

SECTION **FL**  
FUEL SYSTEM

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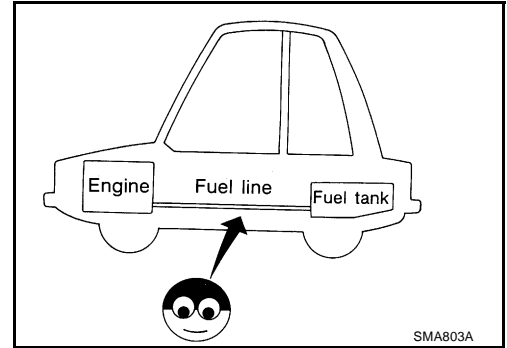
## FUEL SYSTEM

### Checking Fuel Lines

ABS004QI

Inspect fuel lines, fuel filler cap and fuel tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration.

If necessary, repair or replace faulty parts.



### General Precautions

ABS004QJ

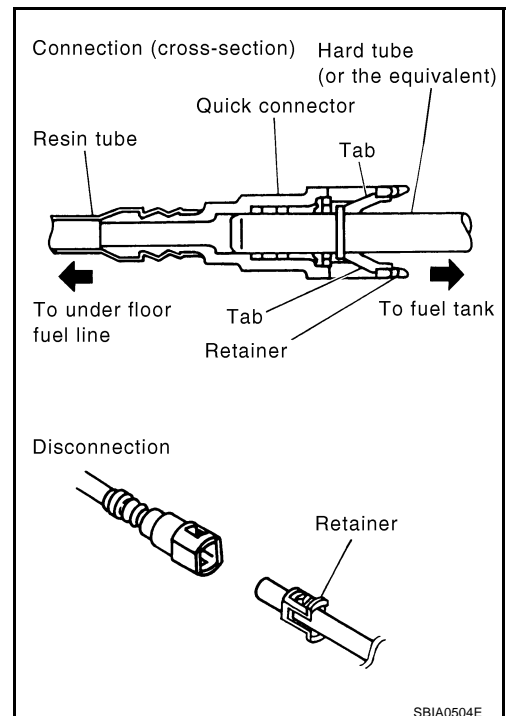
#### WARNING:

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

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

#### CAUTION:

- Use gasoline required by the regulations for octane number. Refer to [GI-5, "Precautions for Fuel \(Unleaded Premium Gasoline Required\)"](#).
- 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-46, "FUEL PRESSURE RELEASE"](#).
  - Disconnect the negative battery terminal.
- Always replace O-rings and clamps with new ones.
- Do not kink or twist tubes when they are being installed.
- After connecting fuel tube quick connectors, make sure quick connectors are secure. Ensure that the connector and resin tube do not contact any adjacent parts.
- After installing tubes, make sure there is no fuel leakage at connections in the following steps.
  - Apply fuel pressure to fuel lines with turning ignition switch ON (with engine stopped). Then check for fuel leaks at connections.
  - Start the engine and rev it up 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-692, "EVAPORATIVE EMISSION SYSTEM"](#).
- For servicing "On Board Refueling Vapor Recovery (ORVR)" parts, refer to [EC-698, "ON BOARD REFUELING VAPOR RECOVERY \(ORVR\)"](#).

