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NOT FOR RESALE

PARKING BRAKE

General Description

PARKING BRAKE

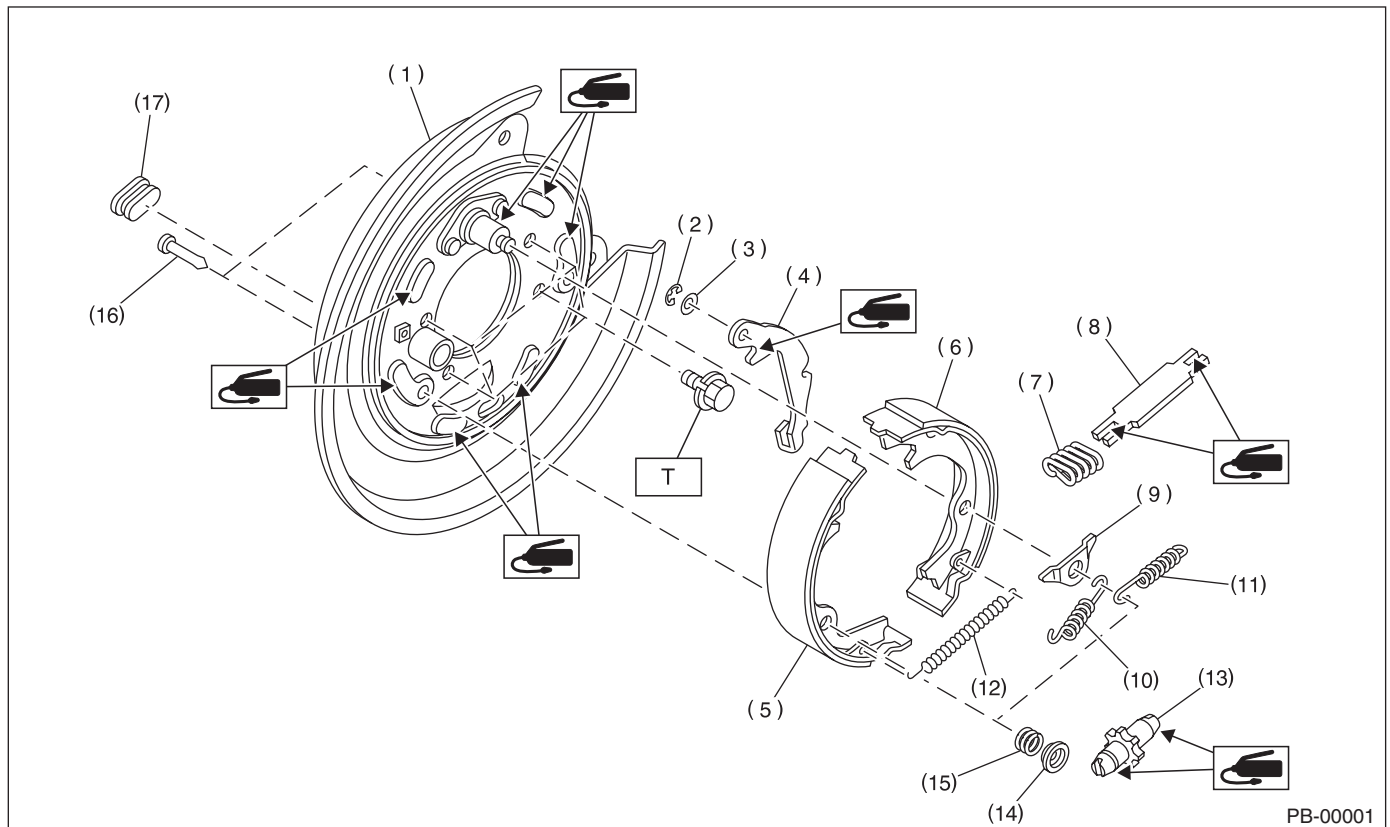
1. General Description

A: SPECIFICATION

Model		Except for STI model	STI model
Type		Mechanical, drum in disc rear brakes	
Effective drum diameter	mm (in)	170 (6.69)	190 (7.48)
Lining dimensions (Length x Width x Thickness)	mm (in)	162.6 x 30.0 x 3.2 (6.40 x 1.181 x 0.126)	182.3 x 30.0 x 3.2 (7.18 x 1.181 x 0.126)
Clearance adjustment		Manual adjustment	
Lever stroke	Notches/N (kgf, lbf)	7 — 8/196 (20, 44)	

