

SECTION **FL**

FUEL SYSTEM

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PRECAUTION

PRECAUTIONS

General Precautions

INFOID:000000000905647

FL

WARNING:

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

- Put a "CAUTION: FLAMMABLE" sign in the workshop.
- Be sure to work in a well ventilated area and furnish workshop with a CO₂ fire extinguisher.
- Never smoke while servicing fuel system. Keep open flames and sparks away from the work area.

CAUTION:

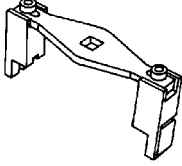
- Use gasoline required by the regulations for octane number. Refer to [GI-32, "FUEL : Unleaded Premium Gasoline"](#).
- Before removing fuel line parts, perform out the following procedures:
 - Put drained fuel in an explosion-proof container and put the lid on securely. Keep the container in safe area.
 - Release fuel pressure from the fuel lines. Refer to [EC-357, "Inspection"](#) (HR16DE) or [EC-978, "Inspection"](#) (MR20DE).
 - Disconnect the battery cable from the negative terminal.
 - Always replace O-ring and clamps with new ones.
 - Never kink or twist tubes when they are being installed.
 - Never tighten hose clamps excessively to avoid damaging hoses.
 - 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.
- Use only a genuine NISSAN fuel filler cap as a replacement. If an incorrect fuel filler cap is used, the "MI" may come on.
- For servicing "Evaporative Emission System" parts. Refer to [EC-74, "System Diagram"](#) (HR16DE) or [EC-692, "System Diagram"](#) (MR20DE).
- For servicing "On Board Refueling Vapor Recovery (ORVR)" parts. Refer to [EC-87, "Diagnosis Description"](#) (HR16DE) or [EC-706, "Diagnosis Description"](#) (MR20DE).

PREPARATION

PREPARATION

Commercial Service Tools

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Tool name	Description
Lock ring wrench  ZZA0122D	Removing and Installing lock ring

ON-VEHICLE MAINTENANCE

FUEL SYSTEM

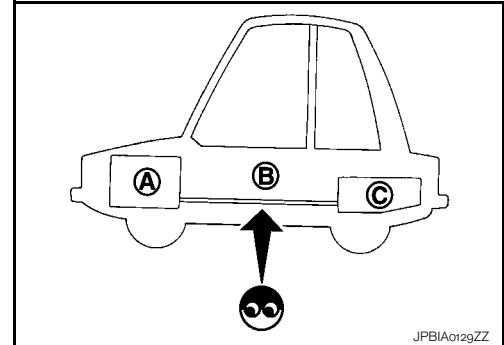
Inspection

INFOID:000000000905649

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 damaged parts.

- A : Engine
- B : Fuel line
- C : Fuel tank



Quick Connector

INFOID:000000000905650

CAUTION:

- After connecting fuel tube quick connectors, make sure quick connectors are secure.
- Ensure that connector and resin tube do not contact any adjacent parts.

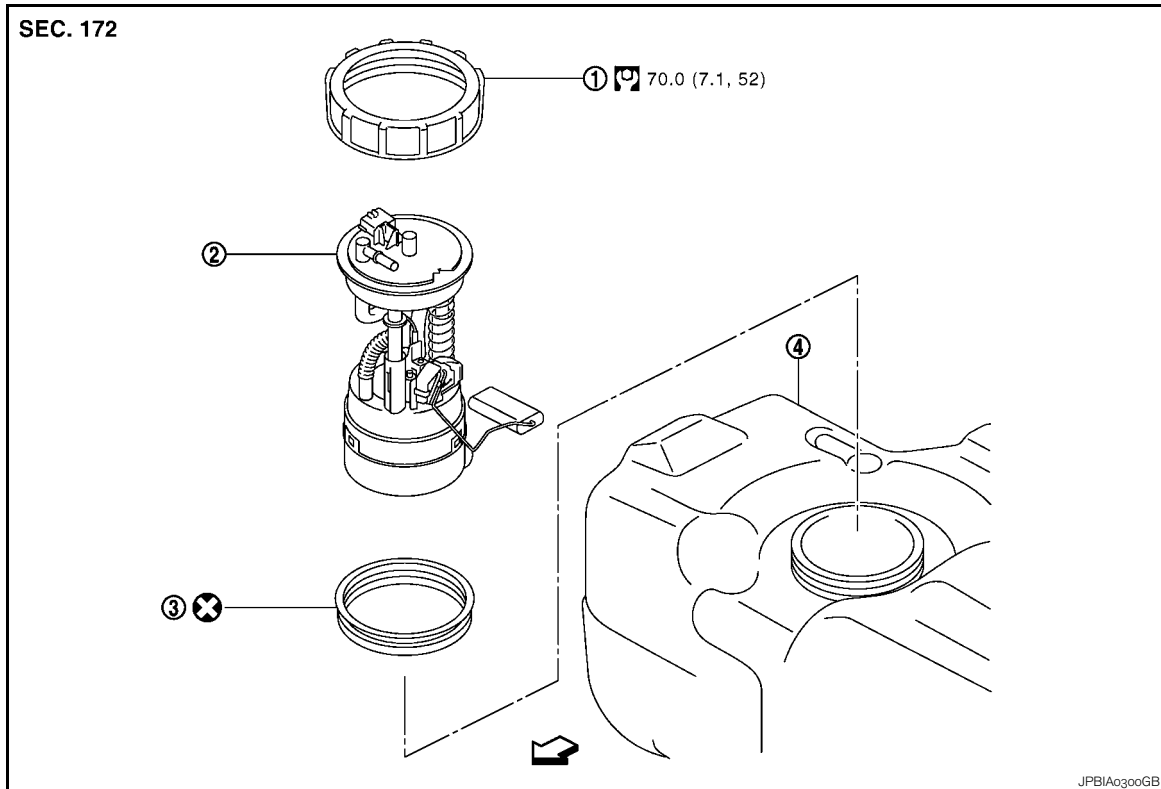
ON-VEHICLE REPAIR

FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY 2WD

2WD : Exploded View

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Removal and Installation



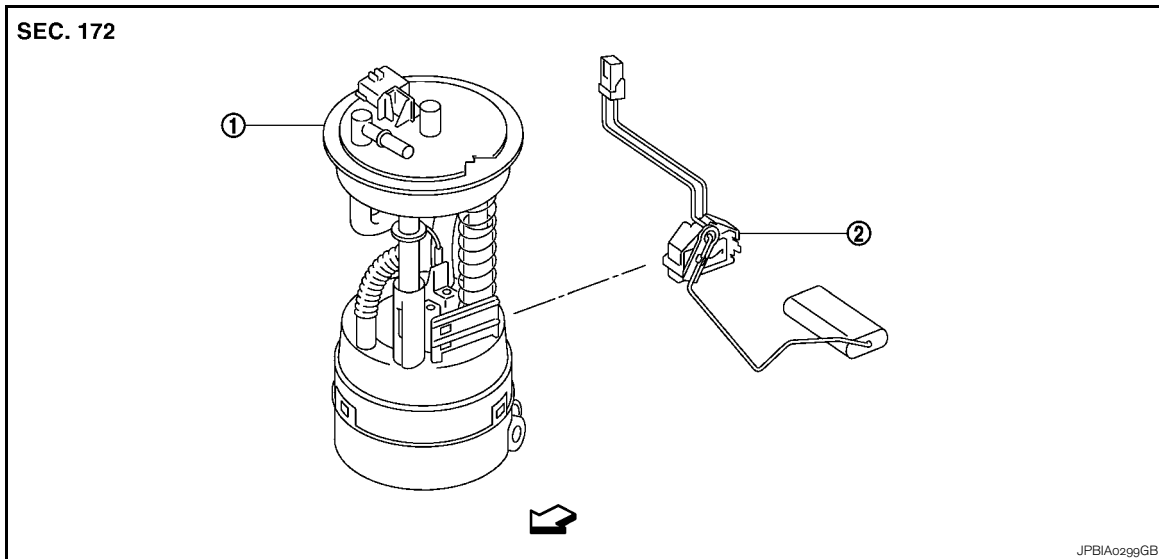
1. Lock ring
2. Fuel level sensor unit, fuel filter and fuel pump assembly
3. O-ring

4. Fuel tank

⬅ : Vehicle front

Refer to [GI-4, "Components"](#) for symbols in the figure.

Disassembly and Assembly



1. Fuel filter and fuel pump assembly 2. Fuel level sensor unit

↶ :Vehicle front

CAUTION:

Never remove or disassemble parts unless instructed as shown in the figure.

2WD : Removal and Installation

INFOID:0000000000905652

REMOVAL

WARNING:

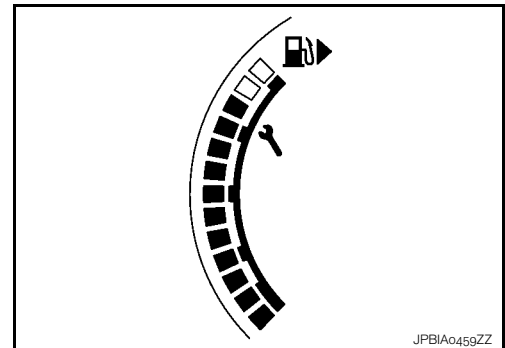
Be sure to read "General Precautions" before working on the fuel system. Refer to [FL-3, "General Precautions"](#).

