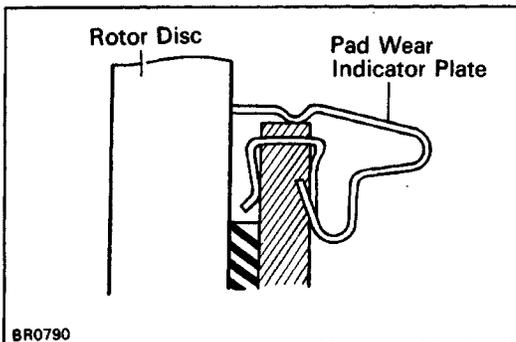
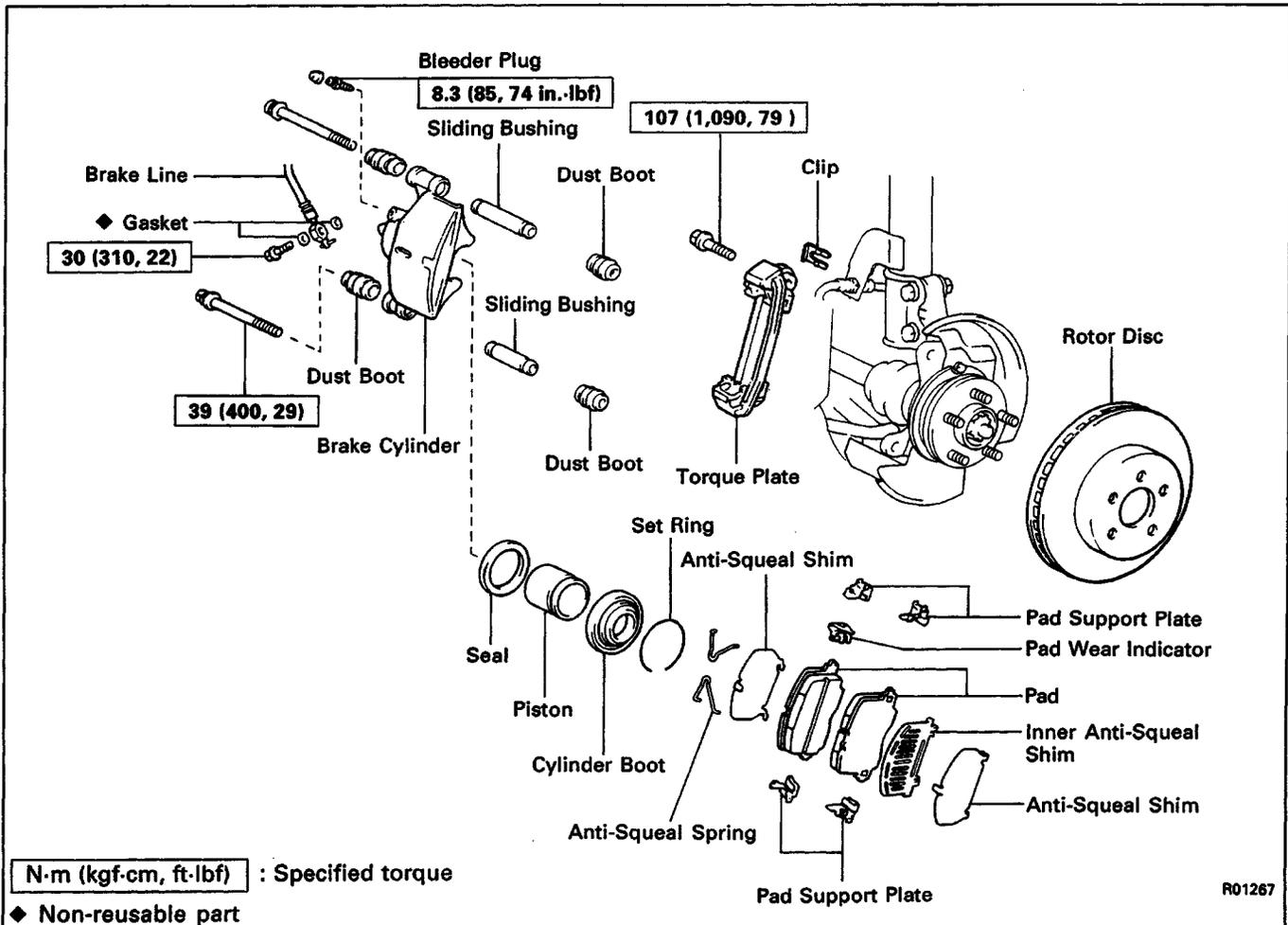
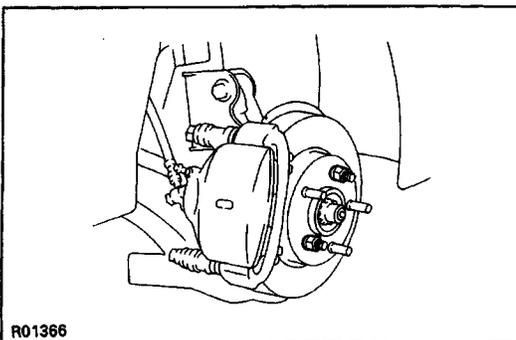


