

## 4. Front Disc Brake Assembly

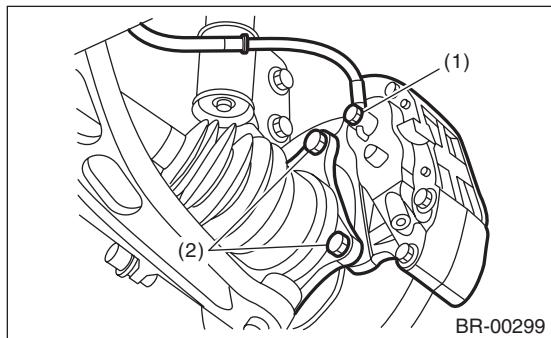
### A: REMOVAL

#### 1. BREMBO TYPE

##### CAUTION:

**Do not allow brake fluid to come in contact with the painted surface of the vehicle body. If it does, wash off with water immediately and wipe away completely.**

- 1) Lift up the vehicle, and then remove the front wheels.
- 2) Remove the union bolt (1) and brake hose from the caliper body.
- 3) Remove the mounting bolts (2) from the housing.



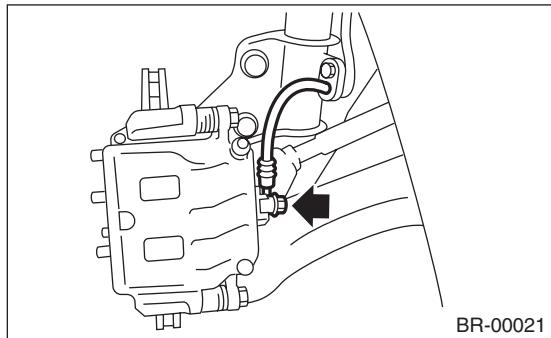
- 4) Remove mud and foreign matter from the caliper body assembly.

#### 2. EXCEPT FOR BREMBO TYPE

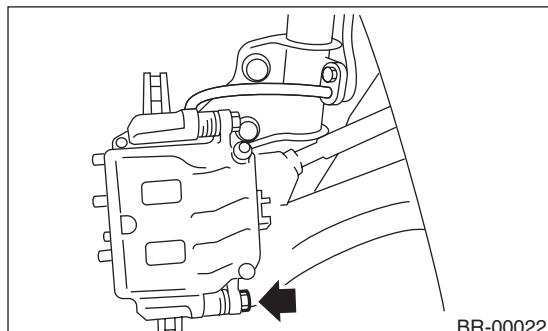
##### CAUTION:

**Do not allow brake fluid to come in contact with the painted surface of the vehicle body. If it does, wash off with water and wipe away completely.**

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



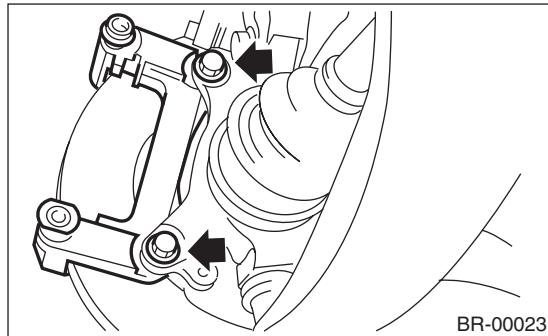
- 3) Remove the bolts which secure the caliper body.



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

##### NOTE:

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



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

### B: INSTALLATION

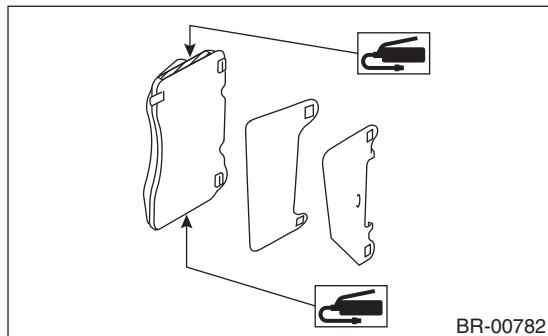
#### 1. BREMBO TYPE

- 1) Install the caliper body assembly to the housing.