1. Check fuel level on fuel gauge. If fuel gauge indicates more than the level as shown in the figure (full or almost full), drain fuel from fuel tank until fuel gauge indicates level as shown in the figure or below.

NOTE:

Because fuel will be spilled when removing fuel level sensor unit, fuel filter and fuel pump assembly for the top of the fuel is above the fuel level sensor units installation surface.

- As a guide, fuel level becomes the position as shown in the figure or below when approximately 15 ℓ (3- 1/4 Imp gal) of fuel are drained from fuel tank.
- In case fuel pump does not operate, perform the following procedure.



- a. Insert hose of less than 20 mm (0.79 in) in diameter into fuel filler tube through fuel filler opening to draw fuel from fuel filler tube.
 - b. Disconnect fuel filler hose from fuel filler tube. Refer to [FL-15, "2WD : Exploded View"](#).
 - c. Insert hose into fuel tank through fuel filler hose to draw fuel from fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-357, "Inspection"](#) (HR16DE) or [EC-978, "Inspection"](#) (MR20DE).
 3. Open fuel filler lid.
 4. Open fuel filler cap and release the pressure inside the fuel tank.
 5. Remove rear seat cushion. Refer to [SE-30, "Exploded View"](#).
 6. Remove inspection hole cover.
 - Using a screwdriver, remove it by turning clips clockwise by 90 degrees.

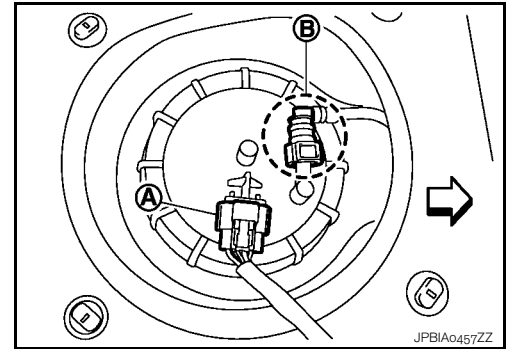
FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

7. Disconnect harness connector (A) and quick connector (B).

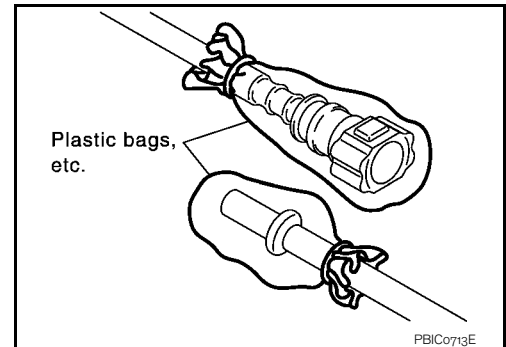
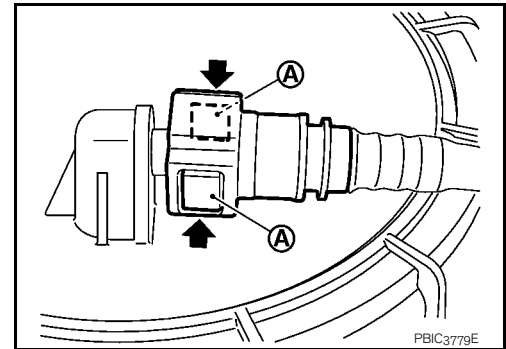
↶ : Vehicle front



- Remove quick connector in the following procedures.
- Pinch quick connector square-part (A) with your fingers, and pull out the quick connector by hand.
- If quick connector and tube on sender unit are stuck, push and pull several times until they move, and pull out.

CAUTION:

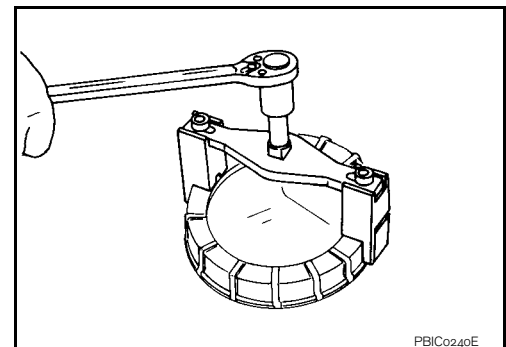
- Quick connector can be removed when the tabs are completely depressed. Never twist it more than necessary.
- Never use any tools to disconnect quick connector.
- Keep resin tube away from heat. Be especially careful when welding near the resin tube.
- Prevent acid liquid such as battery electrolyte, etc. from getting on resin tube.
- Never bend or twist resin tube during installation and disconnection.
- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags or something similar.
- Never insert plug, preventing damage on o-ring in quick connector.



8. Using lock ring wrench (commercial service tool), remove lock ring.

NOTE:

For reference when installing, put a matching mark on lock ring, fuel pump assembly and fuel tank.



9. Remove fuel level sensor unit, fuel filter and fuel pump assembly.

CAUTION:

- Never bend float arm during removal.
- Avoid polluting the inside by residue fuel. Draw out with avoiding inclination by supporting with a cloth.
- Avoid impacts such as falling when handling components.

INSTALLATION

Note the following, and install in the reverse order of removal.

FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

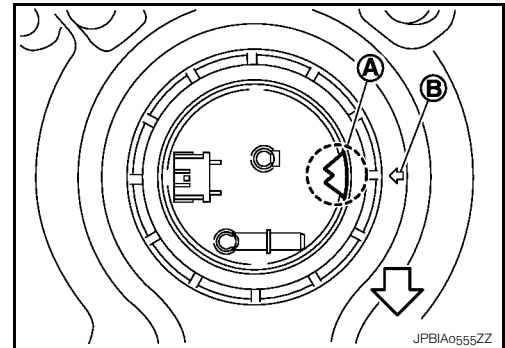
< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

Fuel Level Sensor Unit, Fuel Filter and Fuel Pump Assembly

1. Install O-ring to fuel tank without any twist.
2. Install fuel level sensor unit with aligning matching mark (A) on fuel level sensor unit and (B) on fuel tank as shown in the figure.

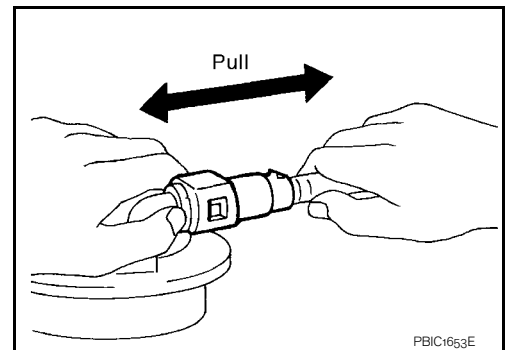
⇐ : Vehicle front



Quick Connector

Connect quick connector of fuel feed tube in the following procedures.

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" sound is heard.
3. After connecting, make sure that the connection is secure by following procedures.
 - Visually confirm that the two tabs are connected to the connector.
 - Pull the tube and the connector to make sure they are securely connected.



4. Connect harness connector.

Inspection Hole Cover

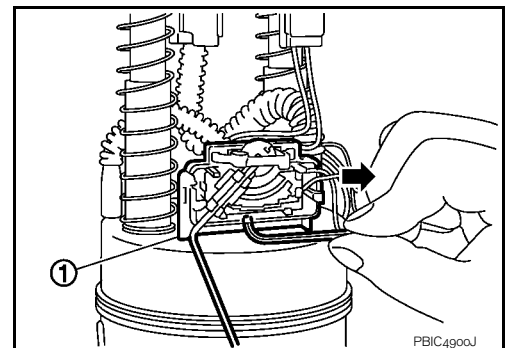
- Before installing inspection hole cover, check that the connecting part has no fuel leaks. Refer to [FL-10, "2WD : Inspection"](#).
1. Install inspection hole covers with the front mark (arrow) facing front of vehicle.
 2. Lock clips by turning counterclockwise.

2WD : Disassembly and Assembly

INFOID:0000000000905664

DISASSEMBLY

1. Disconnect harness connector.
2. Remove fuel level sensor unit (1) in the following procedures.
 - a. Push the pawl of fuel level sensor unit mounting area with an L-shaped iron rod or an equivalent to unlock.
CAUTION:
Be careful not to damage fuel level sensor unit.
 - b. With the fuel level sensor unit unlocked, slide it in the direction shown by the arrow (⇐).



ASSEMBLY

FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

Install fuel level sensor unit according to the following procedure.

- Insert until you hear a “click” sound and actually feel the engagement.
- After inserting, apply force in reverse direction (removal direction) to ensure it cannot be pulled out.

2WD : Inspection

INFOID:000000000905653

INSPECTION AFTER INSTALLATION

Use the following procedure to check for fuel leaks.

