

PARKING BRAKE SYSTEM

3309G-02

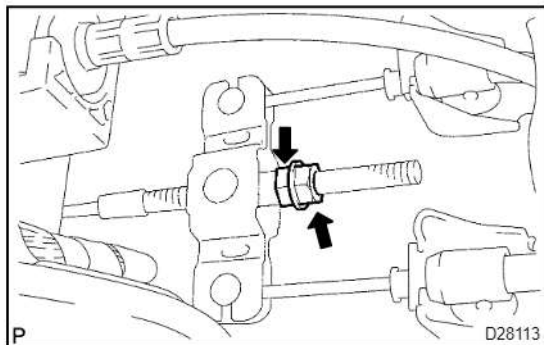
PROBLEM SYMPTOMS TABLE

Use the table below to help you find the cause of the problem. The numbers indicate the priority of the likely cause of the problem. Check each part in order. If necessary, replace these parts.

Symptom	Suspect Area	See page
Brake drag	1. Parking brake pedal travel (Out of adjustment)	33-2
	2. Parking brake wire (Sticking)	33-7
		33-11
	3. Parking brake shoe clearance (Out of adjustment)	33-15
	4. Parking brake shoe lining (Cracked or distorted)	33-15
	5. Tension or return spring (Damaged)	33-15

ADJUSTMENT

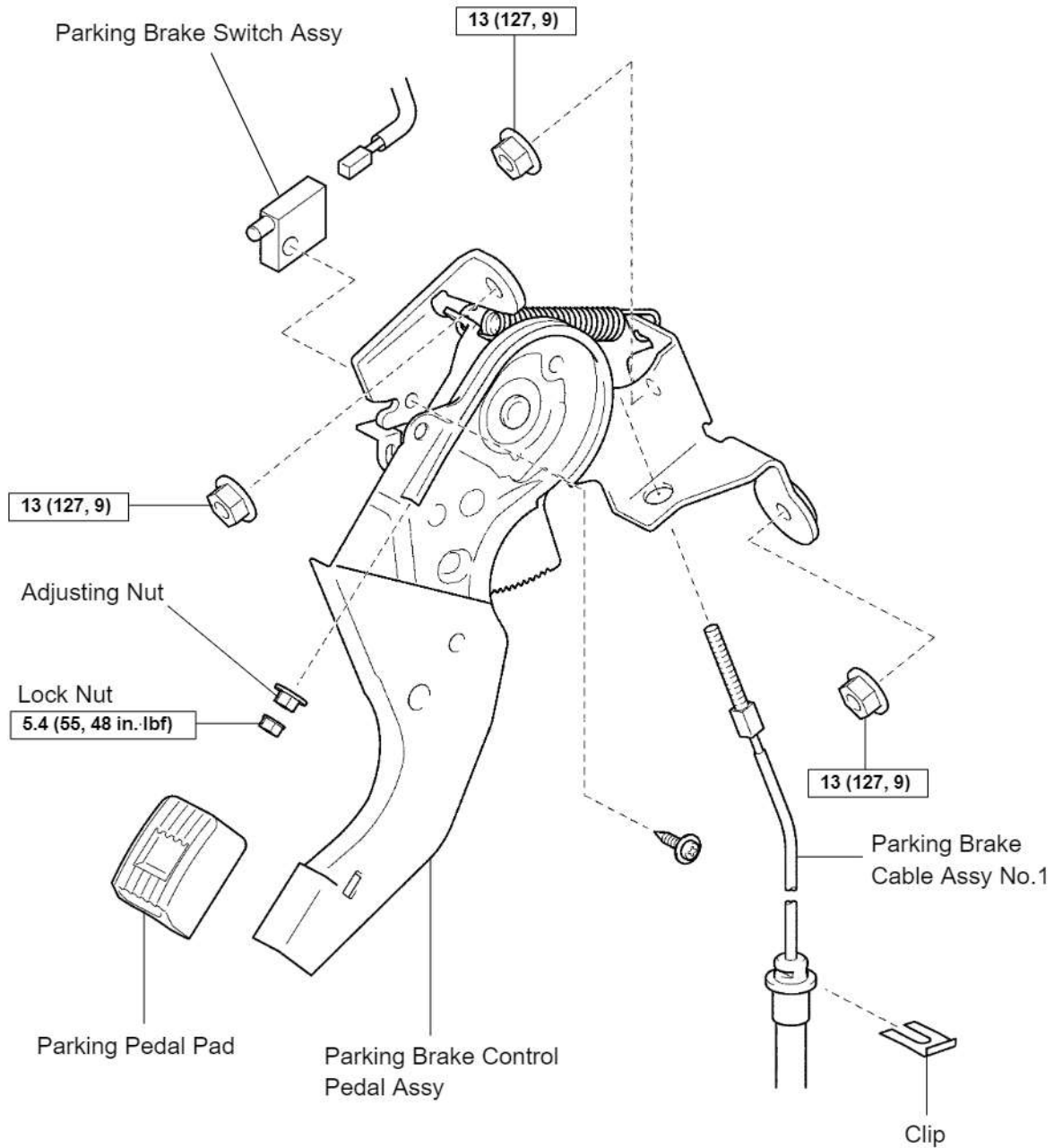
1. REMOVE REAR WHEEL
2. ADJUST PARKING BRAKE SHOE CLEARANCE (See page 33-15)
3. INSTALL REAR WHEEL
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
4. INSPECT PARKING BRAKE PEDAL TRAVEL
 - (a) Slowly depress the parking brake pedal all the way, and count the number of clicks.
Parking brake pedal travel at 294 N (30 kgf, 66 lbf): 5 – 7 clicks



5. ADJUST PARKING BRAKE PEDAL TRAVEL
 - (a) Remove the console rear panel upper.
 - (b) Remove the console panel upper.
 - (c) Remove the rear console box.
 - (d) Confirm that the parking brake pedal is released.
 - (e) Loosen the lock nut and turn the adjusting nut until the parking brake pedal travel is corrected to the specification.
 - (f) Tighten the lock nut.
Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)
 - (g) Check whether parking brake drags or not.
 - (h) When operating the parking brake pedal, check that the parking brake pedal indicator light comes on.
 - (i) Install the rear console box.
 - (j) Install the console panel upper.
 - (k) Install the console rear panel upper.

