

CVTF Cooler (With Warmer Function)

CONTINUOUSLY VARIABLE TRANSMISSION

27.CVTF Cooler (With Warmer Function)

A: REMOVAL

CAUTION:

If the CVTF and engine coolant is spilt over exhaust pipe, wipe it off with cloth to avoid emitting smoke or causing a fire.

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) Drain engine coolant. <Ref. to CO(H4DO(w/o HEV))-16, REPLACEMENT, Engine Coolant.>

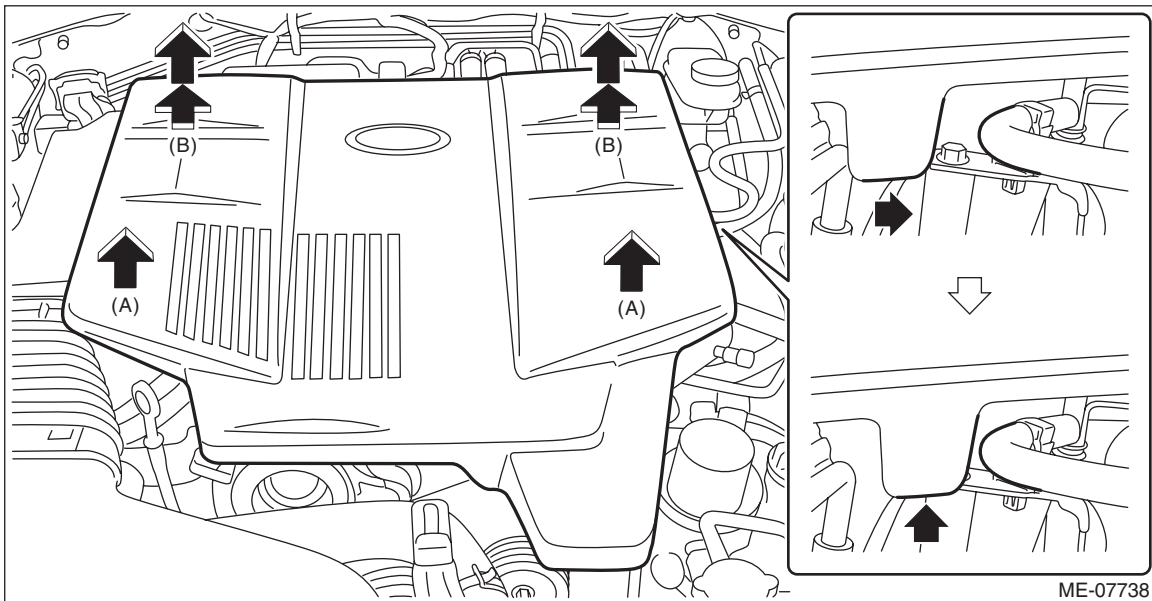
3) Remove the collector cover.

(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.



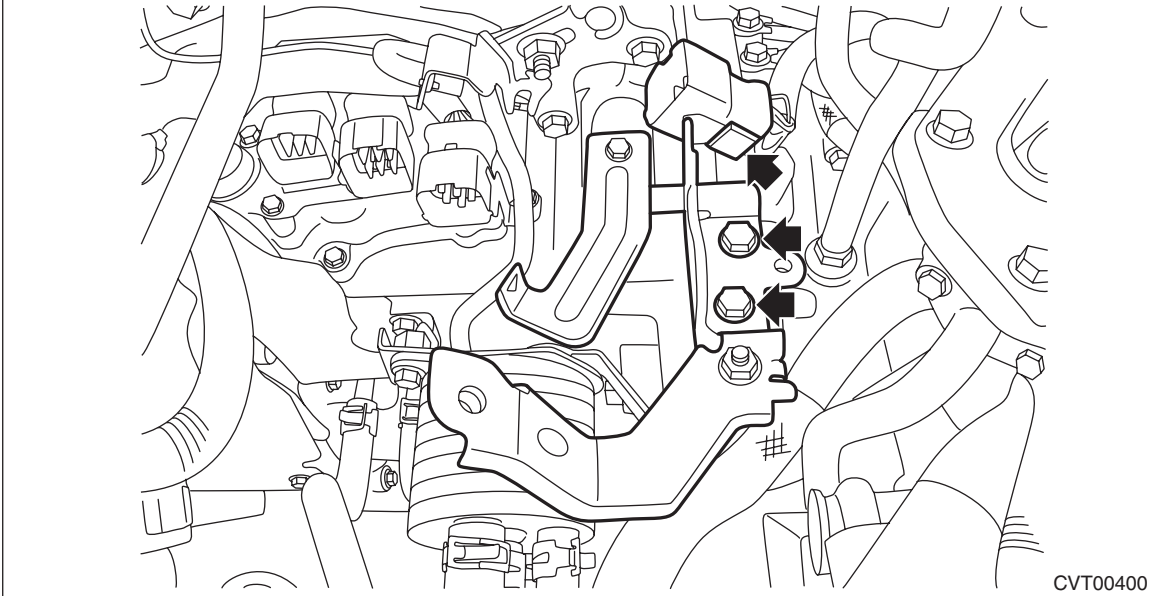
4) Remove the air cleaner case. <Ref. to IN(H4DO(HEV))-6, REMOVAL, Air Cleaner Case.>

5) Disconnect the drive motor harness connector, and detach the harness clip.