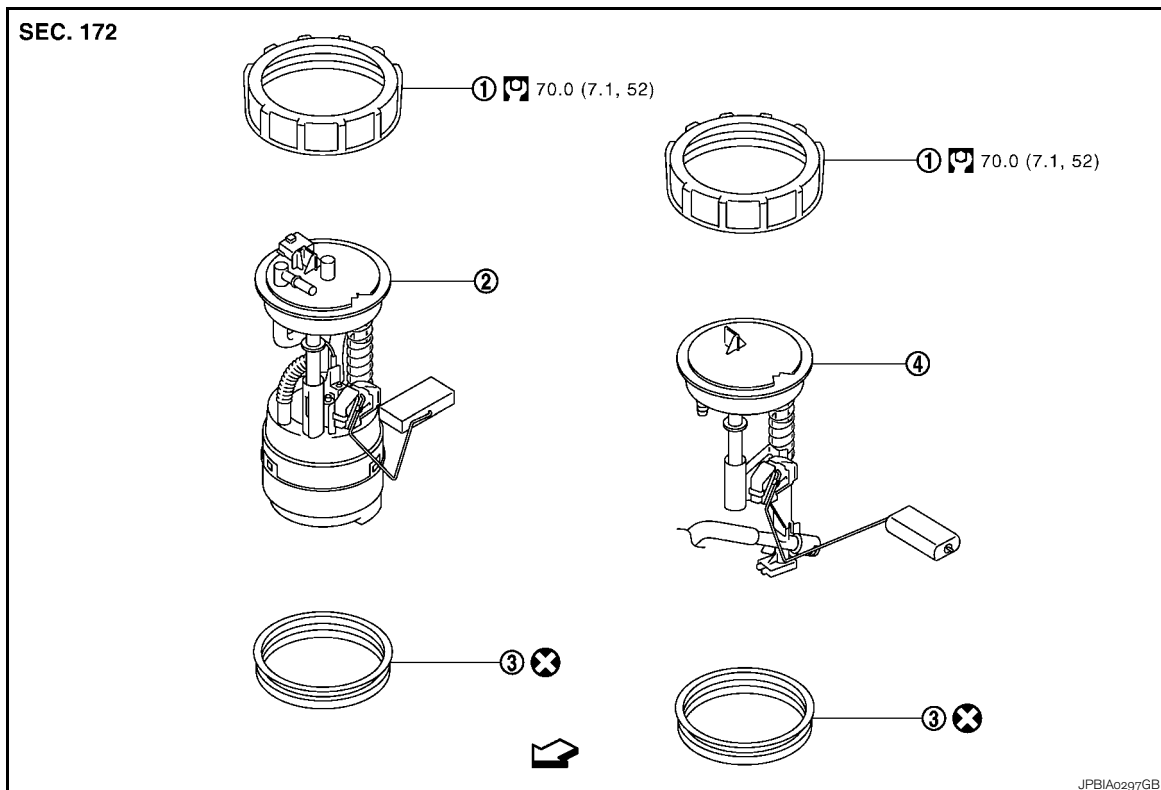
1. Turn ignition switch “ON” (with engine stopped), then check connections for leaks by applying fuel pressure to fuel piping.
2. Start engine and let it idle and make sure there are no fuel leaks at the fuel system connections.

4WD

4WD : Exploded View

INFOID:0000000001078679

Removal and Installation



cardiagn.com

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

4. Sub fuel level sensor assembly

⬅ :Vehicle front

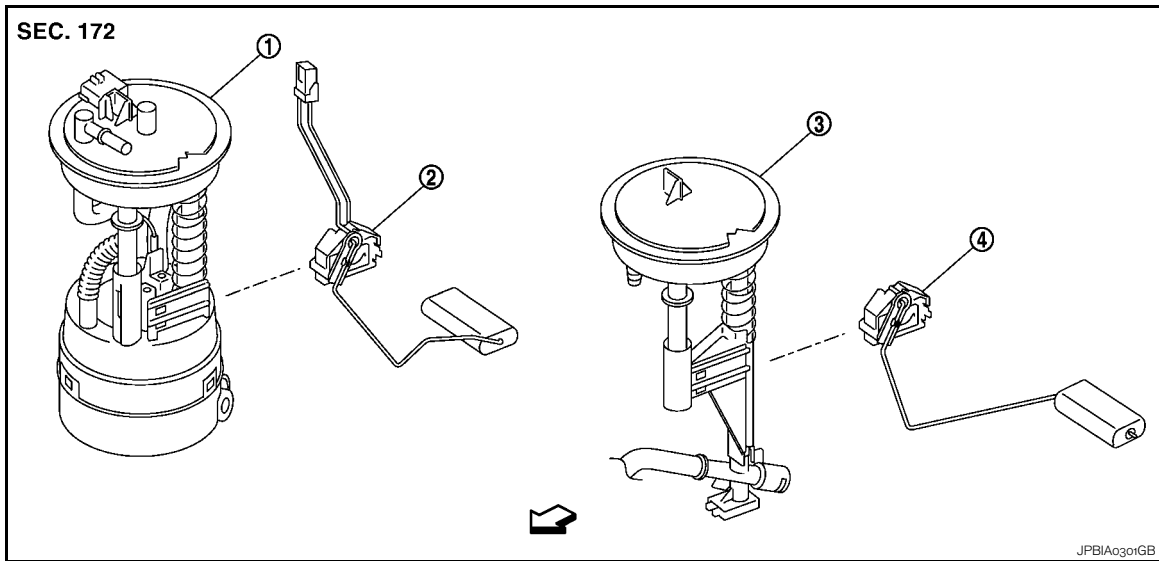
Refer to [GI-4, "Components"](#) for symbols in the figure.

Disassembly and Assembly

FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]



1. Fuel filter and fuel pump assembly 2. Fuel level sensor unit 3. Sub fuel level sensor base
4. Sub fuel level sensor unit

↶ : Vehicle front

CAUTION:

Never remove or disassemble parts unless instructed as shown in the figure.

4WD : Removal and Installation

INFOID:000000001078680

REMOVAL

WARNING:

Be sure to read "General Precautions" before working on the fuel system. Refer to [FL-3, "General Precautions"](#).

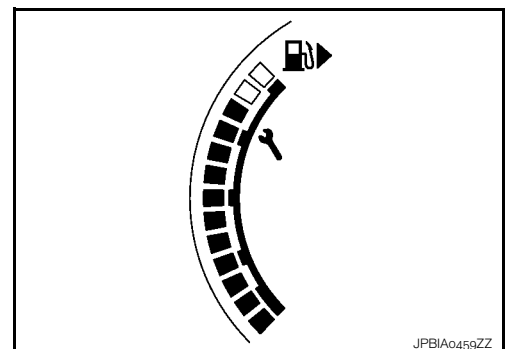
1. Check fuel level on fuel gauge. If fuel gauge indicates more than the level as shown in the figure (full or almost full), drain fuel from fuel tank until fuel gauge indicates level as shown in the figure or below.

NOTE:

Because fuel will be spilled when removing fuel level sensor unit, fuel filter and fuel pump assembly for the top of the fuel is above the fuel level sensor units installation surface.

- As a guide, fuel level becomes the position as shown in the figure or below when approximately 15 ℓ (3- 1/4 Imp gal) of fuel are drained from fuel tank.
- In case fuel pump does not operate, perform the following procedure.

- a. Insert hose of less than 20 mm (0.79 in) in diameter into fuel filler tube through fuel filler opening to draw fuel from fuel filler tube.
- b. Disconnect fuel filler hose from fuel filler tube. Refer to [FL-17, "4WD : Exploded View"](#).
- c. Insert hose into fuel tank through fuel filler hose to draw fuel from fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-978, "Inspection"](#).
3. Open fuel filler lid.
4. Open fuel filler cap and release the pressure inside the fuel tank.
5. Remove rear seat cushion. Refer to [SE-30, "Exploded View"](#).
6. Remove inspection hole cover.
 - Using a screwdriver, remove it by turning clips clockwise by 90 degrees.



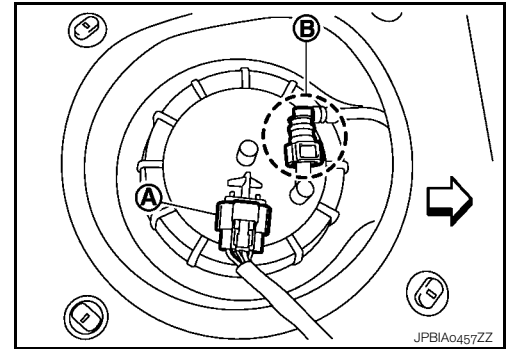
FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

7. Disconnect harness connector (A) and quick connector (B).

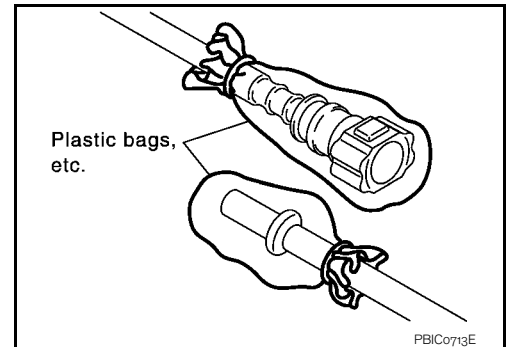
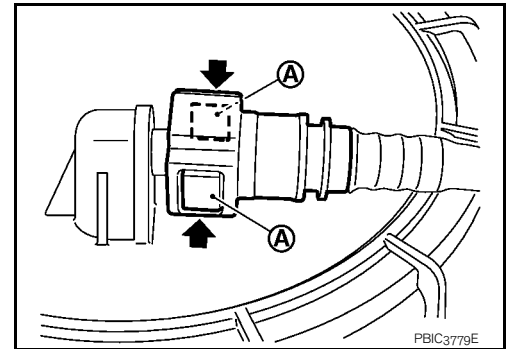
↶ : Vehicle front



- Remove quick connector in the following procedures.
- Pinch quick connector square-part (A) with your fingers, and pull out the quick connector by hand.
- If quick connector and tube on sender unit are stuck, push and pull several times until they move, and pull out.