B: COMPONENT

1. PARKING BRAKE (REAR DISC BRAKE)

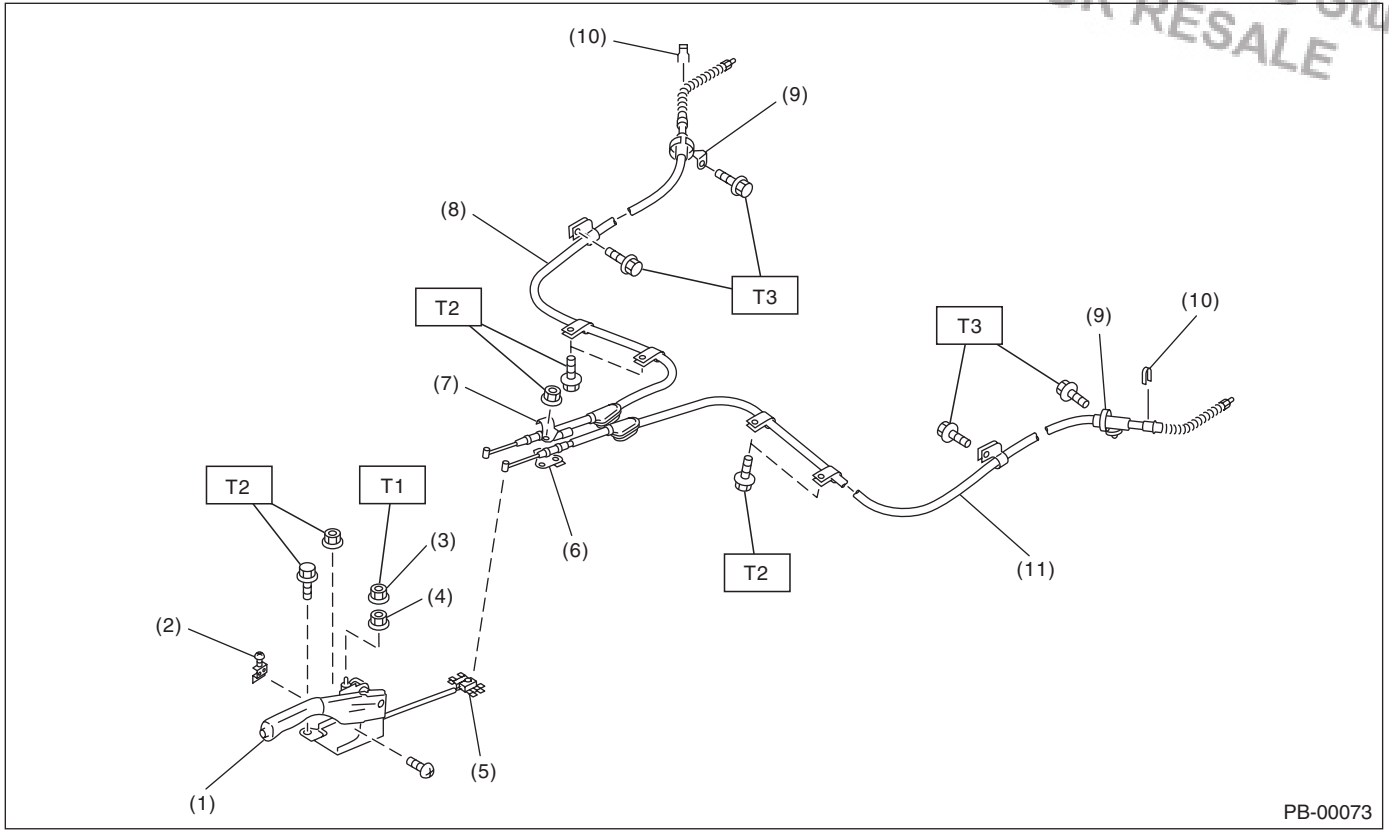


- | | | |
|------------------------------------|------------------------------|----------------------------|
| (1) Back plate | (8) Strut | (15) Shoe hold-down spring |
| (2) Retainer | (9) Shoe guide plate | (16) Shoe hold-down pin |
| (3) Spring washer | (10) Primary return spring | (17) Adjusting hole cover |
| (4) Lever | (11) Secondary return spring | |
| (5) Parking brake shoe (Primary) | (12) Adjusting spring | |
| (6) Parking brake shoe (Secondary) | (13) Adjuster | |
| (7) Strut spring | (14) Shoe hold-down cup | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 53 (5.4, 39.1)

