

# FRONT DISC BRAKE ASSEMBLY

## BRAKE

### 4. Front Disc Brake Assembly

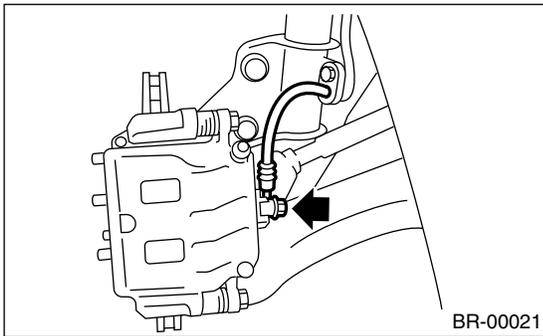
#### A: REMOVAL

##### 1. 15 INCH TYPE

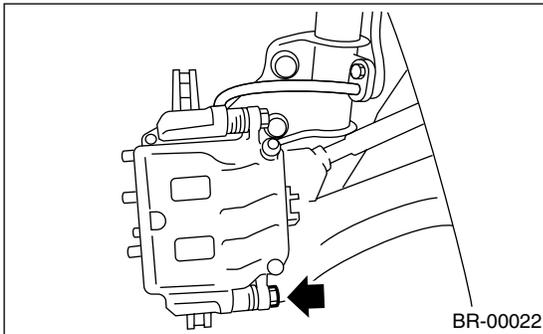
**CAUTION:**

Do not allow brake fluid to come in contact with vehicle body; wash away with water and wipe off completely if spilled.

- 1) Set the vehicle on a lift.
- 2) Loosen the wheel nuts.
- 3) Lift-up the vehicle, and then remove the front wheel.
- 4) Remove the union bolt, and then disconnect the brake hose from caliper body assembly.



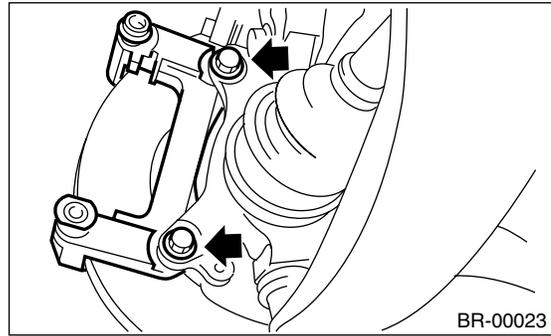
- 5) Remove the bolt securing lock pin to caliper body.



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

**NOTE:**

Remove the support only when replacing it or the rotor. It need not be removed when servicing the caliper body assembly.



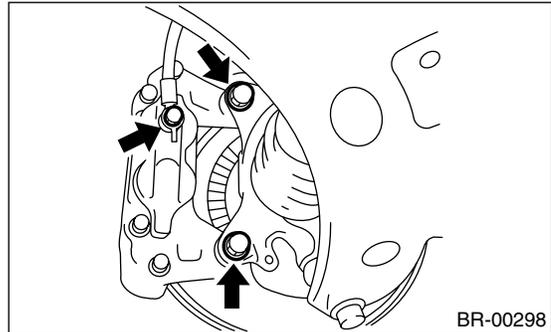
- 8) Clean mud and foreign particles from the caliper body assembly and support.

##### 2. 16 INCH TYPE

**CAUTION:**

Do not allow brake fluid to come in contact with vehicle body; wash away with water and wipe off completely if spilled.

- 1) Set the vehicle on a lift.
- 2) Loosen the wheel nuts.
- 3) Lift-up the vehicle, and then remove the front wheel.
- 4) Remove the union bolt, and then disconnect the brake hose from caliper body assembly.
- 5) Remove the caliper body from housing.



- 6) Clean mud and foreign particles from the caliper body assembly and support.

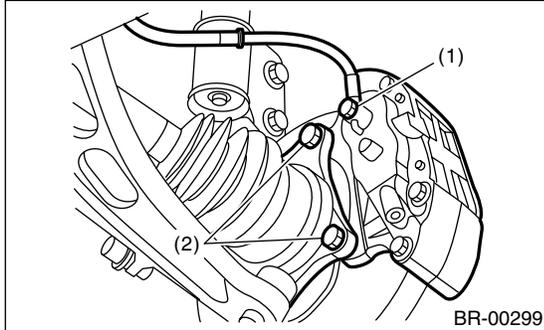
##### 3. 17 INCH TYPE

**CAUTION:**

Do not allow brake fluid to come in contact with vehicle body; wash away with water and wipe off completely if spilled.

- 1) Set the vehicle on a lift.
- 2) Loosen the wheel nuts.
- 3) Lift-up the vehicle, and then remove the front wheel.

