

# FUEL SYSTEM 2-8

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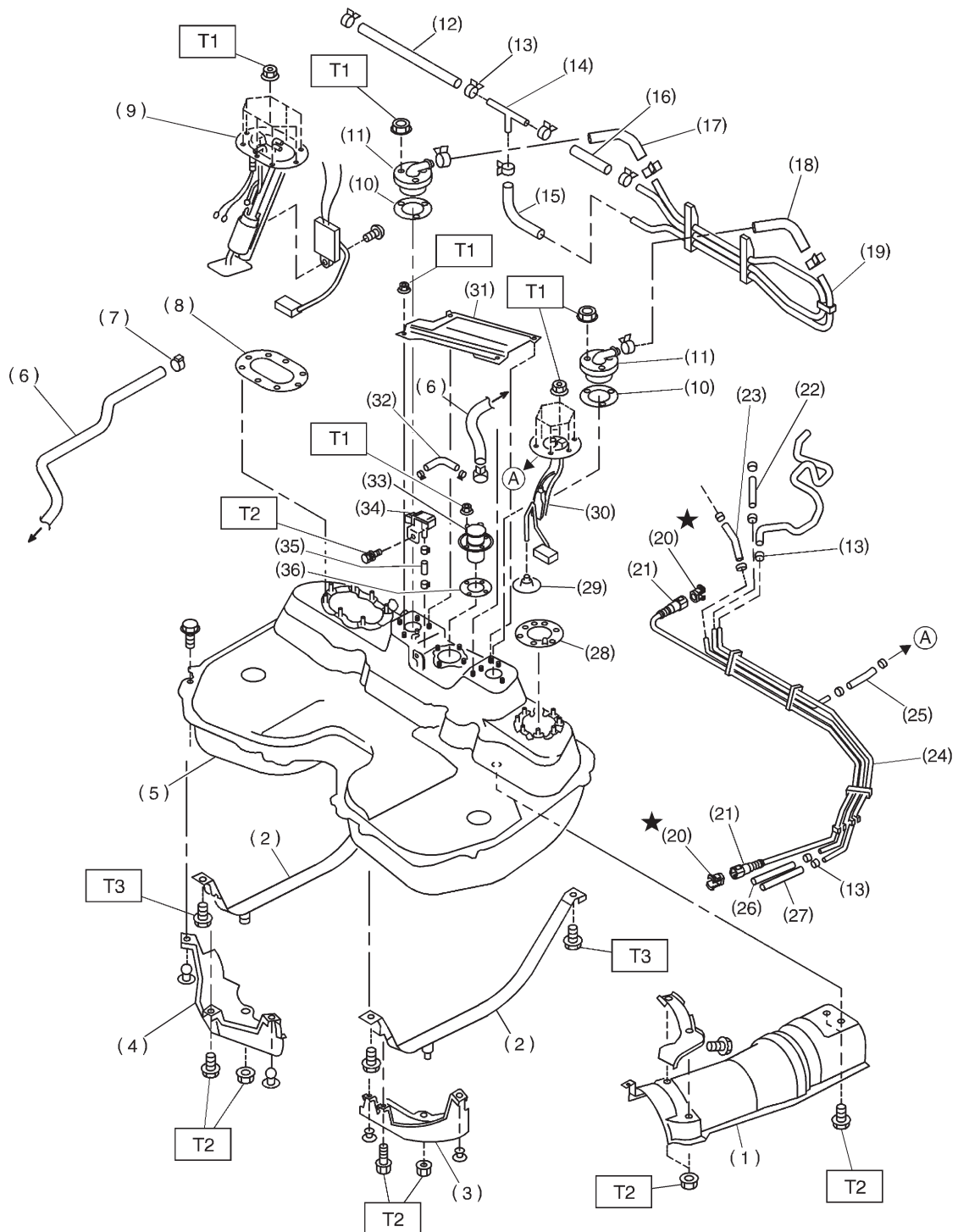
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## 1. Fuel System

Fuel tank	Capacity	60 ℓ (15.9 US gal, 13.2 Imp gal)
	Location	Under rear seat
Fuel pump	Type	Impeller
	Discharge pressure	299.1 kPa (3.05 kg/cm <sup>2</sup> , 43.4 psi)
	Discharge flow	More than 65 ℓ (17.2 US gal, 14.3 Imp gal)/h [12 V at 300 kPa (3.06 kg/cm <sup>2</sup> , 43.5 psi)]
Fuel filter		Cartridge type

MEMO:

## 1. Fuel Tank



S2M0877A

(1) Heat sealed cover	(15) Evaporation hose C	(29) Jet pump filter
(2) Fuel tank band	(16) Evaporation hose B	(30) Fuel sub meter unit
(3) Protector LH	(17) Evaporation hose D	(31) Protector cover
(4) Protector RH	(18) Evaporation hose E	(32) Vent valve hose
(5) Fuel tank	(19) Evaporation pipe ASSY	(33) Vent valve
(6) Canister hose A	(20) Retainer	(34) Fuel tank pressure sensor
(7) Clamp	(21) Quick connector	(35) Fuel tank pressure sensor hose
(8) Fuel pump gasket	(22) Jet pump hose A	(36) Vent valve gasket
(9) Fuel pump ASSY	(23) Fuel return hose A	
(10) Fuel cut valve gasket	(24) Fuel pipe ASSY	
(11) Fuel cut valve	(25) Jet pump hose B	
(12) Fuel delivery hose A	(26) Fuel return hose B	
(13) Clip	(27) Evaporation hose F	
(14) Joint pipe	(28) Fuel sub meter gasket	

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**Tightening torque: N-m (kg-m, ft-lb)**

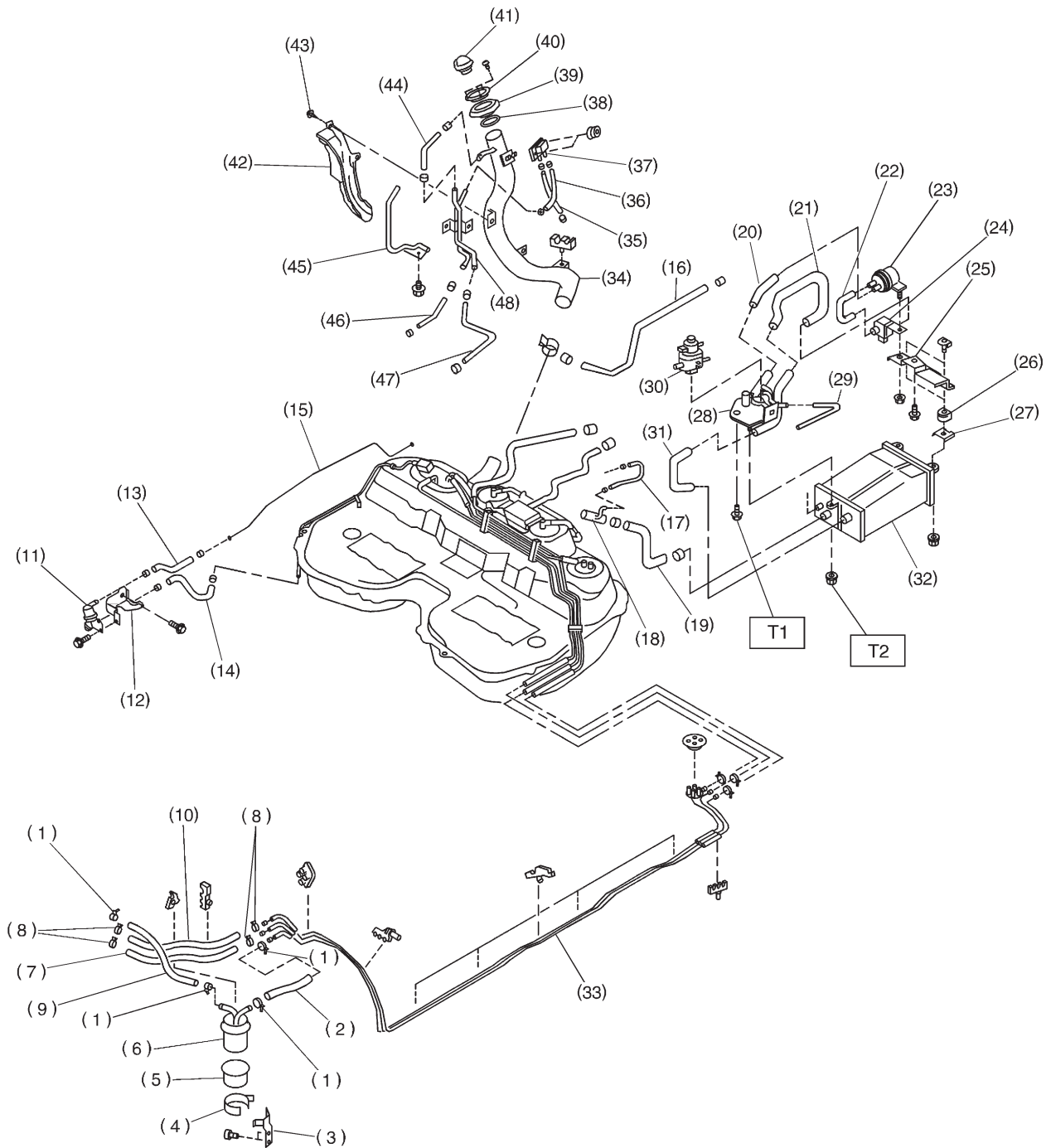
**T1: 4.4±1.5 (0.45±0.15, 3.3±1.1)**

**T2: 7.4±2.0 (0.75±0.2, 5.4±1.4)**

**T3: 33±10 (3.4±1.0, 25±7)**

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## 2. Fuel Line



S2M1114A

- |                              |                                      |                                 |
|------------------------------|--------------------------------------|---------------------------------|
| (1) Clamp                    | (19) Canister hose A                 | (37) Shut valve                 |
| (2) Fuel delivery hose A     | (20) Air filter hose A               | (38) Packing                    |
| (3) Fuel filter bracket      | (21) Drain valve hose                | (39) Ring A                     |
| (4) Fuel filter holder       | (22) Air filter hose B               | (40) Ring B                     |
| (5) Fuel filter cup          | (23) Air filter                      | (41) Fuel filler cap            |
| (6) Fuel filter              | (24) Drain valve                     | (42) Fuel filler pipe protector |
| (7) Evaporation hose         | (25) Canister upper bracket          | (43) Tapping screw              |
| (8) Clip                     | (26) Cushion rubber                  | (44) Evaporation hose O         |
| (9) Fuel delivery hose B     | (27) Canister lower bracket          | (45) Joint pipe                 |
| (10) Fuel return hose        | (28) Canister holder                 | (46) Evaporation hose P         |
| (11) Roll over valve         | (29) Evaporation hose L              | (47) Evaporation hose Q         |
| (12) Roll over valve bracket | (30) Pressure control solenoid valve | (48) Evaporation pipe           |
| (13) Evaporation hose H      | (31) Canister hose B                 |                                 |
| (14) Evaporation hose I      | (32) Canister                        |                                 |
| (15) Evaporation pipe B      | (33) Fuel pipe ASSY                  |                                 |
| (16) Evaporation hose J      | (34) Fuel filler pipe                |                                 |
| (17) Evaporation hose K      | (35) Evaporation hose M              |                                 |
| (18) Joint pipe              | (36) Evaporation hose N              |                                 |

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**Tightening torque: N·m (kg-m, ft-lb)**

**T1: 23±7 (2.3±0.7, 16.6±5.1)**

**T2: 25±7 (2.5±0.7, 18.1±5.1)**

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## 1. On-car Services

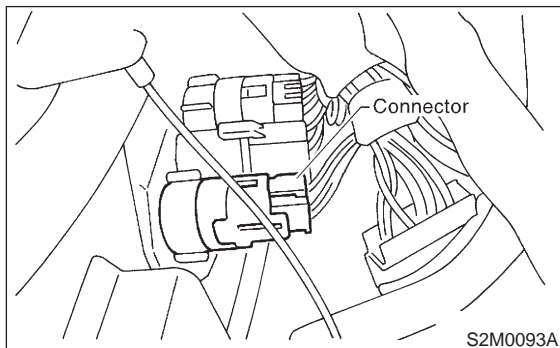
### A: PRECAUTIONS

#### WARNING:

- Place "No fire" signs near the working area.
- Disconnect ground terminal from battery.
- Be careful not to spill fuel on the floor.

### B: RELEASING OF FUEL PRESSURE

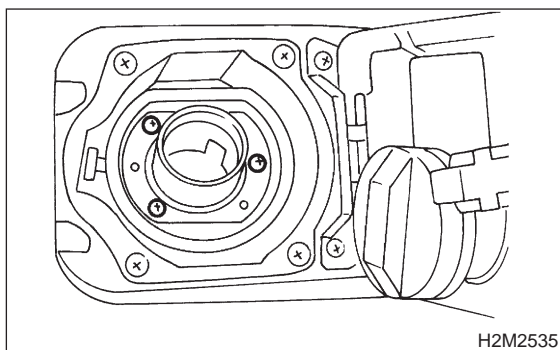
- 1) Disconnect connector from fuel pump relay.



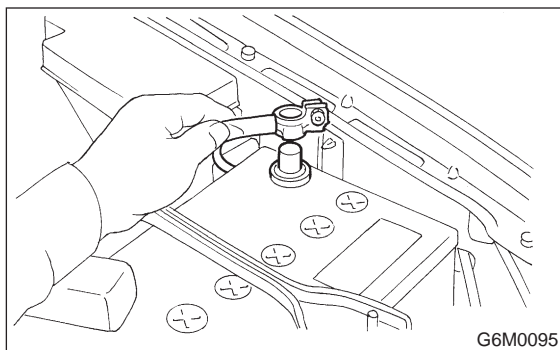
- 2) Start the engine, and run it until it stalls.
- 3) After the engine stalls, crank it for five more seconds.
- 4) Turn ignition switch OFF.

### C: DRAINING OF FUEL

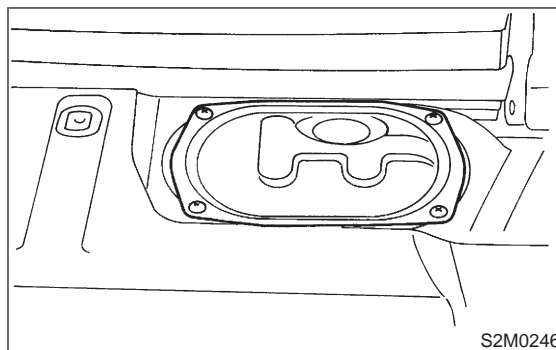
- 1) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 2) Open fuel flap lid, and remove fuel filler cap.