2. PARKING BRAKE CABLE



PB-00073

- | | |
|--------------------------|------------------------------------|
| (1) Parking brake lever | (7) Clamp |
| (2) Parking brake switch | (8) Parking brake cable RH |
| (3) Lock nut | (9) Cable guide |
| (4) Adjusting nut | (10) Clamp (Rear disc brake model) |
| (5) Equalizer | (11) Parking brake cable LH |
| (6) Bracket | |

Tightening torque: N·m (kgf·m, ft·lb)

- | |
|---------------------------|
| T1: 6 (0.6, 4.4) |
| T2: 18 (1.8, 13.0) |
| T3: 32 (3.3, 23.6) |

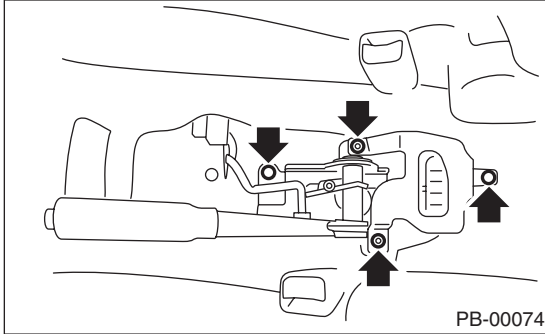
C: CAUTION

- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Use SUBARU genuine grease etc. or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before securing a part in a vise, place cushioning material such as wood blocks, aluminum plate or cloth between the part and the vise.
- Make sure grease does not come into contact with the parking shoes.

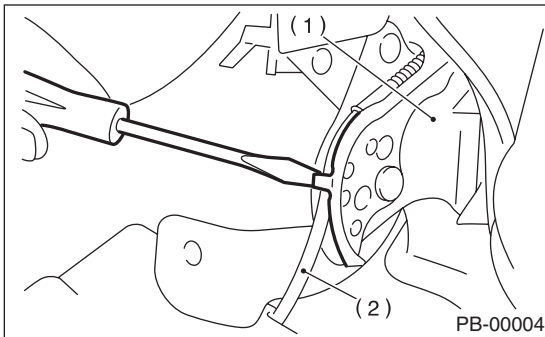
2. Parking Brake Lever

A: REMOVAL

- 1) Lift up the vehicle.
- 2) Remove the rear wheels.
- 3) Remove the rear seat cushion.
- 4) Remove the console box.
- 5) Loosen the parking cable adjusting nut and console bracket.
- 6) Disconnect the parking brake switch connector.
- 7) Remove the parking brake lever.



- 8) Straighten the tab on the parking brake lever and remove the cable.



- (1) Parking brake lever
- (2) Cable

B: INSTALLATION

- 1) Install in the reverse order of removal.

Tightening torque:

Parking brake lever

18 N·m (1.8 kgf-m, 13.0 ft-lb)

Lock nut

6 N·m (0.6 kgf-m, 4.4 ft-lb)

- 2) Be sure to adjust the lever stroke. <Ref. to PB-4, ADJUSTMENT, Parking Brake Lever.>

C: INSPECTION

While pulling the parking brake lever upward, count the notches.

Lever stroke:

7 to 8 notches when pulled with a force of 196 N (20 kgf, 44 lbf)

If it is not within the specified value, adjust the parking brake. <Ref. to PB-8, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).>

D: ADJUSTMENT

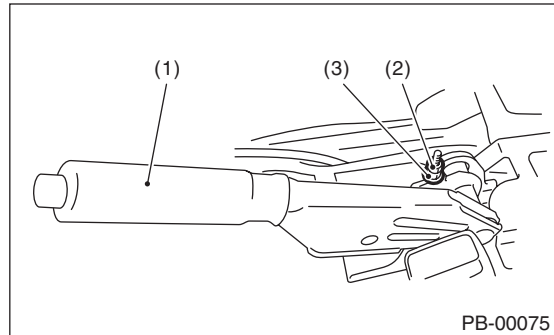
- 1) Remove the console cover.
- 2) Forcefully pull the parking brake lever 3 to 5 times.
- 3) Turn the adjusting nut to adjust the lever stroke of the parking brake lever to be 7 to 8 notches when applying the parking brake with force of 196 N (20 kgf, 44 lbf).
- 4) Tighten the lock nut.

