

Throttle Body

FUEL INJECTION (FUEL SYSTEMS)

2. Throttle Body

A: REMOVAL

1) Disconnect the ground cable from battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

NOTE:

For the 12 volt engine restart battery, disconnect the ground terminal from 12V engine restart battery sensor.

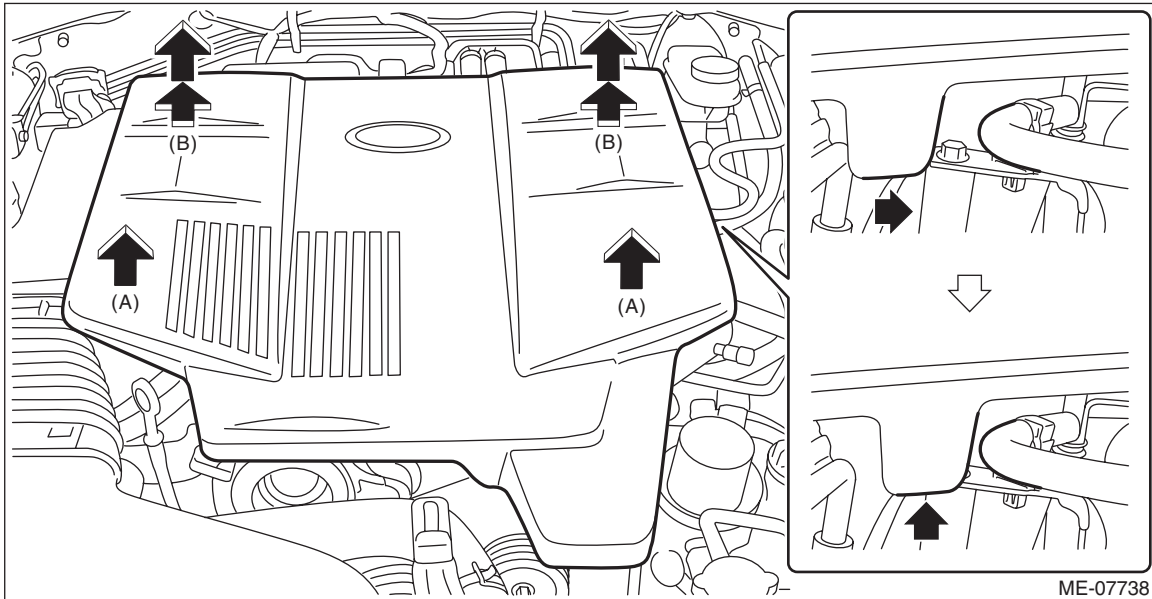
2) Remove the collector cover.

(1) Carefully pull up the front of collector cover at two positions (A).

(2) Carefully pull up the rear of collector cover at two positions (B) while moving it backward.

NOTE:

Be careful not to contact the fuel delivery tube when moving the collector cover rearward.



ME-07738

3) Lift up the vehicle.

4) Remove the under cover. <Ref. to EI-32, REMOVAL, Front Under Cover.>

5) Drain approximately 3.0 L (3.2 US qt, 2.6 Imp qt) of coolant. <Ref. to CO(H4DO(w/o HEV))-16, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>

