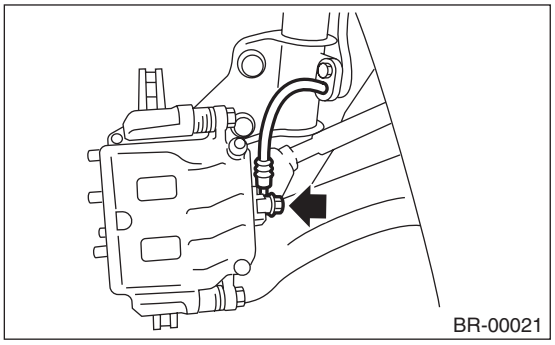
4. Front Disc Brake Assembly

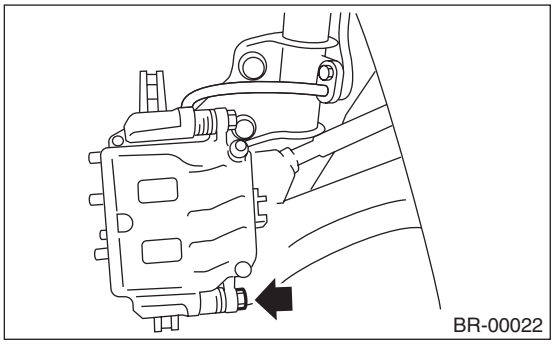
A: REMOVAL

CAUTION:
Do not allow brake fluid to come in contact with vehicle body. If it does, wash off with water and wipe away completely.

1) Lift up the vehicle, and remove the front wheels.
2) Remove the union bolt, and disconnect the brake hose from the caliper body assembly.

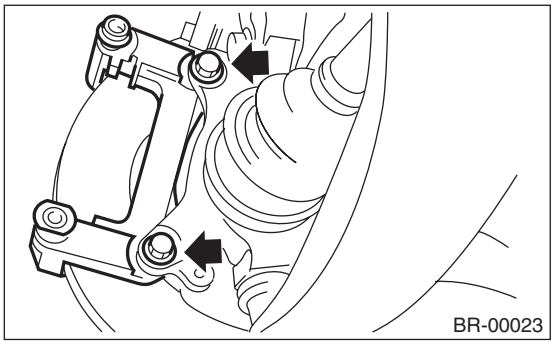


3) Remove the bolt securing the lock pin to caliper body.



4) Raise the caliper body, and then move it toward vehicle center to separate it from the support.
5) Remove the support from housing.

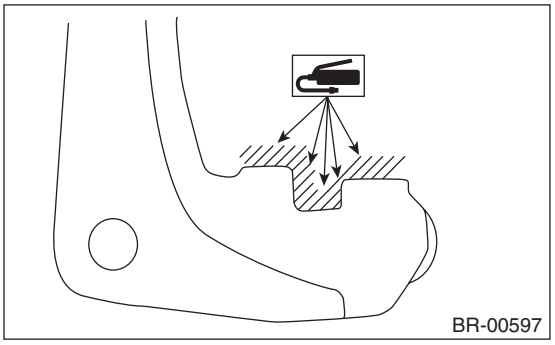
NOTE:
Remove the support only when replacing the rotor or support. It is not necessary to remove it when servicing the caliper body assembly.



6) Remove mud and foreign matter from the caliper body assembly and the support.

B: INSTALLATION

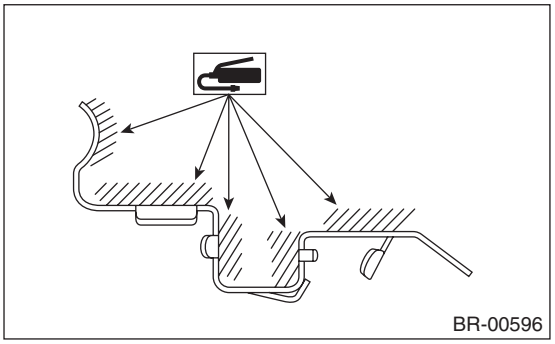
1) Apply a thin coat of Molykote M7439 (Part No. K0770YA000) or grease contained in the pad kit to the support.



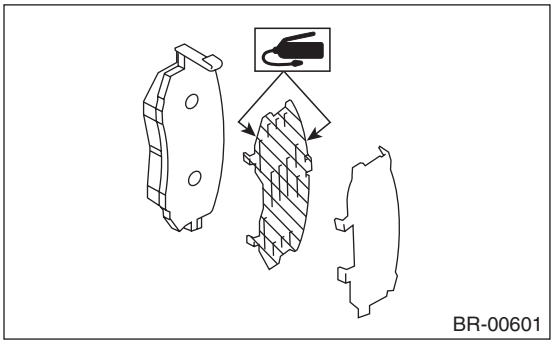
2) Install the support to the housing.

Tightening torque:
120 N·m (12.2 kgf-m, 88.5 ft-lb)

3) Apply a thin coat of Molykote M7439 (Part No. K0770YA000) or grease contained in the pad kit to the pad clip.

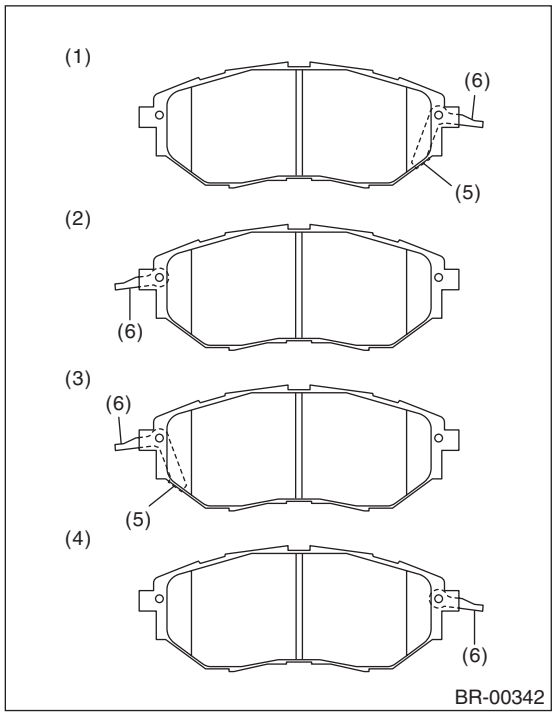


4) Apply a thin coat of Molykote AS880N (Part No. K0777YA010) or grease contained in the pad kit to both surfaces of the inner shim.



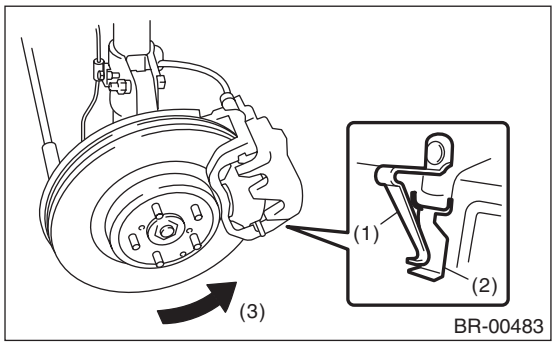
5) Install the pad to support.

NOTE:
Install the pad indicator in proper direction.



(1) LH — IN
(2) LH — OUT
(3) RH — IN
(4) RH — OUT
(5) Pad indicator
(6) Pad return spring

CAUTION:
• Be sure to install so that the pad return spring faces the input side of the direction of brake rotor rotation, as shown in the figure.
• Correctly install the pad return spring to the supporting surface of the pad clip as shown in the figure.
• If the pad return spring is deformed or damaged, replace the brake pad.



(1) Pad return spring
(2) Supporting surface of pad clip
(3) Direction of brake rotor rotation

6) Install the caliper body to the support.

Tightening torque:
27 N·m (2.8 kgf-m, 19.9 ft-lb)

7) Connect the brake hose using a new brake hose gasket.

Tightening torque:
18 N·m (1.8 kgf-m, 13.3 ft-lb)

8) Bleed air from the brake system.

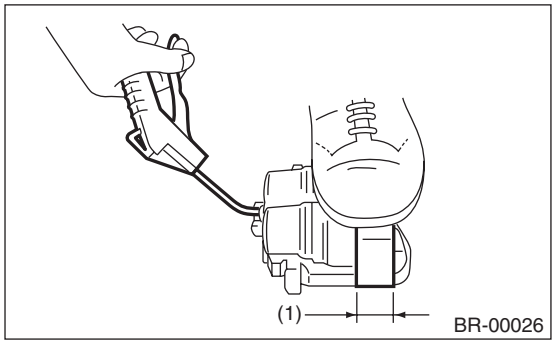
C: DISASSEMBLY

1) Remove mud and foreign matter from the caliper body assembly and the support.

CAUTION:
Be careful not to allow foreign matter to enter the brake hose connector.

