

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

EC(H4SO)

	Page
1. General Description	2
2. Front Catalytic Converter	3
3. Rear Catalytic Converter	4
4. Canister	5
5. Purge Control Solenoid Valve	6
6. EGR Valve	7
7. Main Fuel Level Sensor	8
8. Fuel Temperature Sensor	9
9. Sub Fuel Level Sensor	10
10. Fuel Tank Pressure Sensor	11
11. Fuel Tank Sensor Control Valve	12
12. Pressure Control Solenoid Valve	13
13. Drain Filter	14
14. Vent Valve	15
15. Shut Valve	16
16. Drain Valve	17

GENERAL DESCRIPTION

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

1. General Description

A: CAUTION

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust or dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
- Be careful not to burn your hands, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or safety stands at the specified points.
- Before disconnecting electrical connectors of sensors or units, be sure to disconnect ground cable from battery.

FRONT CATALYTIC CONVERTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

2. Front Catalytic Converter

A: REMOVAL

Front catalyst is built in center exhaust pipe. Therefore, the removal procedure is the same as that for the center exhaust pipe. <Ref. to EX(H4SO)-8, REMOVAL, Center Exhaust Pipe.>

B: INSTALLATION

Front catalyst is built in center exhaust pipe. Therefore, the installation procedure is the same as that for the center exhaust pipe. <Ref. to EX(H4SO)-8, INSTALLATION, Center Exhaust Pipe.>

C: INSPECTION

- 1) Make sure there are no exhaust leaks from connections and welds.
- 2) Make sure there are no holes or rusting.

REAR CATALYTIC CONVERTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

3. Rear Catalytic Converter

A: REMOVAL

Rear catalyst is built in center exhaust pipe. Therefore, the removal procedure is the same as that for the center exhaust pipe. <Ref. to EX(H4SO)-8, REMOVAL, Center Exhaust Pipe.>

B: INSTALLATION

Rear catalyst is built in center exhaust pipe. Therefore, the installation procedure is the same as that for the center exhaust pipe.<Ref. to EX(H4SO)-8, INSTALLATION, Center Exhaust Pipe.>

C: INSPECTION

- 1) Make sure there are no exhaust leaks from connections and welds.
- 2) Make sure there are no holes or rusting.

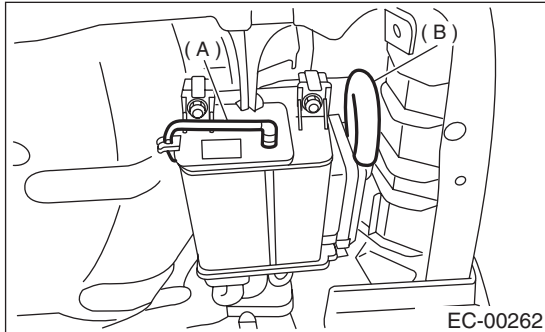
CANISTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

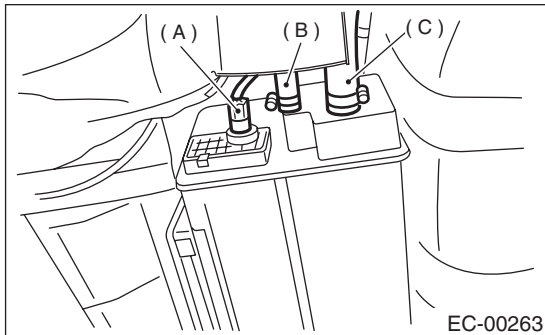
4. Canister

A: REMOVAL

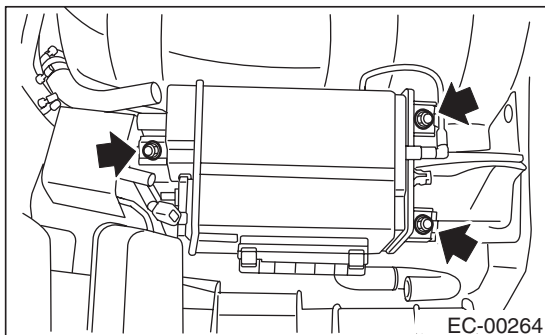
- 1) Lift-up the vehicle.
- 2) Disconnect quick connector (A) from canister.
- 3) Disconnect evaporation hose (B) from canister.



- 4) Disconnect connector (A) from drain valve.
- 5) Disconnect evaporation hoses (B) and (C) from canister.



- 6) Remove the canister from vehicle.

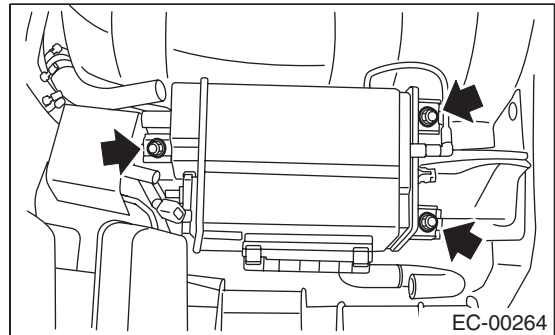


B: INSTALLATION

- 1) Install in the reverse order of removal.

Tightening torque:

23 N·m (2.3 kgf-m, 17 ft-lb)



C: INSPECTION

Make sure the canister and canister hoses are not cracked or loose.

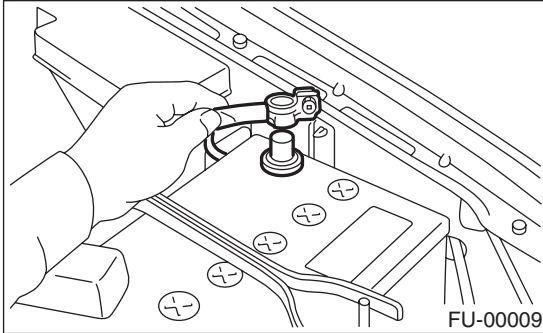
PURGE CONTROL SOLENOID VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

5. Purge Control Solenoid Valve

A: REMOVAL

1) Disconnect battery ground cable.

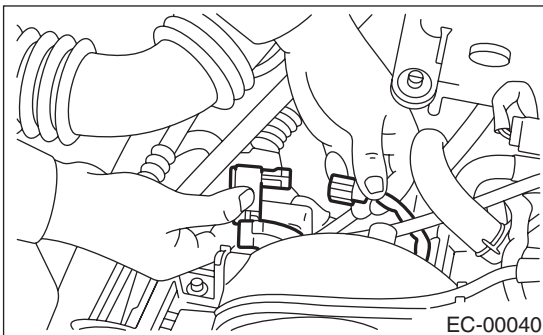


2) Remove bolt which installs purge control solenoid valve onto intake manifold.



3) Take out purge control solenoid valve through the bottom of the intake manifold.

4) Disconnect connector and hoses from purge control solenoid valve.



B: INSTALLATION

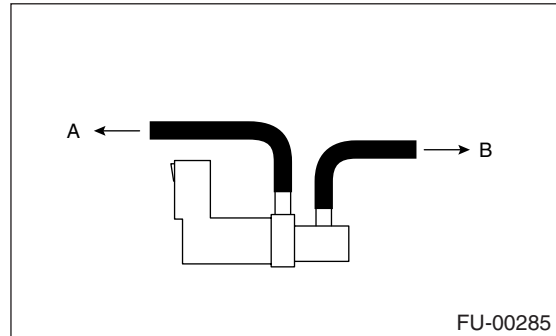
1) Install in the reverse order of removal.

Tightening torque:

19 N·m (1.9 kgf-m, 14 ft-lb)

CAUTION:

Connect the evaporation hoses as shown in the illustration.



(A) To fuel pipe

(B) To intake manifold

C: INSPECTION

Make sure hoses are not cracked or loose.

EGR VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

6. EGR Valve

A: REMOVAL

For work procedures, refer to "FU(H4SO)" section.
<Ref. to FU(H4SO)-37, REMOVAL, EGR Valve.>

B: INSTALLATION

For work procedures, refer to "FU(H4SOH4SO)" section.
<Ref. to FU(H4SO)-37, INSTALLATION, EGR Valve.>

MAIN FUEL LEVEL SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

7. Main Fuel Level Sensor

A: REMOVAL

For work procedures, refer to "FU(H4SO)" section.
<Ref. to FU(H4SO)-68, REMOVAL, Fuel Level Sensor.>

B: INSTALLATION

For work procedures, refer to "FU(H4SO)" section.
<Ref. to FU(H4SO)-68, INSTALLATION, Fuel Level Sensor.>

FUEL TEMPERATURE SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

8. Fuel Temperature Sensor

A: REMOVAL

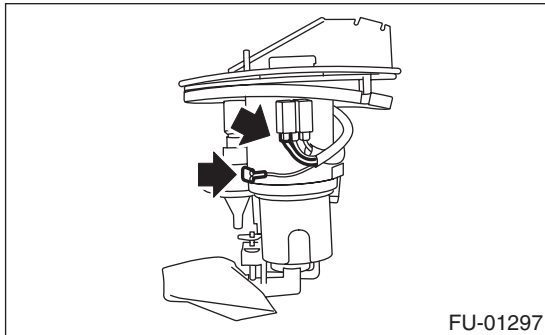
WARNING:

During work procedures, if fuel tank is more than 3/4 full, be careful because fuel may spill.

