

SECTION **FL**  
FUEL SYSTEM

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# PREPARATION

## PREPARATION

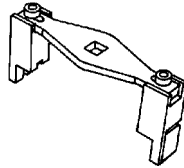
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### Special Service Tools

EBS00GJJ

The actual shape of the Kent-Moore tools may differ from those tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-38879-B) Fuel tank lock ring wrench	Removing and installing fuel tank lock ring

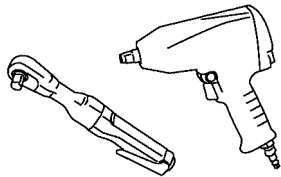


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### Commercial Service Tools

EBS00EVO

Tool name	Description
Power tool	Loosening bolts and nuts

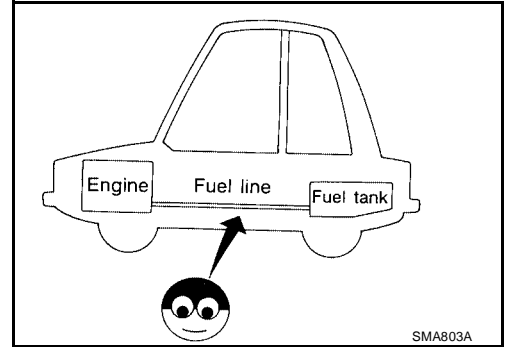


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## FUEL SYSTEM

### Checking Fuel Lines

Inspect fuel lines, filler cap and tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration. If necessary, repair or replace faulty parts as necessary.



### General Precautions

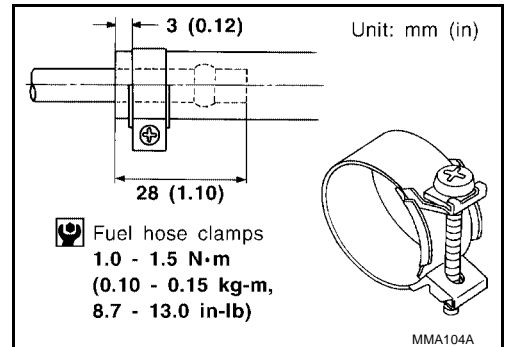
#### WARNING:

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

- Put a “CAUTION: FLAMMABLE” sign in the work area.
- Be sure to work in a well ventilated area and have a CO<sup>2</sup> fire extinguisher.
- Do not smoke while working on the fuel system. Keep open flames and sparks away from the work area.

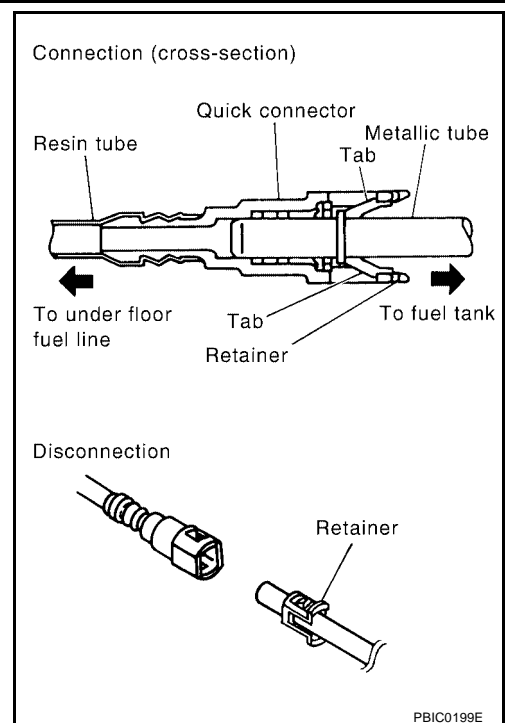
#### CAUTION:

- Before removing fuel line parts, carry out the following procedures:
  - Put drained fuel in an explosion-proof container and put the lid on securely. Keep the container in safe area.
  - Release fuel pressure from the fuel lines. Refer to [EC-50, "FUEL PRESSURE RELEASE" \(QR25DE\)](#), [EC-675, "FUEL PRESSURE RELEASE" \(VQ35DE\)](#).
  - Disconnect the battery ground cable.
- Always replace O-rings 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. Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end. Tightening torque specifications are the same for all rubber hose clamps. Ensure that screw does not contact adjacent parts.



