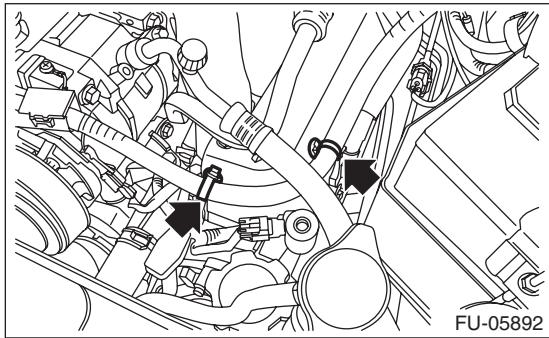


### 3. Intake Manifold

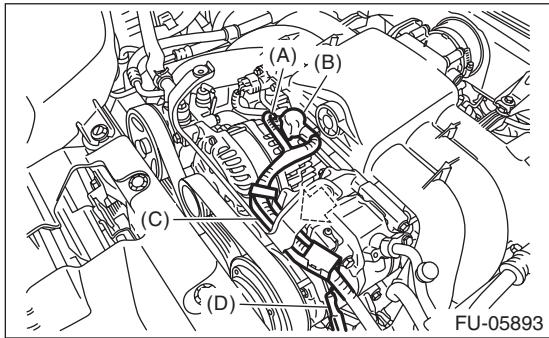
#### A: REMOVAL

- 1) Remove the collector cover.
- 2) Release the fuel pressure. <Ref. to FU(H6DO)-59, RELEASING OF FUEL PRESSURE, PROCEDURE, Fuel.>
- 3) Remove the battery and battery carrier. <Ref. to SC(H6DO)-18, REMOVAL, Battery.>
- 4) Open the fuel filler lid and remove the fuel filler cap.
- 5) Remove the air cleaner case, intake boot and air intake chamber. <Ref. to IN(H6DO)-6, REMOVAL, Air Cleaner Case.> <Ref. to IN(H6DO)-8, REMOVAL, Air Intake Chamber.>
- 6) Disconnect the following connector.

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



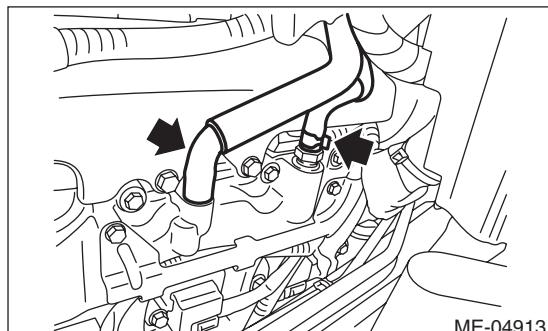
- (2) Generator connector
- (3) Generator terminal B
- (4) Remove the harness cover from collector cover bracket.
- (5) Magnet clutch connector



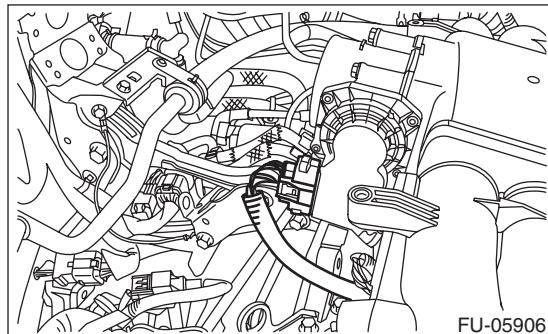
- (A) Generator connector
- (B) Terminal B
- (C) Remove the harness cover from collector cover bracket.
- (D) Magnet clutch connector

- (6) Slide the harness and connector to the battery side.

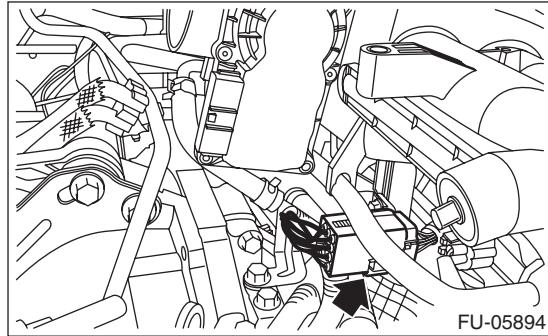
- 7) Disconnect the PCV hose and blow-by hose.