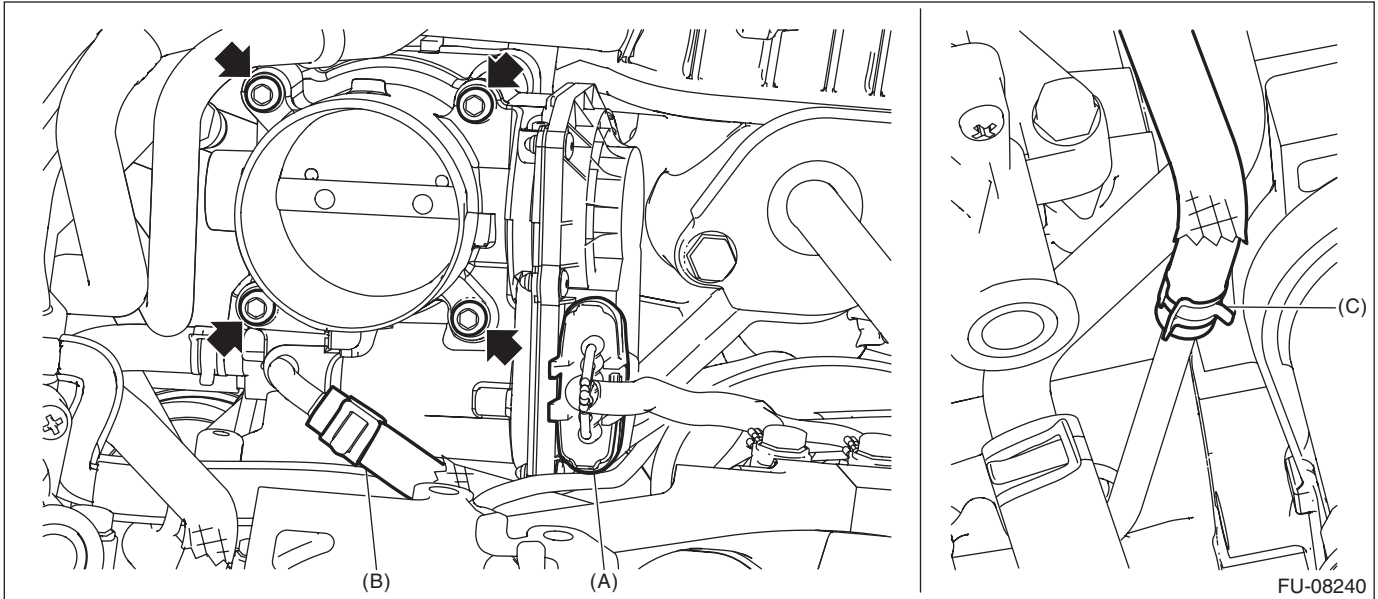
6) Remove the air cleaner case. <Ref. to IN(H4DO(HEV))-6, REMOVAL, Air Cleaner Case.>

7) Remove the air intake boot No. 2. <Ref. to IN(H4DO(HEV))-11, AIR INTAKE BOOT NO. 2, REMOVAL, Air Intake Boot.>

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- 8) Disconnect the connectors (A) from the throttle position sensor.
- 9) Disconnect the preheater hose (B) from the throttle body.
- 10) Disconnect the preheater hose (C) from the water pipe assembly LH.
- 11) Remove the throttle body from the intake manifold.



- 12) Disconnect the preheater hose from throttle body.

Throttle Body

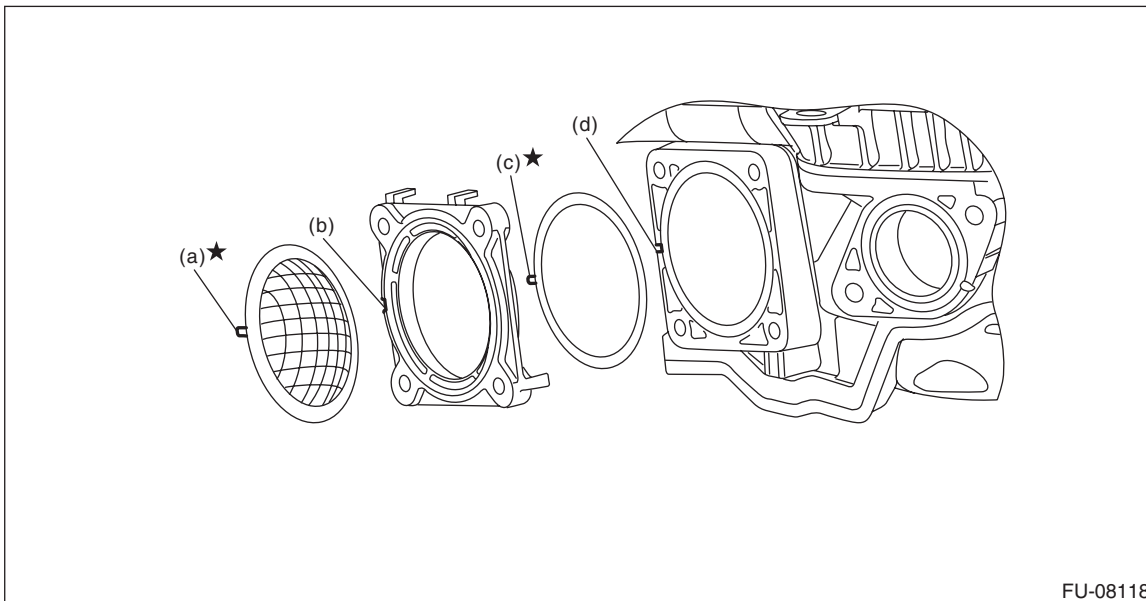
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B: INSTALLATION

Install in the reverse order of removal.