PARKING BRAKE CONTROL PEDAL ASSY COMPONENTS

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N·m (kgf·cm, ft·lbf) : Specified torque

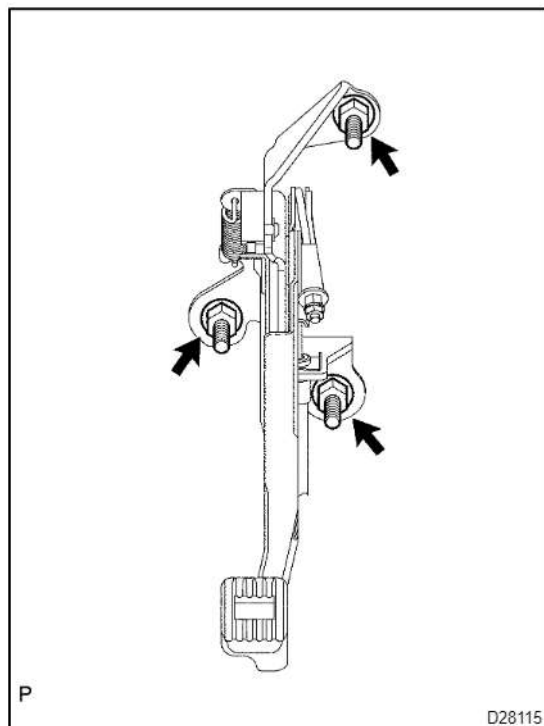
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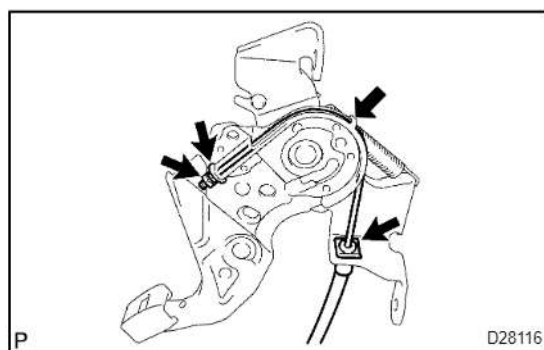
OVERHAUL

1. REMOVE INSTRUMENT PANEL SAFETY PAD SUB-ASSY (See page 71-14)
2. REMOVE AIR CONDITIONING RADIATOR ASSY (See page 55-13)
3. REMOVE YAWRATE SENSOR (See page 32-54)
4. REMOVE AIR BAG SENSOR ASSY CENTER (See page 60-47)
5. REMOVE FLOOR SHIFT ASSY (See page 40-72)



6. REMOVE PARKING BRAKE CONTROL PEDAL ASSY

- (a) Release the parking brake pedal.
- (b) Disconnect the parking brake switch connector.
- (c) Remove the 3 nuts and parking brake control pedal assy.



7. REMOVE PARKING BRAKE CABLE ASSY NO.1

- (a) Open the claw.
- (b) Remove the lock nut, adjusting nut, clip and parking brake assy No.1.

8. REMOVE PARKING BRAKE SWITCH ASSY

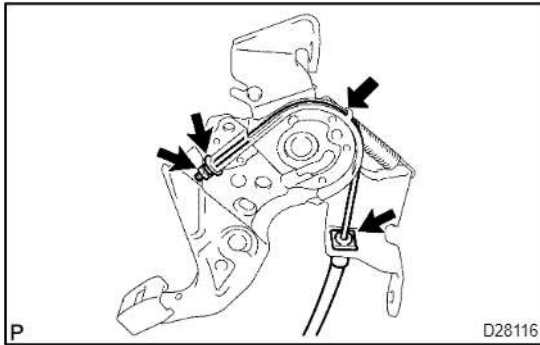
- (a) Remove the screw and parking brake switch assy.

9. REMOVE PARKING PEDAL PAD

10. INSTALL PARKING PEDAL PAD

11. INSTALL PARKING BRAKE SWITCH ASSY

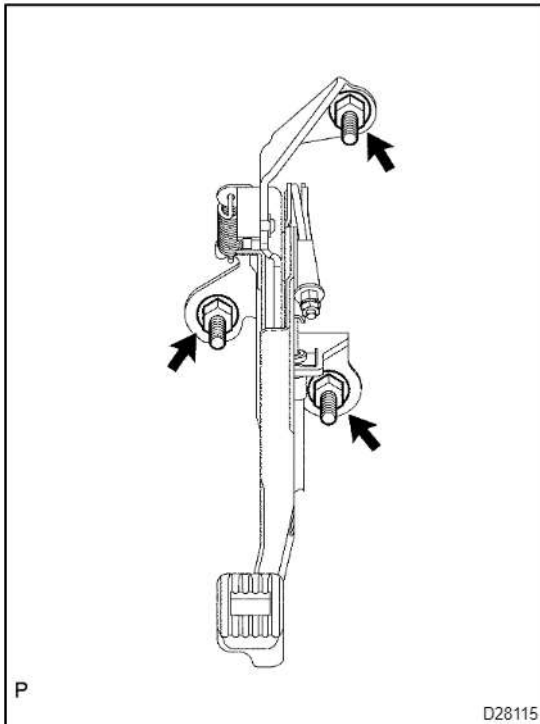
- (a) Install the parking brake switch assy with the screw.

**12. INSTALL PARKING BRAKE CABLE ASSY NO.1**

- (a) Install the parking brake cable assy No.1 with the clip, adjusting nut and lock nut.

Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

- (b) Bend the claw.

**13. INSTALL PARKING BRAKE CONTROL PEDAL ASSY**

- (a) Install the parking brake control pedal assy with the 3 nuts.

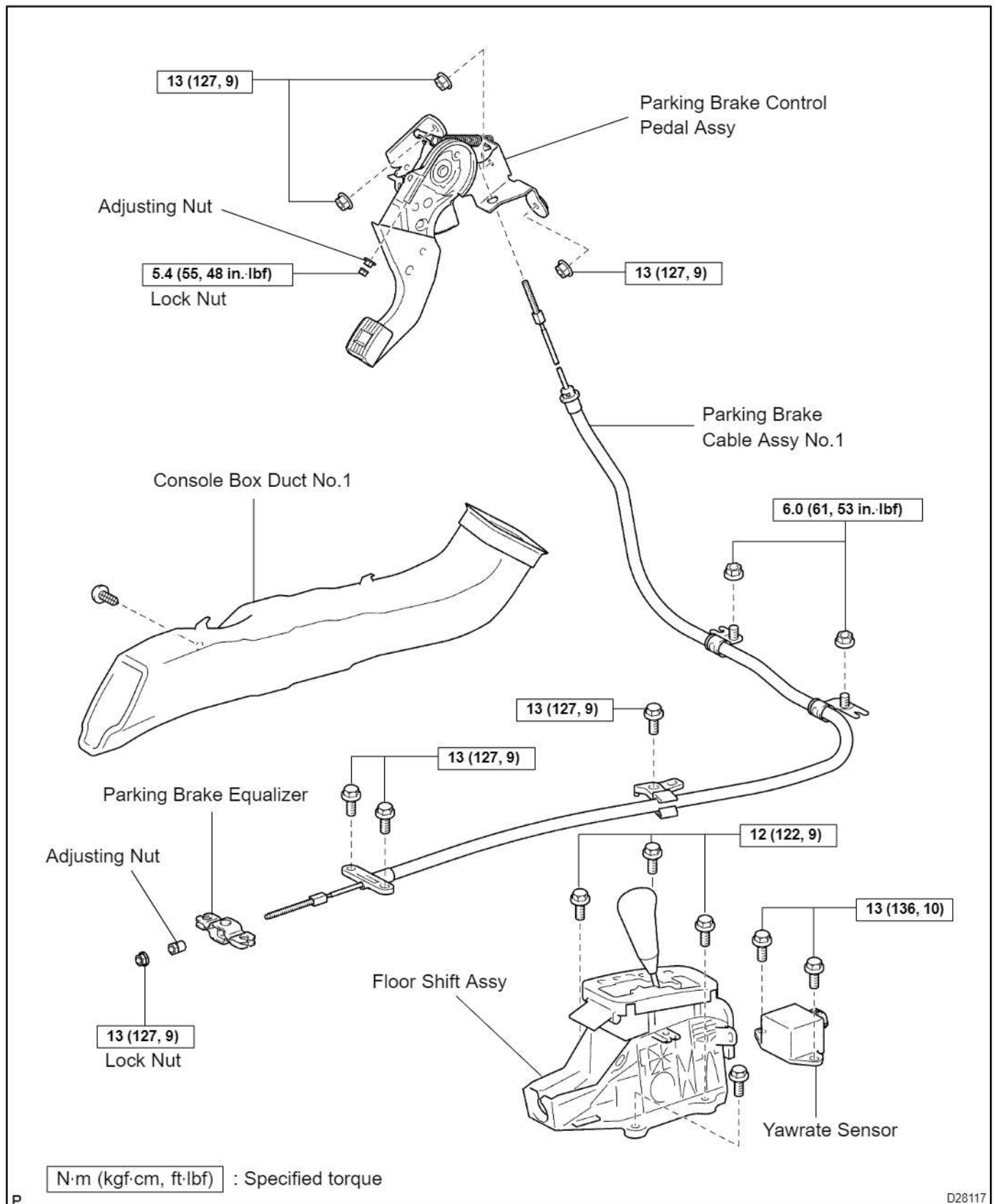
Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

- (b) Connect the parking brake switch connector.

