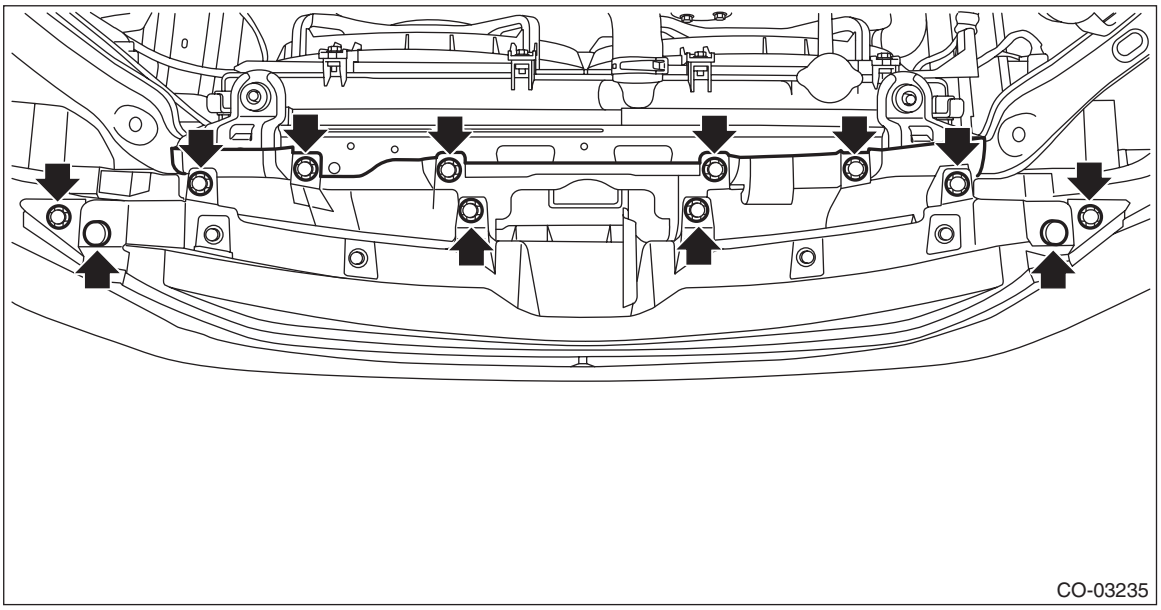
7. Radiator

A: REMOVAL

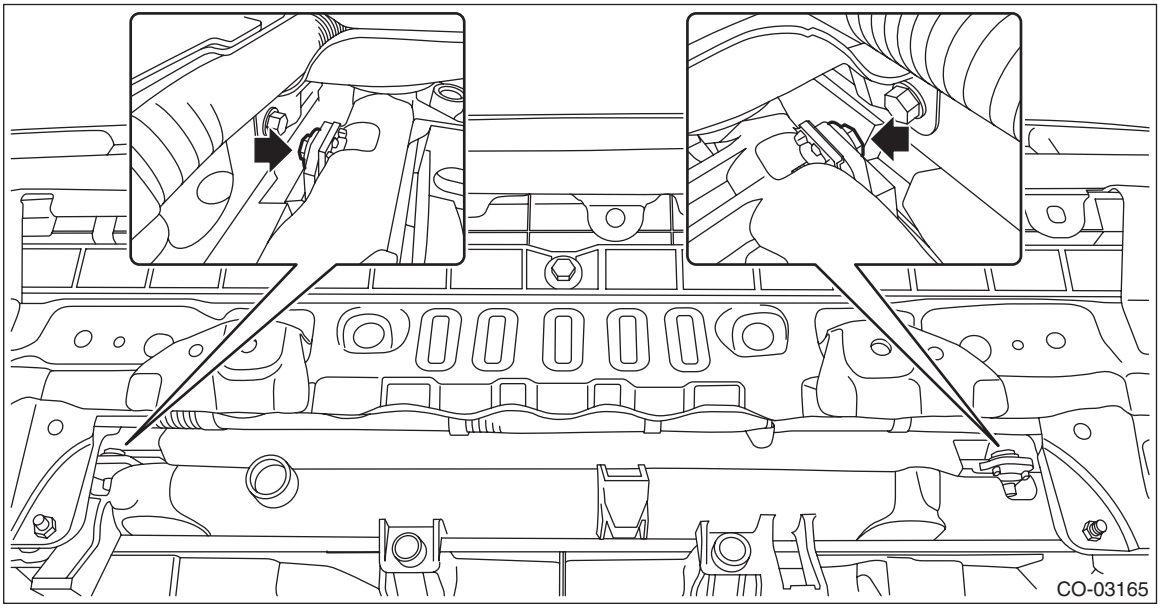
CAUTION:
The radiator is pressurized when the engine and radiator are hot. Wait until engine and radiator cool down before working on the radiator.

1) Disconnect the ground cable from battery.
2) Remove the air intake duct. <Ref. to IN(H4DOTC)-19, REMOVAL, Air Intake Duct.>
3) Remove the reservoir tank. <Ref. to CO(H4DOTC)-59, REMOVAL, Reservoir Tank.>
4) Remove the clips from the grille bracket and front bumper to remove the grille bracket.

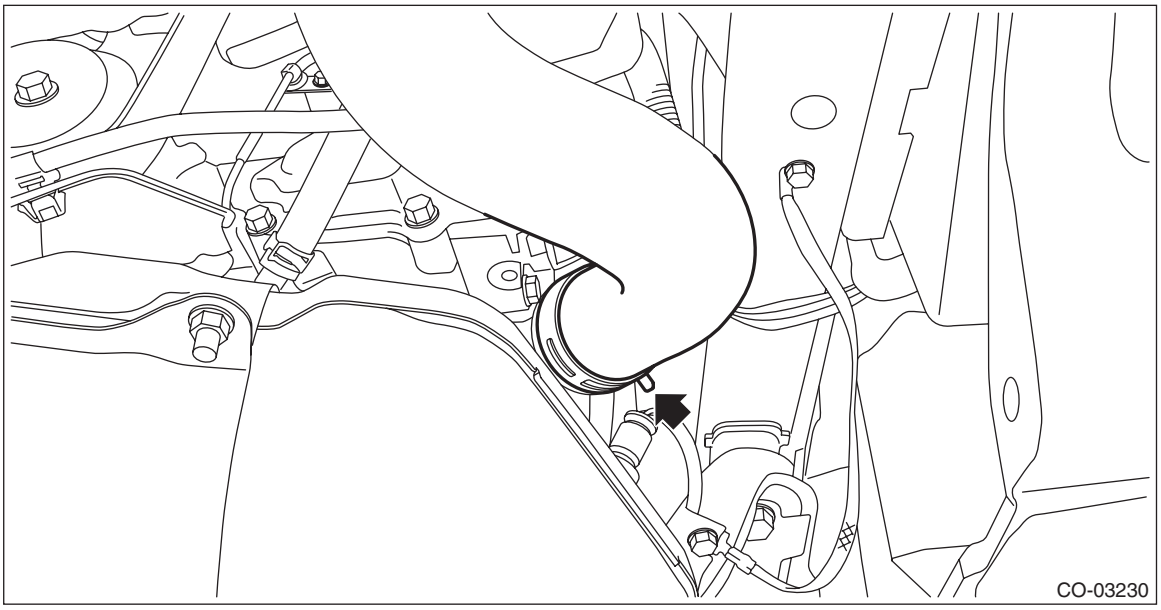
NOTE:
Remove the twelve clips.