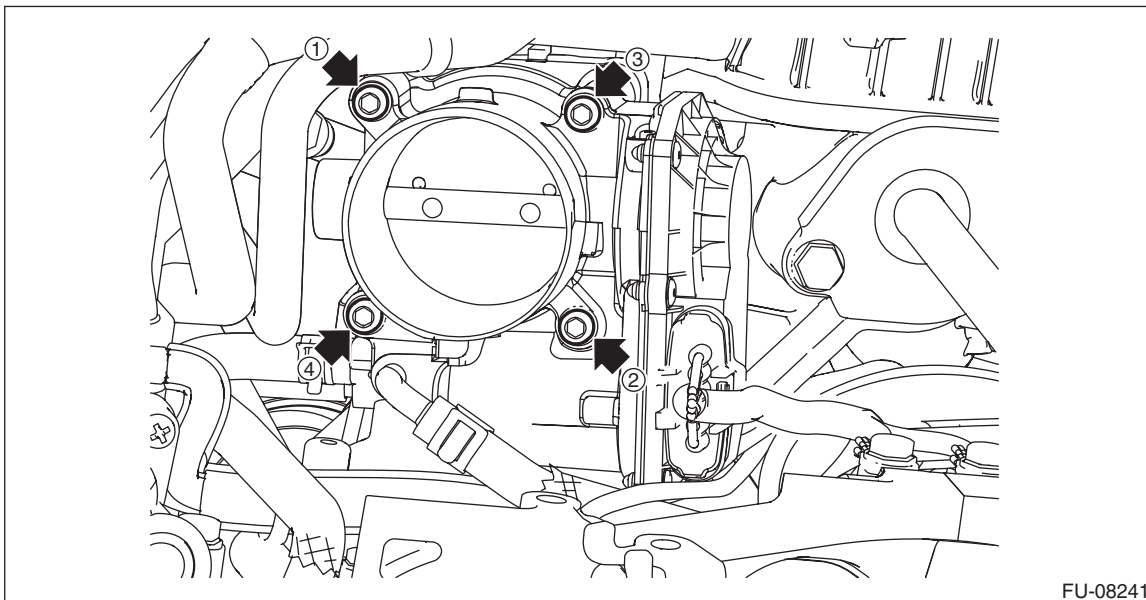
NOTE:

- Use a new gasket.
- Install it by aligning the protrusion of the gasket with the groove of the throttle chamber duct or the intake manifold.



- (a) Gasket A protrusion (b) Throttle chamber duct groove (c) Gasket B protrusion
(d) Intake manifold groove

- Tighten with the specified torque in the numerical sequence as shown in the figure, and further tighten with the specified torque in the numerical sequence as shown in the figure.