- 4) Remove the brake pads from caliper body. <Ref. to BR-17, 17 INCH TYPE, REMOVAL, Front Brake Pad.>
- 5) Remove the union bolt and brake hose from caliper body assembly.
- 6) Remove two installation bolts from housing.



- (1) Union bolt
- (2) Installation bolt

- 7) Clean mud and foreign particles from the caliper body assembly.

## B: INSTALLATION

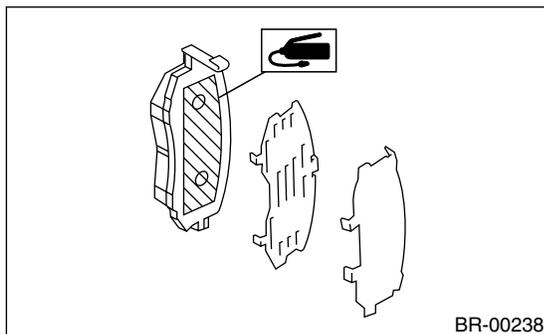
### 1. 15 INCH TYPE

- 1) Install the support on housing.

#### **Tightening torque:**

**80 N·m (8.2 kgf·m, 59 ft·lb)**

- 2) Apply thin coat of Molykote AS880N (Part No. K0777YA010) to the frictional portion between pad and pad clip.
- 3) Apply thin coat of Molykote AS880N (Part No. K0777YA010) to the frictional portion between pad and inner shim.



- 4) Install the pads on support.
- 5) Install the caliper body on support.

#### **Tightening torque:**

**37 N·m (3.8 kgf·m, 27.5 ft·lb)**

- 6) Replace the brake hose gaskets with new ones, and then connect the brake hose.

#### **Tightening torque:**

**18 N·m (1.8 kgf·m, 13.0 ft·lb)**

- 7) Bleed air from the brake system.

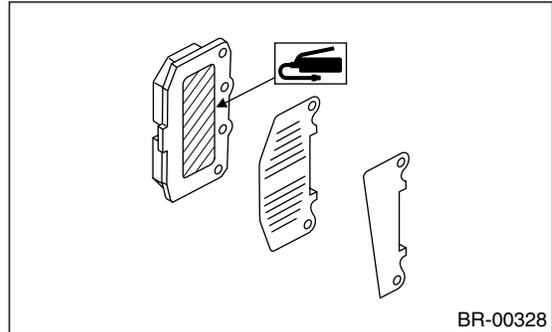
### 2. 16 INCH TYPE

- 1) Install the caliper body on housing.

#### **Tightening torque:**

**80 N·m (8.2 kgf·m, 59 ft·lb)**

- 2) Apply thin coat of Molykote AS880N (Part No. K0777YA010) to the frictional portion between pad and pad inner shim.



- 3) Install the pads on caliper body.
- 4) Install the pad pins and cross spring on caliper body.
- 5) Install the M clip.
- 6) Replace the brake hose gaskets with new ones, and then connect the brake hose.

#### **Tightening torque:**

**18 N·m (1.8 kgf·m, 13.0 ft·lb)**

- 7) Bleed air from the brake system.

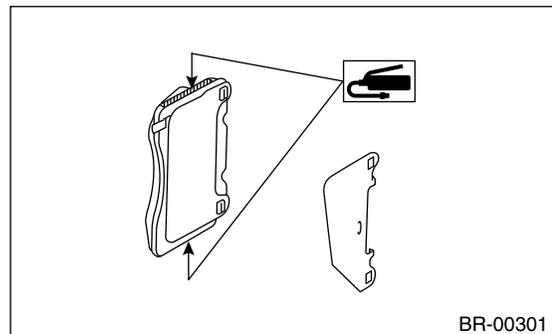
### 3. 17 INCH TYPE

- 1) Install the caliper body assembly on housing.

#### **Tightening torque:**

**155 N·m (15.8 kgf·m, 114.3 ft·lb)**

- 2) Apply thin coat of Molykote AS880N (Part No. K0777YA010) to the frictional portion between pad and pad shim.



- 3) Install the pads on caliper body.
- 4) Install the cross spring.
- 5) Install the pad pins.
- 6) Install the clip.

# FRONT DISC BRAKE ASSEMBLY

## BRAKE

7) Replace the brake hose gaskets with new ones, and then connect the brake hose.

### **Tightening torque:**

**18 N·m (1.8 kgf·m, 13.0 ft·lb)**

8) Bleed air from the brake system.

