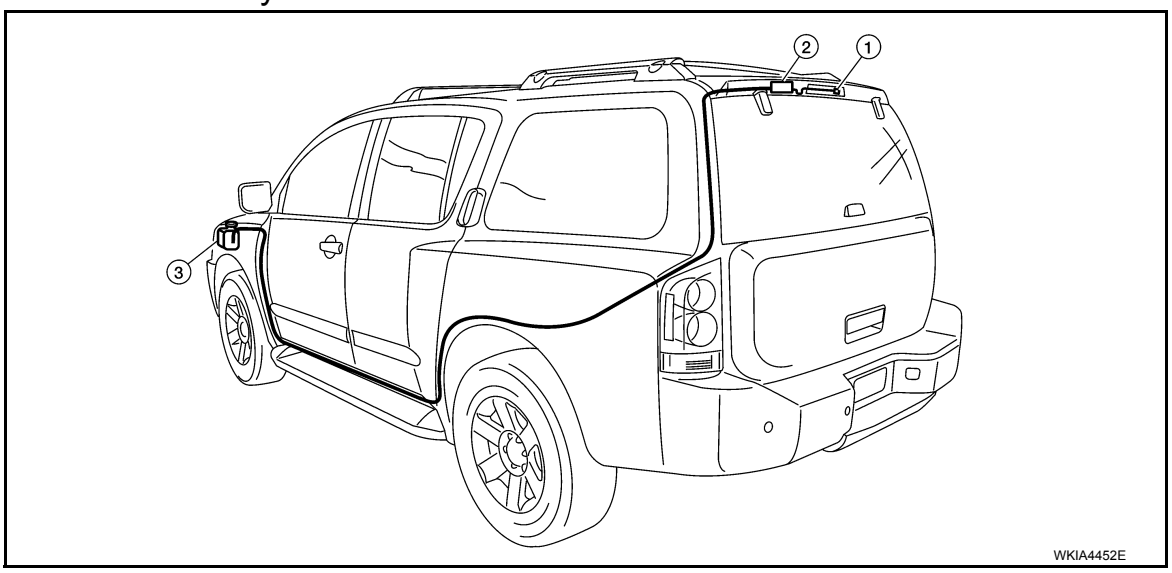
ID REGISTRATION WITH TRANSMITTER ACTIVATION TOOL

NOTE:
This procedure must be done after replacement of a TPMS transmitter or BCM. New replacement transmitters are provided "asleep" and must first be "woken up" using Transmitter Activation Tool J-45295 or Signal Tech II Tool J-50190 before ID registration can be performed. Use the following procedure when using the Transmitter Activation Tool J-45295.

1. Connect CONSULT.
2. Select "ID REGIST" under BCM.

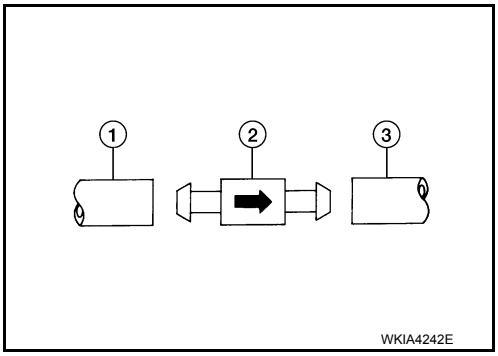
Rear Washer Tube Layout

INFOID:0000000009822468



1. Rear washer nozzle
2. Check valve
3. Washer fluid reservoir

NOTE:
Connect the check valve (2) to the washer fluid reservoir tube (1) so that the directional arrow on the check valve (2) points towards the washer nozzle tube (3).



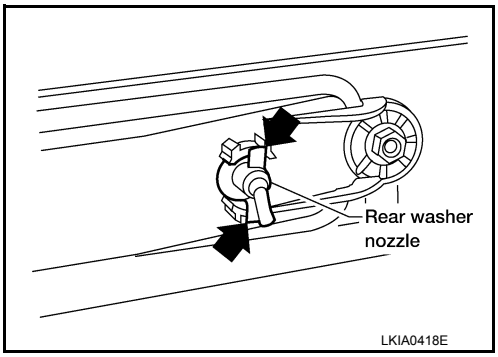
Rear Washer Nozzle

INFOID:0000000009822469

REMOVAL AND INSTALLATION

Removal

1. Remove the rear spoiler. Refer to EXT-30, "Removal and Installation".
2. Release retaining clips, and remove washer nozzle.



Installation
Installation is in the reverse order of removal.

Rear Wiper and Washer Switch

INFOID:0000000009822470

REMOVAL AND INSTALLATION

Refer to WW-75, "Wiper and Washer Switch".