

SECTION **FL**
FUEL SYSTEM

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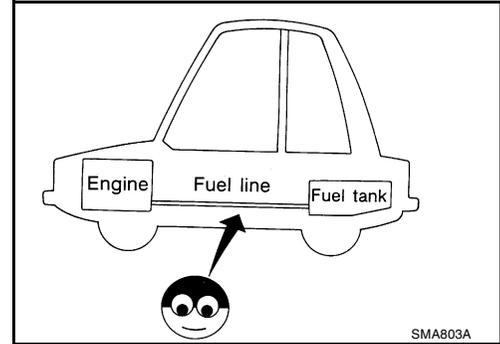
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FUEL LEVEL SENSOR UNIT AND FUEL PUMP			

FUEL SYSTEM

Checking Fuel Lines

EBS00HZE

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



General Precautions

EBS00HZF

WARNING:

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

- Put a "CAUTION: FLAMMABLE" sign in workshop.
- Do not smoke while servicing fuel system. Keep open flames and sparks away from work area.
- Be sure to furnish the workshop with a CO₂ fire extinguisher.

CAUTION:

- Before removing fuel line parts, carry out the following procedures:
 - Put drained fuel in an explosion-proof container and put lid on securely.
 - Release fuel pressure from fuel line. Refer to [EC-46, "FUEL PRESSURE RELEASE" \(KA24DE\)](#), [EC-616, "FUEL PRESSURE RELEASE" \(VG33E\)](#), [EC-1218, "FUEL PRESSURE RELEASE" \(VG33ER\)](#).
 - Disconnect the battery ground cable.

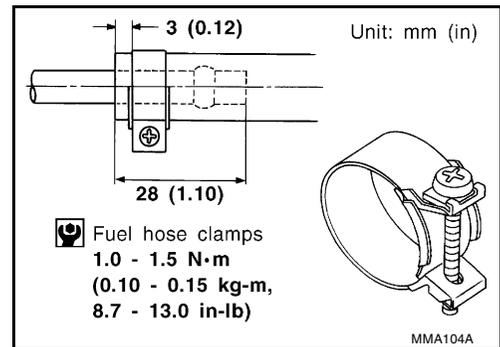
- Always replace the O-ring with a new one.
- Do not kink or twist hose and tube while installing.
- Do not tighten hose clamps excessively to avoid damaging hoses.

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.

- For inspection and installation of EVAP system parts, refer to [EC-564, "EVAPORATIVE EMISSION SYSTEM" \(KA24DE\)](#), [EC-1164, "EVAPORATIVE EMISSION SYSTEM" \(VG33E\)](#), [EC-1740, "EVAPORATIVE EMISSION SYSTEM" \(VG33ER\)](#).
- For inspection and installation of ORVR system parts, refer to [EC-570, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)" \(KA24DE\)](#), [EC-1172, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)" \(VG33E\)](#), [EC-1748, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)" \(VG33ER\)](#).



- After installing tubes, make sure there is no fuel leakage at connections in the following steps.
 - a) Apply fuel pressure to fuel lines by turning ignition switch ON (with engine stopped). Then check for fuel leaks at connections.
 - b) Start the engine and let it idle, then 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.

