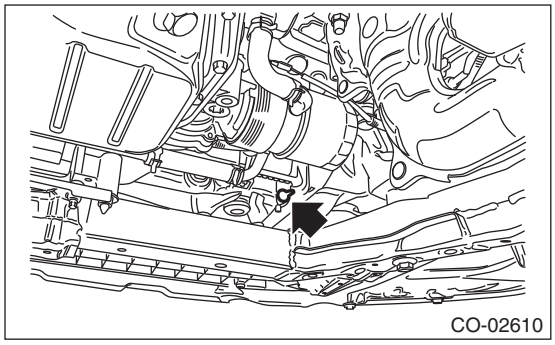
# 3. Engine Coolant

## A: REPLACEMENT

### 1. DRAINING OF ENGINE COOLANT

1) Lift up the vehicle.
2) Remove the under cover. <Ref. to EI-35, 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.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4) Install the drain plug.
5) Install the under cover. <Ref. to EI-35, INSTALLATION, Front Under Cover.>

### 2. FILLING OF ENGINE COOLANT

1) Pour cooling system conditioner from the filler neck of the radiator.

***Cooling system protecting agent:***
***Refer to "SPECIFICATION" for cooling system protecting agent. <Ref. to CO(H6DO)-2, SPECIFICATION, General Description.>***

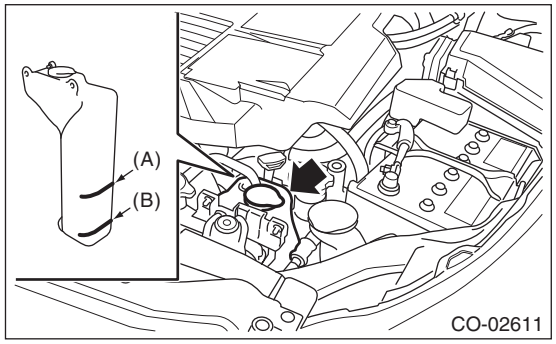
2) Pour engine coolant into the radiator up to the filler neck position.

***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 is especially made for SUBARU engine, which has an aluminum cylinder block, and contains anti-freeze and anti-rust agents. Always use SUBARU Super Coolant, since other coolant may cause corrosion.
3) Fill engine coolant into the reservoir tank up to "FULL" level.



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(A) FULL
(B) LOW

4) 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.)
5) 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.
6) Perform the procedures 4) and 5) again.
7) Attach the radiator cap and reservoir tank cap properly.
8) Start the engine and operate the heater at maximum hot position and the blower speed setting to "LO".
9) Run the engine at 2,000 rpm or less until radiator fan starts and stops.

NOTE:
• Be careful with the engine coolant temperature gauge to prevent overheating.
• If the radiator hose becomes hardened with the pressure of engine coolant, air bleeding operation seems to be almost completed.
10) Stop the engine and wait until the engine coolant temperature lowers to 30°C (86°F) or less.
11) Open the radiator cap. If the engine coolant level drops, fill engine coolant up to the radiator filler neck position and to the reservoir tank "FULL" level.
12) Attach the radiator cap and reservoir tank cap properly.
13) 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 heater core, repeat the procedures from step 9).

# B: ADJUSTMENT

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

**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 (concentrated type) until it reaches the proper dilution.

| Relationship of Subaru Super Coolant concentration and freezing temperature | | | |
|---|---|---|---|
| SUBARU Super Coolant concentration | 50% | 55% | 60% |
| Freezing temperature | –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.>***