# 8. EGR Cooler

# A: REMOVAL

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

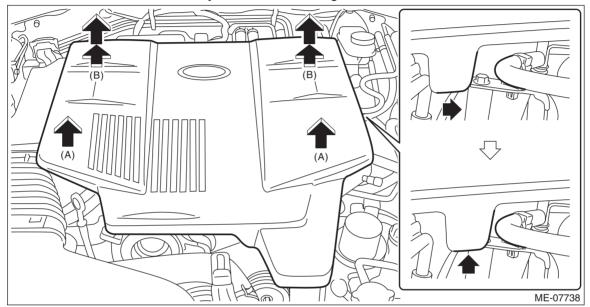
#### NOTE:

For the 12 volt engine restart battery, disconnect the ground terminal from 12V engine restart battery sensor. 2) Remove the collector cover.

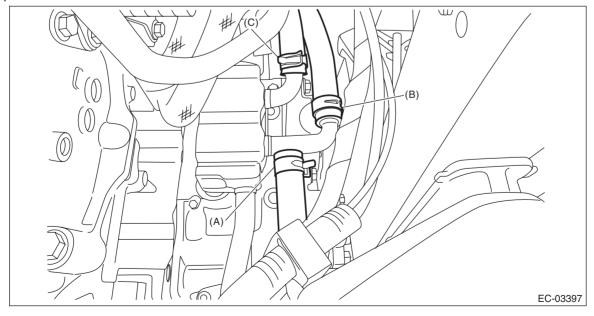
- (1) Carefully pull up the front of collector cover at two positions (A).
- (2) Carefully pull up the rear of collector cover at two positions (B) while moving it backward.

#### NOTE:

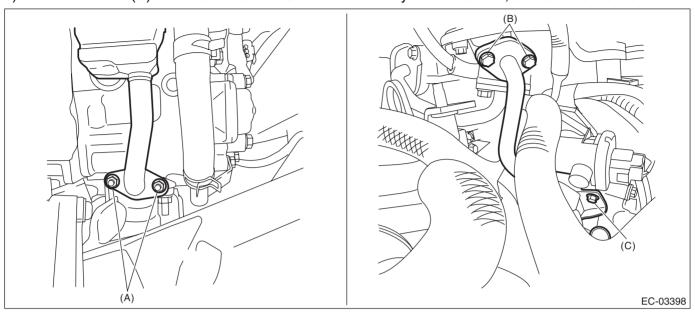
Be careful not to contact the fuel delivery tube when moving the collector cover rearward.



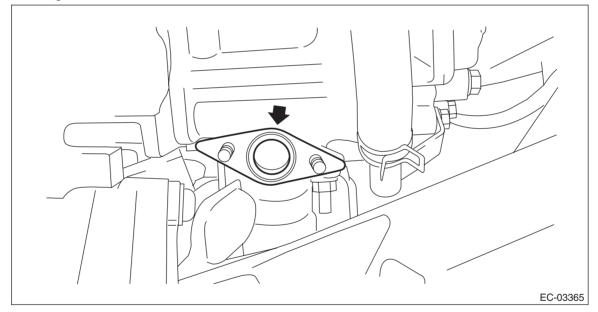
- 3) Drain engine coolant. <Ref. to CO(H4DO(w/o HEV))-16, DRAINING OF ENGINE COOLANT, REPLACE-MENT, Engine Coolant.>
- 4) Remove the air cleaner case. <Ref. to IN(H4DO(HEV))-6, REMOVAL, Air Cleaner Case.>
- 5) Disconnect the engine coolant inlet hose A (A), engine coolant inlet hose B (B) and engine coolant outlet hose (C) from the EGR cooler.



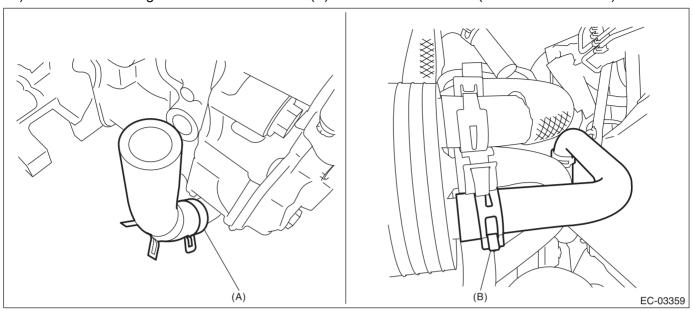
- 6) Remove the nut (A) which secures the EGR cooler to the cylinder head RH.
- 7) Remove the bolts (B) securing the EGR cooler to the EGR control valve. 8) Remove the bolt (C) which secures the EGR cooler to the cylinder head RH, and remove the EGR cooler.



9) Remove the gasket from the stud bolt.