FUEL TANK

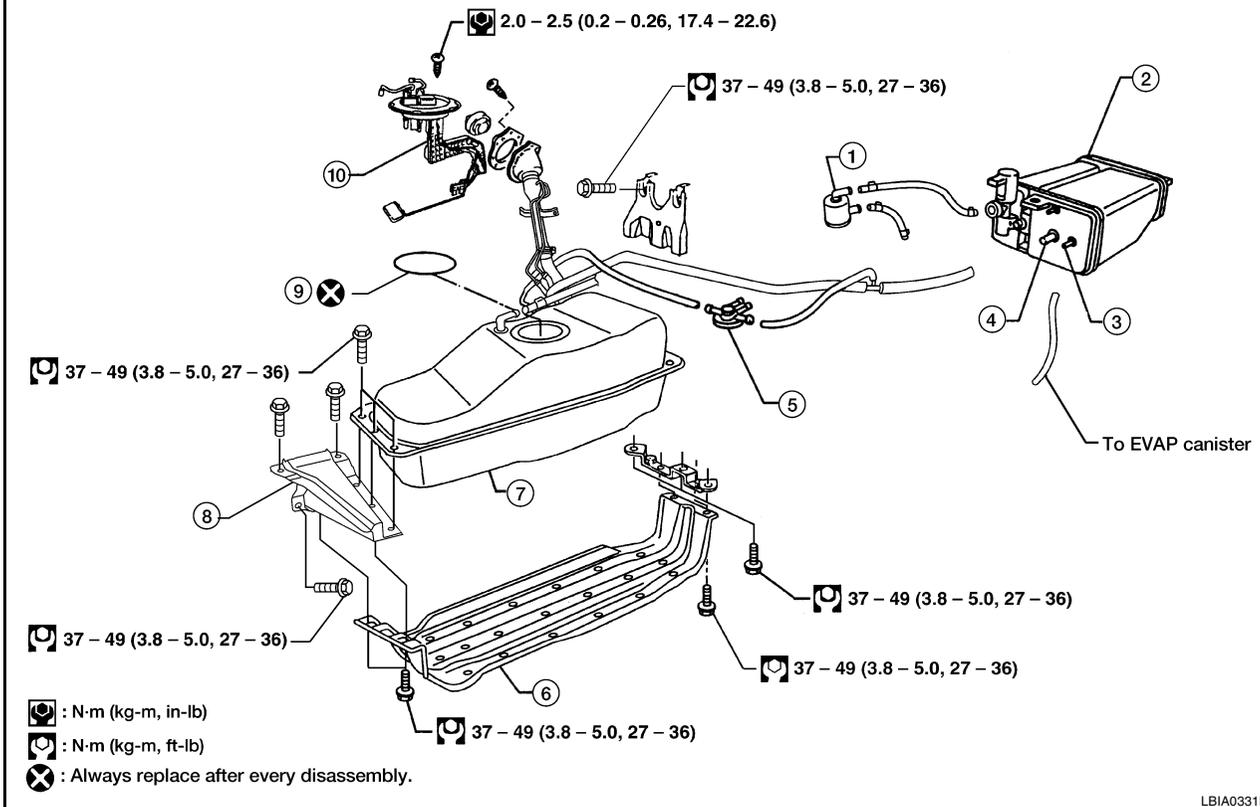
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FUEL TANK

Removal and Installation

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|-----------------------|----------------------|------------------------|
| 1. Water separator | 2. EVAP canister | 3. Purge |
| 4. Charge | 5. Vacuum cut valve | 6. Fuel tank protector |
| 7. Fuel tank assembly | 8. Fuel tank bracket | 9. O-ring |
| 10. Fuel level sensor | | |

WARNING:

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

- Put a "CAUTION: INFLAMMABLE" sign in workshop.
- Do not smoke while servicing fuel system. Keep open flames and sparks away from work area.
- Be sure to furnish the workshop with a CO₂ fire extinguisher.

CAUTION:

- Before removing fuel line parts, carry out the following procedures:
 - Put drained fuel in an explosion-proof container and put lid on securely.
 - Release fuel pressure from fuel line. Refer to [EC-46, "FUEL PRESSURE RELEASE"](#) (KA24DE), [EC-616, "FUEL PRESSURE RELEASE"](#) (VG33E), [EC-1218, "FUEL PRESSURE RELEASE"](#) (VG33ER).
 - Disconnect battery ground cable.
- Remove quick connectors with commercial service tool.
- Always replace O-ring with a new one.
- Do not kink or twist hoses and tubes when installed.
- Do not tighten hose clamps excessively to avoid damaging hoses.
- Perform an inspection and installation of EVAP system parts as necessary. Refer to [EC-564, "EVAPORATIVE EMISSION SYSTEM"](#) (KA24DE), [EC-1164, "EVAPORATIVE EMISSION SYSTEM"](#) (VG33E), [EC-1740, "EVAPORATIVE EMISSION SYSTEM"](#) (VG33ER).
- For inspection and installation of ORVR system parts, refer to [EC-570, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)"](#) (KA24DE), [EC-1172, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)"](#) (VG33E), [EC-1748, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)"](#) (VG33ER).