## FUEL SYSTEM

- After connecting the fuel tube quick connectors, make sure the quick connectors are secure. Ensure that the connector and resin tube do not contact any adjacent parts.
- a) Apply fuel pressure to the fuel lines by turning the ignition switch to ON (without starting the engine). Then check for fuel leaks at the fuel tube connections.
- b) Start the engine and rev the engine, then check for fuel leaks at the fuel tube connections.
- 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 servicing "Evaporative Emission System" parts, refer to [EC-618, "EVAPORATIVE EMISSION SYSTEM" \(QR25DE\)](#), [EC-1297, "EVAPORATIVE EMISSION SYSTEM" \(VQ35DE\)](#).
- For servicing "On Board Refueling Vapor Recovery (ORVR)" parts, refer to [EC-624, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)" \(QR25DE\)](#), [EC-1303, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)" \(VQ35DE\)](#).

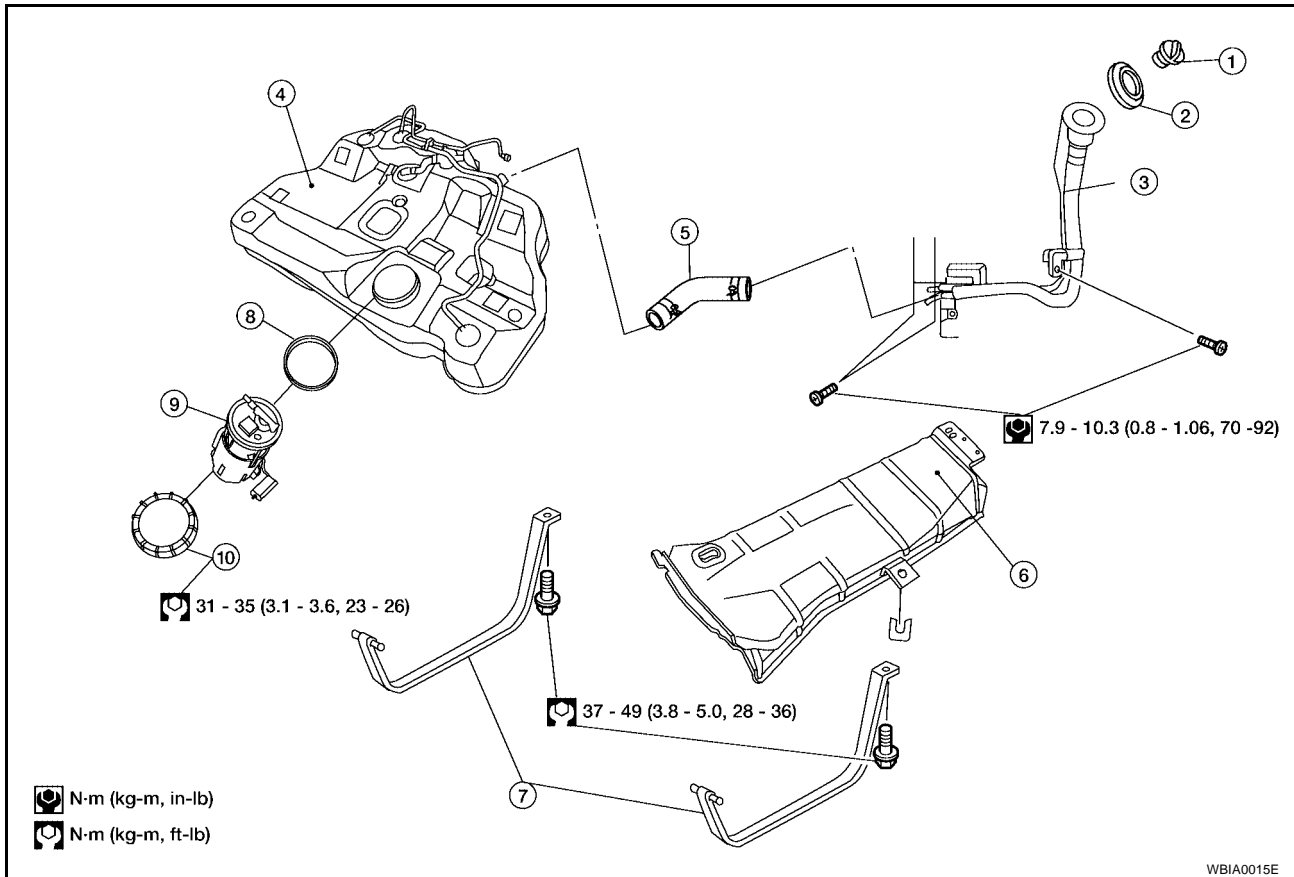


# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

## FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY PFP:17042

### Removal and Installation

EBS00EVR



- |                              |                     |  |
|------------------------------|---------------------|--|
| 1. Fuel filler cap           | 2. Grommet          | 3. Fuel filler tube  |