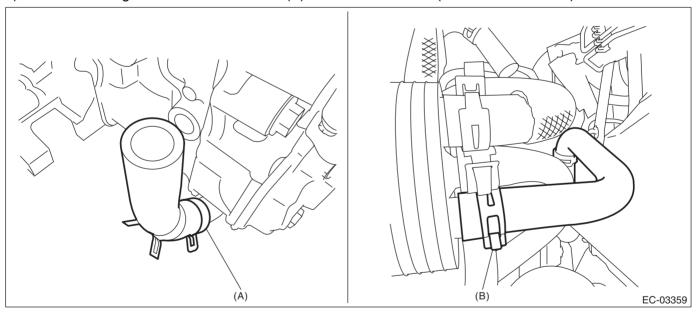


- 10) Disconnect the engine coolant inlet hose (A) from the water pipe RH.
- 11) Disconnect the engine coolant inlet hose B (B) from the CVTF cooler (with warmer feature).



# **B: INSTALLATION**

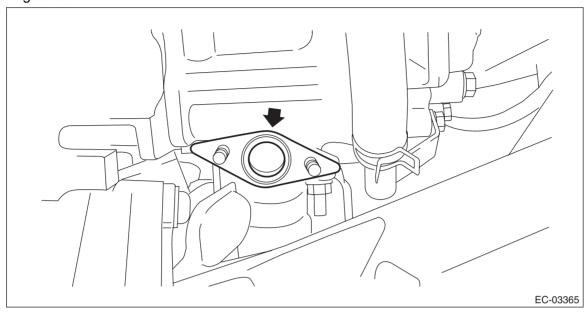
- 1) Connect the engine coolant inlet hose (A) to the water pipe RH.
- 2) Connect the engine coolant inlet hose B (B) to the CVTF cooler (with warmer feature).



3) Set the gasket to the stud bolt.

NOTE:

Use a new gasket.

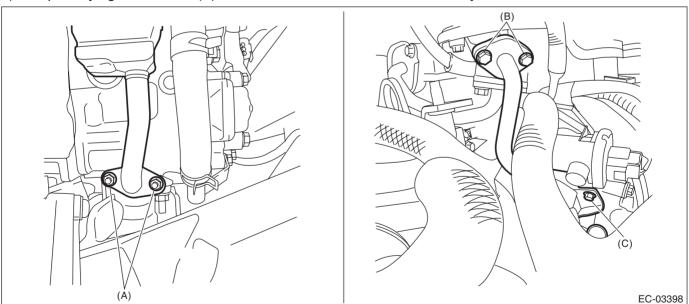


4) Set the EGR cooler on the vehicle.

## NOTE:

Use a new gasket.

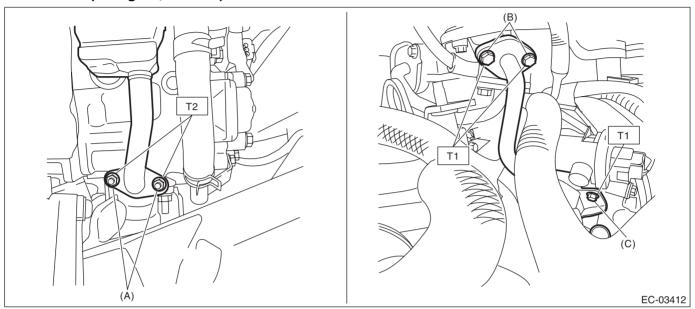
- 5) Temporarily tighten the bolt (C) which secures the EGR cooler to the cylinder head RH.
- 6) Temporarily tighten the bolt (B) which secures the EGR cooler to the EGR control valve.
- 7) Temporarily tighten the nut (A) which secures the EGR cooler to the cylinder head RH.



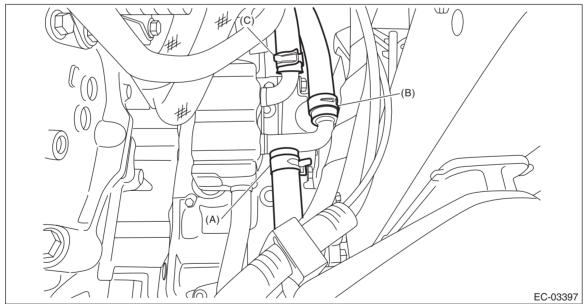
- 8) Tighten the nut (A) which secures the EGR cooler to the cylinder head RH.
- 9) Tighten the bolt (C) which secures the EGR cooler to the cylinder head RH.
- 10) Tighten the bolt (B) which secures the EGR cooler to the EGR control valve.

### Tightening torque:

T1: 6.4 N·m (0.7 kgf-m, 4.7 ft-lb) T2: 9 N·m (0.9 kgf-m, 6.6 ft-lb)



11) Connect the engine coolant inlet hose A (A), engine coolant inlet hose B (B) and engine coolant outlet hose (C) to the EGR cooler.



- 12) Install the air cleaner case. <Ref. to IN(H4DO(HEV))-8, INSTALLATION, Air Cleaner Case.>
- 13) Fill engine coolant. <Ref. to CO(H4DO(w/o HEV))-16, FILLING OF ENGINE COOLANT, REPLACE-MENT, Engine Coolant.>
- 14) Install the collector cover.
- 15) Connect the battery ground terminal. <Ref. to NT-5, BATTERY, NOTE, Note.>

## C: INSPECTION

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