

# ACCELERATOR CONTROL, FUEL & EXHAUST SYSTEMS

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## SECTION FE

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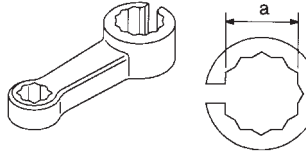
# PREPARATION

Special Service Tool

## Special Service Tool

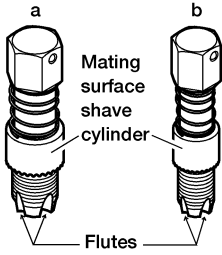
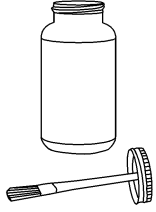
NFFE0001

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
KV10114400 (J-38365) Heated oxygen sensor wrench	 <p data-bbox="1031 331 1421 415">Loosening or tightening front and rear heated oxygen sensors <b>a: 22 mm (0.87 in)</b></p> <p data-bbox="418 506 479 527">NT636</p>

## Commercial Service Tools

NFFE0008

Tool number (Kent-Moore No.) Tool name	Description
(J-43897-18) (J-43897-12) Oxygen sensor thread cleaner	 <p data-bbox="1031 1050 1469 1249">Reconditioning the exhaust system threads before installing a new oxygen sensor (Use with anti-seize lubricant shown below.) <b>a: J-43897-18 (18 mm dia.) for zirconia oxygen sensor</b> <b>b: J-43897-12 (12 mm dia.) for titania oxygen sensor</b></p> <p data-bbox="406 1327 479 1348">AEM488</p>
Anti-seize lubricant (Permatex 133AR or equivalent meeting MIL specification MIL-A-907)	 <p data-bbox="1031 1365 1469 1449">Lubricating oxygen sensor thread cleaning tool when reconditioning exhaust system threads</p> <p data-bbox="406 1642 479 1663">AEM489</p>

# ACCELERATOR CONTROL SYSTEM

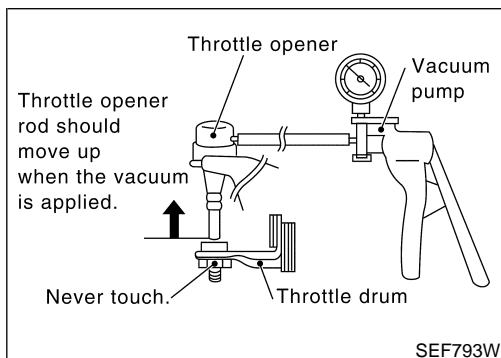
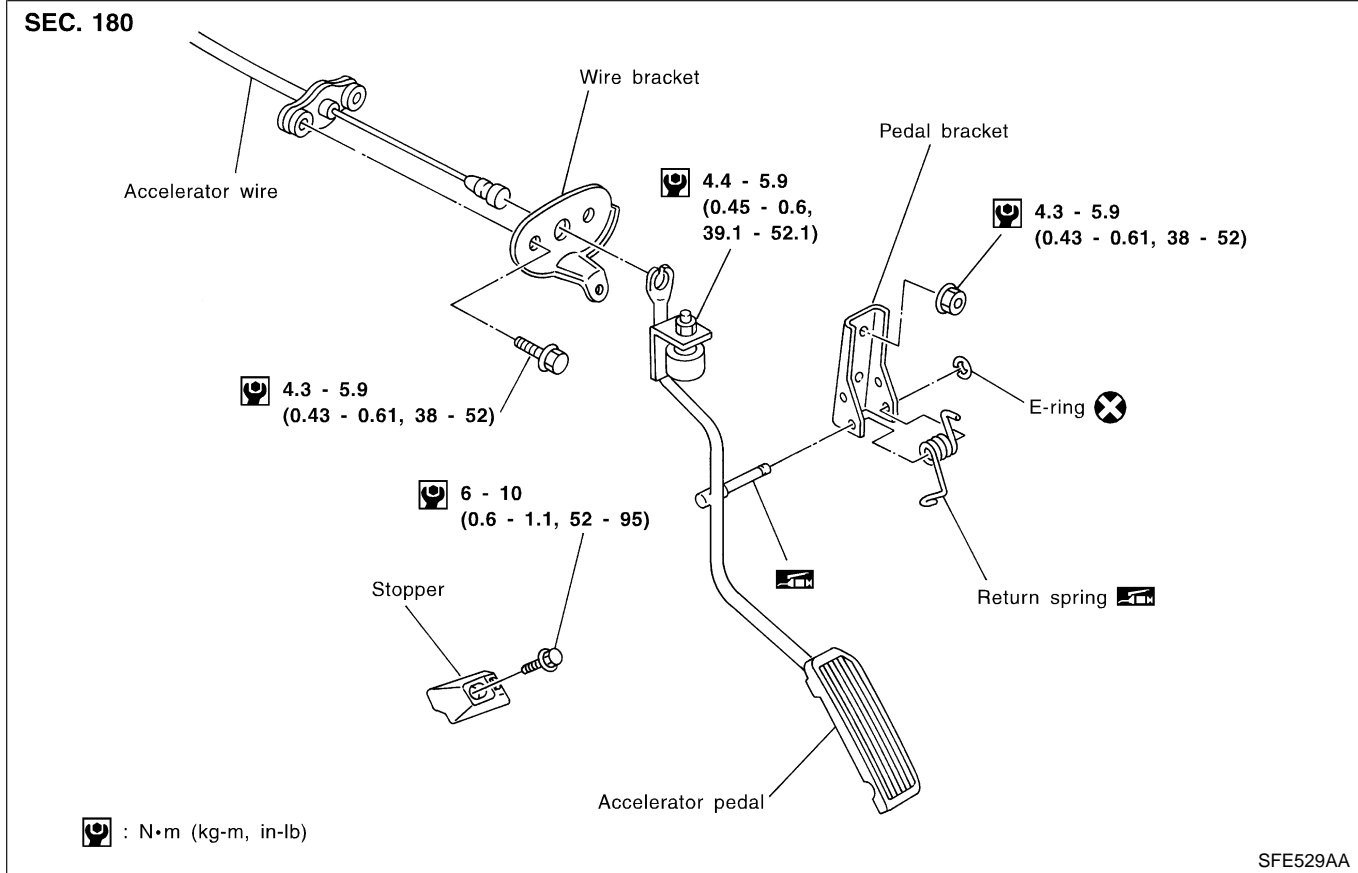
Removal and Installation

