# 8. 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.

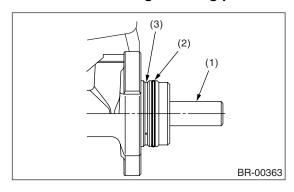
- 1) Thoroughly drain the brake fluid from reservoir tank.
- 2) Disconnect the fluid level gauge harness connector.
- 3) Remove the brake pipes from master cylinder.
- 4) Remove the master cylinder mounting nuts, and take out the master cylinder from brake booster.

### **B: INSTALLATION**

1) Replace the O-ring for the master cylinder with a new one.

#### **CAUTION:**

Do not install the O-ring in wrong place.



- (1) Primary piston
- (2) O-ring
- (3) Do not install the O-ring on this groove.
- 2) Install in the reverse order of removal.

#### Tightening torque:

Master cylinder mounting nut 13 N·m (1.3 kgf-m, 9.6 ft-lb) Piping flare nut Model with ABS 15 N·m (1.5 kgf-m, 10.8 ft-lb) Model with VDC 19 N·m (1.9 kgf-m, 14.0 ft-lb)

#### **CAUTION:**

#### Be sure to use recommended brake fluid.

3) Bleed air from brake system. <Ref. to BR-34, PROCEDURE, Air Bleeding.>

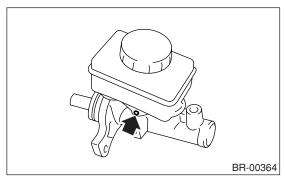
# C: REPLACEMENT

- 1) Remove mud and dirt from the surface of brake master cylinder.
- 2) Secure the master cylinder on a vise.

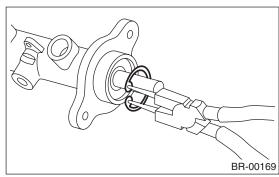
#### NOTE:

To avoid damaging master cylinder, use aluminum plate while holding with vise.

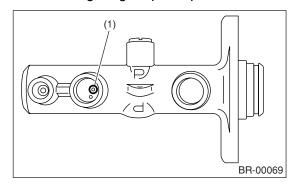
3) Remove the pin which secures the reservoir tank to master cylinder, and then remove the reservoir tank and seal.



4) With pushing-in the primary piston, remove the C-ring using pliers.



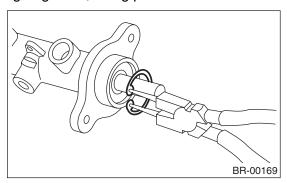
5) With pushing-in the primary piston, remove the straight pin from the port on installation part of reservoir tank using magnet pick-up tool.



(1) Straight pin

- 6) Extract the primary piston assembly and secondary piston assembly straight out, while taking care not to scratch the inner surface of cylinder.
- 7) Clean the inside of master cylinder with brake fluid. Check the inside of cylinder for damage, deform and wear. Replace the master cylinder as assembly if faulty.
- 8) Apply brake fluid to the inner surface of master cylinder and piston assembly.

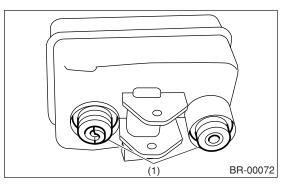
- 9) Ensure that the inner surface of master cylinder and piston assembly are free of dirt before assembling. Install the primary piston assembly and secondary piston assembly, while taking care not to scratch the master cylinder inner surface.
- 10) With pushing-in the primary piston, install the cylinder pin.
- 11) With pushing-in the primary piston, install the C-ring to groove, using pliers.



#### **CAUTION:**

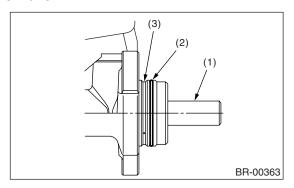
#### Ensure the secure installation.

12) Install the seal to reservoir tank.



(1) Seal

- 13) Install the reservoir tank to master cylinder, and secure with pin.
- 14) Replace the O-ring for the master cylinder with a new one.



- (1) Primary piston
- (2) O-ring
- (3) Do not install the O-ring on this groove.

# D: INSPECTION

Inspect for oil leakage from the master cylinder.

#### NOTE:

After replacing piston kit, when the oil leakage is found without damaging or scratching the inside of cylinder, wear of master cylinder inner wall may be the cause. In this case, replace the master cylinder as assembly.