14. INSTALL FLOOR SHIFT ASSY (See page 40-72)
15. INSTALL AIR BAG SENSOR ASSY CENTER (See page 60-47)
16. INSTALL YAWRATE SENSOR (See page 32-54)
17. INSTALL AIR CONDITIONING RADIATOR ASSY (See page 55-13)
18. INSTALL INSTRUMENT PANEL SAFETY PAD SUB-ASSY (See page 71-14)
19. INSPECT PARKING BRAKE PEDAL TRAVEL (See page 33-2)
20. ADJUST PARKING BRAKE PEDAL TRAVEL (See page 33-2)
21. INSPECT SRS WARNING LIGHT (See page 05-1238)

PARKING BRAKE CABLE ASSY NO.1 COMPONENTS

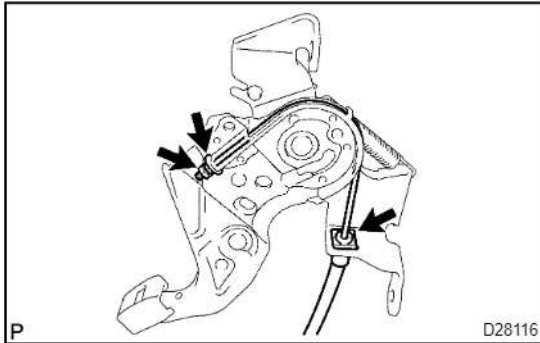
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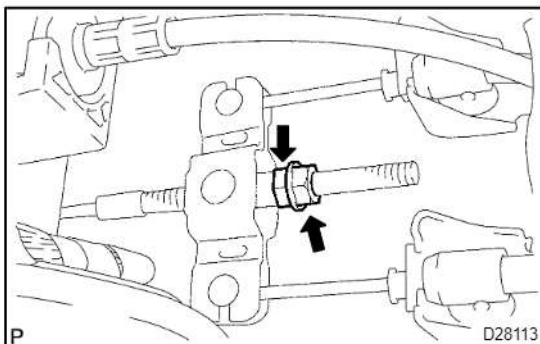
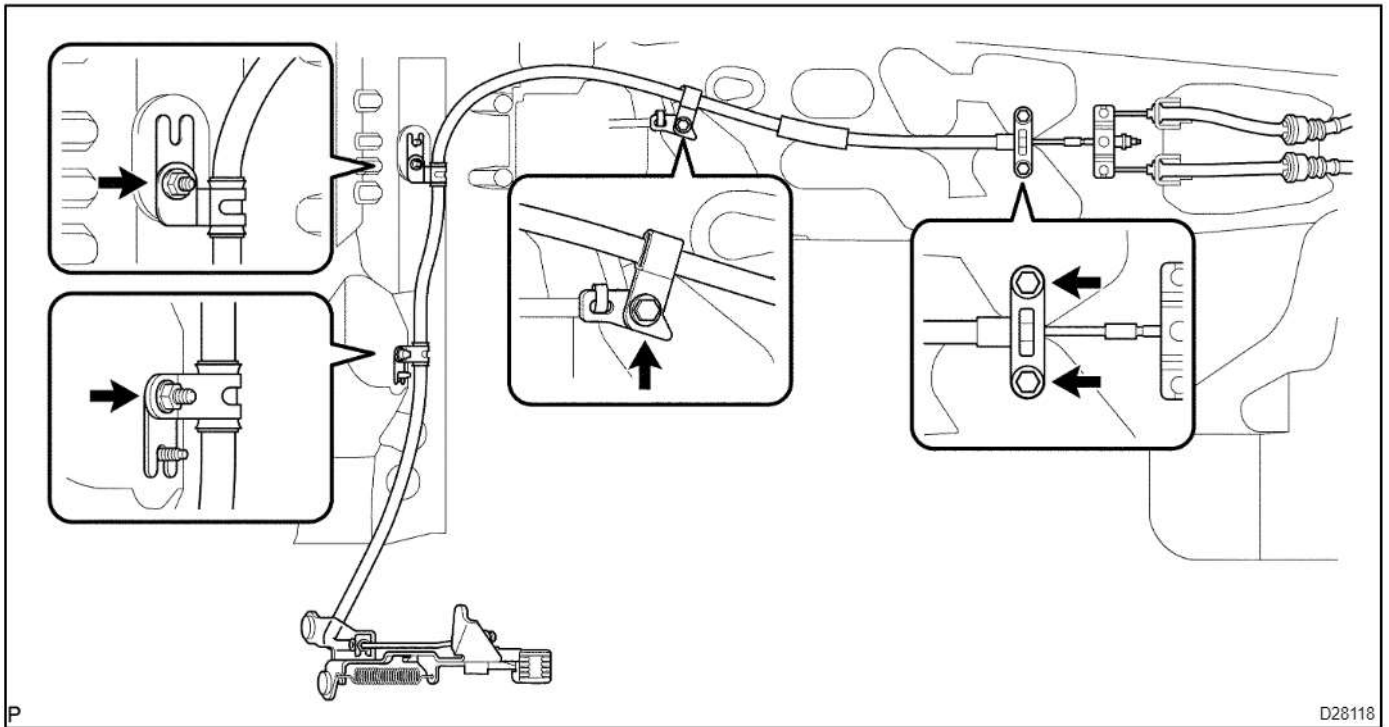
REPLACEMENT

1. REMOVE INSTRUMENT PANEL SAFETY PAD SUB-ASSY (See page 71-14)
2. REMOVE AIR CONDITIONING RADIATOR ASSY (See page 55-13)
3. REMOVE AIR BAG SENSOR ASSY CENTER (See page 32-54)
4. REMOVE YAWRATE SENSOR (See page 60-47)
5. REMOVE FLOOR SHIFT ASSY (See page 40-72)
6. REMOVE PARKING BRAKE CONTROL PEDAL ASSY (See page 33-4)

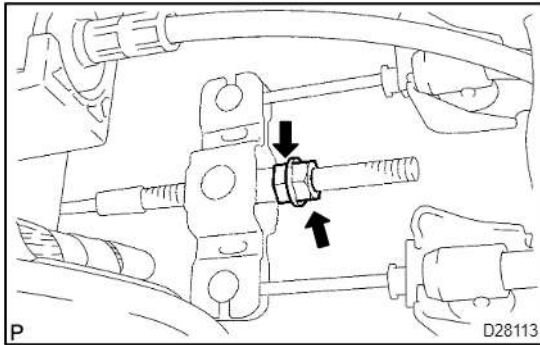


7. REMOVE PARKING BRAKE CABLE ASSY NO.1

- (a) Remove the look nut, adjusting nut, clip and disconnect the parking brake cable assy No.1 from the parking brake control pedal assy.
- (b) Remove the 2 nuts and 3 bolts from the parking brake cable assy No.1.