Lever stroke:

7 to 8 notches when pulled with a force of 196 N (20 kgf, 44 lbf)

Tightening torque (lock nut):

6 N·m (0.6 kgf-m, 4.4 ft-lb)



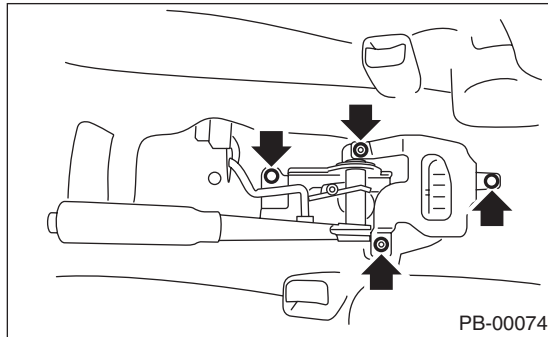
- (1) Parking brake lever
- (2) Lock nut
- (3) Adjusting nut

- 5) Install the console cover.

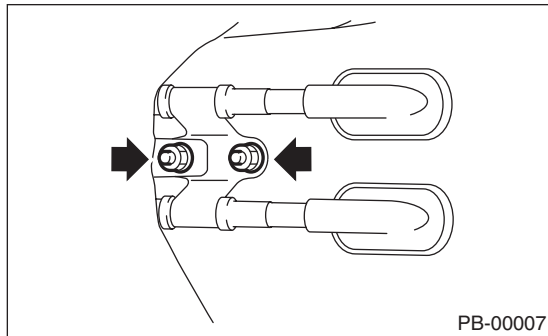
3. Parking Brake Cable

A: REMOVAL

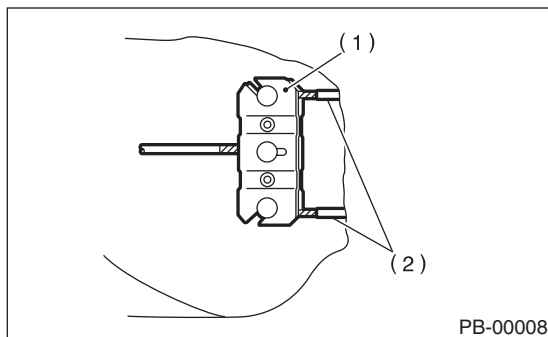
- 1) Lift up the vehicle.
- 2) Remove the rear wheels.
- 3) Remove the rear seat cushion.
- 4) Remove the console box.
- 5) Loosen the parking cable adjusting nut and console bracket.
- 6) Remove the parking brake lever.



- 7) Roll up the floor mat and remove the clamps.



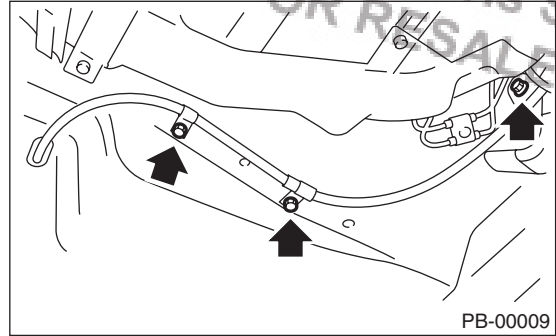
- 8) Remove the equalizer cover.
- 9) Remove the inner cable end from equalizer.



- (1) Equalizer
- (2) Inner cable end

- 10) Remove the parking brake cable from rear brake. <Ref. to PB-6, REMOVAL, Parking Brake Assembly (Rear Disc Brake).>
- 11) Remove the clamp from the rear brake.
- 12) Remove the bolt and bracket from trailing link bracket.

- 13) Remove the bolt and clamp from the rear floor.



- 14) Remove the grommet from the rear floor.
- 15) Remove the cable assembly from the cabin by pulling it forcefully rearward.
- 16) Detach the parking brake cable from the cable guide at the rear trailing link.