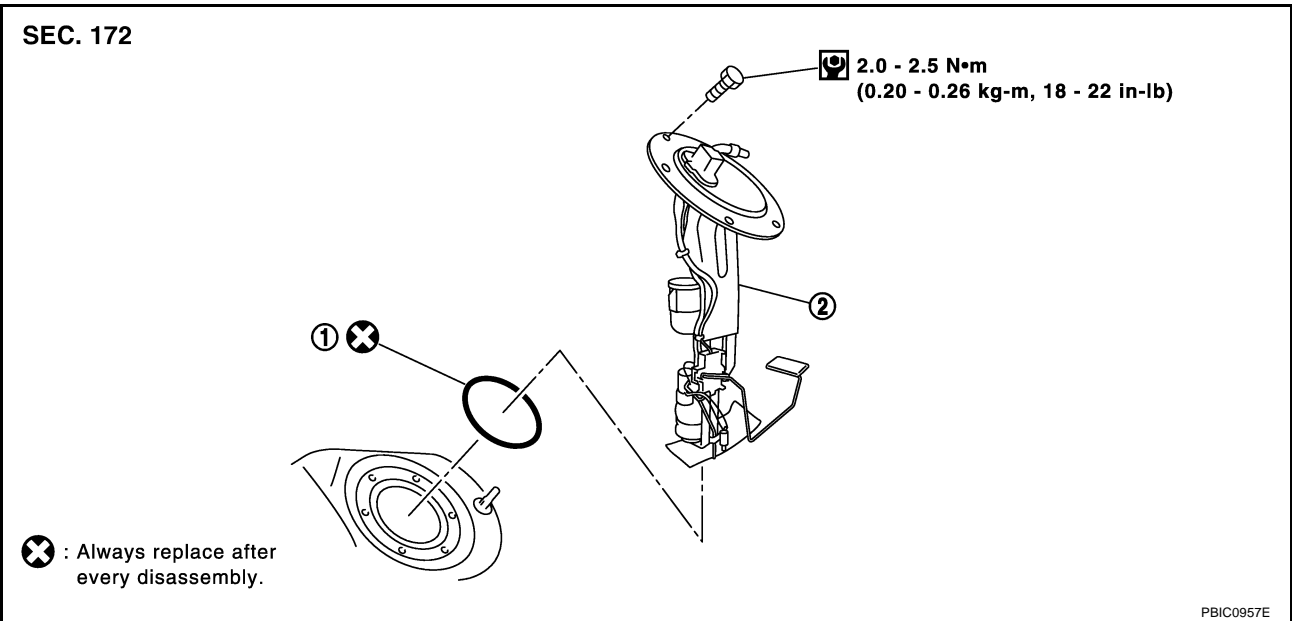


# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

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

### Removal and Installation

ABS004QK



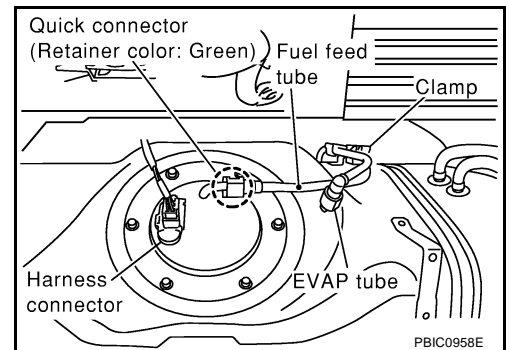
1. O-ring
2. Fuel level sensor unit, fuel filter and fuel pump assembly

### REMOVAL

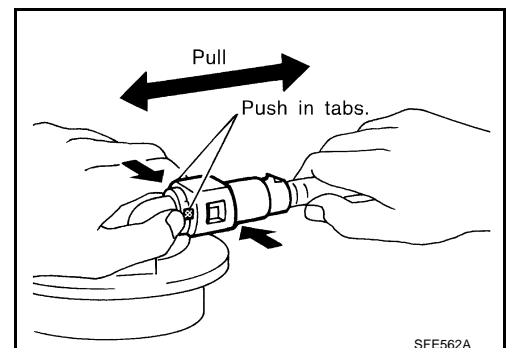
#### WARNING:

Be sure to read "General Precautions" when working on fuel system. Refer to [FL-2, "General Precautions"](#).

1. Release fuel pressure. Refer to [EC-46, "FUEL PRESSURE RELEASE"](#).
2. Open fuel filler lid.
3. Open filler cap and release the pressure inside fuel tank.
4. Remove trunk front finisher. Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#).
5. Disconnect harness connector and fuel feed tube.



- Disconnect quick connectors of fuel tube as follows.



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

## NOTE:

The followings are also applied to quick connector of EVAP tube.