5) Lift up the vehicle.
6) Remove the under cover. <Ref. to EI-23, REMOVAL, Front Under Cover.>
7) Drain engine coolant. <Ref. to CO(H4DOTC)-13, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
8) Remove the bolts at the bottom of the condenser.

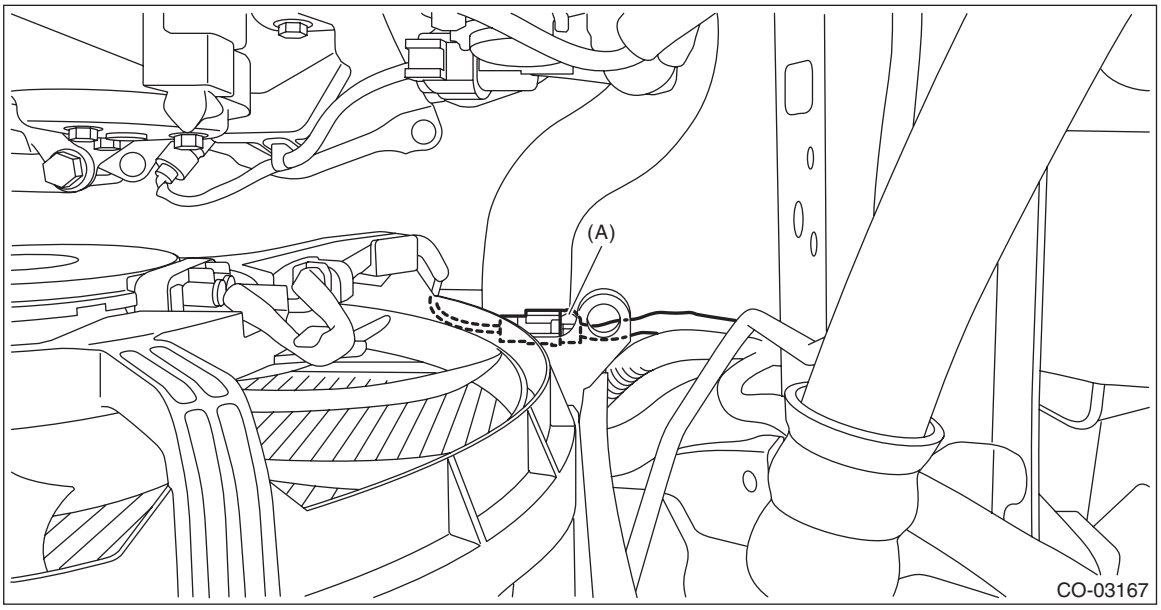


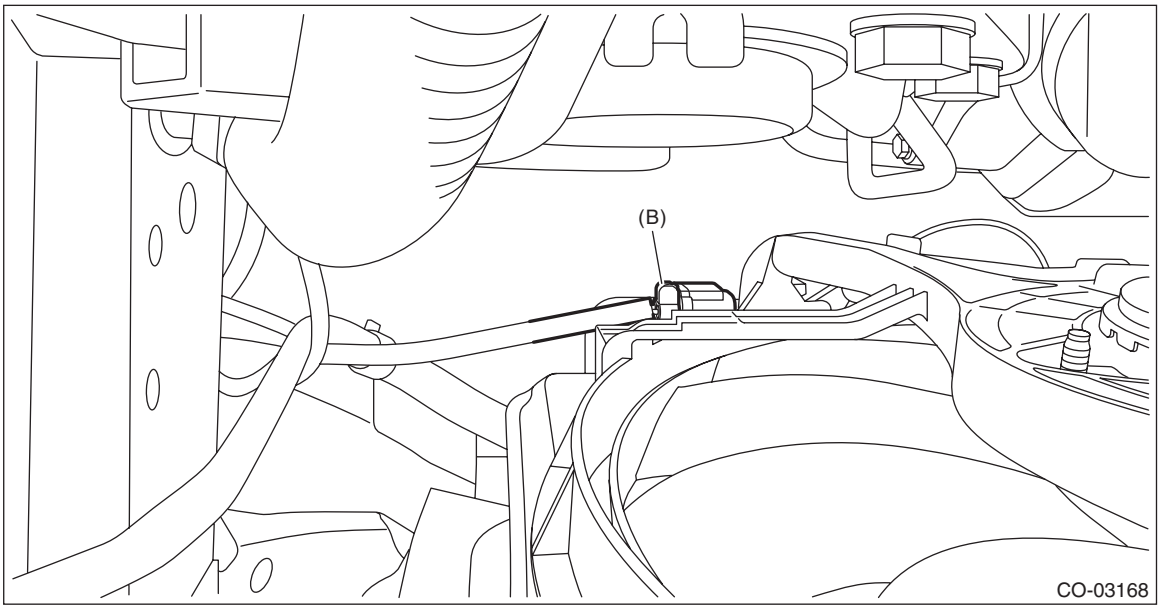
9) Disconnect the radiator outlet hose from thermostat cover.



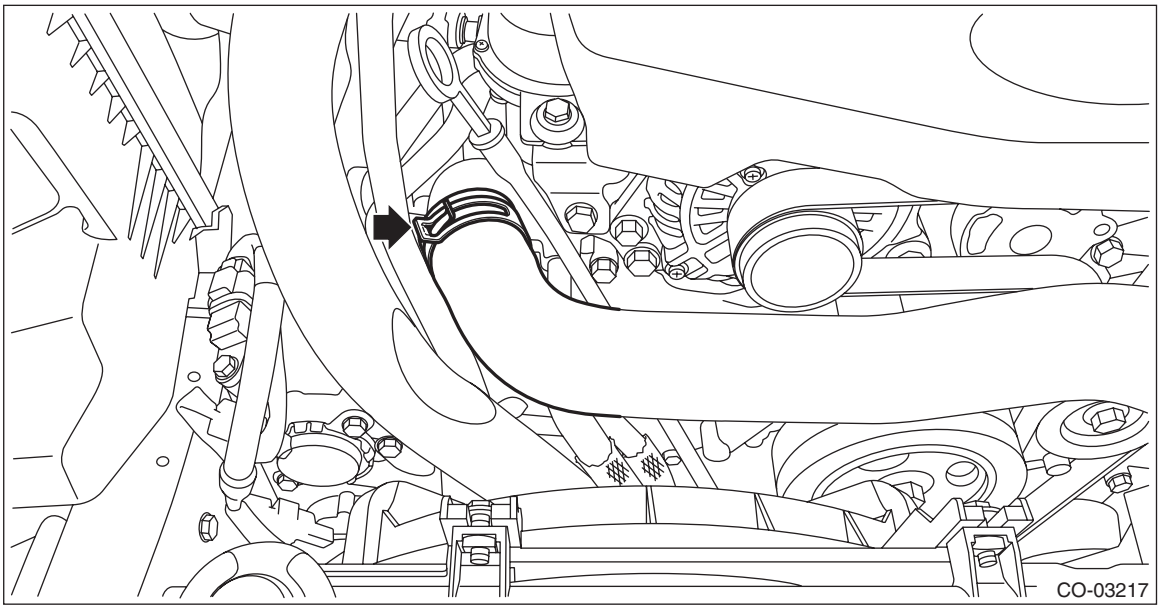
10) Lower the vehicle.