CAUTION:

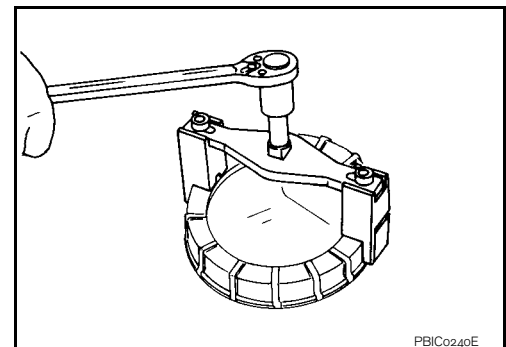
- Quick connector can be removed when the tabs are completely depressed. Never twist it more than necessary.
- Never use any tools to disconnect quick connector.
- Keep resin tube away from heat. Be especially careful when welding near the resin tube.
- Prevent acid liquid such as battery electrolyte, etc. from getting on resin tube.
- Never bend or twist resin tube during installation and disconnection.
- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags or something similar.
- Never insert plug, preventing damage on o-ring in quick connector.



8. Using lock ring wrench (commercial service tool), remove lock ring.

NOTE:

For reference when installing, put a matching mark on lock ring, fuel pump assembly and fuel tank.



FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

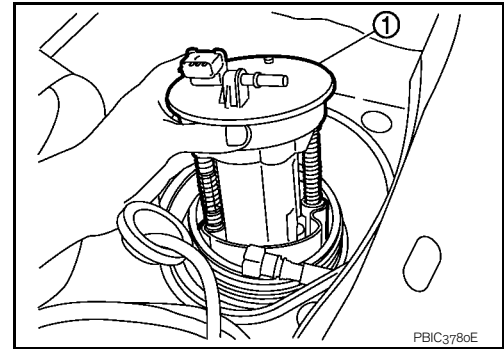
< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

9. Raise fuel level sensor unit, fuel filter and fuel pump assembly (1), and disconnect fuel tube and harness connector.

CAUTION:

- Never bend float arm during removal.
- Avoid polluting the inside by residue fuel. Draw out with avoiding inclination by supporting with a cloth.
- Avoid impacts such as falling when handling components.



10. Raise sub fuel level sensor assembly.

CAUTION:

- Never disassembly a fuel tube from sub fuel sensor assembly.
- Never bend float arm during removal.
- Avoid polluting the inside by residue fuel. Draw out with avoiding inclination by supporting with a cloth.
- Avoid impacts such as falling when handling components.

INSTALLATION

Note the following, and install in the reverse order of removal.

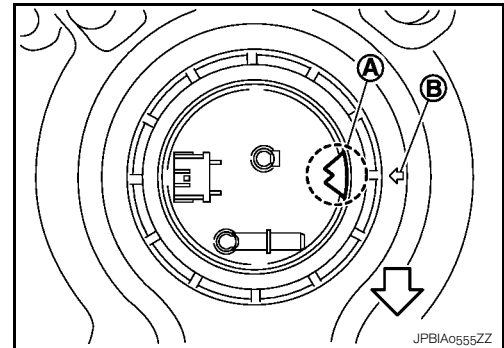
Fuel Level Sensor Unit, Fuel Filter and Fuel Pump Assembly and Sub Fuel Level Sensor Assembly

1. Install O-ring to fuel tank without any twist.
2. Install fuel level sensor unit with aligning mating marks (A) on fuel level sensor unit and (B) on fuel tank as shown in the figure.

↩ : Vehicle front

NOTE:

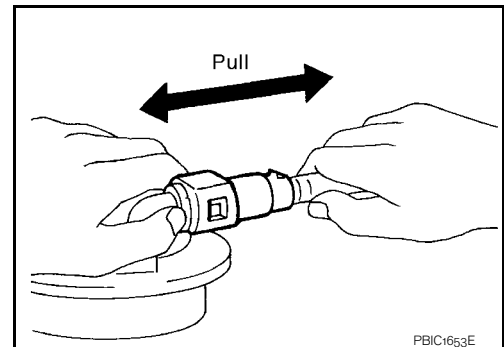
Figure shows fuel level sensor unit, fuel filter and fuel pump assembly side of fuel tank.



Quick Connector

Connect quick connector of fuel feed tube in the following procedures.

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" sound is heard.
3. After connecting, make sure that the connection is secure by following procedures.
 - Visually confirm that the two tabs are connected to the connector.
 - Pull the tube and the connector to make sure they are securely connected.



4. Connect harness connector.

Inspection Hole Cover

FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

- Before installing inspection hole cover, check that the connecting part has no fuel leaks. Refer to [FL-14, "4WD : Inspection"](#).
1. Install inspection hole covers with the front mark (arrow) facing front of vehicle.
 2. Lock clips by turning counterclockwise.

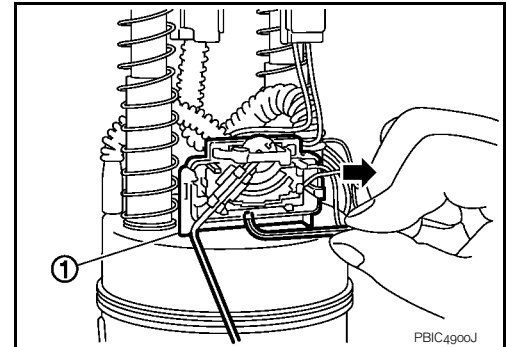
4WD : Disassembly and Assembly

INFOID:000000001078681

DISASSEMBLY

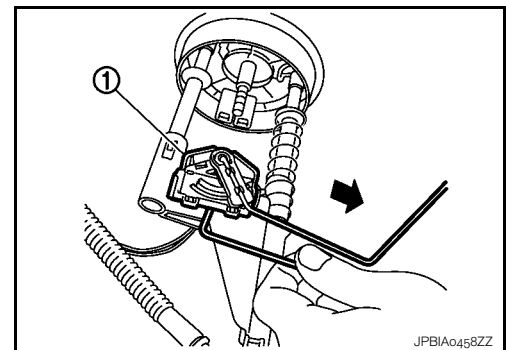
Fuel level sensor unit, fuel filter and fuel pump assembly side

1. Disconnect harness connector.
2. Remove fuel level sensor unit (1) in the following procedures.
 - a. Push the pawl of fuel level sensor unit mounting area with an L-shaped iron rod or an equivalent to unlock.
CAUTION:
Be careful not to damage fuel level sensor unit.
 - b. With the fuel level sensor unit unlocked, slide it in the direction shown by the arrow (←).



Sub fuel level sensor unit assembly side

- Remove fuel level sensor unit (1) in the following procedures.
- Push the pawl of sub fuel level sensor unit mounting area with an L-shaped iron rod or an equivalent to unlock.
CAUTION:
Be careful not to damage sub fuel level sensor unit.
- With the sub fuel level sensor unit unlocked, slide it in the direction shown by the arrow (←).



ASSEMBLY

Install fuel level sensor unit according to the following procedure.

- Insert until you hear a "click" sound and actually feel the engagement.
- After inserting, apply force in reverse direction (removal direction) to ensure it cannot be pulled out.

4WD : Inspection

INFOID:000000001078682

INSPECTION AFTER INSTALLATION

Use the following procedure to check for fuel leaks.

1. Turn ignition switch "ON" (with engine stopped), then check connections for leaks by applying fuel pressure to fuel piping.
2. Start engine and let it idle and make sure there are no fuel leaks at the fuel system connections.

FUEL TANK

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

FUEL TANK

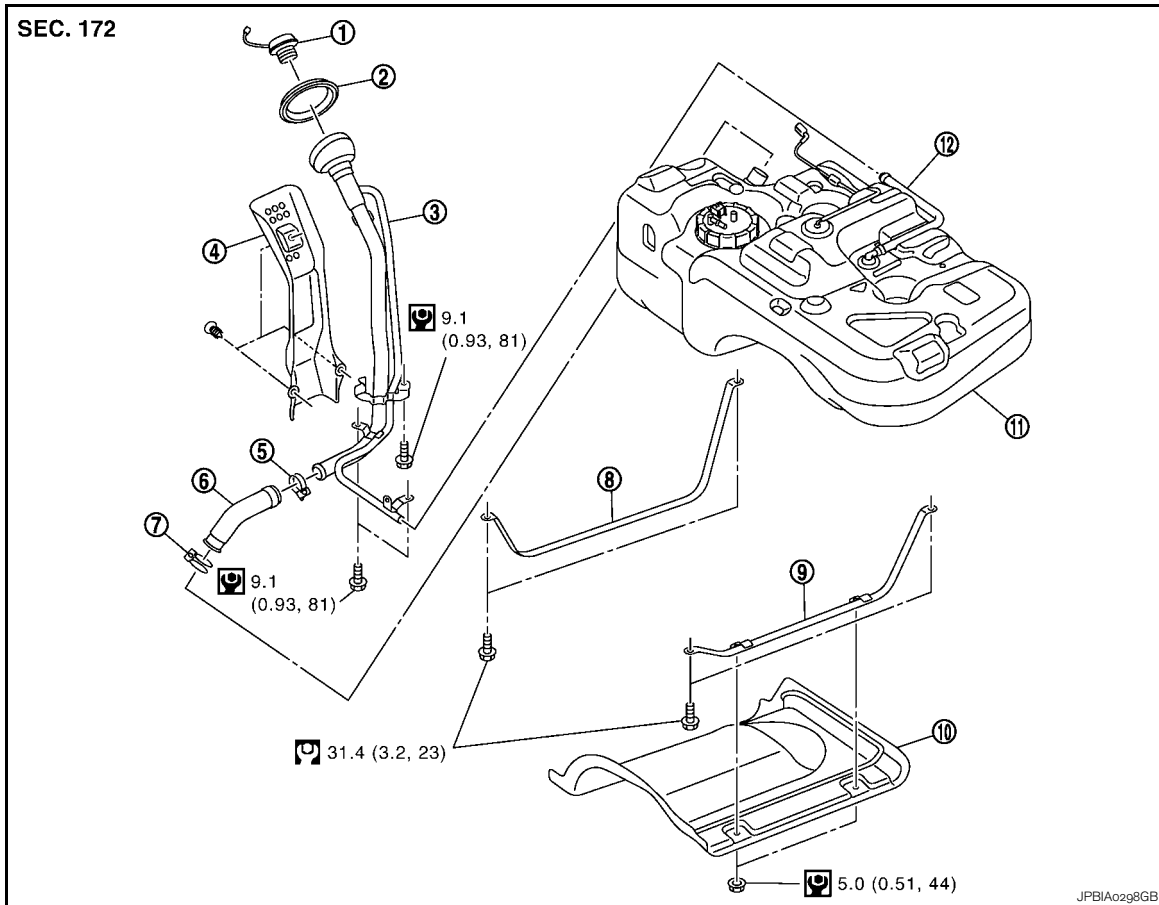
2WD

2WD : Exploded View

2WD

INFOID:000000000905654

FL



- | | | |
|--------------------|------------------------|------------------------|
| 1. Fuel filler cap | 2. Grommet | 3. Fuel filler tube |
| 4. Cover | 5. Clamp | 6. Fuel filler hose |
| 7. Clamp | 8. Fuel tank band (RH) | 9. Fuel tank band (LH) |
| 10. Protector | 11. Fuel tank | 12. Vent hose |

Refer to [GI-4, "Components"](#) for to symbols in the figure.

2WD : Removal and Installation

INFOID:000000000905655

REMOVAL

WARNING:

Be sure to read "General Precautions" when working on the fuel system. Refer to [FL-3, "General Precautions"](#).

- Perform the steps 2 to 7 of "REMOVAL" in " FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY". Refer to [FL-7, "2WD : Removal and Installation"](#).
- Drain fuel from fuel tank if necessary. Refer to [FL-7, "2WD : Removal and Installation"](#).

CAUTION:

- Because fuel tank forwardly inclines and becomes unstable when installing/removing, fuel should be drained if found the remaining quantity.
- Situate vehicle on a flat and solid surface.

- Remove main muffler. Refer to [EX-5, "Exploded View"](#) (HR16DE) or [EX-10, "Exploded View"](#) (MR20DE).

FUEL TANK

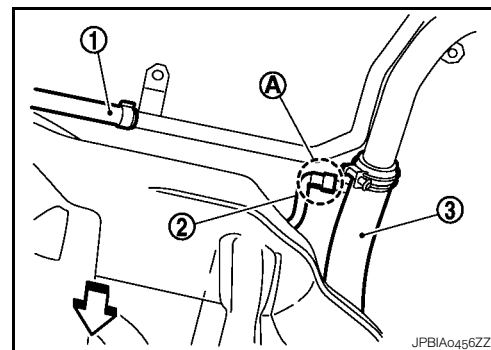
[HR16DE, MR20DE]

< ON-VEHICLE REPAIR >

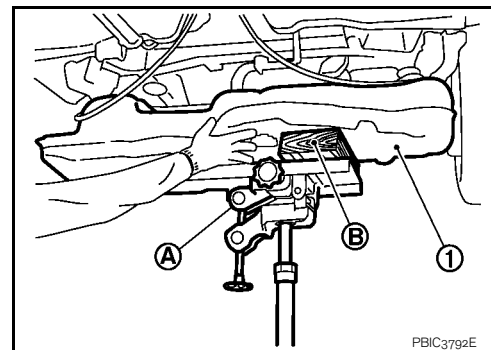
4. Remove protector from fuel tank.
5. Remove vent hose (1) at rear side of fuel tank.

⇐: Vehicle front

6. Disconnect EVAP tube (2) at rear side of fuel tank.
 - Instruction for quick connector (A) of EVAP tube. Refer to [FL-6, "2WD : Exploded View"](#)
7. Remove fuel filler hose (3) at fuel filler tube side.



8. Support center of fuel tank (1) with transmission jack (A).
CAUTION:
Securely support the fuel tank with a piece of wood (B).



9. Remove fuel tank band (RH and LH).
10. Lower transmission jack carefully to remove fuel tank while holding it by hand.
CAUTION:
Fuel tank may be in an unstable condition because of the shape of fuel tank bottom. Never rely on jack too much. Be sure to hold tank securely.

INSTALLATION

Note the following, and install in the reverse order of removal.

Fuel Filler Hose

- Insert fuel filler hose to the length below.

: 35 mm (1.38 in)

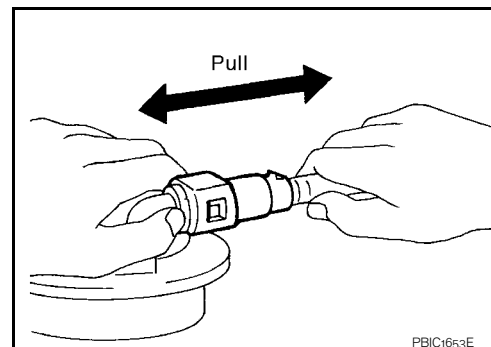
- Be sure hose clamp is not placed on swelled area of fuel filler tube.
- Tighten fuel filler hose clamp so that the remaining length of screw thread becomes to the following.

Fuel filler tube side : 7 - 11 mm (0.28 - 0.43 in)

Fuel tank side : 5 - 9 mm (0.20 - 0.35 in)

EVAP Hose

1. Check connections for damage or foreign material.
2. Align the matching side connection part with the center of shaft, and insert connector straight until it clicks.
3. After connecting, pull out quick connector and centralized under-floor piping by hand. Make sure connections are secure.



2WD : Inspection

INFOID:000000000905656

FUEL TANK

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

INSPECTION AFTER INSTALLATION

Use the following procedure to check for fuel leaks.

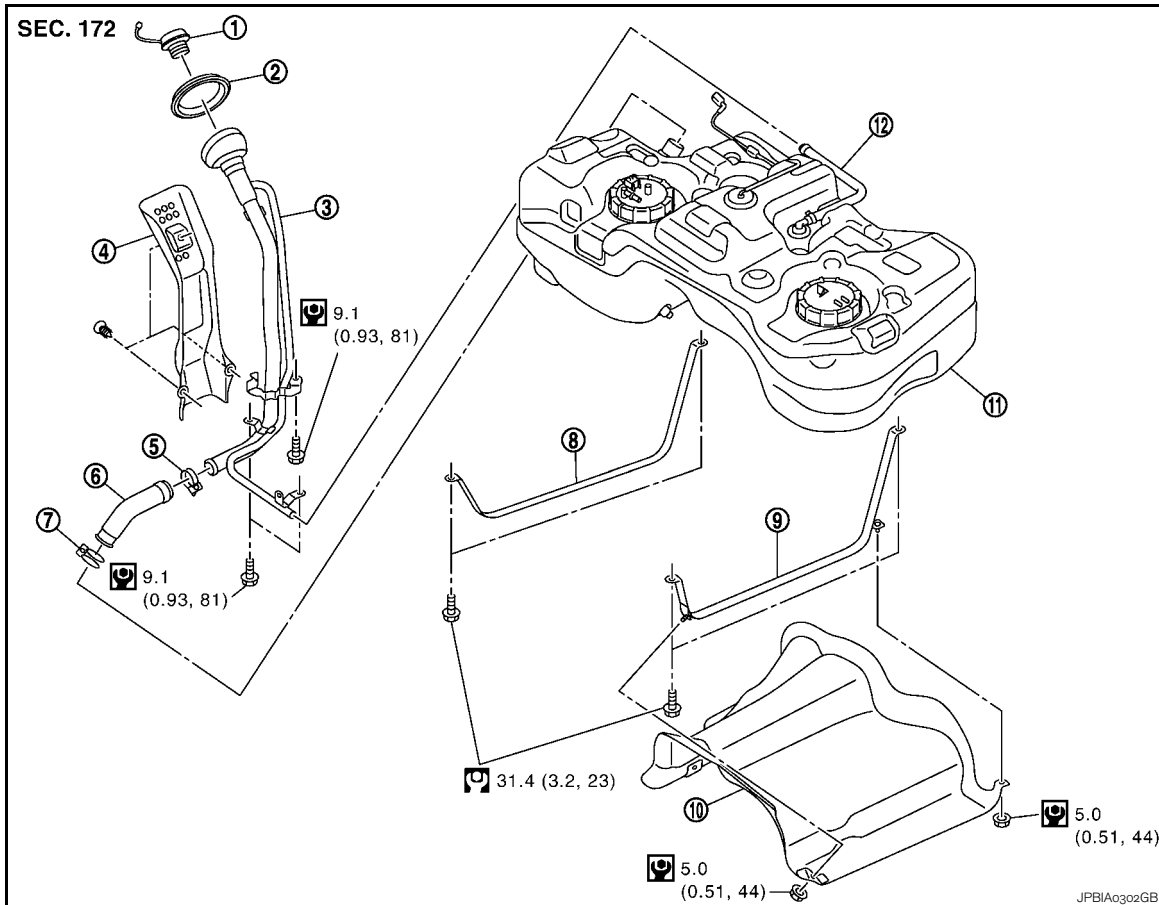
1. Turn ignition switch "ON" (with engine stopped), and check connections for leakage by applying fuel pressure to fuel piping.
2. Start engine and rev it up and make sure there are no fuel leaks at the fuel system tube and hose connections.

4WD

4WD : Exploded View

INFOID:000000001078683

4WD



- | | | |
|--------------------|------------------------|------------------------|
| 1. Fuel filler cap | 2. Grommet | 3. Fuel filler tube |
| 4. Cover | 5. Clamp | 6. Fuel filler hose |
| 7. Clamp | 8. Fuel tank band (RH) | 9. Fuel tank band (LH) |
| 10. Protector | 11. Fuel tank | 12. Vent hose |

Refer to [GI-4, "Components"](#) for to symbols in the figure.

4WD : Removal and Installation

INFOID:000000001078684

REMOVAL

WARNING:

Be sure to read "General Precautions" when working on the fuel system. Refer to [FL-3, "General Precautions"](#).

1. Perform the steps 2 to 7 of "REMOVAL" in " FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY". Refer to [FL-11, "4WD : Removal and Installation"](#).
2. Drain fuel from fuel tank if necessary. Refer to [FL-11, "4WD : Removal and Installation"](#).

FUEL TANK

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

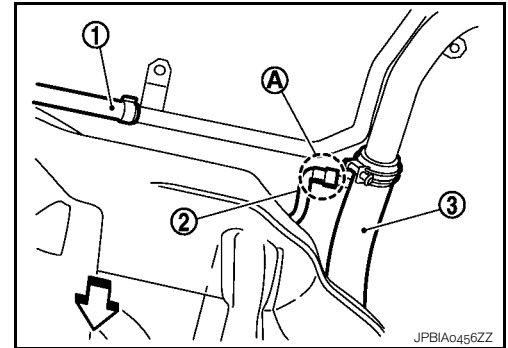
CAUTION:

- Because fuel tank forwardly inclines and becomes unstable when installing/removing, fuel should be drained if found the remaining quantity.
- Situate vehicle on a flat and solid surface.

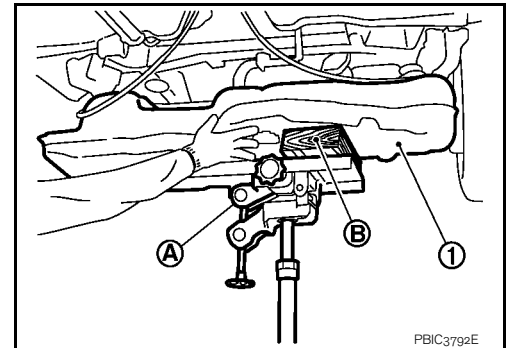
3. Remove propeller shaft. Refer to [DLN-110, "Exploded View"](#).
4. Remove main muffler. Refer to [EX-10, "Exploded View"](#).
5. Remove protector from fuel tank.
6. Remove vent hose (1) at rear side of fuel tank.

⇐: Vehicle front

7. Disconnect EVAP tube (2) at rear side of fuel tank.
 - Instruction for quick connector (A) of EVAP tube. Refer to [FL-10, "4WD : Exploded View"](#)
8. Remove fuel filler hose (3) at fuel filler tube side.



9. Support center of fuel tank (1) with transmission jack (A).
CAUTION:
Securely support the fuel tank with a piece of wood (B).



10. Remove fuel tank band (RH and LH).
11. Lower transmission jack carefully to remove fuel tank while holding it by hand.

CAUTION:

Fuel tank may be in an unstable condition because of the shape of fuel tank bottom. Never rely on jack too much. Be sure to hold tank securely.

INSTALLATION

Note the following, and install in the reverse order of removal.

Fuel Filler Hose

- Insert fuel filler hose to the length below.

: 35 mm (1.38 in)

- Be sure hose clamp is not placed on swelled area of fuel filler tube.
- Tighten fuel filler hose clamp so that the remaining length of screw thread becomes to the following.

Fuel filler tube side : 7 - 11 mm (0.28 - 0.43 in)

Fuel tank side : 5 - 9 mm (0.20 - 0.35 in)

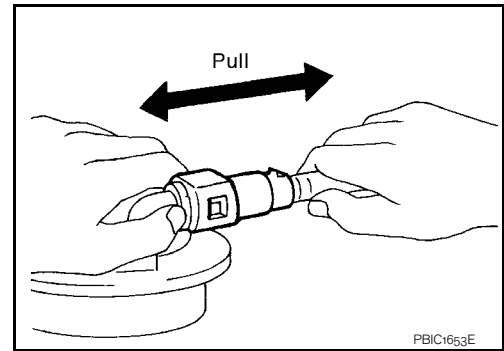
EVAP Hose

FUEL TANK

< ON-VEHICLE REPAIR >

[HR16DE, MR20DE]

1. Check connections for damage or foreign material.
2. Align the matching side connection part with the center of shaft, and insert connector straight until it clicks.
3. After connecting, pull out quick connector and centralized under-floor piping by hand. Make sure connections are secure.



INFOID:000000001078685

4WD : Inspection

INSPECTION AFTER INSTALLATION

Use the following procedure to check for fuel leaks.

1. Turn ignition switch "ON" (with engine stopped), and check connections for leakage by applying fuel pressure to fuel piping.
2. Start engine and rev it up and make sure there are no fuel leaks at the fuel system tube and hose connections.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[HR16DE, MR20DE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Fuel Tank

INFOID:000000000905660

Standard and Limit

Fuel tank capacity	Approximate 65 ℓ (14-1/2 Imp gal)
Fuel recommendation	Refer to GI-32

PREPARATION

< PREPARATION >

[K9K]

PREPARATION

PREPARATION

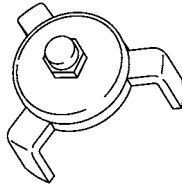
Special Service Tools

INFOID:000000001062547

A

FL

Tool number (RENAULT tool number) Tool name	Description
KV993G0010 (Mot. 1397) Lock ring wrench	Removing and Installing lock ring



PBIC1627E

C

D

E

F

G

H

I

J

K

L

M

N

O

P

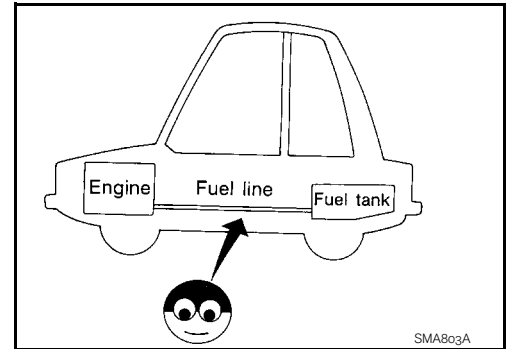
ON-VEHICLE MAINTENANCE

FUEL SYSTEM

Inspection

INFOID:000000001062535

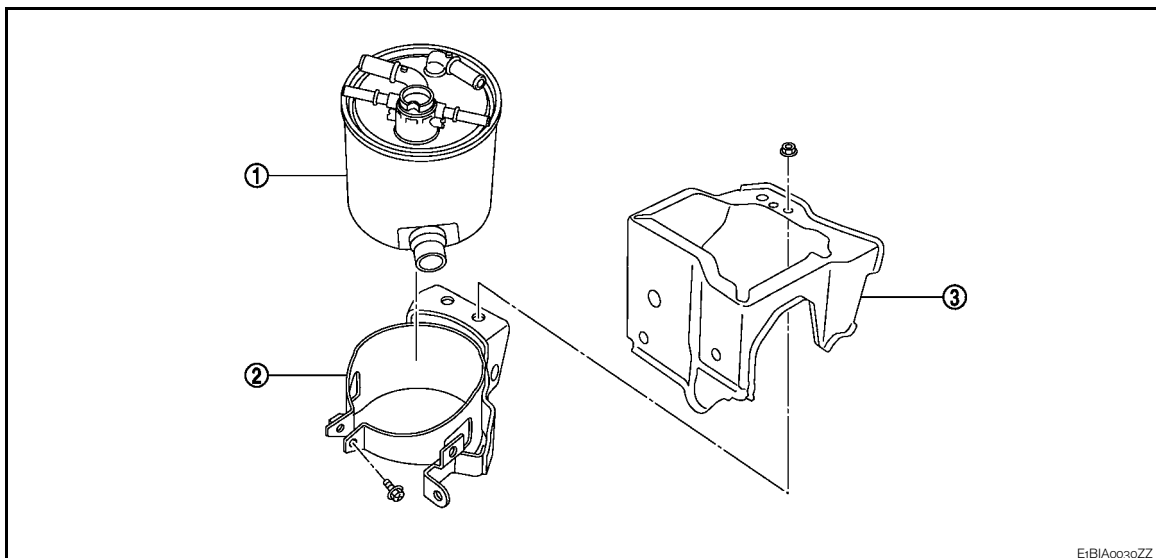
Inspect fuel lines and tank for improper attachment, leaks, cracks, damage, chafing and deterioration. If necessary, repair or replace.



FUEL FILTER

Exploded View

INFOID:000000001062549



- 1. Fuel filter
- 2. Fuel filter bracket
- 3. Fuel filter protector

Replacement

INFOID:000000001062550

1. Remove priming bulb from priming bulb bracket.
2. Remove fuel filter from fuel filter bracket.
3. Remove quick connectors as above.

CAUTION:

Put a shop cloth under the drain valve, to avoid the water and fuel spill on ABS actuator. Be especially careful to prevent any damage.

4. Install in the reverse order of removal.
 - After installation, operate the priming bulb vertically, if it is possible, to perform air bleeding. Refer to [FL-23, "Air Bleeding"](#).

CAUTION:

Do not bend or twist the tube during installation and removal.

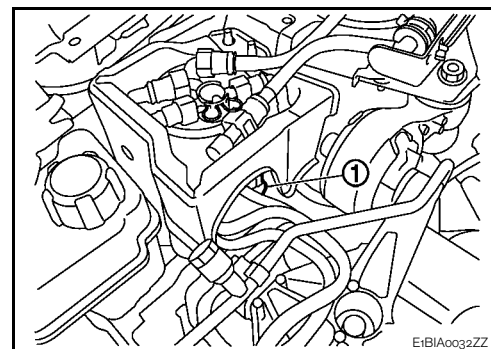
Water Draining

INFOID:000000001062551

Open drain valve (1) at the bottom of fuel filter.

CAUTION:

Put a shop cloth under the drain valve, to avoid the water and fuel spill on ABS actuator.



Air Bleeding

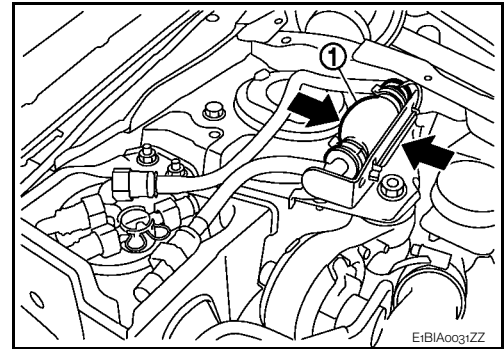
INFOID:000000001062552

FUEL FILTER

[K9K]

< ON-VEHICLE MAINTENANCE >

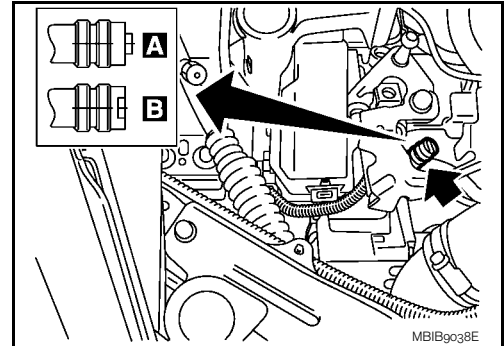
1. Prime the circuit using the priming bulb (1).
2. Perform engine cranking with repeating several times until engine starting.



3. If the engine does not start, use a flat bladed screwdriver to lift up the button on the fuel return pipe and perform engine cranking.
4. When the bleeding is completed, push the button, and check absence of leakage.

A : Bleeding position

B : Normal position



Inspection

INFOID:000000001062561

INSPECTION AFTER REPLACEMENT

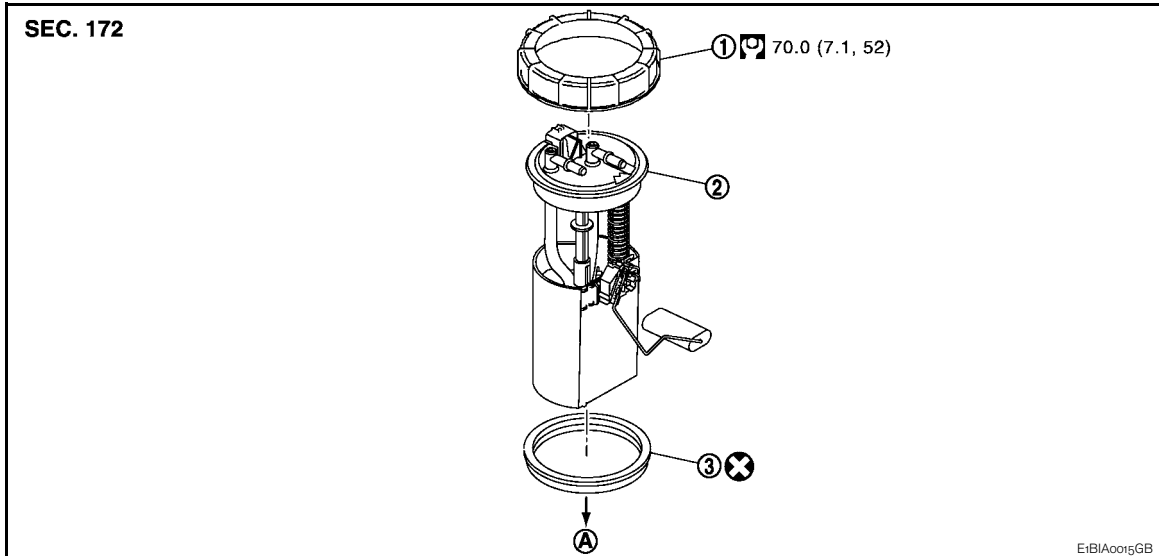
Check fuel filter for fuel leakage, damage and other abnormal signs.

ON-VEHICLE REPAIR

FUEL LEVEL SENSOR UNIT

Exploded View

INFOID:000000001062537



1. Rock ring
 2. Fuel level sensor unit
 3. Seal packing
- A. To fuel tank

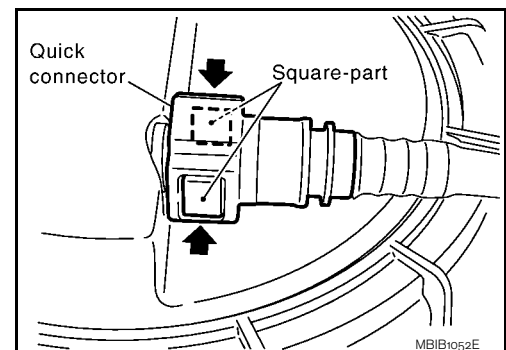
Refer to [GI-4, "Components"](#) for symbols not described on the above.

Removal and Installation

INFOID:000000001062569

REMOVAL

1. Disconnect battery ground cable.
2. Open fuel filler lid and filler cap to release the pressure inside the fuel tank.
3. Remove rear seat cushion. Refer to [SE-31, "Removal and Installation"](#).
4. Remove inspection hole cover under the rear seat.
5. Disconnect electrical connector.
6. Disconnect the quick connectors.
 - Hold the connector while pushing in tabs, and pull out the tube.

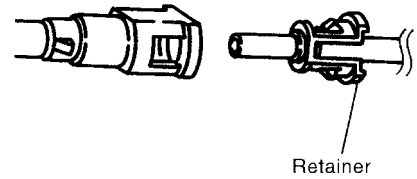


FUEL LEVEL SENSOR UNIT

< ON-VEHICLE REPAIR >

[K9K]

Disconnected



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.
- When the tube is replaced, also replace the retainer with a new one.

7. Using lock ring wrench [SST: KV993G0010], remove lock ring (2).

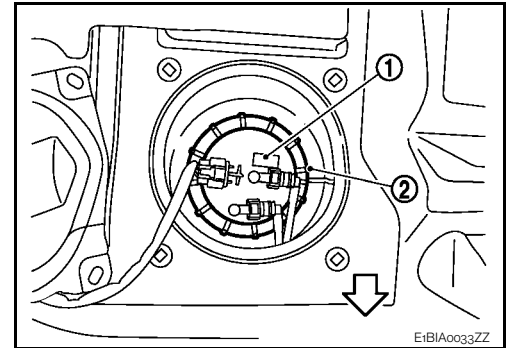
CAUTION:

Rotate SST while pressing fuel level sensor unit as spring reaction force is applied from fuel tank inside to up ward.

8. Remove fuel level sensor unit(1).

CAUTION:

- Be careful not to bend the float arm when removing.
- Handle them carefully without subjecting them to impacts such as dropping.



INSTALLATION

Install in the reverse order of removal.

FUEL TANK

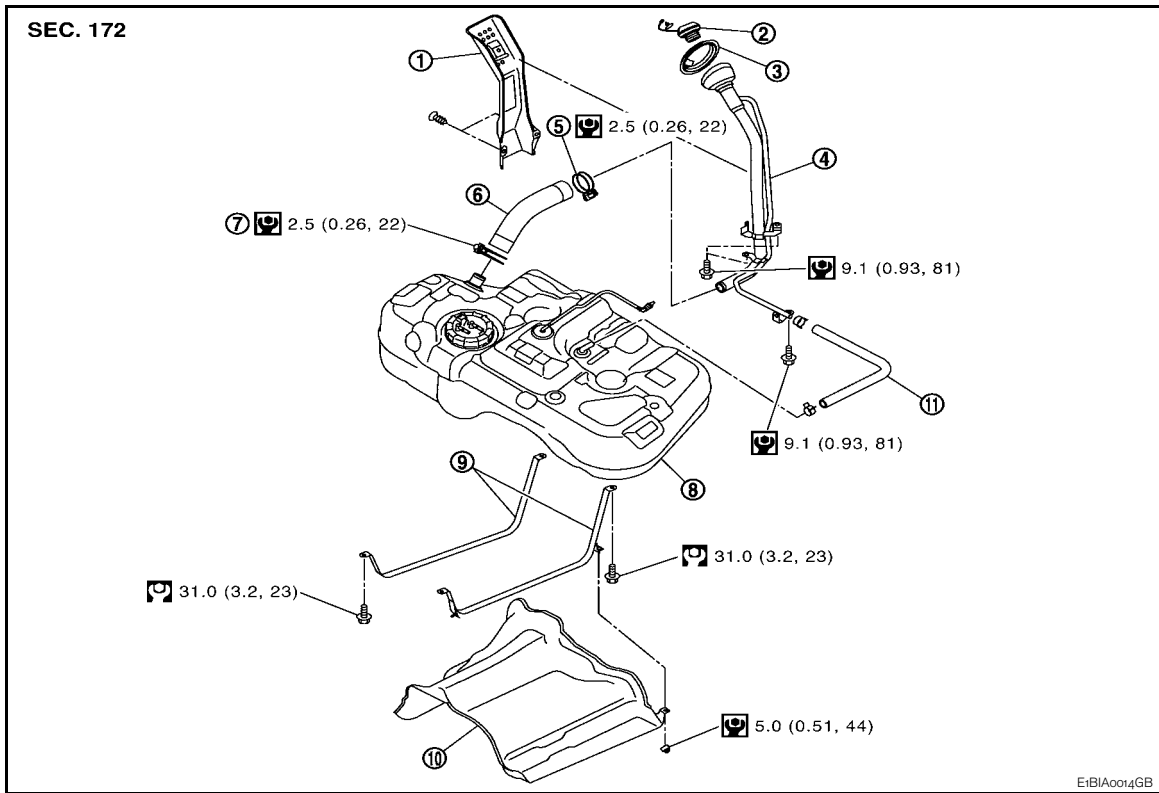
< ON-VEHICLE REPAIR >

[K9K]

FUEL TANK

Exploded View

INFOID:000000001062540



- | | | |
|-------------------------------|--------------------|------------------------------|
| 1. Fuel filler tube protector | 2. Fuel filler cap | 3. Fuel filler cap protector |
| 4. Fuel filler tube | 5. Clamp | 6. Fuel filler hose |
| 7. Clamp | 8. Fuel tank | 9. Fuel tank mounting band |
| 10. Fuel tank protector | 11. Vent hose | |

Refer to [GI-4, "Components"](#) for symbols not described on the above.

Removal and Installation

INFOID:000000001062571

REMOVAL

1. Remove RH rear wheel.
2. Remove fuel level sensor unit. Refer to [FL-25, "Removal and Installation"](#).
CAUTION:
If fuel tank bottom face is not level, and remaining fuel level is high, tank position becomes unstable, causing a danger. Drain fuel further than that in step 1 of the referenced procedure until tank can be held by hand even if the balance is lost.
3. Remove muffler. Refer to [EX-15, "Removal and Installation"](#).
4. Remove vehicle side insulator on upper center muffler and main muffler.
5. Move parking brake cable from the lower face of fuel tank. Then remove clips for parking brake cable.

FUEL TANK

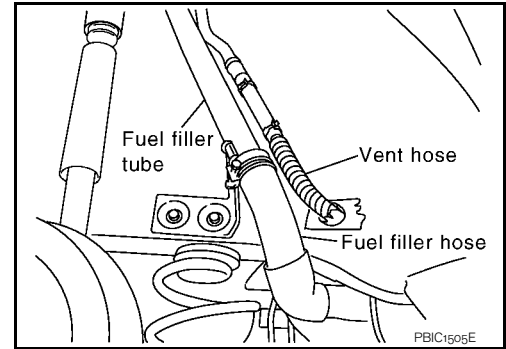
< ON-VEHICLE REPAIR >

[K9K]

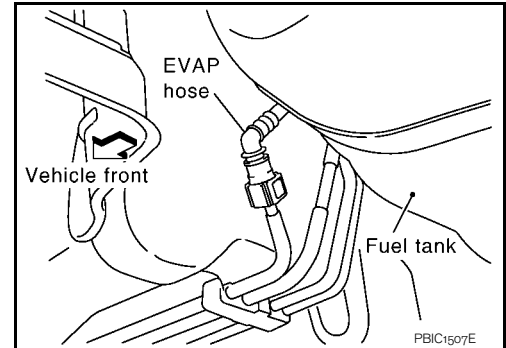
6. Disconnect fuel filler hose on fuel tank side.

CAUTION:

Do not remove fuel filler hose at fuel filler tube side, preventing to interfere with suspension due to dislocation when installing. When removing at fuel filler tube side necessarily, put mating marks, and remove.



7. Remove vent hose at RH rear wheelwell side.
8. Remove EVAP hose at front side of fuel tank.



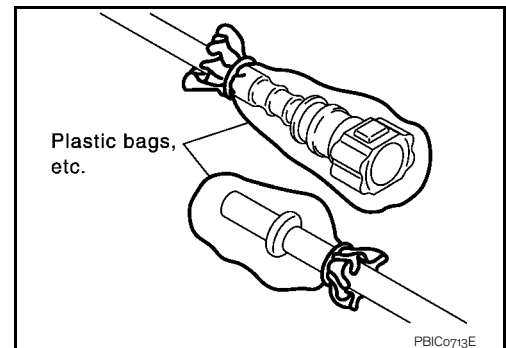
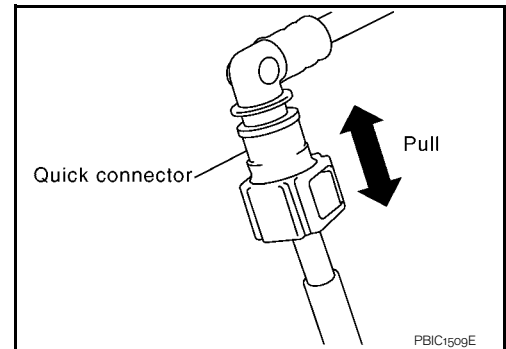
- Remove quick connector in the following procedures.
- Pinch quick connector square-parts with your fingers, and pull out the quick connector by hand.
- If quick connector and tube on vehicle are stuck, push and pull several times until they move, and pull out.

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.
- To keep clean the connecting portion and to avoid damage and foreign materials, cover them completely with plastic bags or something similar.

CAUTION:

Do not insert plug, preventing damage on O-ring in quick connector.



FUEL TANK

< ON-VEHICLE REPAIR >

[K9K]

9. Support center of fuel tank with suitable transmission jack.

CAUTION:

Securely support the fuel tank with a piece of wood.

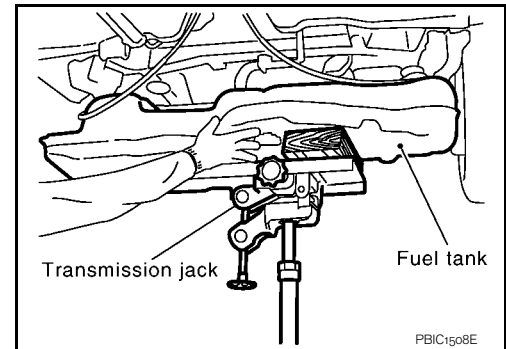
10. Remove RH/LH mounting band.

11. Lower suitable transmission jack carefully to remove fuel tank while holding it by hand. Perform the following works at the same time.

- Pull out vent hose from through hole of vehicle.
- Avoid interference with tank by pulling parking brake cable by hand.

CAUTION:

Tank may be in an unstable condition because of the shape of fuel tank bottom. Do not rely on jack too much. Be sure to hold tank securely.



INSTALLATION

Install in the reverse order of removal which being careful of the following.

Installation of Fuel Tank Mounting Band

- Install it by referring to the identification stamp mark "R" and "L" on the end.

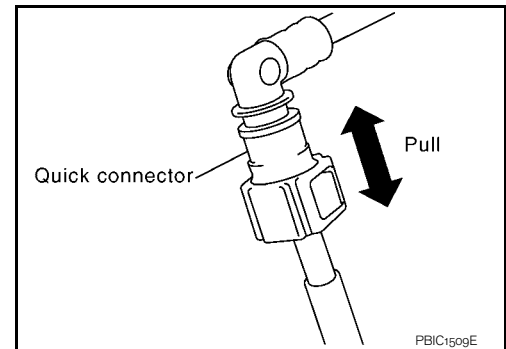
Installation of fuel Filler Hose

- Insert filler hose into mating side part by 35 mm (1.38 in), and secure it with clamp.
- When installing clamp, do not allow clamp to contact the bulge (bump) part of the tube.
- Tighten the clamp of filler hose to a torque of 2.5 N·m (0.26 kg-m, 22 in-lb).

Installation of EVAP Hose

- Connect quick connector in the following procedures.

1. Check connections for damage or foreign material.
2. Align the mating side connection part with the center of shaft, and insert connector straight until it clicks.
3. After connecting, pull out quick connector by hand. Make sure connections are secure.



Installation of Vent Hose

- Push vent hose into through hole of vehicle.
- Insert vent hose into vent rubber hose, and secure it with clamp.

Inspection

INFOID:000000001062542

INSPECTION AFTER INSTALLATION

Make sure there is no fuel leakage at connections in the following procedure.

- Start engine, rev it up and make sure there is no fuel leakage at connections.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[K9K]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Fuel Tank

INFOID:0000000001062546

Fuel tank capacity	Approx. 65 ℓ (14-1/4 Imp gal)
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