- Hold the sides of the connector, push in tubs 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:

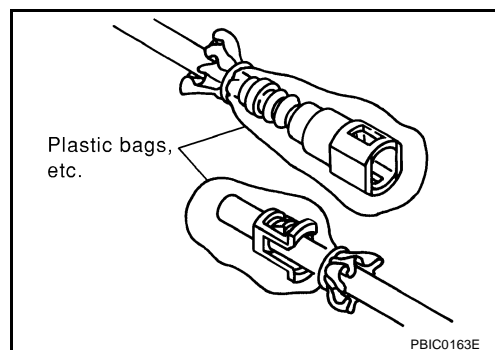
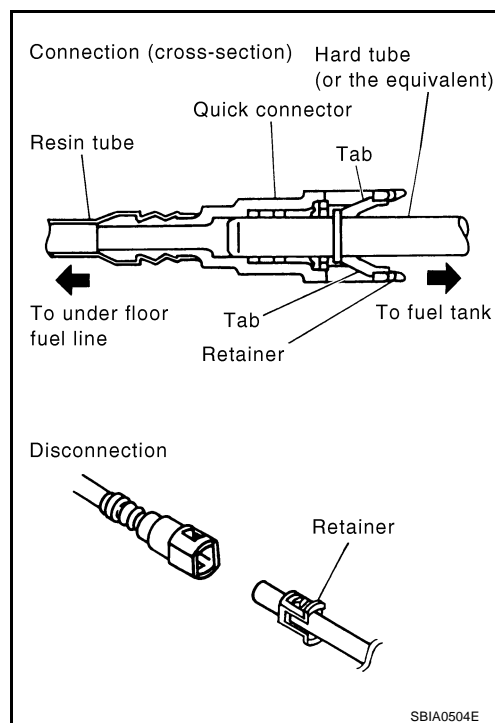
- Quick connector can be disconnected when the tabs are completely depressed. Do not twist it more than necessary.
- Do not use any tools to disconnect quick connector.
- Keep resin tube away from heat. Be especially careful when welding near the tube.
- Prevent acid liquid such as battery electrolyte etc. from getting on resin tube.
- Do not bend or twist resin tube during installation and disconnection.
- Do not remove the remaining retainer on hard tube (or the equivalent) except when resin tube or retainer is replaced.
- When resin tube or hard tube (or the equivalent) is replaced, also replace retainer with a new one.

Retainer color: Green

- To keep clean the connecting portion and to avoid damage and foreign materials, cover them completely with plastic bags or something similar.
6. Remove fuel level sensor unit, fuel filter and fuel pump assembly.

## CAUTION:

- Do not bend the float arm during removal.
- Avoid impacts such as falling when handling components.



## INSPECTION AFTER REMOVAL

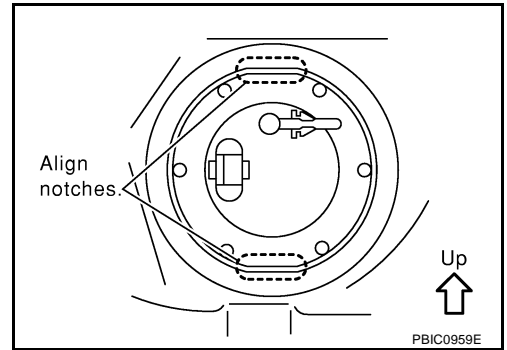
Make sure fuel pump strainer is free from foreign materials. If any are found, remove them.

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

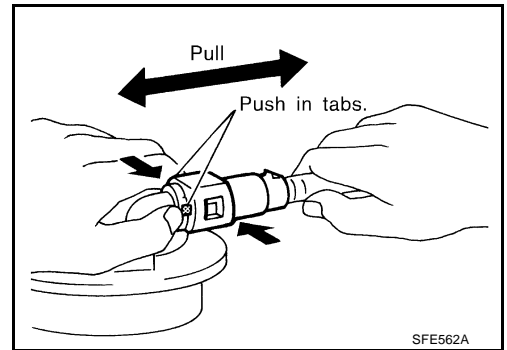
## INSTALLATION

- Install in the reverse order of removal.
- Set fuel tube connector of fuel level sensor unit facing the right side of vehicle. Install it by matching the notches on its outer circumferences and fuel tank.
- Tighten the mounting bolts evenly.