B: INSTALLATION

- 1) Install in the reverse order of removal.

NOTE:

Be sure to pass the cable through the tunnel in the cable guide.

- 2) Be sure to adjust the lever stroke. <Ref. to PB-4, ADJUSTMENT, Parking Brake Lever.>

C: INSPECTION

Check and replace the removed cable if damaged, rusty or faulty.

- 1) Check the cable for smooth operation.
- 2) Check the inner cable for damage and rust.
- 3) Check the outer cable for damage, bends and cracks.
- 4) Check the boot for damage, cracks, and corrosion.

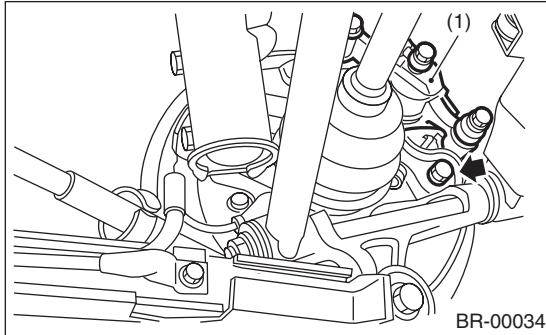
Parking Brake Assembly (Rear Disc Brake)

PARKING BRAKE

4. Parking Brake Assembly (Rear Disc Brake)

A: REMOVAL

- 1) Release the parking brake.
- 2) Remove the two mounting bolts and remove the brake caliper assembly



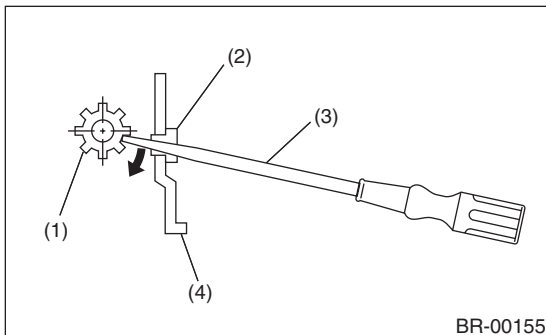
(1) Brake caliper ASSY

- 3) Suspend the brake caliper assembly so that the hose is not stretched.
- 4) Remove the disc rotor.

NOTE:

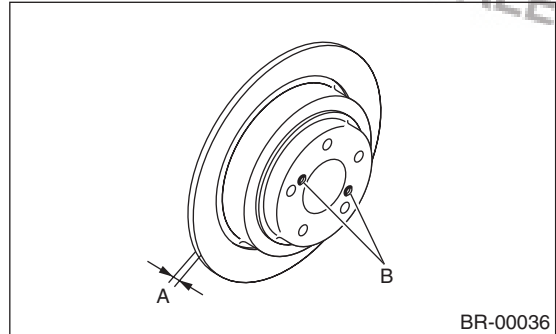
If the disc rotor is difficult to remove, try the following two methods in order.

- (1) Turn the adjusting screw using a flat tip screwdriver until the brake shoe moves adequately away from the disc rotor.

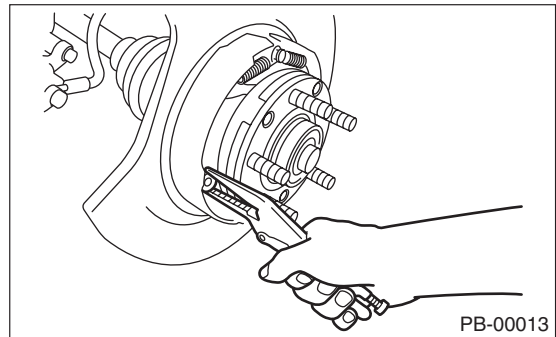


- (1) Adjusting screw
- (2) Adjusting hole cover (rubber)
- (3) Flat tip screwdriver
- (4) Back plate

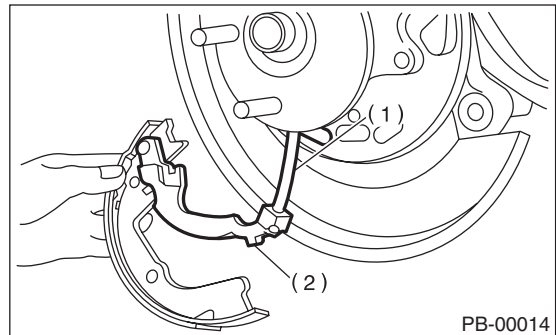
- (2) If disc rotor is seized on the hub, drive the disc rotor out by pushing two 8 mm bolts in holes B on the rotor.