- (c) Remove the lock nut, adjusting nut and parking brake cable assy No.1 from the parking brake equalizer.



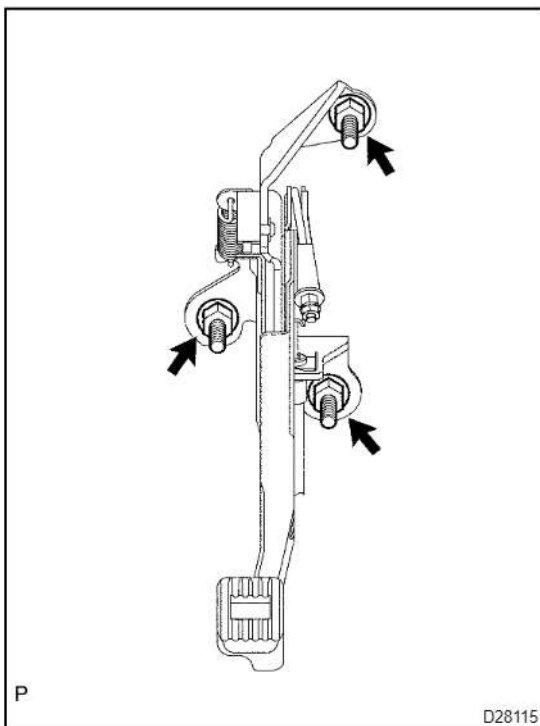
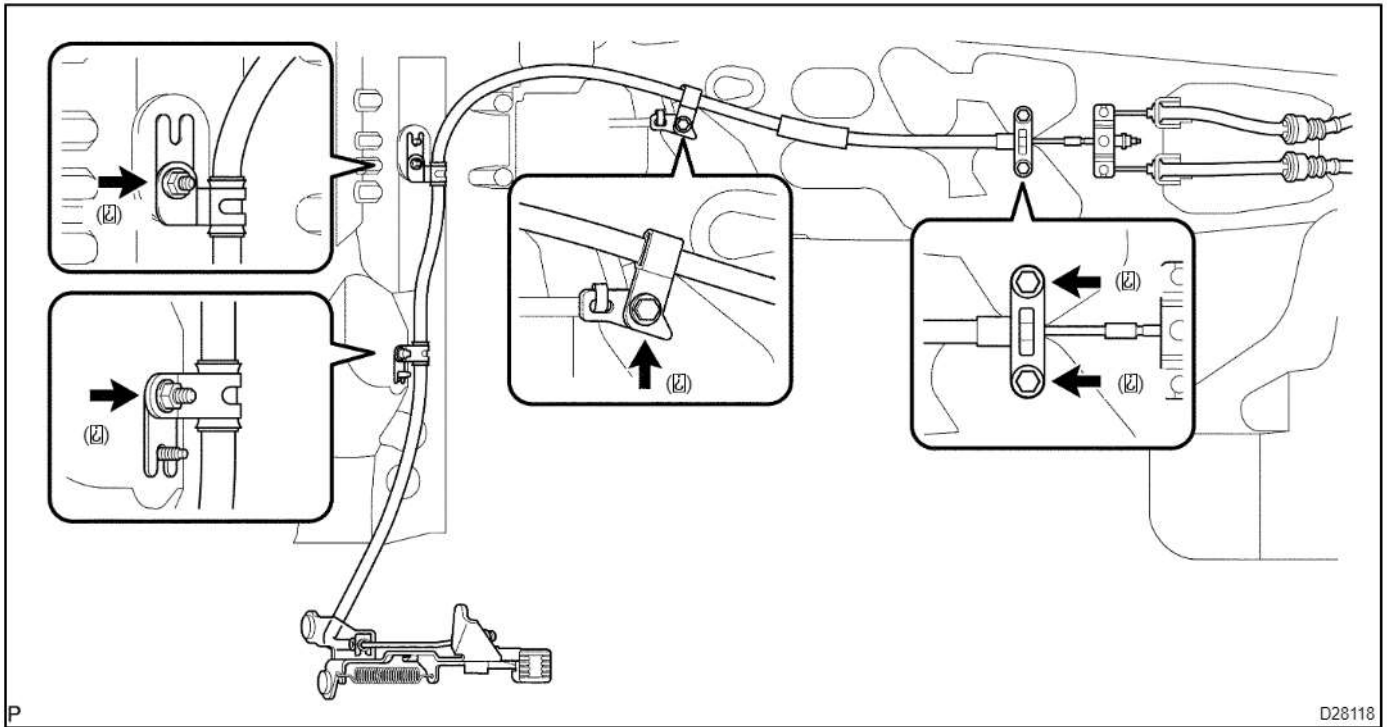
8. INSTALL PARKING BRAKE CABLE ASSY NO.1

- (a) Install the parking brake cable assy No.1, temporary tighten the adjusting nut and lock nut.
- (b) Install the parking brake cable assy No.1 with the 2 nuts and 3 bolts.

Torque:

NUT (A): 6.0 N·m (61 kgf·cm, 53 in·lbf)

BOLT (B): 13 N·m (127 kgf·cm, 9 ft·lbf)



