

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

EC(SOHC)

	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. Main Fuel Level Sensor	7
7. Fuel Temperature Sensor	8
8. Sub Fuel Level Sensor	9
9. Fuel Tank Pressure Sensor	10
10. Pressure Control Solenoid Valve	11
11. Drain Filter	13
12. Vent Valve	14
13. Shut Valve	15
14. Drain Valve	16

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 the negative terminal from battery.

FRONT CATALYTIC CONVERTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

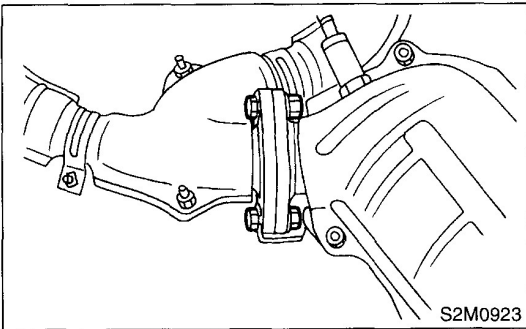
2. Front Catalytic Converter

A: REMOVAL

- 1) Remove the front exhaust pipe and center exhaust pipe. <Ref. to EX(SOHC)-8, Removal, Center Exhaust Pipe.>
- 2) Separate the front catalytic converter from front exhaust pipe.

NOTE:

The front catalytic converter is integrated with rear catalytic converter.



B: INSTALLATION

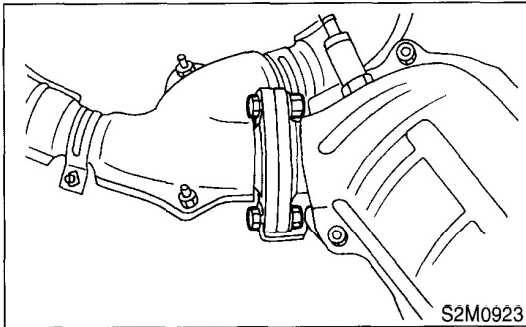
CAUTION:

Replace gaskets with new ones.

- 1) Install the front catalytic converter to front exhaust pipe.

Tightening torque:

30 N·m (3.1 kgf-m, 22.4 ft-lb)



- 2) Install the front exhaust pipe and center exhaust pipe. <Ref. to EX(SOHC)-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.

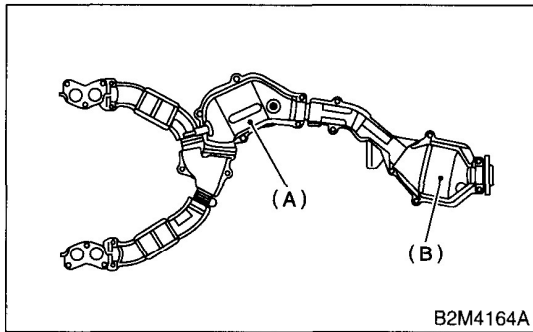
REAR CATALYTIC CONVERTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

3. Rear Catalytic Converter

A: REMOVAL

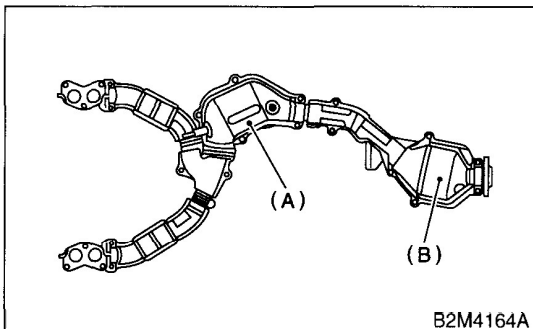
The front and rear catalytic converter and center exhaust pipe are integrated into one unit. Therefore, the removal and installation procedures are the same as those for the front catalytic converter.
<Ref. to EC(SOHC)-3, REMOVAL, Front Catalytic Converter.>



- (A) Front catalytic converter
- (B) Rear catalytic converter

B: INSTALLATION

The front and rear catalytic converter and center exhaust pipe are integrated into one unit. Therefore, the removal and installation procedures are the same as those for the front catalytic converter.
<Ref. to EC(SOHC)-3, INSTALLATION, Front Catalytic Converter.>



- (A) Front catalytic converter
- (B) Rear catalytic converter

C: INSPECTION

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

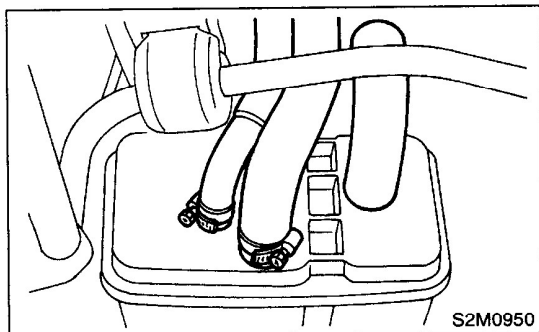
CANISTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

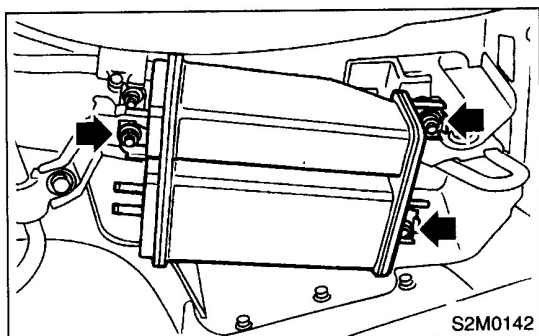
4. Canister

A: REMOVAL

- 1) Lift-up the vehicle.
- 2) Loosen the two clamps which hold two canister hoses, and disconnect the evaporation hose from canister.



- 3) Remove the canister from body.

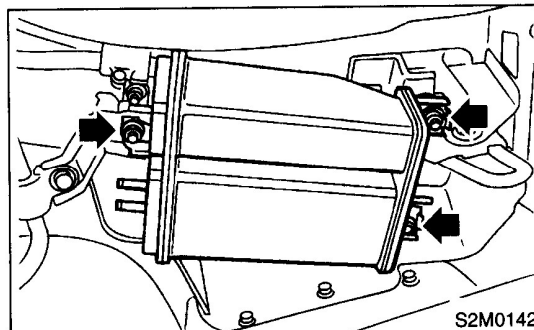


B: INSTALLATION

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.

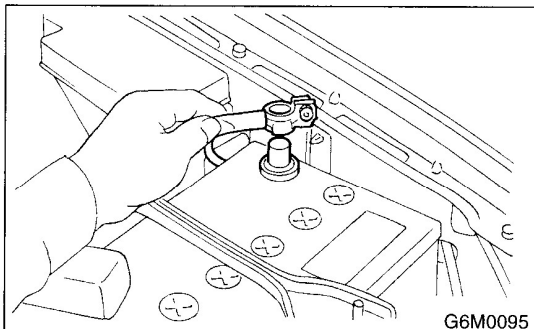
PURGE CONTROL SOLENOID VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

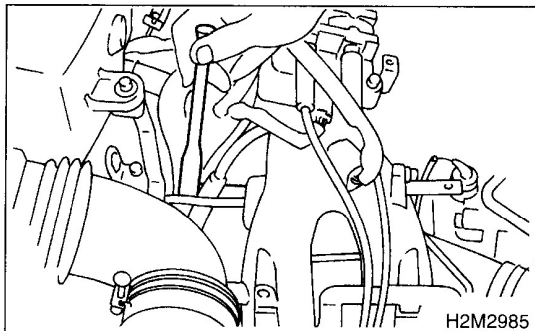
5. Purge Control Solenoid Valve

A: REMOVAL

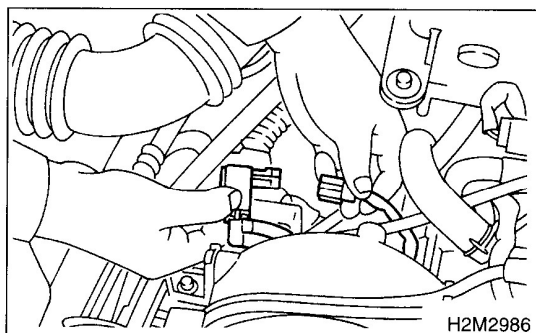
- 1) Disconnect the ground terminal from battery.



- 2) Remove the 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 the connector and hoses from purge control solenoid valve.

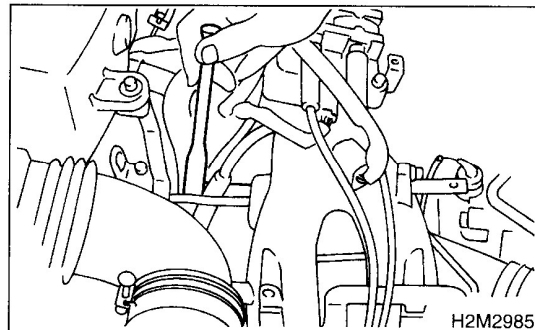


B: INSTALLATION

Install in the reverse order of removal.

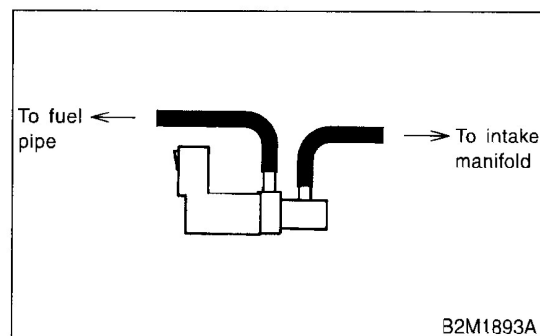
Tightening torque:

16 N·m (1.6 kgf-m, 11.6 ft-lb)



CAUTION:

Carefully connect the evaporation hoses.



C: INSPECTION

Make sure the hoses are not cracked or loose.

MAIN FUEL LEVEL SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

6. Main Fuel Level Sensor

A: REMOVAL

For work procedures, refer to "FU" section. <Ref. to FU(SOHC)-62, REMOVAL, Fuel Level Sensor.>

B: INSTALLATION

For work procedures, refer to "FU" section. <Ref. to FU(SOHC)-62, INSTALLATION, Fuel Level Sensor.>

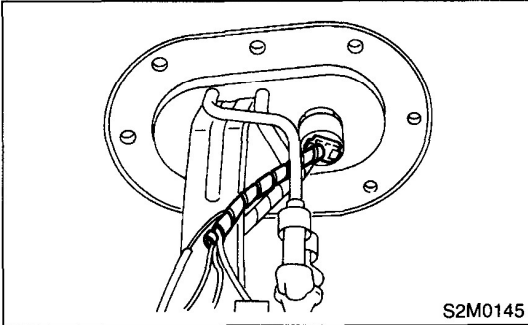
FUEL TEMPERATURE SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

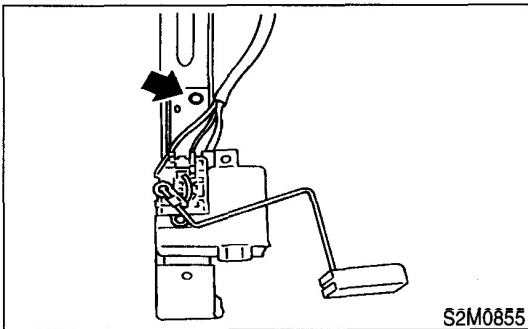
7. Fuel Temperature Sensor

A: REMOVAL

- 1) Remove the fuel pump assembly. <Ref. to FU(SOHC)-59, REMOVAL, Fuel Pump.>
- 2) Disconnect the connector from fuel pump bracket.



- 3) Remove the main fuel level sensor from fuel pump assembly. <Ref. to FU(SOHC)-62, REMOVAL, Fuel Level Sensor.>



NOTE:

Fuel temperature sensor is a unit with the fuel pump. If replacing it, replace as a fuel pump.

B: INSTALLATION

Install in the reverse order of removal.

WARNING:

Spark may occur and ignite if fuel is nearby.

SUB FUEL LEVEL SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

8. Sub Fuel Level Sensor

A: REMOVAL

For work procedures, refer to <Ref. to FU(SOHC)-63, REMOVAL, Fuel Sub Level Sensor.>

B: INSTALLATION

For work procedures, refer to <Ref. to FU(SOHC)-64, INSTALLATION, Fuel Sub Level Sensor.>

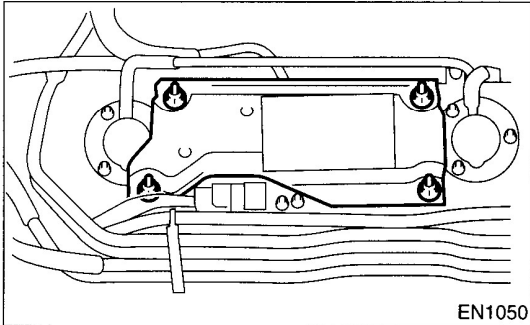
FUEL TANK PRESSURE SENSOR

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

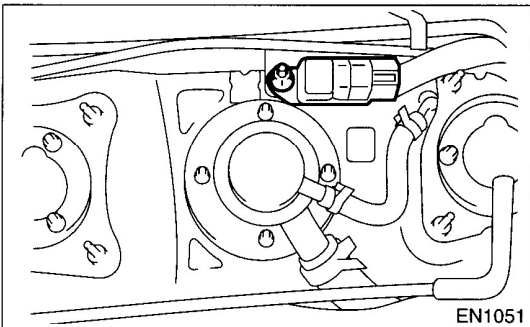
9. Fuel Tank Pressure Sensor

A: REMOVAL

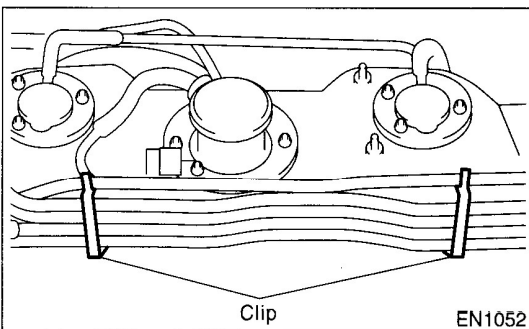
- 1) Remove the fuel tank. <Ref. to FU(SOHC)-51, REMOVAL, Fuel Tank.>
- 2) Remove the protector cover.



- 3) Disconnect the connector from fuel tank pressure sensor.

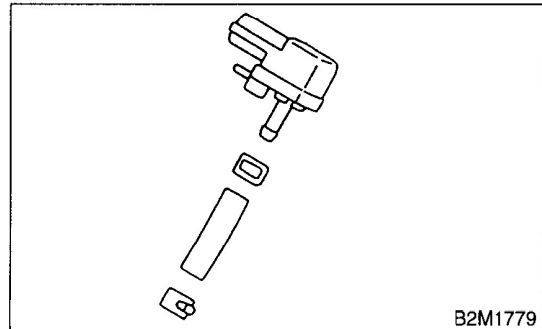


- 4) Release the clips which hold fuel pipes onto fuel tank.



- 5) Remove the clip, and disconnect pressure hose from fuel tank.

- 6) Disconnect the pressure hose from fuel tank pressure sensor.

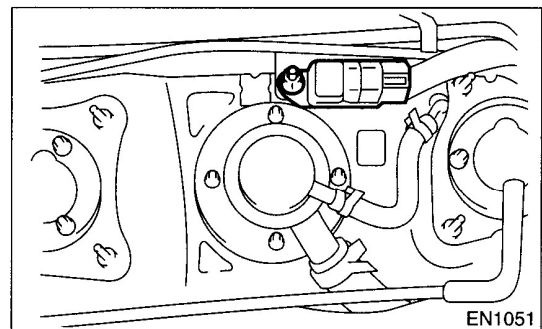


B: INSTALLATION

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 the hoses are not cracked or loose.

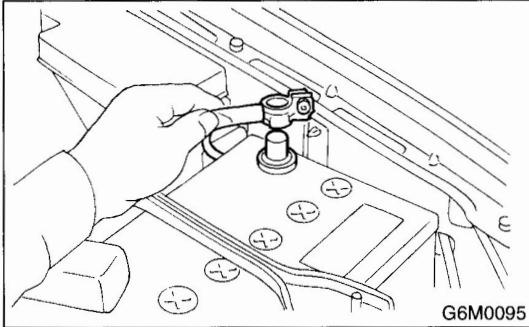
PRESSURE CONTROL SOLENOID VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

10. Pressure Control Solenoid Valve

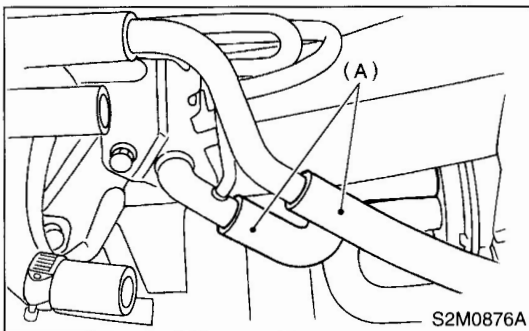
A: REMOVAL

1) Disconnect the ground terminal from battery.

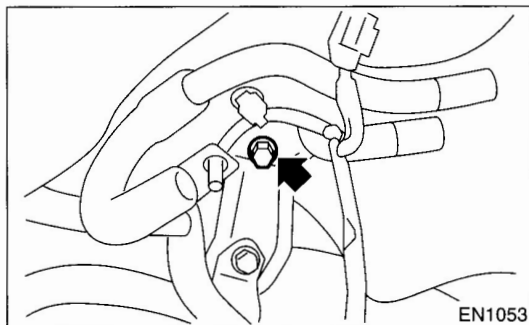


2) Remove the canister. <Ref. to EC(SOHC)-5, REMOVAL, Canister.>

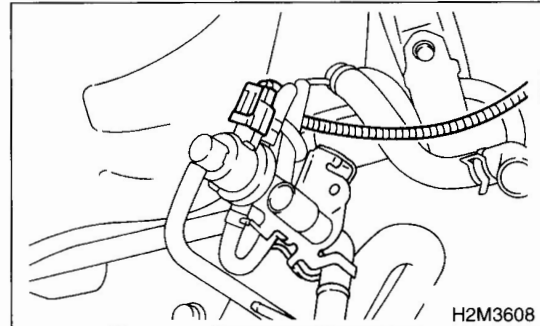
3) Disconnect the evaporation hoses (A) from joint pipes.



4) Remove the bolt which installs pressure control solenoid valve holding bracket on body.

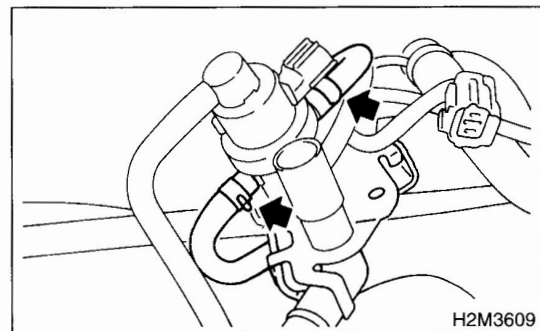


5) Disconnect the connector from pressure control solenoid valve.

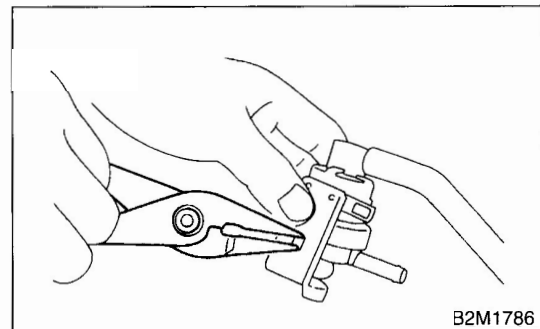


6) Disconnect the two evaporation hoses from pressure control solenoid valve.

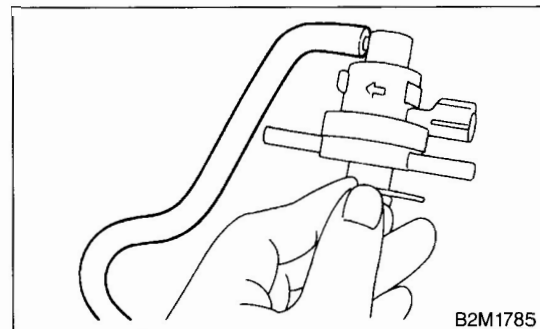
7) Remove the pressure control solenoid valve with bracket.



8) Remove the pressure control solenoid valve from bracket.



9) Disconnect the vacuum hose from pressure control solenoid valve.



PRESSURE CONTROL SOLENOID VALVE

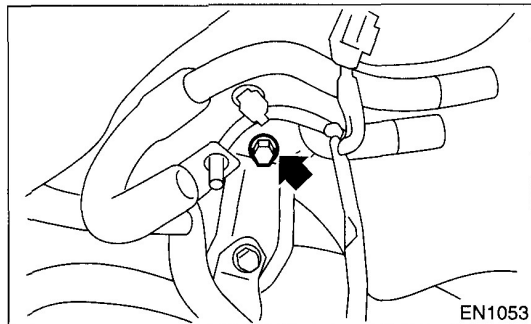
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

17.6 N·m (1.8 kgf-m, 13.0 ft-lb)



C: INSPECTION

Make sure the hoses are not cracked or loose.

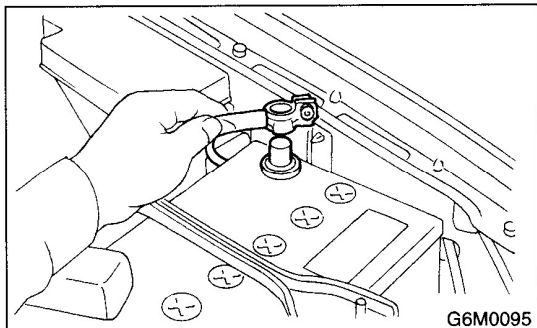
DRAIN FILTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

