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# SECTION **FL**

## FUEL SYSTEM

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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

#### General Precaution

INFOID:000000011279609

#### **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 CO<sub>2</sub> fire extinguisher.
- Do not 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-25, "Fuel \(Regular Unleaded Gasoline Recommended\)"](#).
- 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-147, "Work Procedure"](#).
  - Disconnect the battery cable from the negative terminal.
- 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, check there is no fuel leaks 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 "MIL" may come on.

# PREPARATION

< PREPARATION >

## PREPARATION

### PREPARATION

#### Special Service Tool

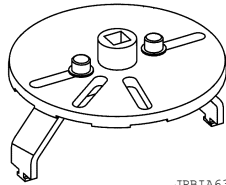
INFOID:000000011279610

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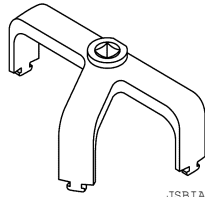
FL

The actual shape of the tools may differ from those illustrated here

Tool number (TechMate No.) Tool name	Description
KV101207S0 ( — ) Unified fuel lock ring wrench	Removing and installing fuel tank lock ring
— (J-45747) Fuel tank lock ring wrench	



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# FUEL SYSTEM

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### FUEL SYSTEM

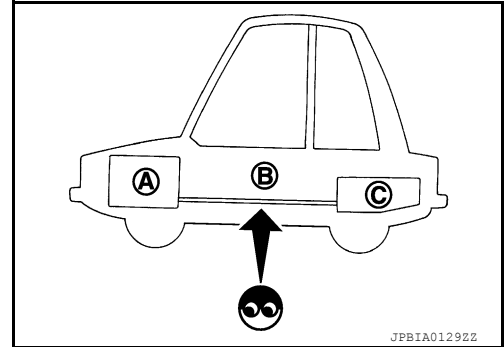
#### Inspection

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

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

If necessary, repair or replace damaged parts.



#### Quick Connector

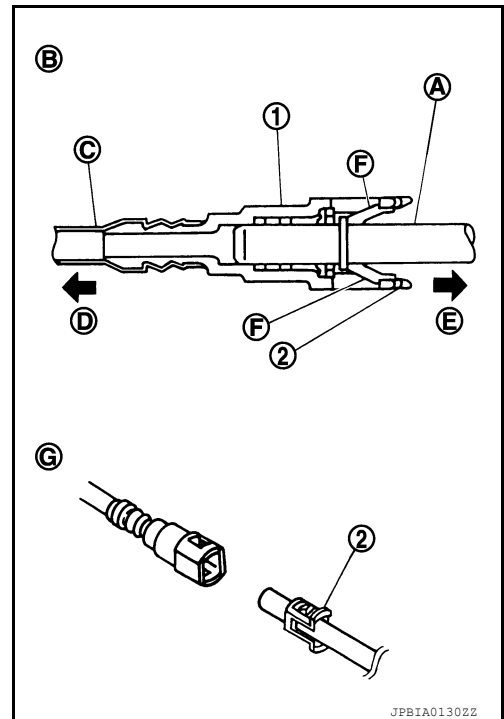
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#### CAUTION:

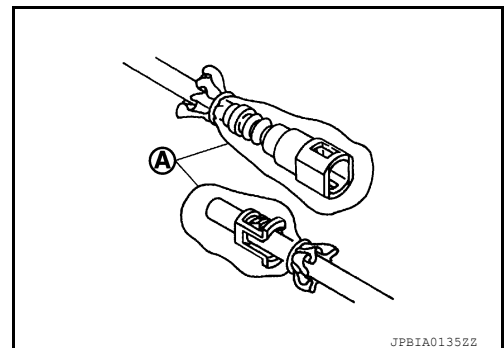
- After connecting fuel tube quick connectors, check that quick connectors are secure.
- Ensure that connector and resin tube never contact any adjacent parts.
- Quick connector (1) can be disconnected when the tabs (F) are depressed completely. Do not twist it more than necessary.

- (B) : Connection (cross-section)
- (D) : To under floor fuel line
- (E) : To fuel tank
- (G) : Disconnection

- Do not use any tools to disconnected quick connector.
- Keep resin tube (C) 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.
- Do not bend or twist resin tube during installation and disconnection.
- Do not remove the remaining retainer (2) on hard tube (or the equivalent) (A) except when resin tube or retainer is replaced.
- When resin tube or hard tube (or the equivalent) is replaced, also replace retainer with new one.



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



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

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

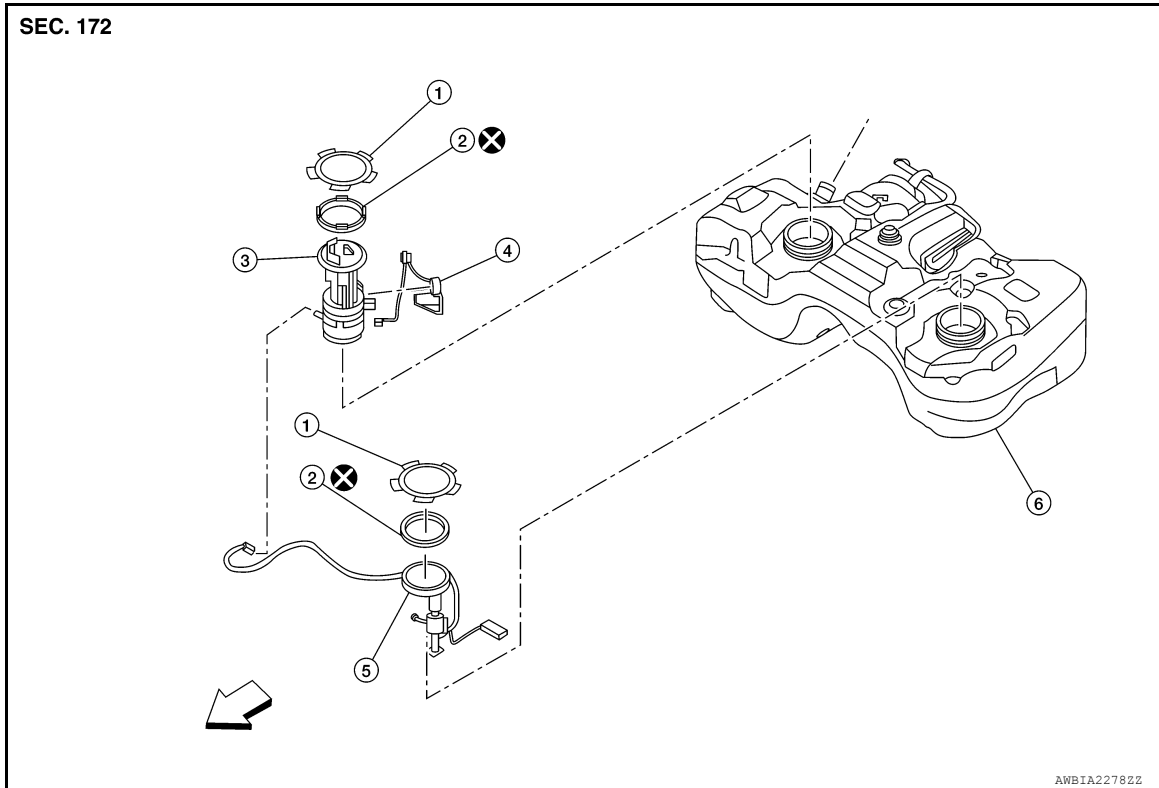
### FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

Exploded View

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- 1. Lock ring
- 2. O-ring
- 3. Fuel filter and fuel pump assembly
- 4. Fuel level sensor and fuel tank temperature sensor
- 5. Sub fuel level sensor assembly
- 6. Fuel tank

K

⇐ Front

### Removal and Installation

INFOID:000000011279614

#### **WARNING:**

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

#### **CAUTION:**

Do not remove or disassemble parts unless instructed as shown.

#### **NOTE:**

When removing components such as hoses, tubes/lines, etc., cap or plug openings to prevent fluid from spilling.