**CAUTION:**  
Use the genuine bolts or equivalent.



- Connect quick connector as follows.
  1. Check the connection for damage and foreign materials.
  2. Align the connector with the tube, then insert the connector straight into the tube until a click is heard.
  3. After connecting, make sure that the connection is secure by following the steps below.
    - a. Visually confirm that the two retainer tabs are connected to the connector.
    - b. Pull the tube and the connector to make sure they are securely connected.

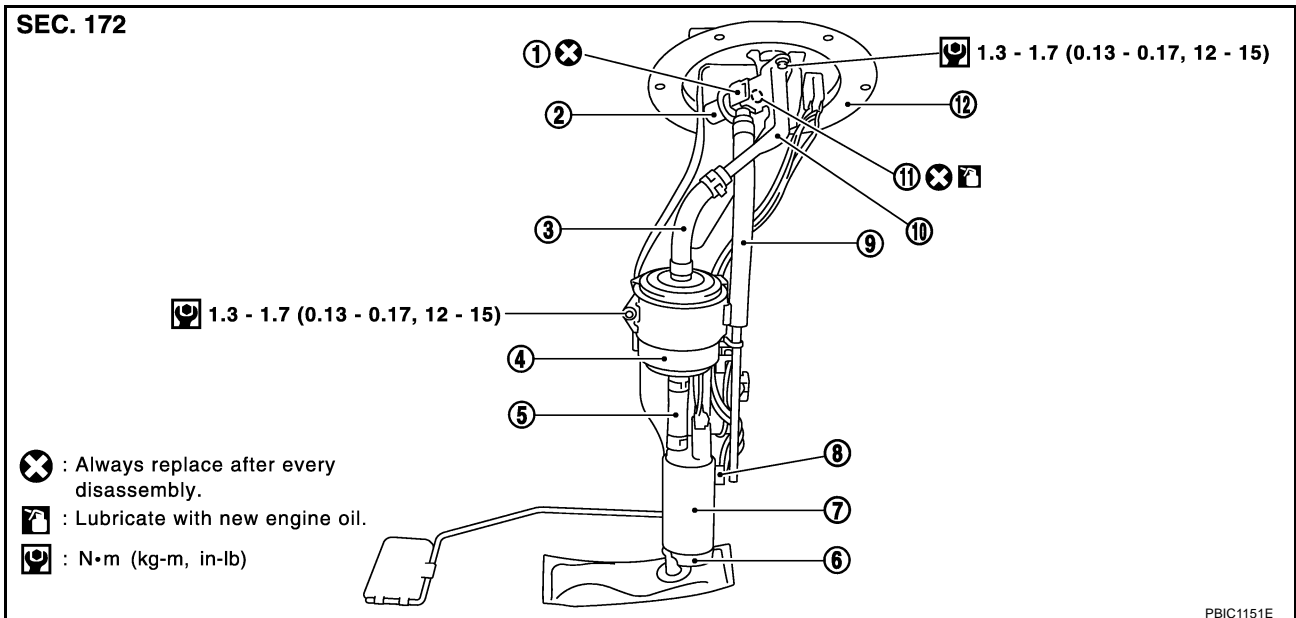


## INSPECTION AFTER INSTALLATION

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

## Disassembly and Assembly

ABS004QL



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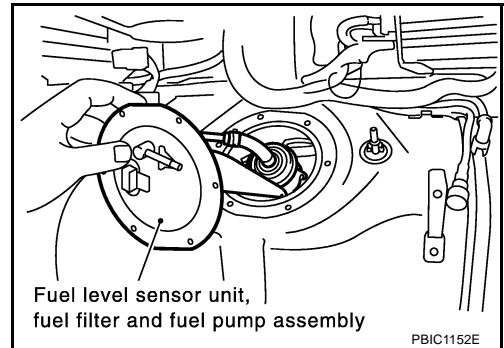
- |                                |                       |                            |
|--------------------------------|-----------------------|----------------------------|
| 1. Clip                        | 2. Pressure regulator | 3. Fuel feed hose          |
| 4. Fuel filter                 | 5. Fuel feed hose     | 6. Pump support rubber     |
| 7. Fuel pump                   | 8. Temperature sensor | 9. Fuel return hose        |
| 10. Pressure regulator housing | 11. O-ring            | 12. Fuel level sensor unit |