##### *Tightening torque:*

**155 N·m (15.81 kgf·m, 114.3 ft·lb)**

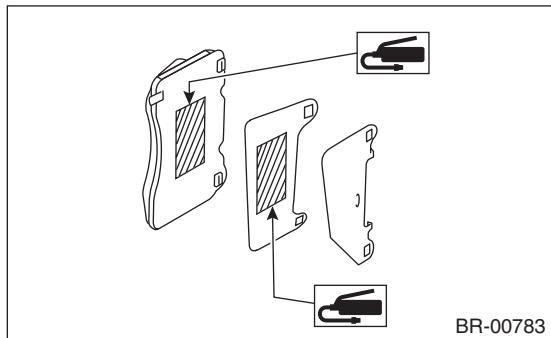
- 2) Apply a thin coat of Molykote M7439 or grease contained in the pad kit to the pad side.



# Front Disc Brake Assembly

## BRAKE

3) Apply a thin coat of Molykote AS880N (Part No. K0777YA010) or grease contained in the pad kit to the pad and pad shim.



- 4) Install the pads to the caliper body.
- 5) Install the cross spring.
- 6) Install the pad pins.
- 7) Install the clips.
- 8) Connect the brake hose using a new brake hose gasket.

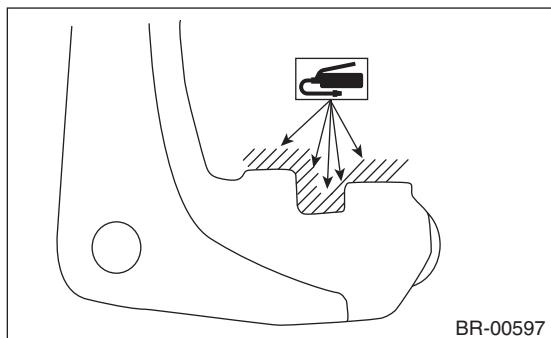
### Tightening torque:

18 N·m (1.84 kgf-m, 13.3 ft-lb)

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

## 2. EXCEPT FOR BREMBO TYPE

1) Apply a thin coat of Molykote M7439 or grease contained in the pad kit to the support.

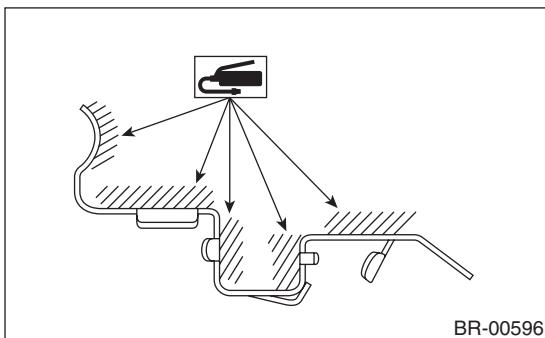


2) Install the support to the housing.

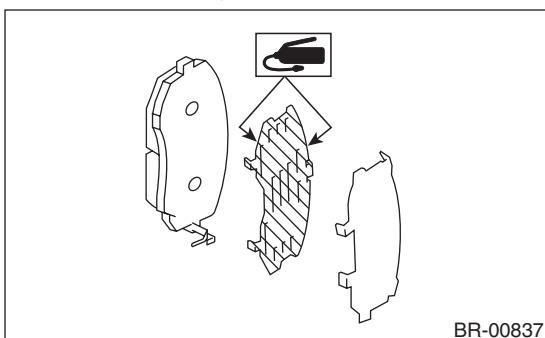
### Tightening torque:

80 N·m (8.16 kgf-m, 59 ft-lb)

3) Apply a thin coat of Molykote M7439 or grease contained in the pad kit to the pad clip.