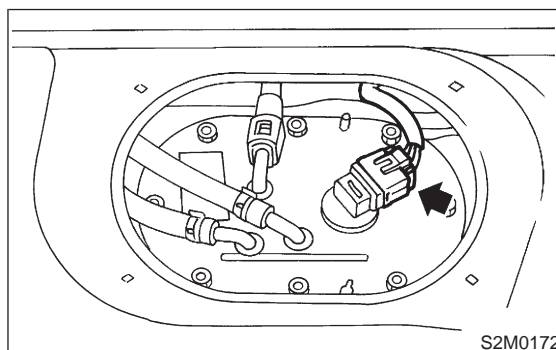
- 3) Disconnect battery ground cable.



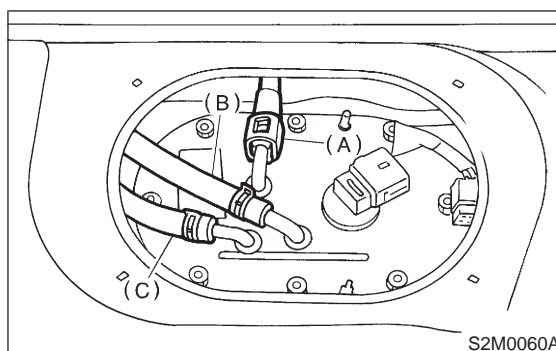
- 4) Remove access hole lid.



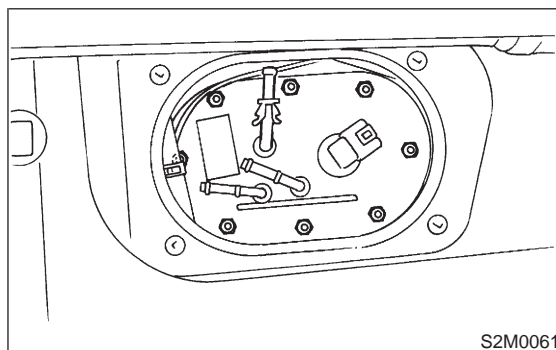
- 5) Disconnect connector from fuel pump.



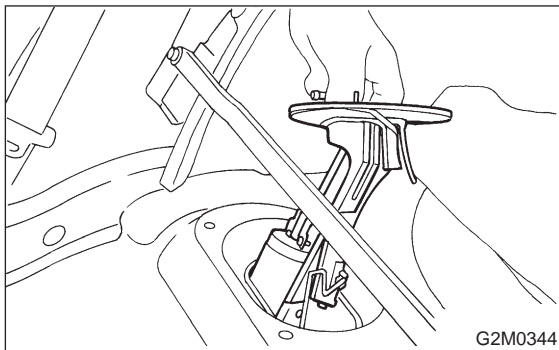
- 6) Disconnect quick connector, and then disconnect fuel delivery hose (A). <Ref. to 2-8 [W7A0].>
- 7) Move clips, and then disconnect fuel return hose (B) and jet pump hose (C).



- 8) Remove nuts which install fuel pump assembly onto fuel tank.



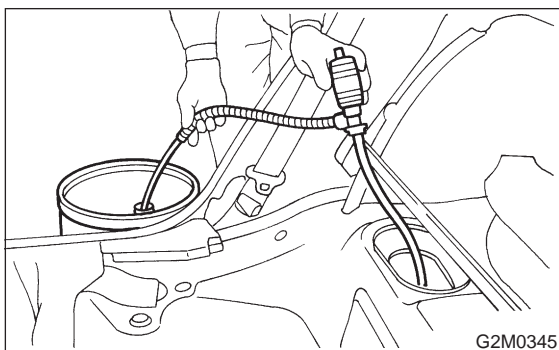
9) Take off fuel pump from fuel tank.



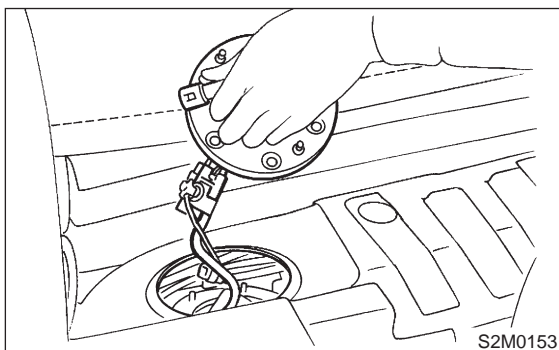
10) Drain fuel from fuel tank by using a hand pump.

**WARNING:**

**Do not use a motor pump when draining fuel.**



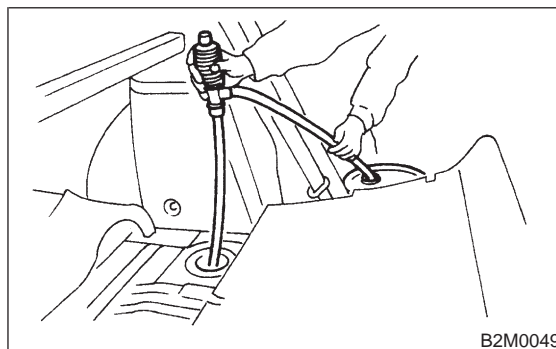
11) Remove fuel sub meter unit. <Ref. to 2-8 [W10A0].>



12) Drain fuel from there.

**WARNING:**

**Do not use a motor pump when draining fuel.**

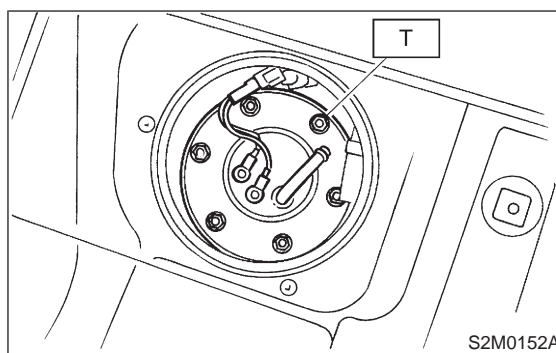
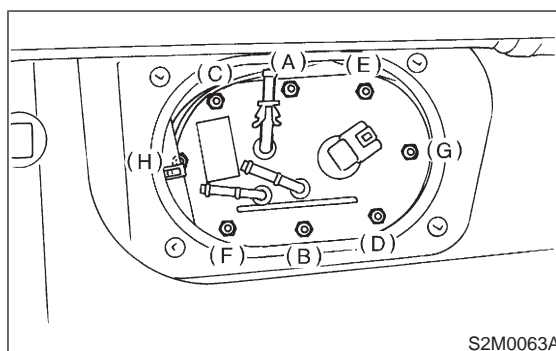


13) After draining fuel, reinstall fuel pump and fuel sub meter unit.

Tighten nuts of fuel pump in numerical sequence shown in figure to specified torque.

**Tightening torque:**

**$4.4 \pm 1.5 \text{ N}\cdot\text{m}$  ( $0.45 \pm 0.15 \text{ kg}\cdot\text{m}$ ,  $3.3 \pm 1.1 \text{ ft}\cdot\text{lb}$ )**



## D: MEASUREMENT OF FUEL PRESSURE

**WARNING:**

**Before removing fuel pressure gauge, release fuel pressure.**

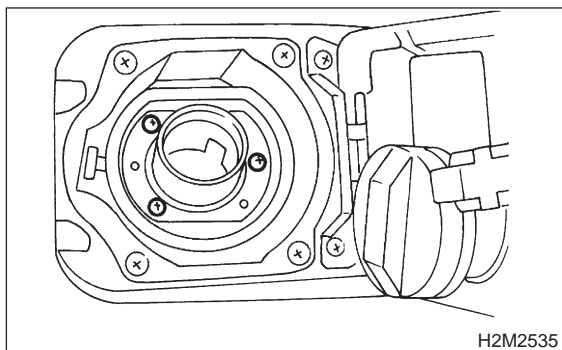
**NOTE:**

If out of specification, check or replace pressure regulator and pressure regulator vacuum hose.

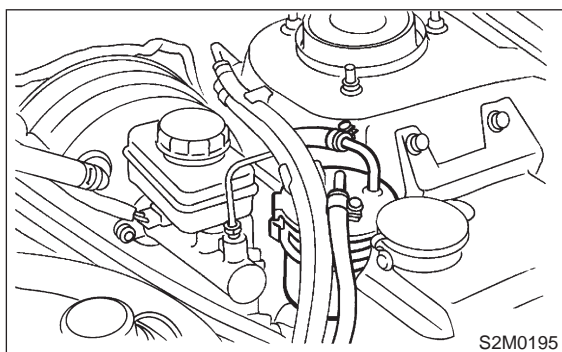
1) Release fuel pressure. <Ref. to 2-8 [W1B0].>

## 1. On-car Services

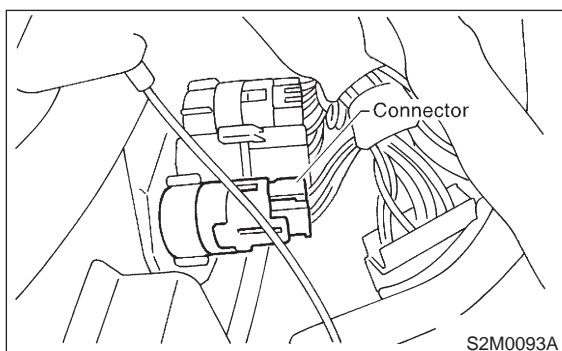
- 2) Open fuel flap lid, and remove fuel filler cap.



- 3) Disconnect fuel delivery hoses from fuel filter, and connect fuel pressure gauge.



- 4) Connect connector to fuel pump relay.

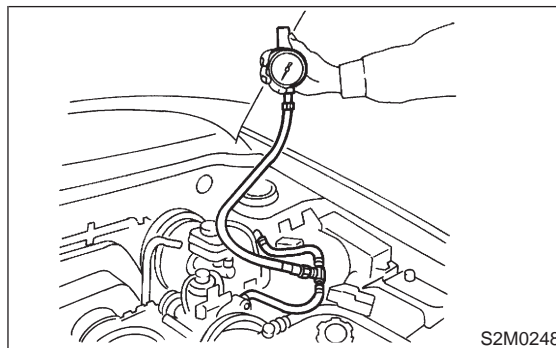


- 5) Start the engine.

- 6) Measure fuel pressure while disconnecting pressure regulator vacuum hose from collector chamber.

**Fuel pressure:**

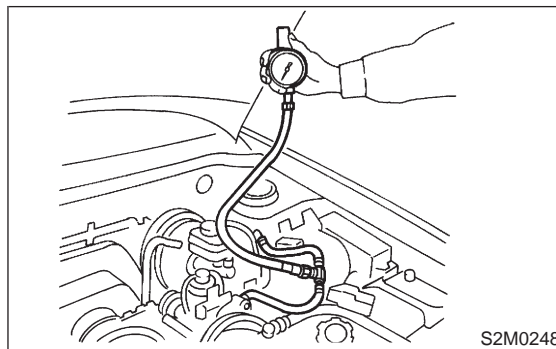
**235 — 265 kPa (2.4 — 2.7 kg/cm<sup>2</sup>, 34 — 38 psi)**



- 7) After connecting pressure regulator vacuum hose, measure fuel pressure.

**Fuel pressure:**

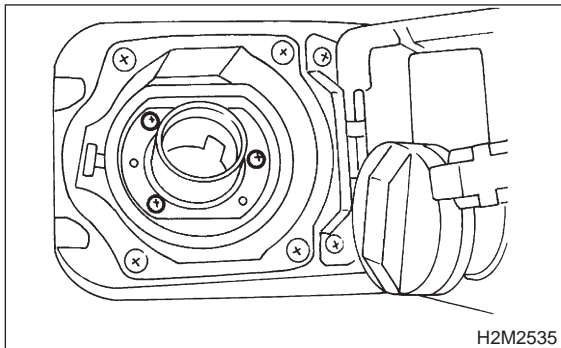
**177 — 206 kPa (1.8 — 2.1 kg/cm<sup>2</sup>, 26 — 30 psi)**



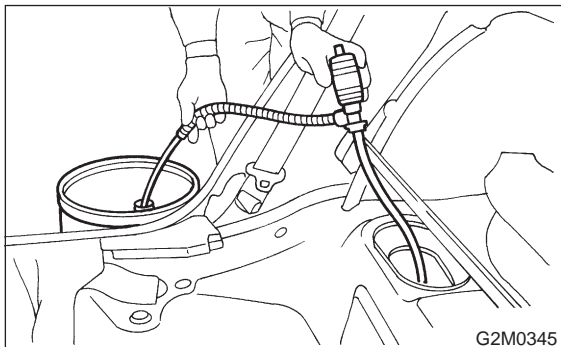
## 2. Fuel Tank

### A: REMOVAL

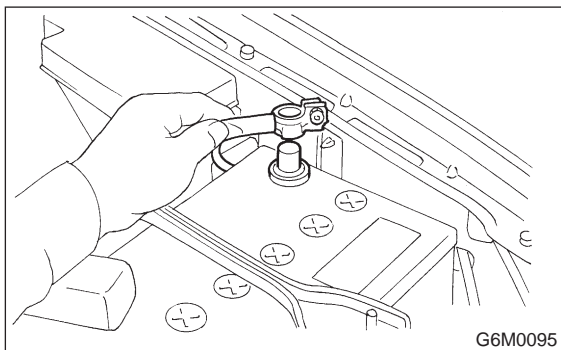
- 1) Set the vehicle on the lift.
- 2) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 3) Open fuel flap lid, and remove fuel filler cap.



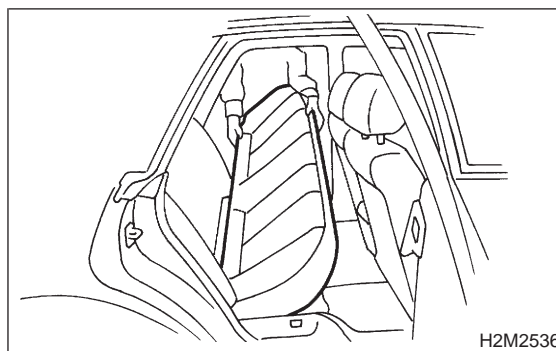
- 4) Drain fuel from fuel tank. <Ref. to 2-8 [W1C0].>



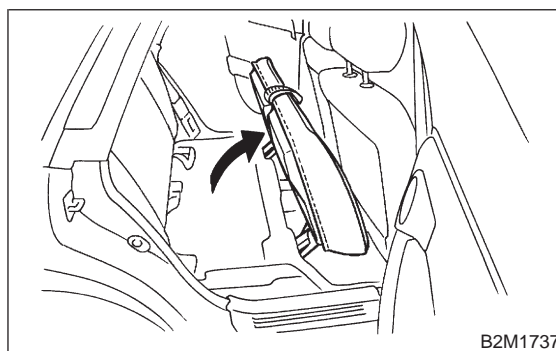
- 5) Disconnect battery ground cable.



