12. Coolant SA07689

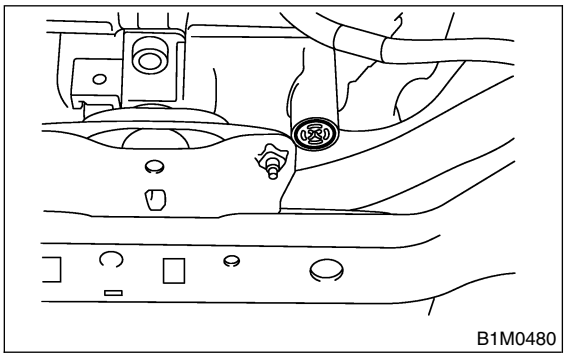
A: REPLACEMENT SA07689A20

1. REPLACEMENT OF COOLANT SA07689A2001

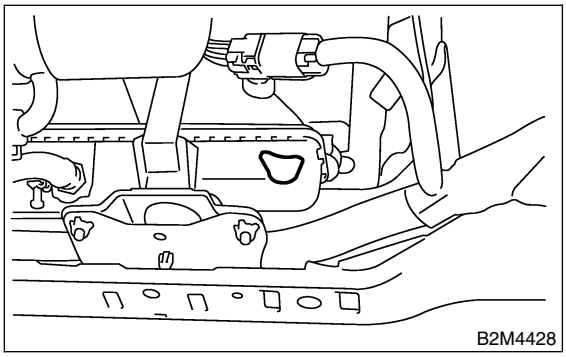
WARNING:
The radiator is of the pressurized type. Do not attempt to open the radiator cap immediately after the engine has been stopped.

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

2.5 L model


B1M0480

3.0 L model


B2M4428

5) For quick draining, open radiator cap.

CAUTION:
Be careful not to spill coolant on the floor.

6) Drain coolant from reservoir tank.
7) Tighten radiator drain screw securely after draining coolant.
8) Slowly pour prepared coolant from radiator filler port to neck of filler, then pour into reservoir tank up to “FULL” level.

Coolant amount for preparation

2.5 L model
MT model:
Approx. 6.8 ℓ (7.2 US qt, 6.0 Imp qt)
AT model:
Approx. 6.7 ℓ (7.1 US qt, 5.9 Imp qt)

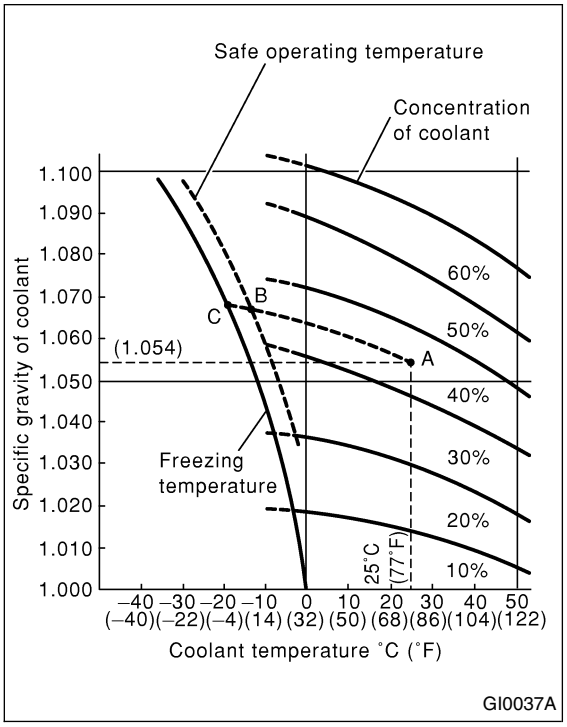
3.0 L model
Approx. 7.9 ℓ (8.4 US qt, 7.0 Imp qt)

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.

9) Securely install radiator cap.
10) Run engine for more than five minutes at 2,000 to 3,000 rpm. (Run engine until radiator becomes hot in order to purge air trapped in cooling system.)
11) Stop engine and wait until coolant temperature lowers. Then open radiator cap to check coolant level and add coolant up to radiator filler neck. Next, add coolant into reservoir tank up to “FULL” level.
12) After adding coolant, securely install radiator and reservoir tank caps.

2. RELATIONSHIP OF SUBARU COOLANT CONCENTRATION AND FREEZING TEMPERATURE SA07689A2002

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).



3. PROCEDURE TO ADJUST THE CONCENTRATION OF THE COOLANT

SA07689A2003

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 liters (2.2 US qt, 1.8 Imp qt). Drain 2.1 liters (2.2 US qt, 1.8 Imp qt) of coolant from the cooling system and add 2.1 liters (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.