#### REMOVAL

Fuel Level Sensor Unit, Fuel Filter And Fuel Pump Assembly

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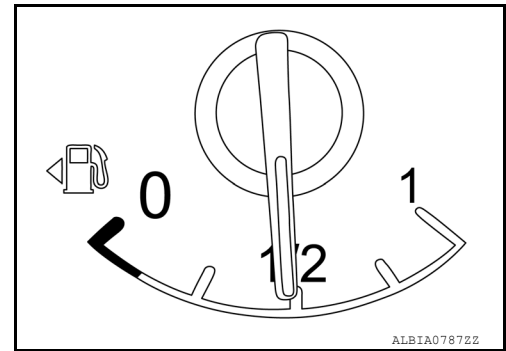
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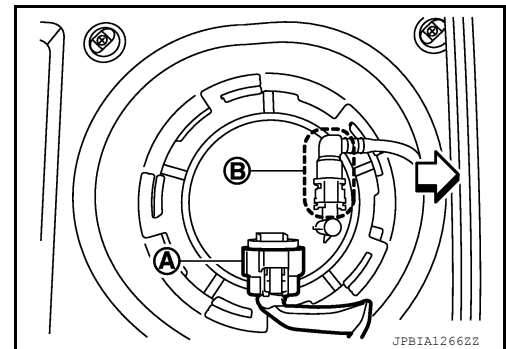
# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

## < REMOVAL AND INSTALLATION >

1. Check the fuel level with the vehicle on a level surface. If the fuel gauge indicates more than the level as shown (1/2 full), drain the fuel from the fuel tank until the fuel gauge indicates a level at or below as shown (1/2 full).
  - In case the fuel pump does not operate, use the following procedure.
- a. Insert fuel tubing of less than 25mm (0.98in) diameter into the fuel filler tube through the fuel filler opening to drain fuel from the fuel filler tube.
- b. Disconnect the fuel filler hose from the fuel filler tube.
- c. Insert fuel tubing into the fuel tank through the fuel filler hose to drain fuel from the fuel tank.
  - As a guide, the fuel level reaches or is less than the level on the fuel gauge as shown, when approximately 27.5 ℓ (7-1/4 US gal, 6 Imp gal) of fuel is drained from a full fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-147, "Work Procedure"](#).
3. Open fuel filler lid.
4. Open fuel filler cap and release the pressure inside the fuel tank.
5. Disconnect negative battery terminal. Refer to [PG-78, "Removal and Installation \(Battery\)"](#).
6. Remove second row seat (RH). Refer to [SE-39, "Removal and Installation"](#).
7. Turn the four retainers 90 degrees to disengage the clips and remove the fuel pump inspection hole cover.  
**CAUTION:**  
**Cover the immediate area surrounding the fuel pump inspection hole cover with plastic to avoid gasoline damage to carpet.**
8. Disconnect harness connector (A) and quick connector (B).



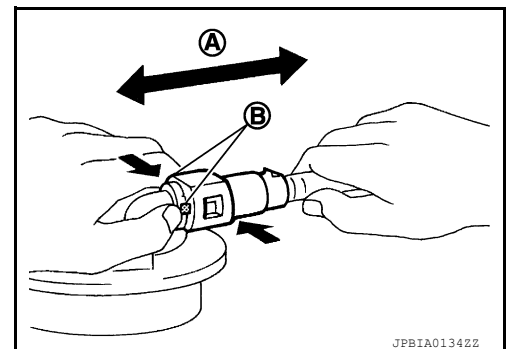
↔ : Front



Disconnect quick connector as follows:

- Hold the sides of connector, press tabs and pull out fuel feed tube.

- (A) : Pull  
(B) : Push in tabs



If quick connector sticks to tube of main fuel level sensor unit, push and pull quick connectors several times until they start to move. Then disconnect them by pulling.

**CAUTION:**

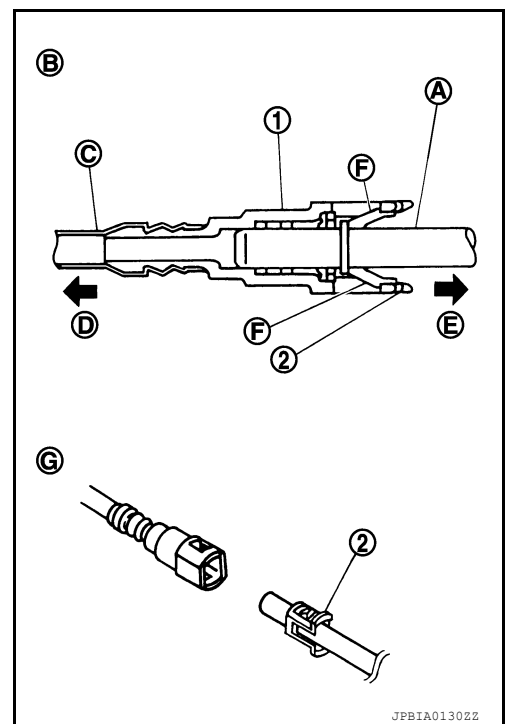
# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

## < REMOVAL AND INSTALLATION >

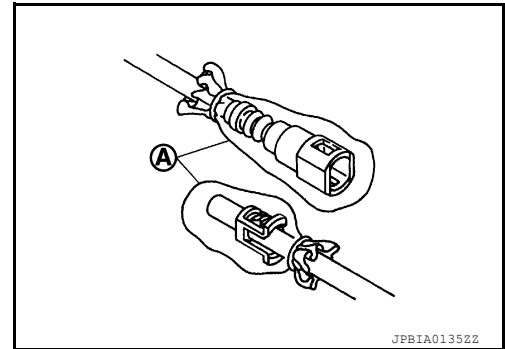
- Quick connector (1) can be disconnected when the tabs (F) are depressed completely. Do not twist it more than necessary.

- (B) : Connection (cross-section)
- (D) : To under floor fuel line
- (E) : To fuel tank
- (G) : Disconnection

- Do not use any tools to disconnected quick connector.
- Keep resin tube (C) 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.
- Do not bend or twist resin tube during installation and disconnection.
- Do not remove the remaining retainer (2) on hard tube (or the equivalent) (A) except when resin tube or retainer is replaced.
- When resin tube or hard tube (or the equivalent) is replaced, also replace retainer with new one.



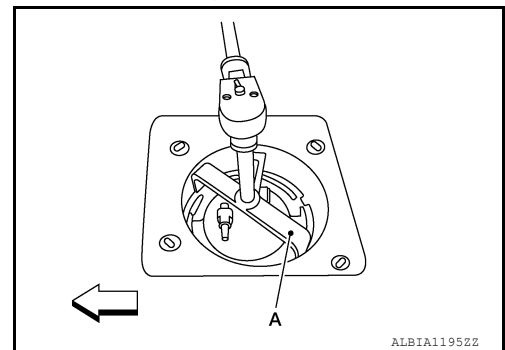
- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags (A) or something similar.



- Remove the lock ring from the fuel level sensor, fuel filter, and fuel pump assembly.
  - Remove the lock ring using Tool (A).

Tool number : ( — ) J-45747 (shown)  
 : KV101207S0 ( — )

← : Front

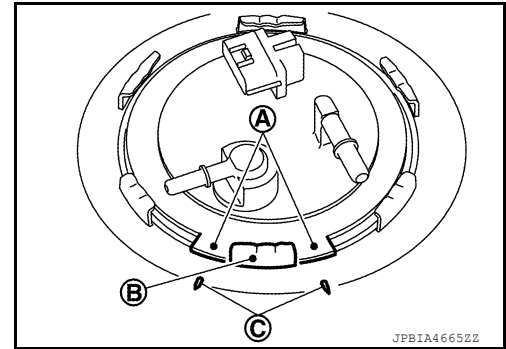


# FUEL LEVEL SENSOR UNIT, FUEL FILTER AND FUEL PUMP ASSEMBLY

## < REMOVAL AND INSTALLATION >

- Prior to removal, observe the alignment between the fuel level sensor, fuel filter, and fuel pump assembly tabs (A) and the matching marks (C) on the fuel tank as shown. This alignment is necessary for proper installation.

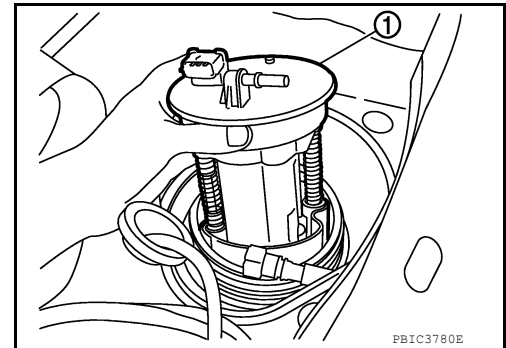
(B) : Retainer mounting pawl



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

### CAUTION:

- Do not bend float arm during removal.
- Do not pollute the inside by residue fuel. Draw out avoiding inclination by supporting with a cloth.
- Do not cause impacts such by dropping when handling components.

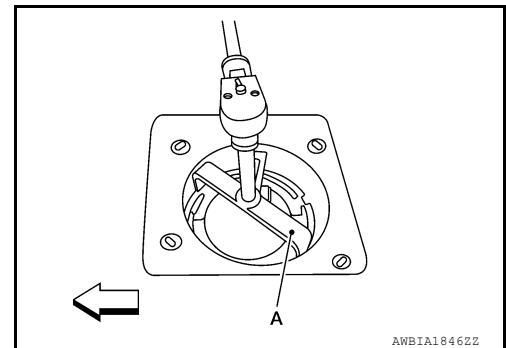


### Sub Fuel Level Sensor Assembly

1. Remove fuel level sensor unit, fuel filter and fuel pump assembly.
2. Remove second row seat (LH). Refer to [SE-39, "Removal and Installation"](#).
3. Remove inspection hole cover.
  - Using a suitable, remove it by turning clips clockwise by 90 degrees.
4. Remove the lock ring from the fuel level sensor, fuel filter, and sub fuel level assembly.

**Tool number** : ( — ) J-45747 (shown)  
: KV101207S0 ( — )

↶ : Front



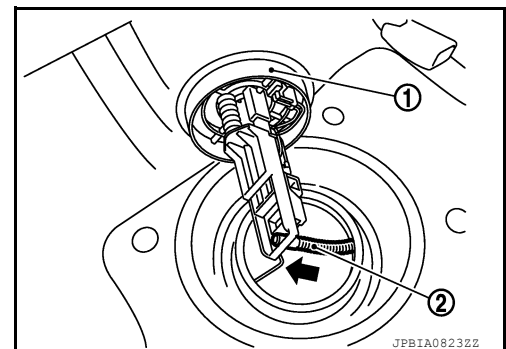
5. Remove sub fuel level sensor assembly (1).

### CAUTION:

- Do not disassemble a fuel tube (2) from sub fuel sensor assembly.
- Do not bend float arm during removal.
- Do not pollute the inside by residue fuel. Draw out avoiding inclination by supporting with a cloth.
- Do not cause impacts such by dropping when handling components.

### NOTE:

Tie a gasoline-resistance rope to a tip of the tube. Draw (↶) and leave the rope to the fuel tank side so that the rope can be the guide for installation.



## INSTALLATION

Installation is in the reverse order of removal.

- Install O-ring to fuel tank without any twist.



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

## < REMOVAL AND INSTALLATION >

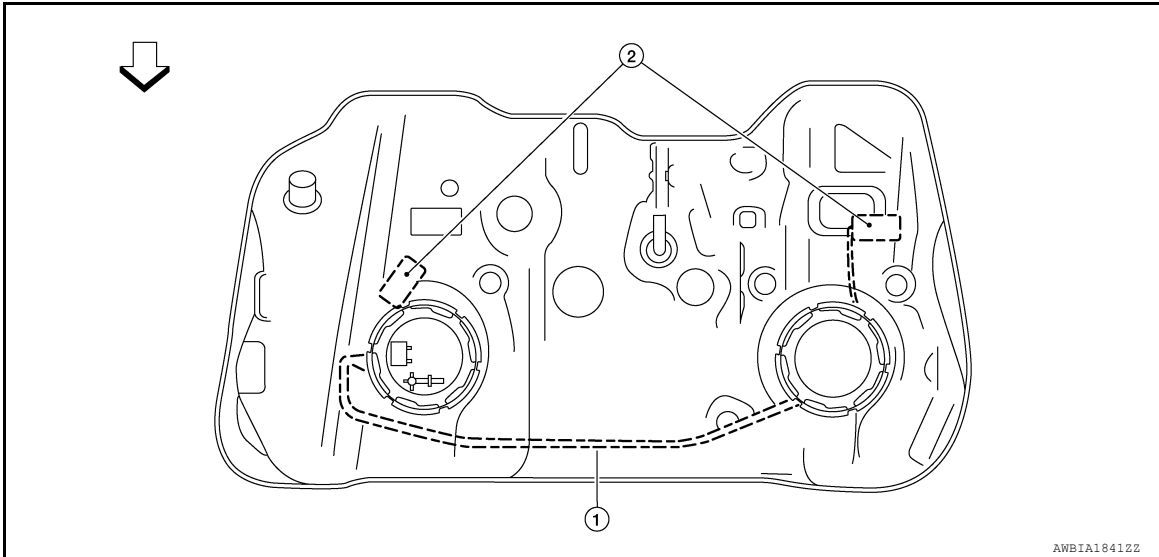
### CAUTION:

**Do not reuse O-ring.**

- Using the rope left on the fuel tank side at removal, run the fuel tube inside the fuel tank to install the sub fuel level sensor assembly to the fuel tank.

### CAUTION:

- Do not bend float arm during installation.**
- To install, fuel tube (1) must run to the front (↔) of the vehicle to avoid the interference with the float arm (2), as shown.**

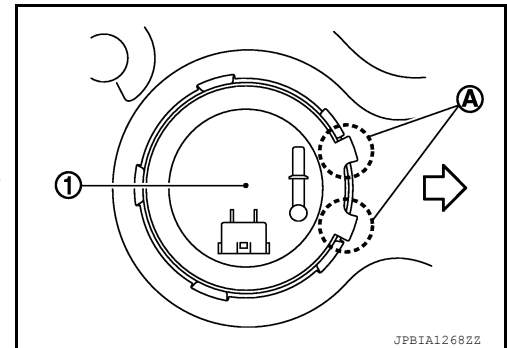


- Align the tabs (A) of the fuel level sensor unit, fuel filter and fuel pump assembly (1) as shown.

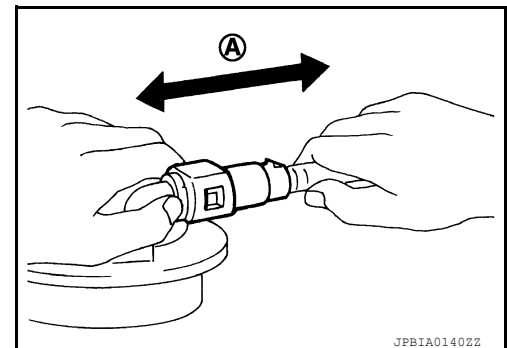
↔ : Front

### NOTE:

Fuel level sensor unit, fuel filter and fuel pump assembly side of fuel tank shown.



- Check the connection for damage or any foreign materials.
- Align the connector with the tube, then insert the connector straight into the tube until a “click” sound is heard.
- After connecting, check that the connection is secured with following procedures.
  - Visually confirm that the two tabs are connected to the connector.
  - Pull (A) the tube and the connector to check that they are securely connected.
- Before installing inspection hole cover, check that the connecting part has no fuel leaks. Refer to [FL-9, "Inspection"](#).
- Install inspection hole covers with the front mark (arrow) facing front.
- Lock clips by turning counterclockwise.



## Inspection

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## INSPECTION AFTER INSTALLATION

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

### **< REMOVAL AND INSTALLATION >**

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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. Then let it idle and check that there is no fuel leaks at the fuel system connections.

# FUEL TANK

< REMOVAL AND INSTALLATION >

## FUEL TANK

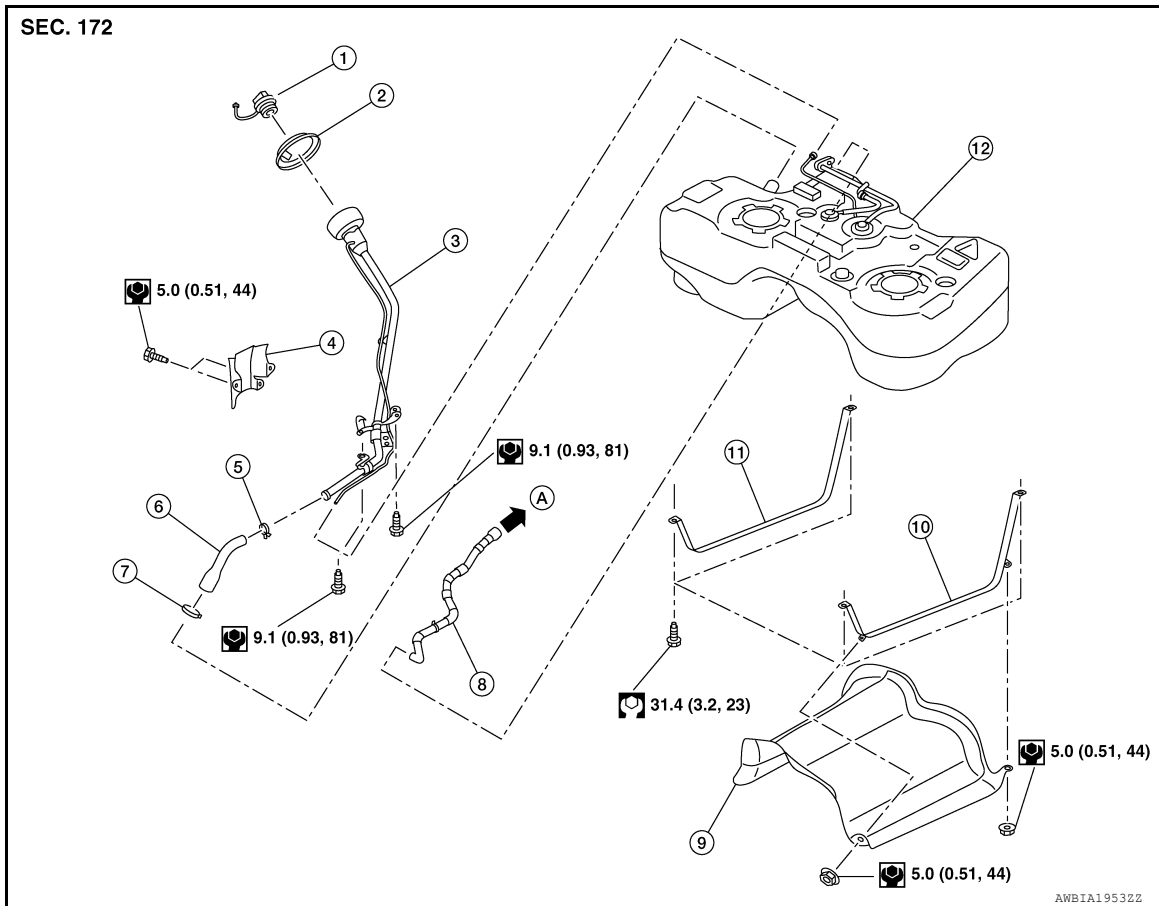
FWD

FWD : Exploded View

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|--------------------------|--------------------------|------------------------|
| 1. Fuel filler cap       | 2. Grommet               | 3. Fuel filler tube    |
| 4. Cover                 | 5. Clamp                 | 6. Fuel filler hose    |
| 7. Clamp                 | 8. Vent hose             | 9. Fuel tank protector |
| 10. Fuel tank strap (LH) | 11. Fuel tank strap (RH) | 12. Fuel tank          |
- A. To EVAP canister

FWD : Removal and Installation

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### WARNING:

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

### NOTE:

When removing components such as hoses, tubes/lines, etc., cap or plug openings to prevent fluid from spilling.