- 5) Remove the shoe return spring from the parking brake assembly.
- 6) Remove the front shoe hold down spring and pin with pliers.



- 7) Remove the strut and strut spring.
- 8) Remove the adjuster assembly from the parking brake assembly.
- 9) Remove the brake shoe.
- 10) Remove the rear shoe hold down spring and pin with pliers.
- 11) Remove the parking brake cable from lever.



- (1) Parking brake cable
- (2) Lever

- 12) Using a flat tip screwdriver, raise the retainer. Remove the lever and washer from brake shoe.

B: INSTALLATION

CAUTION:

Be sure the lining surface is free from oil and grease.

1) Apply brake grease to the following locations.

Brake grease:

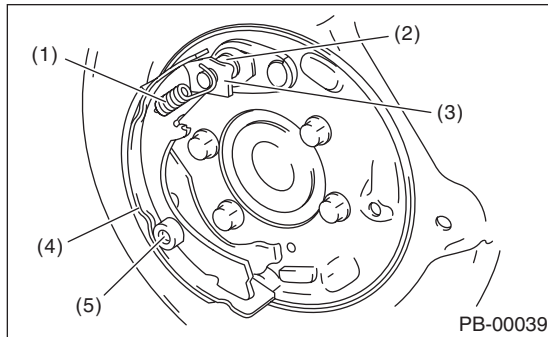
Brake Grease (Part No. 003602002)

- Six contact surfaces of the shoe rim and back plate gasket
- Contact surface of the shoe wave and the anchor pin
- Contact surface of the lever and strut
- Contact surface of the shoe wave and the adjuster assembly
- Contact surface of the shoe wave and the strut
- Contact surface of the lever and the shoe wave

2) Insert the primary side brake shoe into the anchor pin groove.

3) Secure the brake shoe with the shoe hold-down pin and cup.

4) Install the plate to the anchor pin, then install the primary return spring.



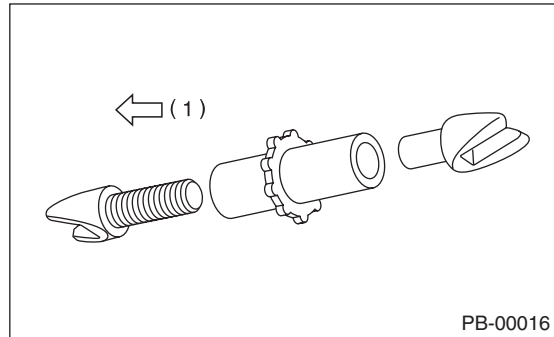
- (1) Primary return spring
- (2) Anchor pin
- (3) Shoe guide plate
- (4) Primary shoe
- (5) Shoe hold-down pin & cup

5) Install the parking brake cable to the lever.

6) Install the strut and adjuster, then secure the secondary side brake shoe with the shoe hold-down pin and cup.

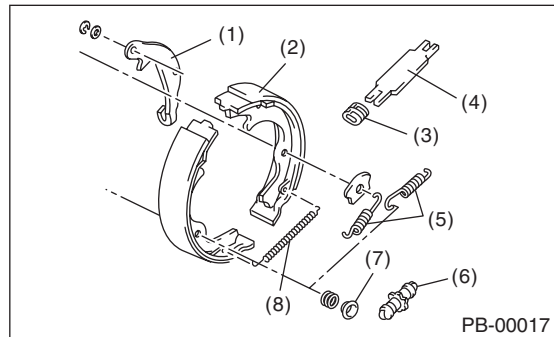
NOTE:

- Install the strut spring of both right and left wheel facing vehicle front.
- Install the adjuster assembly with screw section on the left side.



(1) LH

7) Install the secondary return spring and the adjusting spring.



- (1) Lever
- (2) Secondary brake shoe
- (3) Strut spring
- (4) Strut
- (5) Return spring
- (6) Adjuster
- (7) Shoe hold-down cup
- (8) Adjusting spring

8) Adjust the parking brake. <Ref. to PB-8, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).>

9) Drive the vehicle to break-in the parking brake lining.