## Removal and Installation

NFFE0002

### CAUTION:

- When removing accelerator wire, make a mark to indicate lock nut's initial position.
- Check that throttle valve opens fully when accelerator pedal is fully depressed. Also check that it returns to idle position when pedal is released.
- Check accelerator control parts for improper contact with any adjacent parts.
- When connecting accelerator wire, be careful not to twist or scratch wire.



### Adjusting Accelerator Wire

NFFE0003

#### CAUTION:

- Make sure the ASCD wire is not pulling the throttle drum.
- For ASCD wire adjustment, refer to EL-215, "AUTOMATIC SPEED CONTROL DEVICE (ASCD)".

1. Remove the vacuum hose connected to the throttle opener.
2. Connect suitable vacuum hose to vacuum pump as shown left.
3. Apply vacuum [more than  $-40.0$  kPa ( $-300$  mmHg,  $-11.81$  inHg)] until the throttle drum becomes free from the rod of the throttle opener.

Make sure that there is clearance between the throttle

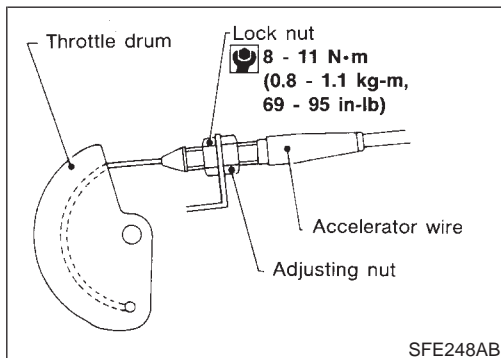
# ACCELERATOR CONTROL SYSTEM

## Adjusting Accelerator Wire (Cont'd)

### drum and rod.

If NG, refer to EC-115, "Basic Inspection".

If OK, go to following step.



4. Loosen lock nut.
5. Tighten accelerator adjusting nut until throttle drum starts to move.
6. From that position, turn back adjusting nut 1.5 to 2 turns, and secure lock nut.
7. Release vacuum from the throttle opener.
8. Remove vacuum pump and vacuum hose from the throttle opener.
9. Reinstall the original vacuum hose to the throttle opener securely.