# FRONT BRAKE COMPONENTS



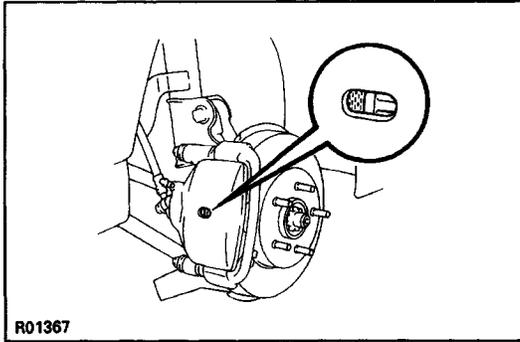
## REPLACEMENT OF BRAKE PADS

**HINT:** If a squealing noise is made by the front brakes while driving, check the pad wear indicator. If there is evidence of the indicator contacting the rotor disc, the brake pad should be replaced.



### 1. REMOVE FRONT WHEEL

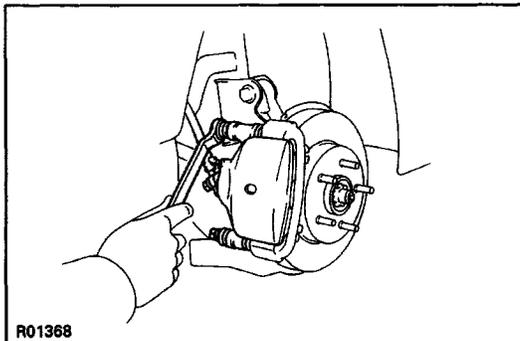
Remove the wheel and temporarily fasten the rotor disc with the hub nuts.



## 2. INSPECT PAD LINING THICKNESS

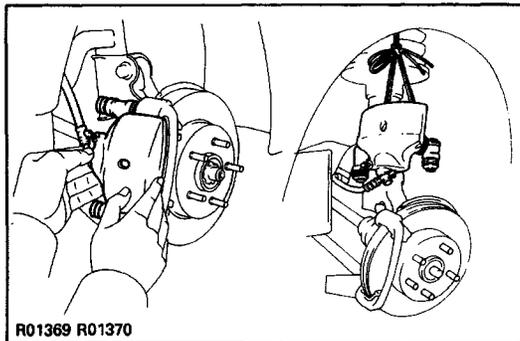
Check the pad thickness through the cylinder inspection hole and replace the pads if it is not within specification.

**Minimum thickness: 1.0 mm (0.039 in.)**



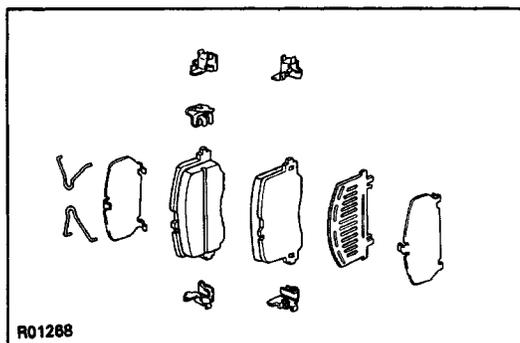
## 3. REMOVE CYLINDER FROM TORQUE PLATE

(a) Remove two installation bolts from the torque plate.



(b) Remove the brake cylinder and suspend it so the hose is not stretched.