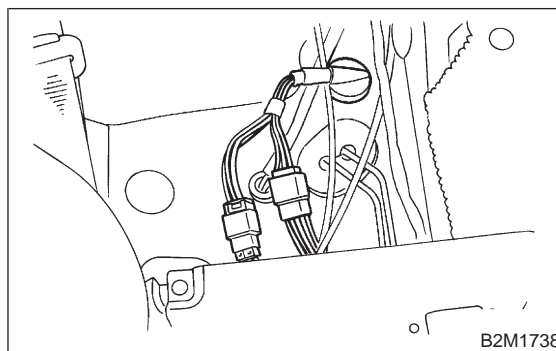
- 6) Remove rear seat cushion. (Sedan model)  
<Ref. to 5-3 [W2A0].>



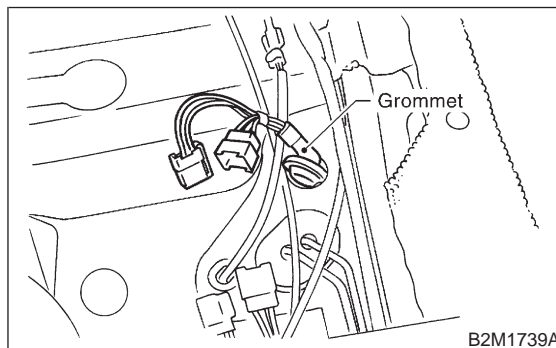
- 7) Move rear seat cushion forward. (Wagon model)



- 8) Disconnect connector of fuel tank cord from rear harness.



- 9) Push grommet which holds fuel tank cord on floor panel into the body side.

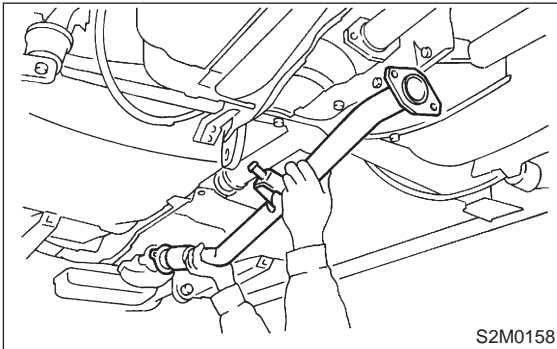


- 10) Lift-up the vehicle.
- 11) Remove rear exhaust pipe.

- (1) Separate rear exhaust pipe from center exhaust pipe.
- (2) Separate rear exhaust pipe from muffler.
- (3) Remove bracket from rubber cushion, and remove exhaust pipe.

### NOTE:

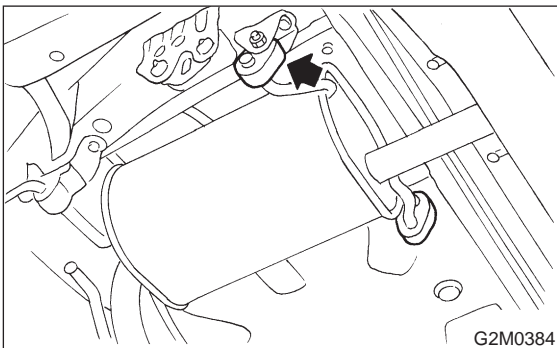
To facilitate the removal of parts, apply a coat of SUBARU CRC5-56 (Part No. 004301003).



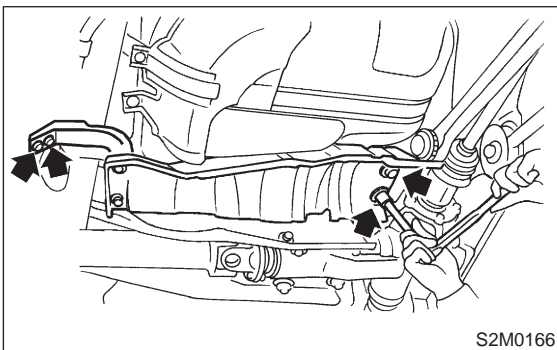
- 12) Remove muffler assembly.  
<Ref. to 2-9 [W3A0].>

### NOTE:

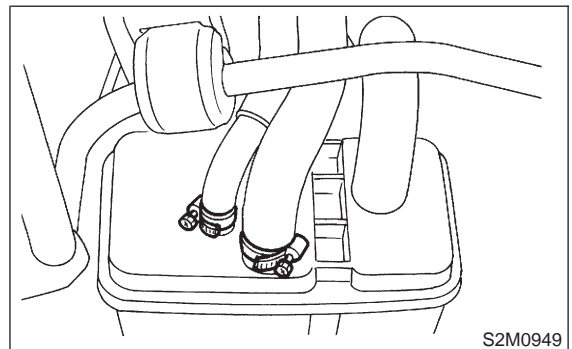
To facilitate the removal of parts, apply a coat of SUBARU CRC5-56 (Part No. 004301003).



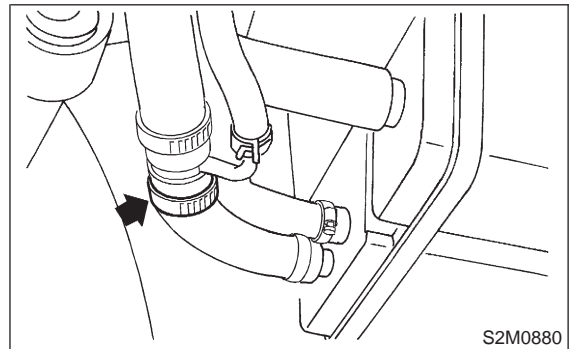
- 13) Remove heat sealed cover.



- 14) Move clamp, and disconnect evaporation hose from canister.

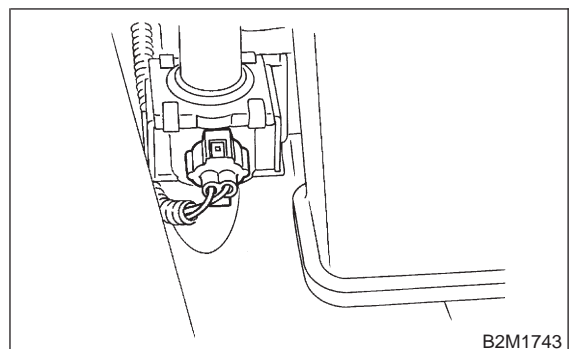


- 15) Disconnect hose from joint pipe.

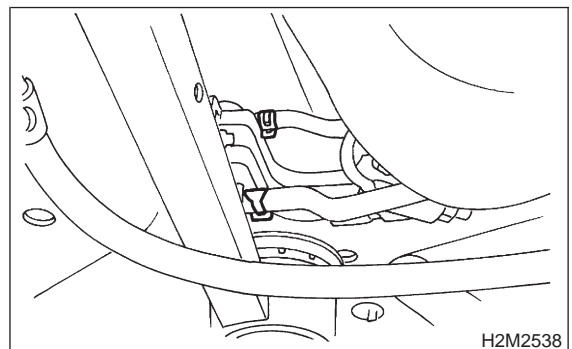


- 16) Disconnect connector from pressure control solenoid valve.

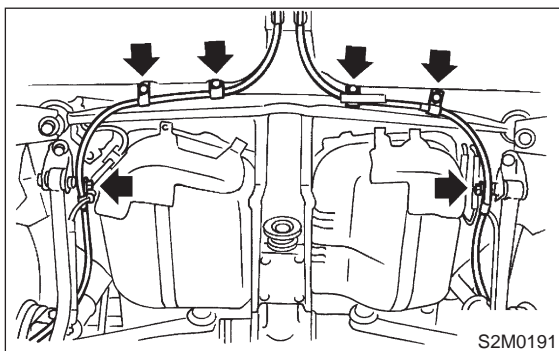
- 17) Disconnect connector from drain valve.



- 18) Disconnect hoses from roll over valve.



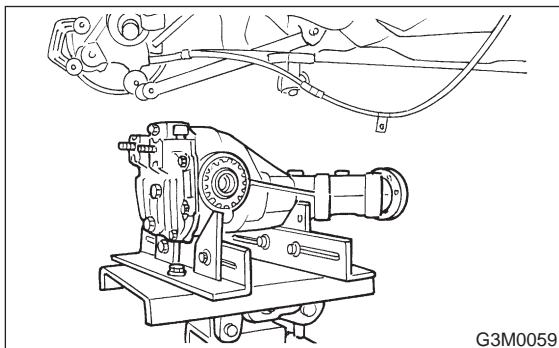
19) Remove bolts which hold parking brake cable holding bracket.



20) Remove rear differential assembly.

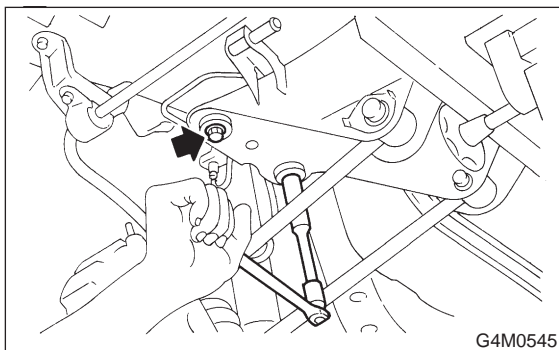
- (1) Remove rear axle shafts from rear differential assembly.
- (2) Remove rear differential front cover.
- (3) Remove propeller shaft.
- (4) Remove lower differential bracket.
- (5) Set transmission jack under rear differential.
- (6) Remove bolts which install rear differential onto rear crossmember.

<Ref. to 3-4 [W2B0].> and <Ref. to 3-4 [W3B0].>

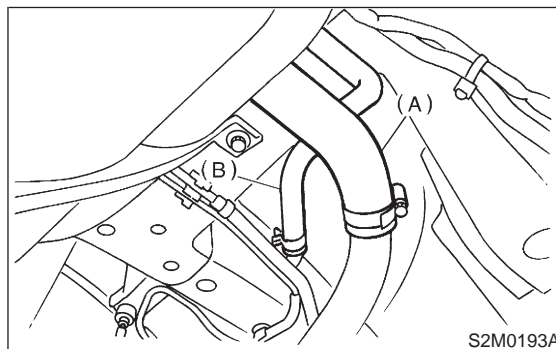


21) Remove rear crossmember.

<Ref. to 4-1 [W10A0].>

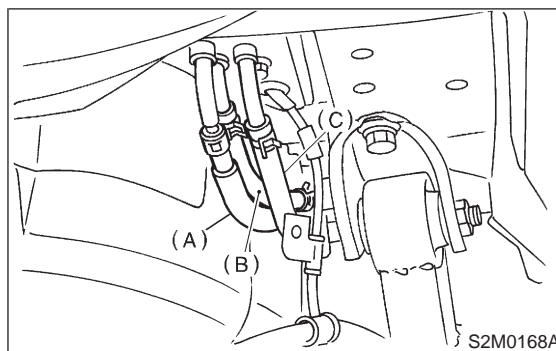


22) Loosen clamp, and disconnect fuel filler hose (A) and air vent hose (B) from fuel filler pipe and air vent pipe.



23) Move clips, and disconnect fuel return hose (B) and evaporation hose (C).

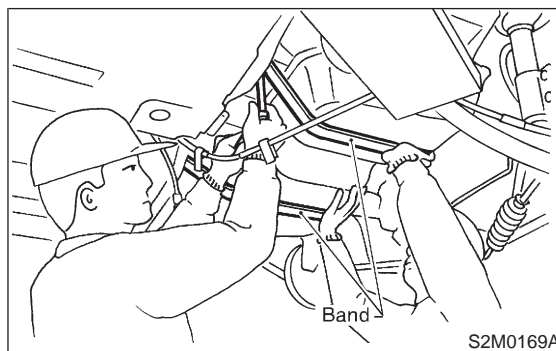
24) Disconnect quick connector, and then disconnect fuel delivery hose (A).



25) While holding fuel tank, remove bolts from bands and dismount fuel tank.

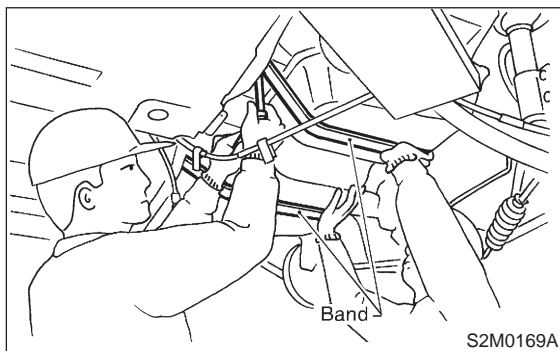
### WARNING:

**A helper is required to perform this work.**



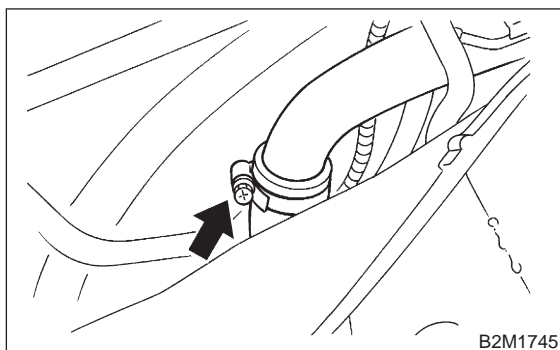
## B: INSTALLATION

1) While a helper holds fuel tank, push fuel tank harness into access hole with grommet.



2) Set fuel tank, and temporary tighten bolts in order to install fuel tank bands.

3) Connect fuel filler hose, and tighten clamp.

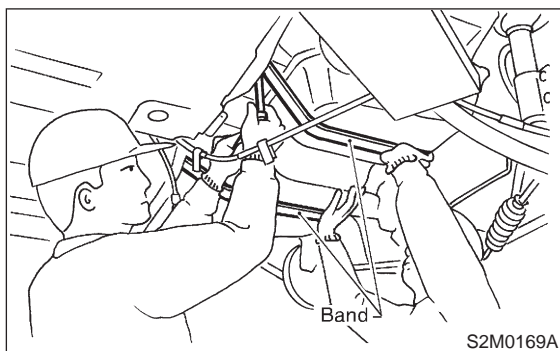


4) Connect fuel hoses, and hold then with clips and quick connector. <Ref. to 2-8 [W7A0].>

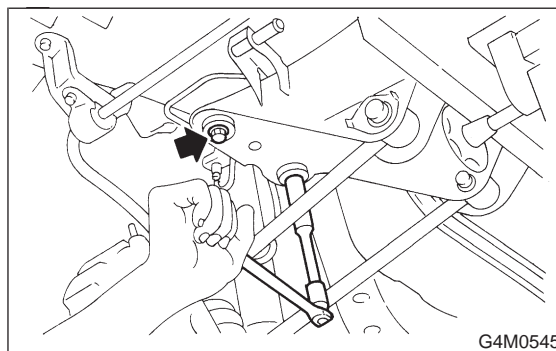
5) Tighten band mounting bolts.