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

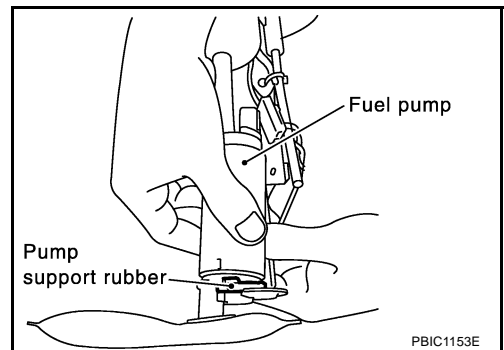
## DISASSEMBLY

While referring to the diagram, remove components starting from fuel pump.

1. Pull out fuel level sensor unit, fuel filter and fuel pump assembly.



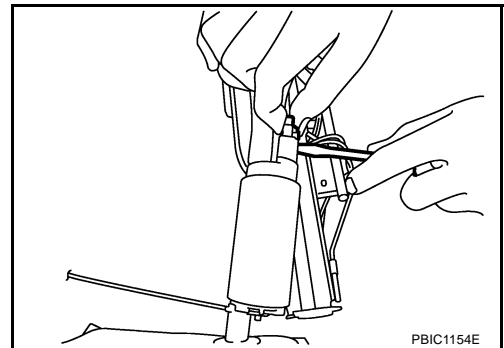
2. Remove pump support rubber from fuel level sensor unit, fuel filter and fuel pump assembly.



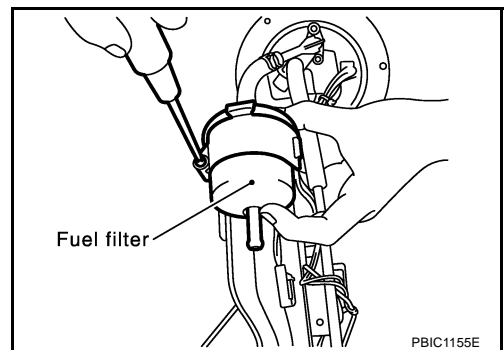
3. Using a screwdriver, disconnect harness connector from fuel pump.

**CAUTION:**  
**Be careful not to damage it.**

4. Remove fuel pump.

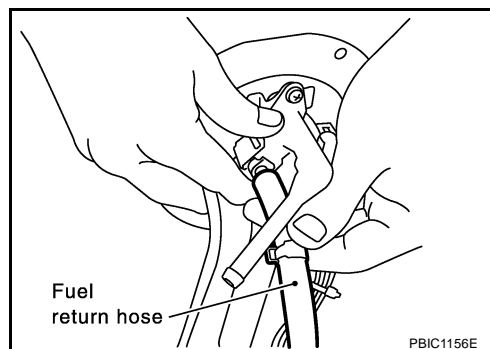


5. Remove fuel filter.

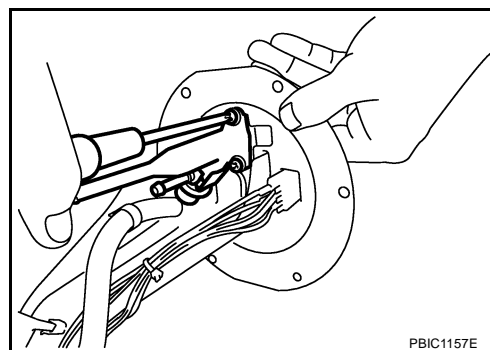


# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

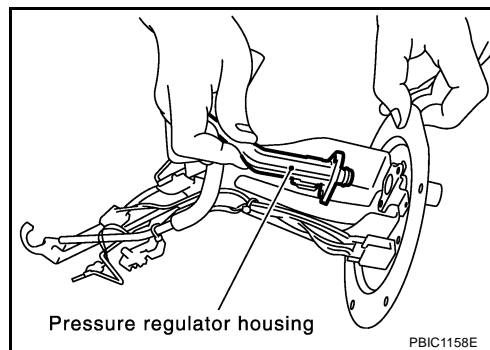
6. Remove fuel return hose.