**HINT:** Do not disconnect the brake hose.



## 4. REMOVE FOLLOWING PARTS:

- (a) Two anti-squeal springs
- (b) Two brake pads
- (c) Three anti-squeal shims
- (d) Pad wear indicator plate
- (e) Four pad support plates

## 5. CHECK ROTOR DISC THICKNESS

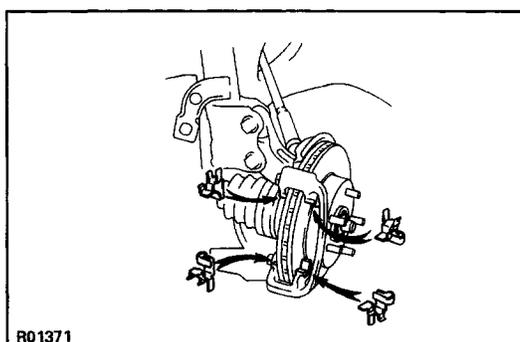
(See step 2 on page [BR-24](#))

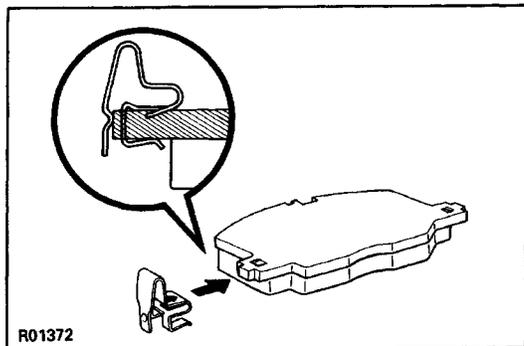
## 6. CHECK ROTOR DISC RUNOUT

(See step 3 on page [BR-24](#))

## 7. INSTALL PAD SUPPORT PLATES

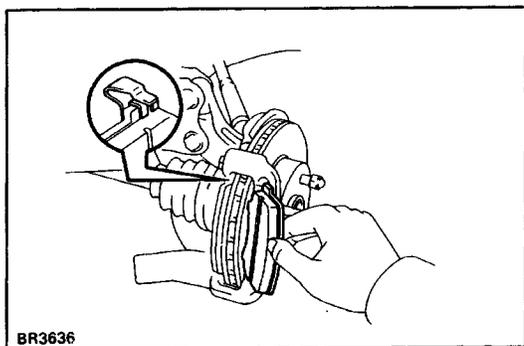
Install the four pad support plates.





## 8. INSTALL NEW PADS

- (a) Install a pad wear indicator plate on the inside pad.
- (b) Apply disc brake grease to both sides of the inner anti-squeal shim.
- (c) Install the two anti-squeal shims to the outside pad.
- (d) Install the anti-squeal shim to the inside pad.

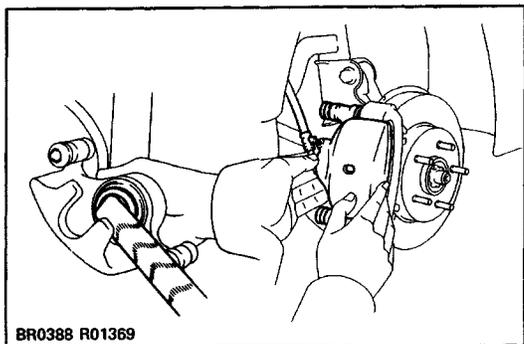


- (e) Install inside pad with the pad wear indicator plate facing upward.

- (f) Install outside pad.

**NOTICE:** There should be no oil or grease adhering to the friction surfaces of the pads or the rotor disc.

- (g) Install the two anti-squeal springs.

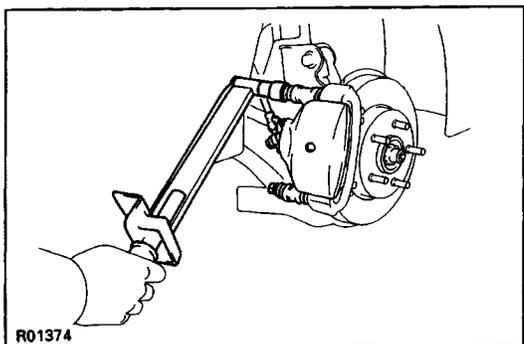


## 9. INSTALL CYLINDER

- (a) Draw out a small amount of brake fluid from the reservoir tank.

- (b) Press in the piston with a hammer handle or an equivalent.