**Tightening torque:**

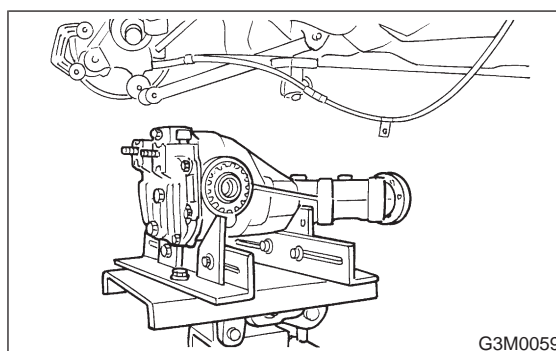
**$33 \pm 10 \text{ N-m}$  ( $3.4 \pm 1.0 \text{ kg-m}$ ,  $25 \pm 7 \text{ ft-lb}$ )**



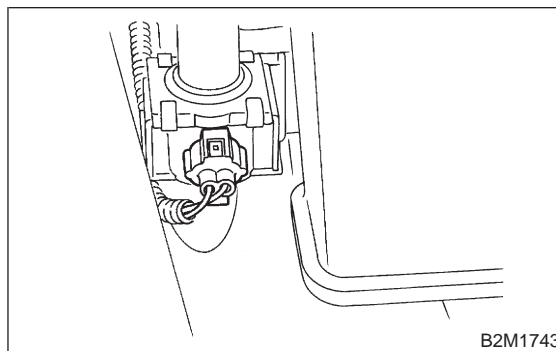
6) Install rear crossmember. <Ref. to 4-1 [W10C0].>



7) Install rear differential assembly. <Ref. to 3-4 [W2F0].> and <Ref. to 3-4 [W3F0].>

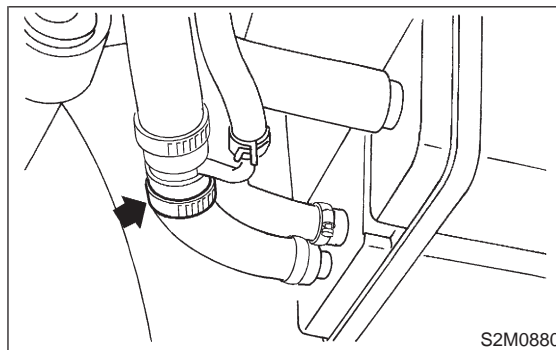


8) Connect connector to drain valve.

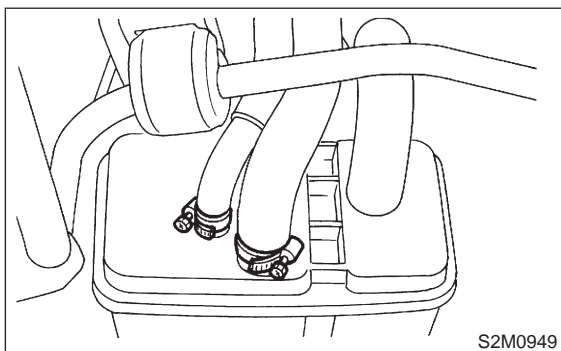


9) Connect connector to pressure control solenoid valve.

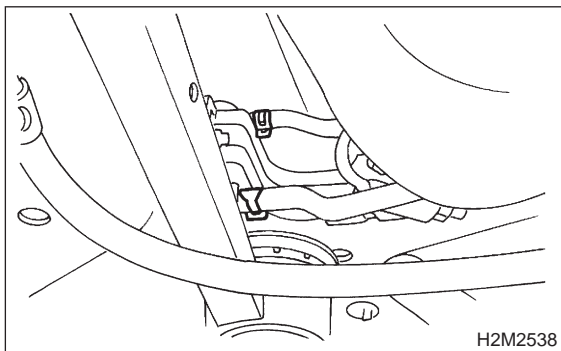
10) Connect hose to joint pipe.



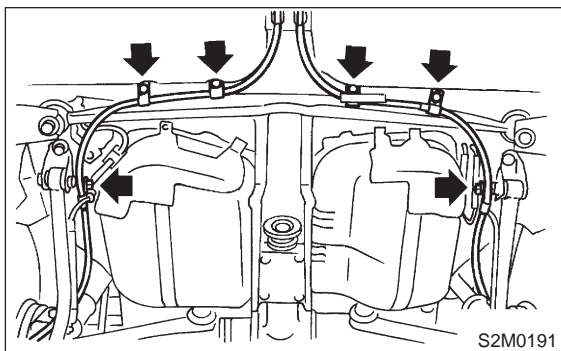
11) Connect evaporation hose to canister, and hold them with clamp.



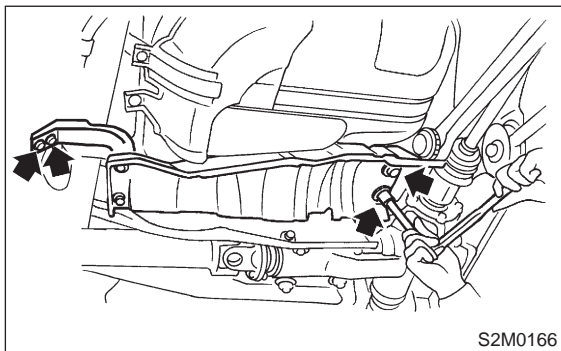
12) Connect hoses to roll over valve.



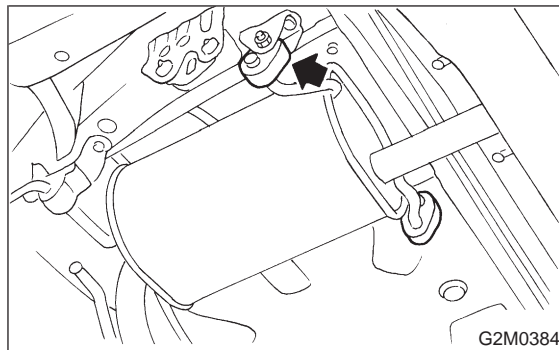
13) Install bolts which hold parking brake holding bracket.



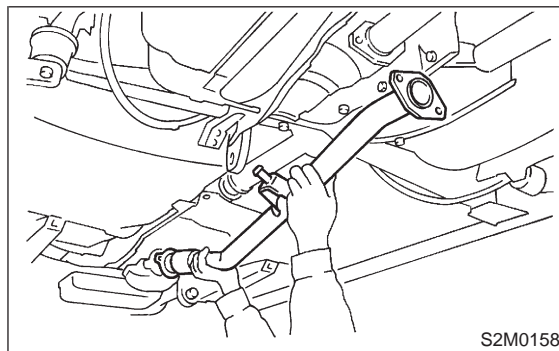
14) Install heat sealed cover.



15) Install muffler assembly. <Ref. to 2-9 [W3A0].>

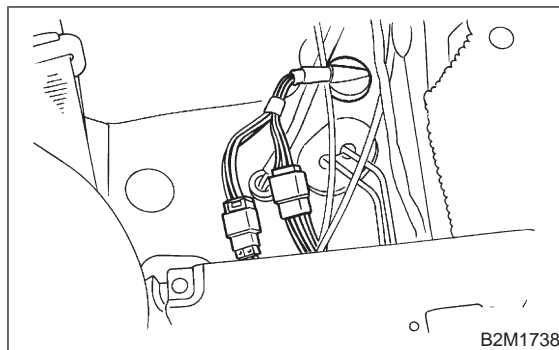


16) Install rear exhaust pipe. <Ref. to 2-9 [W2B0].>

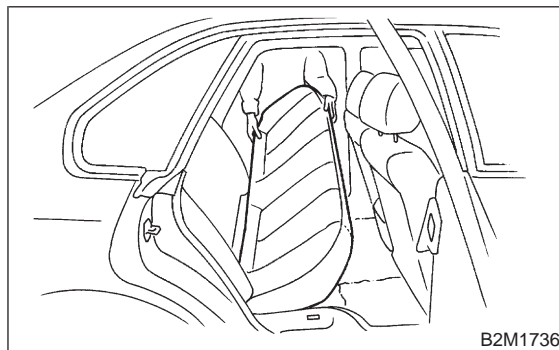


17) Lower the vehicle.

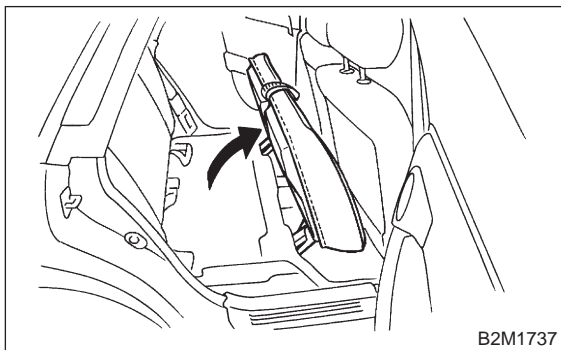
18) Connect connectors to fuel tank harness, and plug access hole with grommet.



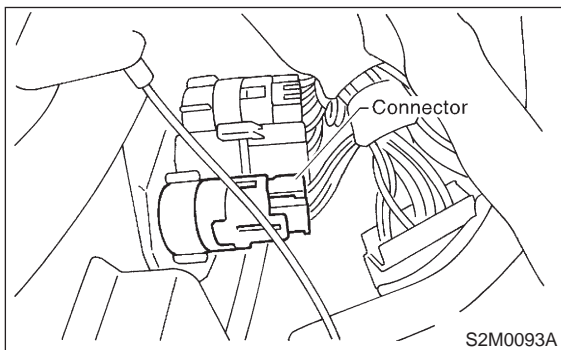
19) Install rear seat cushion. (Sedan model) <Ref. to 5-3 [W2B0].>



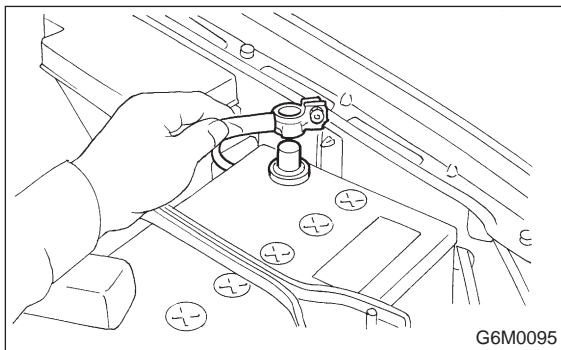
- 20) Set rear seat cushion. (Wagon model)



- 21) Install fuel filler cap.  
22) Connect connector to fuel pump relay.



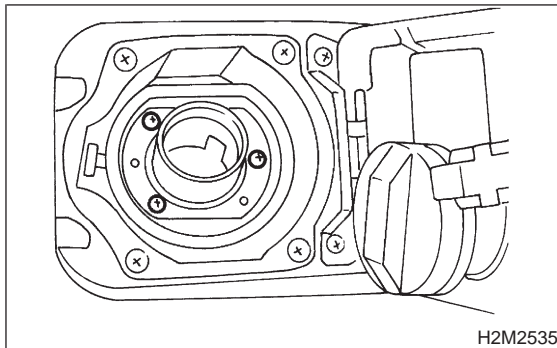
- 23) Connect battery ground cable.



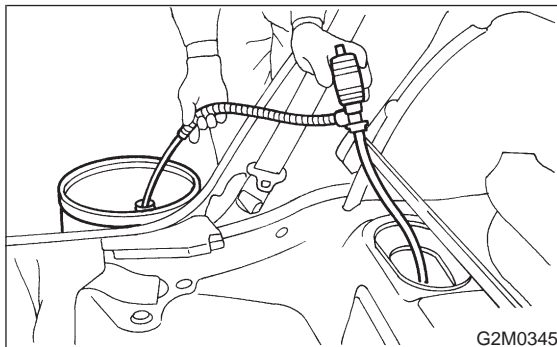
## 3. Fuel Filler Pipe

### A: REMOVAL

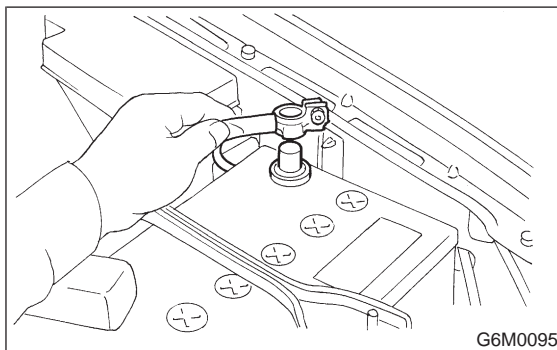
- 1) Set the vehicle on the lift.
- 2) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 3) Open fuel flap lid, and remove fuel filler cap.



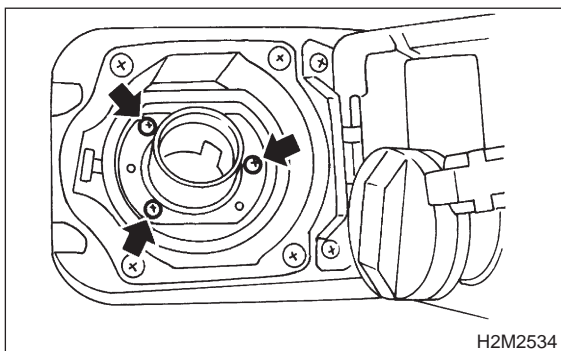
- 4) Drain fuel from fuel tank. <Ref. to 2-8 [W1C0].>



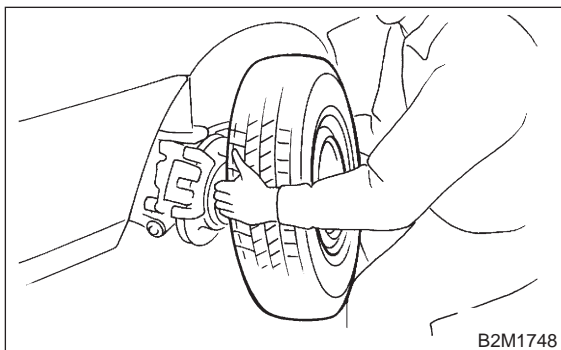
- 5) Disconnect battery ground cable.



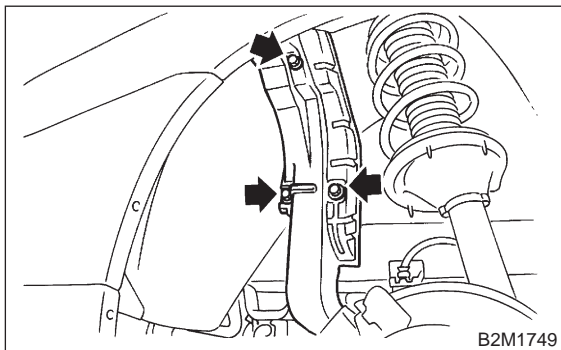
- 6) Remove screws which install fuel filler pipe on filler lid open.



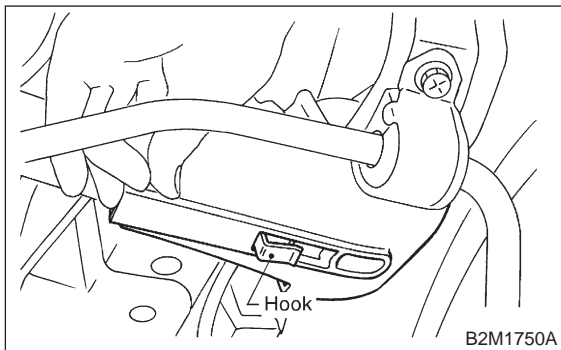
- 7) Remove wheel nuts of rear right side.  
8) Lift-up the vehicle.  
9) Remove rear right side wheel.