11) Disconnect the connector (A) from the main fan motor and the connector (B) from the sub fan motor.

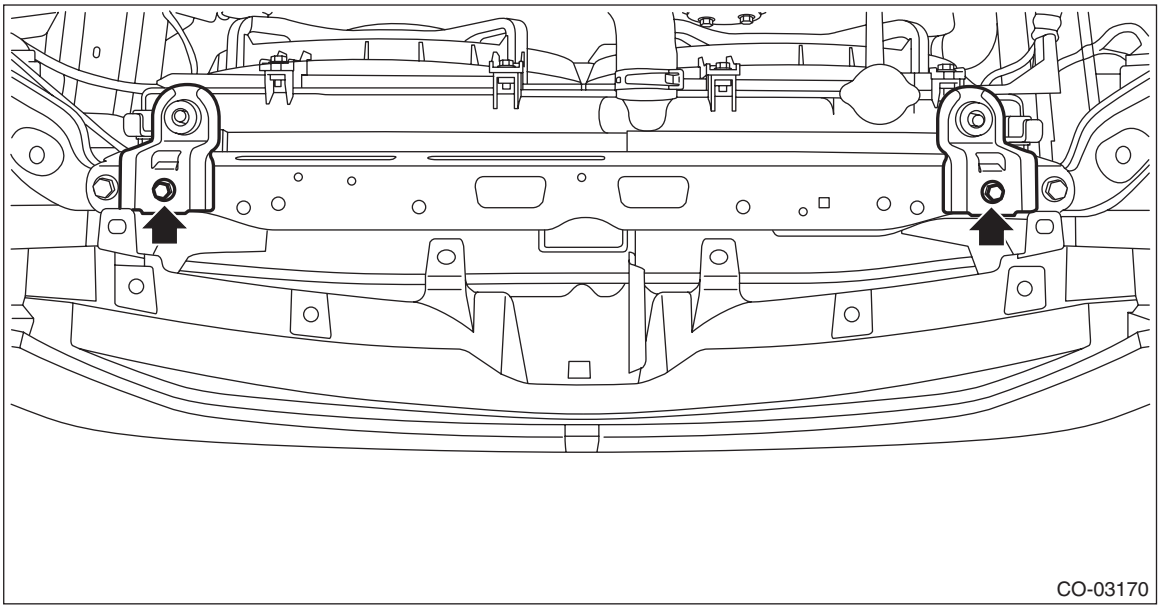




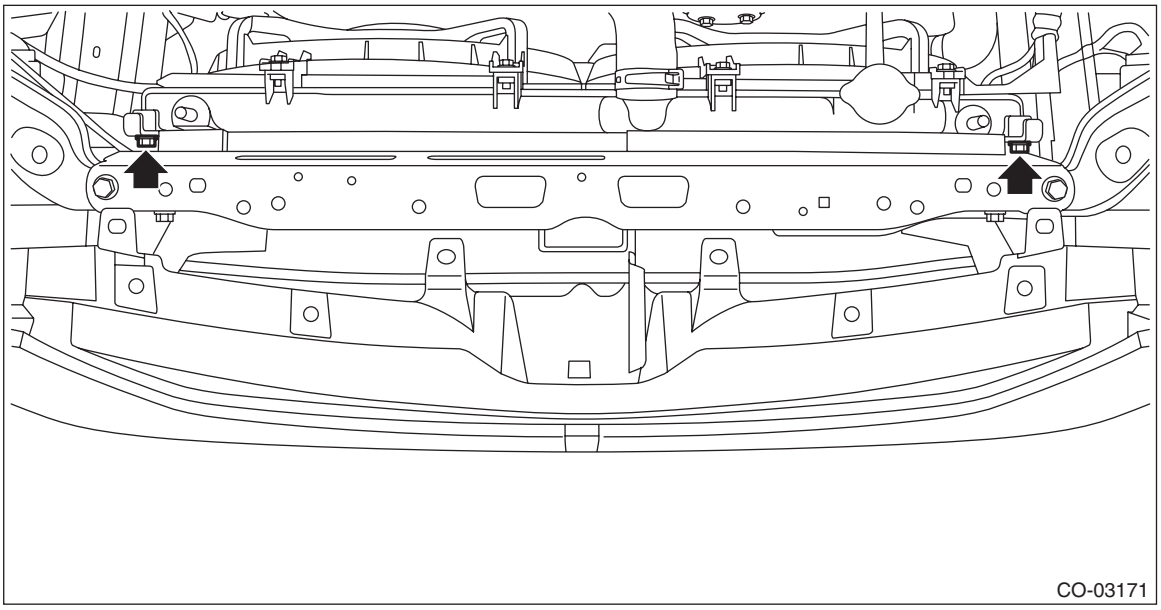
12) Disconnect the radiator inlet hose from the water pipe assembly.



13) Remove the radiator upper brackets.

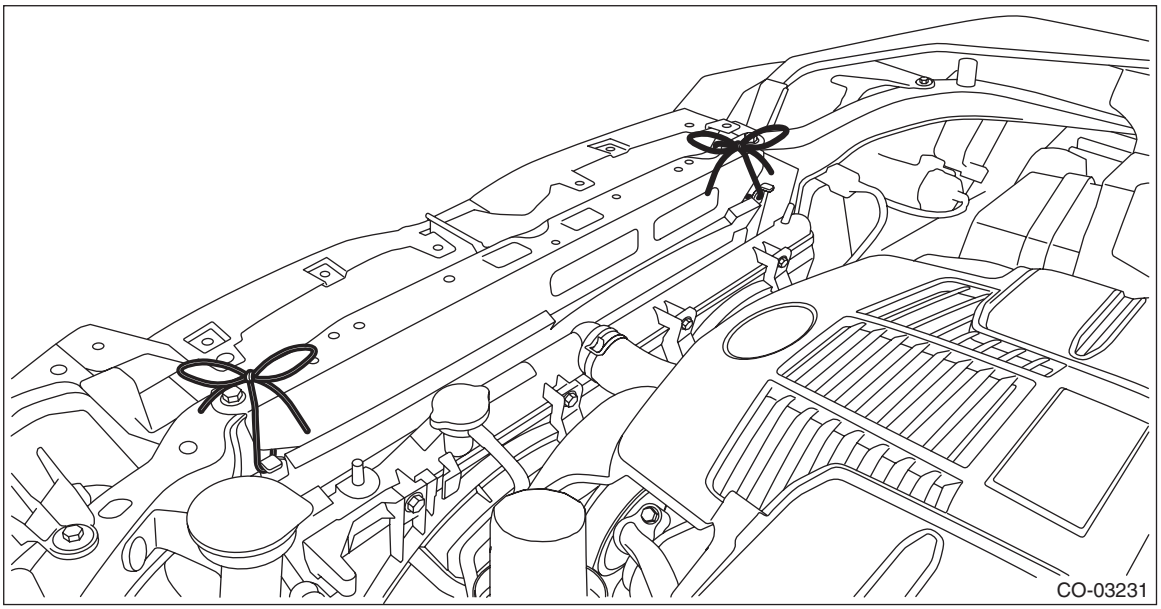


14) Remove the bolts at the top of the condenser.