**HINT:** If the piston is heavy and difficult to push in, loosen the bleeder plug and push in the piston while letting some brake fluid escape.



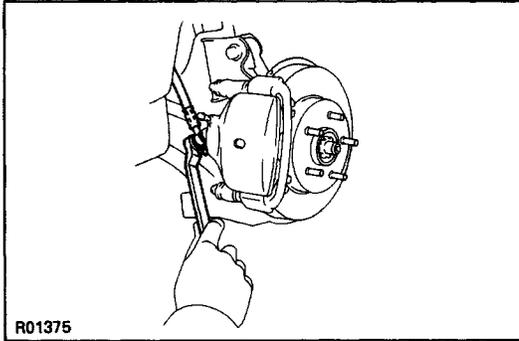
- (c) Install the brake cylinder.

- (d) Install and torque the two installation bolts.

**Torque: 39 N-m (400 kgf-cm, 29 ft-lbf)**

## 10. INSTALL FRONT WHEEL

## 11. CHECK THAT FLUID LEVEL IS MAX LINE

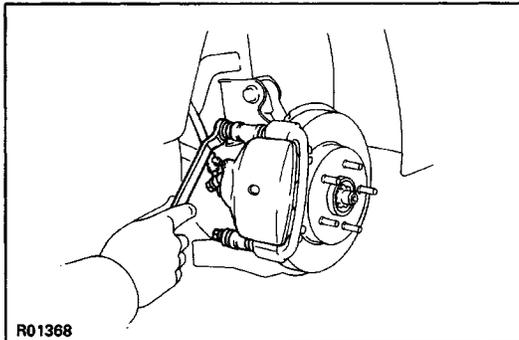


## REMOVAL OF CYLINDER

(See page [BR-19](#))

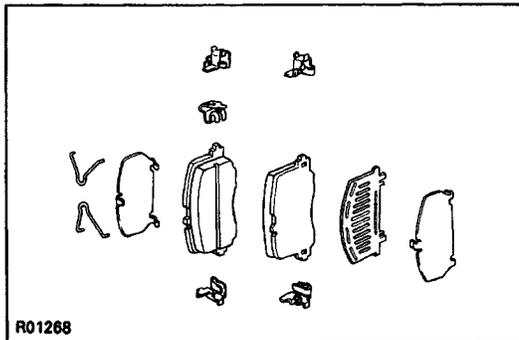
### 1. DISCONNECT FLEXIBLE HOSE

- (a) Remove the union bolt and two gaskets from the brake cylinder, then disconnect the flexible hose from the brake cylinder.
- (b) Use a container to catch the brake fluid as it drains out.



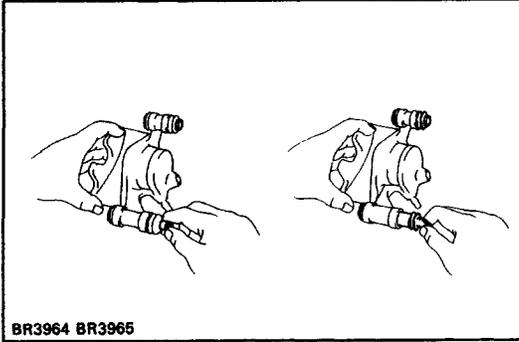
### 2. REMOVE CYLINDER FROM TORQUE PLATE

Remove the two installation bolts and cylinder.



### 3. REMOVE FOLLOWING PARTS:

- (a) Two anti-squeal springs
- (b) Two brake pads
- (c) Three anti-squeal shims
- (d) Pad wear indicator
- (e) Four pad support plates

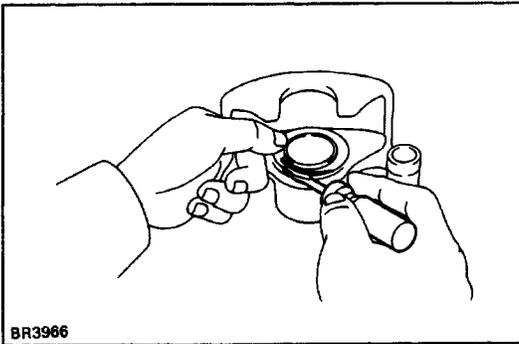


## DISASSEMBLY OF CYLINDER

(See page BR-19)