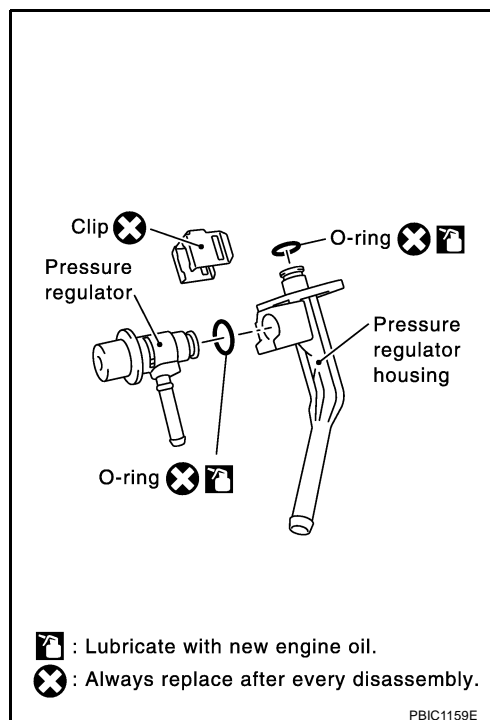
7. Remove pressure regulator mounting bolts as shown.



8. Disconnect pressure regulator housing from fuel level sensor unit.



9. Remove clip and disassemble pressure regulator.



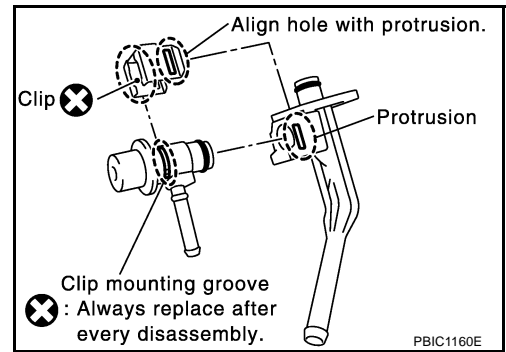
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# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

## ASSEMBLY

Install in the reverse order of removal paying attention to the following.

- Install pressure regulator as follows:
  1. Install the clip to the groove of pressure regulator.
  2. Insert pressure regulator to the pressure regulator housing until hole of clip aligns with protrusion on pressure regulator housing.
- Install the clamps of each hose, avoiding interference with bulges.
- Securely connect harness connector of fuel pump.
- Install pump support rubber between fuel pump and fuel level sensor unit without looseness.