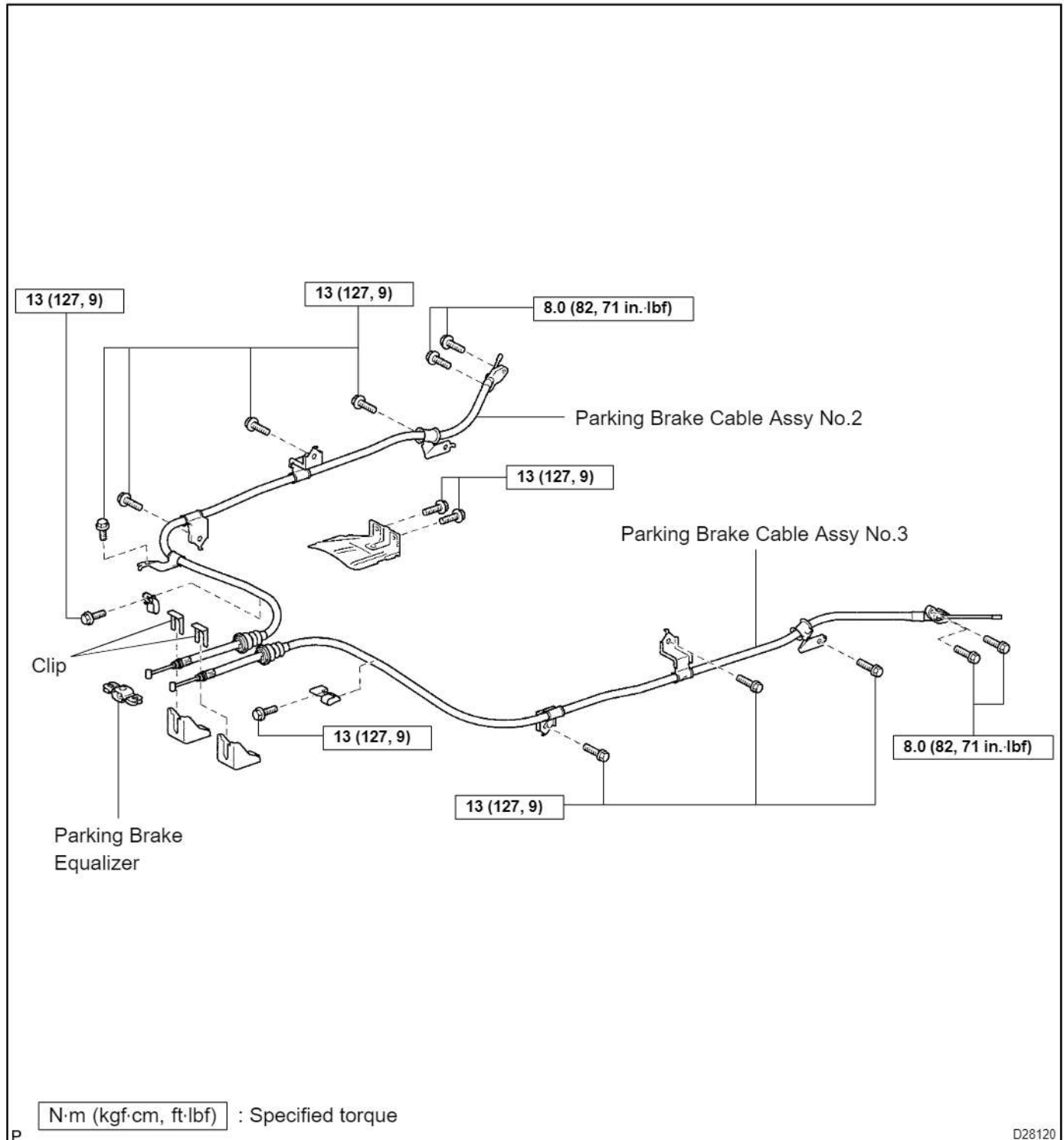
- (c) Install the parking brake cable assy No.1 with the clip, adjusting nut and lock nut to the parking brake control pedal assy.

Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

9. INSTALL PARKING BRAKE CONTROL PEDAL ASSY (See page 33-4)
10. INSTALL FLOOR SHIFT ASSY (See page 40-72)
11. INSTALL AIR BAG SENSOR ASSY CENTER (See page 60-47)
12. INSTALL YAWRATE SENSOR (See page 32-54)
13. INSTALL AIR CONDITIONING RADIATOR ASSY (See page 55-13)
14. INSTALL INSTRUMENT PANEL SAFETY PAD SUB-ASSY (See page 71-14)
15. INSPECT PARKING BRAKE PEDAL TRAVEL (See page 33-2)
16. ADJUST PARKING BRAKE PEDAL TRAVEL (See page 33-2)
17. INSPECT SRS WARNING LIGHT (See page 05-1238)

PARKING BRAKE CABLE ASSY NO.3 COMPONENTS

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REPLACEMENT

1. REMOVE REAR WHEEL

2. SEPARATE REAR DISC BRAKE CALIPER ASSY LH

(a) Remove the 2 bolts and separate the rear disc brake caliper assy LH.

HINT:

Do not disconnect the flexible hose from the brake caliper assy LH.

3. REMOVE REAR DISC (See page 33-15)

4. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING (See page 33-15)

5. REMOVE PARKING BRAKE SHOE STRUT COMPRESSION SPRING (See page 33-15)

6. REMOVE PARKING BRAKE SHOE STRUT LH (See page 33-15)

7. REMOVE PARKING BRAKE SHOE (See page 33-15)

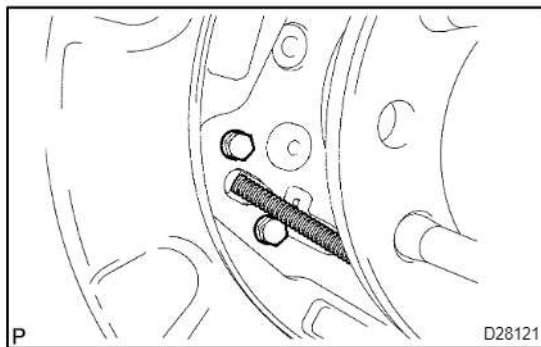
8. REMOVE CONSOLE UPPER REAR PANEL SUB-ASSY (See page 71-14)

9. REMOVE CONSOLE PANEL SUB-ASSY UPPER (See page 71-14)

10. REMOVE CONSOLE UPPER PANEL GARNISH NO.1 (See page 71-14)

11. REMOVE CONSOLE UPPER PANEL GARNISH NO.2 (See page 71-14)

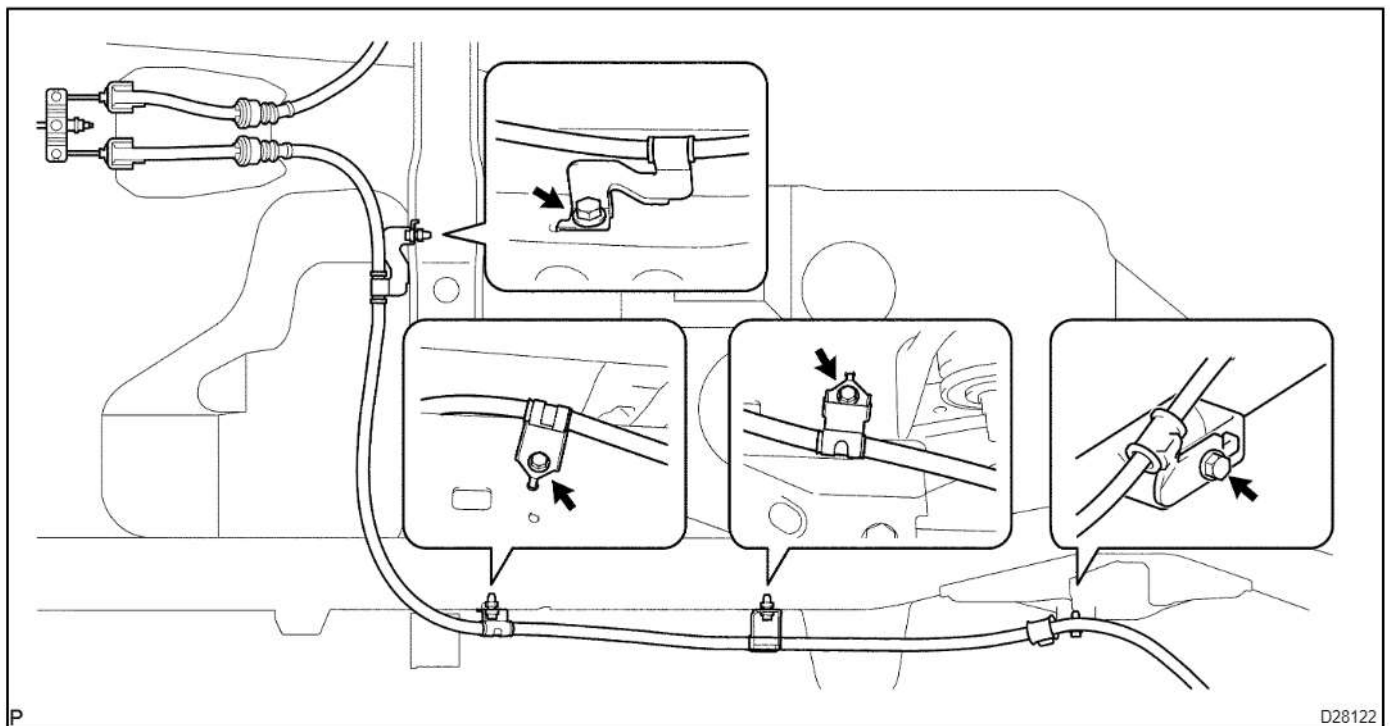
12. REMOVE CONSOLE BOX ASSY REAR (See page 71-14)