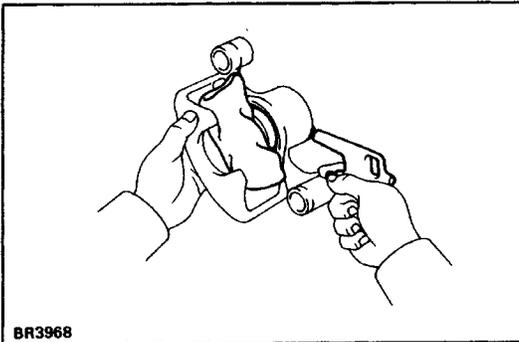
### 1: REMOVE FOLLOWING PARTS:

- (a) Two sliding bushings
- (b) Four dust boots



### 2. REMOVE CYLINDER BOOT SET RING AND CYLINDER BOOT

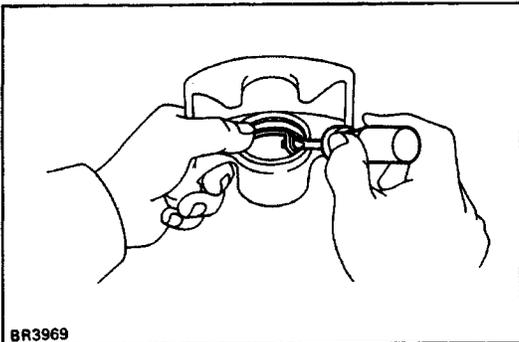
Using a screwdriver, remove the cylinder boot set ring and cylinder boot.



### 3. REMOVE PISTON FROM CYLINDER.

- (a) Put a piece of cloth or an equivalent between the piston and the cylinder.
- (b) Use compressed air to remove the piston from the cylinder.

**CAUTION: Do not place your fingers in front of the piston when using compressed air.**



### 4. REMOVE PISTON SEAL FROM BRAKE CYLINDER

Using a screwdriver, remove the piston seal.

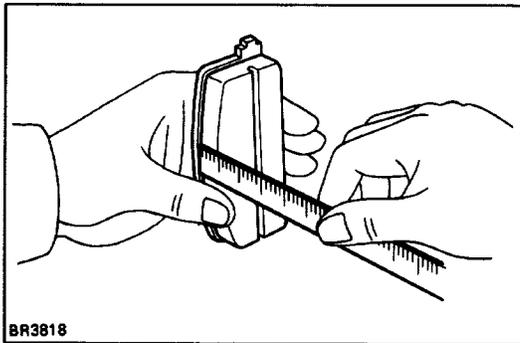
## INSPECTION OF FRONT BRAKE COMPONENTS

### 1. MEASURE PAD LINING THICKNESS

**Standard thickness: 10.0 mm (0.39 in.)**

**Minimum thickness: 1.0 mm (0.039 in.)**

Replace the pad if the thickness is less than the minimum or if it shows sign of uneven wear.



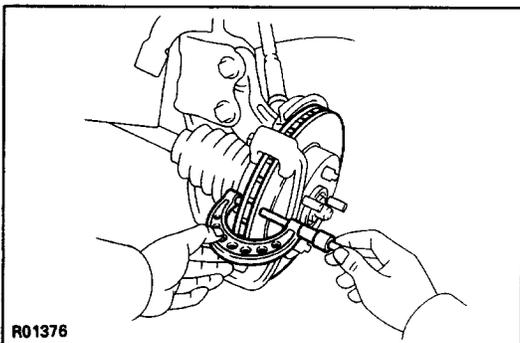
BR3818

### 2. MEASURE ROTOR DISC THICKNESS

**Standard thickness: 25.0 mm (0.984 in.)**

**Minimum thickness: 23.0 mm (0.906 in.)**

If the disc is scored or worn, or if thickness is less than minimum, repair or replace the disc.



R01376

### 3. MEASURE ROTOR DISC RUNOUT

**HINT:** Before measuring the runout, confirm that the front hub bearing play is within specification.

Measure the rotor disc runout at 10 mm (0.39 in.) from the outer edge of the rotor disc.

**Maximum disc runout: 0.07 mm (0.0028 in.)**

If the runout is greater than the maximum, inspect and adjust if following the procedure below.

Then replace the disc if necessary.