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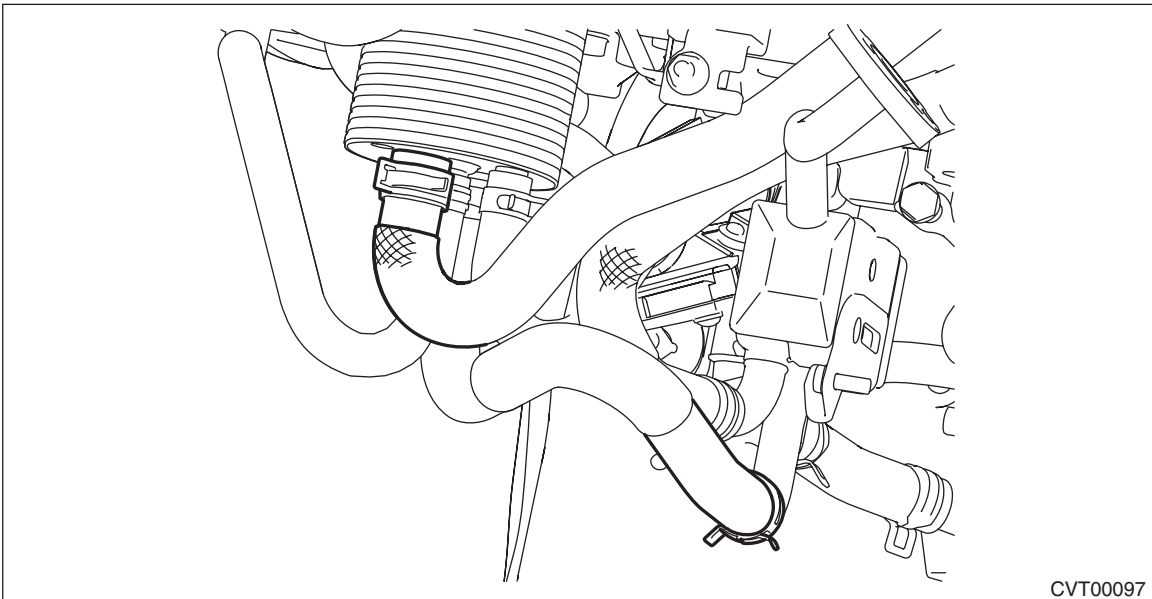
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- 6) Remove the engine harness connector, and remove the engine hanger rear.



- 7) Remove the engine coolant inlet hose from the EGR cooler.

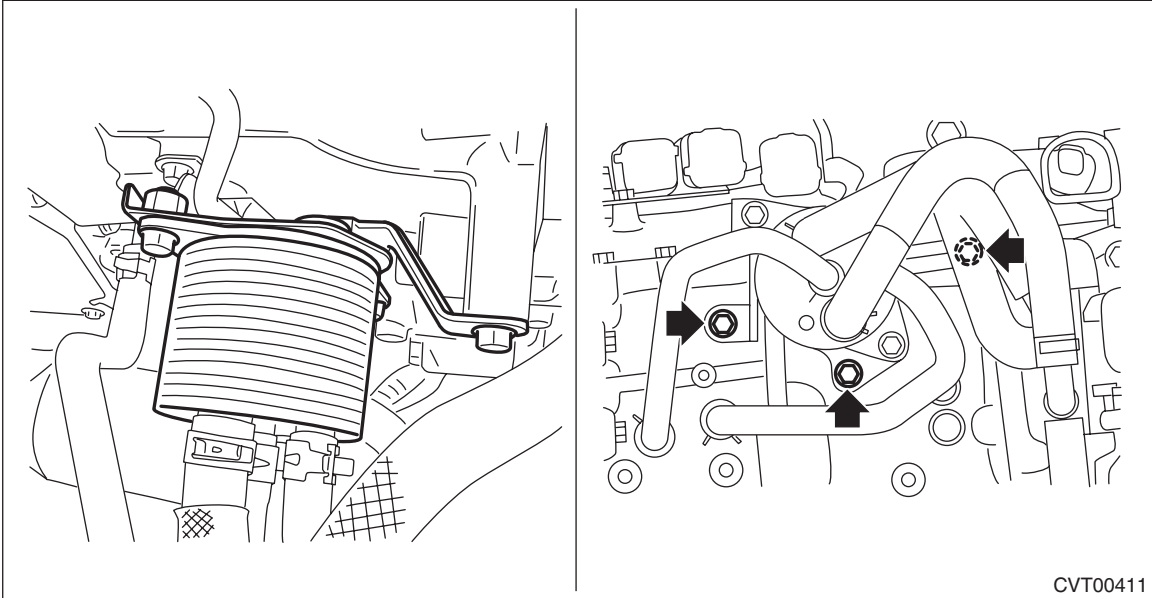
- 8) Remove the engine coolant outlet hose from the CVT cooler (with warmer feature).