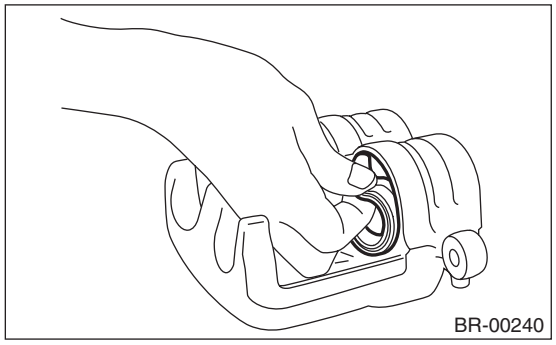
2) Place a wooden block in the caliper body as shown in the figure to prevent the piston from jumping out and being damaged.

3) Gradually apply compressed air via the brake hose installation hole to push the piston out.



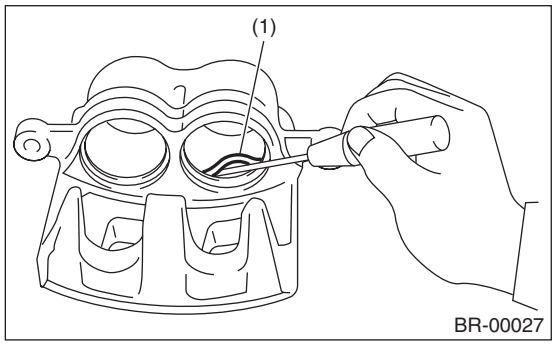
(1) Place a wood block of 30 mm (1.18 in) width.

4) Remove the piston boot.



5) Remove the piston seal from caliper body cylinder.

CAUTION:
Do not damage the cylinder and piston seal groove.



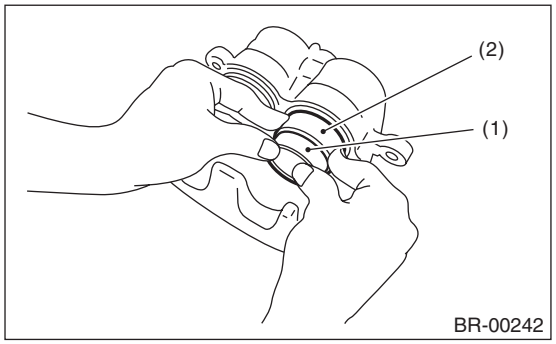
(1) Piston seal

6) Remove the guide pin and boot from caliper body.

D: ASSEMBLY

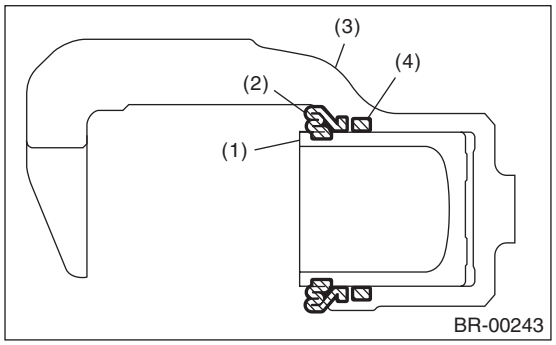
1) Clean the inside of the caliper body using brake fluid.
2) Apply a coat of brake fluid to piston seal and install the piston seal to the caliper body groove.
3) Apply a coat of brake fluid to the inner surface of cylinder and the entire outer surface of the piston.
4) Apply grease contained in the piston seal kit to the boot, and install it to the groove at the ends of the cylinder.
5) Insert the piston into cylinder.

CAUTION:
Do not force the piston into cylinder.



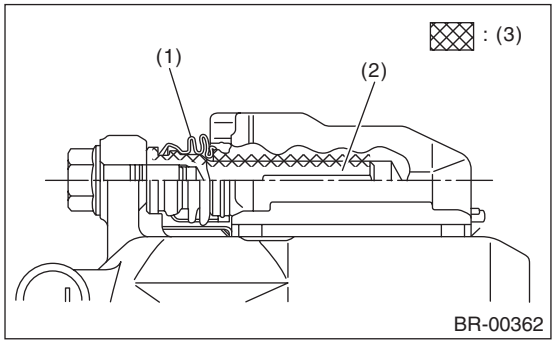
(1) Piston
(2) Piston boot

6) Position the boot in the grooves on cylinder and piston.



(1) Piston
(2) Piston boot
(3) Caliper body
(4) Piston seal

7) Apply grease contained in the piston seal kit to the lock pin and guide pin outer surface, cylinder inner surface, and boot grooves.
8) Insert the lock pin and guide pin boot into the support.



(1) Pin boot
(2) Lock pin or guide pin
(3) Grease applied area

E: INSPECTION

1) Repair or replace the faulty parts.
2) Check the caliper body and piston for uneven wear, damage or rust.
3) Check the rubber parts for damage or deterioration.