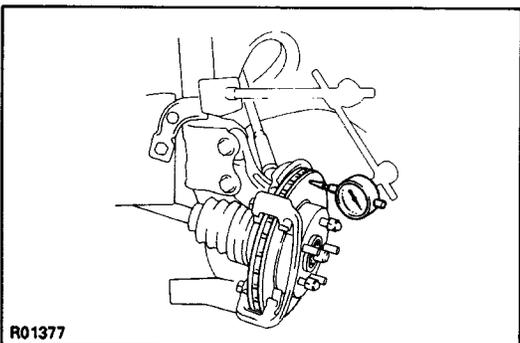
- (a) Remove the torque plate from the knuckle.
- (b) Remove the hub nuts of the temporarily installed disc and pull off the rotor disc.
- (c) Check that the hub axial play is within specification, and replace the bearing if not within specification.  
(See page [SA-8](#))

(d) Install the rotor disc and measure the disc runout, then shift the rotor disc one fifth of a turn or one fourth of a turn, and measure the disc runout. Similarly measure the runout at each position, and select the position where the runout is minimum.

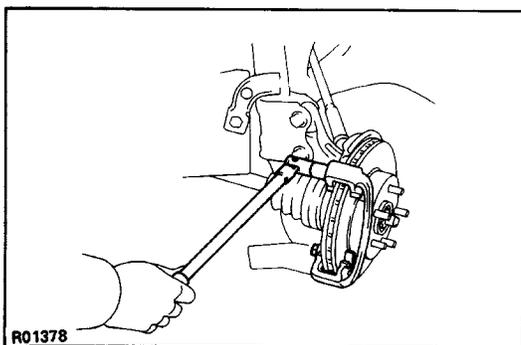
(e) In this position, if the runout is within specification, install the torque plate and torque the mounting bolts.

**Torque: 107 N-m (1,094 kgf-cm, 79 ft-lbf)**

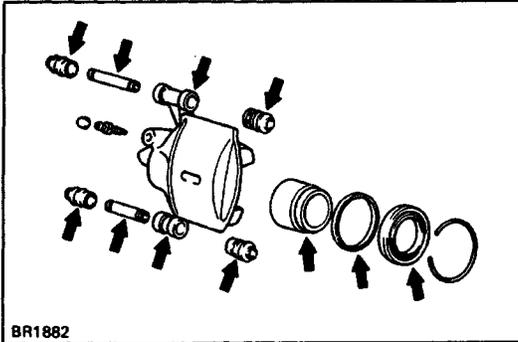
(f) If not within specification, replace the rotor disc, and repeat (d) and (e).



R01377



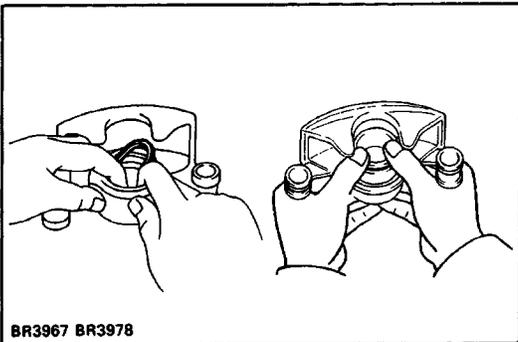
R01378



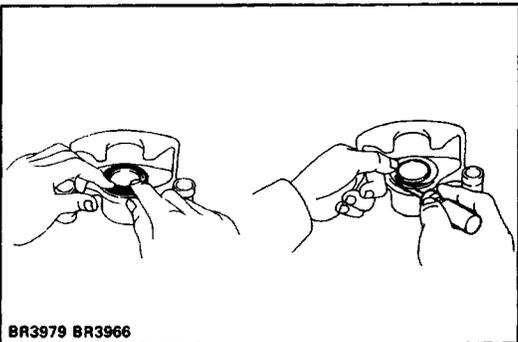
## ASSEMBLY OF CYLINDER

(See page BR-19)

