

11.Master Cylinder

A: REMOVAL

- 1) Thoroughly drain the 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.

CAUTION:

Be extremely careful not to spill the brake fluid. Brake fluid spilt on the vehicle body will harm the painted surface; wipe it off quickly if spilt.

B: INSTALLATION

- 1) To install the master cylinder to the 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-44, PROCEDURE, Air Bleeding.>

C: DISASSEMBLY

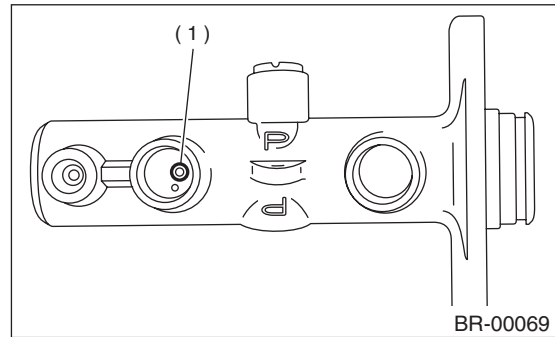
1. PRECAUTIONS FOR DISASSEMBLING

- 1) Remove mud and dirt from the surface of brake master cylinder.
- 2) Prepare the tools necessary for disassembly operation, and arrange them neatly on work bench.
- 3) Clean the work bench.

2. DISASSEMBLING PROCEDURE

- 1) Remove the pin with drift pin which secures the reserve tank to master cylinder.

- 2) Remove the cylinder pin with magnetic pick-up tool while pushing in primary piston. (with ABS)

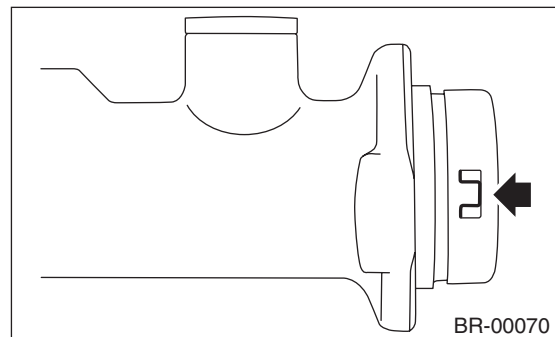


(1) Cylinder pin

- 3) Pry up the pawl and remove the piston retainer.

NOTE:

Piston may jump out from master cylinder.



- 4) Extract the primary piston assembly and secondary piston assembly.

CAUTION:

- **Do not disassemble the piston assembly; otherwise, the spring set value may be changed.**
- **Use brake fluid or methanol to wash inside wall of cylinder, pistons and piston cups. Be careful not to damage parts when washing. If methanol is used for washing, do not dip rubber parts, such as piston cups, in it for more than 30 seconds; otherwise, they may become swelled.**

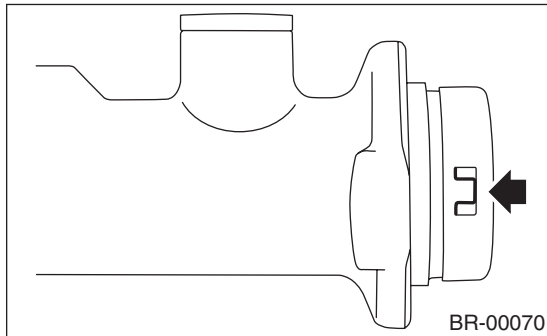
D: ASSEMBLY

1. PRECAUTIONS FOR ASSEMBLING

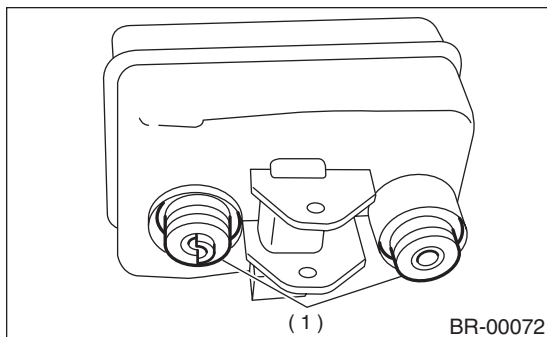
- 1) When assembling, be sure to use recommended brake fluid.
- 2) Ensure that the inside wall of cylinder, pistons, and piston cups are free from dirt when assembling.
- 3) Be extremely careful not to damage, scratch, or dent cylinder inside wall, pistons, and piston cups.
- 4) Do not drop the parts. Never attempt to use any part that has been dropped accidentally.

2. ASSEMBLING PROCEDURE

- 1) Assembling piston assembly:
Apply recommended brake fluid to inside wall of cylinder, and to outer surface of piston assembly, and install the piston assemblies carefully into cylinder.
- 2) Assembling cylinder pin:
Press the pawl and install the piston retainer into the master cylinder.



- 3) Install the seal to reservoir tank.



(1) Seal

- 4) Install the pin with drift pins which secures the reservoir tank to master cylinder.

E: INSPECTION

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

CAUTION:

- The primary and secondary pistons must be replaced as complete assemblies.
- The service limit of the clearance between each piston and the master cylinder inner dia. is 0.11 mm (0.0043 in).
- When handling parts, be extremely careful not to damage or scratch the parts, or let any foreign matter get on them.