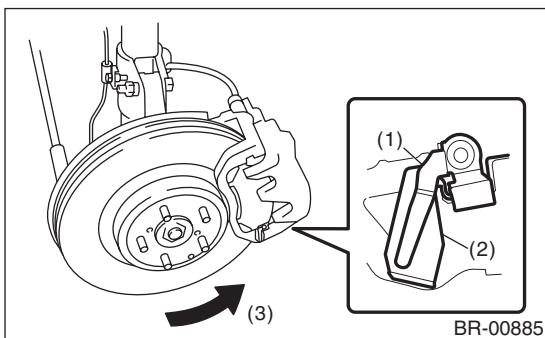
4) Apply a thin coat of Molykote AS880N (Part No. K0777YA010) or grease contained in the pad kit to both surfaces of the pad and inner shim.



5) Install the pad to support.

### CAUTION:

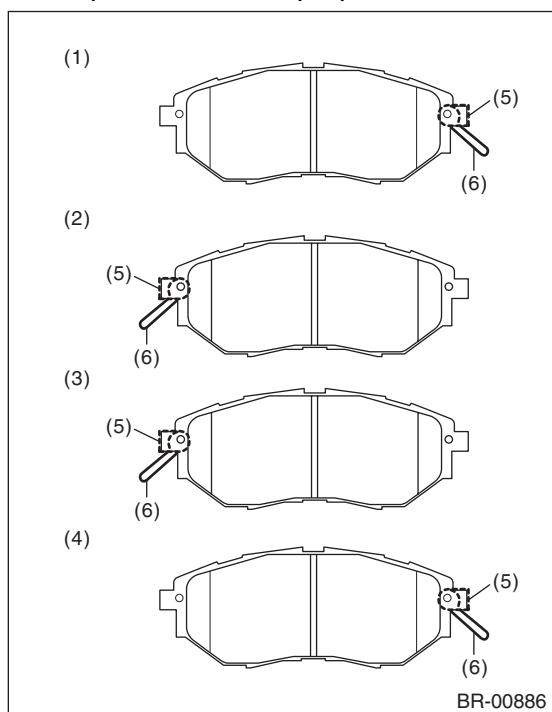
- Be sure to install so that the pad return spring faces the input side of the direction of brake rotor rotation, as shown in the figure.
- Correctly install the pad return spring to the supporting surface of the pad clip as shown in the figure.
- If the pad return spring is deformed or damaged, replace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



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

## 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

6) Install the caliper body to the support.

### **Tightening torque:**

**27 N·m (2.75 kgf·m, 19.9 ft-lb)**

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

### **Tightening torque:**

**18 N·m (1.84 kgf·m, 13.3 ft-lb)**

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

## C: DISASSEMBLY

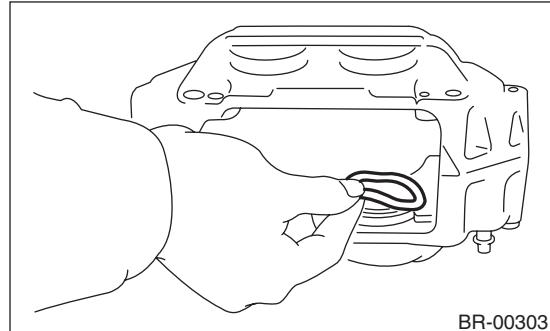
### 1. BREMBO TYPE

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

#### **CAUTION:**

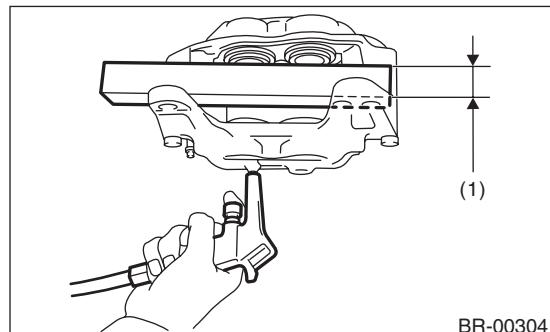
**Be careful not to allow foreign matter to enter the brake hose connector.**

2) Remove the piston boots from each piston end.