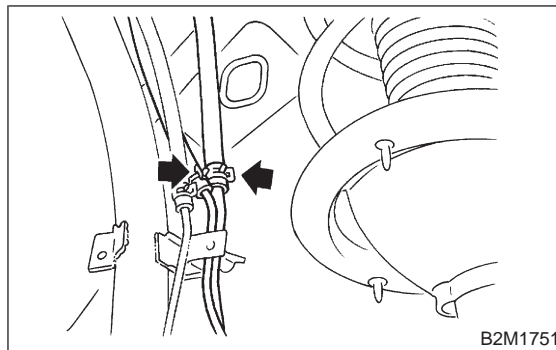
- 10) Remove bolts which install protector cover on body.



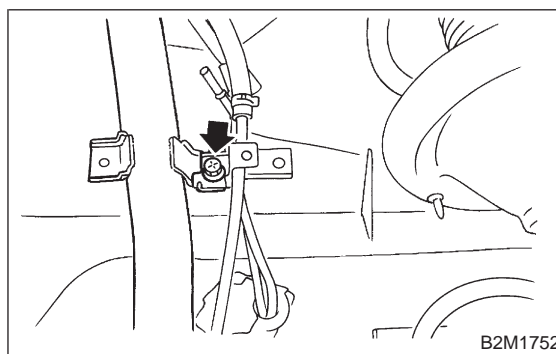
- 11) While releasing the under side of protector cover from hook, remove it.



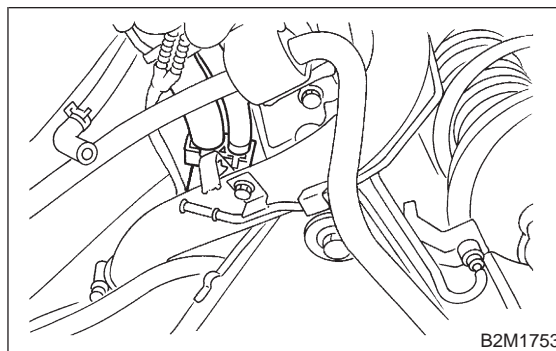
- 12) Disconnect evaporation hoses from pipes.



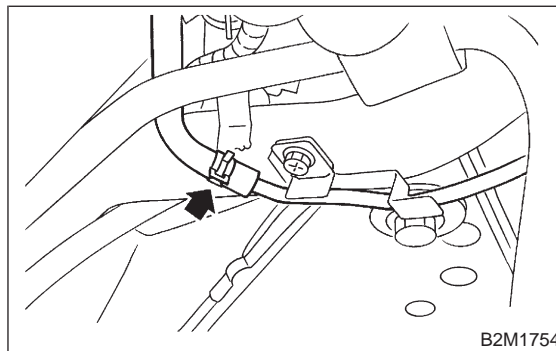
- 13) Remove bolts which hold fuel filler pipe bracket.



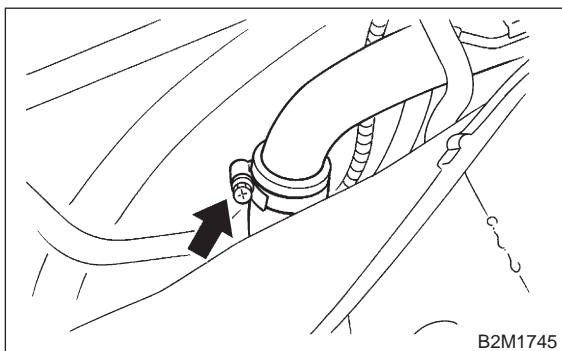
- 14) Lift-up the vehicle more.  
15) Remove two evaporation hoses from clip.



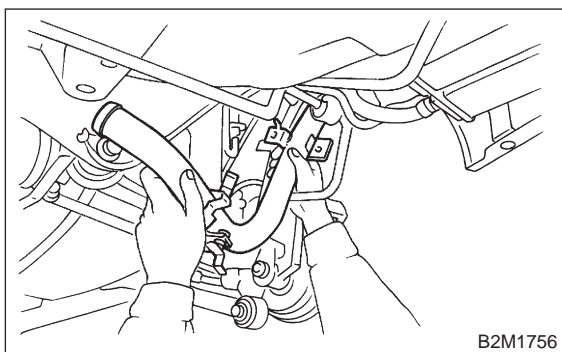
- 16) Disconnect evaporation hose from joint pipe.



- 17) Loosen clamp, and disconnect fuel filler hose from fuel filler pipe.

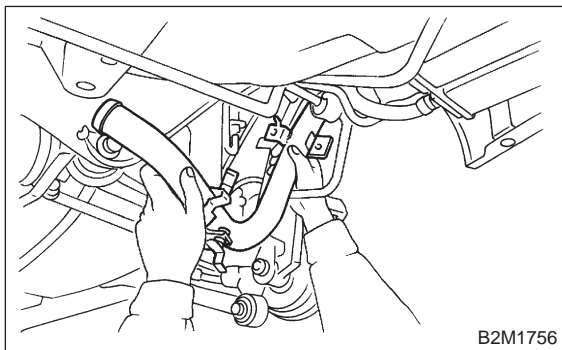


- 18) Remove fuel filler pipe to under side of vehicle.

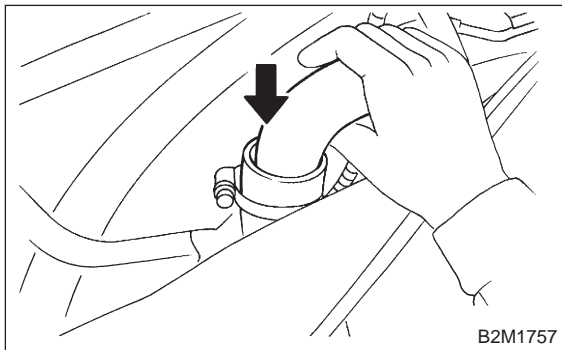


## B: INSTALLATION

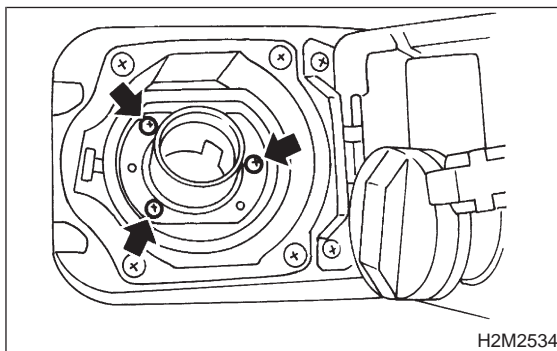
- 1) Set fuel filler pipe from under side of vehicle, and hold it on fuel filler flap open.



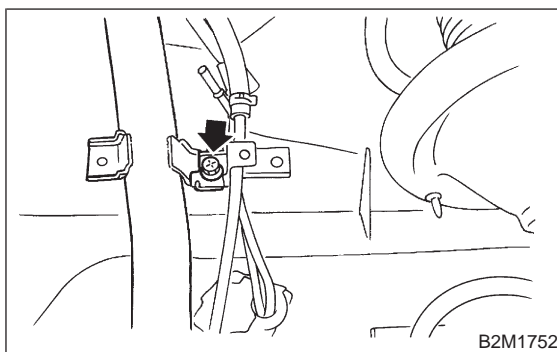
- 2) Connect fuel filler pipe into fuel filler hose.



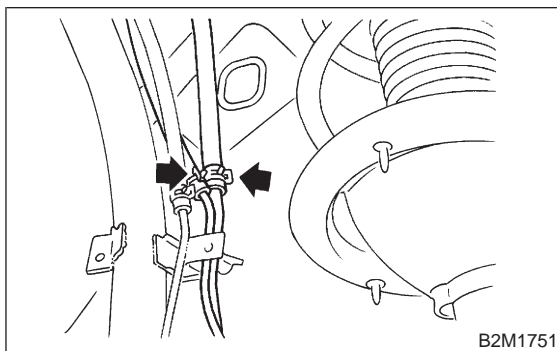
- 3) Lower the vehicle.  
4) Temporarily tighten screws which install fuel filler pipe on filler lid open.



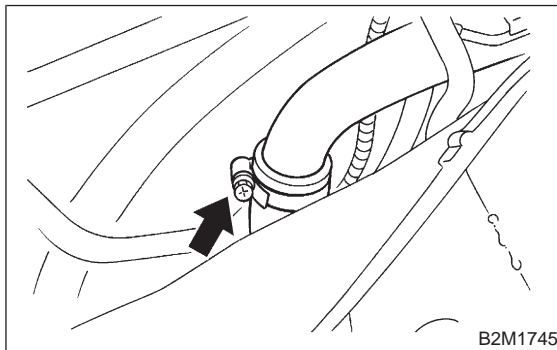
- 5) Tighten bolt which holds fuel filler pipe on body.



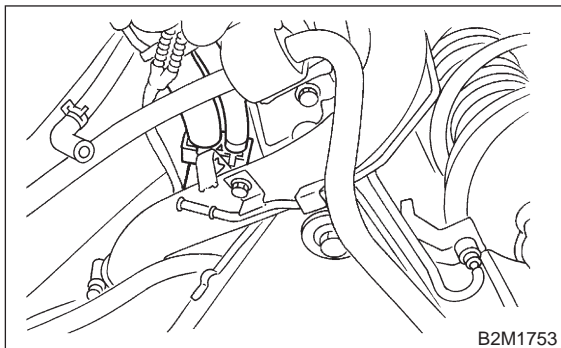
- 6) Connect evaporation hoses to pipes.



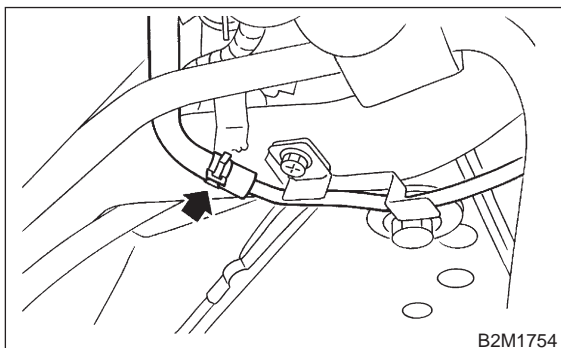
- 7) Lift-up the vehicle.  
8) Tighten clamp bolt which holds fuel filler hose.



- 9) Install two evaporation hoses to clip.

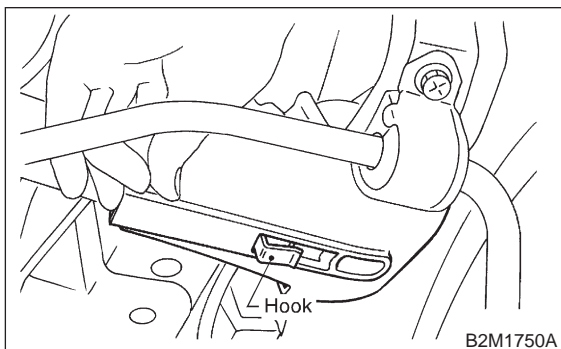


- 10) Connect evaporation hose to joint pipe.

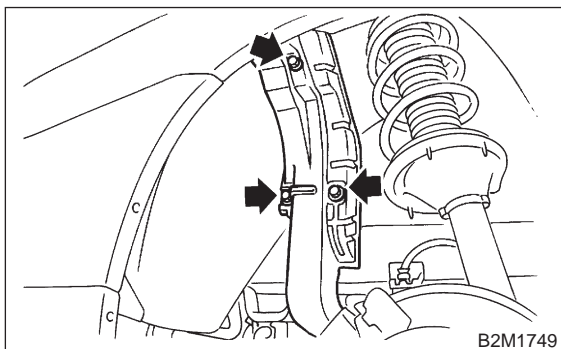


- 11) Lower the vehicle.

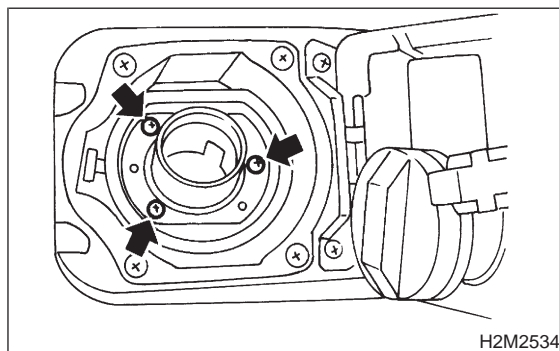
- 12) While holding the under side of protector cover on bracket, install it.



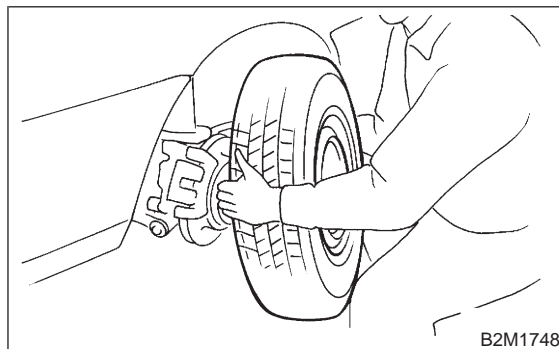
- 13) Tighten bolts which install protector cover on body.



- 14) Tighten screws which install fuel filler pipe on filler lid open.

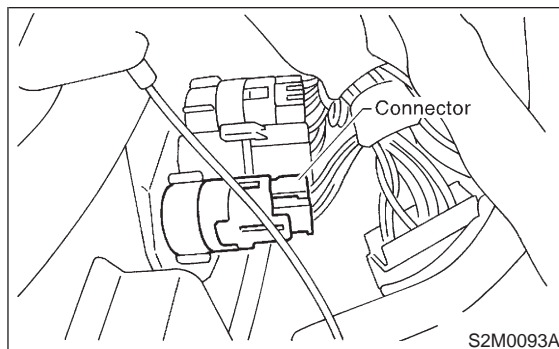


- 15) Install rear right wheel.

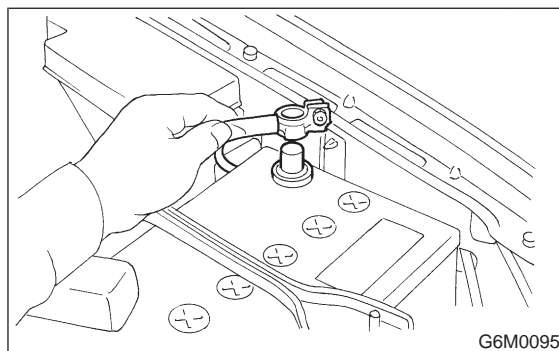


- 16) Install fuel filler cap.

- 17) Connect connector to fuel pump relay.