| 4. Fuel tank                 | 5. Fuel filler hose | 6. Fuel tank protector   |
| 7. Fuel tank mounting straps | 8. Ring seal        | 9. Fuel level sensor unit, fuel filter, and fuel pump assembly |
| 10. Locking ring             |                     |  |

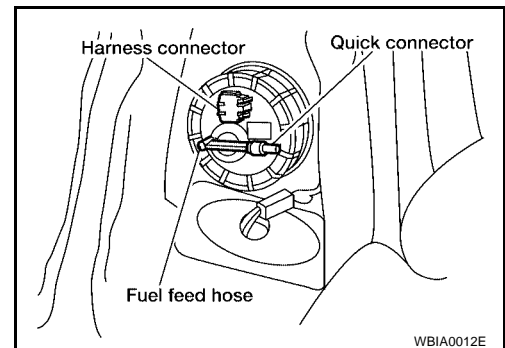
### REMOVAL

#### **WARNING:**

Read "General Precautions" before working on the fuel system.

Refer to [FL-3, "General Precautions"](#).

1. Unscrew the fuel filler cap to release the pressure inside the fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-50, "FUEL PRESSURE RELEASE"](#) (QR25DE), [EC-675, "FUEL PRESSURE RELEASE"](#) (VQ35DE).
3. Remove the rear seat bottom. Refer to [SE-18, "Removal and Installation"](#).
4. Remove the fuel pump inspection hole cover.
5. Disconnect the harness connector, and fuel feed hose from the fuel level sensor unit, fuel filter, and fuel pump assembly.



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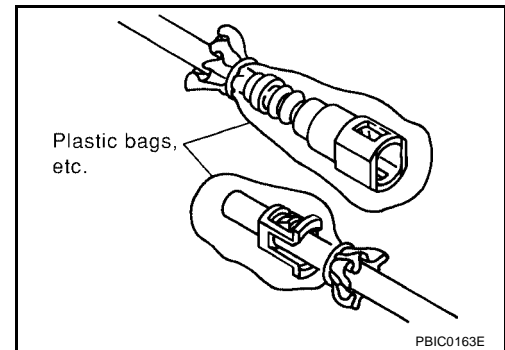
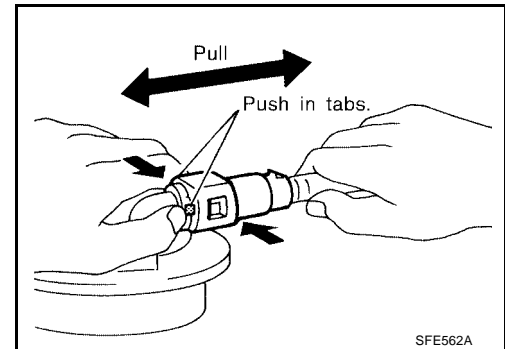
# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

Remove the quick connector as follows:

- Hold the sides of the connector, push in tabs and pull out the tube.
- If the connector and the tube are stuck together, push and pull several times until they start to move. Then disconnect them by pulling.