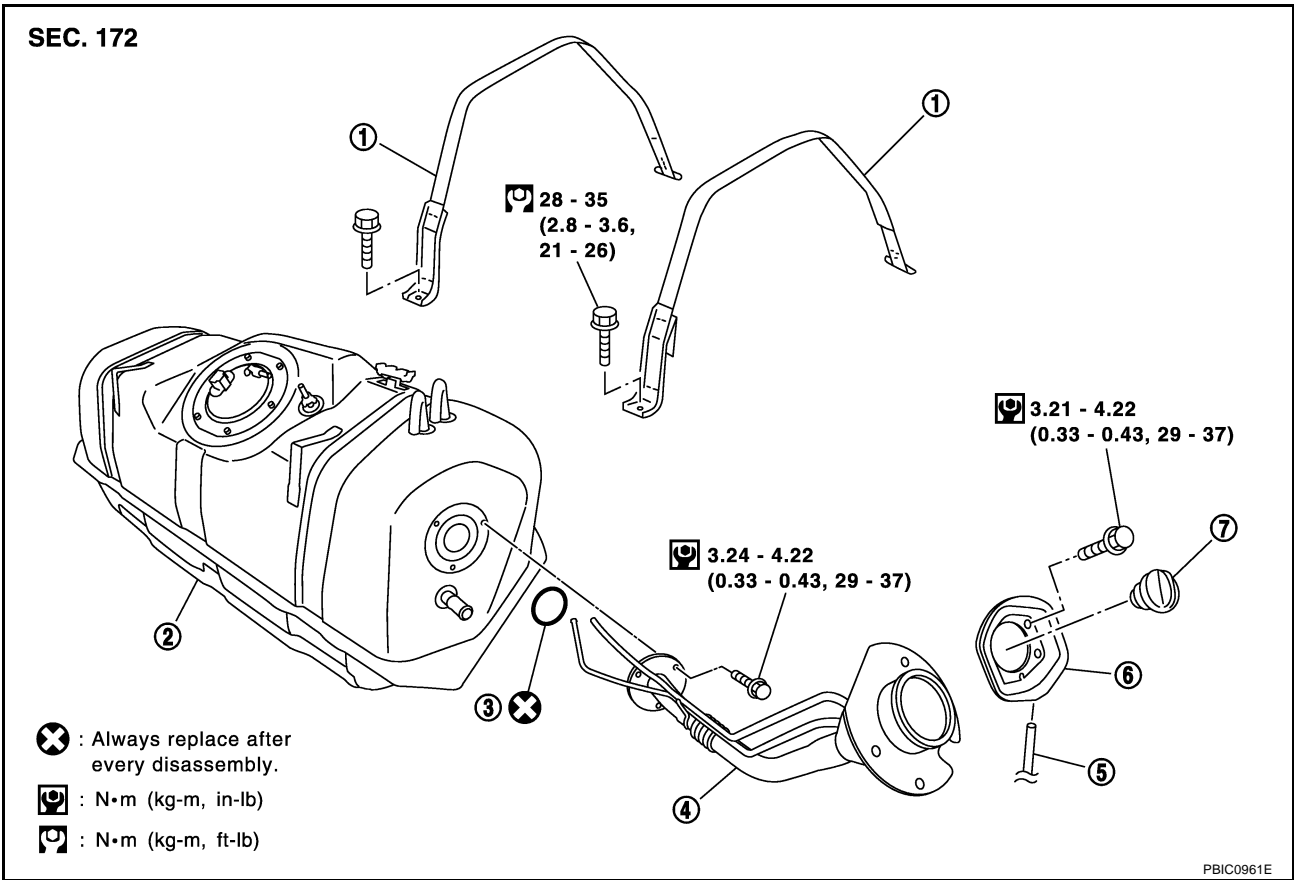
# FUEL TANK

PFP:17202

ABS004QM

## FUEL TANK

### Removal and Installation



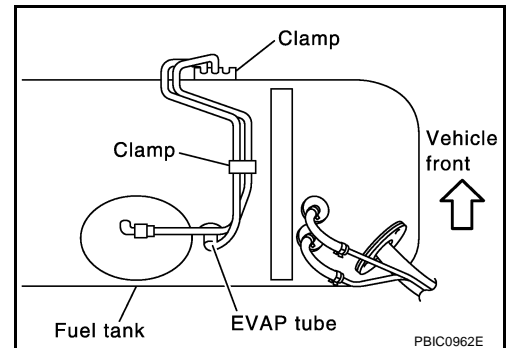
- |                            |               |                           |
|----------------------------|---------------|---------------------------|
| 1. Fuel tank mounting band | 2. Fuel tank  | 3. O-ring                 |
| 4. Filler tube             | 5. Drain hose | 6. Fuel filler neck cover |
| 7. Fuel filler cap         |               |                           |

### REMOVAL

#### **WARNING:**

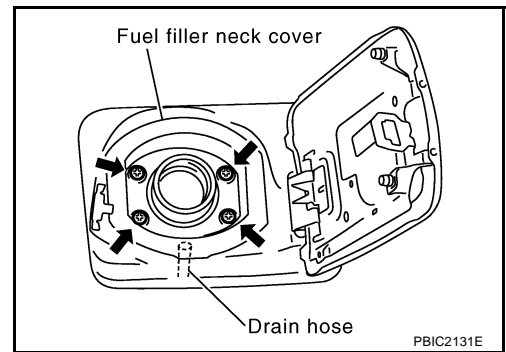
Be sure to read "General Precautions" when working on fuel system. Refer to [FL-2, "General Precautions"](#).

