

11. Master Cylinder

A: REMOVAL

CAUTION:

Do not allow brake fluid to come in contact with vehicle body; wash away with water and wipe off completely if spilled.

- 1) Thoroughly drain brake fluid from reservoir tank.
- 2) Disconnect the fluid level indicator harness connector.
- 3) Remove the brake pipes from master cylinder.
- 4) Remove the master cylinder mounting nuts, and take out master cylinder from brake booster.

B: INSTALLATION

- 1) To install the master cylinder to body, reverse the sequence of removal procedure.

Tightening torque:

- Master cylinder mounting nut**
14 N·m (1.4 kgf·m, 10.1 ft·lb)
- Piping flare nut**
15 N·m (1.5 kgf·m, 10.8 ft·lb)

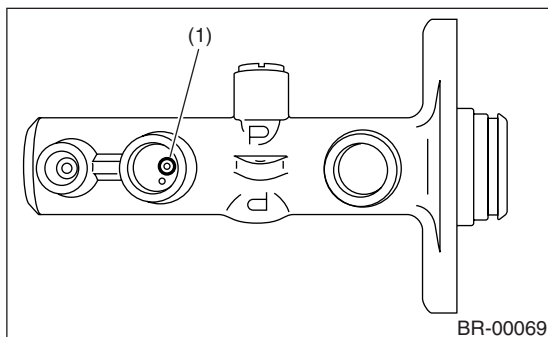
CAUTION:

Be sure to use recommended brake fluid.

- 2) Bleed air from the brake system. <Ref. to BR-41, PROCEDURE, Air Bleeding.>

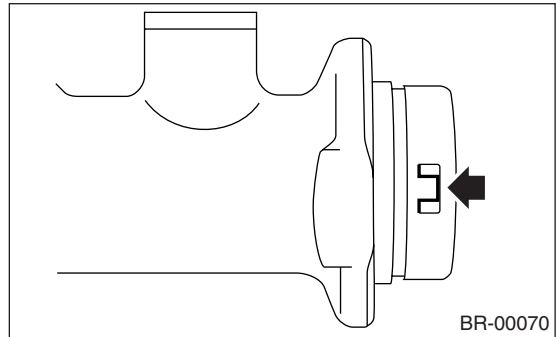
C: DISASSEMBLY

- 1) Remove mud and dirt from the surface of brake master cylinder.
- 2) Secure the master cylinder on a vise.
- 3) Remove the pin which secures reservoir tank to master cylinder, and then remove the reservoir tank and grommet.
- 4) Remove the cylinder pin with magnetic pick-up tool while pushing in primary piston by screwdriver which wrapped with tape.



(1) Cylinder pin (straight pin)

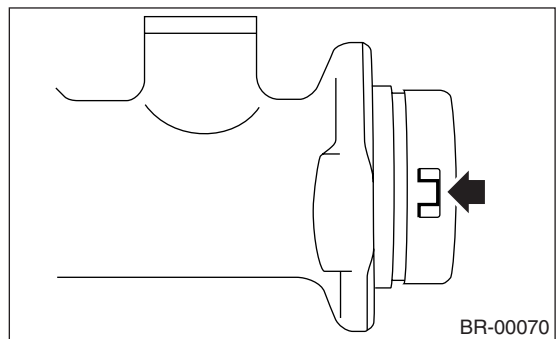
- 5) Pry up the pawl and remove piston retainer. Hold piston retainer tight, because the piston may jump out from master cylinder.



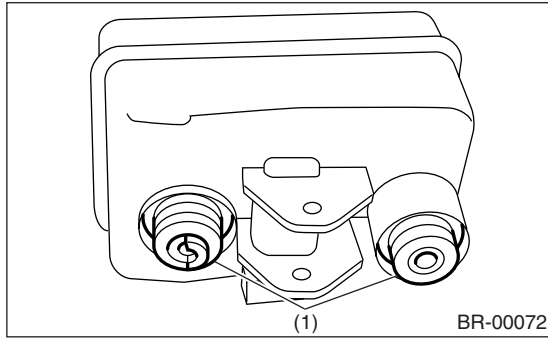
- 6) Extract the primary piston assembly and secondary piston assembly straight out, while taking care not to scratch the inner surface of cylinder.
- 7) Use brake fluid to wash the inside wall of cylinder, and piston assembly. If any damage, deformation, wear, rust, and other faults are found, replace the faulty part.

D: ASSEMBLY

- 1) Apply recommended brake fluid to the inside wall of cylinder, and to outer surface of the piston assembly.
- 2) Ensure that the inside wall of cylinder, and piston assembly are free from dirt when assembling. Install the primary piston assembly and secondary piston assembly, while taking care not to damage, scratch, or dent the cylinder inside wall, and piston assembly.
- 3) Install the cylinder pin while pushing in primary piston by screwdriver which wrapped with tape.
- 4) Install the piston retainer, and then secure it by pressing the pawl.



5) Install the seal to reservoir tank.



(1) Seal

6) Install the reservoir tank to master cylinder and secure with pin.

E: INSPECTION

If any damage, deformation, wear, swelling, rust, and other faults are found on the primary piston assembly, secondary piston assembly, supply the valve stopper, or gasket, replace the faulty part.

NOTE:

- The primary and secondary pistons must be replaced as complete assemblies.
- The service limit of clearance between each piston and the master cylinder inner dia. is 0.11 mm (0.0043 in).