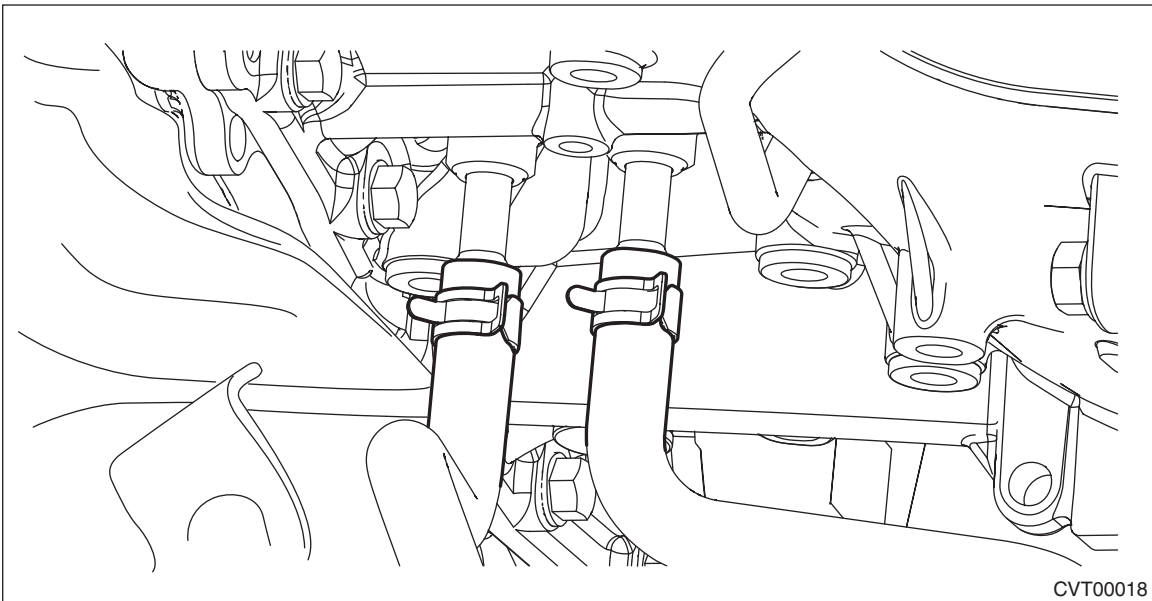
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9) Remove the CVTF cooler (with warmer feature) from the transmission.



10) Remove the CVTF inlet hose and outlet hose from the pipe on the transmission side.