(1) Drive the vehicle at about 35 km/h (22 MPH).

(2) With the parking brake release button pushed in, pull the parking brake lever gently.

(3) Drive the vehicle for about 200 m (0.12 mile) in this condition.

(4) Wait 5 to 10 minutes for the parking brake to cool down. Repeat this procedure once more.

(5) After breaking-in, re-adjust the parking brakes.

Parking Brake Assembly (Rear Disc Brake)

PARKING BRAKE

C: INSPECTION

1) Measure the brake disc rotor inside diameter. If the disc is scored or worn, replace the brake disc rotor.

Disc rotor inside diameter:

Standard:

Except for STI model 170 mm (6.69 in)

STI model 190 mm (7.48 in)

Service limit:

Except for STI model 171 mm (6.73 in)

STI model 191 mm (7.52 in)

2) Measure the lining thickness. If it exceeds the limit, replace shoe assembly.

Lining thickness:

Standard:

3.2 mm (0.126 in)

Service limit:

1.5 mm (0.059 in)

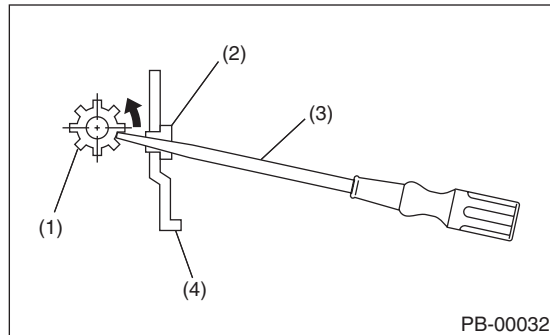
NOTE:

Replace the right and left brake shoe as a set.

D: ADJUSTMENT

1. SHOE CLEARANCE

- 1) Return the parking brake lever fully.
- 2) Remove the adjusting hole cover from the back plate.
- 3) Turn the adjusting screw using a flat tip screwdriver until the brake shoe is in close contact with the disc rotor.



- (1) Adjusting screw
- (2) Adjusting hole cover (rubber)
- (3) Flat tip screwdriver
- (4) Back plate

4) Turn back (downward) the adjusting screw 3 to 4 notches.

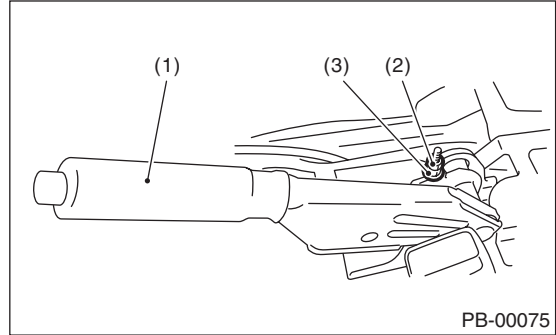
CAUTION:

Be sure that the brake is not dragging.

- 5) Install the adjusting hole cover to the back plate.
- 6) Adjust the parking brake lever stroke. <Ref. to PB-8, LEVER STROKE, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).>

2. LEVER STROKE

- 1) Adjust the shoe clearance before adjusting lever stroke. <Ref. to PB-8, SHOE CLEARANCE, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).>
- 2) Remove the console box lid.
- 3) Forcefully pull the parking brake lever 3 to 5 times.
- 4) Turn the adjusting nut to adjust the lever stroke of the parking brake lever to be 7 to 8 notches when applying the parking brake with force of 196 N (20 kgf, 44 lbf).



- (1) Parking brake lever
- (2) Lock nut
- (3) Adjusting nut

Lever stroke:

7 to 8 notches when pulled with a force of 196 N (20 kgf, 44 lbf)

5) Tighten the lock nut.

Tightening torque (lock nut):

6 N·m (0.6 kgf-m, 4.4 ft-lb)

6) Install the console box lid.

5. General Diagnostic Table

A: INSPECTION

Symptom	Possible cause	Corrective action
Brake drag	Parking brake lever not adjusted correctly.	Adjust.
	Parking brake cable does not move.	Repair or replace.
	Parking brake shoe clearance is maladjusted.	Adjust.
	Return spring is faulty.	Replace.
Noise from brake	Return spring is faulty.	Replace.
	Shoe hold-down spring faulty.	Replace.

General Diagnostic Table

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