## Removal and Installation

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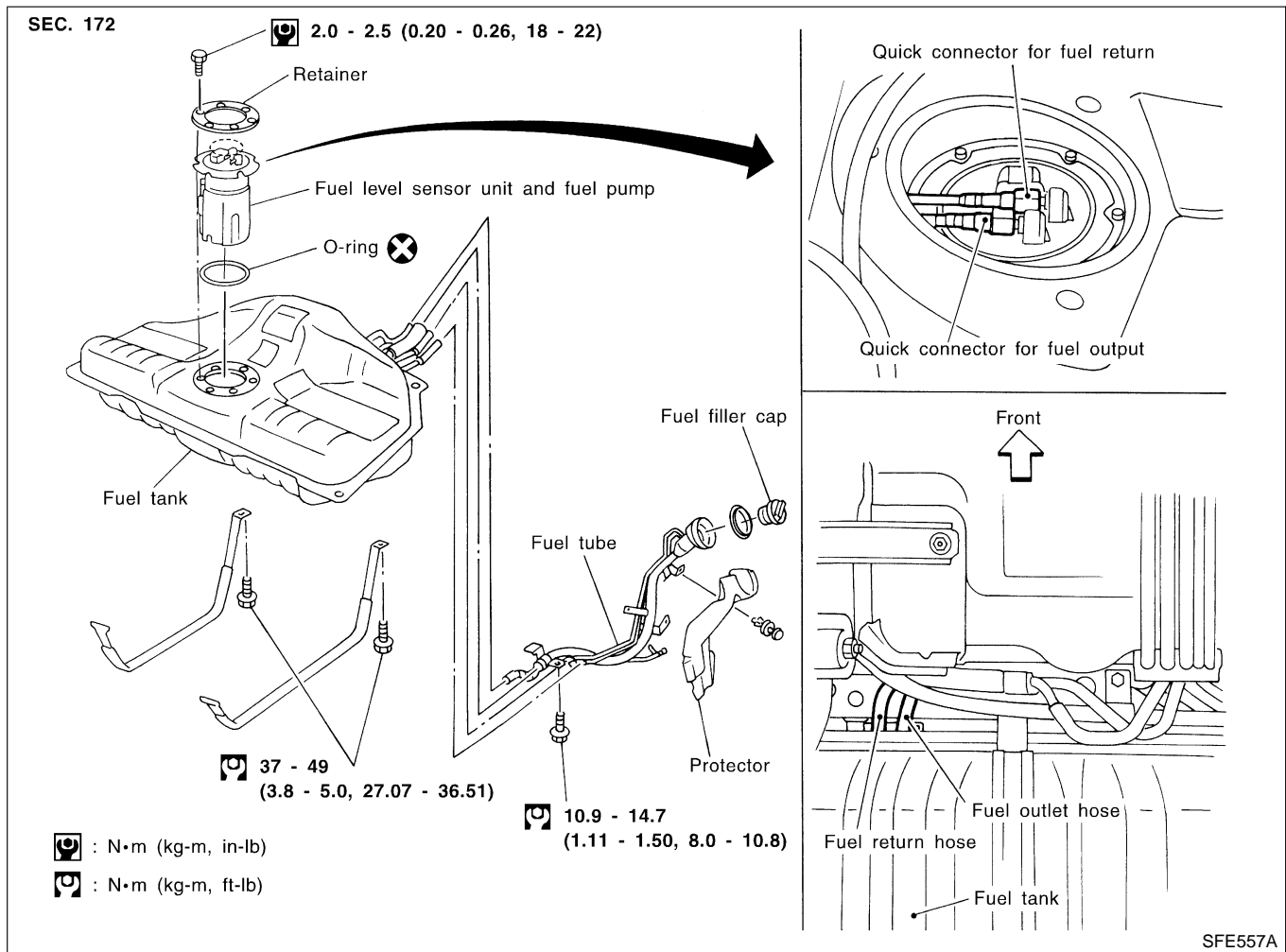
### WARNING:

When replacing fuel line parts, be sure to observe the following.

- Put a "CAUTION: FLAMMABLE" sign in workshop.
- Be sure to furnish workshop with a CO<sub>2</sub> fire extinguisher.
- Do not smoke while servicing fuel system. Keep open flames and sparks away from work area.

### CAUTION:

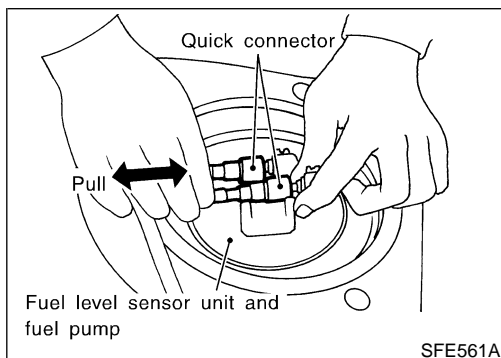
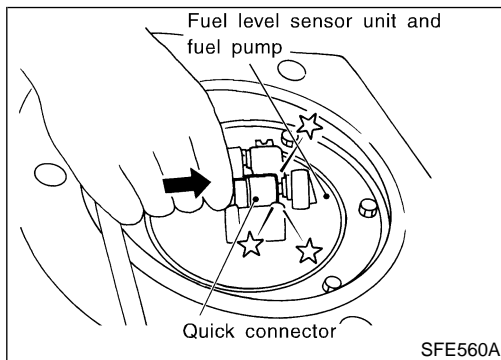
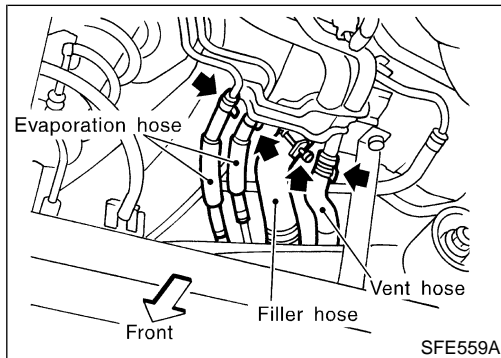
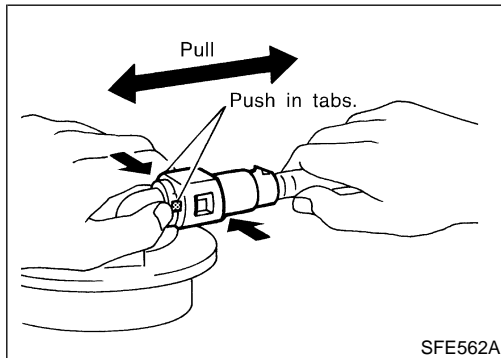
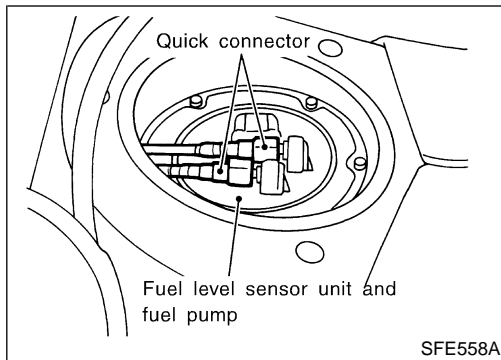
- Before removing fuel line parts, carry out the following procedures:
  - a) Put drained fuel in an explosion-proof container and put the lid on securely.
  - b) Release fuel pressure from fuel line. Refer to EC-54, "Fuel Pressure Release".
  - c) Disconnect battery ground cable.
- Always replace O-ring and clamps with new ones.
- Do not kink or twist tubes when they are being installed.
- Do not tighten hose clamps excessively to avoid damaging hoses.
- After installing tubes, run engine and check for fuel leaks at connections.
- Use only a genuine NISSAN fuel filler cap as a replacement. If an incorrect fuel filler cap is used, the MIL may come on.
- For inspection, refer to EC-42, "On Board Refueling Vapor Recovery (ORVR)".