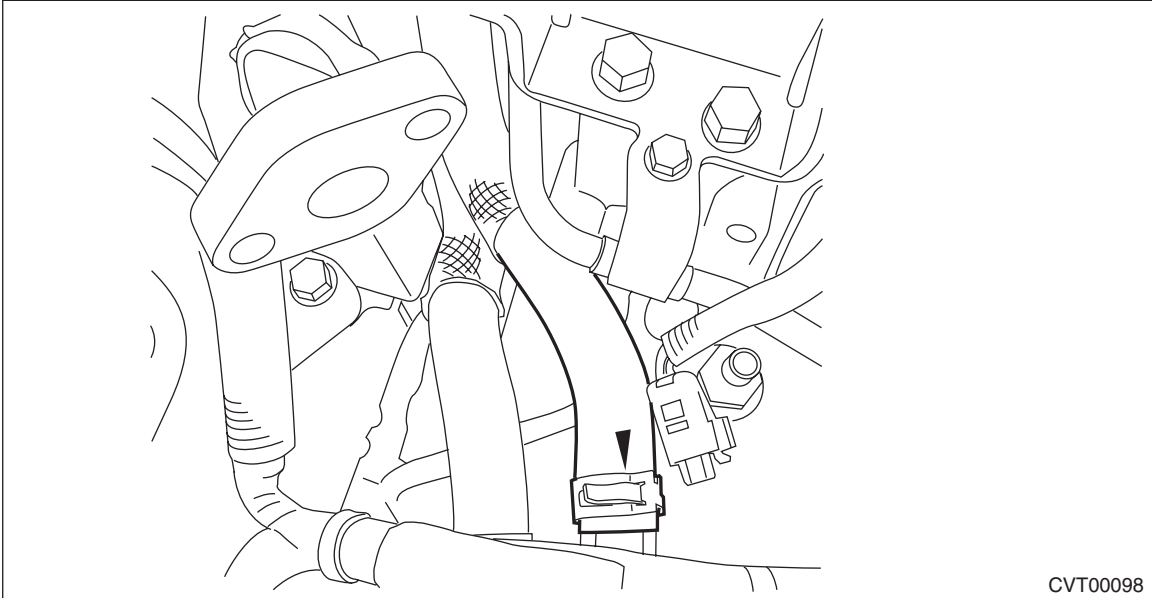


11) Remove the intake manifold. <Ref. to FU(H4DO(HEV))-19, REMOVAL, Intake Manifold.>

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12) Remove the engine coolant outlet hose.



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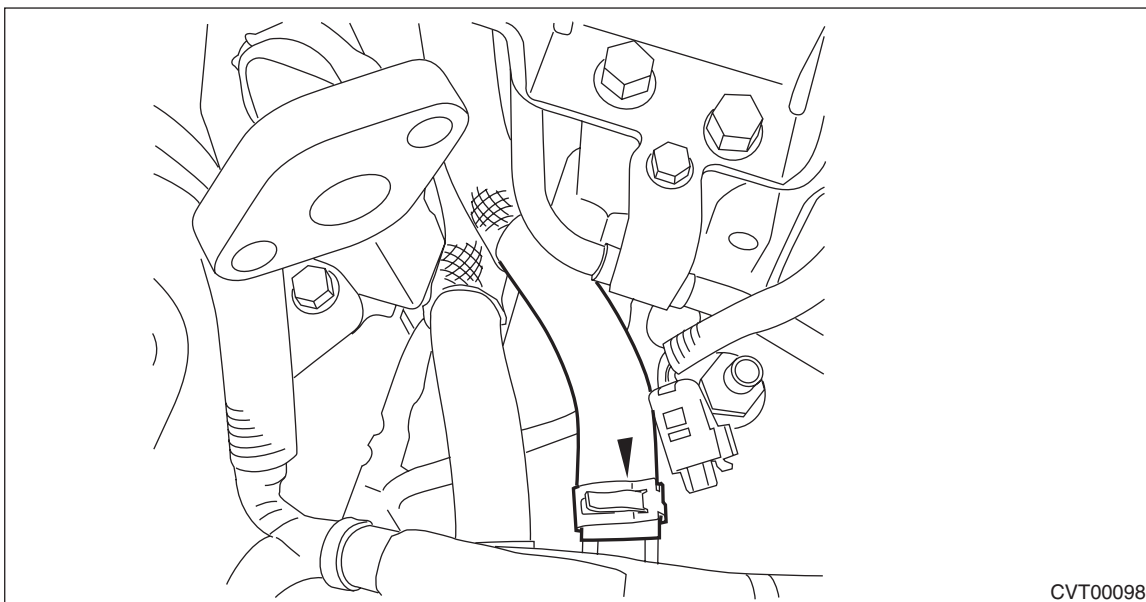
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B: INSTALLATION

1) Connect the engine coolant outlet hose.

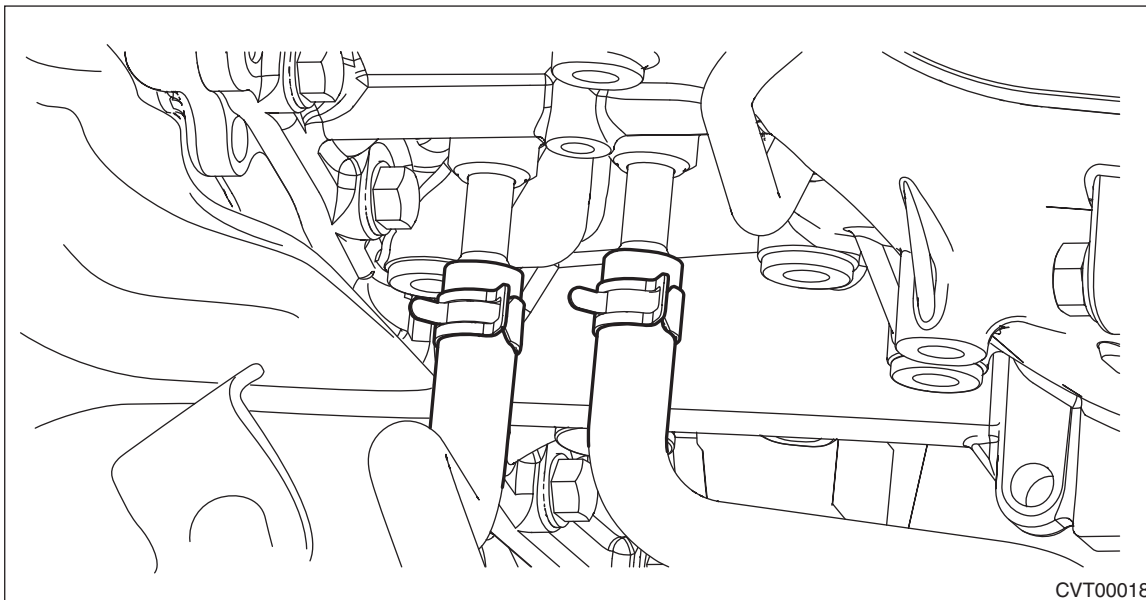
NOTE:

When installing the engine coolant outlet hose, the triangle marking should face upward.



2) Install the intake manifold. <Ref. to FU(H4DO(w/o HEV))-29, INSTALLATION, Intake Manifold.>

3) Install the CVTF inlet hose and CVTF outlet hose to transmission.



4) Install the CVTF cooler (with warmer feature) to the transmission.

Tightening torque:

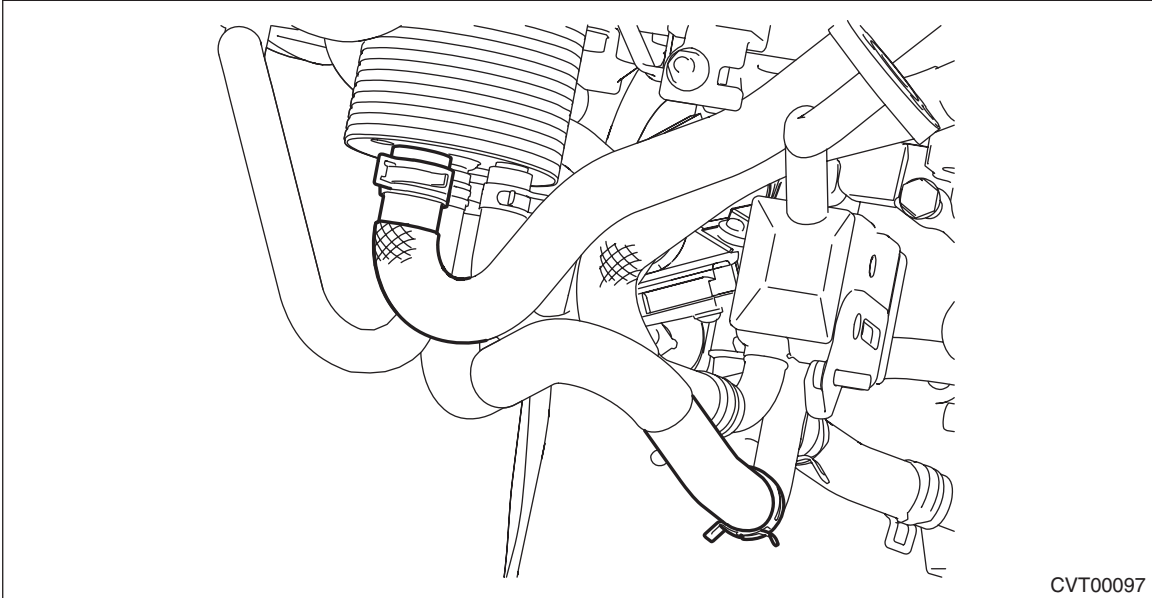
23 N·m (2.3 kgf-m, 17.0 ft-lb)

5) Install the engine coolant outlet hose to the CVT cooler (with warmer feature).