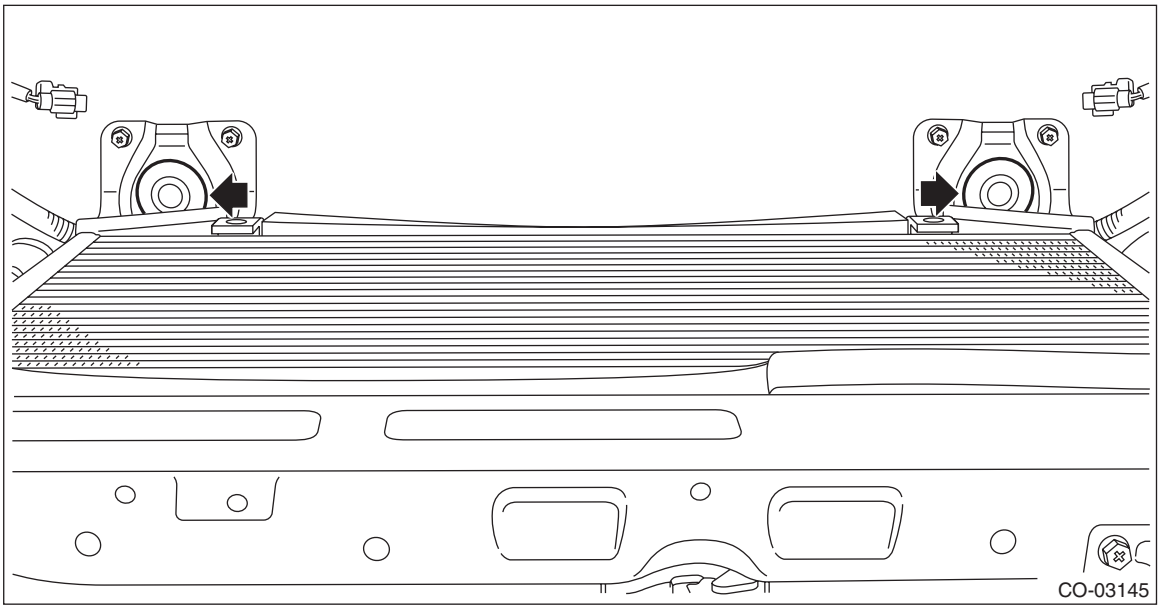
15) Secure the condenser to the vehicle using ropes or other means.

NOTE:
This procedure is required to prevent the condenser from dropping off and also damage to the air conditioner pipes.



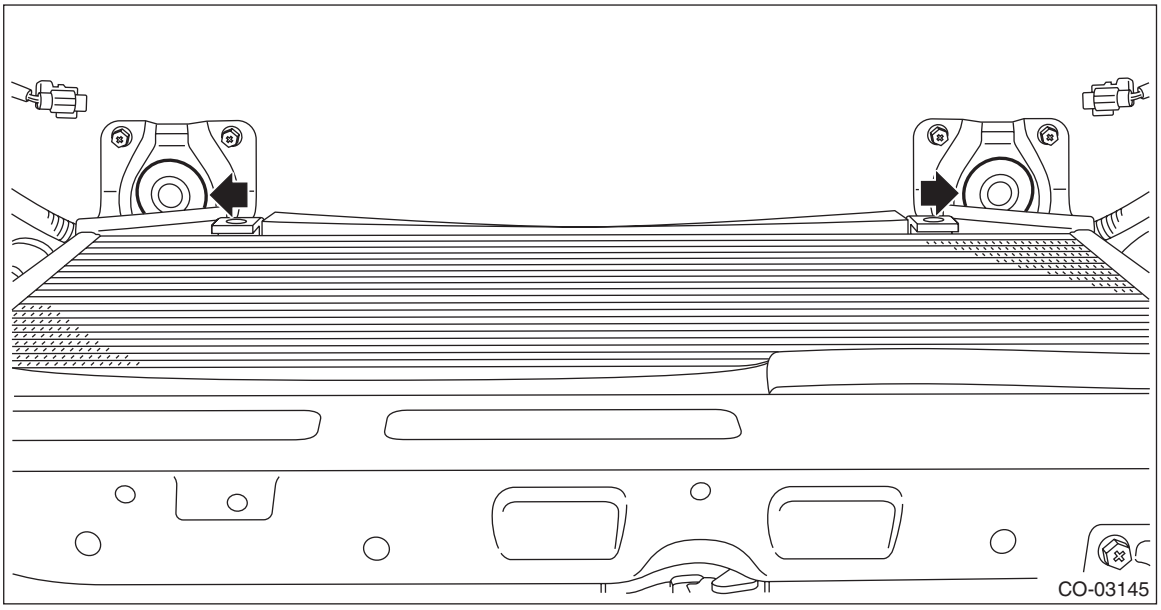
16) Remove the radiator from vehicle.

17) Remove the radiator lower cushion from the radiator lower bracket.



B: INSTALLATION

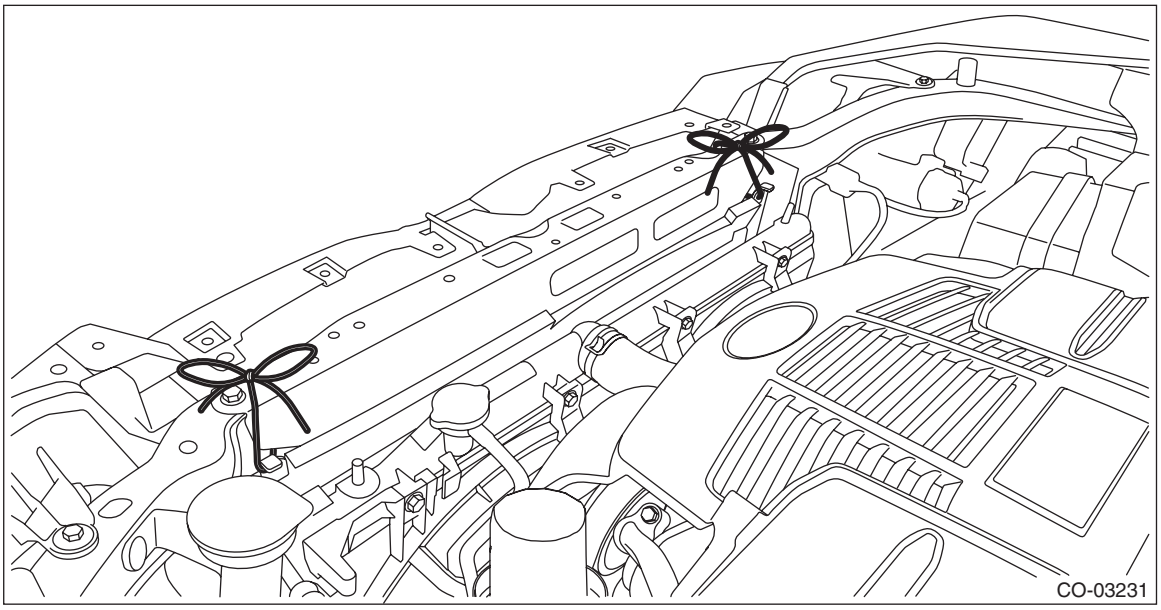
1) Attach the radiator lower cushion to the radiator lower bracket.