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# FUEL SYSTEM

## Fuel Tank



## Fuel Tank

### REMOVAL

1. Release fuel pressure from fuel line. Refer to EC-54, "Fuel Pressure Release".
2. Disconnect battery ground cable.
3. Drain fuel from fuel tank.
4. Disconnect electrical connector.
5. Remove the quick connector as follows.
  - a. Put mating marks on tubes and connectors for correct installation.
  - b. Hold the sides of the connector, push in tabs, and pull out the tube inserted in the retainer.

### CAUTION:

- The tube can be removed when the push in tabs are completely depressed. Do not twist it more than necessary.
- Do not use any tools to remove the quick connector.
- Keep clean the connecting portion of the tube and the quick connector.

6. Disconnect filler hose, vent hose and evaporation hose at fuel tank side.
7. Remove fuel tank mounting band bolts while supporting fuel tank.
8. Remove fuel tank.

### INSTALLATION

To install, reverse the removal procedure. Connect the quick connector as follows:

- Align mating marks on tubes and connectors for correct installation.
- Be sure that the connecting portion of the tube and the quick connectors is clean and smooth.
- Align push in tabs with retainer openings.
- Insert tube into the center of the connector until you hear a click.

After connecting quick connector, make sure the connection is firmly made using the following method.

- Pull on the fuel tube and connector to make sure they are firmly connected.
- Start the engine, increase engine speed and verify that there are no leaks.

# FUEL SYSTEM

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter

## Fuel Pump, Fuel Level Sensor Unit and Fuel Filter

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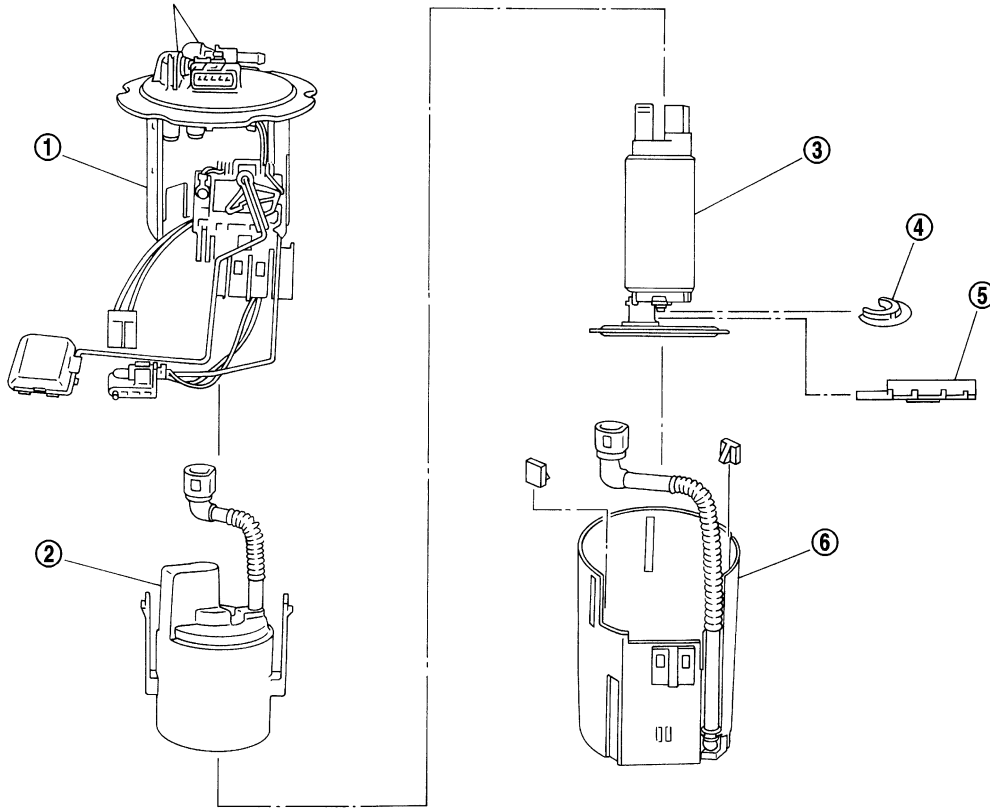
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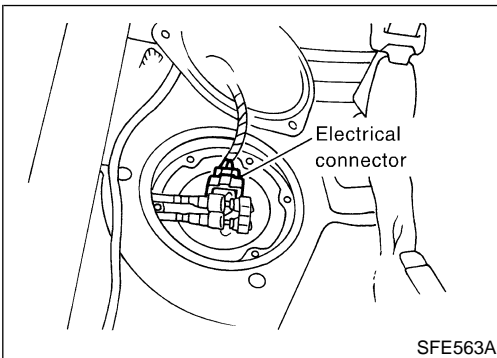
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### SEC. 172 Quick connectors