- Follow step 1 to 5 in [FL-3, "REMOVAL"](#) and remove EVAP tubes from fuel tank.
  - Put mating marks on tubes and connectors for correct installation.
- Check the amount of fuel, and drain some if necessary.
- Remove fuel tubes and EVAP tubes from two clamps securing pipings on fuel tank.
  - Put mating marks on tubes and clamps for correct installation.
- Remove the trunk right finisher. Refer to [EI-42, "TRUNK ROOM TRIM & TRUNK LID FINISHER"](#).
- Remove drain hose from fuel filler neck cover reaching from inside trunk.

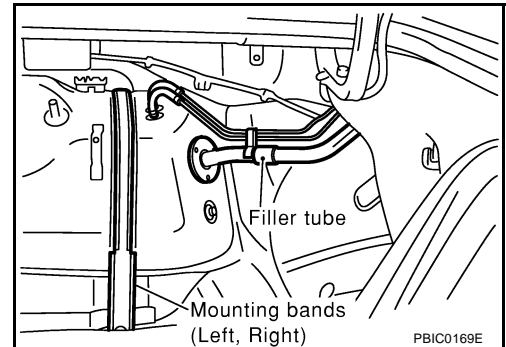


# FUEL TANK

6. Remove bolts for fixing fuel filler neck cover.
7. Remove fuel filler neck cover.



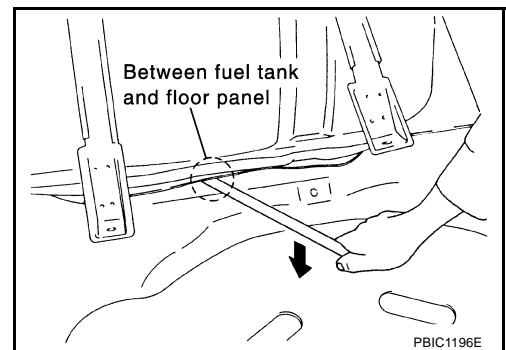
8. Remove filler tube.
9. Remove fuel tank band mounting bolts.



10. If the bottom of fuel tank hard contacts to remove from trunk floor panel, insert a wood block or something similar to separate them.

**CAUTION:**

**Use a shop cloth or others like that to avoid deformation or damage to fuel tank and the trunk floor panel.**



11. Pull fuel tank backwards to remove.

## INSTALLATION

- Install in the reverse order of removal.
- Push mounting band pin to the vehicle side securely.
- Referring to the mating marks marked during removal, install fuel tubes and EVAP tubes and fix to the clamps securely.
- Before fixing fuel tank, temporarily install filler tube.

**CAUTION:**

**Use genuine filler tube mounting bolts or equivalent. Make sure to tighten them to the specified torque.**

- To connect quick connector, refer to Fuel Level Sensor Unit, Fuel Filter and Fuel Pump Assembly, [FL-3](#), "[Removal and Installation](#)".

## INSPECTION AFTER INSTALLATION

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

# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

### Standard and Limit

ABS004QN

Fuel tank capacity	Approx. 80 ℓ (21-1/8 US gal, 17-5/8 Imp gal)
Fuel recommendation	Refer to <a href="#">GI-5</a>

### Tightening Torque

ABS004QO

Unit: N·m (kg-m, ft-lb)  
Unit: N·m (kg-m, in-lb)\*

Fuel tank mounting band	28 - 35 (2.8 - 3.6, 21 - 26)
Filler tube	3.24 - 4.22 (0.33 - 0.43, 29 - 37)*
Fuel filler neck cover	3.21 - 4.22 (0.33 - 0.43, 29 - 37)*
Fuel level sensor unit, fuel filter and fuel pump assembly	2.0 - 2.5 (0.20 - 0.26, 18 - 22)*

# SERVICE DATA AND SPECIFICATIONS (SDS)

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