

## 10. Brake Fluid

### A: INSPECTION

1) Check that the brake fluid level remains between “MIN” and “MAX”. If out of the specified range, refill or drain fluid. If the fluid level becomes close to “MIN”, refill the fluid.

2) Check the fluid for discoloration. If the fluid color has excessively changed, drain the fluid and refill with new fluid.

### B: REPLACEMENT

#### CAUTION:

- To always maintain the brake fluid characteristics, replace the brake fluid according to maintenance schedule or earlier than that when used in severe condition.
- The FMVSS No. 116, fresh DOT3 brake fluid must be used.
- Cover the bleeder with waste cloth, when loosening it, to prevent brake fluid from being splashed over surrounding parts.
- Do not allow brake fluid to come in contact with vehicle body; wash away with water and wipe off completely if spilled.
- Avoid mixing different brands of brake fluid to prevent degrading the quality of fluid.
- Be careful not to allow dirt or dust to get into the reservoir tank.

#### NOTE:

- During bleeding operation, keep the brake reservoir tank filled with brake fluid to eliminate entry of air.
- The brake pedal operating must be very slow.
- For convenience and safety, two people should do the work.
- The amount of brake fluid required is approx. 500 ml (16.9 US fl oz, 17.6 Imp fl oz) for total brake system.

1) Either lift-up the vehicle and place a safety stand under it, or lift-up vehicle.

2) Remove both front and rear wheels.

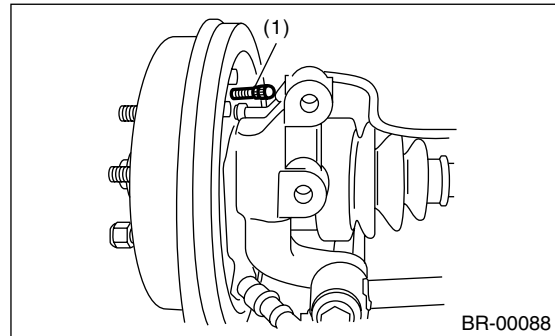
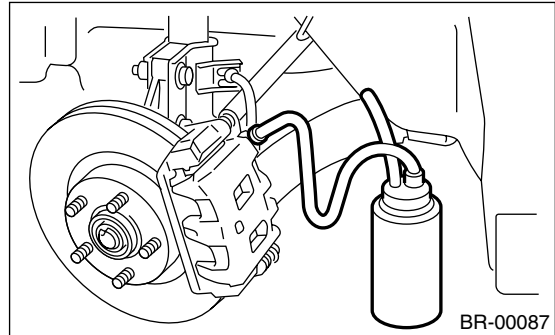
3) Draw out the brake fluid from master cylinder with syringe.

4) Refill the reservoir tank with recommended brake fluid.

#### Recommended brake fluid:

**FMVSS No. 116, fresh DOT3 brake fluid**

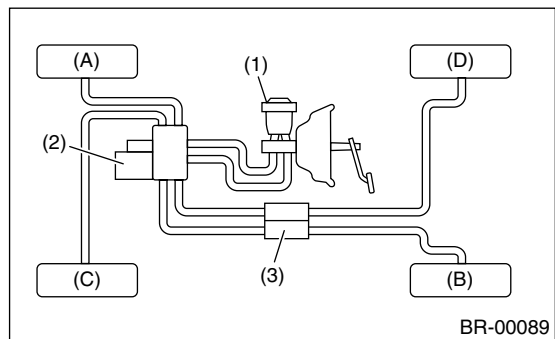
5) Install one end of a vinyl tube onto the air bleeder and insert the other end of the tube into a container to collect the brake fluid.



(1) Air bleeder screw

#### CAUTION:

**Brake fluid replacement sequence; (A) Front right → (B) Rear left → (C) Front left → (D) Rear right**



- (1) Master cylinder
- (2) Hydraulic unit
- (3) Proportioning valve

6) Instruct your co-worker to depress the brake pedal slowly two or three times and then hold it depressed.

7) Loosen the bleeder screw approx. 1/4 turn until a small amount of brake fluid drains into container, and then quickly tighten the screw.

8) Release the brake pedal slowly. Repeat steps 6) through 8) until there are no air bubbles in the drained brake fluid and new fluid flows through vinyl tube.

**NOTE:**

Add brake fluid as necessary while performing air bleed operation, in order to prevent the tank from running short of brake fluid.

9) After completing the bleeding operation, hold brake pedal depressed and tighten screw and install bleeder cap.

***Tightening torque (Bleeder screw):***

***Except for 17 inch type:***

***8 N·m (0.8 kgf-m, 5.8 ft-lb)***

***17 inch type:***

***20 N·m (2.0 kgf-m, 14.5 ft-lb)***

10) Bleed air from each wheel cylinder using the same procedures as described in steps 6) through 8) above.

11) Depress the brake pedal with a force of approx. 294 N (30 kg, 66 lb) and hold it there for approx. 20 seconds. At this time check for mix in air and pedal height change. Visually inspect the bleeder screws and brake pipe joints to make sure that there is no fluid leakage.

12) Install the wheels, and drive the vehicle for a short distance between 2 to 3 km (1 to 2 miles) to make sure that brakes are operating properly.