FUEL TANK

- After installation, 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.

REMOVAL

1. Release the fuel system fuel pressure. Refer to [EC-46, "FUEL PRESSURE RELEASE"](#) (KA24DE), [EC-616, "FUEL PRESSURE RELEASE"](#) (VG33E), [EC-1218, "FUEL PRESSURE RELEASE"](#) (VG33ER).

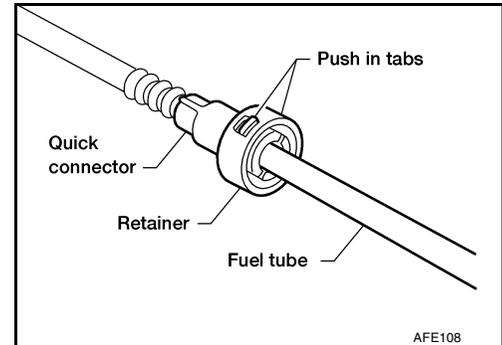
2. Disconnect battery ground cable.
3. Drain fuel from fuel tank.
4. Disconnect electrical connectors.
5. Remove filler protector.

6. Remove the quick connectors as follows:

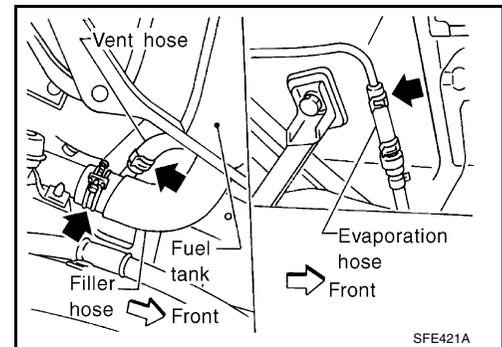
1. Put mating marks on the connectors for correct installation.
2. Hold the sides of the connector, push in tabs, and pull out the tube inserted in the retainer.

CAUTION:

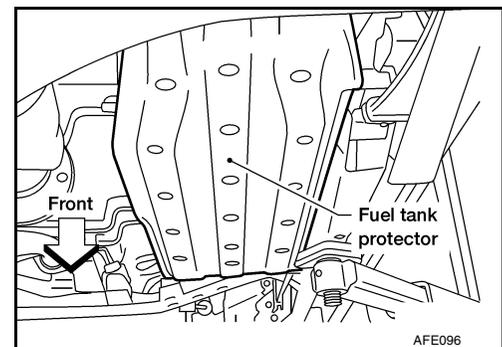
- The tube can be removed when the push in tabs are completely depressed.
- Do not use any tools to remove the quick connector.
- Keep the connecting portion of the tubes and quick connectors clean.



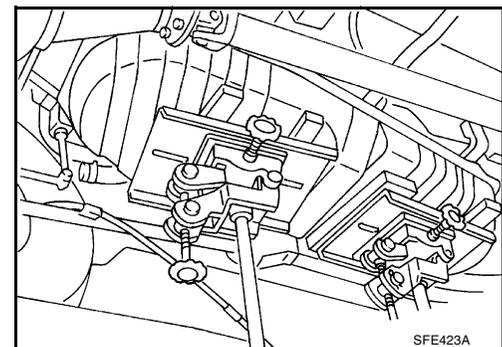
7. Disconnect filler hose, vent and evaporation hose at fuel tank side.