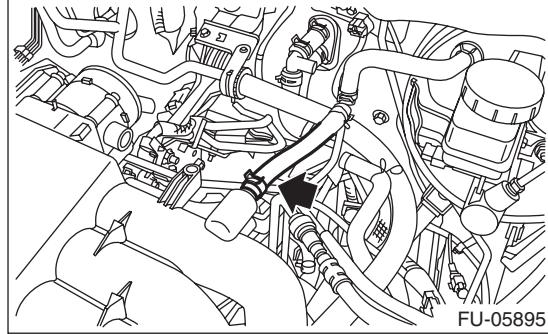
- 8) Disconnect the connector from the throttle body.



- 9) Disconnect the engine harness connector.



- 10) Disconnect the brake booster vacuum hose.



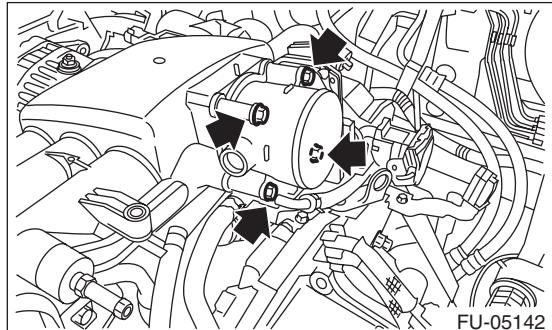
# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

11) Remove the throttle body from the intake manifold.

**NOTE:**

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



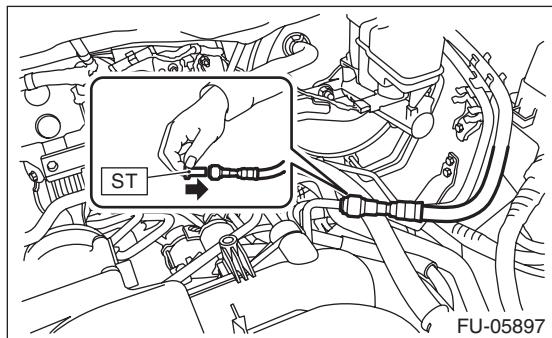
12) Disconnect the fuel delivery hose and evaporation hose.

**CAUTION:**

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

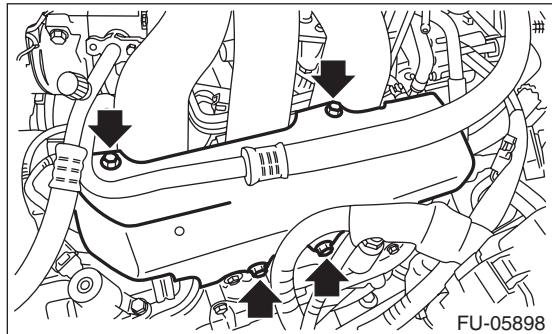
(1) Disconnect the quick connector of the fuel delivery hose by pushing the ST in the direction of the arrow.

ST 42099AE000 QUICK CONNECTOR RELEASE



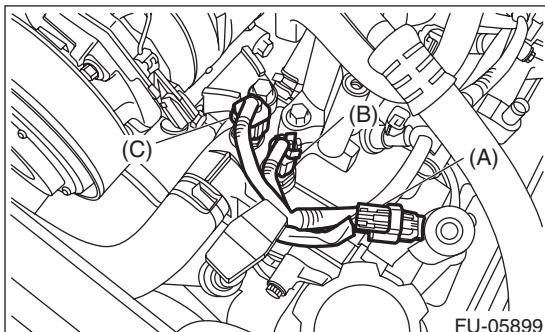
(2) Remove the clip and disconnect the evaporation hose.

13) Remove the fuel pipe protector LH.



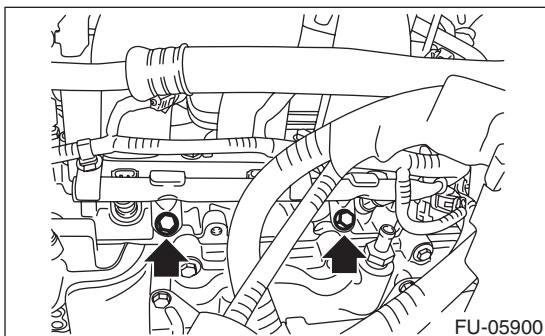
14) Disconnect #2, #4, and #6 fuel injector connectors.

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

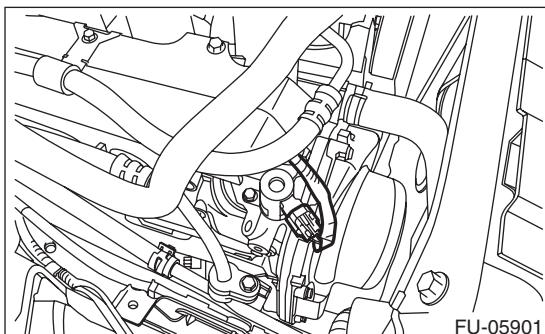


(A) Intake oil flow control solenoid valve LH  
(B) Oil temperature sensor  
(C) Engine coolant temperature sensor

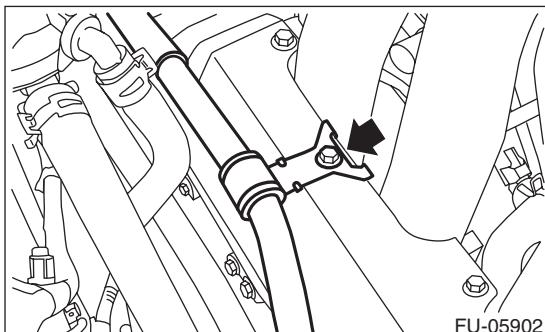
16) Remove the bolts which hold fuel injector pipe LH to cylinder head.



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



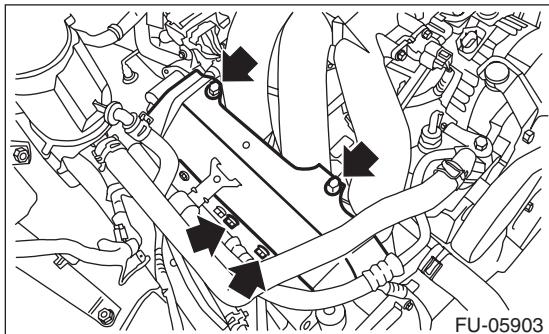
18) Remove the feed hose from fuel pipe protector RH.



# Intake Manifold

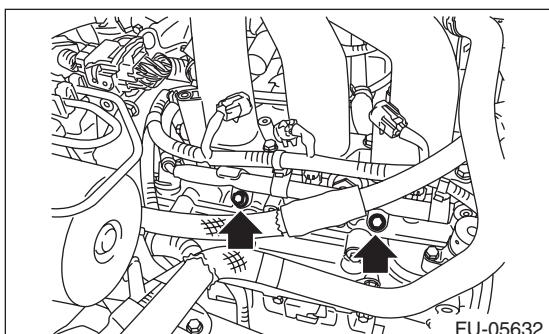
## FUEL INJECTION (FUEL SYSTEMS)

19) Remove the fuel pipe protector RH.



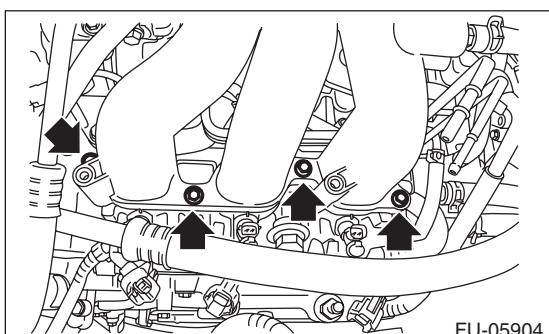
20) Disconnect #1, #3, and #5 fuel injector connectors.

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

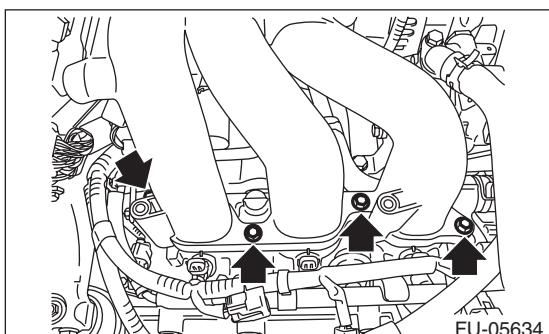


22) Remove the bolts which hold the intake manifold to the cylinder head.

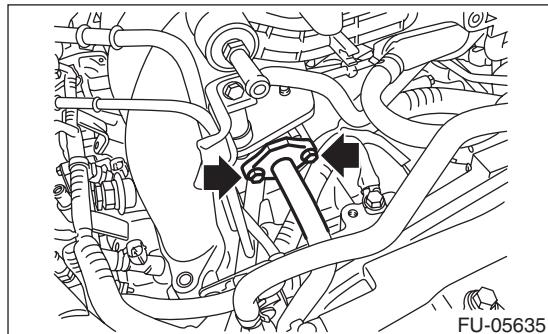
- LH side



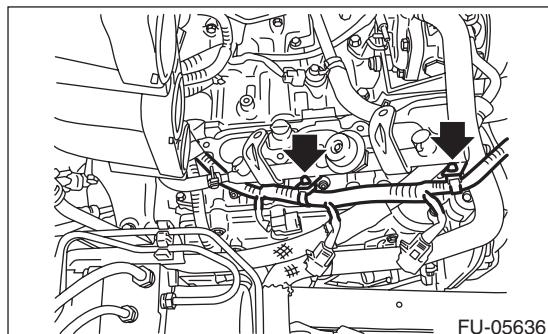
- RH side



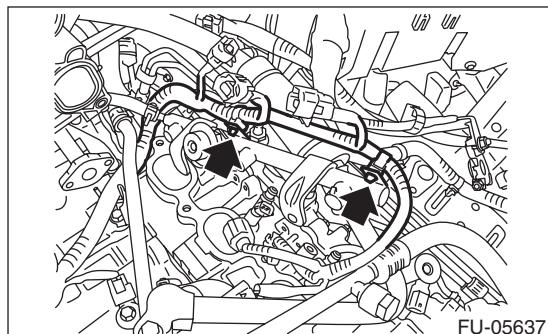
23) Remove the EGR pipe securing bolt.



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



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



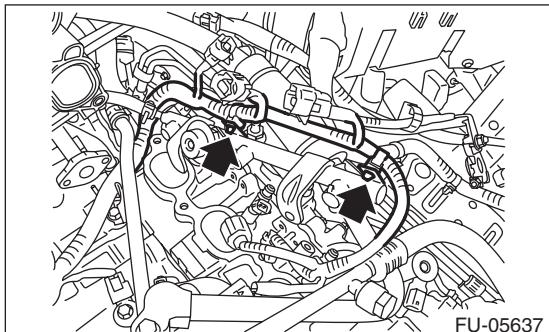
26) Remove the intake manifold.

# Intake Manifold

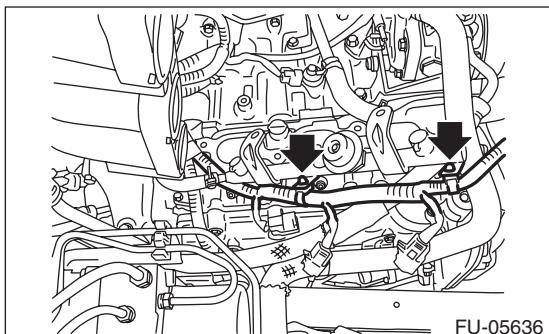
## FUEL INJECTION (FUEL SYSTEMS)

### B: INSTALLATION

- 1) Install the engine harness to fuel injector pipe LH.



- 2) Install the engine harness to fuel injector pipe RH.



- 3) Install the intake manifold onto cylinder heads.

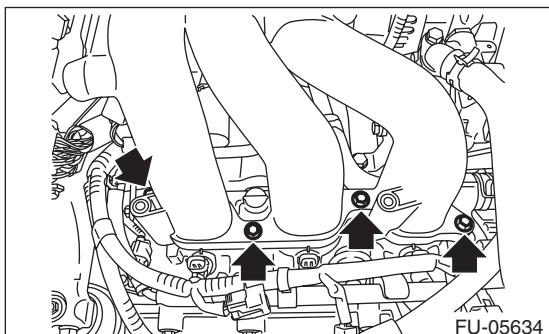
NOTE:

Use new O-rings.

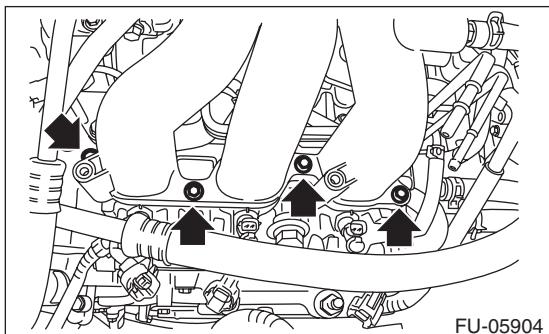
**Tightening torque:**

**25 N·m (2.5 kgf·m, 18.4 ft-lb)**

- RH side



- LH side



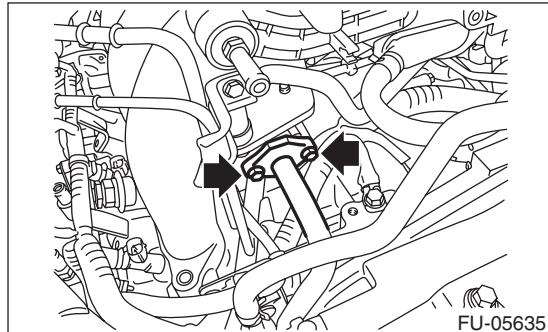
- 4) Install the EGR pipe securing bolt.

NOTE:

Use a new gasket.

**Tightening torque:**

**6.4 N·m (0.7 kgf·m, 4.7 ft-lb)**



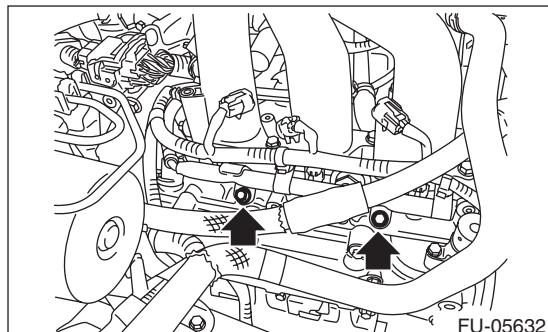
- 5) Install the bolts which hold fuel injector pipe RH to cylinder head.

NOTE:

Use new O-rings, injection rubbers, and seal rings.

**Tightening torque:**

**19 N·m (1.9 kgf·m, 14.0 ft-lb)**

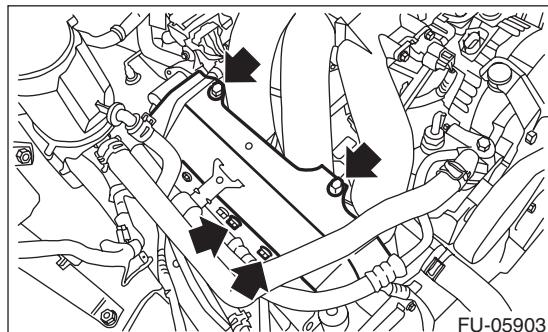


- 6) Connect #1, #3, and #5 fuel injector connectors.

- 7) Install the fuel pipe protector RH.

**Tightening torque:**

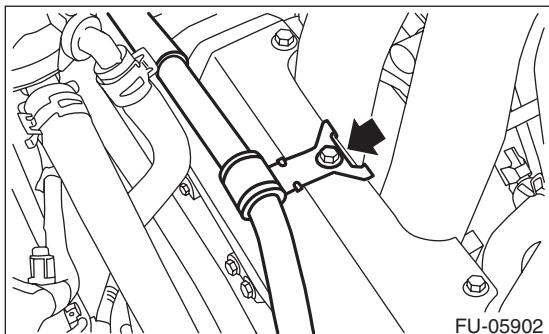
**19 N·m (1.9 kgf·m, 14.0 ft-lb)**



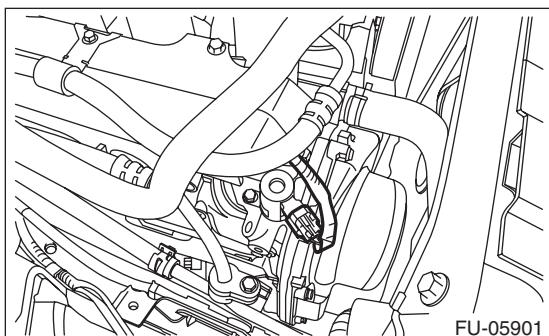
8) Install the feed hose to fuel pipe protector RH.

**Tightening torque:**

13 N·m (1.3 kgf·m, 9.6 ft-lb)



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



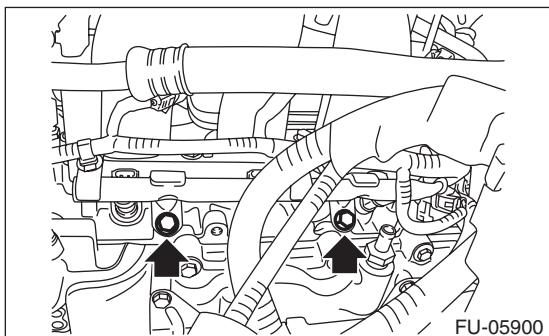
10) Install the bolts which hold fuel injector pipe LH to cylinder head.

**NOTE:**

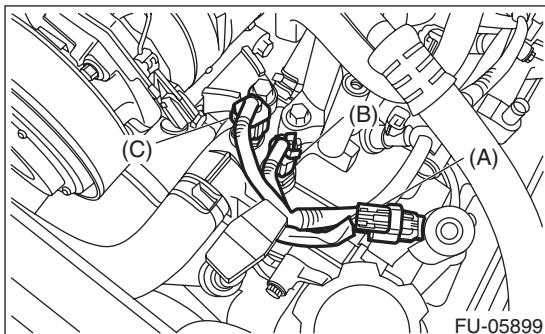
Use new O-rings, injection rubbers, and seal rings.

**Tightening torque:**

19 N·m (1.9 kgf·m, 14.0 ft-lb)



11) 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

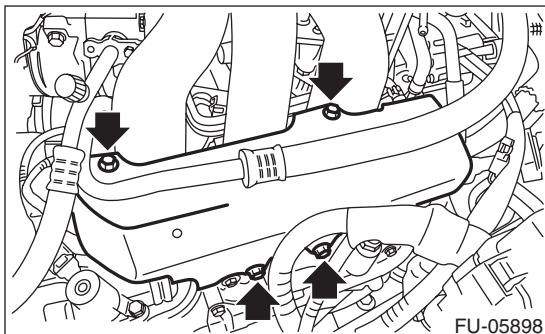
(C) Engine coolant temperature sensor

12) Connect #2, #4, and #6 fuel injector connectors.

13) Install the fuel pipe protector LH.

**Tightening torque:**

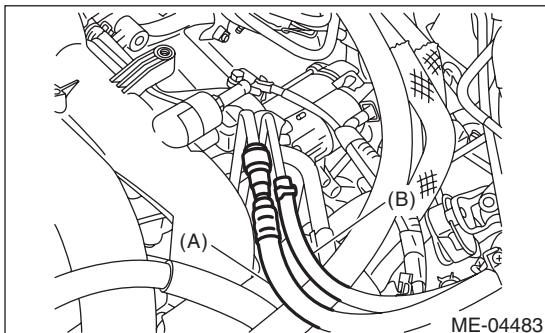
19 N·m (1.9 kgf·m, 14.0 ft-lb)



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

**NOTE:**

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



# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

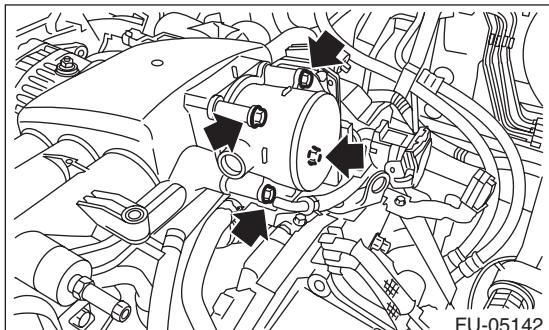
15) Install the throttle body to the intake manifold.

NOTE:

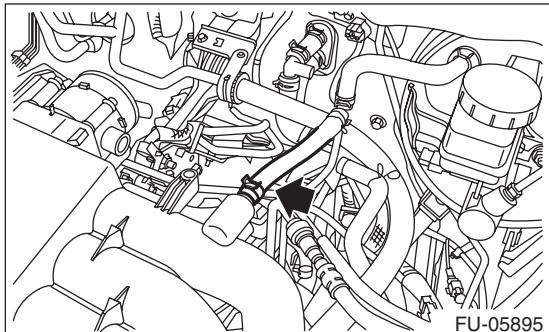
Use new O-rings.

### Tightening torque:

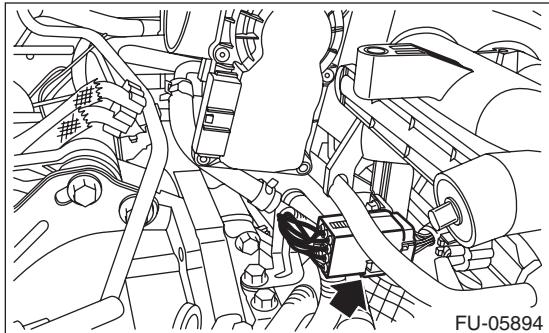
**8 N·m (0.8 kgf·m, 5.9 ft-lb)**



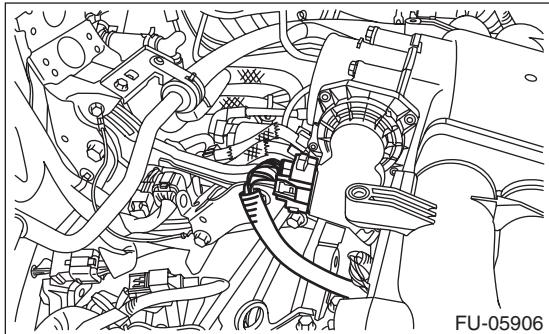
16) Connect the brake booster vacuum hose.



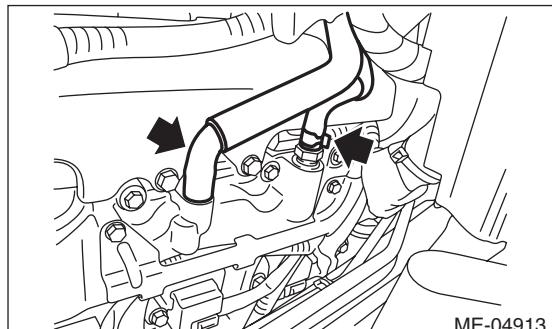
17) Connect the engine harness connector.



18) Connect the connector to the throttle body.

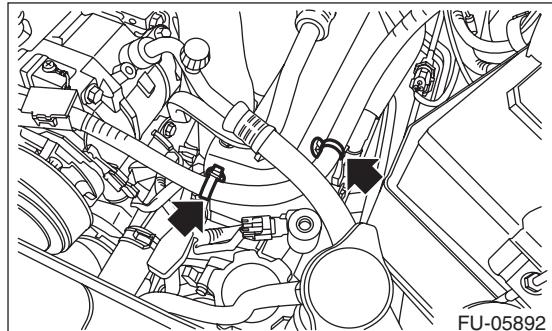


19) Connect the PCV hose and blow-by hose.



20) Connect the following connectors.

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



(2) Generator connector

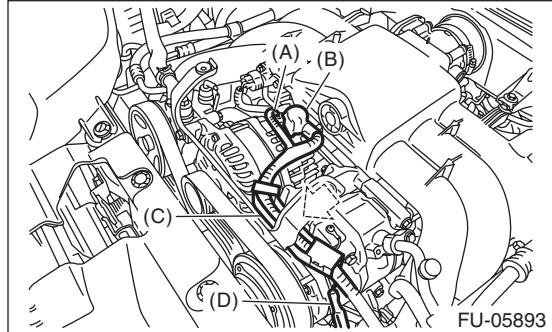
(3) Generator terminal B

### Tightening torque:

**16 N·m (1.6 kgf·m, 11.8 ft-lb)**

(4) Install the harness cover to the collector cover bracket.

(5) Magnet clutch connector



(A) Generator connector

(B) Terminal B

(C) Install the harness cover to the collector cover bracket.

(D) Magnet clutch connector

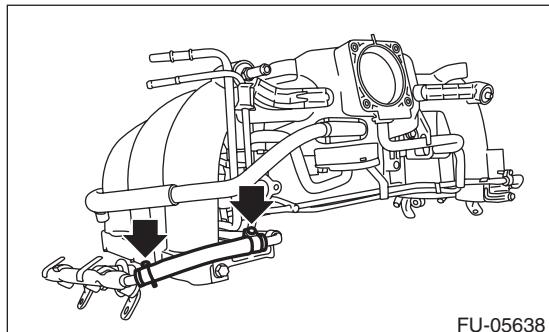
21) Install the air cleaner case, intake boot and air intake chamber. <Ref. to IN(H6DO)-7, INSTALLATION, Air Cleaner Case.> <Ref. to IN(H6DO)-8, INSTALLATION, Air Intake Chamber.>

22) Install the battery and battery carrier. <Ref. to SC(H6DO)-18, INSTALLATION, Battery.>

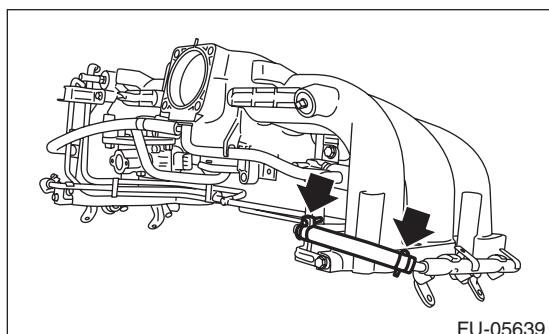
23) Install the collector cover.

**C: DISASSEMBLY**

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

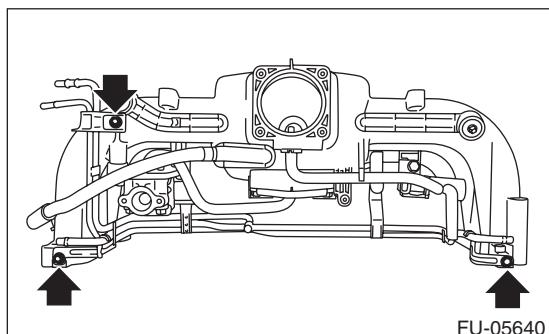


FU-05638

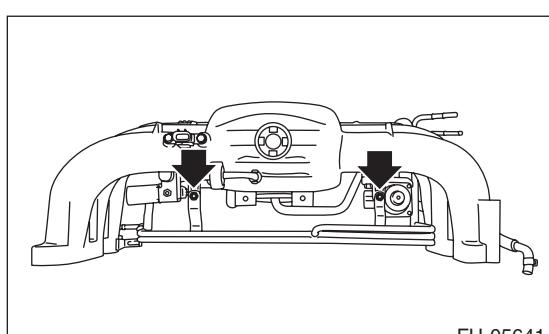


FU-05639

- 3) Remove the fuel pipe assembly.



FU-05640



FU-05641

- 4) Remove the EGR valve. <Ref. to FU(H6DO)-40, REMOVAL, EGR Valve.>
- 5) Remove the manifold absolute pressure sensor. <Ref. to FU(H6DO)-37, REMOVAL, Manifold Absolute Pressure Sensor.>

- 6) Remove the purge control solenoid valve. <Ref. to EC(H6DO)-7, REMOVAL, Purge Control Solenoid Valve.>

**D: ASSEMBLY**

## NOTE:

When assembling the nipple, apply liquid gasket.

*Liquid gasket:*

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

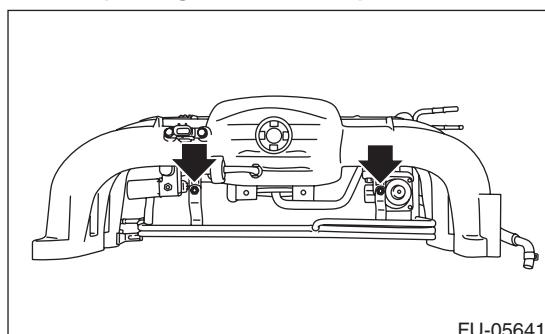
*Tightening torque:*

**17 N·m (1.7 kgf·m, 12.5 ft-lb)**

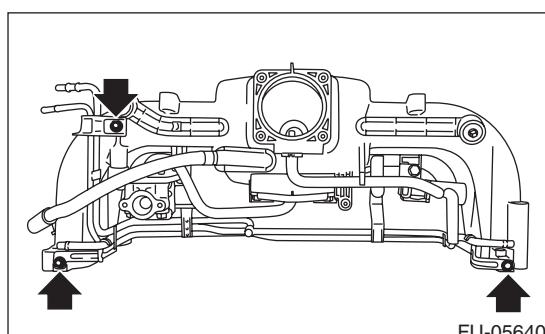
- 1) Install the purge control solenoid valve. <Ref. to EC(H6DO)-7, INSTALLATION, Purge Control Solenoid Valve.>
- 2) Install the manifold absolute pressure sensor. <Ref. to FU(H6DO)-37, INSTALLATION, Manifold Absolute Pressure Sensor.>
- 3) Install the EGR valve. <Ref. to FU(H6DO)-40, INSTALLATION, EGR Valve.>
- 4) Install the fuel pipe assembly.

*Tightening torque:*

**6.4 N·m (0.7 kgf·m, 4.7 ft-lb)**



FU-05641



FU-05640

# Intake Manifold

## FUEL INJECTION (FUEL SYSTEMS)

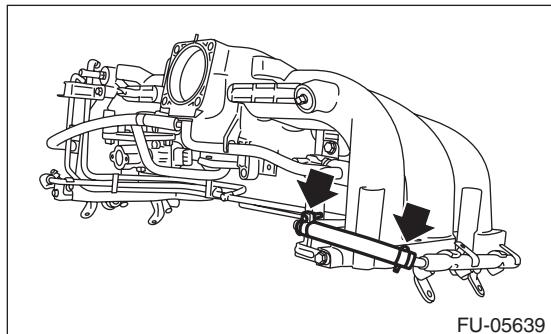
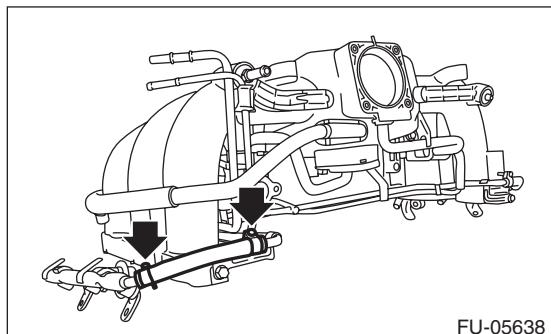
- 5) Install the fuel injector pipe and the fuel hose.

NOTE:

Use a new fuel hose.

**Tightening torque:**

1.25 N·m (0.1 kgf·m, 0.9 ft-lb)



- 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.