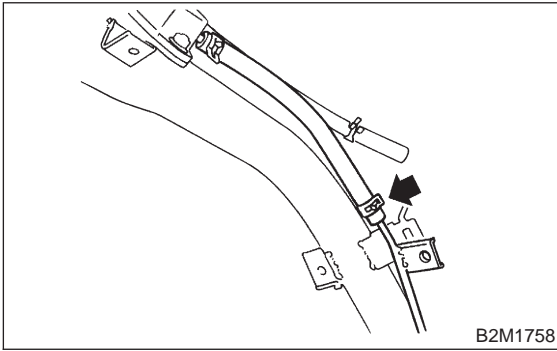


- 18) Connect battery ground terminal.

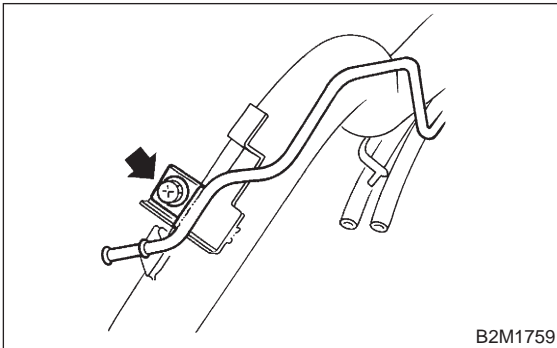


## C: DISASSEMBLY

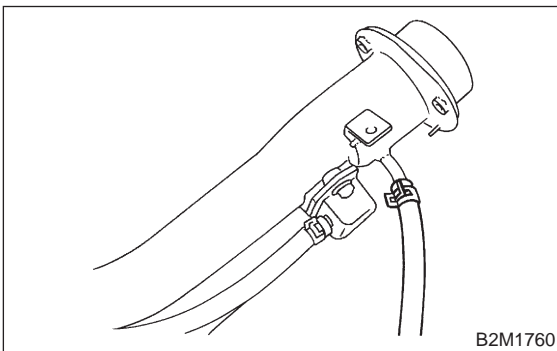
1) Move clip, and disconnect evaporation hose from joint pipe.



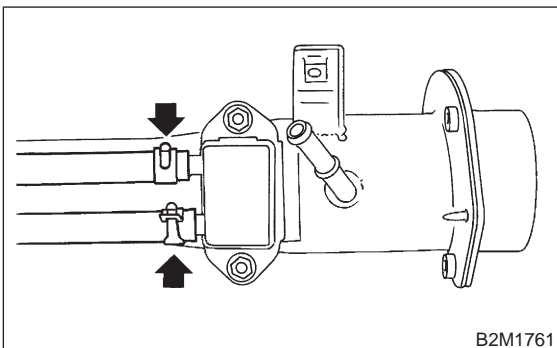
2) Remove bolt which installs joint pipe on fuel filler pipe.



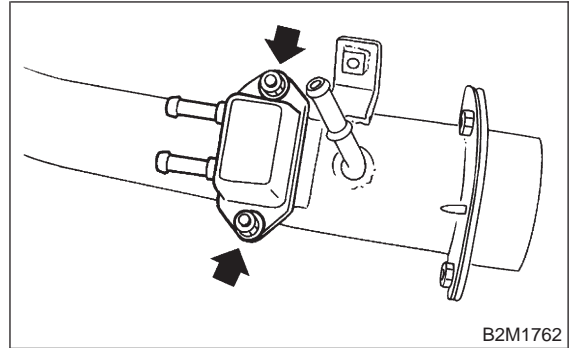
3) Disconnect evaporation hose from fuel filler pipe.



4) Disconnect evaporation hoses from shut valve.



5) Remove shut valve from fuel filler pipe.

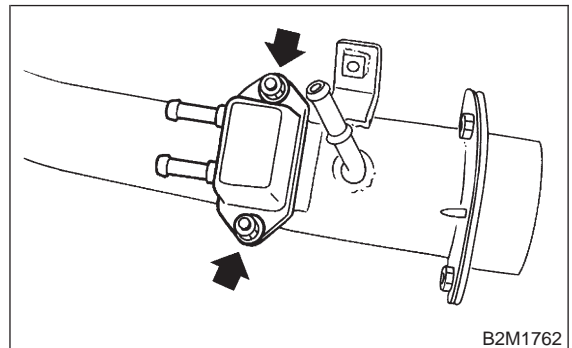


## D: ASSEMBLY

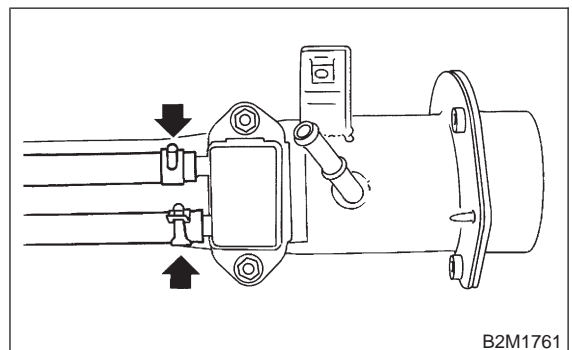
1) Install shut valve on fuel filler pipe.

**Tightening torque:**

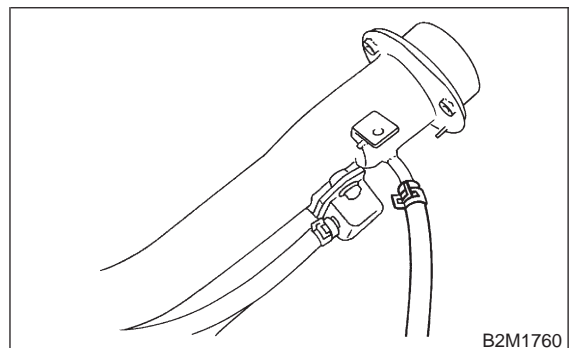
**$4.4 \pm 1.5 \text{ N-m}$  ( $0.45 \pm 0.15 \text{ kg-m}$ ,  $3.3 \pm 1.1 \text{ ft-lb}$ )**



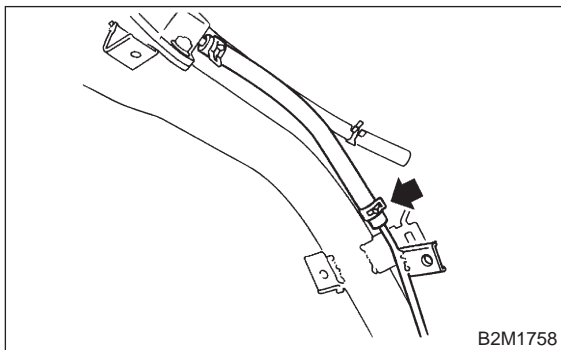
2) Connect evaporation hoses to shut valve.



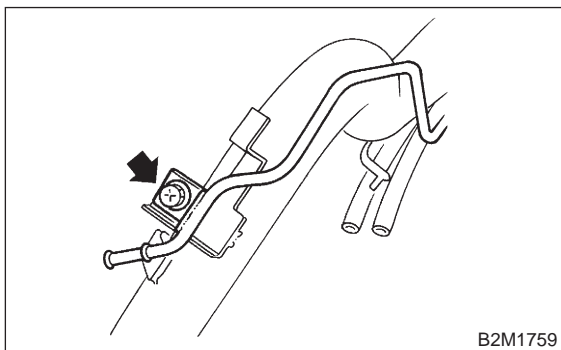
3) Connect evaporation hose to fuel filler pipe.



- 4) Connect evaporation hose to evaporation pipe.



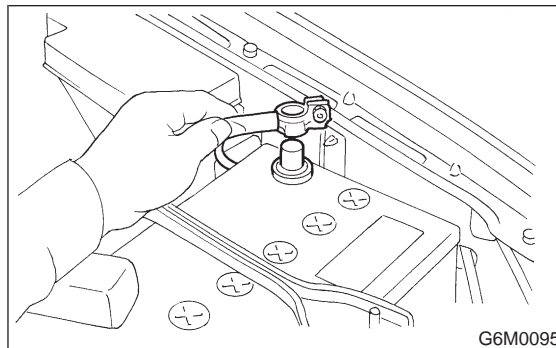
- 5) Install evaporation pipe to fuel filler pipe.



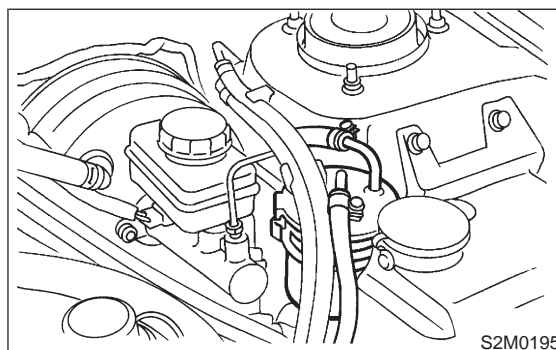
## 4. Fuel Filter

### A: REMOVAL

- 1) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 2) Disconnect battery ground cable.



- 3) Disconnect fuel delivery hoses from fuel filter.



- 4) Remove filter from holder.

### B: INSPECTION

- 1) Check the inside of fuel filter for dirt and water sediment.
- 2) If it is clogged, or if replacement interval has been reached, replace it.
- 3) If water is found in it, shake and expel the water from inlet port.

## C: INSTALLATION

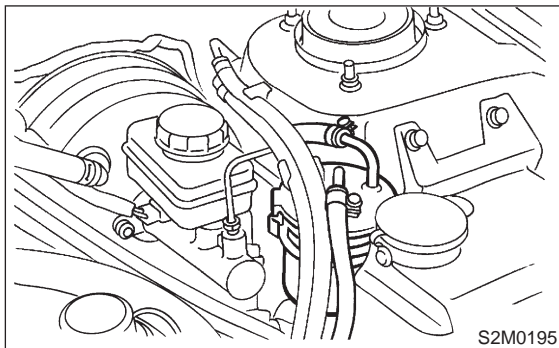
### CAUTION:

- If fuel hoses are damaged at the connecting portion, replace it with a new one.
- If clamps are badly damaged, replace with new ones.

- 1) Installation is in the reverse order of removal.
- 2) Tighten hose clamp screws.

### Tightening torque:

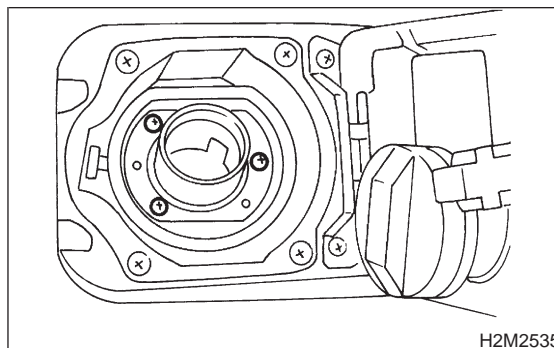
$1.0^{+0.5}_{-0}$  N·m ( $0.1^{+0.05}_{-0}$  kg-m,  $0.7^{+0.4}_{-0}$  ft-lb)



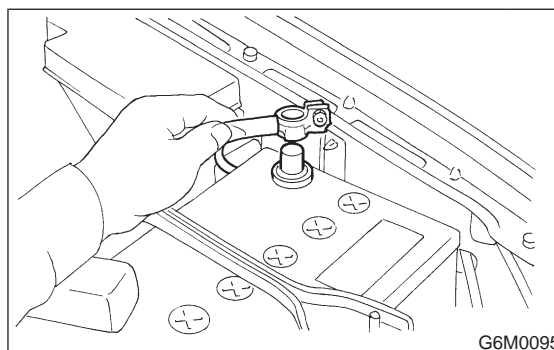
## 5. Fuel Pump

### A: REMOVAL

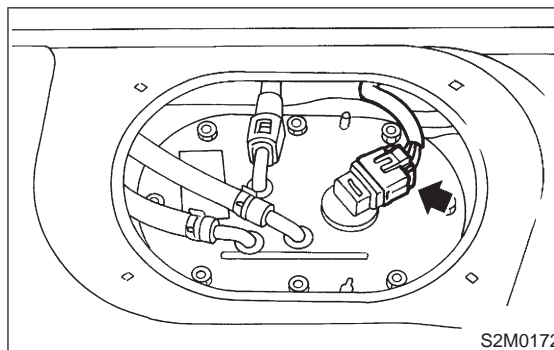
- 1) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 2) Open fuel flap lid, and remove fuel filler cap.



- 3) Disconnect battery ground cable.

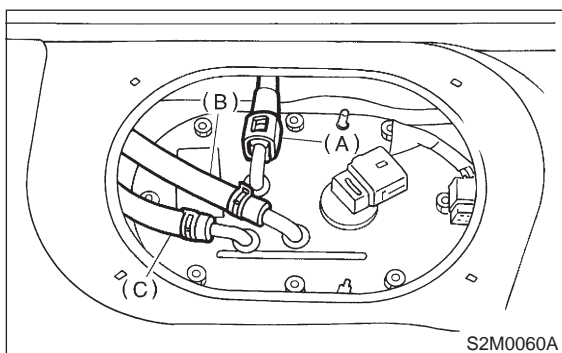


- 4) Disconnect connector from fuel pump.

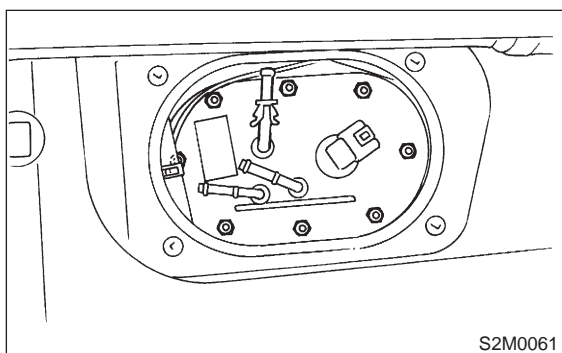


- 5) Move clips, and then disconnect fuel delivery hose (A), return hose (B) and jet pump hose (C).

- 6) Disconnect quick connector, and then disconnect fuel delivery hose (A). <Ref. to 2-8 [W7A0].>



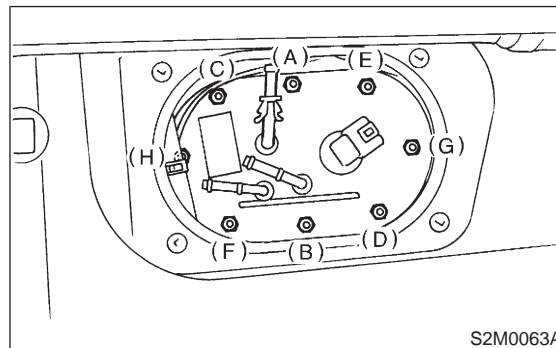
- 7) Remove nuts which install fuel pump assembly onto fuel tank.  
8) Take off fuel pump from fuel tank.



- (1) Always use new gaskets.  
(2) Ensure sealing portion is free from fuel or foreign particles before installation.  
(3) Tighten nuts in numerical sequence shown in Figure to specified torque.

