

3. Engine Coolant

A: INSPECTION

NOTE:

When adding the engine coolant, always use SUBARU Super Coolant.

- 1) Park the vehicle on a level surface.
- 2) Check the engine coolant amount, and if the coolant level is low, check for the coolant leakage, and then add the engine coolant.

(1) Make sure the engine coolant level in the reservoir tank is between "FULL" and "LOW" with the engine in a cold condition.

(2) Open the radiator cap and make sure that the radiator is filled with the engine coolant up to its filler neck position.

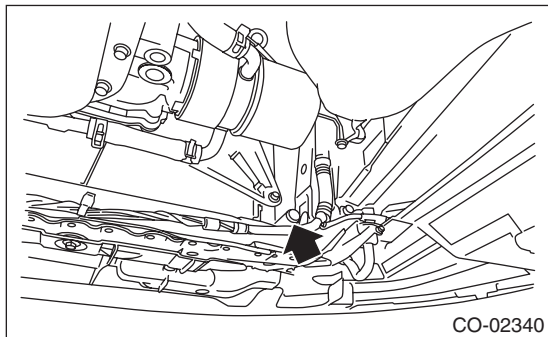
B: REPLACEMENT

1. DRAINING OF ENGINE COOLANT

- 1) Lift up the vehicle.
- 2) Remove the under cover. <Ref. to EI-18, REMOVAL, Front Under Cover.>
- 3) Remove the drain plug to drain engine coolant into container.

NOTE:

Remove the radiator cap so that engine coolant will drain faster.



- 4) Install the drain plug.

NOTE:

Use new O-rings.

- 5) Install the under cover. <Ref. to EI-18, INSTALLATION, Front Under Cover.>

2. FILLING OF ENGINE COOLANT

- 1) Pour cooling system conditioner through the filler neck.

Cooling system protective agent:

For cooling system protective agent, refer to "SPECIFICATION". <Ref. to CO(H6DO)-2, SPECIFICATION, General Description.>

- 2) Pour engine coolant into the radiator up to the filler neck position.

Recommended engine coolant:

Refer to "SPECIFICATION" for recommended engine coolant. <Ref. to CO(H6DO)-2, SPECIFICATION, General Description.>

Engine coolant level:

Refer to "SPECIFICATION" for engine coolant level. <Ref. to CO(H6DO)-2, SPECIFICATION, General Description.>

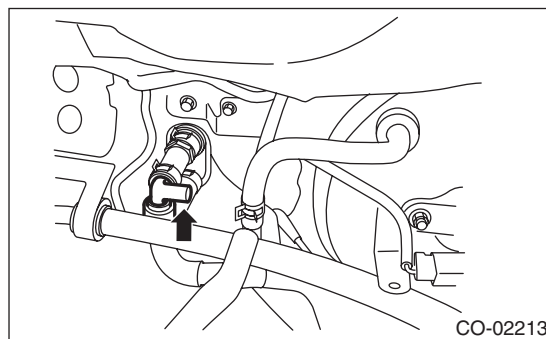
Engine coolant concentration:

Refer to "ADJUSTMENT" for the recommended engine coolant concentration. <Ref. to CO(H6DO)-13, ADJUSTMENT, Engine Coolant.>

NOTE:

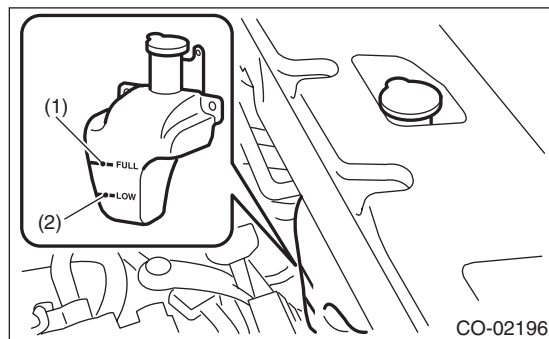
The SUBARU Super Coolant contains anti-freeze and anti-rust agents, and is especially made for Subaru engines with an aluminum cylinder block. Be sure to use SUBARU Super Coolant, since other coolant may cause corrosion.

- 3) Open the air bleeding valve on the heater hose side.



- 4) If the engine coolant level drops, add engine coolant into radiator up to the filler neck position.
- 5) Close the air bleeder valve when engine coolant comes out of the air bleeder valve on the heater hose side.
- 6) If the engine coolant level drops, add engine coolant into radiator up to the filler neck position.
- 7) When engine coolant has come out from the air bleeding valve on the radiator side, close the valve.

8) Fill engine coolant into the reservoir tank up to “FULL” level.



- (1) FULL
- (2) LOW

9) Close the radiator cap and start the engine. Race 5 to 6 times at 3,000 rpm or less, then stop the engine. (Complete this operation within 40 seconds.)

10) Wait for one minute after the engine stops, and open the radiator cap. If the engine coolant level drops, add engine coolant into radiator up to the filler neck position.

11) Perform the procedures 9) and 10) again.

12) Attach the radiator cap and reservoir tank cap properly.

13) Start the engine and operate the heater at maximum hot position and the blower speed setting to “LO”.

14) Run the engine at 3,000 rpm or less until radiator fan starts and stops.

NOTE:

Be careful with the engine coolant temperature to prevent overheating.

15) Stop the engine and wait until the engine coolant temperature lowers to 30°C (86°F) or less.

16) Open the radiator cap. If the engine coolant level drops, add engine coolant into the radiator up to the filler neck position and the reservoir tank to “FULL” level.

17) Attach the radiator cap and reservoir tank cap properly.

18) Set the heater setting to maximum hot position and the blower speed setting to “LO” and start the engine. Perform racing at 3,000 rpm or less. If the flowing sound is heard from the heater core, repeat the procedures from step 14).

C: ADJUSTMENT

1. PROCEDURE TO ADJUST THE CONCENTRATION OF THE SUBARU SUPER COOLANT

CAUTION:

Use the SUBARU Super Coolant with a 50 — 60% concentration in order to obtain maximum anti-freeze and anti-rust performance.

To adjust the concentration of SUBARU Super Coolant according to temperature, find the proper SUBARU Super Coolant concentration in the table, and add diluting water to the SUBARU Super Coolant (undiluted type) until it reaches the proper dilution.

Relationship of SUBARU Super Coolant concentration and freezing temperature			
SUBARU Super Coolant concentration	50%	55%	60%
Freezing temp.	−36°C (−33°F)	−41°C (−42°F)	−50°C (−58°F)

Engine coolant and diluting water:

Refer to “SPECIFICATION” for the recommended engine coolant and diluting water. <Ref. to CO(H6DO)-2, SPECIFICATION, General Description.>