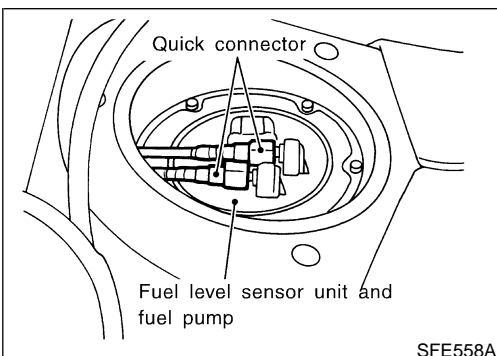


- ① Fuel level sensor unit
- ② Fuel filter
- ③ Fuel pump
- ④ Pump support rubber
- ⑤ Fuel pump bracket
- ⑥ Chamber

SFE565A



SFE563A



SFE558A

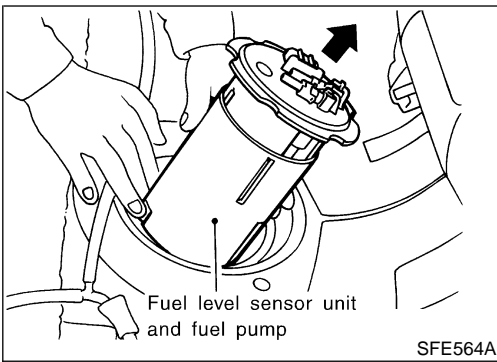
### REMOVAL

NFFE0007S01

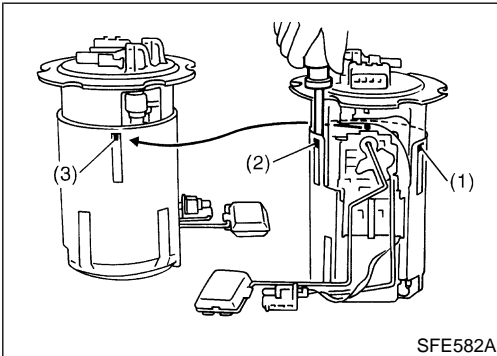
1. Release fuel pressure from fuel line.  
**Refer to EC-54, "Fuel Pressure Release".**
2. Remove rear seat bottom. Refer to BT-50, "Removal and Installation".
3. Remove inspection hole cover located under the rear seat.
4. Disconnect electrical connector.
5. Remove the quick connectors.
  - For removal of quick connectors, refer to step 5. of "Fuel Tank Removal".
6. Remove the six screws.

# FUEL SYSTEM

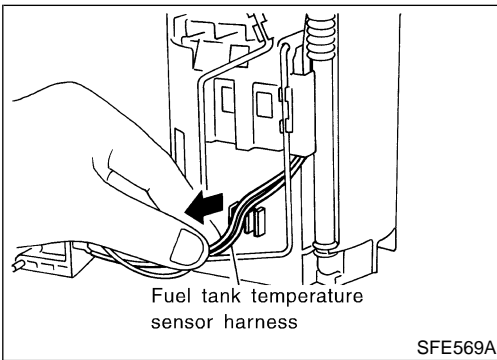
Fuel Pump, Fuel Level Sensor Unit and Fuel Filter (Cont'd)



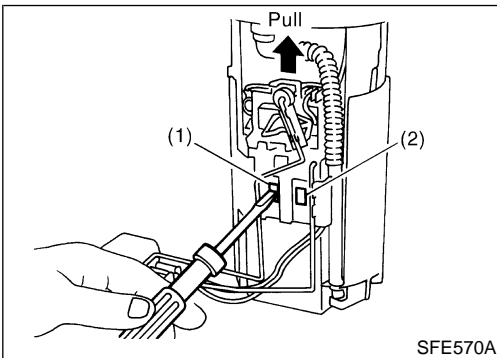
7. Pull out the fuel level sensor unit and fuel pump.
  - Do not damage the arm of the fuel level sensor and fuel tank temperature sensor.