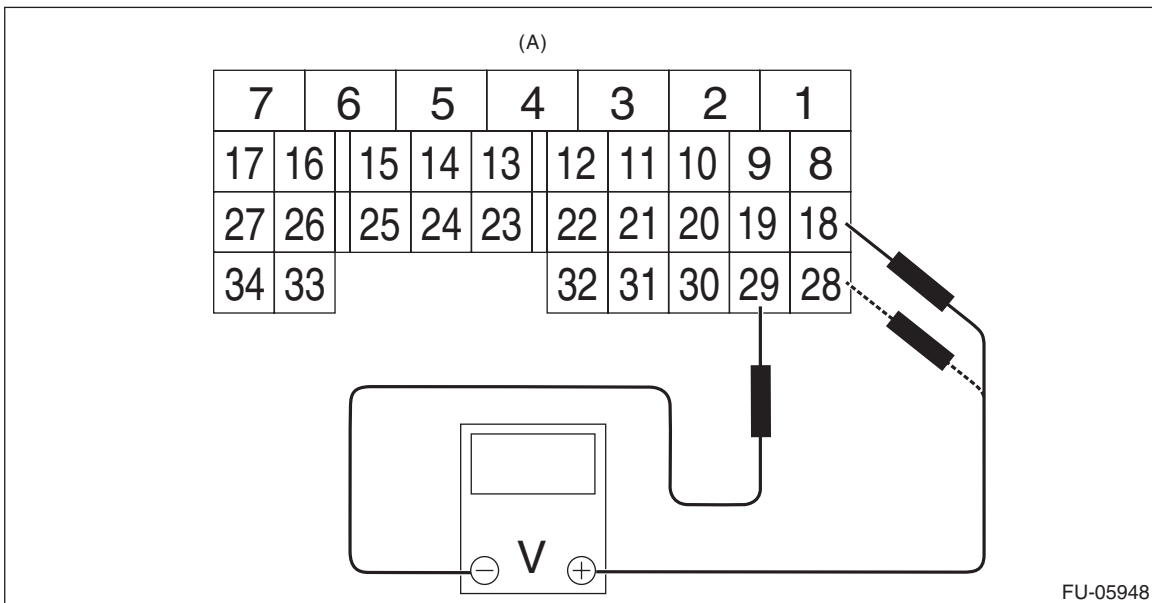
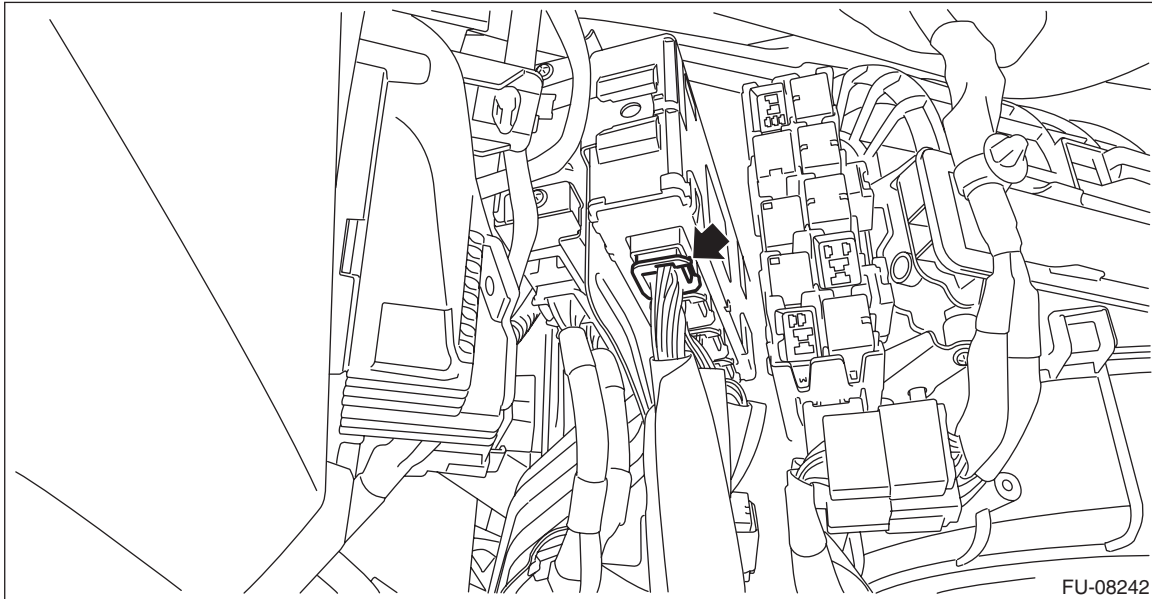


Tightening torque:
8 N·m (0.8 kgf-m, 5.9 ft-lb)

C: INSPECTION

1. THROTTLE SENSOR (METHOD WITH CIRCUIT TESTER)

- 1) Remove the glove box. <Ref. to EI-78, REMOVAL, Glove Box.>
- 2) After warming-up the engine, turn the ignition switch to OFF.
- 3) Turn the ignition switch to ON. (engine OFF)
- 4) Measure the voltage between ECM connector terminals.



(A) To ECM connector

Throttle sensor	Accelerator pedal	Terminal No.	Standard
Main	Not depressed (full closed)	18 (+) and 29 (-)	Approx. 0.6 V
	Depressed (full opened)		Approx. 4.0 V
Sub	Not depressed (full closed)	28 (+) and 29 (-)	Approx. 1.5 V
	Depressed (full opened)		Approx. 4.2 V

- 5) After inspection, install the related parts in the reverse order of removal.

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2. THROTTLE SENSOR (METHOD WITH SUBARU SELECT MONITOR)

- 1) After warming-up the engine, turn the ignition switch to OFF.
- 2) Turn the ignition switch to ON. (engine OFF)
- 3) Read the throttle opening angle signal and voltage of throttle sensor using Subaru Select Monitor. <Ref. to EN(H4DO HEV)(diag)-36, DISPLAY CURRENT ENGINE DATA, OPERATION, Subaru Select Monitor.>

Throttle sensor	Throttle opening angle signal	Standard
Main	0.0%	Approx. 0.6 V
	100.0%	Approx. 4.0 V
Sub	0.0%	Approx. 1.5 V
	100.0%	Approx. 4.2 V

3. OTHER INSPECTIONS

- 1) Check that the throttle body has no deformation, cracks or other damages.
- 2) Check that the preheater hose has no cracks, damage or loose part.