**Tightening torque:**

**$4.4 \pm 1.5 \text{ N}\cdot\text{m}$  ( $0.45 \pm 0.15 \text{ kg}\cdot\text{m}$ ,  $3.3 \pm 1.1 \text{ ft}\cdot\text{lb}$ )**

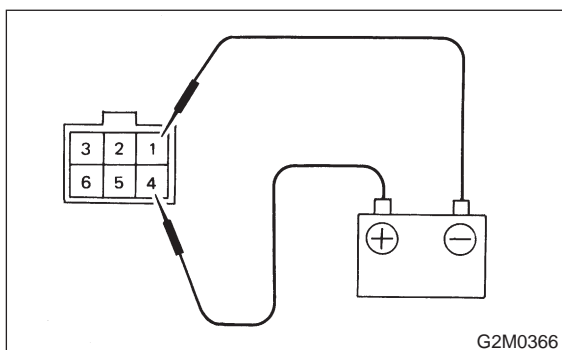


## B: INSPECTION

Connect lead harness to connector terminal of fuel pump, and apply battery power supply to check whether the pump operate.

**WARNING:**

- Wipe off the fuel completely.
- Be sure to turn the battery supply ON and OFF on the battery side.
- Do not run fuel pump for a long time under non-load condition.



## C: INSTALLATION

Installation is in the reverse order of removal. Do the following:

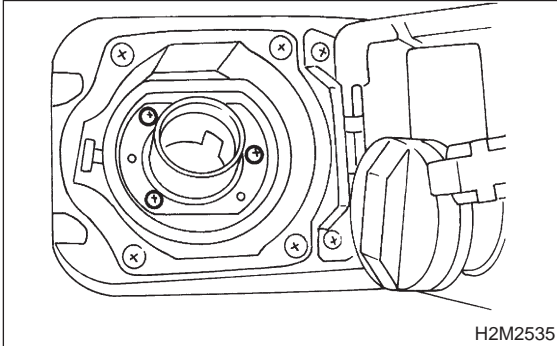
## 6. Fuel Meter Unit

### A: REMOVAL

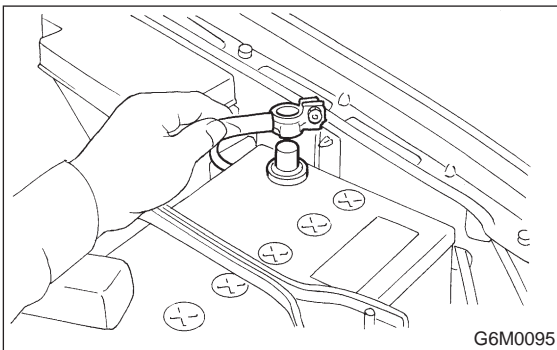
#### NOTE:

Fuel meter unit is built in fuel pump assembly.

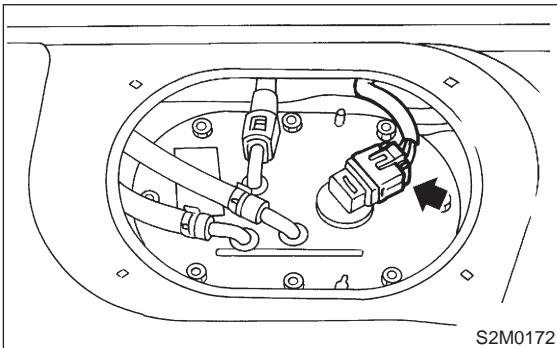
- 1) Release fuel pressure. <Ref. to 2-8 [W1B0].>
- 2) Open fuel flap lid, and remove fuel filler cap.



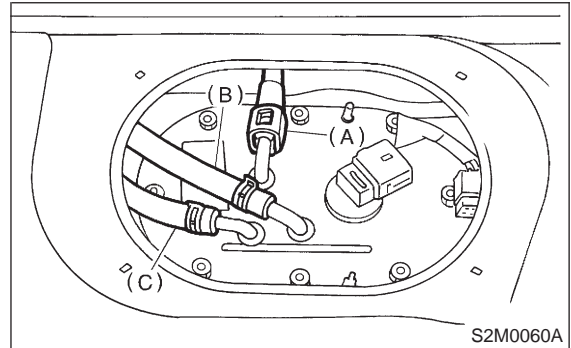
- 3) Disconnect battery ground cable.



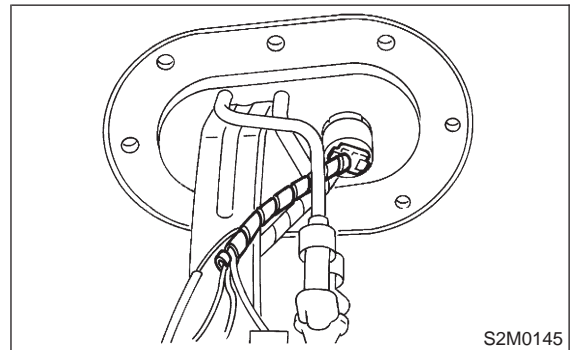
- 4) Disconnect connector from fuel pump.



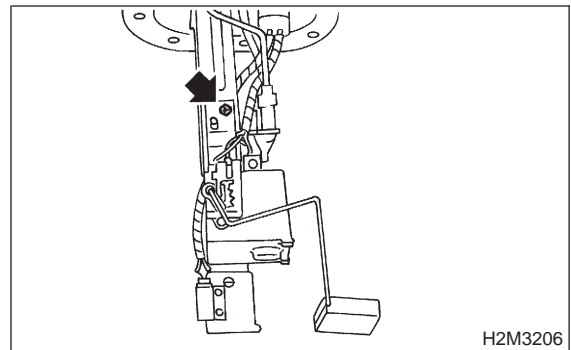
- 5) Move clips, and then disconnect fuel return hose (B) and jet pump hose (C).
- 6) Disconnect quick connector, and then disconnect fuel delivery hose (A). <Ref. to 2-8 [W7A0].>



- 7) Remove nuts which install fuel pump assembly onto fuel tank.
- 8) Take off fuel pump assembly.
- 9) Disconnect connector from fuel pump bracket.



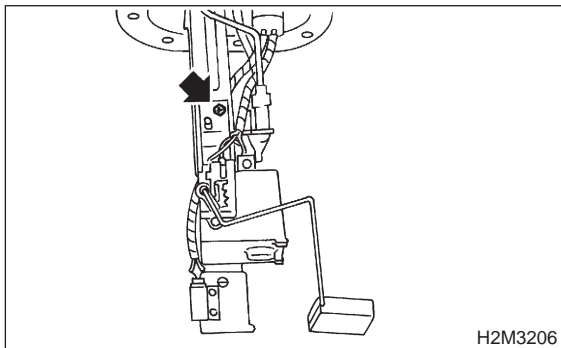
- 10) Remove bolt which installs fuel meter unit on mounting bracket.



**B: INSTALLATION**

Installation is in the reverse order of removal. Do the following:

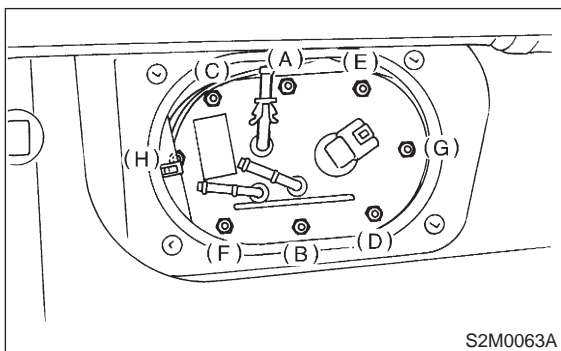
- (1) Install the fuel meter unit on mounting bracket.



- (2) Always use new gaskets.  
(3) Ensure sealing portion is free from fuel or foreign particles before installation.  
(4) Tighten nuts in alphabetical sequence shown in Figure to specified torque.

**Tightening torque:**

**$4.4 \pm 1.5 \text{ N}\cdot\text{m}$  ( $0.45 \pm 0.15 \text{ kg}\cdot\text{m}$ ,  $3.3 \pm 1.1 \text{ ft}\cdot\text{lb}$ )**

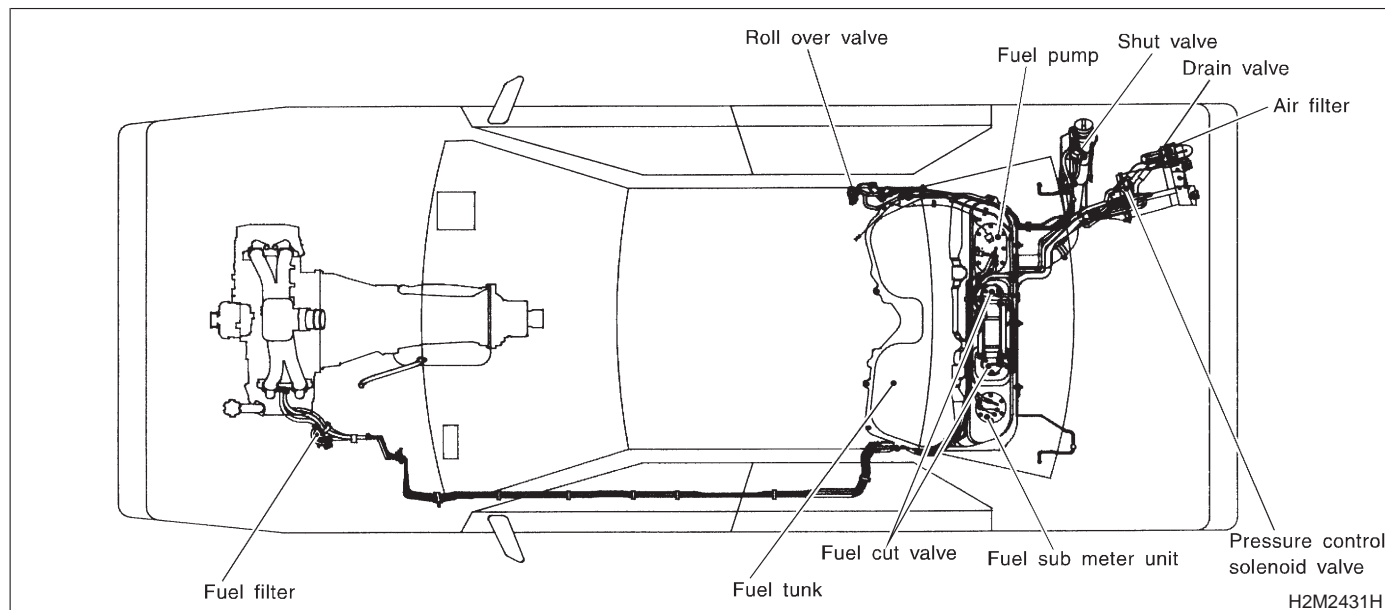


## 7. Fuel Delivery, Return and Evaporation Lines

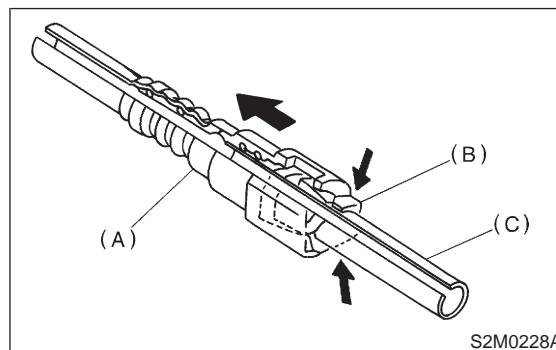
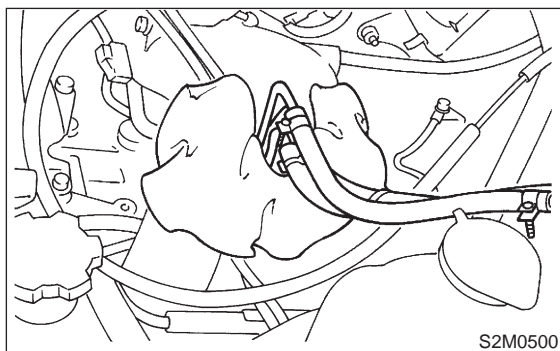
### A: REMOVAL

1) Release fuel pressure. <Ref. to 2-8 [W1B0].>

- 2) Open fuel flap lid, and remove fuel filler cap.
- 3) Remove inner trim, insulator and rear seat.
- 4) Remove fuel delivery pipes and hoses, fuel return pipes and hoses, and evaporation pipes and hoses.



5) In engine compartment, detach fuel delivery hose, return hose and evaporation hose.



- (A) Connector
- (B) Retainer
- (C) Pipe

- 6) Separate quick connector on fuel delivery line.
  - (1) Clean pipe and connector, if they are covered with dust.
  - (2) Hold connector (A) and push retainer (B) down.
  - (3) Pull out connector (A) from retainer (B).

#### CAUTION:

Replace retainer with new ones.

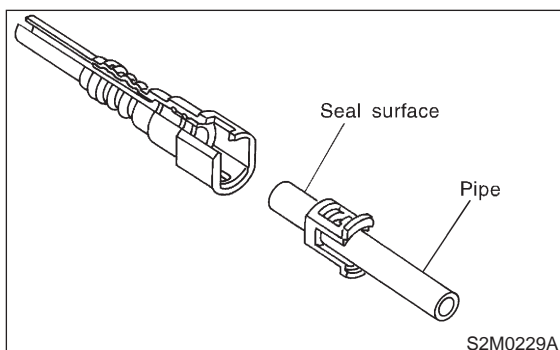
### B: INSTALLATION

Installation is in the reverse order of removal.

- 1) Connect quick connector on fuel delivery line.

#### CAUTION:

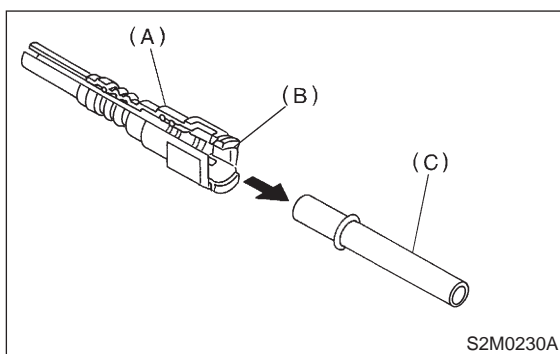
- Always use a new retainer.
- Make sure that the connected portion is not damaged or has dust. If necessary, clean sea



- (1) Set new retainer (B) to connector (A).
- (2) Push pipe into connector completely.

**NOTE:**

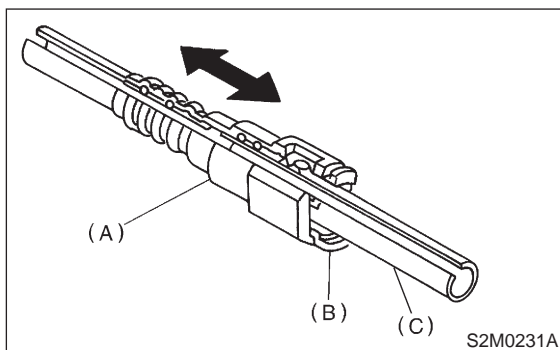
At this time, two clicking sounds are heard.



