

10. Master Cylinder S405168

A: REMOVAL S405168A18

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

CAUTION:

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

B: INSTALLATION S405168A11

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:

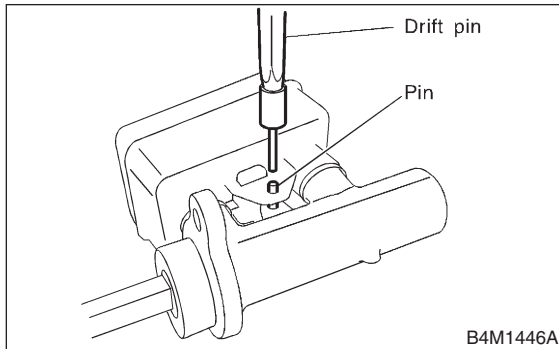
Be sure to use recommended brake fluid.

C: DISASSEMBLY S405168A06**1. PRECAUTIONS FOR DISASSEMBLING**S405168A0602

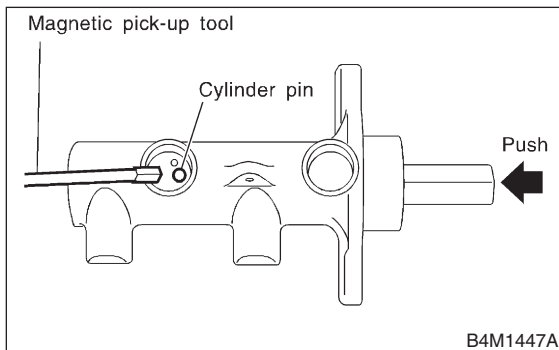
- 1) Remove mud and dirt from the surface of brake master cylinder.
- 2) Prepare tools necessary for disassembly operation, and arrange them neatly on work bench.
- 3) Clean work bench.

2. DISASSEMBLING PROCEDURE S405168A0603

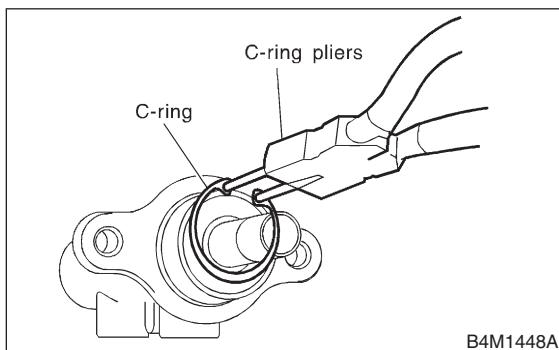
- 1) Remove pin with drift pin which secures reserve tank to master cylinder.



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



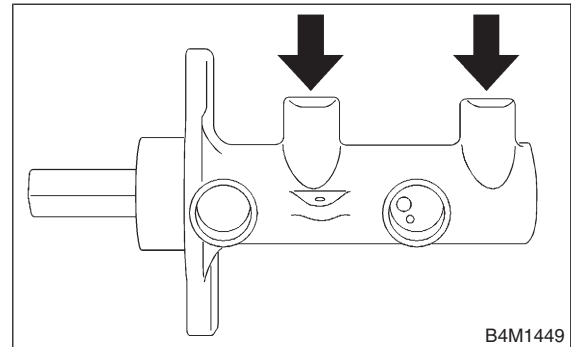
- 3) Remove C-ring with C-ring pliers.



- 4) Gradually supply compressed air via inlet of master cylinder to force piston out.

CAUTION:

- Piston may jump out from master cylinder.
- Do not apply excessively high-pressure.

**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 S405168A02

1. PRECAUTIONS FOR ASSEMBLING S405168A0201

- 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 parts. Never attempt to use any part that has been dropped accidentally.

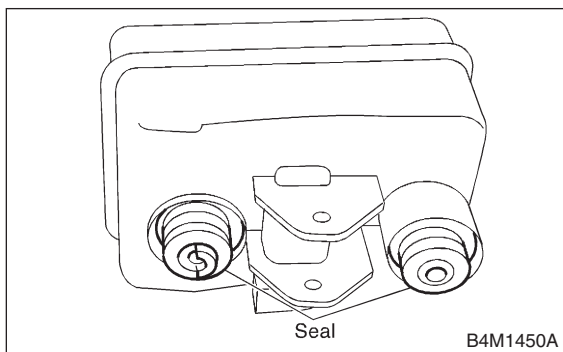
2. ASSEMBLING PROCEDURE S405168A0202

- 1) Assembling piston assembly:
Apply recommended brake fluid to inside wall of cylinder, and to outer surface of piston assembly, and install piston assemblies carefully into cylinder.
- 2) Assemble cylinder pin by pushing in primary piston.
- 3) Assemble plate and guide assembly.
- 4) Assemble C-ring.

CAUTION:

After assembling, ensure that the C-ring is fitted securely in the ring groove.

- 5) Install seal to reservoir tank.



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

E: INSPECTION S405168A10

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.