2) Install the radiator to vehicle.

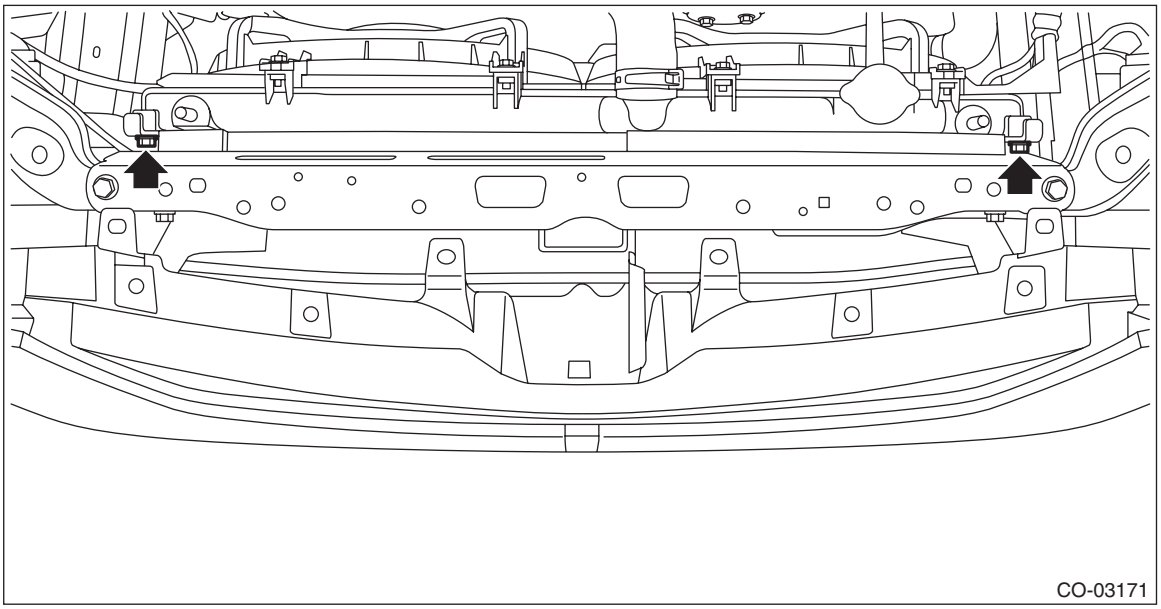
NOTE:
Make pins on the lower side of radiator be fitted into the radiator lower cushions.

3) Remove the ropes or other means used to secure the condenser to the vehicle.



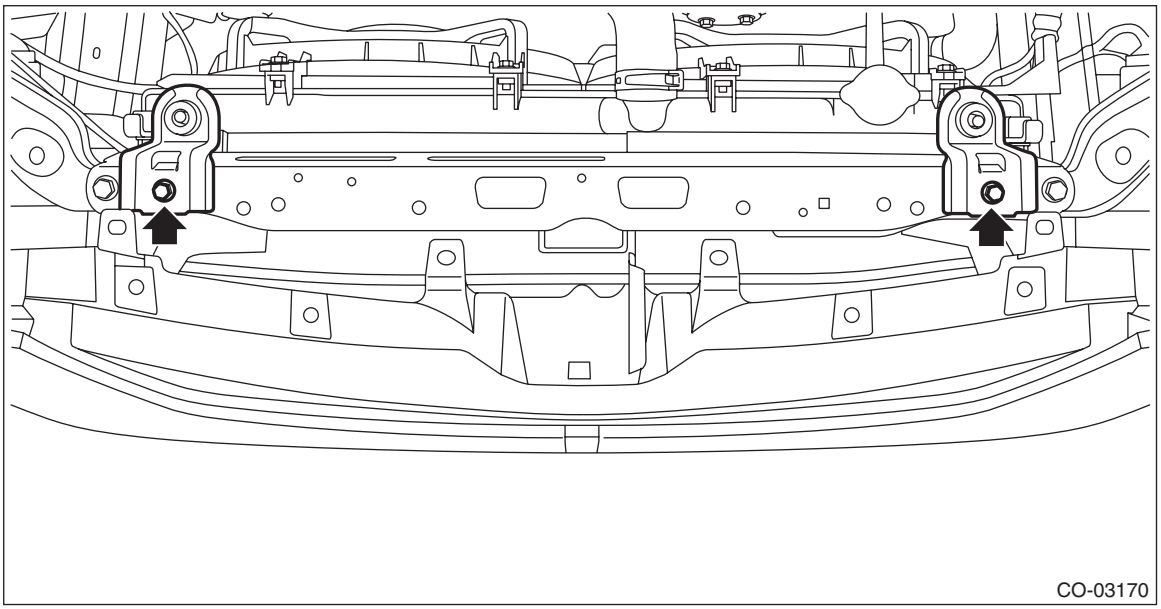
4) Install the bolts at the top of the condenser.

Tightening torque:
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

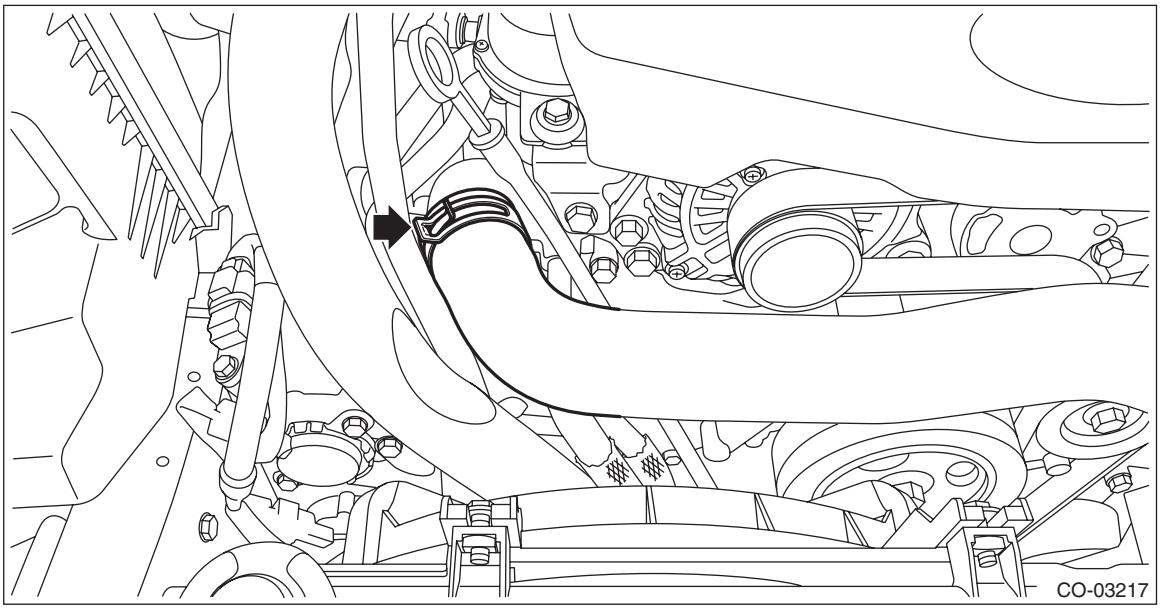


5) Install the radiator upper brackets.