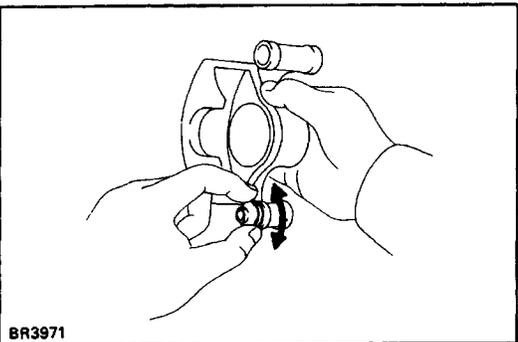
1. APPLY LITHIUM SOAP BASE GLYCOL GREASE TO PARTS INDICATED WITH ARROWS



2. INSTALL PISTON SEAL AND PISTON IN CYLINDER

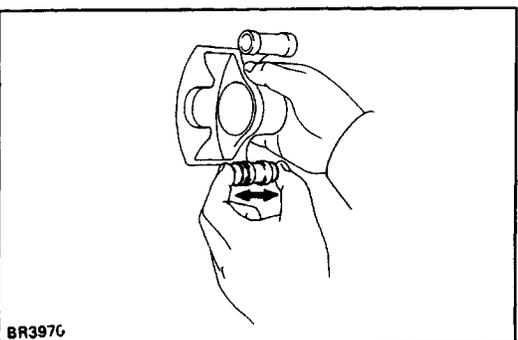


3. INSTALL CYLINDER BOOT AND SET RING IN CYLINDER

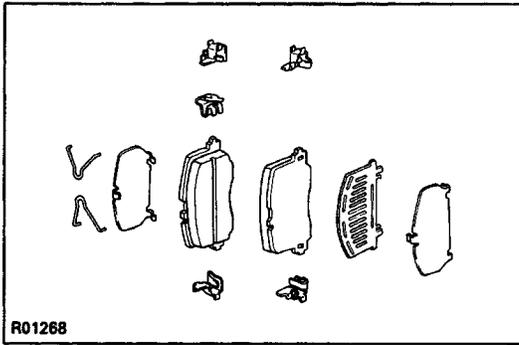


4. INSTALL DUST BOOTS AND CYLINDER SLIDING BUSHINGS

(a) Install the dust boots into the brake cylinder.  
 (b) Insure that the boots is secured firmly to the brake cylinder grooves.



(c) Install the bushing into the boots.  
 (d) Insure that the boots is secured firmly to the bushing grooves.



R01268

## INSTALLATION OF CYLINDER

(See page [BR-19](#))

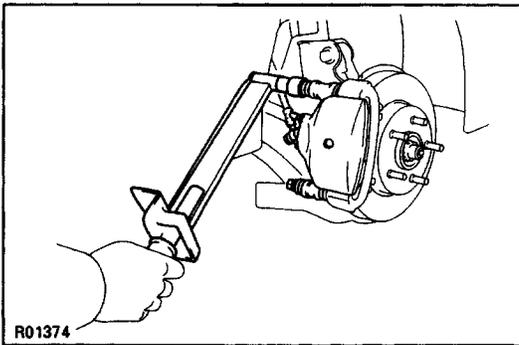
### 1. INSTALL FOLLOWING PARTS:

- (a) Four pad support plates
  - (b) Pad wear indicator
  - (c) Three anti-squeal shims
  - (d) Two brake pads
  - (e) Two anti-squeal springs
- (See steps 7 and 8 on pages [BR-20](#) and 21)

### 2. INSTALL CYLINDER

- (a) Install the brake cylinder.
- (b) Install and torque the two installation bolts.

**Torque: 39 N-m (400 kgf-cm, 29 ft-lbf)**



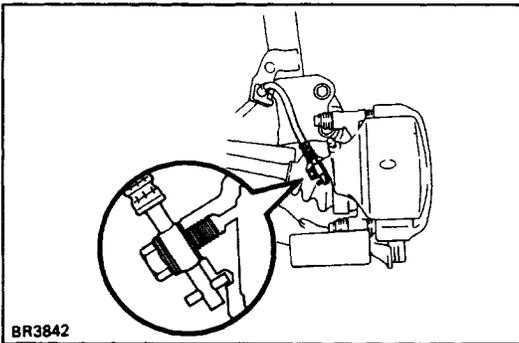
R01374

### 3. INSTALL FLEXIBLE HOSE

Install the flexible hose on the brake cylinder with two new gaskets.

**Torque: 30 N-m (310 kgf-cm, 22 ft-lbf)**

**HINT:** Insert the flexible hose lock securely in the lock hole in the brake cylinder.



BR3842

### 4. FILL BRAKE RESERVOIR WITH BRAKE FLUID AND BLEED BRAKE SYSTEM

(See page [BR-7](#))

### 5. CHECK FOR LEAKS