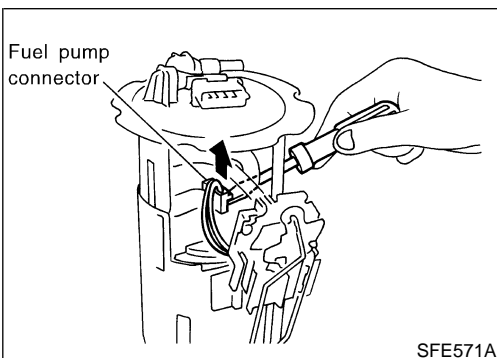
8. Remove flange of fuel level sensor unit and fuel pump.
  - Using a screwdriver, remove the snap fit portion in the order of (1), (2) and (3) as shown in the figure at left.



9. Pull out the fuel tank temperature sensor harness.



10. Push fuel level sensor flange.
  - Using a screwdriver, remove the snap fit portion in the order of (1) and (2) as shown in the figure at left.
11. Pull up the fuel level sensor.

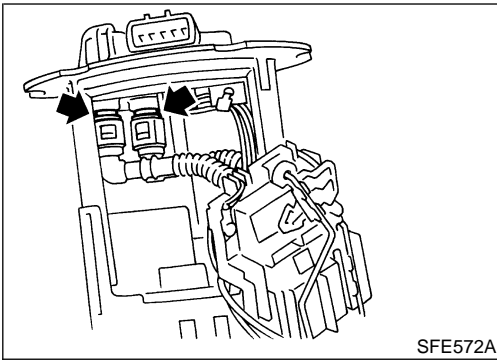


12. Disconnect fuel pump connector.



# FUEL SYSTEM

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter (Cont'd)



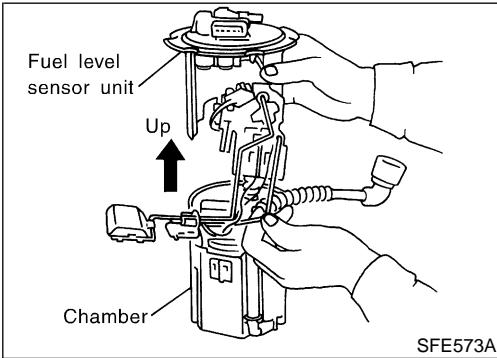
13. Remove quick connectors from fuel level sensor unit.
  - Put mating marks on tubes and connectors for correct installation.

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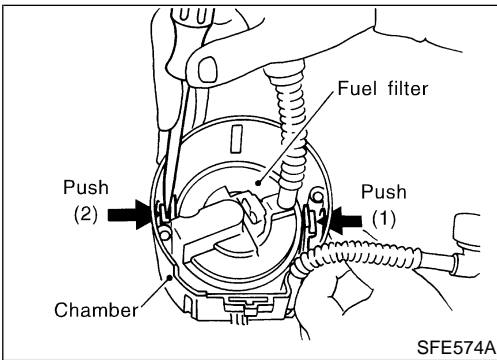


14. Pull up the fuel level sensor unit from chamber.

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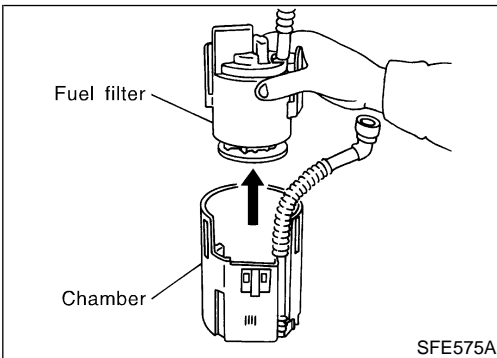
15. Remove fuel filter from chamber.
  - Using a screwdriver, remove the snap fit portion in the order of (1) and (2) as shown in the figure at left.

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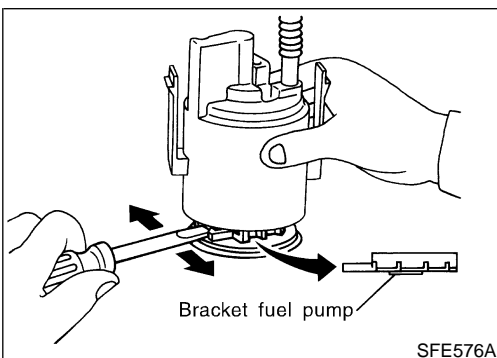
16. Separate the fuel filter and chamber.

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17. Remove fuel pump bracket, then pull out from the fuel filter.

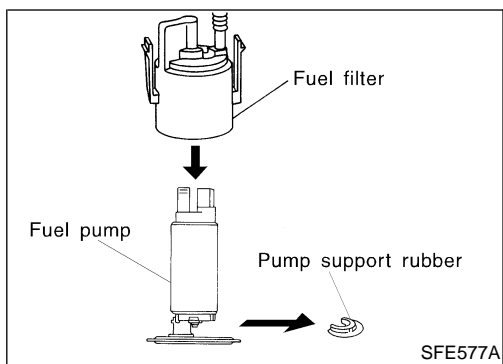
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## FUEL SYSTEM

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter (Cont'd)



18. Remove fuel pump, then push down the fuel pump as shown in the figure at left.

19. Remove the pump support rubber from the fuel pump.

### INSTALLATION

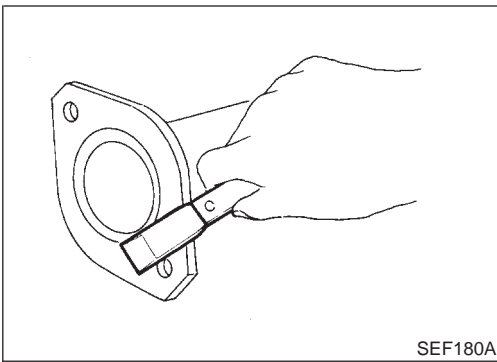
Installation is in reverse order of removal.