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

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

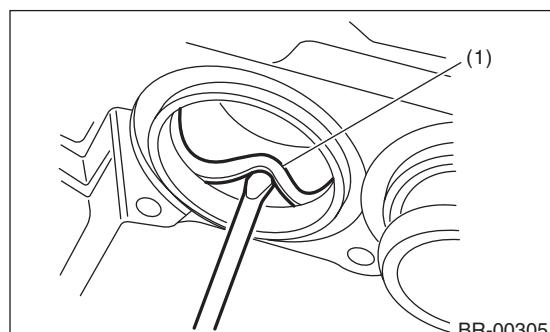


(1) Place a wooden block of 30 mm (1.18 in) width.

5) Remove the piston seal (1) from the caliper body cylinder.

#### **CAUTION:**

**Do not damage the cylinder and piston seal groove.**



# Front Disc Brake Assembly

## BRAKE

### 2. EXCEPT FOR BREMBO TYPE

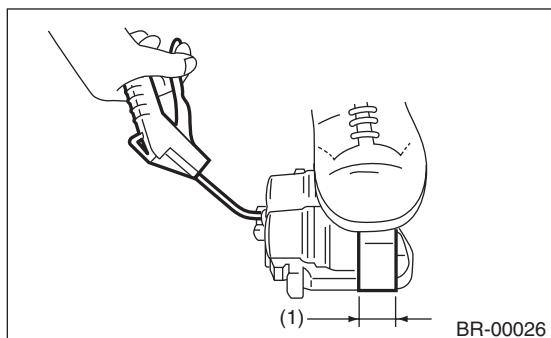
1) Remove mud and foreign matter from the caliper body and the support.

#### CAUTION:

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

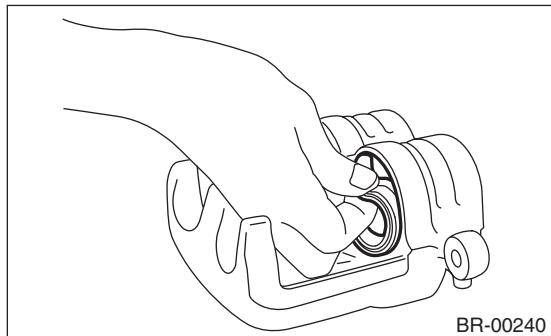
2) Place a wooden block in the caliper body as shown in the figure to prevent the piston from jumping out and being damaged.

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



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

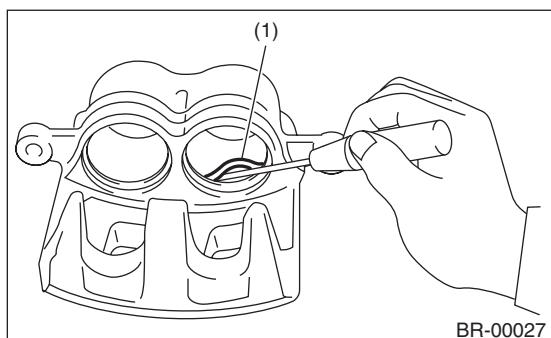
4) Remove the piston boot.



5) Remove the piston seal (1) from the caliper body cylinder.

#### CAUTION:

**Do not damage the cylinder and piston seal groove.**



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

### D: ASSEMBLY

#### 1. BREMBO TYPE

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.

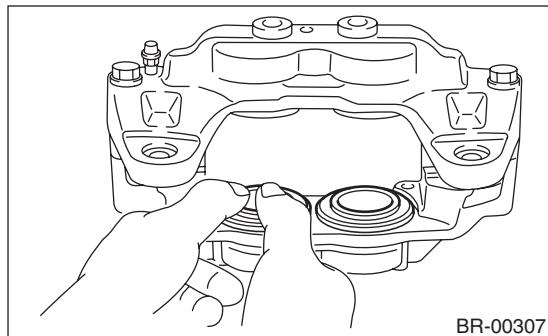
3) Apply a coat of brake fluid to the inner surface of cylinder and the entire outer surface of the piston.

4) Apply NIGLUBE RX-2 (Part No. K0779GA102) or the piston kit grease to the boot, and install to the piston groove.

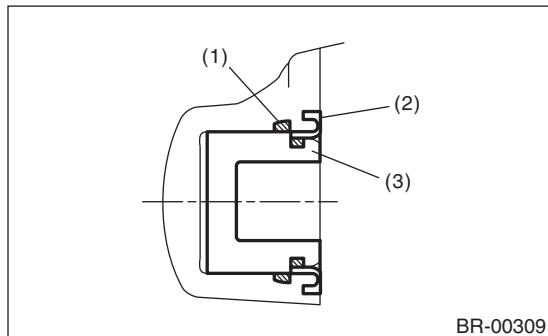
5) Insert the piston into the cylinder.

#### CAUTION:

**Do not force the piston into cylinder.**



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



(1) Piston seal

(2) Piston boot

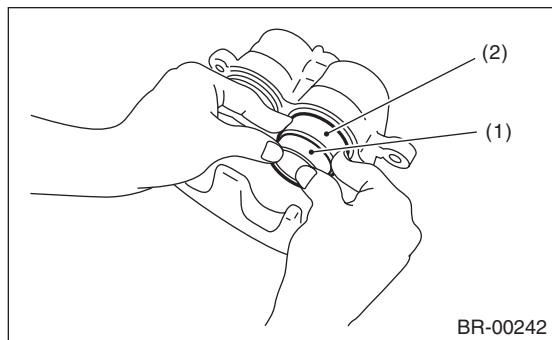
(3) Piston

## 2. EXCEPT FOR BREMBO TYPE

- 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 end of the cylinder.
- 5) Insert the piston into cylinder.

**CAUTION:**

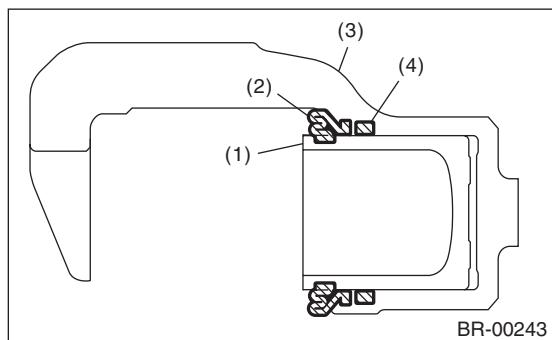
**Do not force the piston into cylinder.**



BR-00242

- (1) Piston
- (2) Piston boot

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



BR-00243

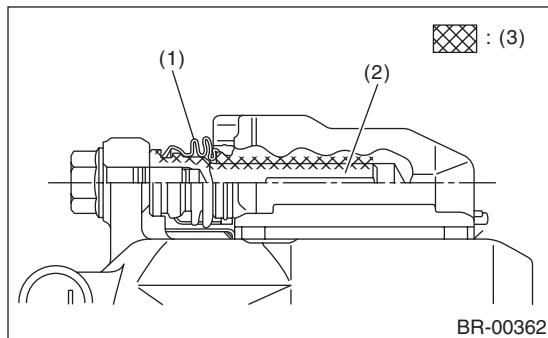
- (1) Piston
- (2) Piston boot
- (3) Caliper body
- (4) Piston seal

- 7) Apply a coat of the grease included with the piston 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.

**CAUTION:**

**After inserting the pin into the given place, move the caliper by hand to make sure that it moves smoothly without obstacles or excessive friction.**



BR-00362

- (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.