- (A) Connector
- (B) Retainer
- (C) Pipe

**CAUTION:**

- Pull the connector to ensure it is connected securely.
- Ensure the two retainer pawls are engaged in their mating positions in the connector.
- Be sure to inspect hoses and their connections for any leakage of fuel.



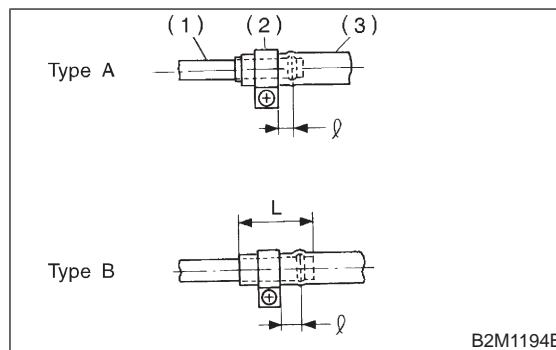
- (A) Connector
- (B) Retainer
- (C) Pipe

2) Connect fuel delivery hose to pipe in engine compartment with an overlap of 20 to 25 mm (0.79 to 0.98 in).

Type A: When fitting length is specified.  
Type B: When fitting length is not specified.

$\ell$  : 1.0 — 4.0 mm (0.039 — 0.157 in)

L: 20 — 25 mm (0.79 — 0.98 in)



- (1) Fitting
- (2) Clamp
- (3) Hose

3) Connect return hose and evaporation hose to pipe by approx. 15 mm (0.59 in) from hose end.

**Fuel return hose:**

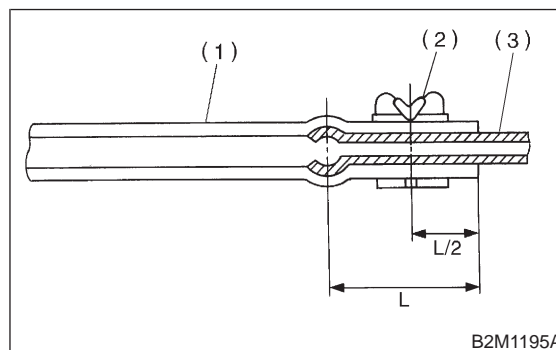
L = 20 — 25 mm (0.79 — 0.98 in)

**Fuel evaporation hose:**

L = 15 — 20 mm (0.59 — 0.79 in)

**CAUTION:**

Be sure to inspect hoses and their connections for any leakage of fuel.

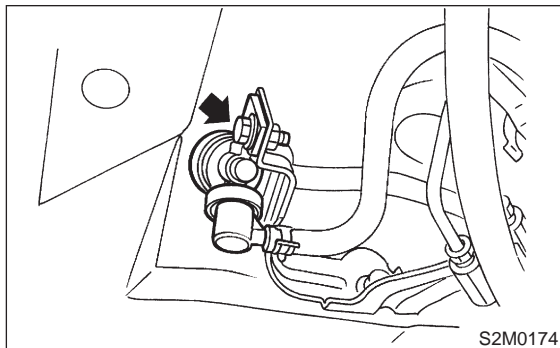


- (1) Hose
- (2) Clip
- (3) Pipe

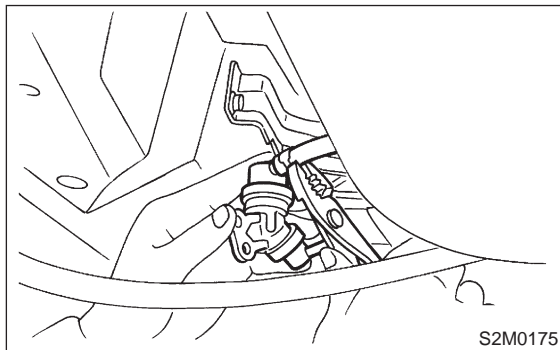
## 8. Roll Over Valve

### A: REMOVAL AND INSTALLATION

- 1) Lift-up the vehicle.
- 2) Remove roll over valve from bracket.



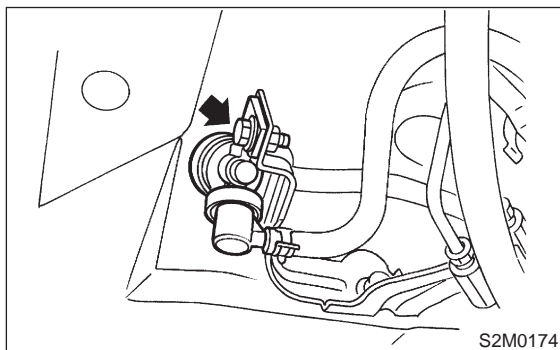
- 3) Disconnect hoses from roll over valve, and remove it from bracket.



- 4) Installation is in the reverse order of removal.

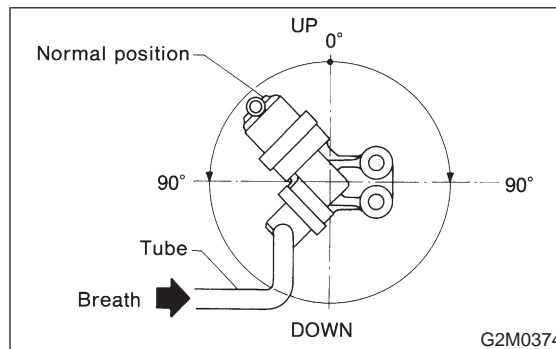
#### CAUTION:

- Do not install top side of valve down.
- Before installing bracket on body, securely fit concave part of bracket to hole in body.



### B: INSPECTION

- 1) Connect hoses to roll over valve as shown in Figure.

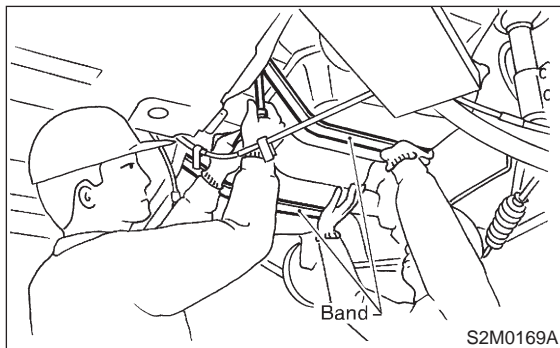


- 2) While blowing through open end of hose, tilt valve at least 90° left and right from normal position.
- 3) Ensure that there is no air flow when hose is tilted greater than 90°.

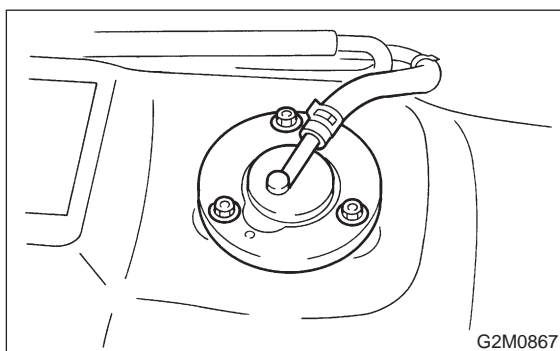
## 9. Fuel Cut Valve

### A: REMOVAL AND INSTALLATION

- 1) Remove fuel tank. <Ref. to 2-8 [W2A0].>



- 2) Disconnect evaporation hose from fuel cut valve.
- 3) Remove fuel cut valve.



- 4) Installation is in the reverse order of removal procedure.

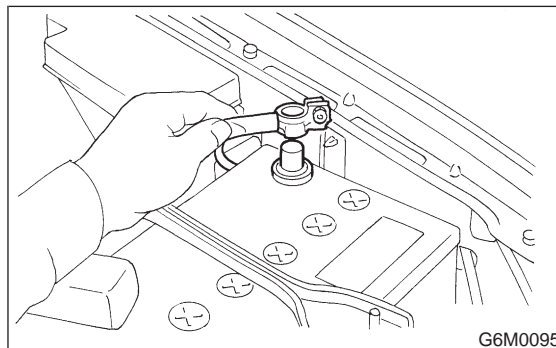
#### **Tightening torque:**

**$4.4 \pm 1.5 \text{ N}\cdot\text{m}$  ( $0.45 \pm 0.15 \text{ kg}\cdot\text{m}$ ,  $3.3 \pm 1.1 \text{ ft}\cdot\text{lb}$ )**

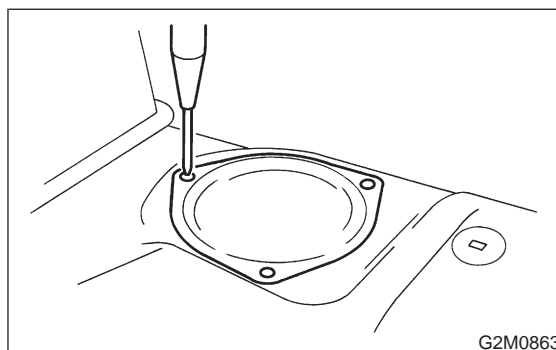
## 10. Fuel Sub Meter Unit

### A: REMOVAL AND INSTALLATION

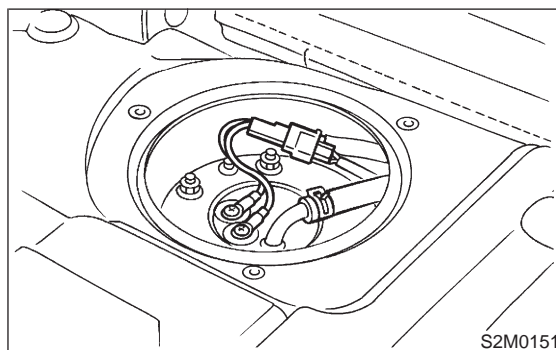
- 1) Disconnect battery ground cable.



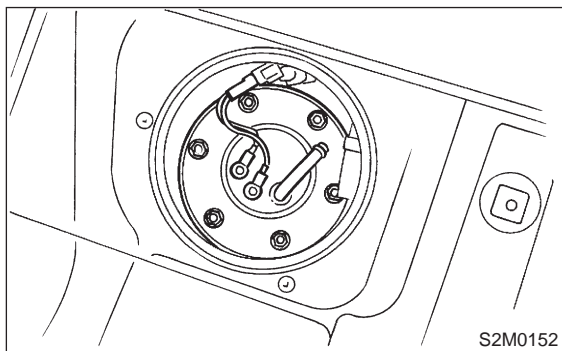
- 2) Remove fuel filler cap.
- 3) Remove service hole cover.



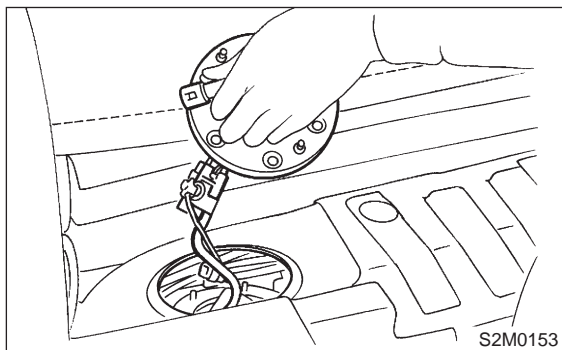
- 4) Disconnect connector from fuel sub meter, and disconnect jet pump hose.



- 5) Remove bolts which install fuel sub meter unit on fuel tank.



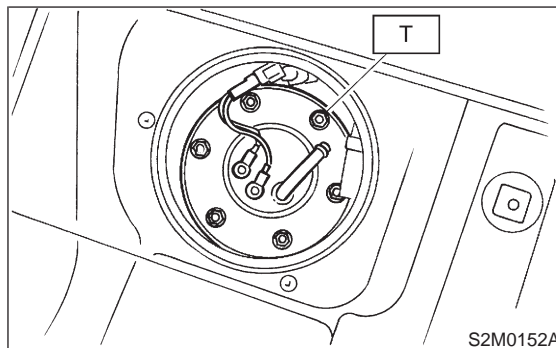
- 6) Remove fuel sub meter unit.



- 7) Installation is in the reverse order of removal.

**Tightening torque:**

**T:  $4.4 \pm 1.5$  N·m ( $0.45 \pm 0.15$  kg-m,  $3.3 \pm 1.1$  ft-lb)**



## 1. Fuel System Trouble in General

Trouble and possible cause			Corrective action
<b>1. Insufficient fuel supply to the injector</b>			
1)	Fuel pump will not operate.		
	○	Defective terminal contact.	Inspect connections, especially ground, and tighten securely.
	○	Trouble in electromagnetic or electronic circuit parts.	Replace fuel pump.
2)		Lowering of fuel pump function.	Replace fuel pump.
3)		Clogged dust or water in the fuel filter.	Replace fuel filter, clean or replace fuel tank.
4)		Clogged or bent fuel pipe or hose.	Clean, correct or replace fuel pipe or hose.
5)		Air is mixed in the fuel system.	Inspect or retighten each connection part.
6)		Clogged or bent breather tube or pipe.	Clean, correct or replace air breather tube or pipe.
7)		Damaged diaphragm of pressure regulator.	Replace.
<b>2. Leakage or blow out fuel</b>			
1)		Loosened joints of the fuel pipe.	Retightening.
2)		Cracked fuel pipe, hose and fuel tank.	Replace.
3)		Defective welding part on the fuel tank.	Replace.
4)		Defective drain packing of the fuel tank.	Replace.
5)		Clogged or bent air breather tube or air vent tube.	Clean, correct or replace air breather tube or air vent tube.
<b>3. Gasoline smell inside of compartment</b>			
1)		Loose joints at air breather tube, air vent tube and fuel filler pipe.	Retightening.
2)		Defective packing air tightness on the fuel saucer.	Correct or replace packing.
3)		Cracked fuel separator.	Replace separator.
4)		Inoperable fuel pump modulator or circuit.	Replace.
<b>4. Defective fuel meter indicator</b>			
1)		Defective operation of fuel meter unit.	Replace.
2)		Defective operation of fuel meter.	Replace.
<b>5. Noise</b>			
1)		Large operation noise or vibration of fuel pump.	Replace.

### NOTE:

When the vehicle is left unattended for an extended period of time, water may accumulate in the fuel tank.

(1) To prevent water condensation:

- Top off the fuel tank or drain the fuel completely.
- Drain water condensation from the fuel filter.

(2) Refilling the fuel tank:

Refill the fuel tank while there is still some fuel left in the tank.

(3) Protecting the fuel system against freezing and water condensation:

- Cold areas

In snow-covered areas, mountainous areas, skiing areas, etc. where ambient temperatures drop below 0°C (32°F) throughout the winter season, use an anti-freeze solution in the cooling system. Refueling will also complement the effect of anti-freeze solution each time the fuel level drops to about one-half. After the winter season, drain water which may have accumulated in the fuel filter and fuel tank in the manner same as that described under Affected areas below.

- Affected areas

When water condensation is notched in the fuel filter, drain water from both the fuel filter and fuel tank or use a water removing agent (or anti-freeze solution) in the fuel tank.

(4) Observe the instructions, notes, etc., indicated on the label affixed to the anti-freeze solution (water removing agent) container before use.

MEMO: