

3. Intake Manifold

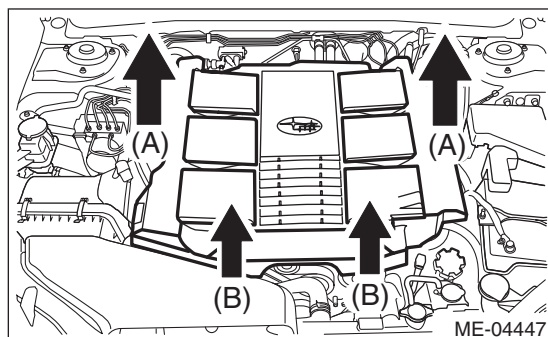
A: REMOVAL

1) Remove the collector cover.

NOTE:

Follow the steps below when removing the collector cover.

- (1) Pull up the two points at the rear (A).
- (2) Pull up the two points at the front (B) while moving them forward.



2) Release the fuel pressure. <Ref. to FU(H6DO)-57, RELEASING OF FUEL PRESSURE, PROCEDURE, Fuel.>

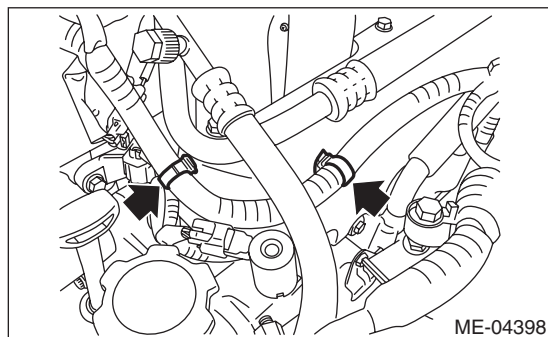
3) Remove the battery and battery carrier. <Ref. to SC(H4SO)-25, REMOVAL, Battery.>

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.>

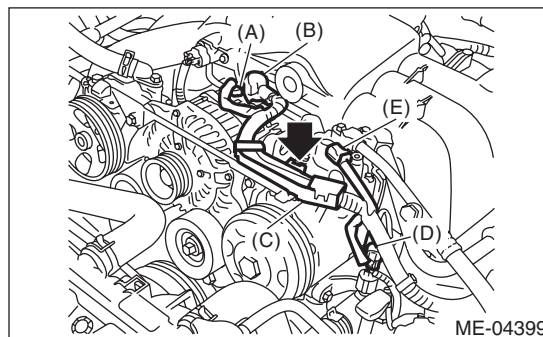
6) Disconnect the following connector.

- (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

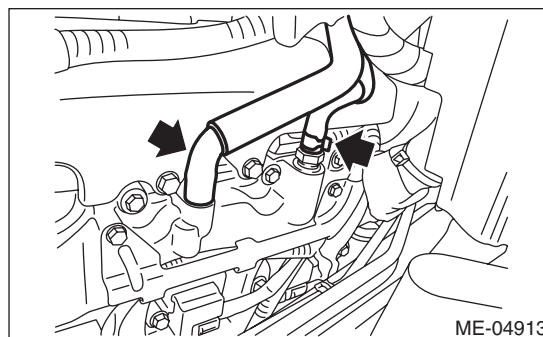
(6) Flow sensor connector



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

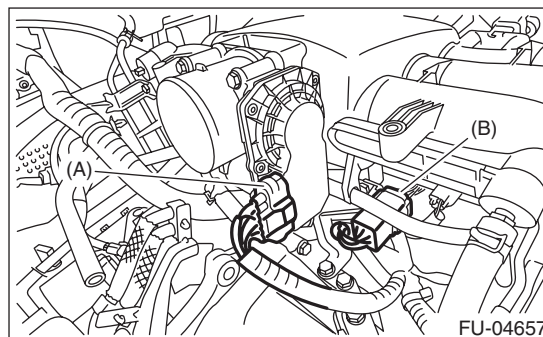
(7) Slide the harness and connector to the battery side.

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



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

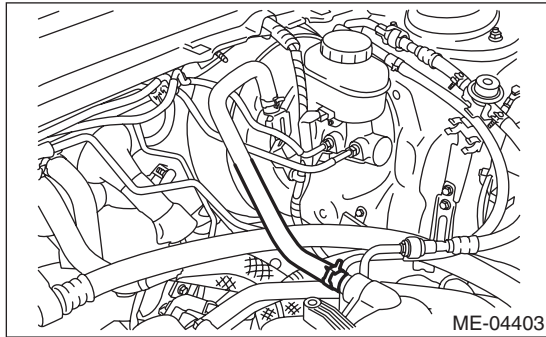
9) Disconnect the engine harness connector (B).



Intake Manifold

FUEL INJECTION (FUEL SYSTEMS)

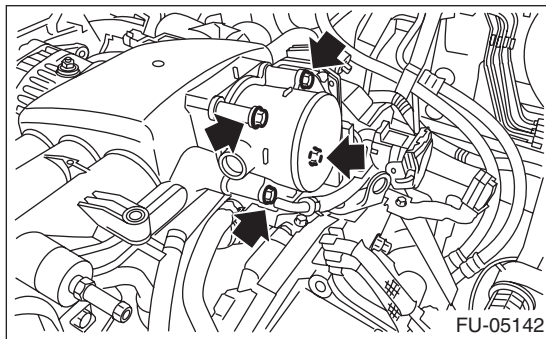
10) Disconnect the brake booster vacuum hose.



11) Remove the throttle body from the intake manifold.

NOTE:

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



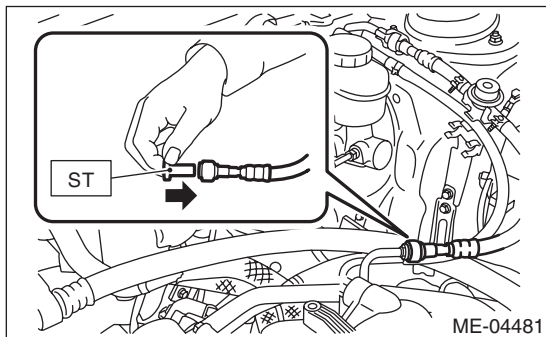
12) Disconnect the fuel delivery hose and evaporation hose.

CAUTION:

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

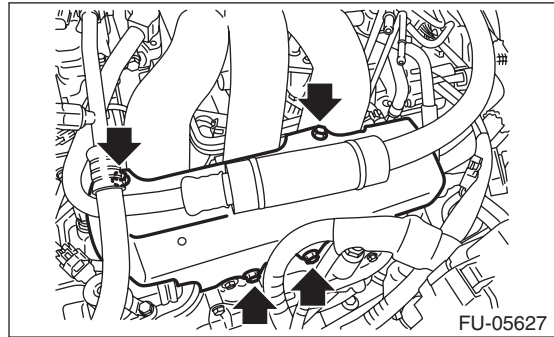
(1) Attach ST to the fuel delivery pipe and push ST in the direction of arrow mark to disconnect the quick connector of the fuel delivery hose.

ST 42099AE000 QUICK CONNECTOR RELEASE



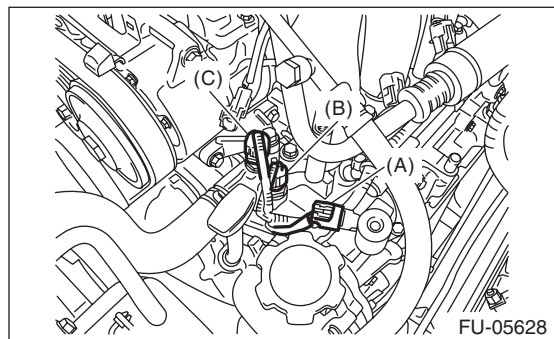
(2) Remove the clip and disconnect the evaporation hose.

13) Remove the fuel pipe protector LH.



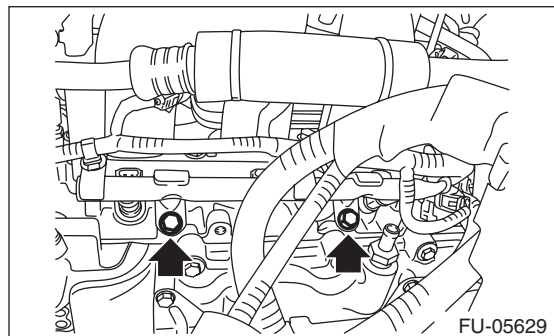
14) Disconnect #2, #4, and #6 fuel injector connectors.

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

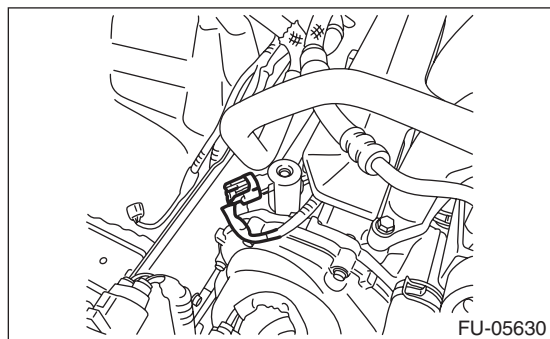
16) Remove the bolts which hold fuel injector pipe LH to cylinder head.



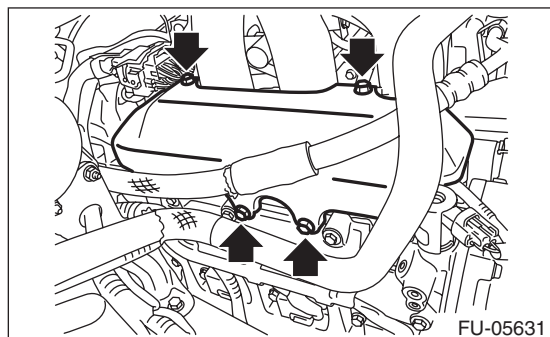
Intake Manifold

FUEL INJECTION (FUEL SYSTEMS)

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

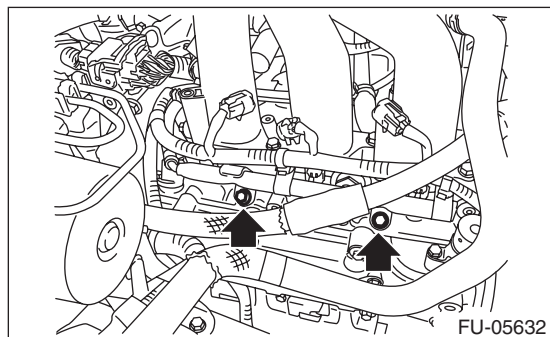


18) Remove the fuel pipe protector RH.



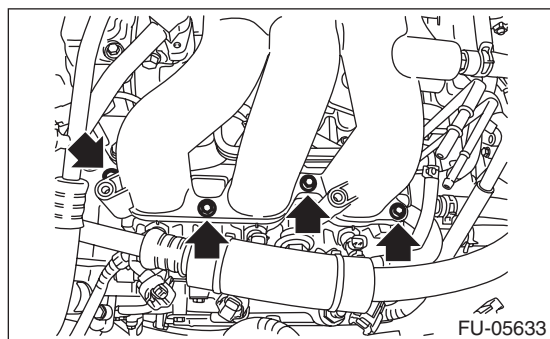
19) Disconnect #1, #3, and #5 fuel injector connectors.

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

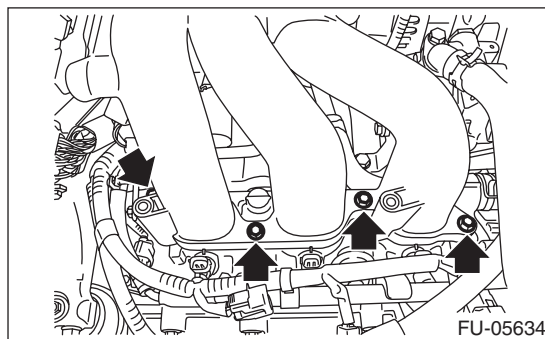


21) Remove the bolts which hold the intake manifold to the cylinder head.

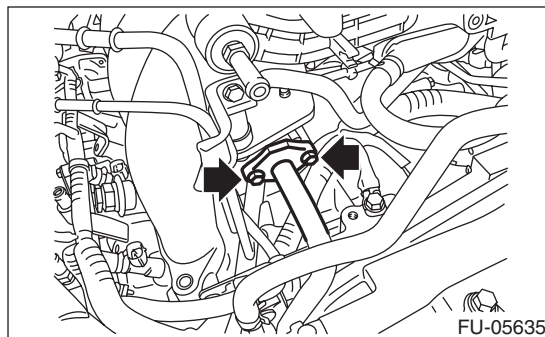
• LH side



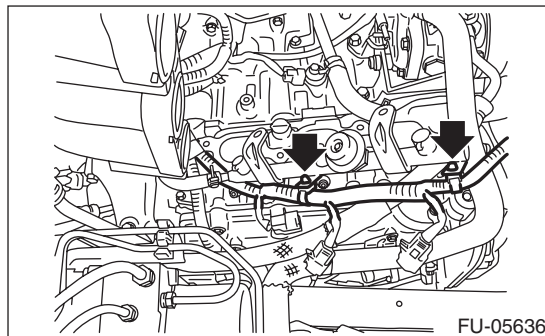
• RH side



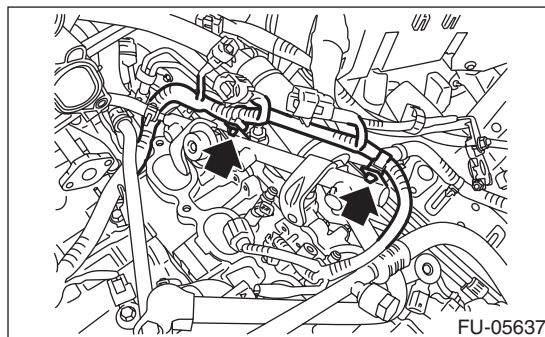
22) Remove the EGR pipe securing bolt.



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



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



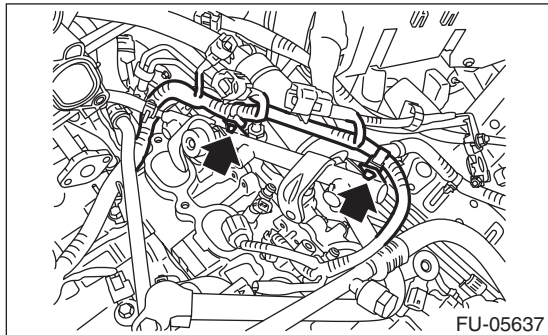
25) Remove the intake manifold.

Intake Manifold

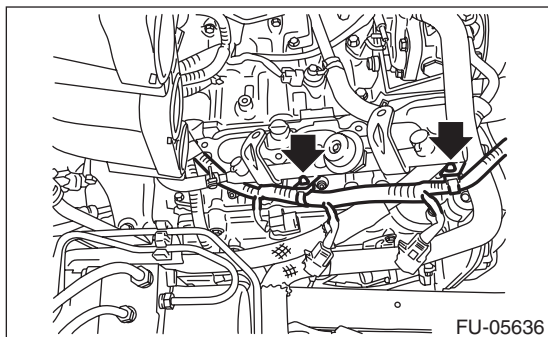
FUEL INJECTION (FUEL SYSTEMS)

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.

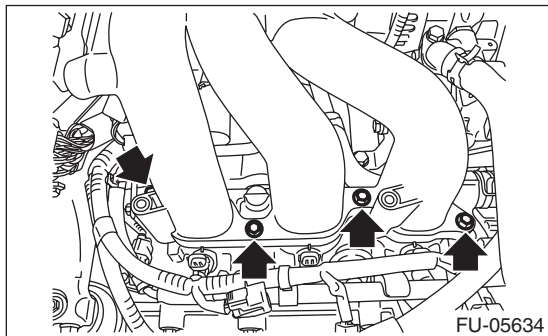
NOTE:

Use new O-rings.

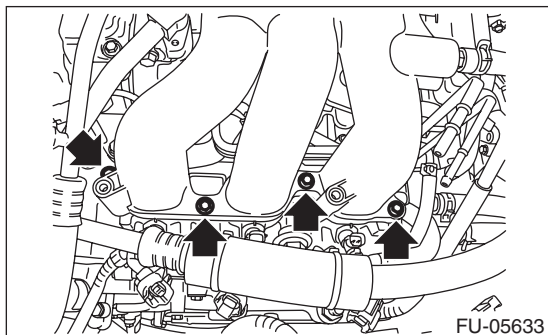
Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)

- RH side



- LH side



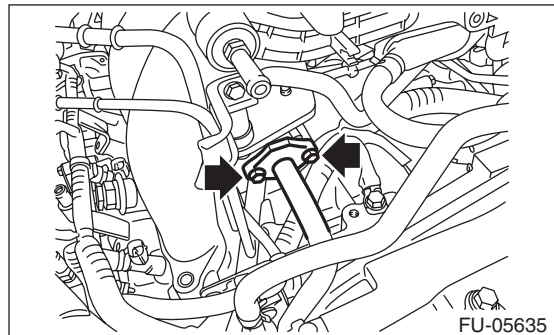
- 4) Install the EGR pipe securing bolt.

NOTE:

Use a new gasket.

Tightening torque:

6.4 N·m (0.7 kgf-m, 4.7 ft-lb)



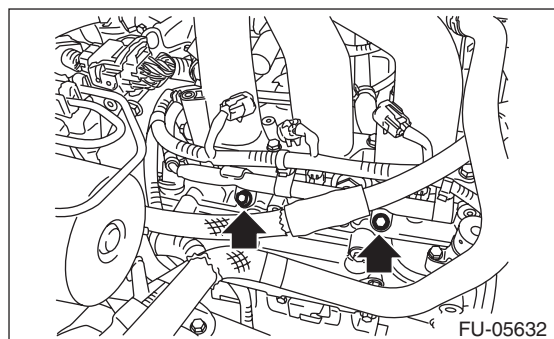
- 5) Install the bolts which hold fuel injector pipe RH to cylinder head.

NOTE:

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

Tightening torque:

19 N·m (1.9 kgf-m, 14.0 ft-lb)

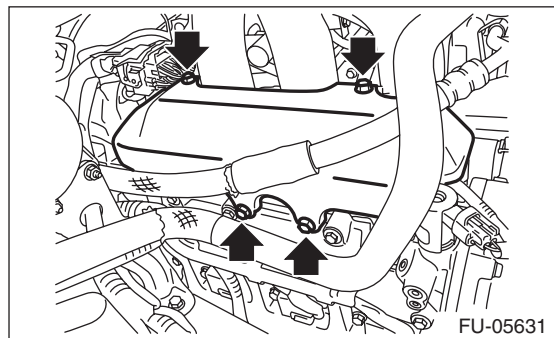


- 6) Disconnect #1, #3, and #5 fuel injector connectors.

- 7) Install the fuel pipe protector RH.

Tightening torque:

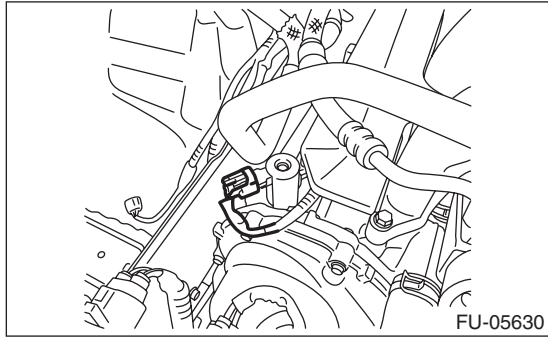
19 N·m (1.9 kgf-m, 14.0 ft-lb)



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FUEL INJECTION (FUEL SYSTEMS)

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



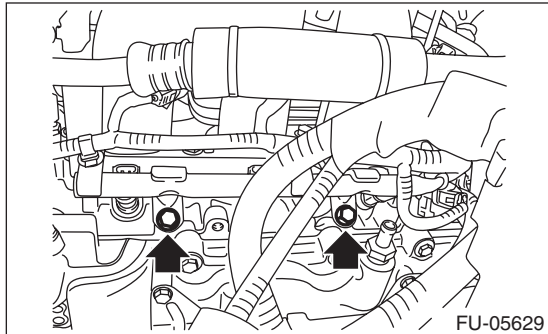
- 9) Install the bolts which hold fuel injector pipe LH to cylinder head.

NOTE:

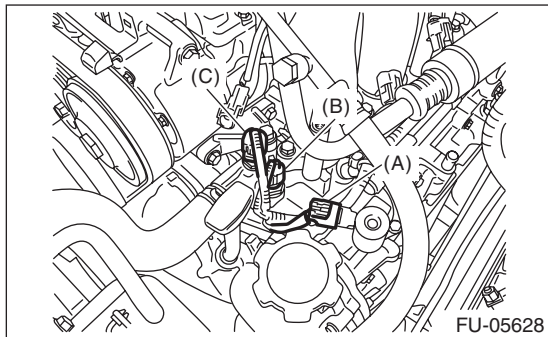
Use new O-rings, injection rubbers, and seal rings.

Tightening torque:

19 N·m (1.9 kgf-m, 14.0 ft-lb)



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



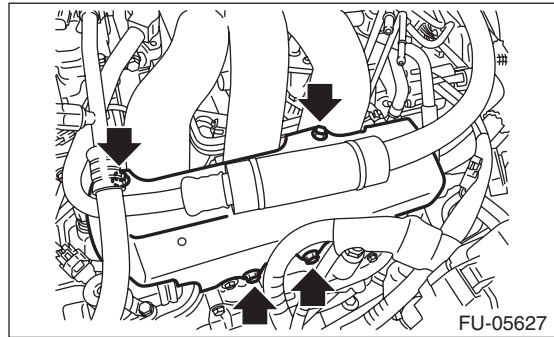
- (A) Intake oil flow control solenoid valve LH
- (B) Oil temperature sensor
- (C) Engine coolant temperature sensor

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

- 12) Install the fuel pipe protector LH.

Tightening torque:

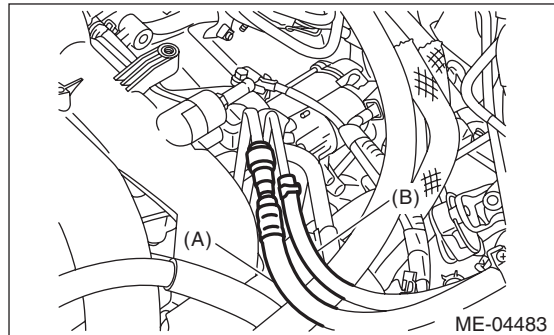
19 N·m (1.9 kgf-m, 14.0 ft-lb)



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

NOTE:

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



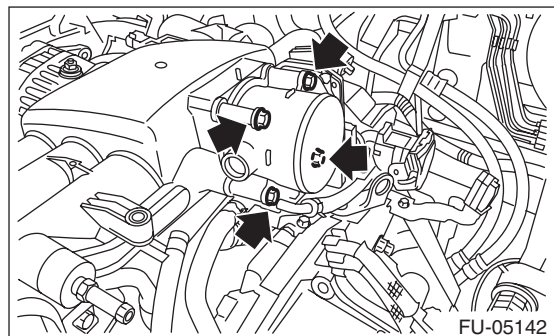
- 14) Install the throttle body to the intake manifold.

NOTE:

Use new O-rings.

Tightening torque:

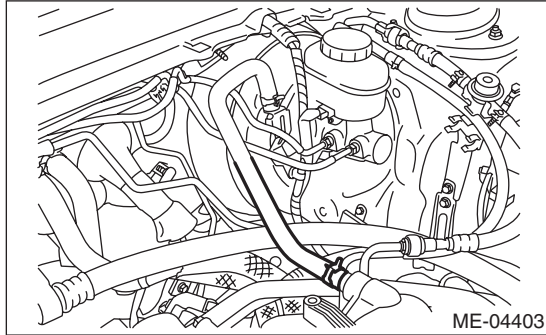
8 N·m (0.8 kgf-m, 5.9 ft-lb)



Intake Manifold

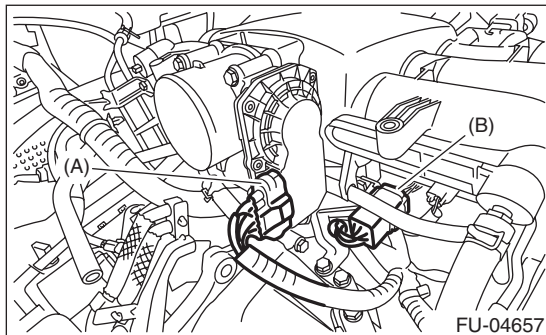
FUEL INJECTION (FUEL SYSTEMS)

15) Connect the brake booster vacuum hose.

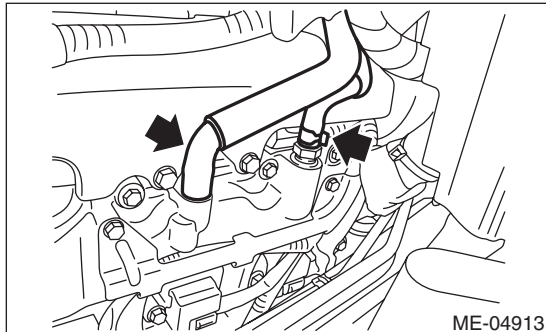


16) Connect the connector (A) to throttle body.

17) Connect the engine harness connector (B).

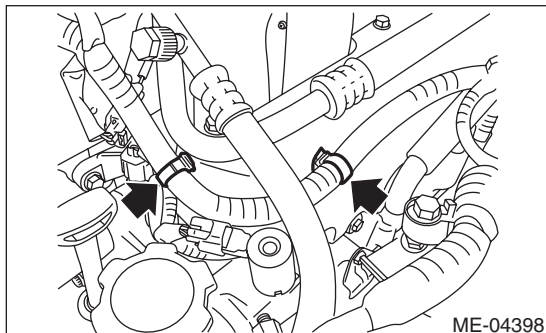


18) Connect the PCV hose and blow-by hose.



19) 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

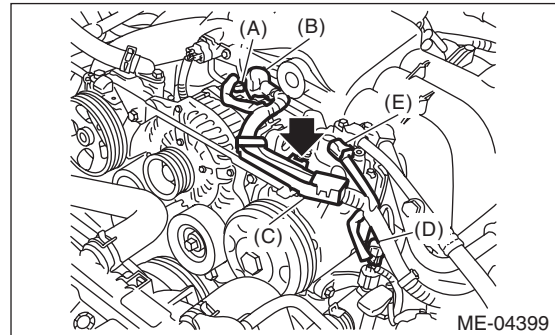
Tightening torque:

16 N·m (1.6 kgf-m, 11.8 ft-lb)

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

(5) 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

20) 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.>

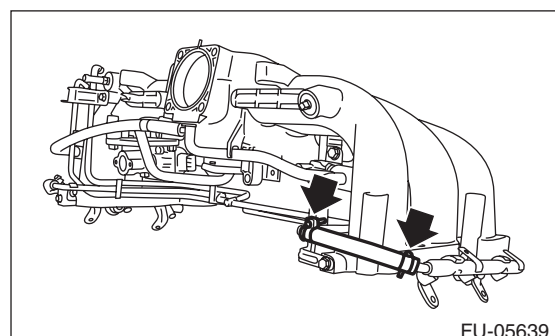
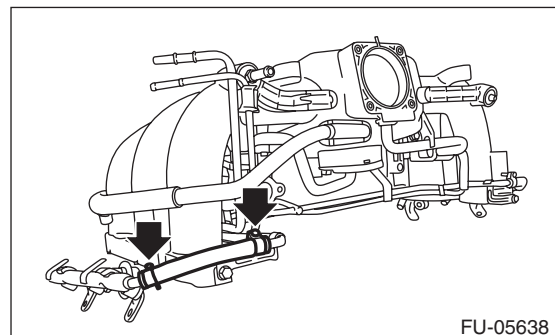
21) Install the battery and battery carrier. <Ref. to SC(H4SO)-25, INSTALLATION, Battery.>

22) Install the collector cover.

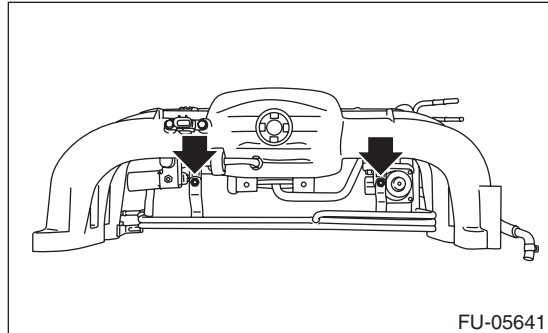
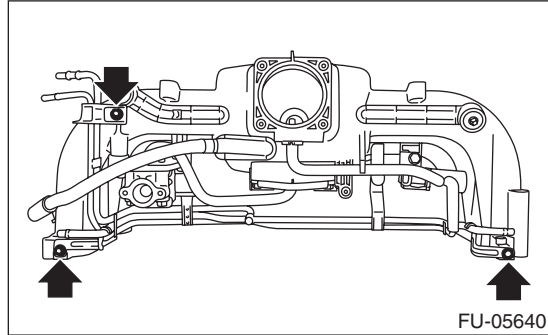
C: DISASSEMBLY

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 hose.



3) Remove the fuel pipe assembly.



4) Remove the EGR valve. <Ref. to FU(H6DO)-41, REMOVAL, EGR Valve.>

5) Remove the manifold absolute pressure sensor. <Ref. to FU(H6DO)-38, REMOVAL, Manifold Absolute Pressure Sensor.>

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

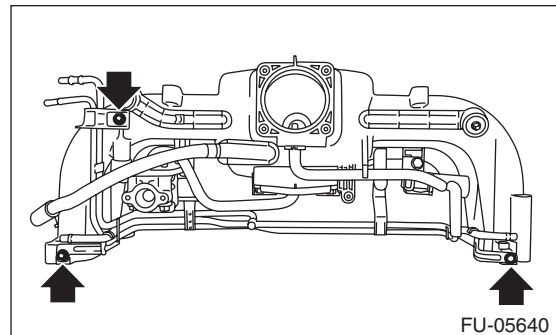
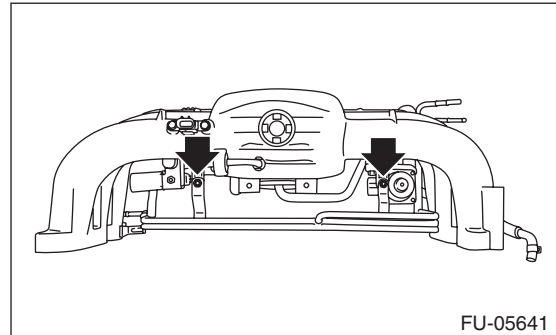
2) Install the manifold absolute pressure sensor. <Ref. to FU(H6DO)-38, INSTALLATION, Manifold Absolute Pressure Sensor.>

3) Install the EGR valve. <Ref. to FU(H6DO)-41, INSTALLATION, EGR Valve.>

4) Install the fuel pipe assembly.

Tightening torque:

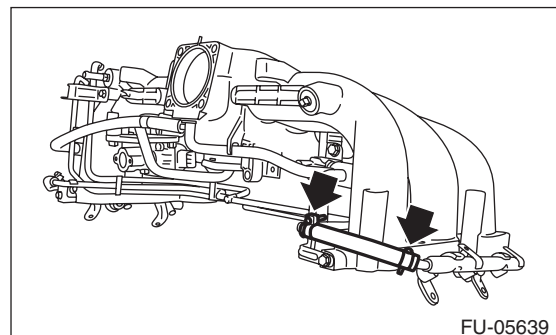
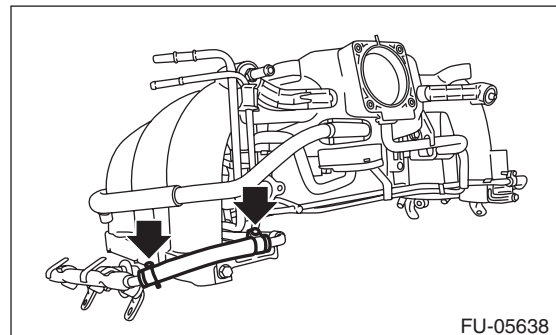
6.4 N·m (0.7 kgf-m, 4.7 ft-lb)



5) Install the fuel injector pipe and 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.