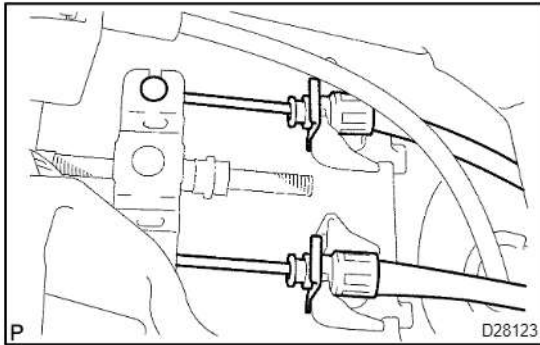


13. REMOVE PARKING BRAKE CABLE ASSY NO.3

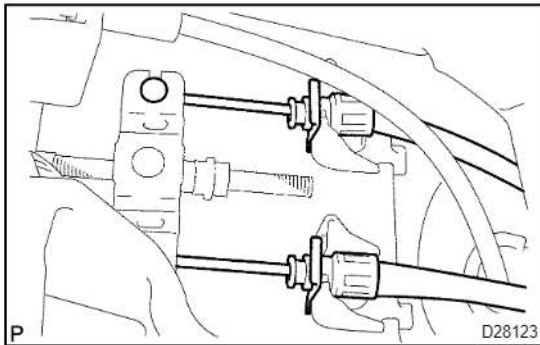
(a) Remove the 2 bolts and disconnect the parking brake cable assy No.3 from the backing plate.

(b) Remove the 4 bolts from the parking cable assy No.3.



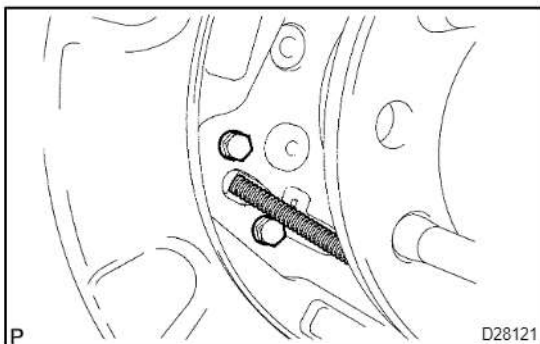
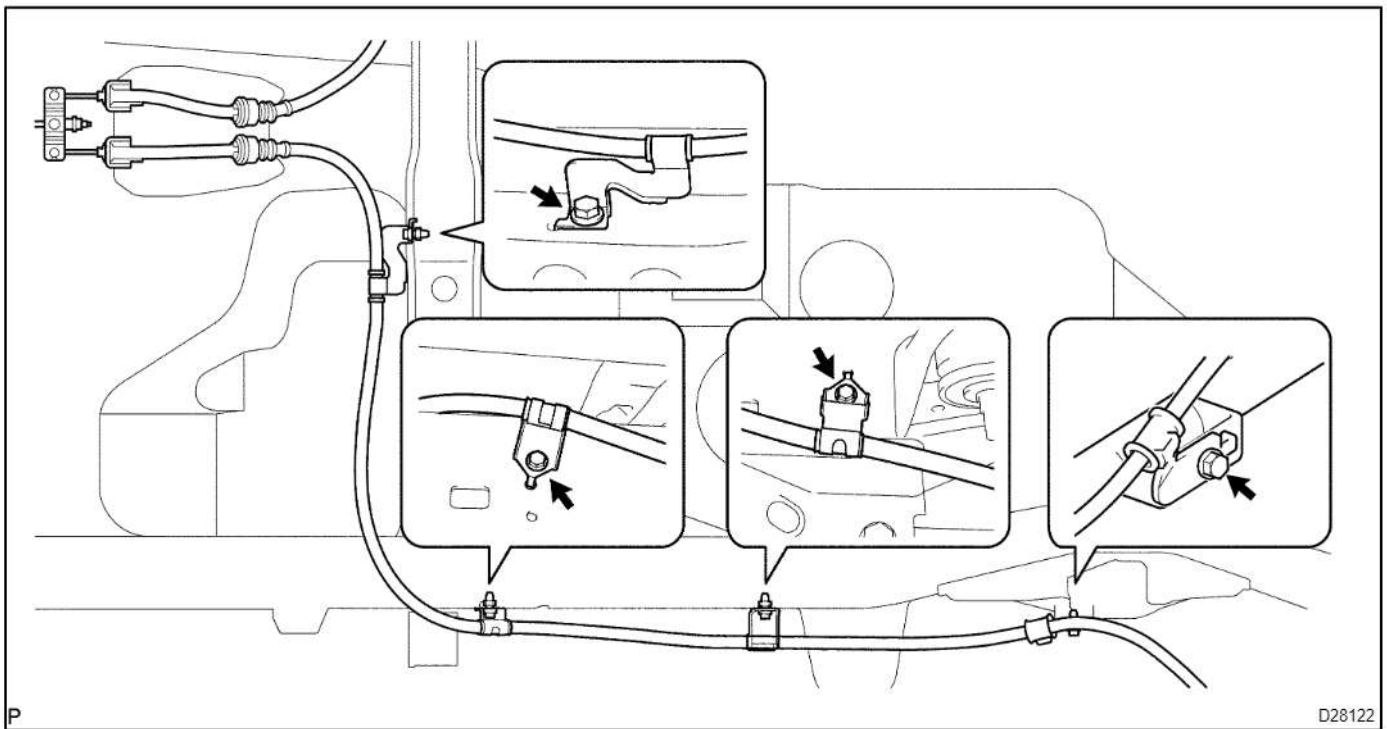


- (c) Remove the clip and disconnect the parking brake cable assy No.3 from the parking brake equalizer.