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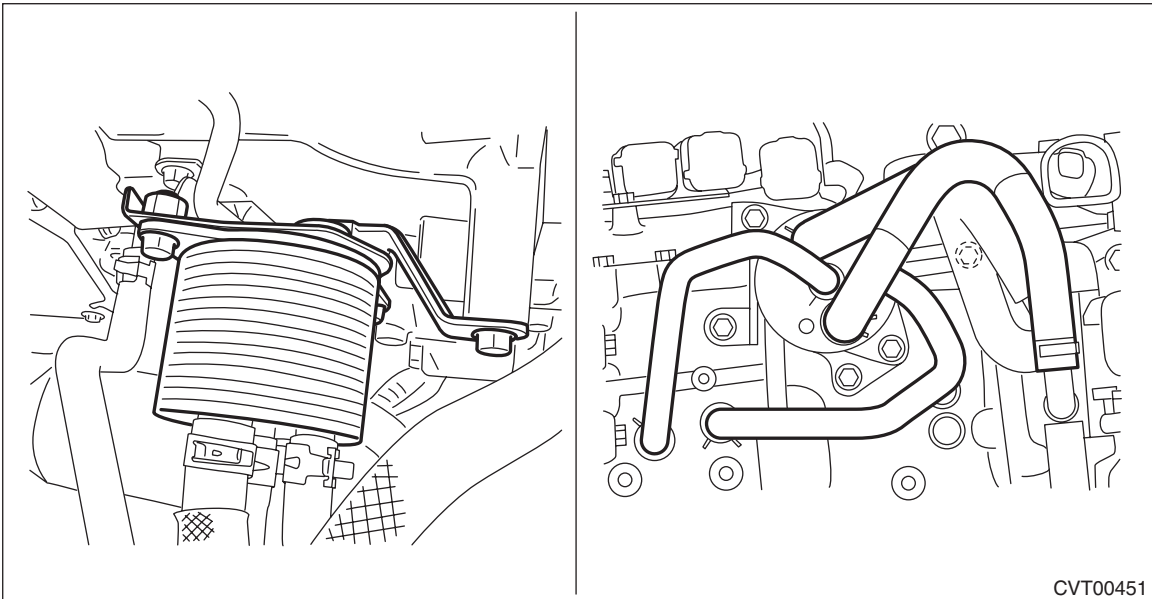
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6) Install the engine coolant inlet hose to the EGR cooler.



7) Check installation condition of the hose.

- Make sure the hoses do not interfere with each other or with other components.
- Check each hose for bent, excess curve, and twisting conditions.



8) Install the engine hanger rear and the vacuum pipe.

Tightening torque:

Engine hanger rear

21 N·m (2.1 kgf-m, 15.5 ft-lb)

Vacuum pipe

6.4 N·m (0.7 kgf-m, 4.7 ft-lb)

9) Install the engine harness connector to the bracket, and then connect the engine harness.

10) Install the drive motor harness connector, and then install the harness clip.

11) Install the air cleaner case. <Ref. to IN(H4DO(HEV))-8, INSTALLATION, Air Cleaner Case.>

12) Install the 12 volt auxiliary battery ground terminal and ground terminal to the 12V engine restart battery sensor of the 12 volt engine restart battery. <Ref. to NT-5, BATTERY, NOTE, Note.>

13) Fill engine coolant. <Ref. to CO(H4DO(w/o HEV))-16, REPLACEMENT, Engine Coolant.>

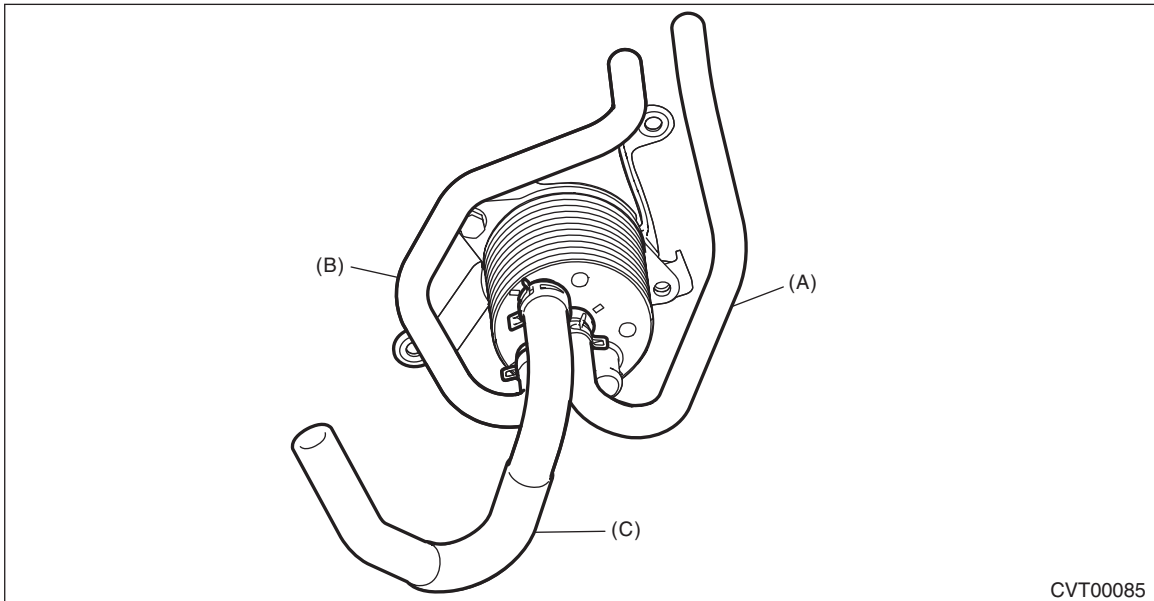
14) Adjust the CVTF level. <Ref. to CVT(TH58A)-41, ADJUSTMENT, CVTF.>

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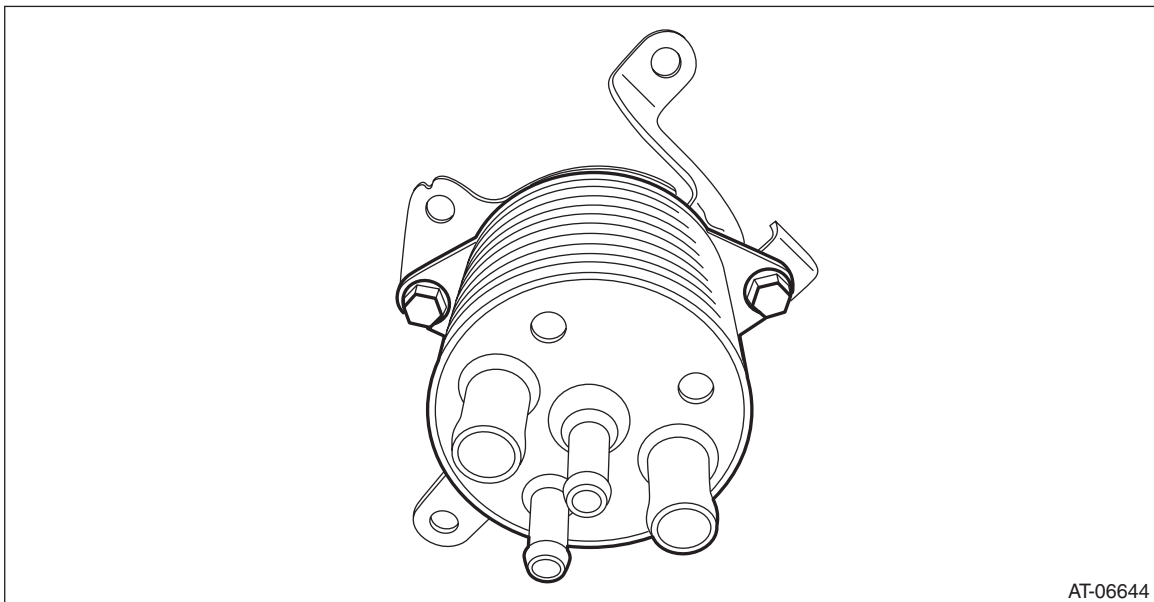
C: DISASSEMBLY

1) Remove the hoses from the CVTF cooler (with warmer feature).



- (A) CVTF cooler outlet hose
- (B) CVTF cooler inlet hose
- (C) Engine coolant inlet hose

2) Remove the bracket from the CVTF cooler (with warmer feature).

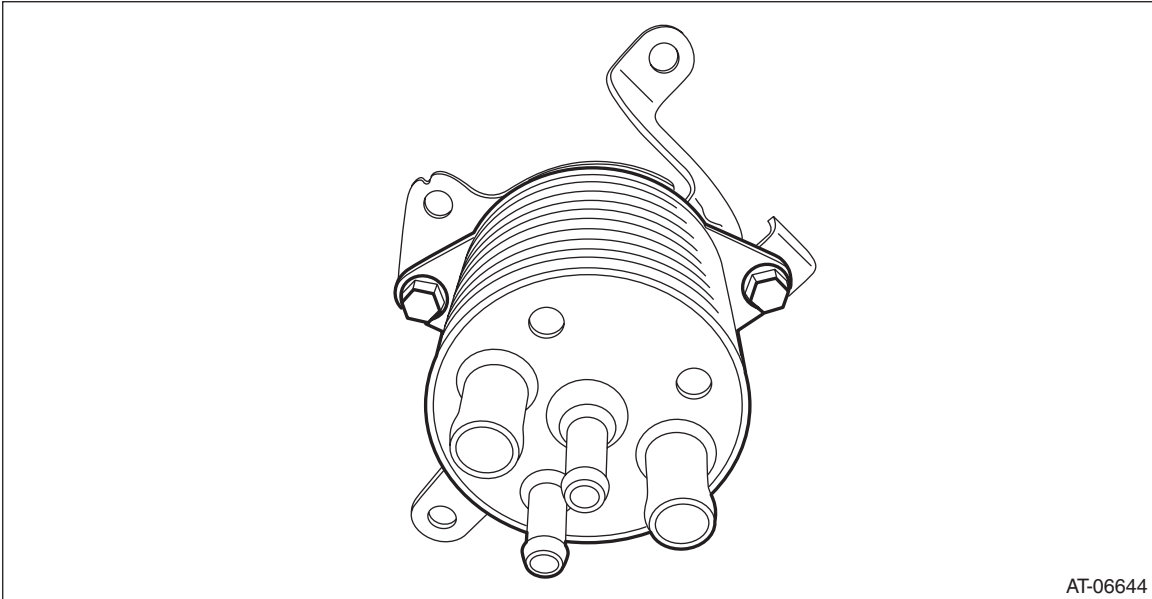


D: ASSEMBLY

1) Attach the bracket.