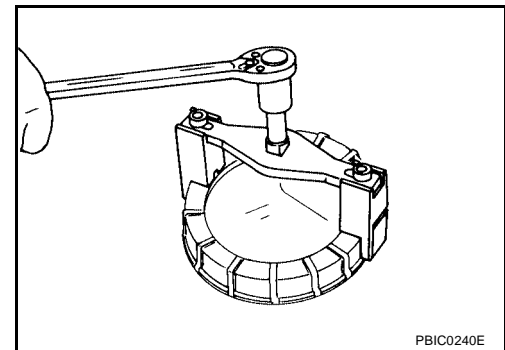
**CAUTION:**

- The tube can be removed when the tabs are completely depressed. Do not twist it more than necessary.
- Do not use any tools to remove the quick connector.
- Keep the resin tube away from heat. Be especially careful when welding near the tube.
- Prevent acid liquid such as battery electrolyte, etc. from getting on the resin tube.
- Do not bend or twist the tube during installation and removal.
- Only when the tube is replaced, remove the remaining retainer on the tube or fuel level sensor, fuel filter, and fuel pump assembly.
- When the tube or fuel level sensor, fuel filter, and fuel pump assembly is replaced, also replace the retainer with a new one (green colored retainer).
- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags or something similar.



6. Remove the lock ring using Tool as shown.

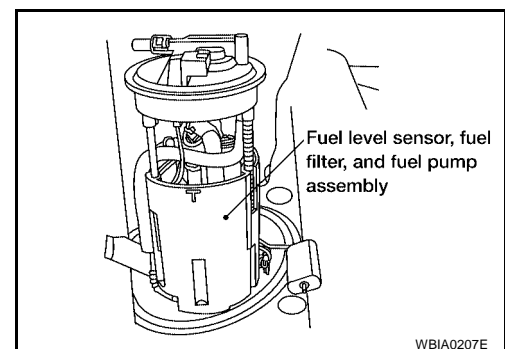
**Tool** : — (J-38879-B)



7. Remove the fuel level sensor, fuel filter, and fuel pump assembly.

**CAUTION:**

**Do not bend the float arm during removal.**



## INSPECTION AFTER REMOVAL

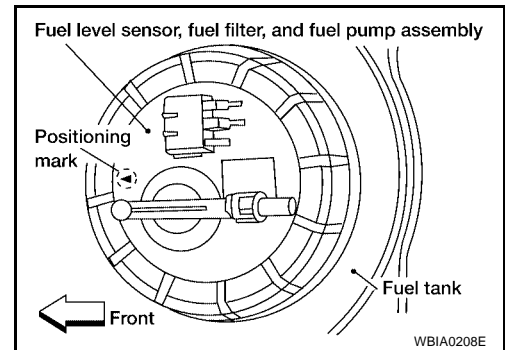
Make sure the fuel level sensor, fuel filter, and fuel pump is free from defects and foreign materials.

# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

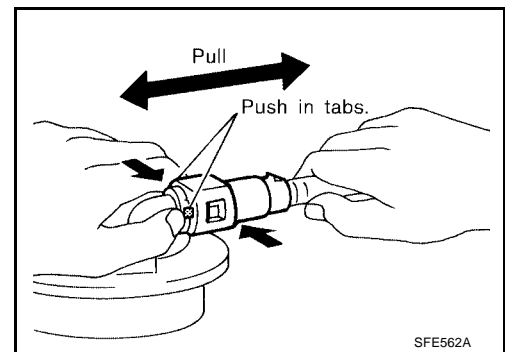
## INSTALLATION

Installation is in the reverse order of removal.

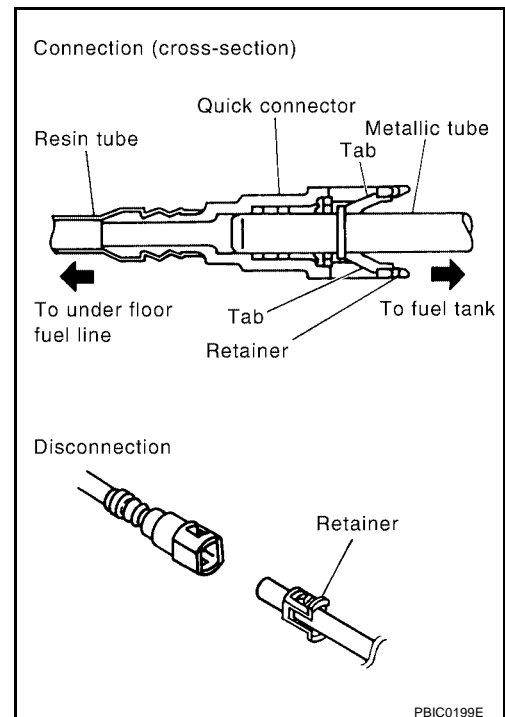
- Install the fuel level sensor, fuel filter, and fuel pump assembly with the front mark (arrow) facing the front of the vehicle.