NOTE:

Fuel temperature sensor is built in fuel pump assembly.

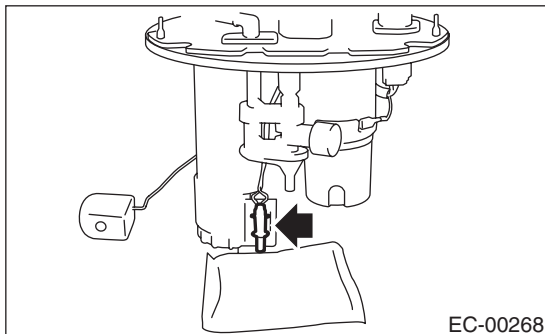
- 1) Remove fuel pump assembly. <Ref. to FU(H4SO)-66, REMOVAL, Fuel Pump.>
- 2) Disconnect connector from fuel pump bracket.



- 3) Remove fuel temperature sensor.

NOTE:

When replacing fuel temperature sensor, also replace fuel level sensor. <Ref. to FU(H4SO)-68, REMOVAL, Fuel Level Sensor.>



B: INSTALLATION

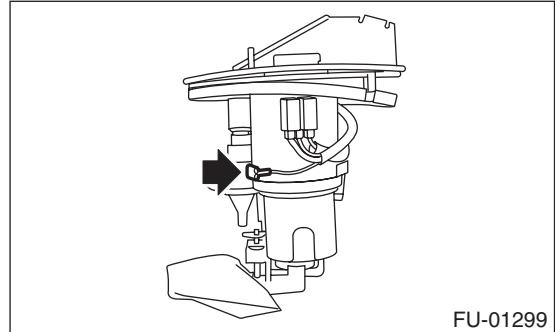
- 1) Install in the reverse order of removal.

NOTE:

Replace a gasket with a new one.

WARNING:

- Ground cable must be connected.
- Spark may occur and ignite if fuel is nearby.



SUB FUEL LEVEL SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

9. Sub Fuel Level Sensor

A: REMOVAL

For work procedures, refer to "FU(H4SO)" section.
<Ref. to FU(H4SO)-69, REMOVAL, Fuel Sub Level Sensor.>

B: INSTALLATION

For work procedures, refer to "FU(H4SO)" section.
<Ref. to FU(H4SO)-69, INSTALLATION, Fuel Sub Level Sensor.>

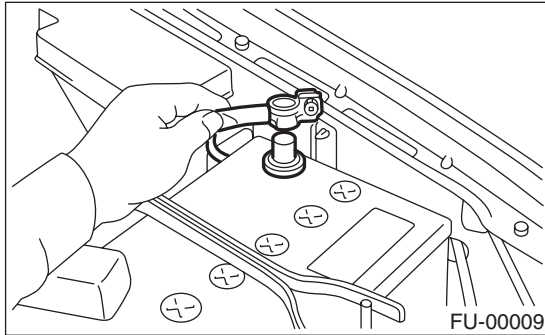
FUEL TANK PRESSURE SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

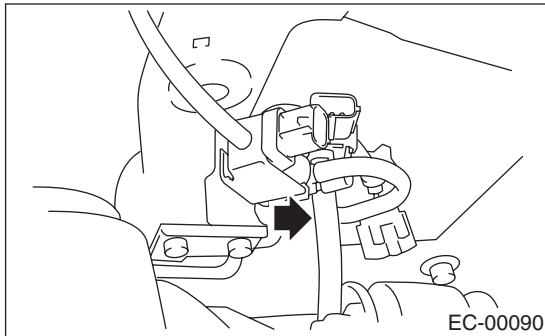
10. Fuel Tank Pressure Sensor

A: REMOVAL

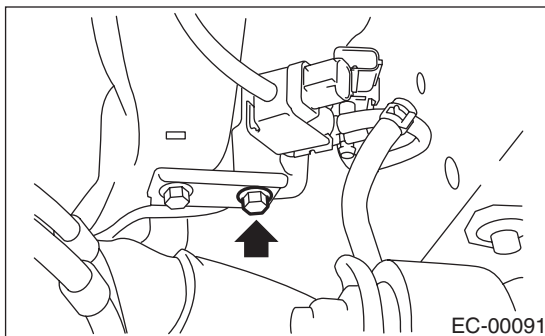
- 1) Set the vehicle on the lift.
- 2) Open fuel flap lid, and remove fuel filler cap.
- 3) Disconnect battery ground cable.



- 4) Lift-up the vehicle.
- 5) Disconnect connector from fuel tank pressure sensor and fuel tank sensor control valve.
- 6) Disconnect pressure hose from fuel tank pressure sensor.



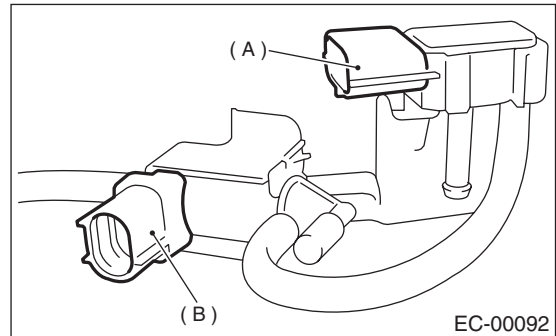
- 7) Remove fuel tank pressure sensor and fuel tank sensor control valve with bracket.



- 8) Remove fuel tank sensor control valve from bracket.

NOTE:

Fuel tank pressure sensor cannot be removed because it is integral with bracket.



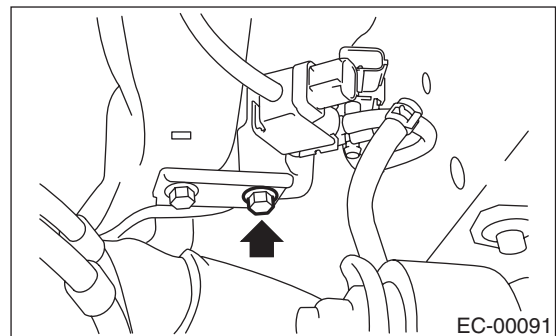
- (A) Fuel tank pressure sensor
(B) Fuel tank sensor control valve

B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

7.4 N·m (0.75 kgf-m, 5.4 ft-lb)



C: INSPECTION

Make sure that hoses are not cracked or loose.

FUEL TANK SENSOR CONTROL VALVE

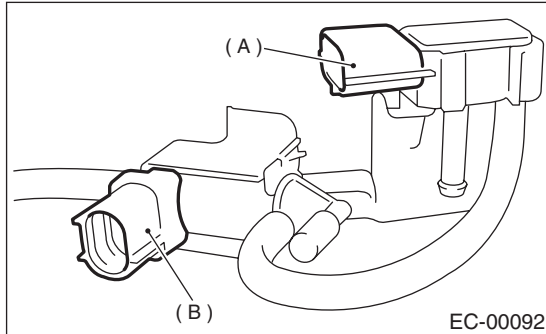
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

11. Fuel Tank Sensor Control Valve

A: REMOVAL

1) Remove fuel tank pressure sensor. <Ref. to EC(H4SO)-11, REMOVAL, Fuel Tank Pressure Sensor.>

2) Remove fuel tank sensor control valve from bracket.



- (1) Fuel tank pressure sensor
- (2) Fuel tank sensor control valve

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Make sure that hoses are not cracked or loose.

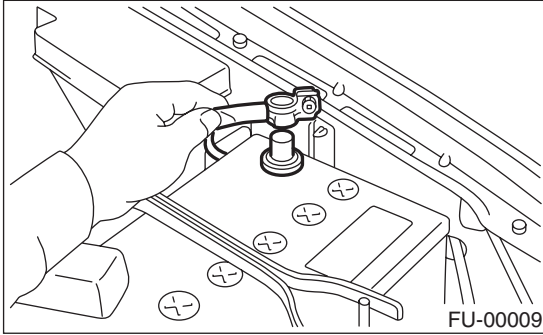
PRESSURE CONTROL SOLENOID VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

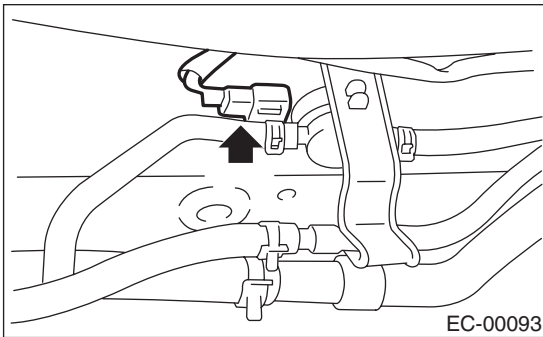
12. Pressure Control Solenoid Valve

A: REMOVAL

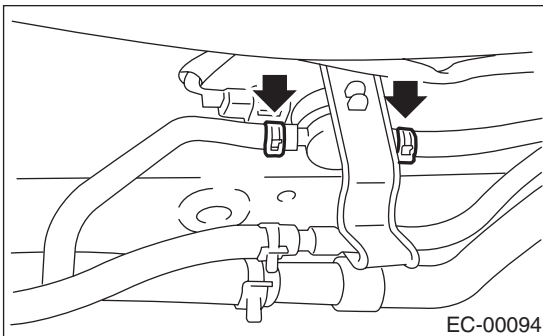
- 1) Set the vehicle on the lift.
- 2) Disconnect battery ground cable.



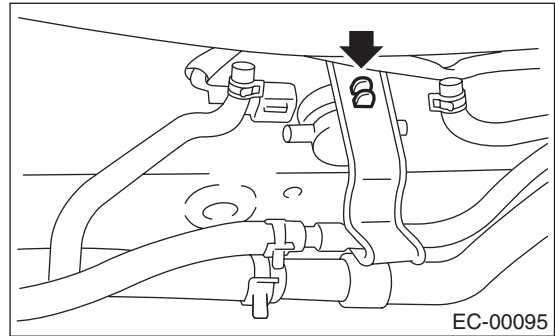
- 3) Lift-up the vehicle.
- 4) Disconnect connector from pressure control solenoid valve.



- 5) Disconnect two evaporation hoses from pressure control solenoid valve.



- 6) Remove pressure control solenoid valve from bracket.



B: INSTALLTION

Install in the reverse order of removal.

C: INSPECTION

Make sure that hoses are not cracked or loose.

DRAIN FILTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

13.Drain Filter

A: SPECIFICATIONS

Drain filter is built in the canister, and it is a part which cannot be disassembled.

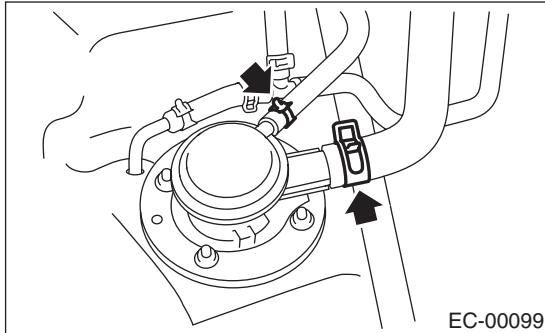
VENT VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

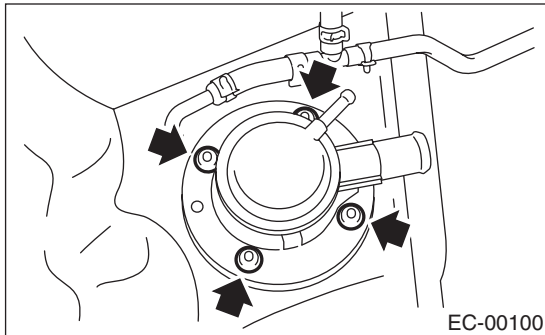
14. Vent Valve

A: REMOVAL

- 1) Remove fuel tank. <Ref. to FU(H4SO)-51, REMOVAL, Fuel Tank.>
- 2) Move clips, and disconnect hoses from vent valve.



- 3) Remove nuts which install vent valve on fuel tank.



B: INSTALLATION

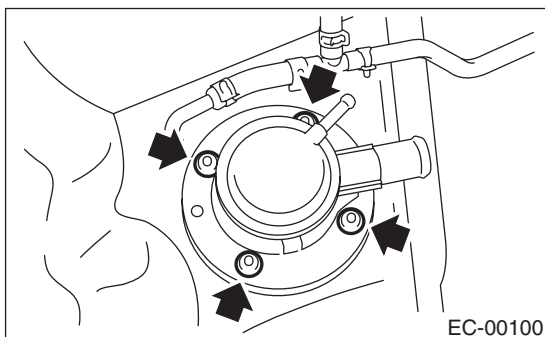
Install in the reverse order of removal.

NOTE:

Replace rubber seat with a new one.

Tightening torque:

4.4 N·m (0.45 kgf-m, 3.3 ft-lb)



C: INSPECTION

Make sure that hoses are not cracked or loose.

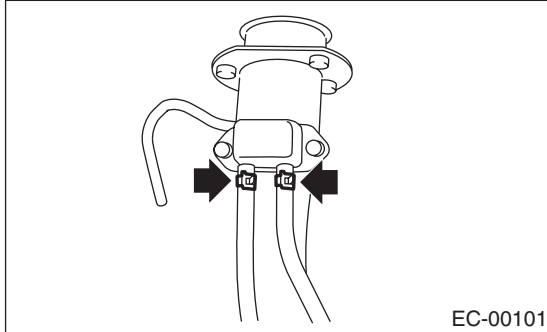
SHUT VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

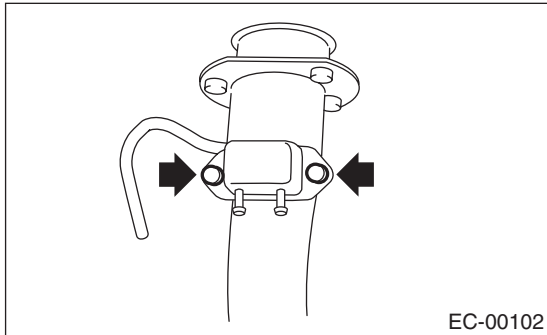
15. Shut Valve

A: REMOVAL

- 1) Drain fuel from fuel tank. <Ref. to FU(H4SO)-51, REMOVAL, Fuel Tank.>
- 2) Remove fuel filler pipe. <Ref. to FU(H4SO)-59, REMOVAL, Fuel Filler Pipe.>
- 3) Disconnect evaporation hoses from shut valve.



- 4) Remove shut valve from fuel filler pipe.

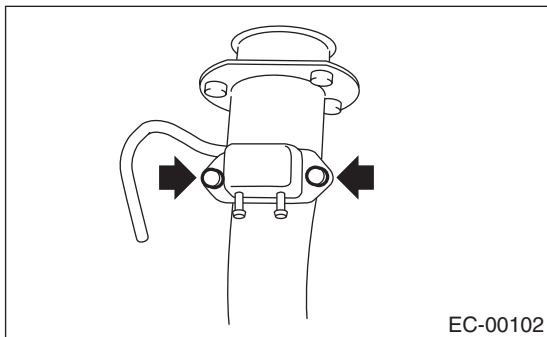


B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

4.4 N·m (0.45 kgf·m, 3.3 ft·lb)



C: INSPECTION

Make sure that hoses are not cracked or loose.

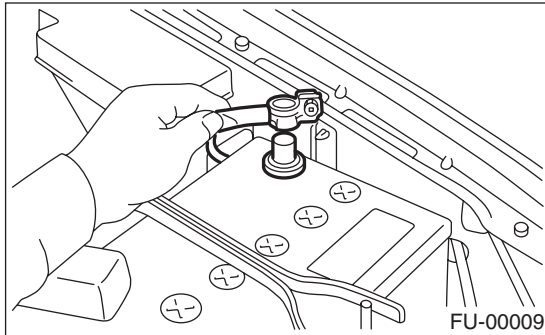
DRAIN VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

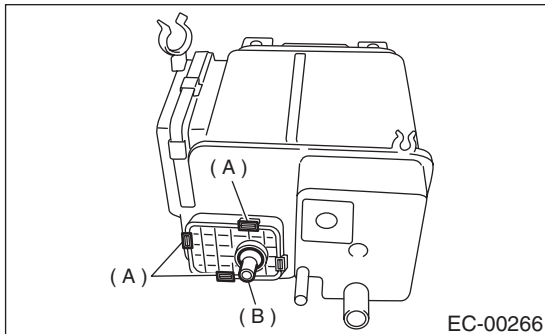
16.Drain Valve

A: REMOVAL

- 1) Set the vehicle on the lift.
- 2) Disconnect battery ground cable.



- 3) Lift-up the vehicle.
- 4) Remove canister. <Ref. to EC(H4SO)-5, REMOVAL, Canister.>
- 5) Remove clip (A), and then remove drain valve (B) from canister.



B: INSTALLATION

Install in the reverse order of removal.

- Be careful not to damage the rubber packing of drain valve.
- If the packing is damaged, replace the canister assembly.

C: INSPECTION

- 1) Make sure that all hoses are installed correctly.
- 2) Make sure that hoses are not cracked or loose.

DRAIN VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

MEMO: