

## 3. Intake Manifold

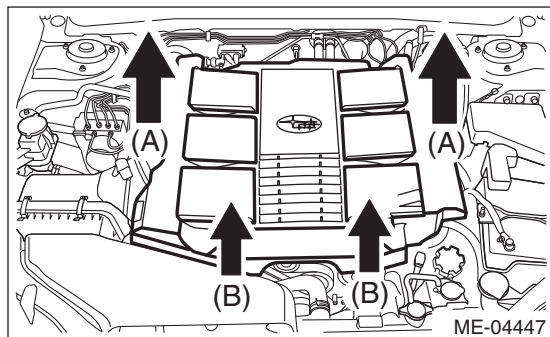
### A: REMOVAL

1) Remove the collector cover.

#### NOTE:

Follow these procedures for removal of the collector cover.

- (1) Lift up the rear side holding two positions (A).
- (2) Lift up the front side holding two positions (B) while moving it in the forward direction of the vehicle.



2) Release the fuel pressure. <Ref. to FU(H6DO)-55, RELEASING OF FUEL PRESSURE, PROCEDURE, Fuel.>

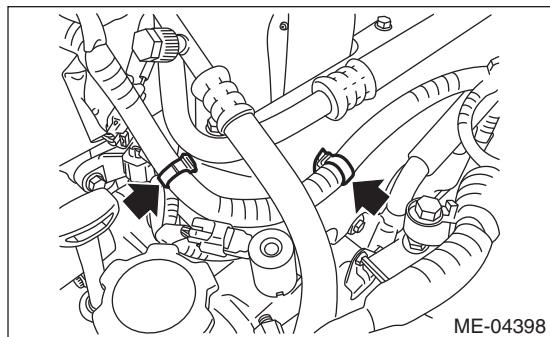
3) Disconnect the ground cable from battery.

4) Open the fuel filler lid and remove the fuel filler cap.

5) Remove the air cleaner case and air intake boot assembly. <Ref. to IN(H6DO)-5, REMOVAL, Air Cleaner Case.> <Ref. to IN(H6DO)-7, REMOVAL, Air Intake Boot.>

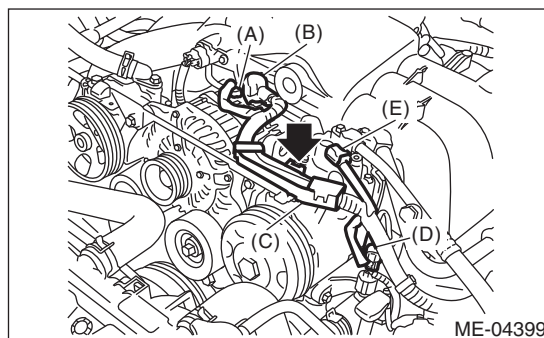
6) Disconnect the following connector.

- (1) Remove the securing clips from the two locations on the fuel pipe protector LH.



- (2) Generator connector
- (3) Generator terminal B
- (4) Remove the harness cover from collector cover bracket.
- (5) A/C compressor solenoid connector

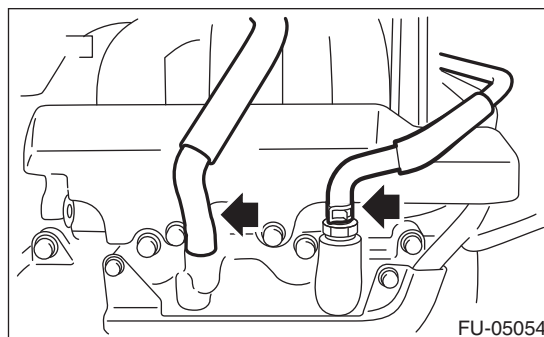
(6) Flow sensor connector



- (A) Generator connector
- (B) Terminal B
- (C) Harness cover
- (D) A/C compressor solenoid connector
- (E) Flow sensor connector

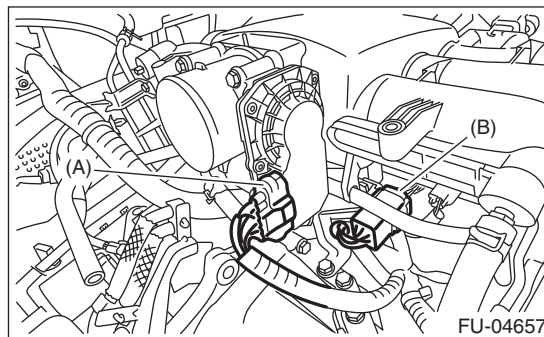
(7) Slide the harness and connector to the battery side.

7) Disconnect the PCV hose and blow-by hose.



8) Disconnect the connector (A) from throttle body.

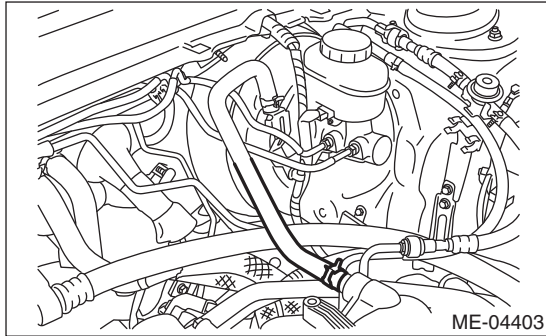
9) Disconnect the engine harness connector (B).



# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

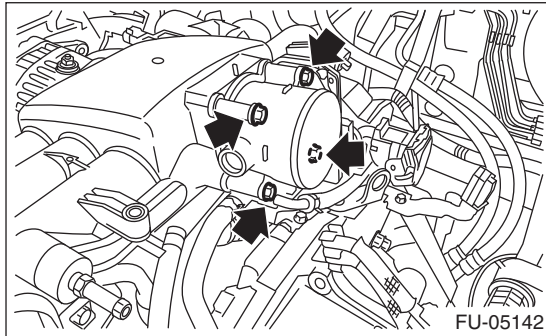
10) Disconnect the brake booster vacuum hose.



11) Remove the throttle body from the intake manifold.

**NOTE:**

Do not disconnect the inlet and outlet hoses of engine coolant.



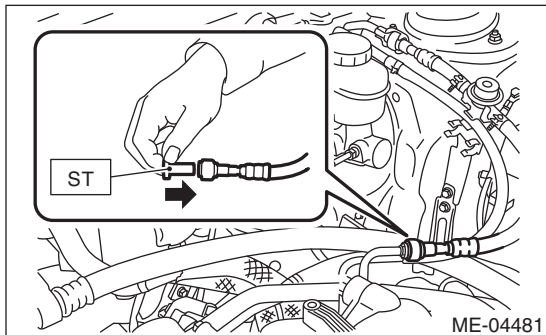
12) Disconnect the fuel delivery hose and evaporation hose.

**CAUTION:**

- Be careful not to spill fuel.
- Catch the fuel from hoses using a container or cloth.

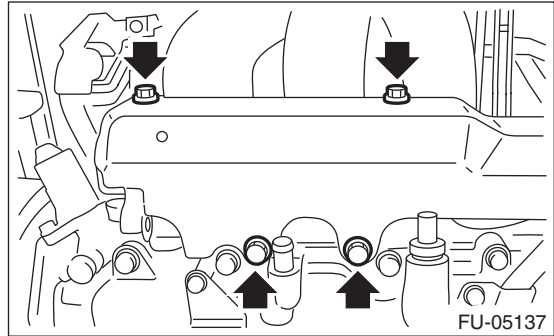
(1) Attach ST to the fuel delivery pipe and push ST in the direction of arrow mark to disconnect the quick connector of the fuel delivery hose.

ST 42099AE000 QUICK CONNECTOR RELEASE



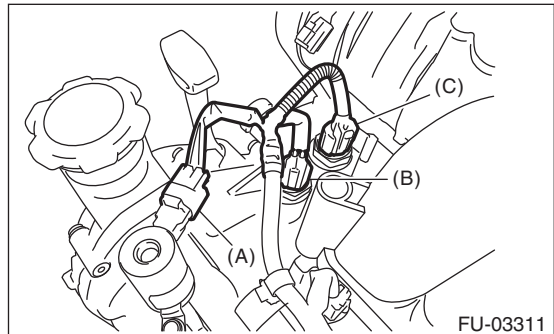
(2) Remove the clip and disconnect the evaporation hose.

13) Remove the fuel pipe protector LH.



14) Remove the engine harness from the fuel injector pipe LH.

15) Disconnect the connectors of the oil temperature sensor, engine coolant temperature sensor and intake oil flow control solenoid valve LH.

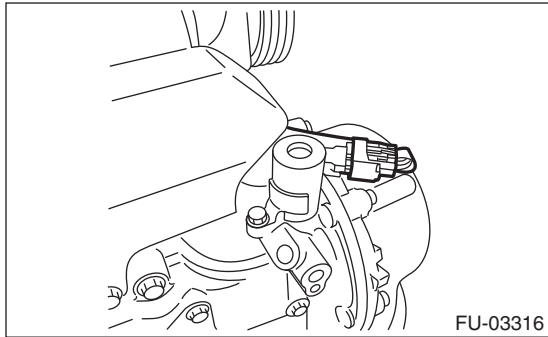


- (A) Intake oil flow control solenoid valve LH  
(B) Oil temperature sensor  
(C) Engine coolant temperature sensor

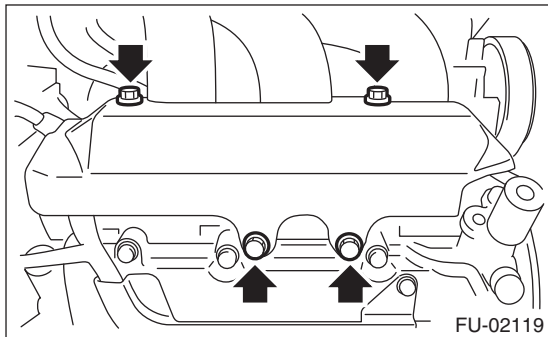
16) Remove the bolts which hold fuel injector pipe LH to cylinder head.



17) Disconnect the connectors of the intake oil flow control solenoid valve RH.

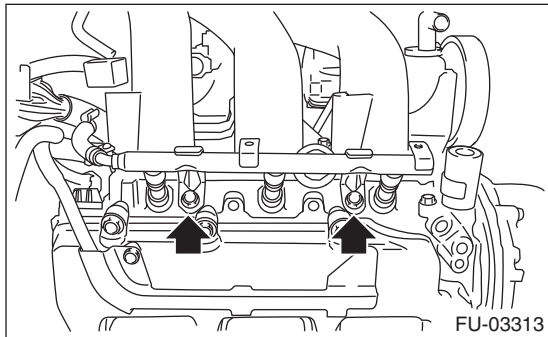


18) Remove the fuel pipe protector RH.



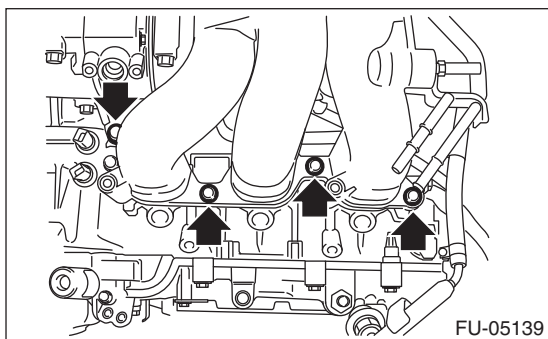
19) Remove the engine harness from the fuel injector pipe RH.

20) Remove the bolts which hold the fuel injector pipe RH to the cylinder head.

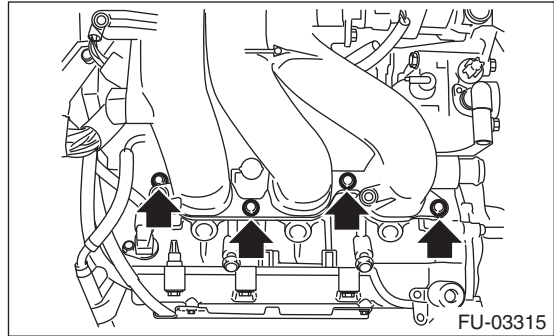


21) Remove the bolts which hold the intake manifold to the cylinder head.

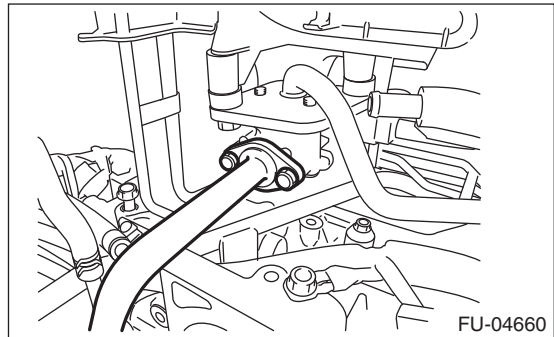
- LH side



- RH side



22) Remove the EGR pipe securing bolt.



23) Remove the intake manifold.

## B: INSTALLATION

1) Install the intake manifold onto cylinder heads.

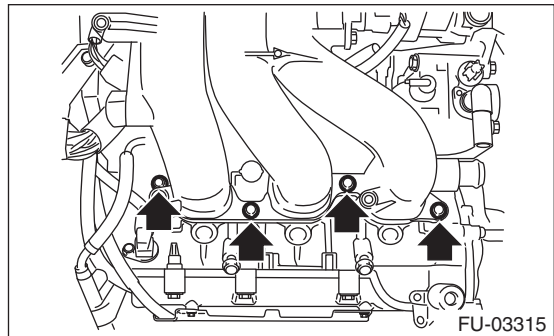
NOTE:

Use new O-rings.

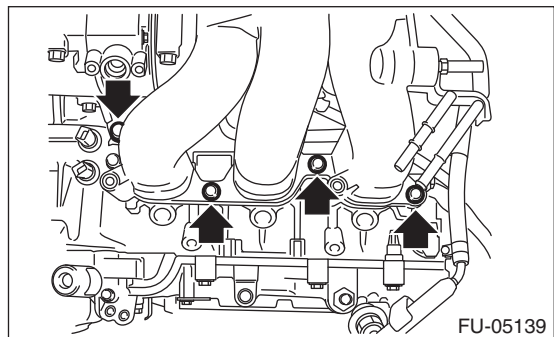
**Tightening torque:**

**25 N·m (2.5 kgf-m, 18.4 ft-lb)**

- RH side



- LH side



## Intake Manifold

### FUEL INJECTION (FUEL SYSTEMS)

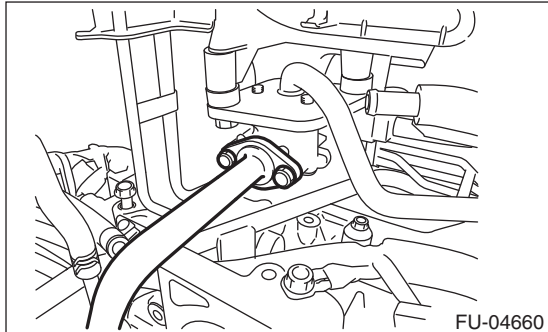
2) Install the EGR pipe securing bolt.

NOTE:

Use a new gasket.

**Tightening torque:**

**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**



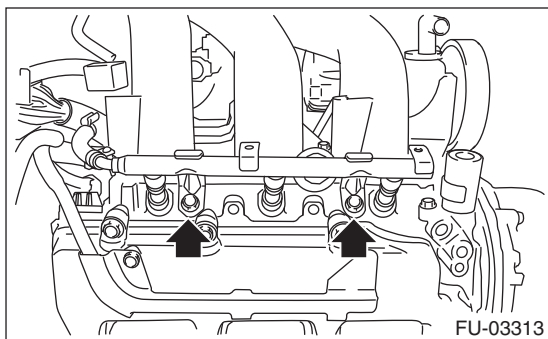
3) Install the bolts which hold fuel injector pipe RH to cylinder head.

NOTE:

Use a new seal ring.

**Tightening torque:**

**19 N·m (1.9 kgf-m, 14.0 ft-lb)**

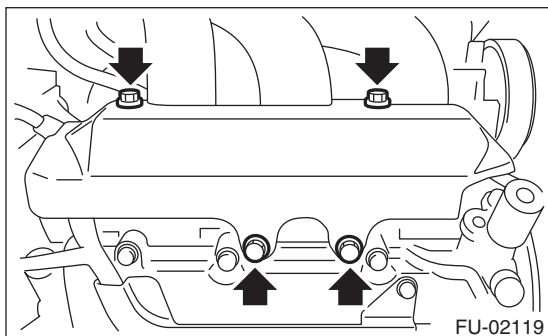


4) Install the engine harness to fuel injector pipe RH.

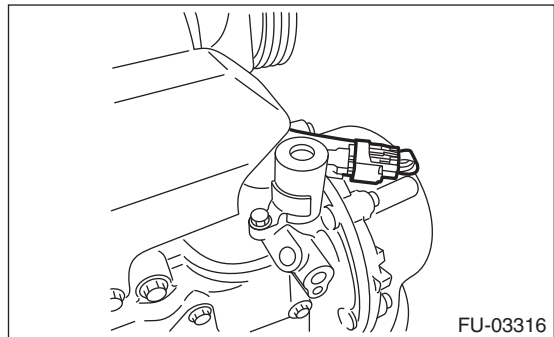
5) Install the fuel pipe protector RH.

**Tightening torque:**

**19 N·m (1.9 kgf-m, 14.0 ft-lb)**



6) Connect the connectors of the intake oil flow control solenoid valve RH.



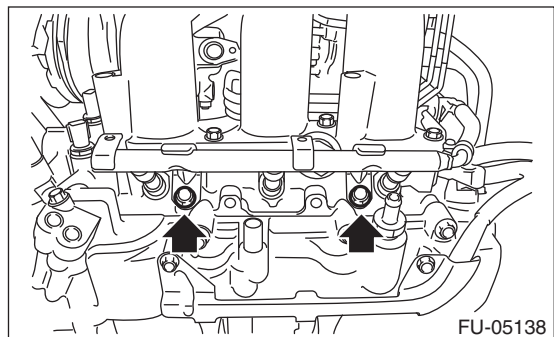
7) Install the bolts which hold fuel injector pipe LH to cylinder head.

NOTE:

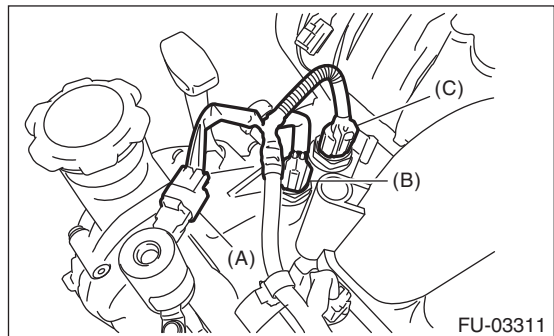
Use a new seal ring.

**Tightening torque:**

**19 N·m (1.9 kgf-m, 14.0 ft-lb)**



8) Connect the connectors of the oil temperature sensor, engine coolant temperature sensor and intake oil flow control solenoid valve LH.



(A) Intake oil flow control solenoid valve LH

(B) Oil temperature sensor

(C) Engine coolant temperature sensor

9) Install the engine harness to fuel injector pipe LH.

10) Install the fuel pipe protector LH.

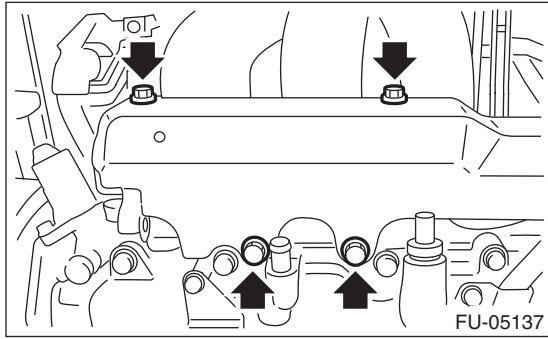


# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

### Tightening torque:

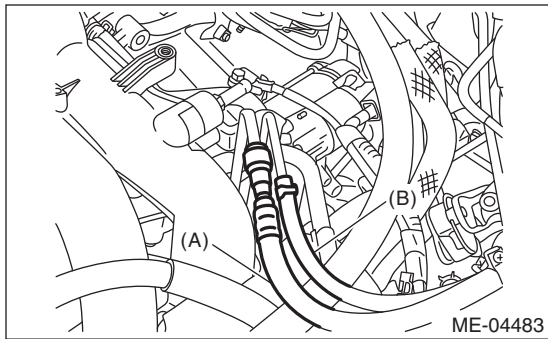
**19 N·m (1.9 kgf-m, 14.0 ft-lb)**



- 11) Connect the fuel delivery hose (A) and evaporation hose (B).

### NOTE:

If fuel hoses or clamps are damaged, replace them with new parts.



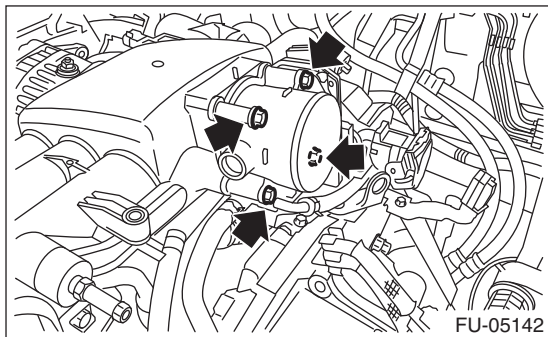
- 12) Install the throttle body to the intake manifold.

### NOTE:

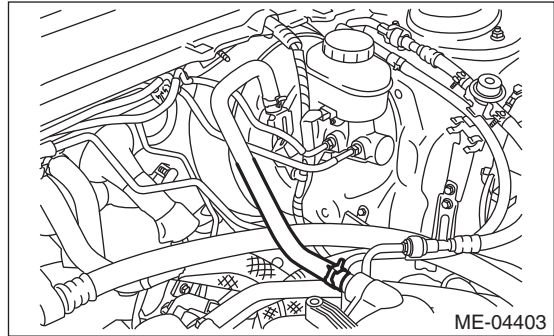
Use new O-rings.

### Tightening torque:

**8 N·m (0.8 kgf-m, 5.9 ft-lb)**

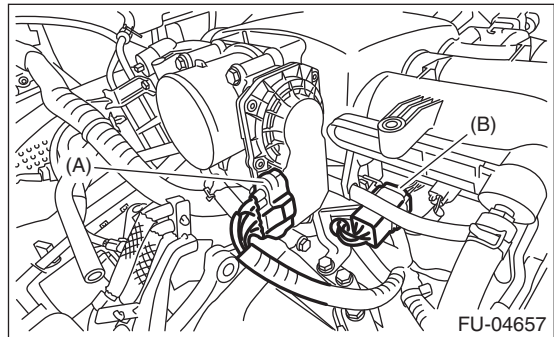


- 13) Connect the brake booster vacuum hose.

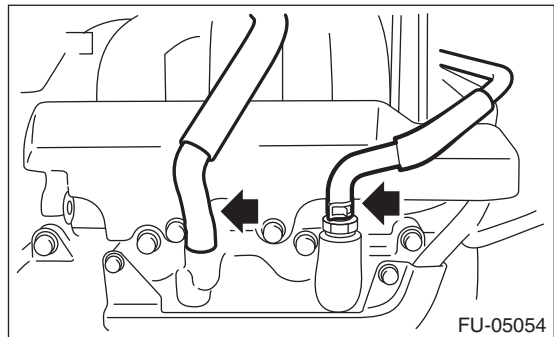


- 14) Connect the connector (A) to throttle body.

- 15) Connect the engine harness connector (B).

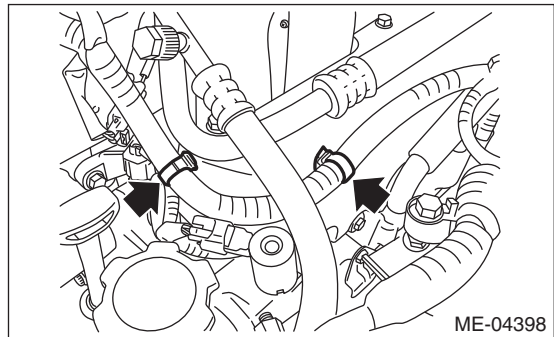


- 16) Connect the PCV hose and blow-by hose.



- 17) Connect the following connectors.

- (1) Install the securing clips to the two locations on the fuel pipe protector LH.



- (2) Generator connector

- (3) Generator terminal B

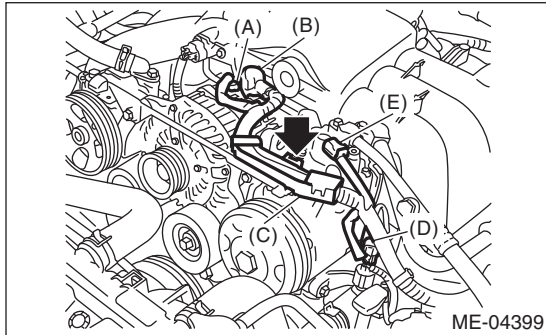
### Tightening torque:

**16 N·m (1.6 kgf-m, 11.8 ft-lb)**

# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

- (4) Install the harness cover to the collector cover bracket.
- (5) A/C compressor solenoid connector
- (6) Flow sensor connector



- (A) Generator connector  
(B) Terminal B  
(C) Harness cover  
(D) A/C compressor solenoid connector  
(E) Flow sensor connector

18) Install the air cleaner case and air intake boot assembly. <Ref. to IN(H6DO)-5, INSTALLATION, Air Cleaner Case.> <Ref. to IN(H6DO)-7, INSTALLATION, Air Intake Boot.>

19) Connect the ground cable to battery.

20) Install the collector cover.

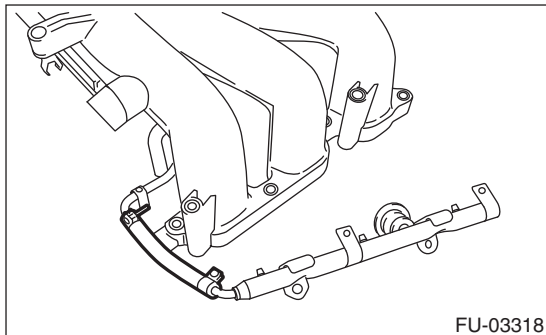
### C: DISASSEMBLY

1) Remove the engine harness from intake manifold. <Ref. to FU(H6DO)-8, ENGINE HARNESS, COMPONENT, General Description.>

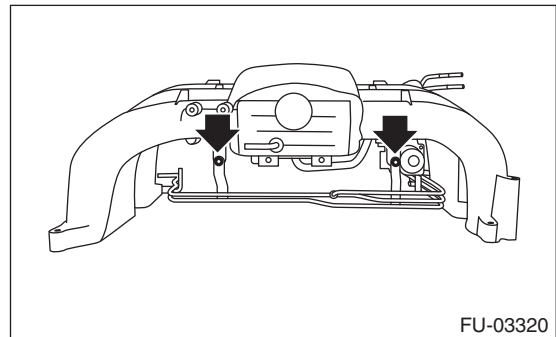
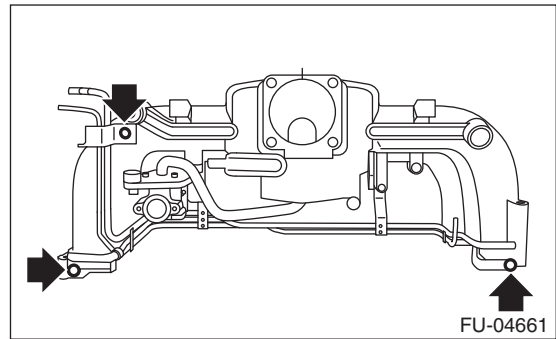
2) Remove the manifold absolute pressure sensor. <Ref. to FU(H6DO)-36, REMOVAL, Manifold Absolute Pressure Sensor.>

3) Remove the purge control solenoid valve. <Ref. to EC(H6DO)-10, REMOVAL, Purge Control Solenoid Valve.>

4) Loosen the clamp which holds the fuel injector pipe to the fuel hose, and disconnect the pipe from the fuel hose.



5) Remove the bolts which install fuel pipes on intake manifold.



6) Remove the EGR valve. <Ref. to FU(H6DO)-39, REMOVAL, EGR Valve.>

### D: ASSEMBLY

NOTE:

When assembling the nipple, apply liquid gasket.

**Liquid gasket:**

**THREE BOND 1105 (Part No. 004403010) or equivalent**

**Tightening torque:**

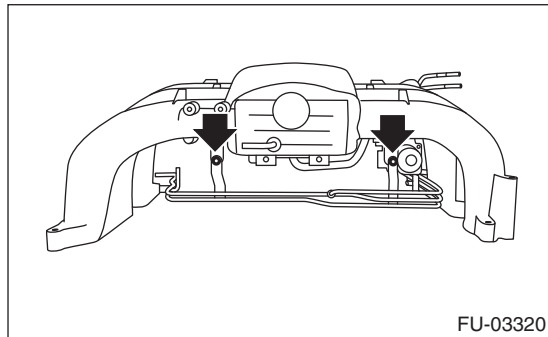
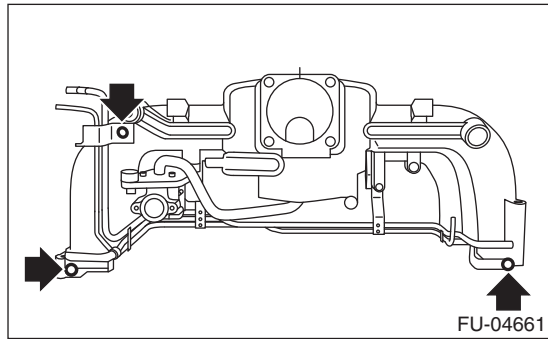
**17 N·m (1.7 kgf-m, 12.5 ft-lb)**

1) Install the EGR valve. <Ref. to FU(H6DO)-39, INSTALLATION, EGR Valve.>

2) Tighten the bolts which install fuel pipes on intake manifold.

**Tightening torque:**

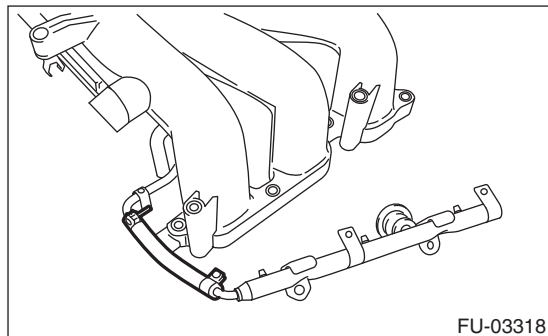
**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**



3) Connect the fuel injector pipe to fuel hose, and tighten the clamp screw.

**Tightening torque:**

**1.25 N·m (0.1 kgf-m, 0.9 ft-lb)**



4) Install the purge control solenoid valve. <Ref. to EC(H6DO)-10, INSTALLATION, Purge Control Solenoid Valve.>

5) Install the manifold absolute pressure sensor. <Ref. to FU(H6DO)-36, INSTALLATION, Manifold Absolute Pressure Sensor.>

6) Install the engine harness to the intake manifold. <Ref. to FU(H6DO)-8, ENGINE HARNESS, COMPONENT, General Description.>

## E: INSPECTION

1) Check that the intake manifold and fuel pipe have no deformation, cracks and other damages.

2) Check that the hose has no cracks, damage or loose part.