14. INSTALL PARKING BRAKE CABLE ASSY NO.3

- (a) Install the parking brake cable assy No.3 with the clip to the parking brake equalizer.
 (b) Install the parking brake cable assy No.3 with the 4 bolts.
Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

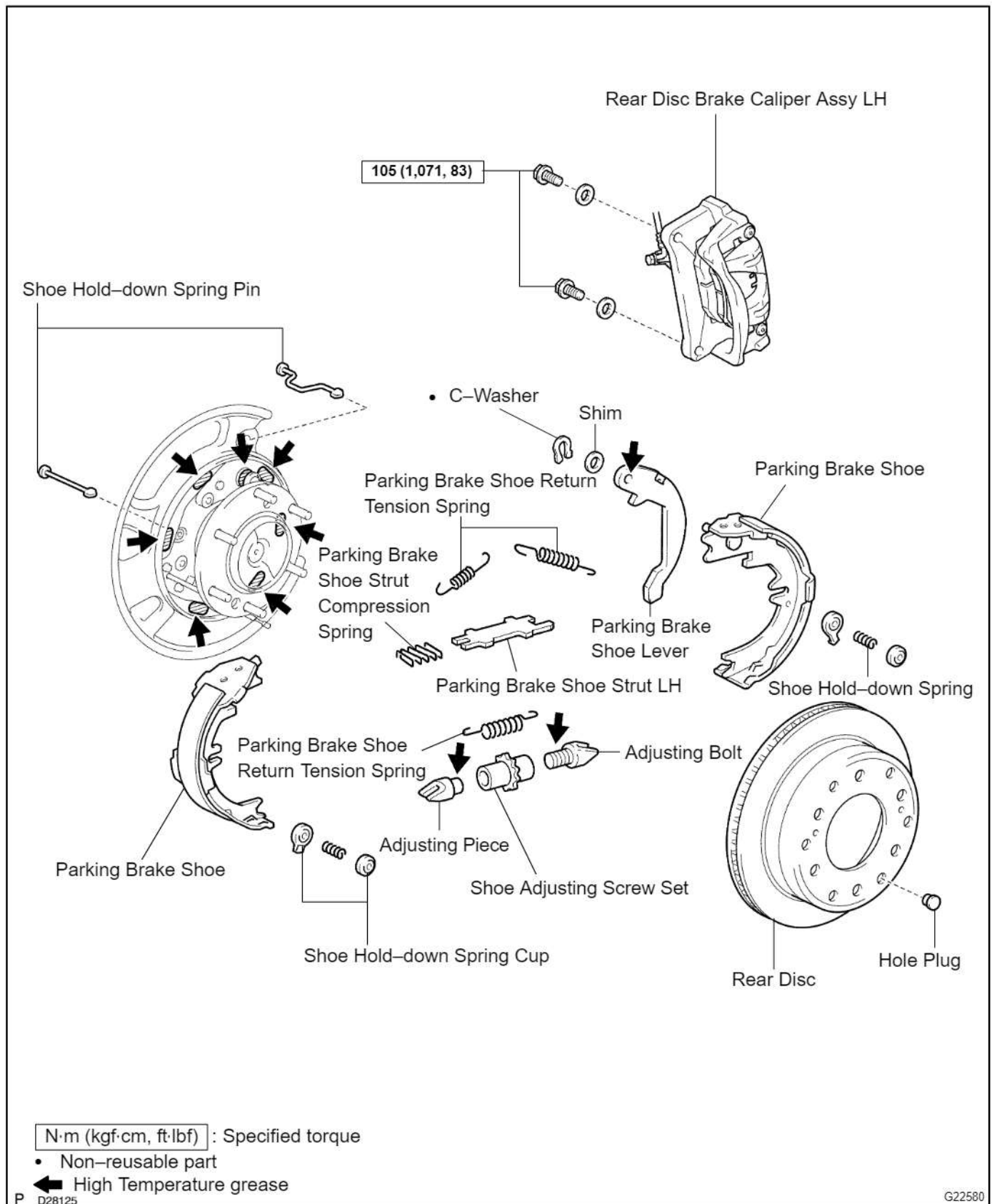


- (c) Install the parking brake cable assy No.3 with the 2 bolts to the backing plate.
Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)

15. APPLY HIGH TEMPERATURE GREASE (See page 33-15)
16. INSTALL PARKING BRAKE SHOE (See page 33-15)
17. INSTALL PARKING BRAKE SHOE STRUT LH (See page 33-15)
18. INSTALL PARKING BRAKE SHOE STRUT COMPRESSION SPRING (See page 33-15)
19. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING (See page 33-15)
20. CHECK PARKING BRAKE INSTALLATION (See page 33-15)
21. INSTALL REAR DISC
22. ADJUST PARKING BRAKE SHOE CLEARANCE (See page 33-15)
23. CONNECT REAR DISC BRAKE CALIPER ASSY LH
 - (a) Install the rear disc brake caliper assy LH with the 2 bolts.
Torque: 105 N·m (1,071 kgf·cm, 77 ft·lbf)
24. INSTALL REAR WHEEL
Torque: 112 N·m (1,137 kgf·cm, 83 ft·lbf)
25. INSTALL CONSOLE BOX ASSY REAR (See page 71-14)
26. INSTALL CONSOLE PANEL SUB-ASSY UPPER (See page 71-14)
27. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSY (See page 71-14)
28. INSPECT PARKING BRAKE PEDAL TRAVEL (See page 33-2)
29. ADJUST PARKING BRAKE PEDAL TRAVEL (See page 33-2)

PARKING BRAKE ASSY COMPONENTS

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OVERHAUL

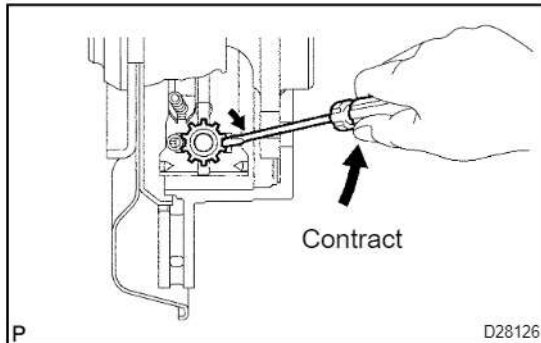
1. REMOVE REAR WHEEL

2. SEPARATE REAR DISC BRAKE CALIPER ASSY LH

- (a) Remove the 2 bolts and separate the rear disc brake caliper assy LH.

HINT:

Do not disconnect the flexible hose from the brake caliper.

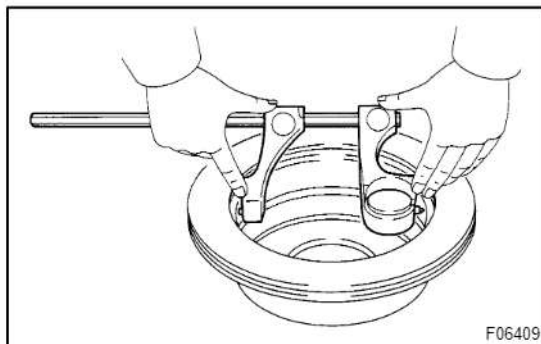


3. REMOVE REAR DISC

- (a) Release the parking brake, and remove the rear disc.

HINT:

- Put matchmarks on the disc and the axle shaft.
- If the disc cannot be removed easily, turn the shoe adjuster until the wheel turns freely.

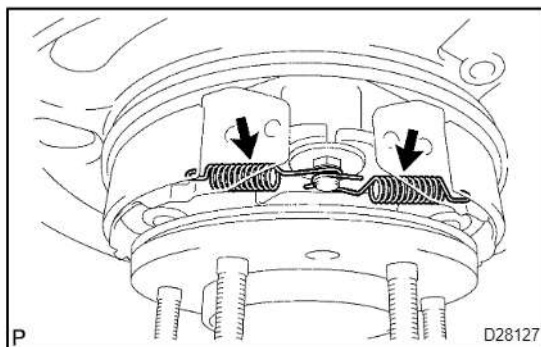


4. INSPECT BRAKE DISC INSIDE DIAMETER

- (a) Using a brake drum gauge or equivalent, measure the inside diameter of the disc.

Standard inside diameter: 210 mm (8.27 in.)

