

## 12. Coolant

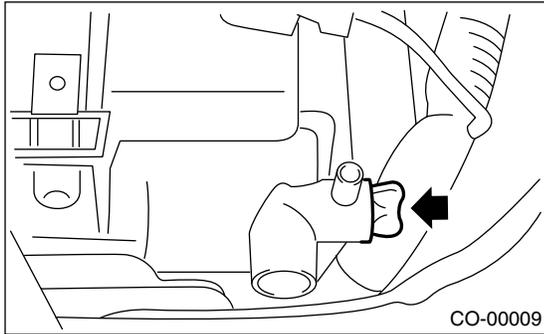
### A: REPLACEMENT

#### 1. REPLACEMENT OF COOLANT

**WARNING:**

The radiator is of the pressurized type. Do not attempt to open the radiator cap immediately after the engine has been stopped.

- 1) Lift-up the vehicle.
- 2) Remove the under cover.
- 3) Place a container under drain pipe.
- 4) Loosen and remove the drain cock to drain engine coolant into container.



- 5) For quick draining, open the radiator cap.

**NOTE:**

- In the case of turbo model, be sure to open the radiator cap of filler tank side.
- Be careful not to spill coolant on the floor.

- 6) Drain the coolant from reservoir tank.
- 7) Tighten the radiator drain cock securely after draining coolant.
- 8) Slowly pour the coolant into radiator. Pour the coolant up to air bleeder hole, and then install the cap. (Turbo model)
- 9) Pour the coolant from radiator filler port to neck of filler, then pour into reservoir tank up to "FULL" level.

**Coolant capacity (fill up to "FULL" level)**

**2.0 L Turbo AT model:**

Approx. 7.6 ℓ (8.0 US qt, 6.7 Imp qt)

**2.0 L Turbo MT model:**

Approx. 7.7 ℓ (8.1 US qt, 6.8 Imp qt)

**2.5 L AT model:**

Approx. 6.9 ℓ (7.3 US qt, 6.1 Imp qt)

**2.5 L MT model:**

Approx. 7.0 ℓ (7.4 US qt, 6.2 Imp qt)

**STi model:**

Approx. 7.7 ℓ (8.1 US qt, 6.8 Imp qt)

**NOTE:**

The SUBARU Genuine Coolant containing anti-freeze and anti-rust agents is especially made for SUBARU engine, which has an aluminum crank-

case. Always use SUBARU Genuine Coolant, since other coolant may cause corrosion.

- 10) Securely install the radiator cap.

- 11) Run the engine for more than 5 minutes at 2,000 to 3,000 rpm. (Run the engine until radiator becomes hot in order to purge the air trapped in cooling system.)

- 12) Stop the engine and wait until coolant temperature lowers. Then open the radiator cap to check coolant level and add coolant up to radiator filler neck. Next, add coolant into reservoir tank up to "FULL" level.

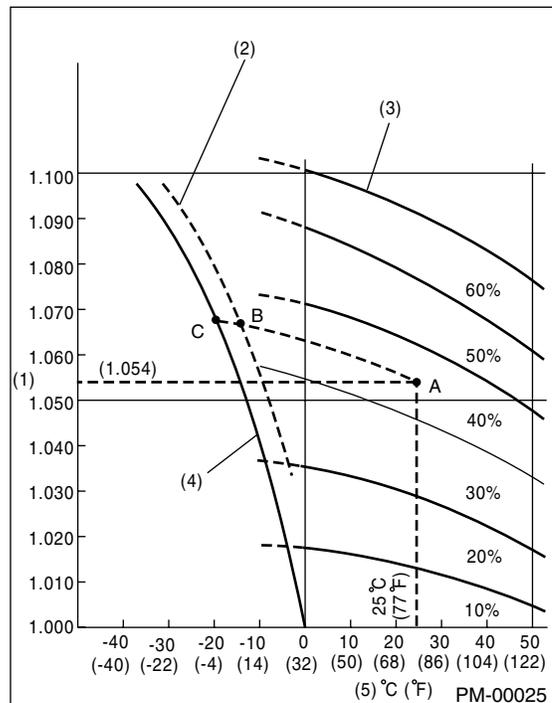
- 13) After adding coolant, securely install the radiator and reservoir tank caps.

#### 2. RELATIONSHIP OF SUBARU COOLANT CONCENTRATION AND FREEZING TEMPERATURE

The concentration and safe operating temperature of the SUBARU coolant is shown in the diagram. Measuring the temperature and specific gravity of the coolant will provide this information.

[Example]

If the coolant temperature is 25°C (77°F) and its specific gravity is 1.054, the concentration is 35% (point A), the safe operating temperature is -14°C (7°F) (point B), and the freezing temperature is -20°C (-4°F) (point C).



- (1) Coolant gravity
- (2) Safe operating temperature
- (3) Concentration of coolant
- (4) Freezing temperature
- (5) Coolant temperature

### 3. PROCEDURE TO ADJUST THE CONCENTRATION OF THE COOLANT

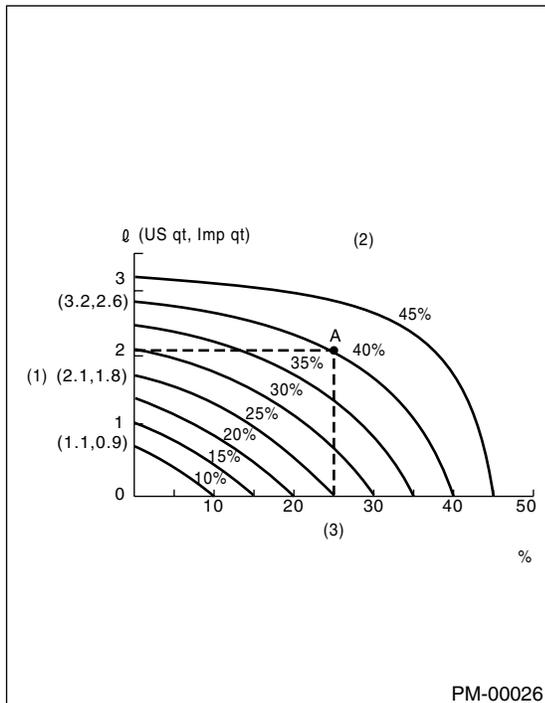
To adjust the concentration of the coolant according to temperature, find the proper fluid concentration in the above diagram and replace the necessary amount of coolant with an undiluted solution of SUBARU genuine coolant (concentration 50%).

The amount of coolant that should be replaced can be determined using the diagram.

[Example]

Assume that the coolant concentration must be increased from 25% to 40%. Find point A, where the 25% line of coolant concentration intersects with the 40% curve of the necessary coolant concentration, and read the scale on the vertical axis of the graph at height A. The quantity of coolant to be drained is 2.1 ℓ (2.2 US qt, 1.8 Imp qt). Drain 2.1 ℓ (2.2 US qt, 1.8 Imp qt) of coolant from the cooling system and add 2.1 ℓ (2.2 US qt, 1.8 Imp qt) of the undiluted solution of SUBARU coolant.

If a coolant concentration of 50% is needed, drain all the coolant and refill with the undiluted solution only.



- (1) Quantity of coolant to be drained
- (2) Necessary concentration of coolant
- (3) Concentration of coolant in vehicle cooling system