## **C: DISASSEMBLY**

### **1. 15 INCH TYPE**

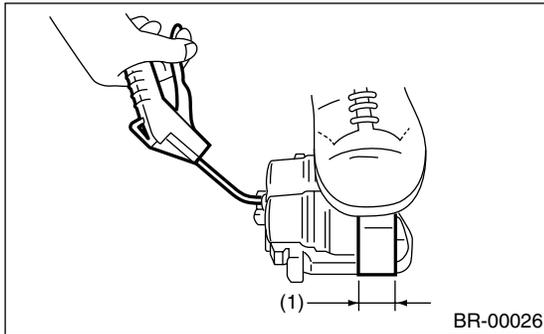
1) Clean mud and foreign particles from the caliper body assembly and support.

#### **CAUTION:**

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

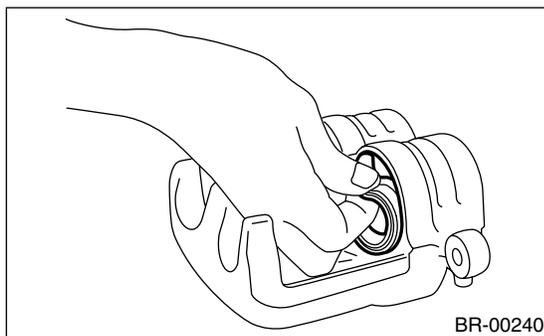
2) Place a wooden block in caliper body as shown in the figure to prevent the piston from jumping out and avoid being damaged.

3) Gradually supply compressed air via the installation hole of brake hose to force the piston out.



(1) Place a 30 mm (1.18 in) wide wooden block here.

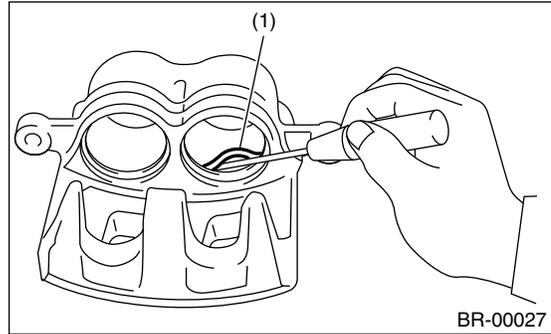
4) Remove the piston boot.



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.

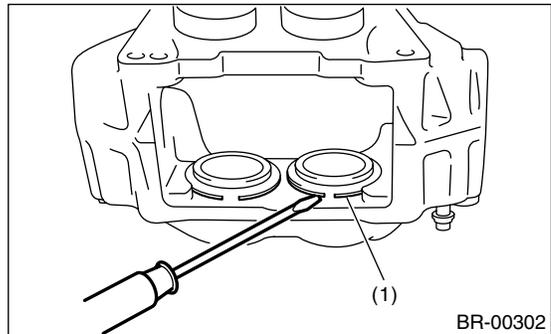
### **2. 16 INCH TYPE**

1) Clean mud and foreign particles from the caliper body assembly.

#### **CAUTION:**

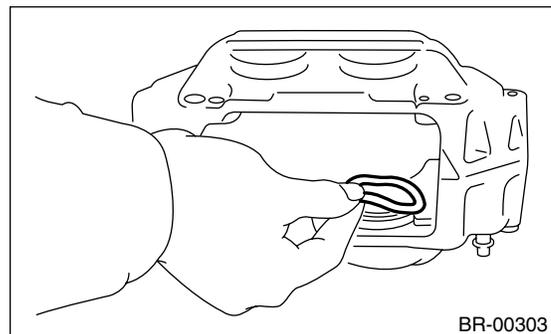
**Be careful not to allow foreign particles to enter the brake hose connector.**

2) Using a standard screwdriver, remove the boot ring from piston.

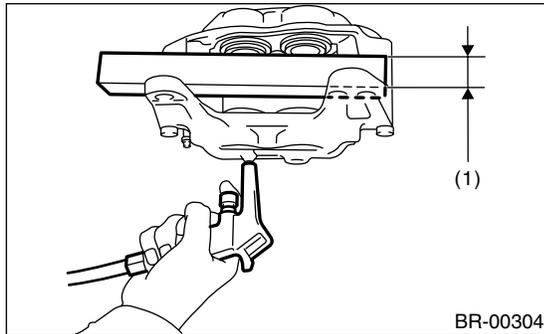


(1) Boot ring

3) Remove the boot from piston end.



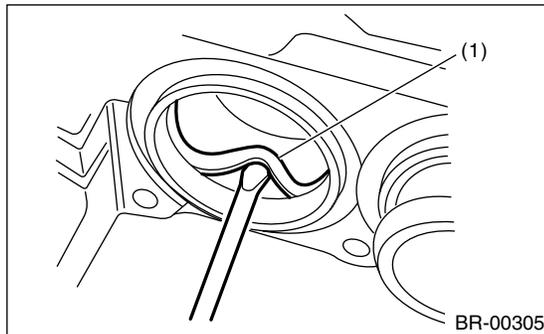
- 4) Place a wooden block in caliper body as shown in the figure to prevent the piston from jumping out and avoid being damaged.
- 5) Gradually supply compressed air via the installation hole of brake hose to force the piston out.



(1) Place a 30 mm (1.18 in) wide wooden block here.

- 6) Remove the piston seal from caliper body cylinder.

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



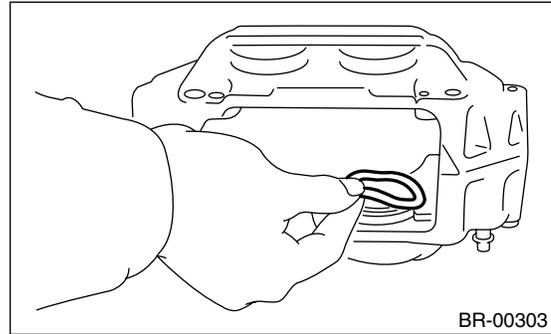
(1) Piston seal

### 3. 17 INCH TYPE

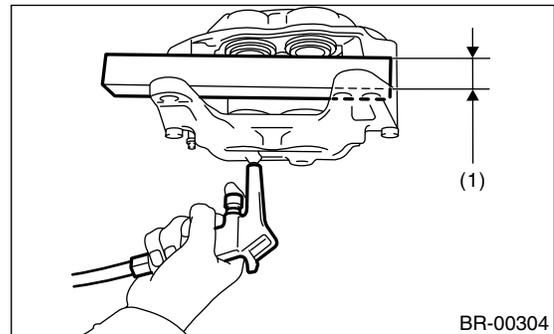
- 1) Clean mud and foreign particles from the caliper body assembly.

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

- 2) Remove the piston boots from each piston end.



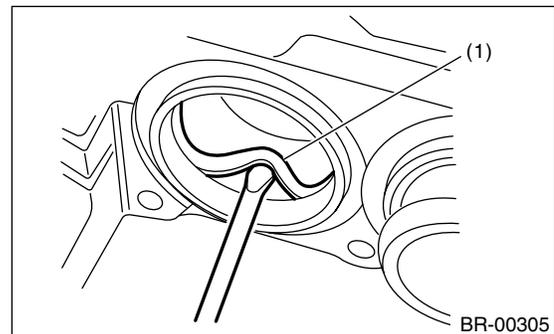
- 3) Place a wooden block in caliper body as shown in the figure to prevent the piston from jumping out and avoid being damaged.
- 4) Gradually supply compressed air via the installation hole of brake hose to force the piston out.



(1) Place a 30 mm (1.18 in) wide wooden block here.

- 5) Remove the piston seal from caliper body cylinder.

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



(1) Piston seal

# FRONT DISC BRAKE ASSEMBLY

## BRAKE

### D: ASSEMBLY

#### 1. 15 INCH TYPE

- 1) Clean the caliper body interior using brake fluid.
- 2) Apply a coat of brake fluid to the piston seal and fit piston seal in groove on caliper body.
- 3) Apply a coat of brake fluid to the entire inner surface of cylinder and outer surface of piston.
- 4) Apply a coat of specified grease to the boot and install the piston boot to the groove on ends of cylinder.

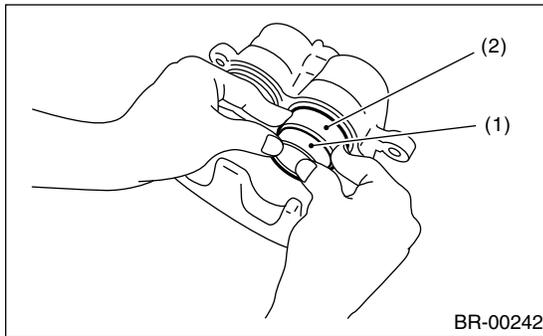
**Grease:**

***NIGLUBE RX-2 (Part No. K0779GA102)***

- 5) Insert the piston into cylinder.