### REMOVAL

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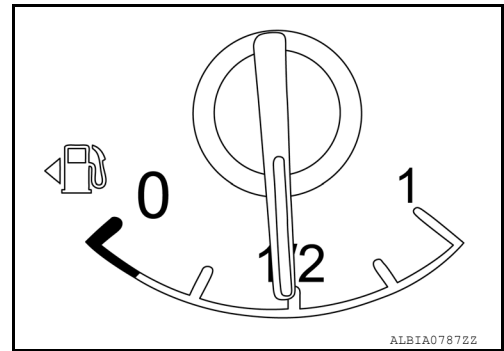
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# FUEL TANK

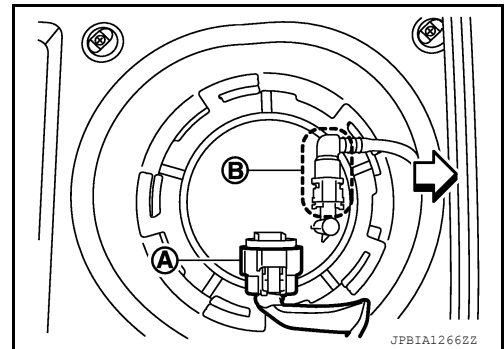
## < REMOVAL AND INSTALLATION >

1. Check the fuel level with the vehicle on a level surface. If the fuel gauge indicates more than the level as shown (1/2 full), drain the fuel from the fuel tank until the fuel gauge indicates a level at or below as shown (1/2 full).
  - In case the fuel pump does not operate, use the following procedure.
- a. Insert fuel tubing of less than 25mm (0.98in) diameter into the fuel filler tube through the fuel filler opening to drain fuel from the fuel filler tube.
- b. Disconnect the fuel filler hose from the fuel filler tube.
- c. Insert fuel tubing into the fuel tank through the fuel filler hose to drain fuel from the fuel tank.
  - As a guide, the fuel level reaches or is less than the level on the fuel gauge as shown, when approximately 27.5 ℓ (7-1/4 US gal, 6 Imp gal) of fuel is drained from a full fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-147, "Work Procedure"](#).
3. Disconnect negative battery terminal. Refer to [PG-78, "Removal and Installation \(Battery\)"](#).
4. Unscrew the fuel filler cap to release the pressure inside the fuel tank.
5. Remove second row seat (RH). Refer to [SE-39, "Removal and Installation"](#).
6. Turn the four retainers 90 degrees to disengage the clips and remove the fuel pump inspection hole cover.
 

**CAUTION:**  
Cover the immediate area surrounding the fuel pump inspection hole cover with plastic to avoid gasoline damage to carpet.
7. Disconnect harness connector (A) and quick connector (B).



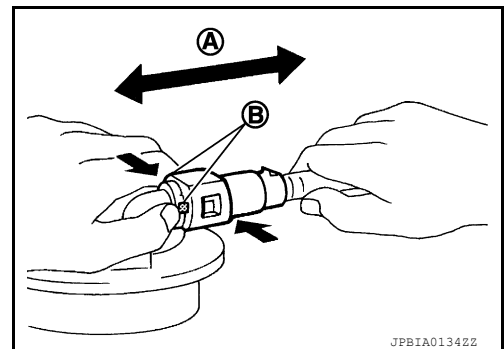
↔ : Front



Disconnect quick connector as follows:

- Hold the sides of connector, press tabs and pull out fuel feed tube.

- (A) : Pull
- (B) : Push in tabs



- If quick connector sticks to tube of main fuel level sensor unit, push and pull quick connectors several times until they start to move. Then disconnect them by pulling.

**CAUTION:**

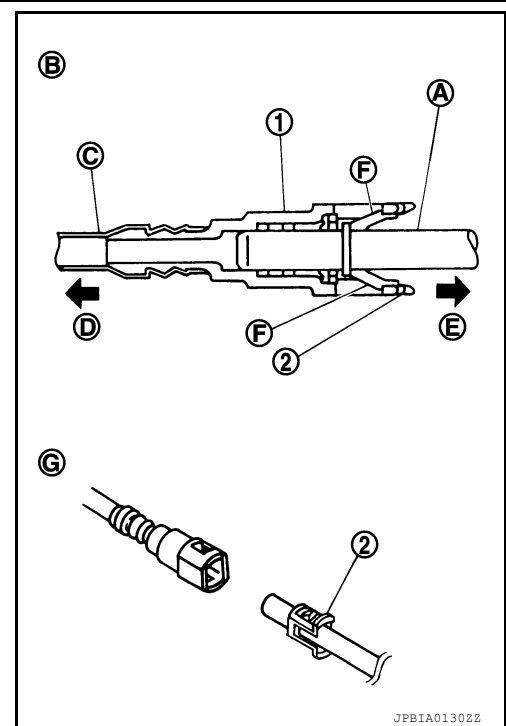
# FUEL TANK

## < REMOVAL AND INSTALLATION >

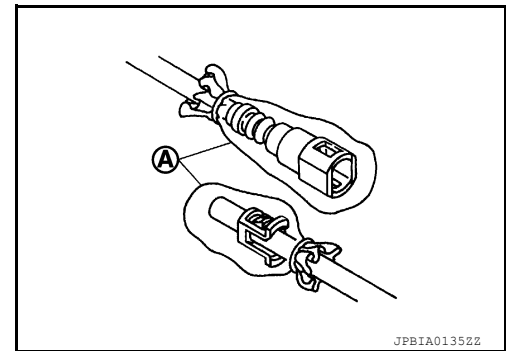
- Quick connector (1) can be disconnected when the tabs (F) are depressed completely. Do not twist it more than necessary.

- (B) : Connection (cross-section)  
 (D) : To under floor fuel line  
 (E) : To fuel tank  
 (G) : Disconnection

- Do not use any tools to disconnected quick connector.
- Keep resin tube (C) 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.
- Do not bend or twist resin tube during installation and disconnection.
- Do not remove the remaining retainer (2) on hard tube (or the equivalent) (A) except when resin tube or retainer is replaced.
- When resin tube or hard tube (or the equivalent) is replaced, also replace retainer with new one.

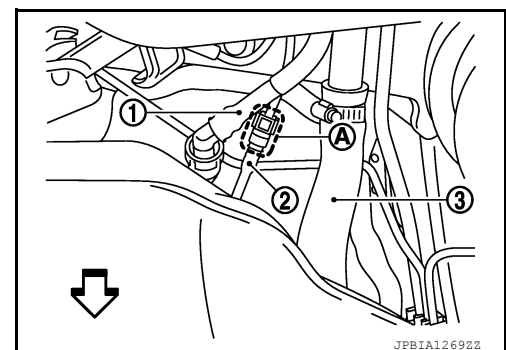


- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags (A) or something similar.



8. Remove center exhaust tube and muffler assembly. Refer to [EX-5. "Exploded View"](#).
9. Remove protector from fuel tank.
10. Remove vent hose (1) at rear side of fuel tank.
11. Disconnect EVAP tube (2) at rear side of fuel tank.
  - Instruction for quick connector (A) of EVAP tube. Refer to [FL-4. "Quick Connector"](#).
12. Remove fuel filler hose (3) at fuel filler tube side.

⇐: Front



13. Remove parking brake cable bolts and separate parking brake cable from suspension arm. Refer to [PB-7. "Exploded View"](#).
14. Remove lower link deflector. Refer to [RSU-18. "Exploded View"](#).

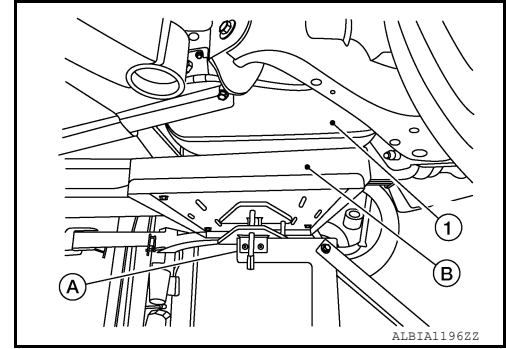
# FUEL TANK

## < REMOVAL AND INSTALLATION >

15. Support center of fuel tank (1) with suitable jack (A).

**CAUTION:**

**Securely support the fuel tank with a piece of wood (B).**



16. Remove fuel tank bands.

17. Lower suitable 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. Be sure to secure fuel tank at all times.**

18. If replacing the fuel tank, remove the fuel level sensor unit, fuel filter and fuel pump assembly to transfer to the new fuel tank. Remove and discard the O-ring. Refer to [FL-5, "Removal and Installation"](#).

## INSTALLATION

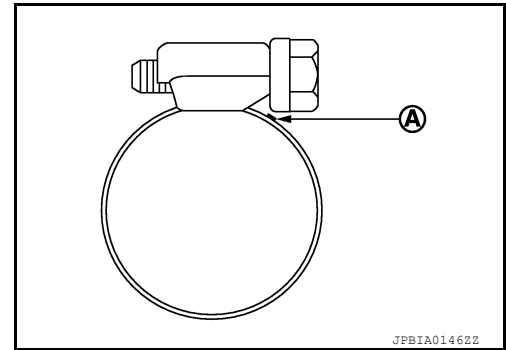
Installation is in the reverse order of removal.

### 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 the clamp hand with the top mark (A) until the mark is on the bolt head flange.



## FWD : Inspection

INFOID:000000011279618

## INSPECTION AFTER INSTALLATION

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. Start engine, raise idle and verify there are no leaks at the fuel system connections.

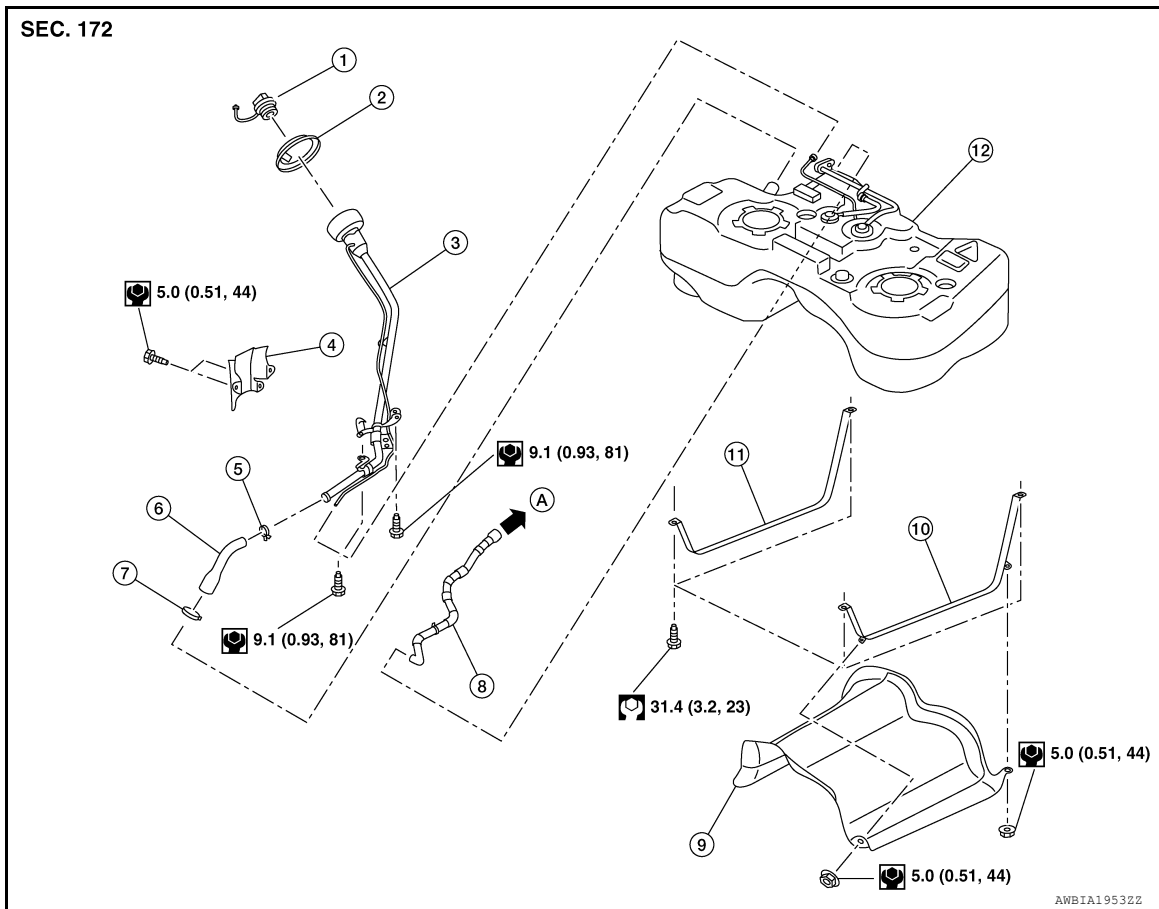
## AWD

# FUEL TANK

< REMOVAL AND INSTALLATION >

AWD : Exploded View

INFOID:000000011279619



- |                          |                          |                        |
|--------------------------|--------------------------|------------------------|
| 1. Fuel filler cap       | 2. Grommet               | 3. Fuel filler tube    |
| 4. Cover                 | 5. Clamp                 | 6. Fuel filler hose    |
| 7. Clamp                 | 8. Vent hose             | 9. Fuel tank protector |
| 10. Fuel tank strap (LH) | 11. Fuel tank strap (RH) | 12. Fuel tank          |
- A. To EVAP canister

AWD : Removal and Installation

INFOID:000000011279620

**WARNING:**

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

**NOTE:**

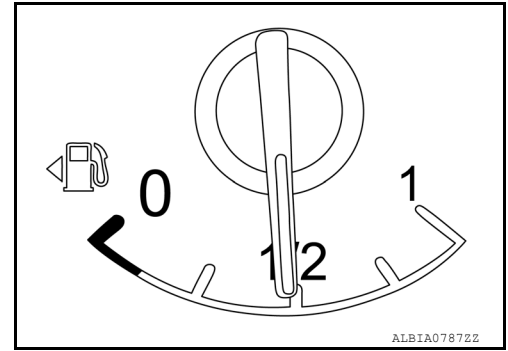
When removing components such as hoses, tubes/lines, etc., cap or plug openings to prevent fluid from spilling.

REMOVAL

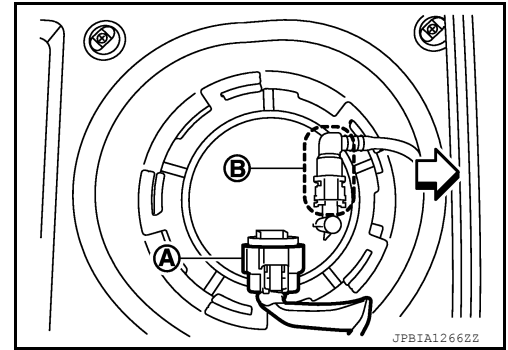
# FUEL TANK

## < REMOVAL AND INSTALLATION >

1. Check the fuel level with the vehicle on a level surface. If the fuel gauge indicates more than the level as shown (1/2 full), drain the fuel from the fuel tank until the fuel gauge indicates a level at or below as shown (1/2 full).
  - In case the fuel pump does not operate, use the following procedure.
- a. Insert fuel tubing of less than 25mm (0.98in) diameter into the fuel filler tube through the fuel filler opening to drain fuel from the fuel filler tube.
- b. Disconnect the fuel filler hose from the fuel filler tube.
- c. Insert fuel tubing into the fuel tank through the fuel filler hose to drain fuel from the fuel tank.
  - As a guide, the fuel level reaches or is less than the level on the fuel gauge as shown, when approximately 27.5 ℓ (7-1/4 US gal, 6 Imp gal) of fuel is drained from a full fuel tank.
2. Release the fuel pressure from the fuel lines. Refer to [EC-147, "Work Procedure"](#).
3. Disconnect negative battery terminal. Refer to [PG-78, "Removal and Installation \(Battery\)"](#).
4. Unscrew the fuel filler cap to release the pressure inside the fuel tank.
5. Remove second row seat (RH). Refer to [SE-39, "Removal and Installation"](#).
6. Turn the four retainers 90 degrees to disengage the clips and remove the fuel pump inspection hole cover.  
**CAUTION:**  
**Cover the immediate area surrounding the fuel pump inspection hole cover with plastic to avoid gasoline damage to carpet.**
7. Disconnect harness connector (A) and quick connector (B).



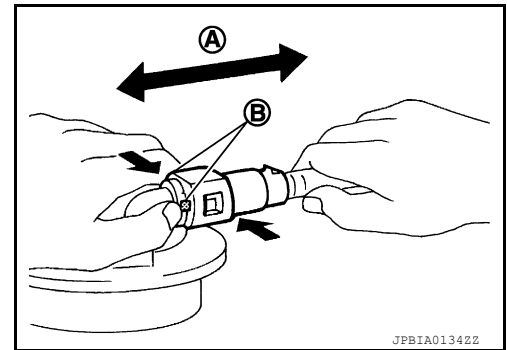
↔ : Front



Disconnect quick connector as follows:

- Hold the sides of connector, press tabs and pull out fuel feed tube.

- (A) : Pull
- (B) : Push in tabs



- If quick connector sticks to tube of main fuel level sensor unit, push and pull quick connectors several times until they start to move. Then disconnect them by pulling.

**CAUTION:**



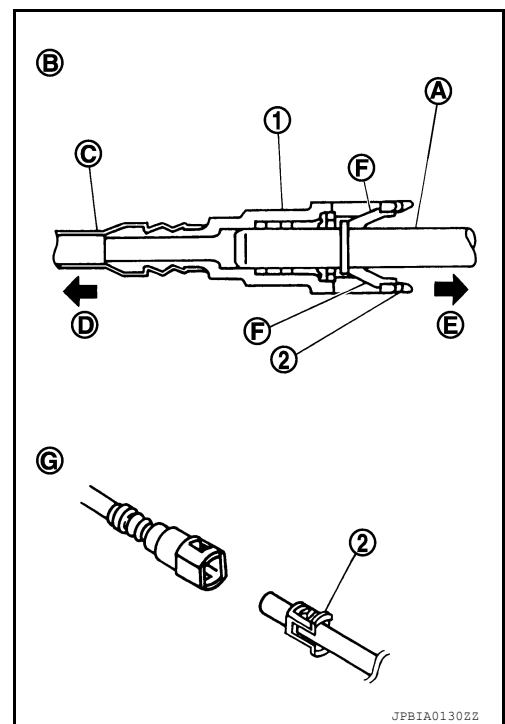
# FUEL TANK

## < REMOVAL AND INSTALLATION >

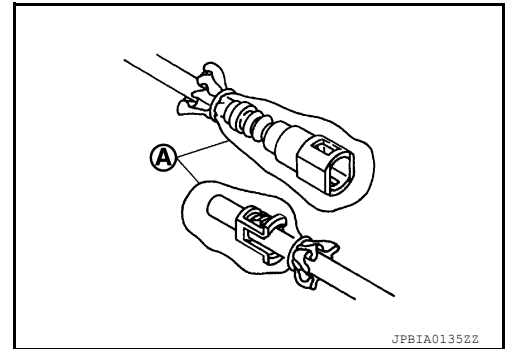
- Quick connector (1) can be disconnected when the tabs (F) are depressed completely. Do not twist it more than necessary.

- (B) : Connection (cross-section)
- (D) : To under floor fuel line
- (E) : To fuel tank
- (G) : Disconnection

- Do not use any tools to disconnected quick connector.
- Keep resin tube (C) 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.
- Do not bend or twist resin tube during installation and disconnection.
- Do not remove the remaining retainer (2) on hard tube (or the equivalent) (A) except when resin tube or retainer is replaced.
- When resin tube or hard tube (or the equivalent) is replaced, also replace retainer with new one.

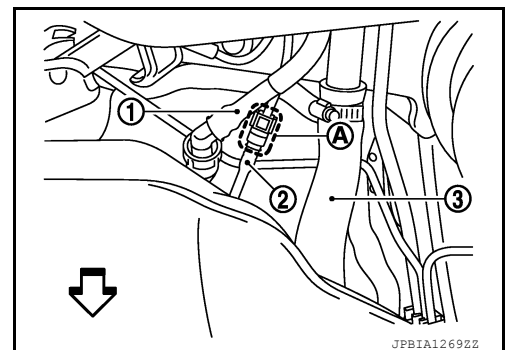


- To keep the connecting portion clean and to avoid damage and foreign materials, cover them completely with plastic bags (A) or something similar.



8. Remove center exhaust tube and muffler assembly. Refer to [EX-5, "Exploded View"](#).
9. Remove propeller shaft. Refer to [DLN-100, "Removal and Installation"](#).
10. Remove protector from fuel tank.
11. Remove vent hose (1) at rear side of fuel tank.
12. Disconnect EVAP tube (2) at rear side of fuel tank.
  - Instruction for quick connector (A) of EVAP tube. Refer to [FL-4, "Quick Connector"](#).
13. Remove fuel filler hose (3) at fuel filler tube side.

⇐: Front



14. Remove parking brake cable bolts and separate parking brake cable from suspension arm. Refer to [PB-7, "Exploded View"](#).
15. Remove lower link deflector. Refer to [RSU-25, "Exploded View"](#).

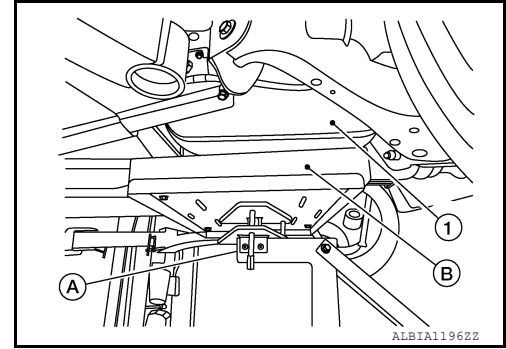
# FUEL TANK

## < REMOVAL AND INSTALLATION >

16. Support center of fuel tank (1) with suitable jack (A).

**CAUTION:**

**Securely support the fuel tank with a piece of wood (B).**



17. Remove fuel tank bands.

18. Lower suitable jack carefully to remove fuel tank while holding it by hand.

**CAUTION:**

**Fuel tank may be in an unstable condition, due to the shape of the fuel tank bottom. Be sure to secure tank at all times.**

19. If replacing the fuel tank, remove the fuel level sensor unit, fuel filter and fuel pump assembly to transfer to the new fuel tank. Remove and discard the O-ring. Refer to [FL-5, "Removal and Installation"](#).

## INSTALLATION

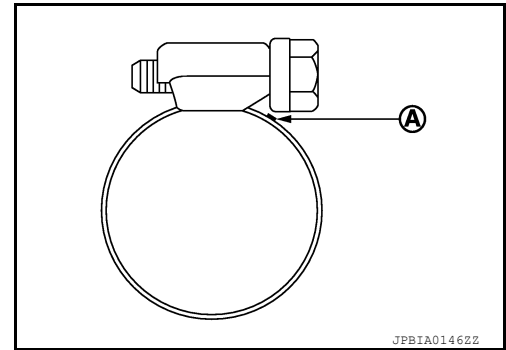
Installation is in the reverse order of removal.

### 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 the clamp hand with the top mark (A) until the mark is on the bolt head flange.



## AWD : Inspection

INFOID:000000011279621

## INSPECTION AFTER INSTALLATION

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. Start engine, raise idle and verify there are no leaks at the fuel system connections.

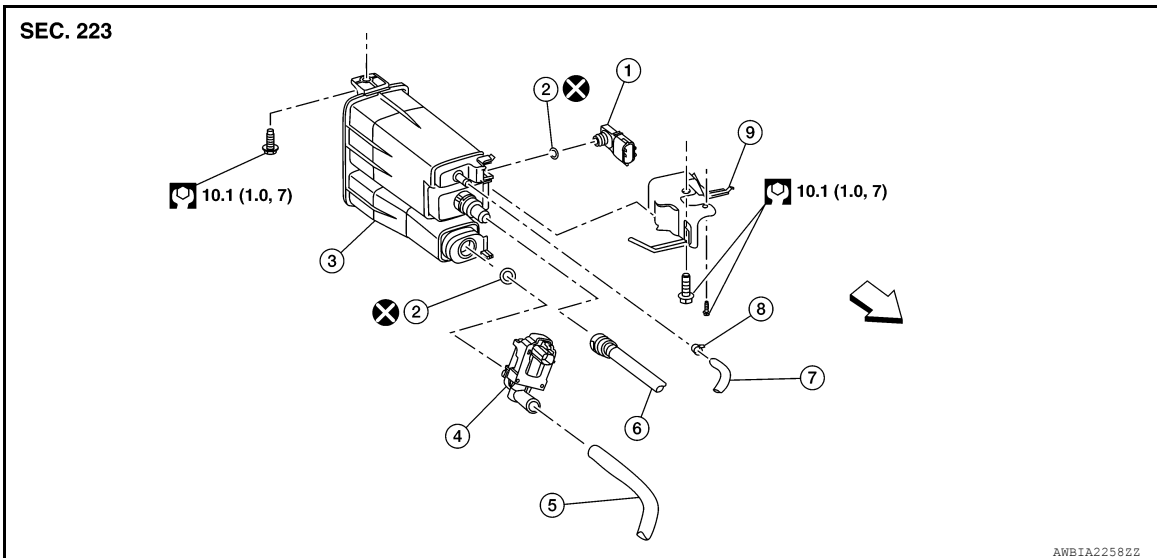
# EVAP CANISTER

< REMOVAL AND INSTALLATION >

## EVAP CANISTER

### Exploded View

INFOID:0000000011279622



- |  |  |                            |
|--|--|----------------------------|
| 1. EVAP control system pressure sensor | 2. O-ring                                | 3. EVAP canister           |
| 4. EVAP canister vent control valve    | 5. EVAP canister vent control valve hose | 6. EVAP vent line          |
| 7. EVAP canister purge hose            | 8. Clamp                                 | 9. EVAP canister protector |

⇐ Front

### Removal and Installation

INFOID:0000000011279623

#### NOTE:

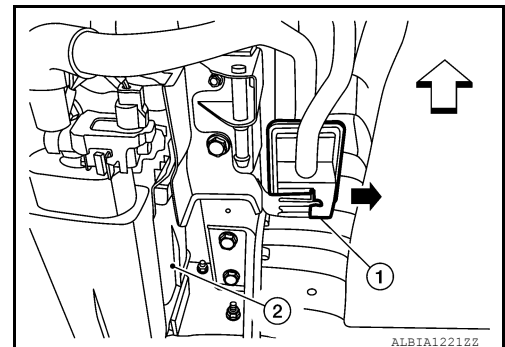
The EVAP canister vent control valve and EVAP control system pressure sensor can be removed without removing the EVAP canister.

#### REMOVAL

1. Disconnect the EVAP control system pressure sensor harness connector and the EVAP canister vent control valve harness connector.
2. Remove EVAP canister filter (1) and place aside (⇐).

(2) : EVAP canister

⇐ : Front



3. Disconnect the EVAP canister purge hose, the EVAP vent line, and the EVAP canister vent control valve hose.
4. Remove the EVAP canister bolt.
5. Remove the EVAP canister from the vehicle.
6. Remove EVAP control system pressure sensor and EVAP canister vent control valve (if necessary).

#### INSTALLATION

Installation is in the reverse order of removal.

# EVAP CANISTER

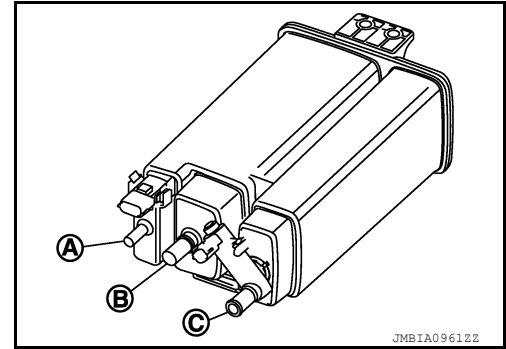
## < REMOVAL AND INSTALLATION >

### Inspection

INFOID:000000011279624

Check EVAP canister as follows:

1. Block port (B).
2. Blow air into port (A) and check that it flows freely out of port (C).
3. Release blocked port (B).
4. Apply vacuum pressure to port (B) and check that vacuum pressure exists at the ports (A) and (C).
5. Block port (A) and (B).
6. Apply pressure to port (C) and check that there is no leakage.



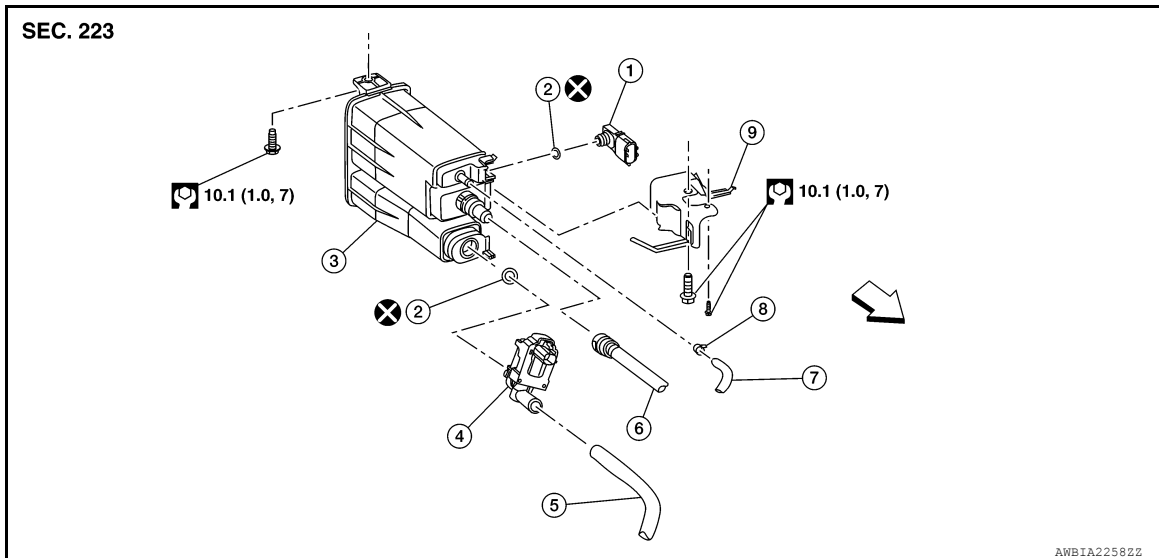
# EVAP CANISTER VENT CONTROL VALVE

< REMOVAL AND INSTALLATION >

## EVAP CANISTER VENT CONTROL VALVE

Exploded View

INFOID:000000011279625



- |  |  |                            |
|--|--|----------------------------|
| 1. EVAP control system pressure sensor | 2. O-ring                                | 3. EVAP canister           |
| 4. EVAP canister vent control valve    | 5. EVAP canister vent control valve hose | 6. EVAP vent line          |
| 7. EVAP canister purge hose            | 8. Clamp                                 | 9. EVAP canister protector |

⇐ Front

## Removal and Installation

INFOID:000000011279626

### NOTE:

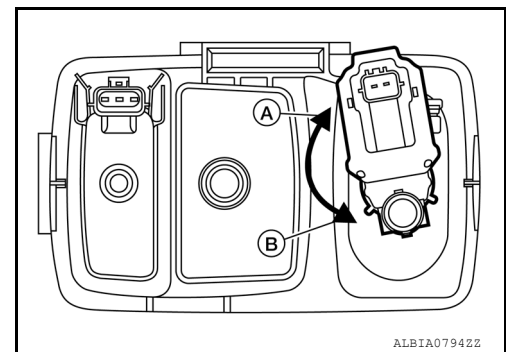
The EVAP canister vent control valve can be removed without removing the EVAP canister.

### REMOVAL

1. Disconnect EVAP canister vent control valve hose from EVAP canister vent control valve.
2. Disconnect EVAP canister vent control valve harness connector.
3. Turn EVAP canister vent control valve counterclockwise.

- (A) : Lock  
(B) : Unlock

4. Remove the EVAP canister vent control valve and O-ring.



### INSTALLATION

Installation is in the reverse order of removal.

### CAUTION:

Do not reuse O-ring.

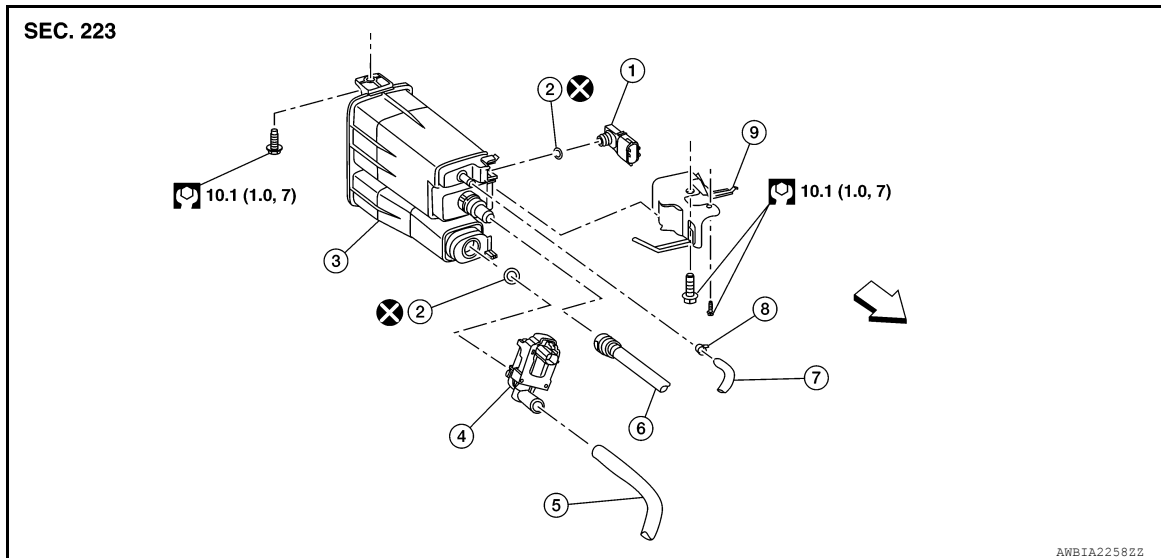
# EVAP CONTROL SYSTEM PRESSURE SENSOR

< REMOVAL AND INSTALLATION >

## EVAP CONTROL SYSTEM PRESSURE SENSOR

Exploded View

INFOID:000000011279627



- |  |  |                            |
|--|--|----------------------------|
| 1. EVAP control system pressure sensor | 2. O-ring                                | 3. EVAP canister           |
| 4. EVAP canister vent control valve    | 5. EVAP canister vent control valve hose | 6. EVAP vent line          |
| 7. EVAP canister purge hose            | 8. Clamp                                 | 9. EVAP canister protector |

← Front

## Removal and Installation

INFOID:000000011279628

### NOTE:

The EVAP canister system pressure sensor can be removed without removing the EVAP canister.

### REMOVAL

1. Disconnect EVAP canister purge hose from EVAP canister.
2. Disconnect EVAP control system pressure sensor.
3. Remove EVAP control system pressure sensor and O-ring.

### INSTALLATION

Installation is in the reverse order of removal.

### CAUTION:

**Do not reuse O-ring.**

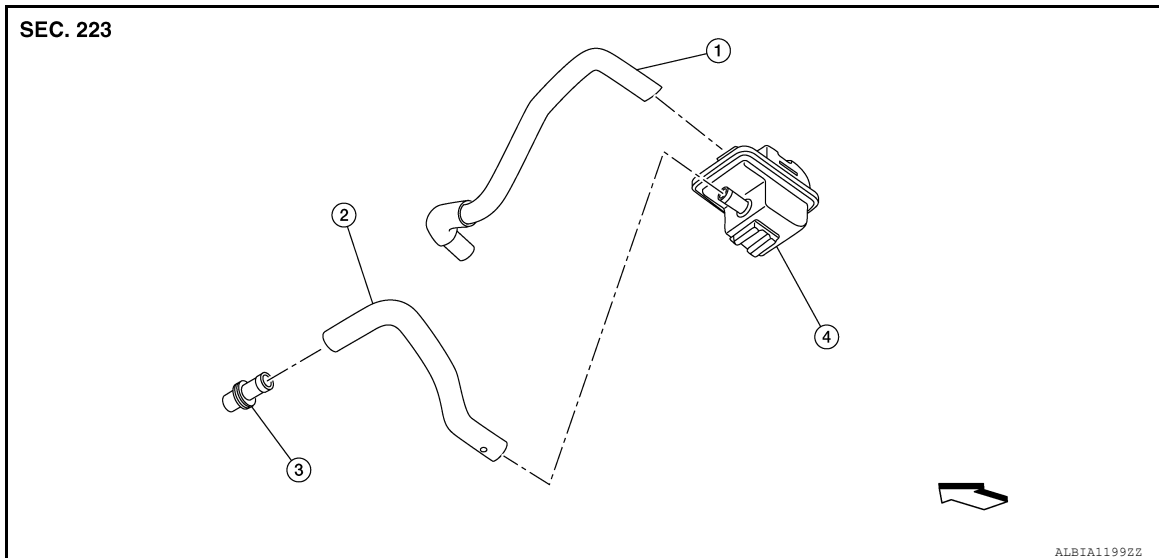
# EVAP CANISTER FILTER

< REMOVAL AND INSTALLATION >

## EVAP CANISTER FILTER

Exploded View

INFOID:000000011279629



- 1. EVAP canister vent control valve hose
  - 2. Canister drain hose
  - 3. Plug
  - 4. EVAP canister filter
- ⇐ Front

### Removal and Installation

INFOID:000000011279630

#### REMOVAL

1. Disconnect EVAP canister vent control valve hose from EVAP canister filter.
2. Disconnect canister drain hose from EVAP canister filter.
3. Remove the bolt and the EVAP canister filter.

#### INSTALLATION

Installation is in the reverse order of removal.

A  
FL  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

# FUEL LEVEL SENSOR UNIT

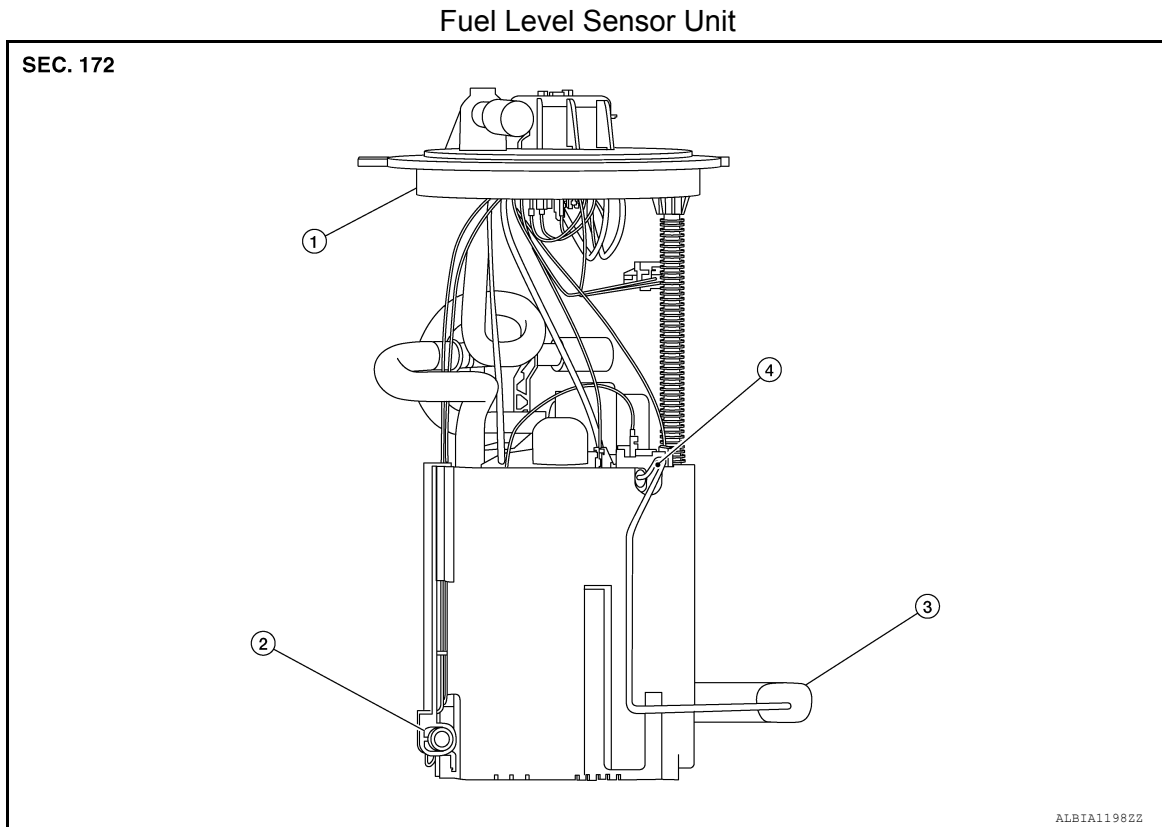
< DISASSEMBLY AND ASSEMBLY >

## DISASSEMBLY AND ASSEMBLY

### FUEL LEVEL SENSOR UNIT

Exploded View

INFOID:0000000011279631



1. Fuel filter and pump assembly    2. Fuel level sensor unit    3. Float arm assembly  
4. Fuel tank temperature sensor

### Disassembly and Assembly

INFOID:0000000011279632

#### NOTE:

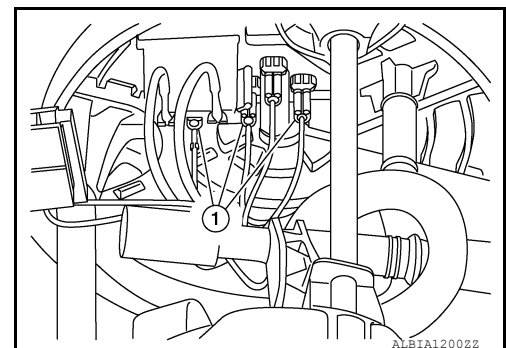
Fuel level sensor unit and fuel tank temperature sensor are replaced as and assembly.

#### DISASSEMBLY

1. Disconnect fuel level sensor unit/fuel tank temperature sensor harness connector (1).

#### NOTE:

Hold connector with your fingers, because there is no tab for releasing stopper. Pull harness connector straight downward.

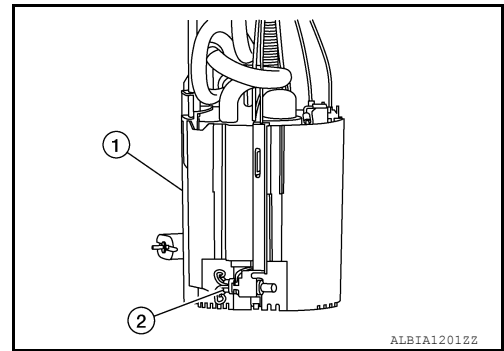




# FUEL LEVEL SENSOR UNIT

## < DISASSEMBLY AND ASSEMBLY >

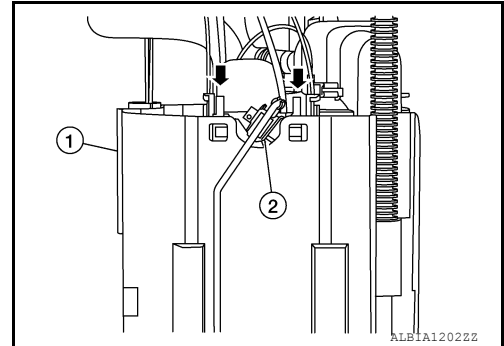
2. Remove fuel tank temperature sensor (2) from fuel filter and fuel pump assembly (1).



3. Using a suitable tool press up on clip (←) and remove fuel level sensor unit (2) from fuel filter and fuel pump assembly (1).

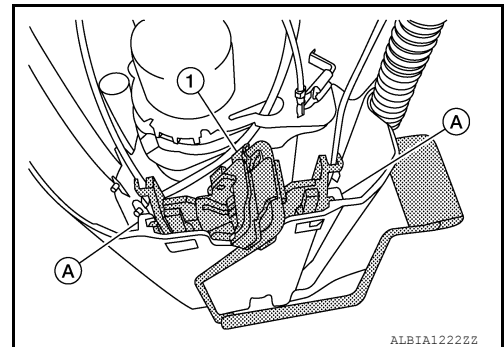
### CAUTION:

- Be careful not to damage the fuel level sensor unit.
- Do not disassemble fuel filter and fuel pump assembly.

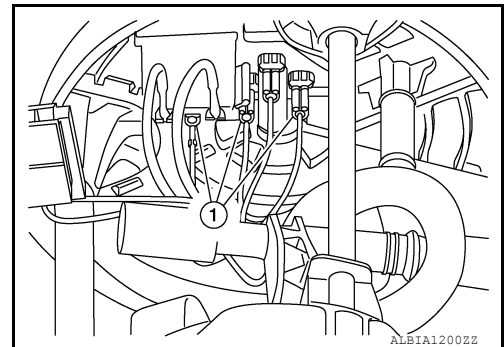


## ASSEMBLY

1. Slide fuel level sensor unit (1) until it aligns to installation groove (A).
  - After inserting, apply force in reverse direction (removal direction) to ensure it cannot be pulled out.



2. Connect fuel level sensor unit/fuel tank temperature sensor harness connectors (1).



3. Check fuel level sensor unit installation position to fuel filter and pump assembly for damage. Replace as necessary.
4. Assembly of remaining components is in the reverse order of disassembly.

## 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 check there are no fuel leaks at the fuel system connections.

## SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Fuel Tank

INFOID:0000000011279633

#### Standard and Limit

Fuel tank capacity	Approx. 55 ℓ ( 14-1/2 US gal, 12-1/8 Imp gal)
Fuel recommendation	Refer to <a href="#">MA-11</a>