Tightening torque:

23 N·m (2.3 kgf-m, 17.0 ft-lb)



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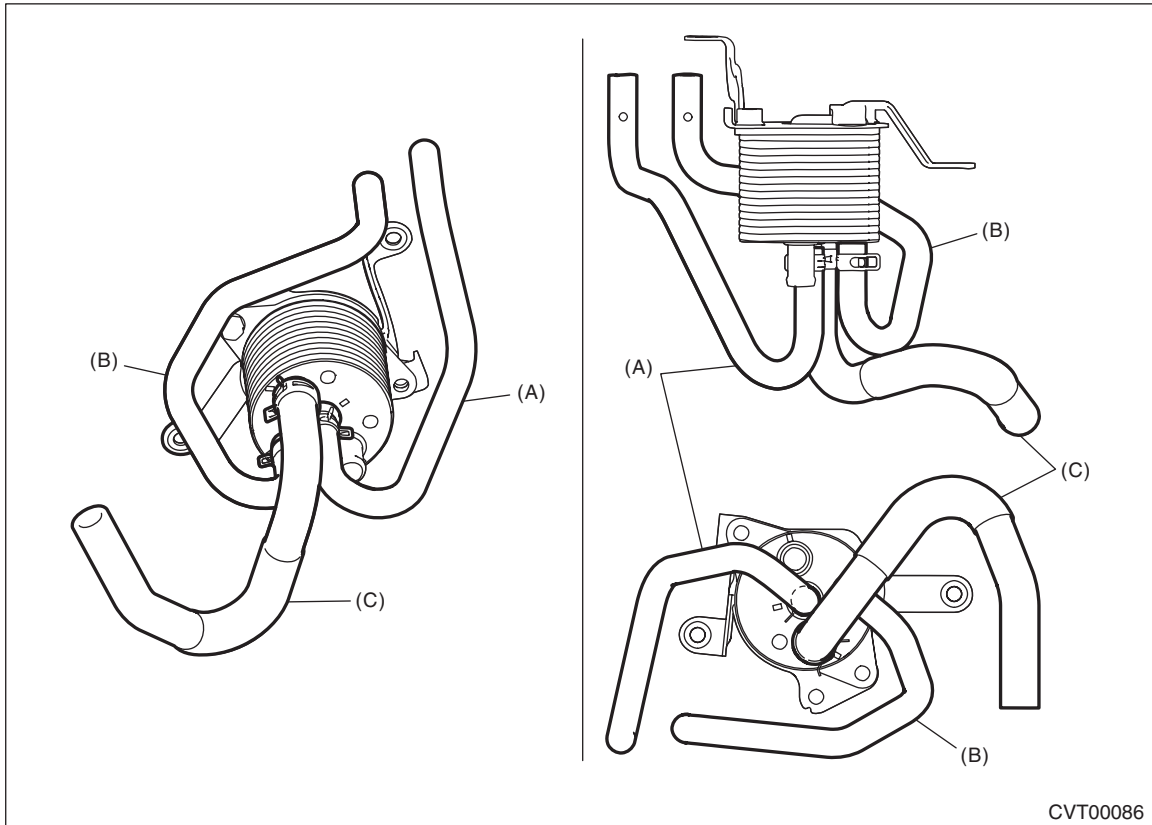
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2) Attach hoses to the CVTF cooler (with warmer feature).

NOTE:

- Use a new CVTF cooler hose.
- Install so that the CVTF cooler hose is not folded over, excessively bent or twisted.
- Insert the CVTF cooler hose to the specified position in the proper direction.



- (A) CVTF cooler outlet hose
(B) CVTF cooler inlet hose
(C) Engine coolant inlet hose

E: INSPECTION

If any malfunction is found in hoses and clamps resulting from the following inspection, replace them.

- 1) Check that there are no CVTF or engine coolant leaks from the connections.
- 2) Check the clamp for deformation.
- 3) Lightly bend the CVTF cooler hose and check for cracks in the surface or other damages.
- 4) Pinch the CVTF cooler hose with your fingers and check for poor elasticity. Also check for poor elasticity in the parts where the clamp was installed by pressing with your fingernail.
- 5) Check for peeling, cracks, and deformation at the tip of the hose.
- 6) Check the CVTF cooler (with warmer feature) for any damage.