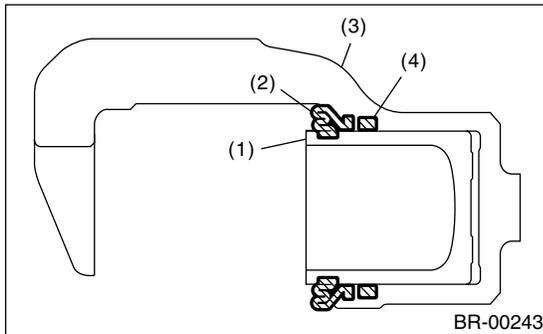
**CAUTION:**

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



- (1) Piston
- (2) Piston boot

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



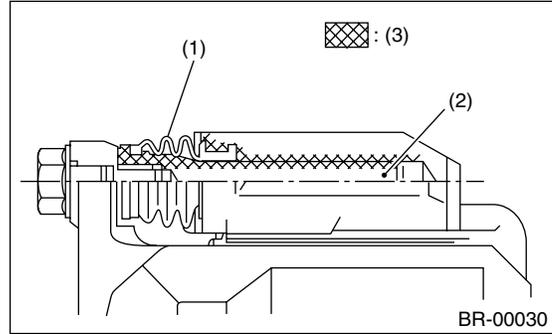
- (1) Piston
- (2) Piston boot
- (3) Caliper body
- (4) Piston seal

- 7) Apply a coat of specified grease to the lock pin and guide pin outer surface, cylinder inner surface, and boot grooves.

**Grease:**

***NIGLUBE RX-2 (Part No. K0779GA102)***

- 8) Install the lock and guide pin boot on support.



- (1) Pin boot
- (2) Lock pin or guide pin
- (3) Apply grease.

#### 2. 16 INCH TYPE

- 1) Clean the caliper body interior using brake fluid.
- 2) Apply a coat of brake fluid to the piston seal and fit piston seal in groove on caliper body.
- 3) Apply a coat of brake fluid to the entire inner surface of cylinder and outer surface of piston.
- 4) Apply a coat of specified grease to the boot and fit in groove on ends of cylinder and piston.

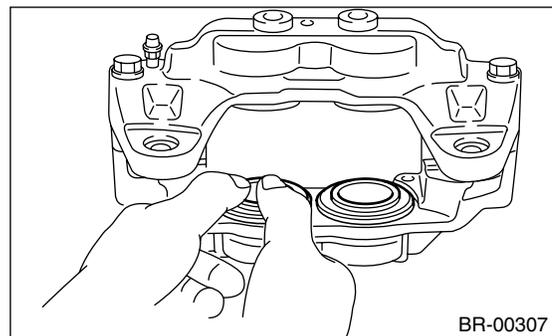
**Grease:**

***NIGLUBE RX-2 (Part No. K0779GA102)***

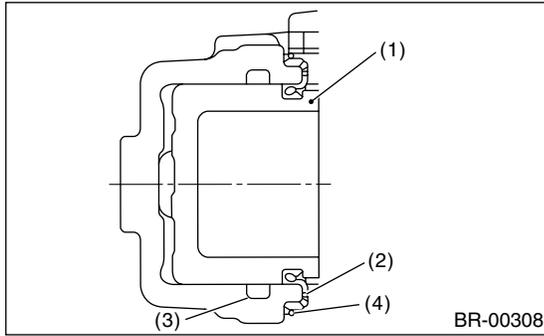
- 5) Insert the piston into cylinder.

**CAUTION:**

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

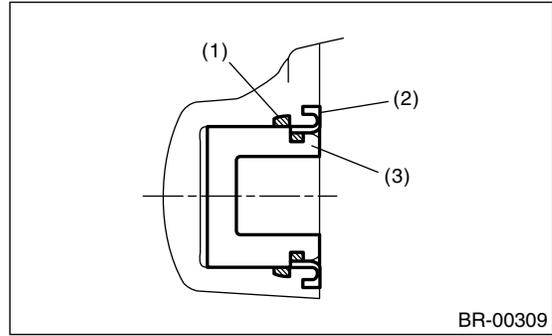


6) Position the boot in grooves on cylinder and piston.



- (1) Piston
- (2) Piston boot
- (3) Piston seal
- (4) Boot ring

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



- (1) Piston seal
- (2) Piston boot
- (3) Piston

7) Install the boot ring. Be careful not scratch the boot.

### 3. 17 INCH TYPE

- 1) Clean the caliper body interior using brake fluid.
- 2) Apply a coat of brake fluid to the piston seal, and then install the piston seal in groove on caliper body.
- 3) Apply a coat of brake fluid to the entire inner surface of cylinder and outer surface of piston.
- 4) Apply a coat of specified grease to the boot and install it in the groove on piston.

**Grease:**

***NIGLUBE RX-2 (Part No. K0779GA102)***

5) Insert the piston into cylinder.

**CAUTION:**

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

### 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.