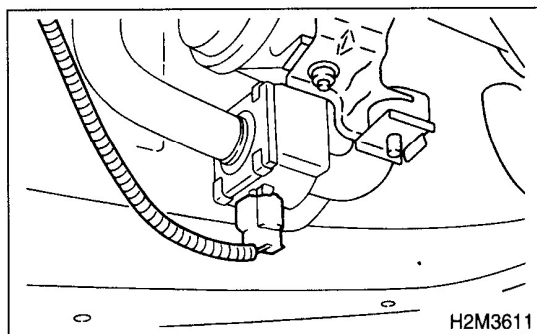
11.Drain Filter

A: REMOVAL

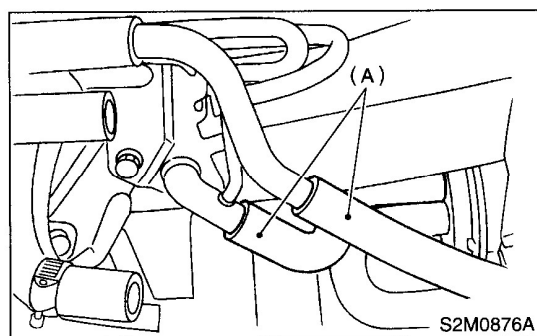
- 1) Disconnect the ground terminal from battery.



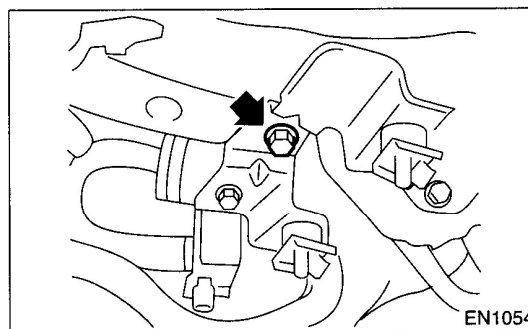
- 2) Lift-up the vehicle.
- 3) Remove the canister. <Ref. to EC(SOHC)-5, REMOVAL, Canister.>
- 4) Disconnect the connector from drain valve.



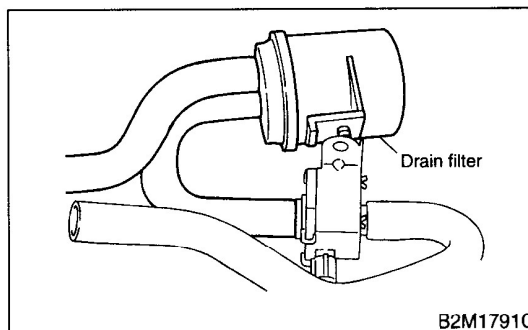
- 5) Disconnect the evaporation hoses (A) from joint pipes.



- 6) Remove the bolt which installs the drain filter and drain valve brackets on body, and remove them as a unit.



- 7) Disconnect the evaporation hoses, and remove the drain filter.

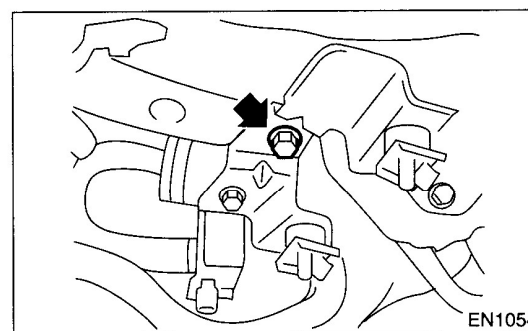


B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

23 N·m (2.35 kgf-m, 17.0 ft-lb)



C: INSPECTION

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

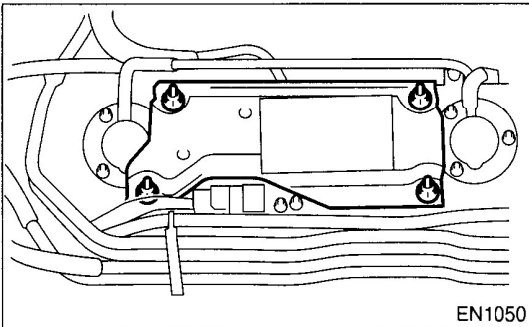
VENT VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

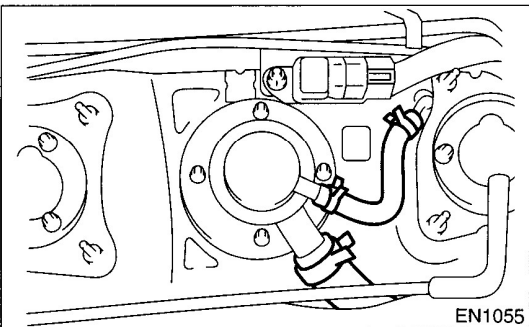
12.Vent Valve

A: REMOVAL

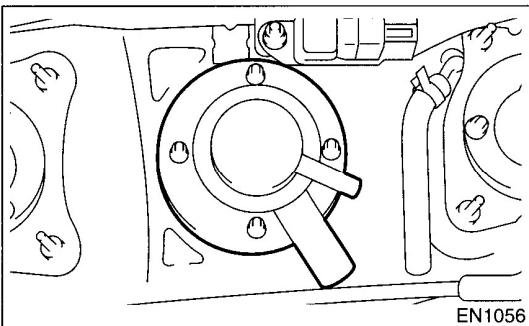
- 1) Remove the fuel tank. <Ref. to FU(SOHC)-51, REMOVAL, Fuel Tank.>
- 2) Remove the protector cover.



- 3) Remove the clips, and disconnect the hoses from vent valve.



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



B: INSTALLATION

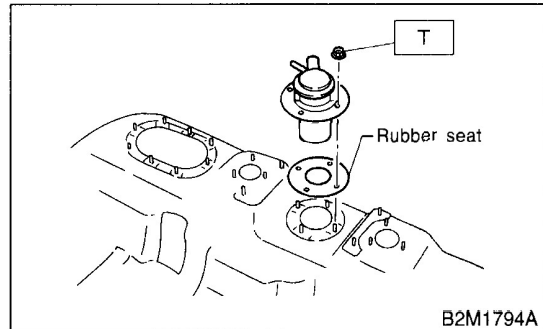
Install in the reverse order of removal.

CAUTION:

Replace the rubber seat with a new one.

Tightening torque:

T: 4.4 N·m (0.45 kgf-m, 3.3 ft-lb)



C: INSPECTION

Make sure the hoses are not cracked or loose.

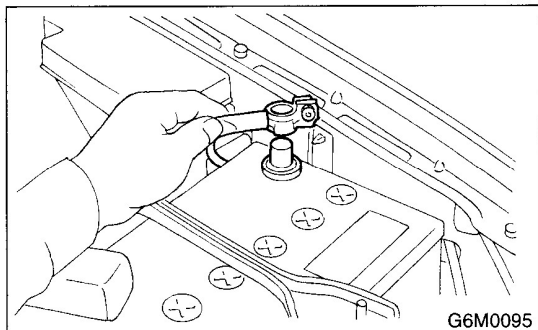
SHUT VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

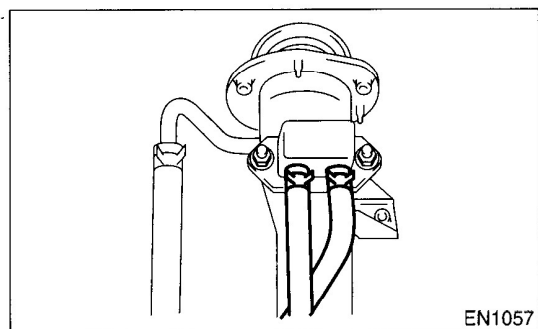
13. Shut Valve

A: REMOVAL

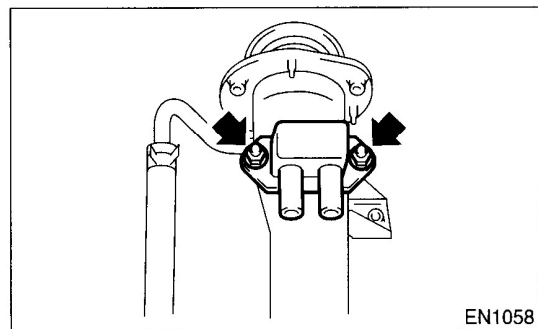
- 1) Disconnect the ground terminal from battery.



- 2) Drain fuel from the fuel tank. <Ref. to FU(SOHC)-51, REMOVAL, Fuel Tank.>
- 3) Remove the fuel filler pipe. <Ref. to FU(SOHC)-54, REMOVAL, Fuel Filler Pipe.>
- 4) Disconnect the evaporation hoses from shut valve.



- 5) Remove the shut valve from fuel filler pipe.

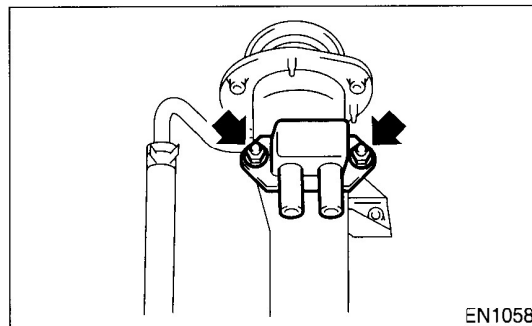


B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

4.5 N·m (0.46 kgf-m, 3.3 ft-lb)



C: INSPECTION

Make sure the hoses are not cracked or loose.

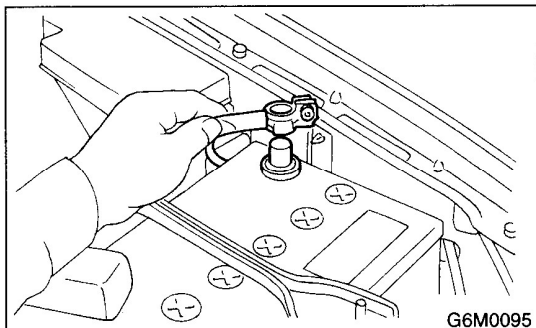
DRAIN VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

14.Drain Valve

A: REMOVAL

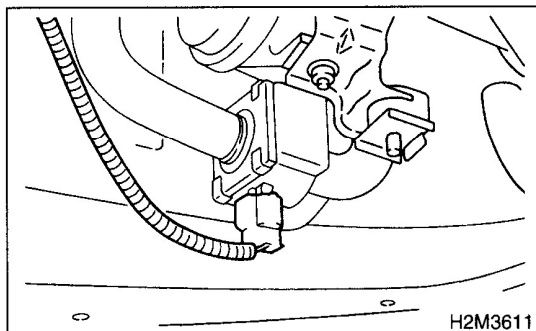
1) Disconnect the ground terminal from battery.



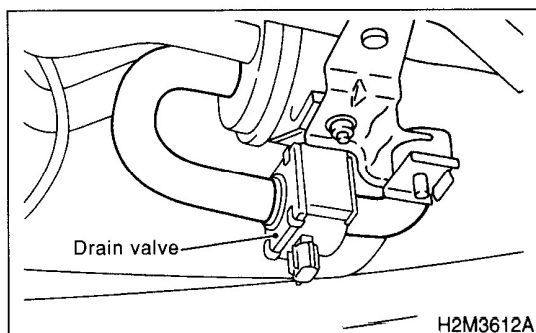
2) Lift-up the vehicle.

3) Remove the canister. <Ref. to EC(SOHC)-5, REMOVAL, Canister.>

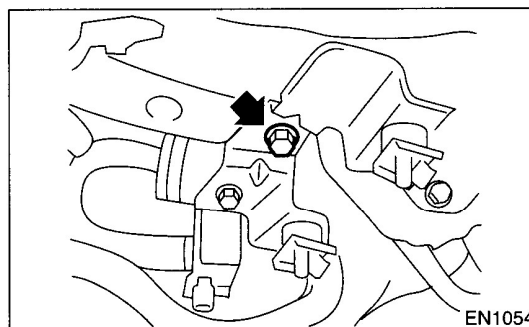
4) Disconnect the connector from drain valve.



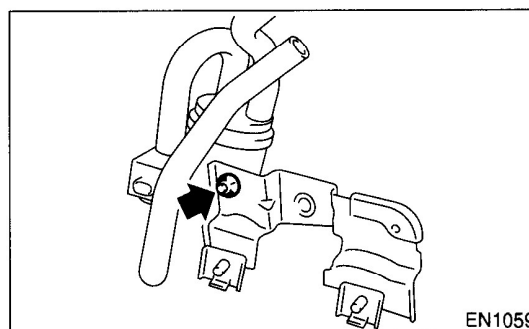
5) Disconnect the evaporation hoses from drain valve.



6) Remove the bolt which installs the drain filter and drain valve brackets on body, and remove them as a unit.



7) Remove the drain valve from bracket.

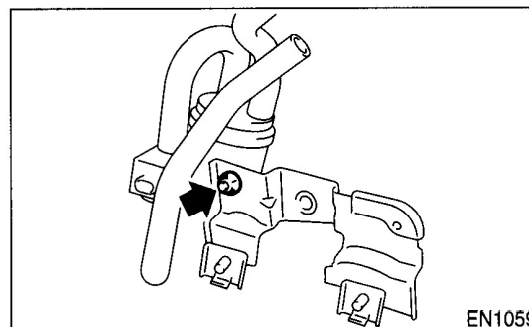


B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

23 N·m (2.35 kgf-m, 17.0 ft-lb)



C: INSPECTION

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