8. Remove fuel tank protector.



9. Remove fuel tank mounting bolts while supporting fuel tank.



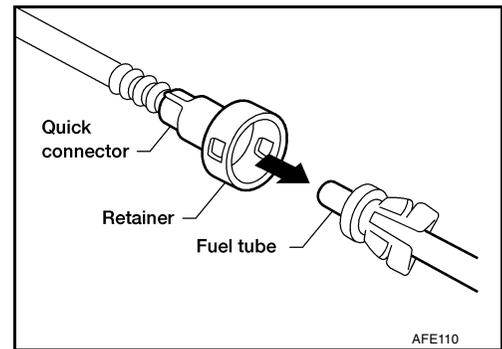
FUEL TANK

10. Remove fuel tank.

INSTALLATION

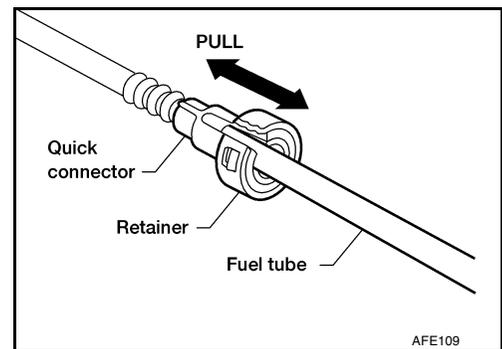
Installation is in the reverse order of the removal.
Connect the quick connectors as follows:

- Make sure the connectors are clean and undamaged.
- Align push in tabs with retainer openings.



● Insert tube into the center of the connector until you hear a click. After connecting quick connectors, make sure the connection is fully seated and locked in place as follows:

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



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FUEL LEVEL SENSOR UNIT AND FUEL PUMP ASSEMBLY

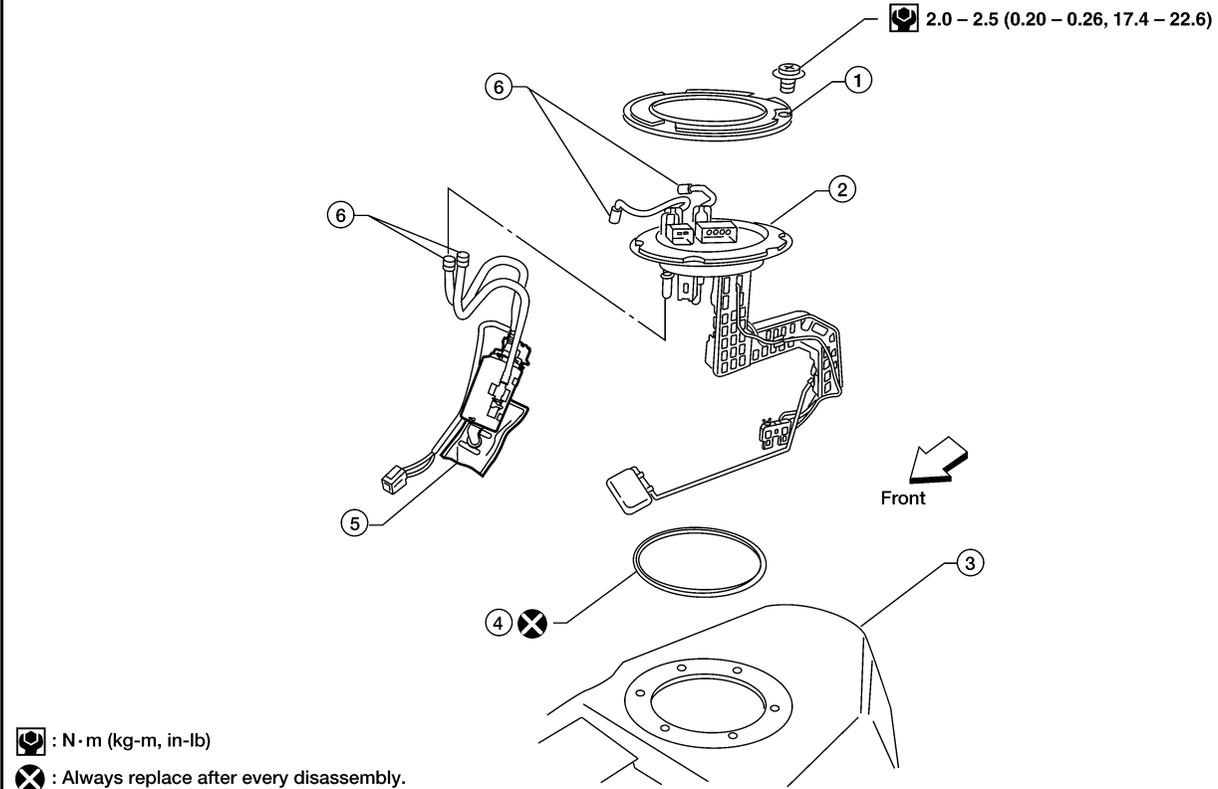
FUEL LEVEL SENSOR UNIT AND FUEL PUMP ASSEMBLY

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Removal and Installation

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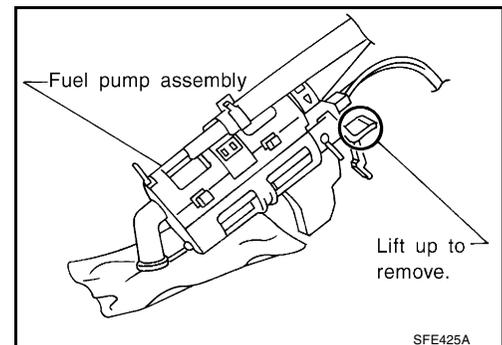
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|-------------|----------------------|---------------------|
| 1. Retainer | 2. Fuel level sensor | 3. Fuel tank |
| 4. O-ring | 5. Fuel pump | 6. Quick connectors |

REMOVAL

1. Remove the fuel tank. Refer to [FL-4, "REMOVAL"](#).
2. Remove the six retainer bolts.
3. Remove retainer, fuel pump and fuel level sensor assembly.
4. Remove fuel pump with bracket while lifting the pawl of the fuel pump bracket upward as shown.
5. Remove fuel level sensor from the fuel pump.



INSTALLATION

Installation procedure is the reverse order of removal.

- Install the retainer, and the fuel pump and fuel level sensor assembly.

CAUTION:

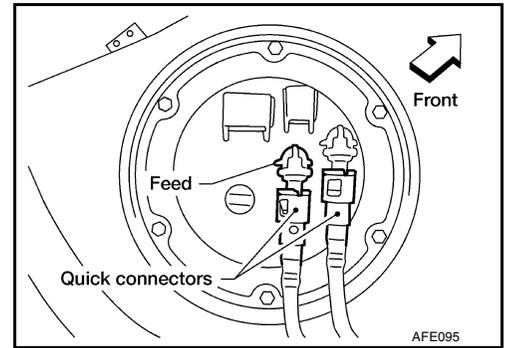
Tighten the retainer bolts to specified torque.

Retainer bolts : 2.0 - 2.5 N-m (0.20 - 0.26 kg-m, 17.4 - 22.6 in-lb)

- Always replace the O-ring with a new one.

FUEL LEVEL SENSOR UNIT AND FUEL PUMP ASSEMBLY

- Make sure the quick connectors are clean and undamaged.
- Use the following procedure to check for leaks.
 - 1) Turn ignition switch ON (do not start engine). Then check connections for leaks by applying fuel pressure to fuel piping.
 - 2) Start the engine and let it idle, then check that there are no fuel leaks at the fuel piping connections.



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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

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Standard and Limit FUEL TANK CAPACITY

EBS00HZI

KA24DE

Fuel tank capacity	60.2 ℓ (15 7/8 US gal, 13 1/4 Imp gal)
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VG33E and VG33ER

Fuel tank capacity	73.5 ℓ (19 3/8 US gal, 16 1/8 Imp gal)
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