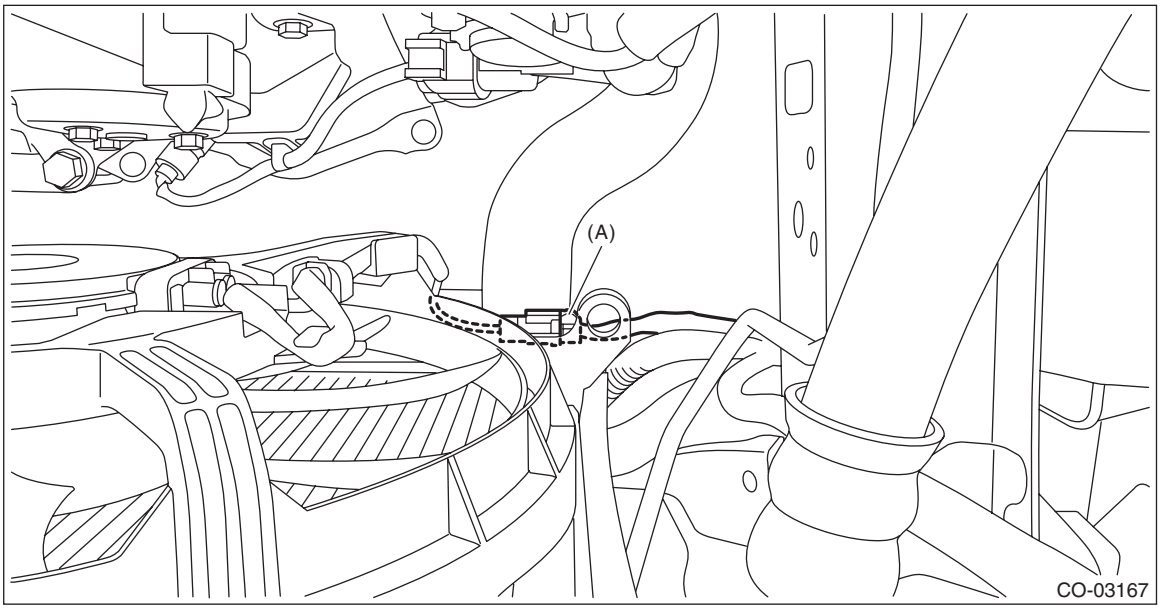
Tightening torque:
12 N·m (1.2 kgf-m, 8.9 ft-lb)

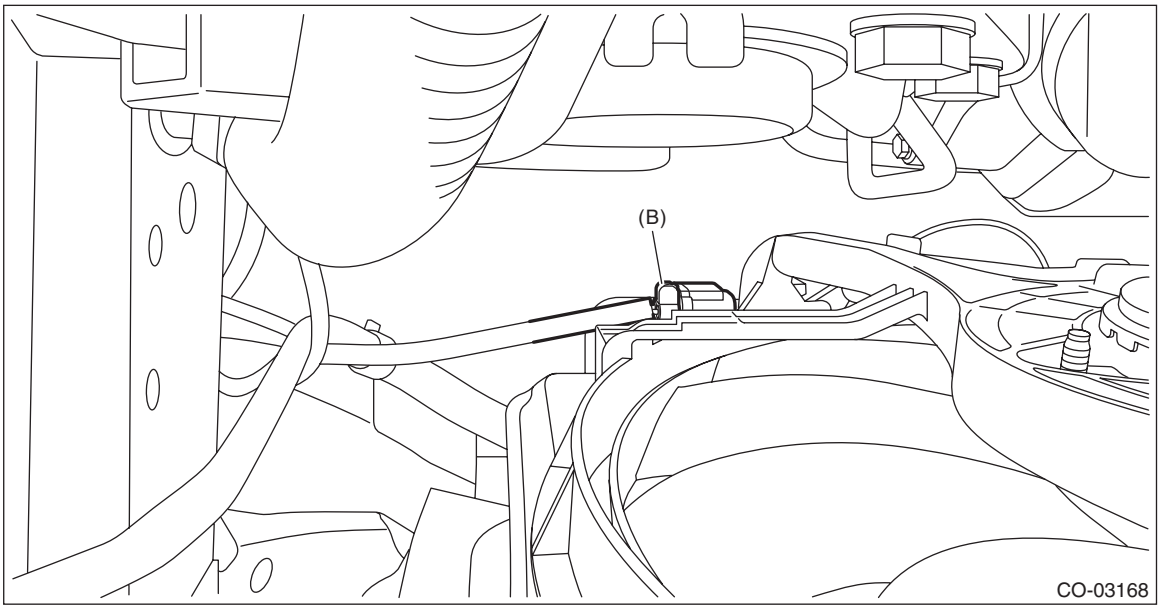


6) Connect the radiator inlet hose to the water pipe assembly.



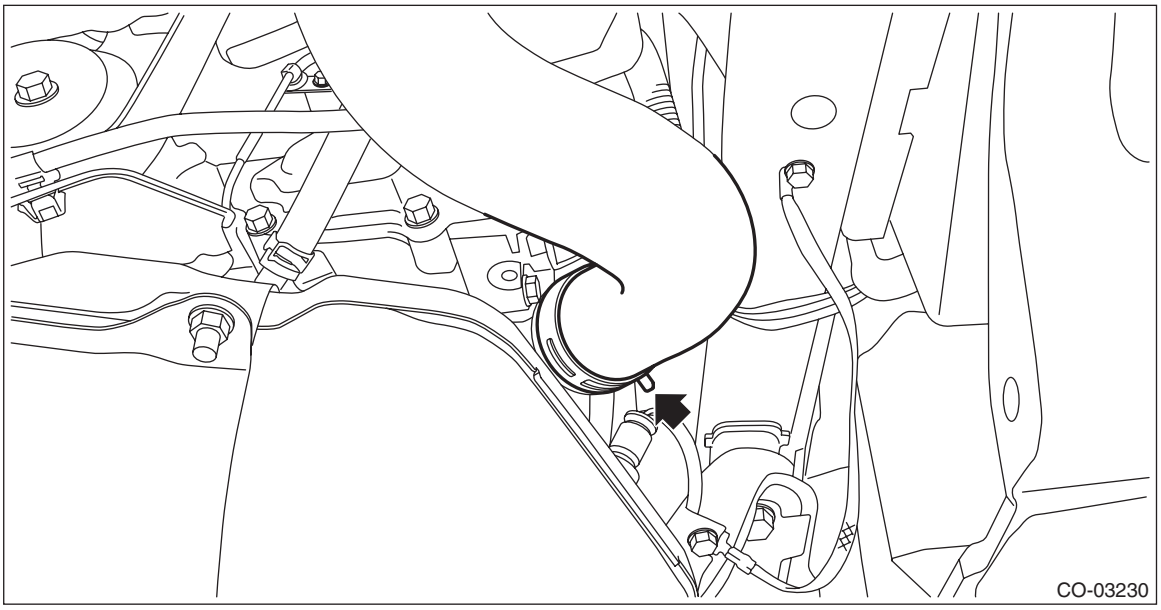
7) Connect the connector (A) to the main fan motor and the connector (B) to the sub fan motor.



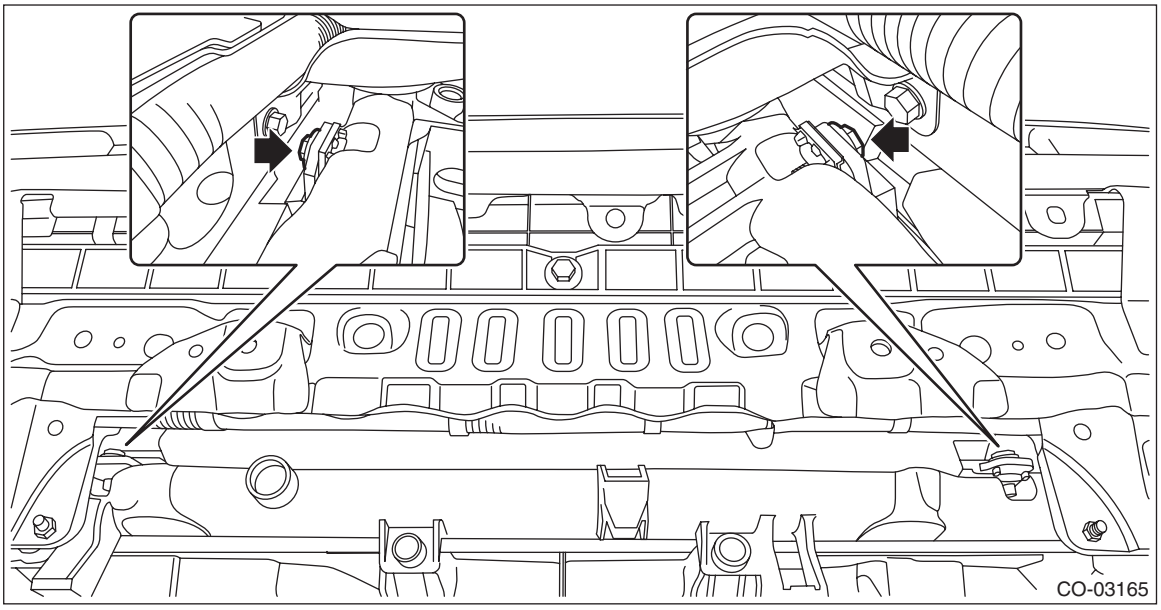


8) Lift up the vehicle.

9) Connect the radiator outlet hose to thermostat cover.



10) Temporarily tighten the bolts a the bottom of the condenser.



11) Install the under cover. <Ref. to EI-23, INSTALLATION, Front Under Cover.>
12) Lower the vehicle.

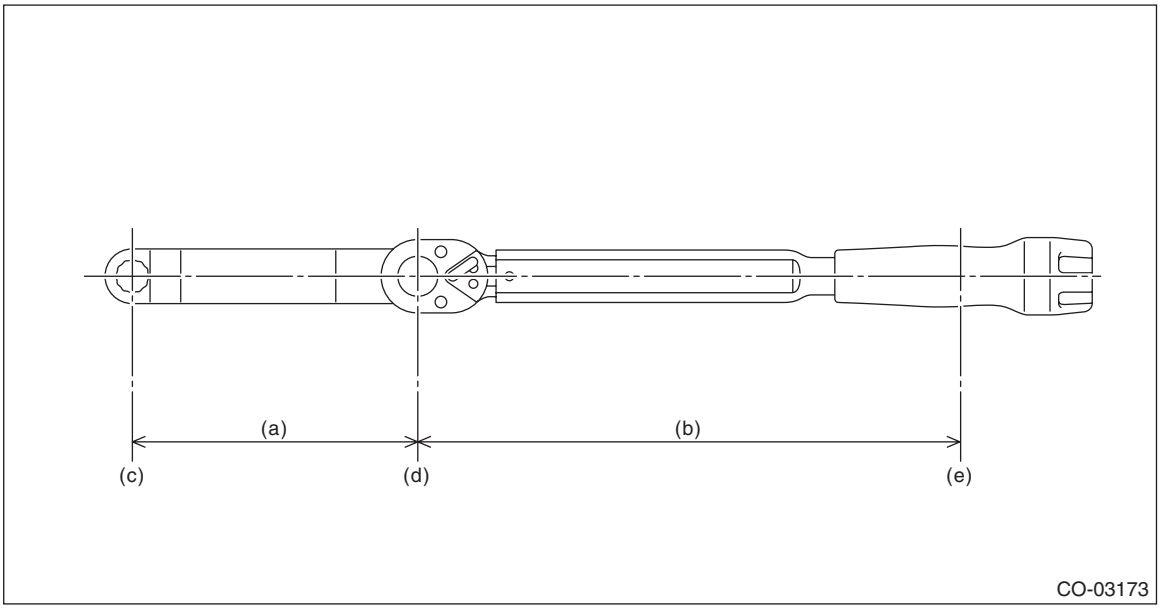
13) Tighten the bolts at the bottom of the condenser using the ST.
ST 73099SG000 SPECIAL TOOL CONDENSER

Tightening torque:

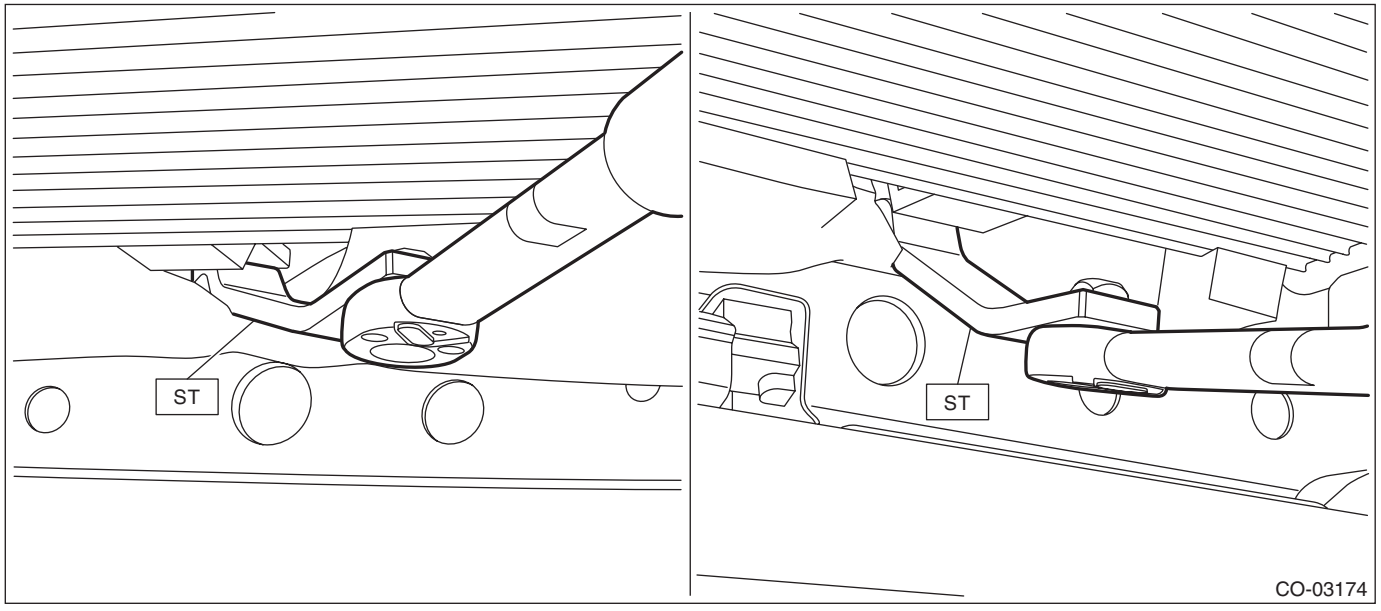
Calculation formula
T = L/(100 mm (3.94 in) + L) × 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

T: Tightening torque
L: Effective length of torque wrench

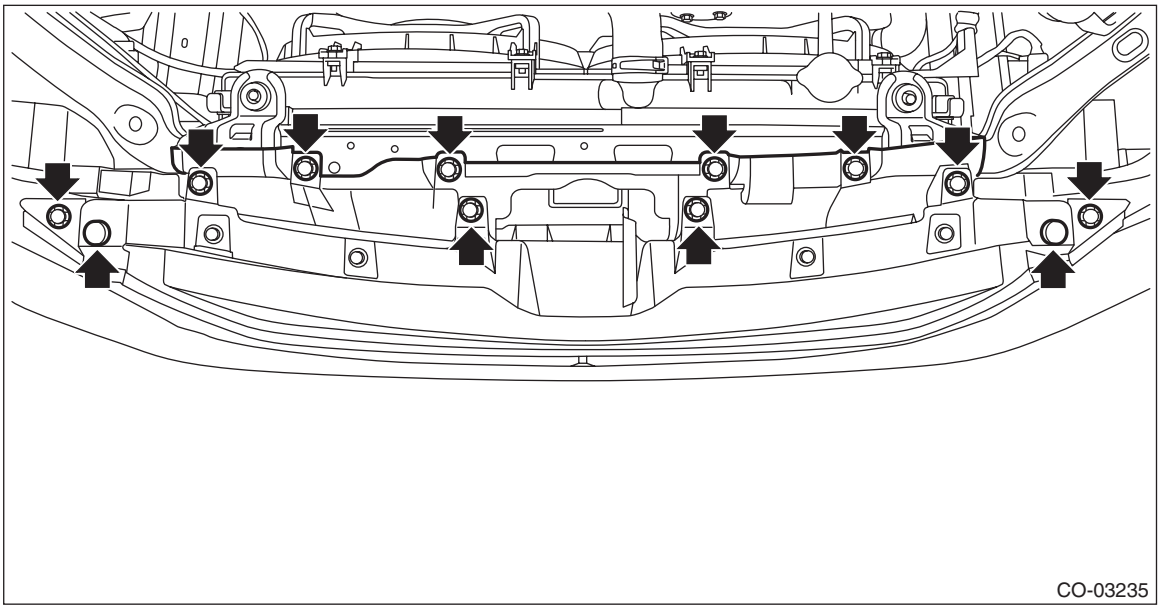
NOTE:
If the effective length of the torque wrench used is unknown, consult the manufacturer of the torque wrench.



(a) Effective length of the ST
(b) Effective length of the torque wrench
(c) Center of drive angle of the ST
(d) Center of drive angle of the torque wrench
(e) Center of the position where a force is applied by hand



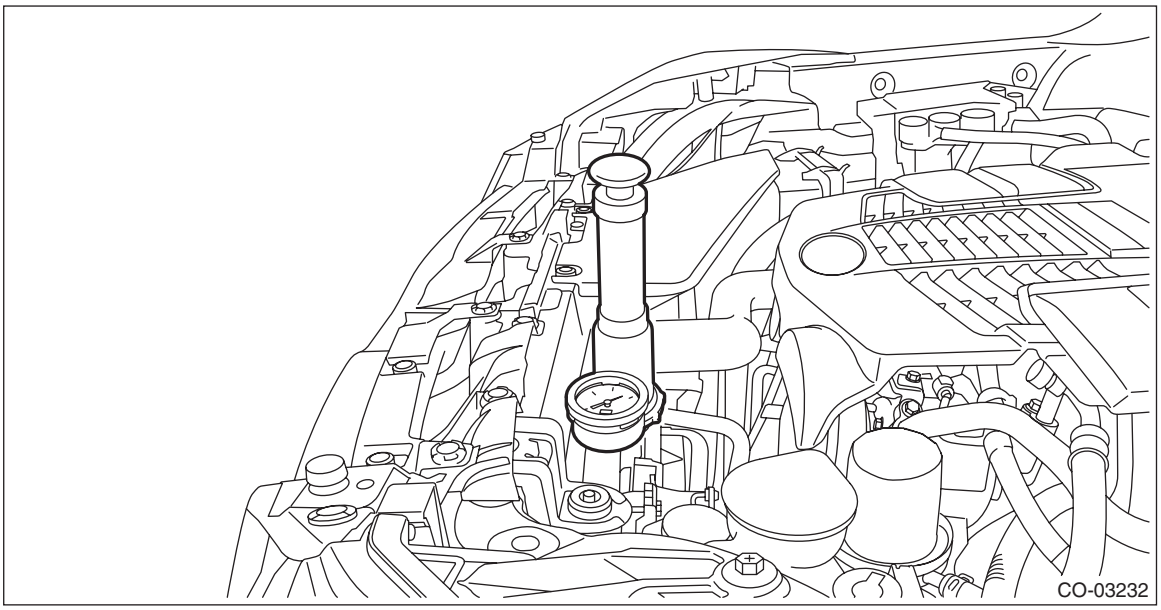
14) Install the clips to the grille bracket and front bumper and install the grille bracket.



15) Install the reservoir tank. <Ref. to CO(H4DOTC)-59, INSTALLATION, Reservoir Tank.>
16) Install the air intake duct. <Ref. to IN(H4DOTC)-19, INSTALLATION, Air Intake Duct.>
17) Connect the battery ground terminal.
18) Fill engine coolant. <Ref. to CO(H4DOTC)-14, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>

C: INSPECTION

1) Check that the radiator does not have deformation, cracks or damage.
2) Check that the hose has no cracks, damage or loose part.
3) Remove the radiator cap, fill the radiator with engine coolant, and then install the radiator cap tester to the filler neck of radiator.



4) Apply a pressure of 157 kPa (1.6 kg/cm^2, 23 psi) to the radiator and check the following points:

CAUTION:
- **Engine should be turned off.**
- **Clean the check points.**
- **Be careful not to deform the filler neck of radiator when installing and removing the radiator cap tester.**
- **Be careful of engine coolant from spurting out when removing the radiator cap tester.**
- Leakage from the radiator or its vicinity
- Leakage from the hose or its connections