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# EXHAUST SYSTEM

Removal and Installation

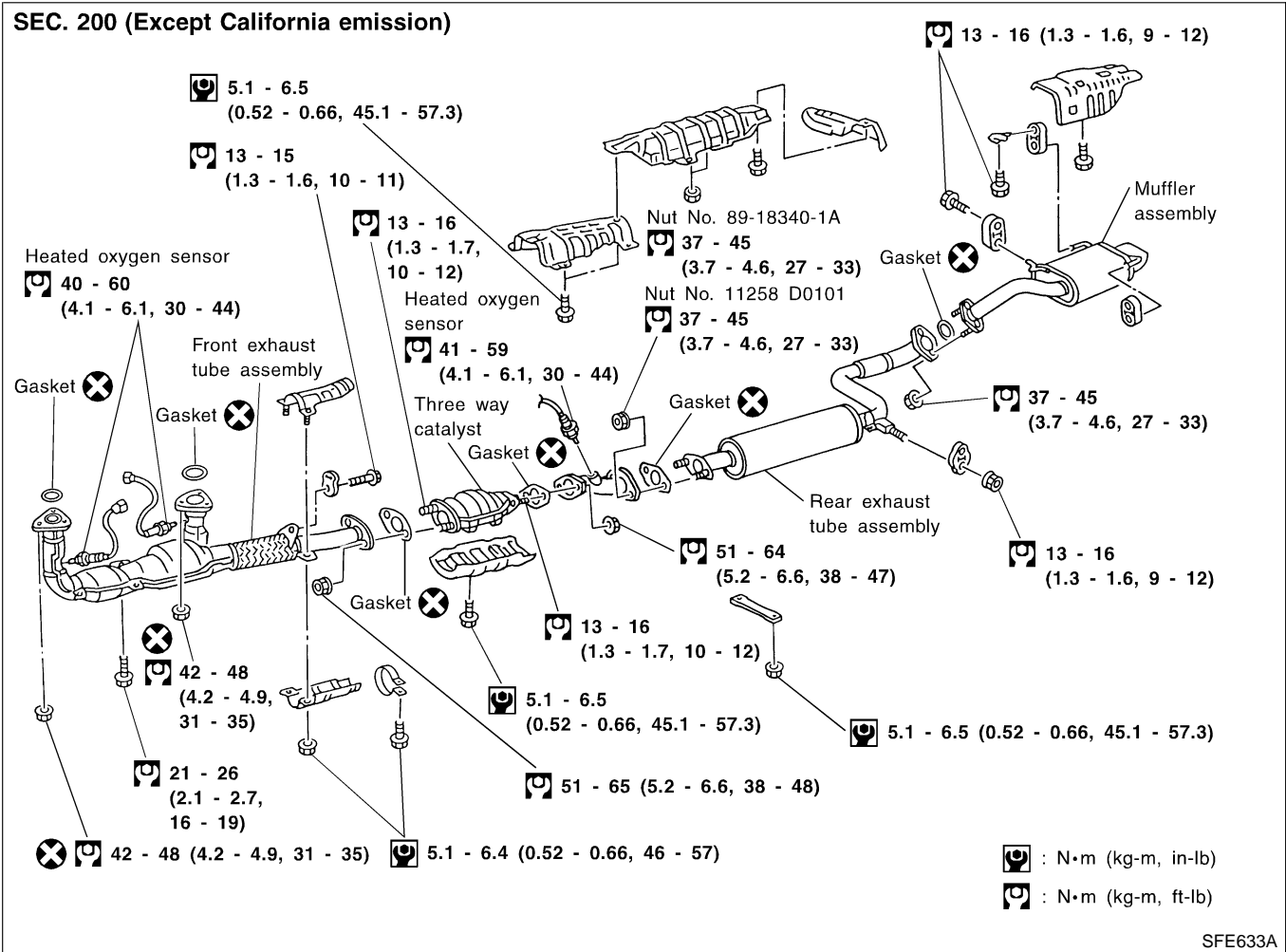
NFFE0005



## Removal and Installation

### CAUTION:

- Always replace exhaust gaskets with new ones when reassembling. If gasket remains on flange surface, scrape off completely as shown at left.
- With engine running, check all tube connections for exhaust gas leaks, and entire system for unusual noises.
- Check to ensure that mounting brackets and mounting insulators are installed properly and free from undue stress. Improper installation could result in excessive noise or vibration.
- Discard any heated oxygen sensor which has been dropped from a height of more than 0.5 m (19.7 in) onto a hard surface such as a concrete floor; use a new one.
- Before installing a new oxygen sensor, clean exhaust system threads using oxygen sensor thread cleaner tool, J-43897-18 or J-43897-12, and apply anti-seize lubricant.
- Do not overtorque the oxygen sensor. Doing so may cause damage to the oxygen sensor, resulting in the MIL coming on.

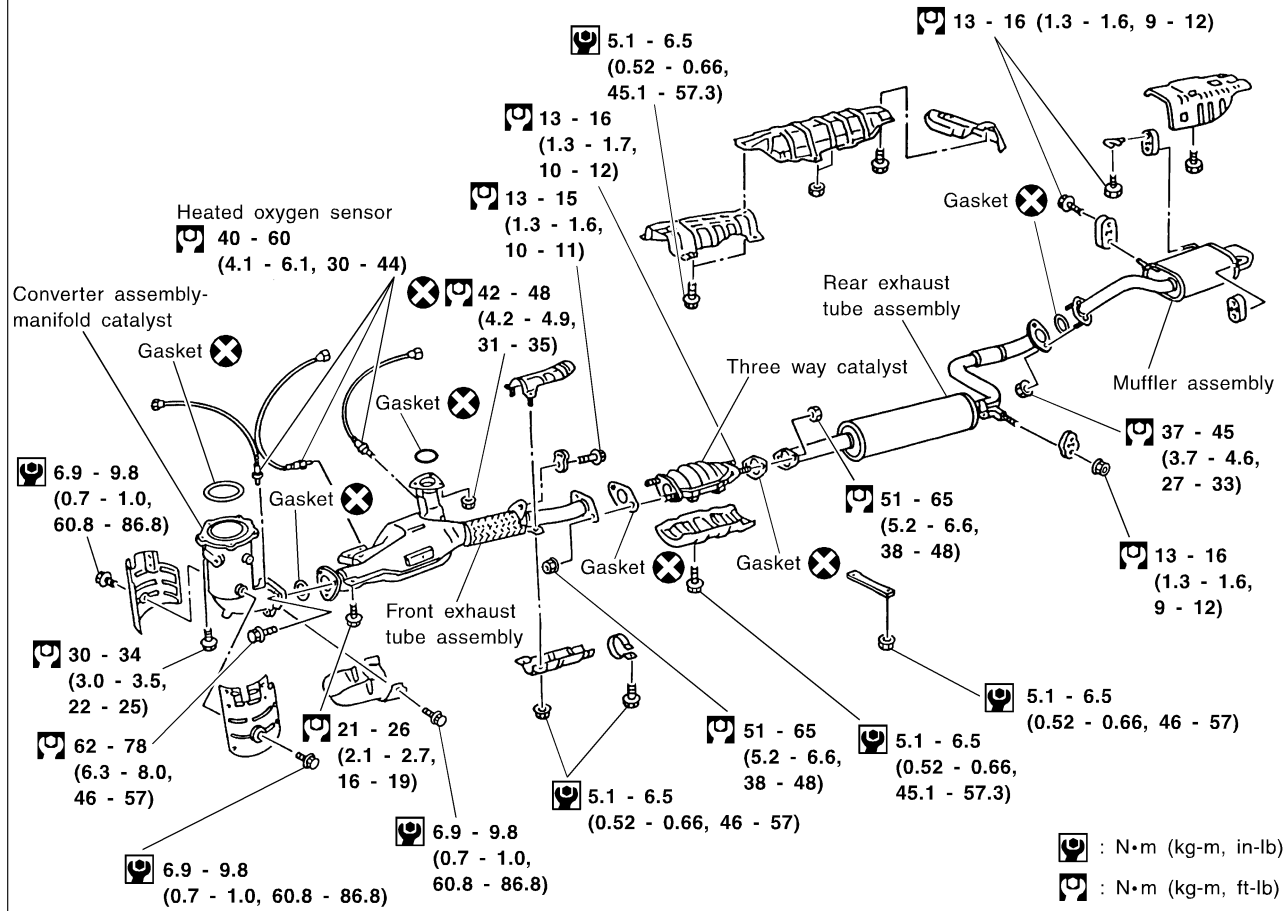


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# EXHAUST SYSTEM

Removal and Installation (Cont'd)

## SEC. 200 (California emission)



SFE634A