- Connect the quick connector as follows:
  1. Check the connection for damage or any foreign materials.
  2. Align the connector with the tube, then insert the connector straight into the tube until a click is heard.
  3. After the tube is connected, make sure the connection is secure by performing the following checks:
    - Pull the tube and the connector to make sure they are securely connected.



- Visually confirm that the two retainer tabs are connected to the quick connector.



## INSPECTION AFTER INSTALLATION

Use the following procedure to check for fuel leaks.

1. Turn the ignition switch to ON (without starting the engine). Then check the connections for fuel leaks by applying fuel pressure to the fuel piping.
2. Start the engine and let it idle and make sure there are no fuel leaks at the fuel system connections.

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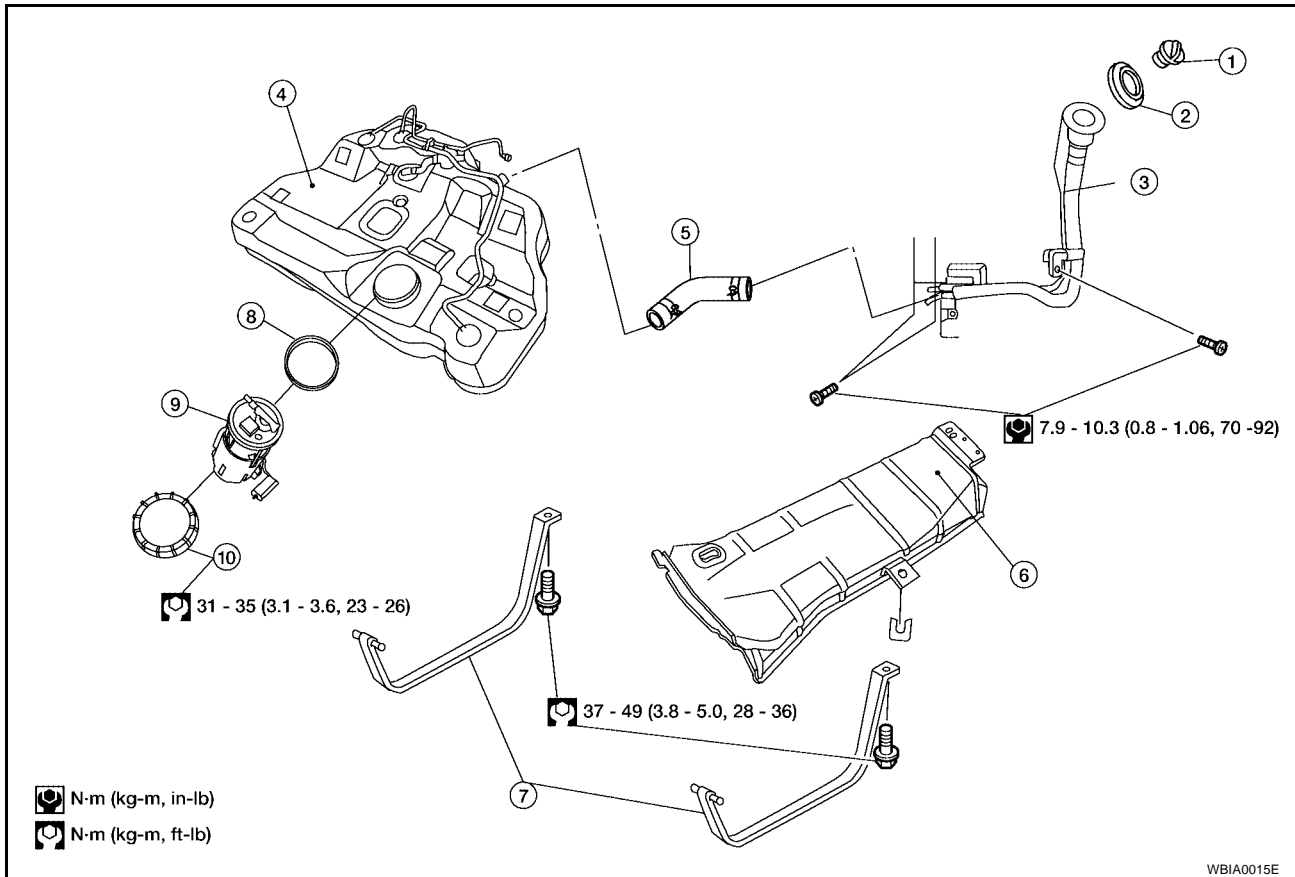
# FUEL TANK

PF17202

## FUEL TANK

### Removal and Installation

EBS00EVS



- |                              |                     |   |
|------------------------------|---------------------|---|
| 1. Fuel filler cap           | 2. Grommet          | 3. Fuel filler tube                                       |
| 4. Fuel tank                 | 5. Fuel filler hose | 6. Fuel tank protector                                    |
| 7. Fuel tank mounting straps | 8. Ring seal        | 9. Fuel level sensor, fuel filter, and fuel pump assembly |
| 10. Lock ring                |                     |   |

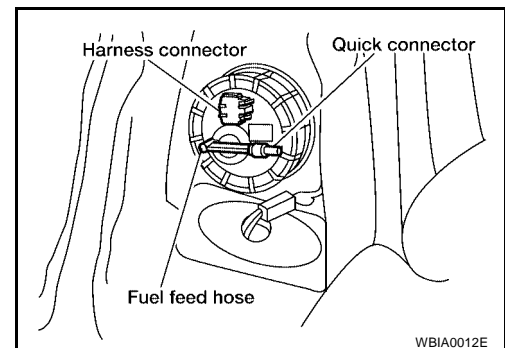
### REMOVAL

#### **WARNING:**

Read "General Precautions" before working on the fuel system.

Refer to [FL-3, "General Precautions"](#).

1. Release fuel pressure from fuel line, Refer to [EC-50, "FUEL PRESSURE RELEASE"](#) (QR25DE), [EC-675, "FUEL PRESSURE RELEASE"](#) (VQ35DE).
2. Open the fuel filler cap to release the pressure inside the fuel tank.
3. Remove rear seat bottom. Refer to [SE-18, "Removal and Installation"](#).
4. Remove the inspection hole cover, harness connector and fuel feed hose quick connector. Refer to [FL-5, "Removal and Installation"](#).
5. Remove the center exhaust tube, with muffler(s). Refer to [EX-7, "Removal and Installation"](#).

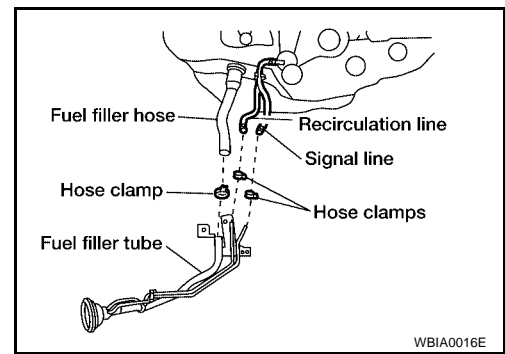


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# FUEL TANK

6. Disconnect the fuel filler hose, recirculation hose and signal hose at the fuel tank side.
7. Disconnect the three parking brake cable mounting brackets on each cable and position the cables out of the way. Refer to [PB-2, "Components"](#).
8. Remove the fuel tank protector.
9. Disconnect the fuel tank mounting straps while supporting the fuel tank.
10. Remove the fuel tank.



## INSTALLATION

1. Installation is in the reverse order of removal.
  - Before tightening the fuel tank mounting straps, temporarily install the filler hose, recirculation hose, and signal hose. Tighten all fasteners to specification.
  - To connect the quick connector, refer to [FL-5, "Removal and Installation"](#).

## Inspection After Installation

EBS00EVT

- Use the following procedure to check for fuel leaks.
1. Turn the ignition switch ON (without starting the engine). Then check the connections for fuel leaks by applying fuel pressure to the fuel piping.
  2. Run the engine and check for fuel leaks at the fuel system tube and hose connections.

# SERVICE DATA AND SPECIFICATIONS (SDS)

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## SERVICE DATA AND SPECIFICATIONS (SDS)

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### Standard and Limit QR25DE

EBS00EVU

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Fuel tank capacity	75.5 ℓ (20 gal)
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### VQ35DE

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Fuel tank capacity	75.5 ℓ (20 gal)
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