Maximum inside diameter: 211 mm (8.30 in.)



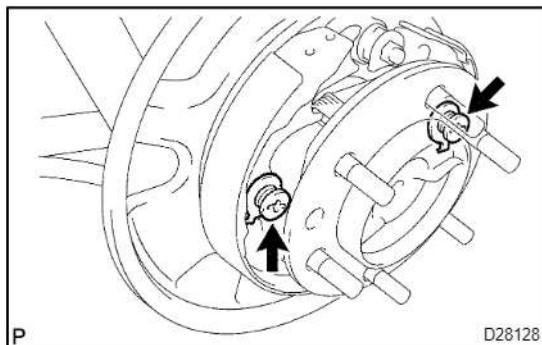
5. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING

- (a) Using a needle-nose pliers, remove the 2 return tension springs.

6. REMOVE PARKING BRAKE SHOE STRUT COMPRESSION SPRING

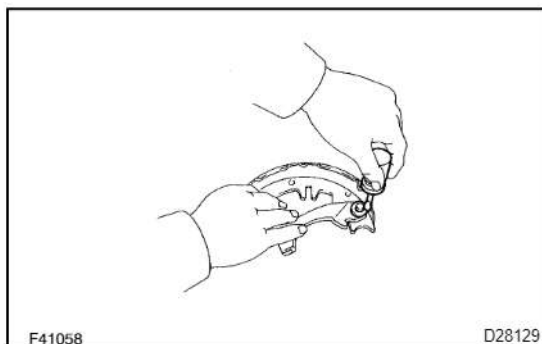
- (a) Slide out the front shoe and remove the compression spring.

7. REMOVE PARKING BRAKE SHOE STRUT LH

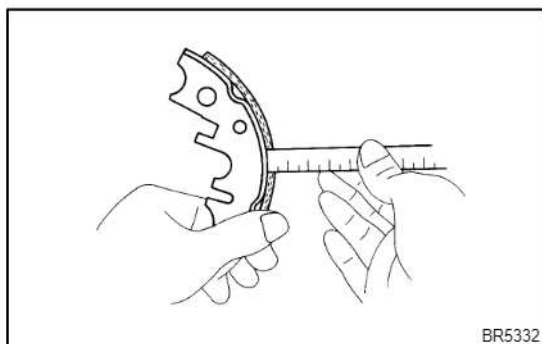


8. REMOVE PARKING BRAKE SHOE

- Release the cup claw and remove the front and rear parking brake shoe.
- Disconnect the parking brake cable from the shoe lever.
- Remove the tension spring and shoe adjuster screw set from the front and rear shoe.
- Remove the 2 shoe hold-down springs, 4 cups and 2 pins.



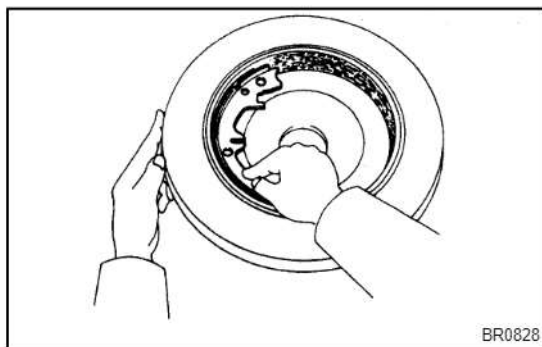
- Using a screwdriver, remove the C-washer.
- Remove the shim and shoe lever from the parking brake shoe.



9. INSPECT PARKING BRAKE SHOE LINING THICKNESS

- Using a ruler, measure the thickness of the shoe lining.
Standard thickness: 4.0 mm (0.158 in.)
Minimum thickness: 1.0 mm (0.039 in.)

If the lining thickness is at the minimum thickness or less, or if there is severe or uneven wear, replace the brake shoe.



10. INSPECT BRAKE DISC AND PARKING BRAKE SHOE LINING FOR PROPER CONTACT

- Apply chalk to the inside surface of the disc, then grind down the brake shoe lining to fit.

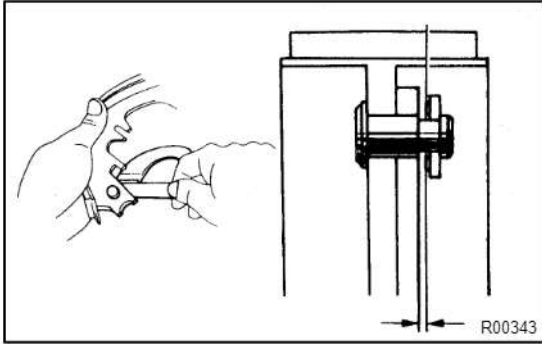
If the contact between the brake disc and the shoe lining is improper, repair it using a brake shoe grinder or replace the brake shoe assembly.

11. APPLY HIGH TEMPERATURE GREASE

- Apply the high temperature grease to the shoe attached surface of backing plate (See page 33-14).

12. INSTALL PARKING BRAKE SHOE

- (a) Install the shoe lever and the shim to the rear shoe with a new C-washer.

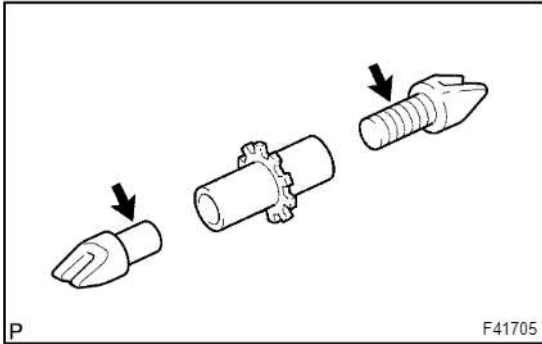


- (b) Using a feeler gauge, measure the clearance.

Standard clearance: Less than 0.25 mm (0.0098 in.)

If the clearance is not within the specification, replace the shim with one of the correct size.

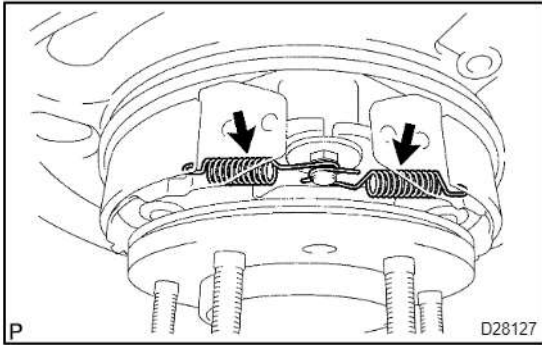
Shim Thickness	Shim Thickness
0.3 mm (0.012 in.)	0.6 mm (0.024 in.)
0.4 mm (0.016 in.)	0.9 mm (0.035 in.)
0.5 mm (0.020 in.)	—



- (c) Apply the high temperature grease to the adjusting bolt and piece.
 (d) Install the shoe adjusting screw set and the tension spring to the front and rear shoe.
 (e) Install the 2 pins, 4 cups and 2 shoe hold-down springs.
 (f) Connect the parking brake cable to the shoe lever.
 (g) Install the front and rear parking brake shoe.

13. INSTALL PARKING BRAKE SHOE STRUT LH

14. INSTALL PARKING BRAKE SHOE STRUT COMPRESSION SPRING



15. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING

- (a) Using a needle nose pliers, install the 2 return tension springs.

HINT:

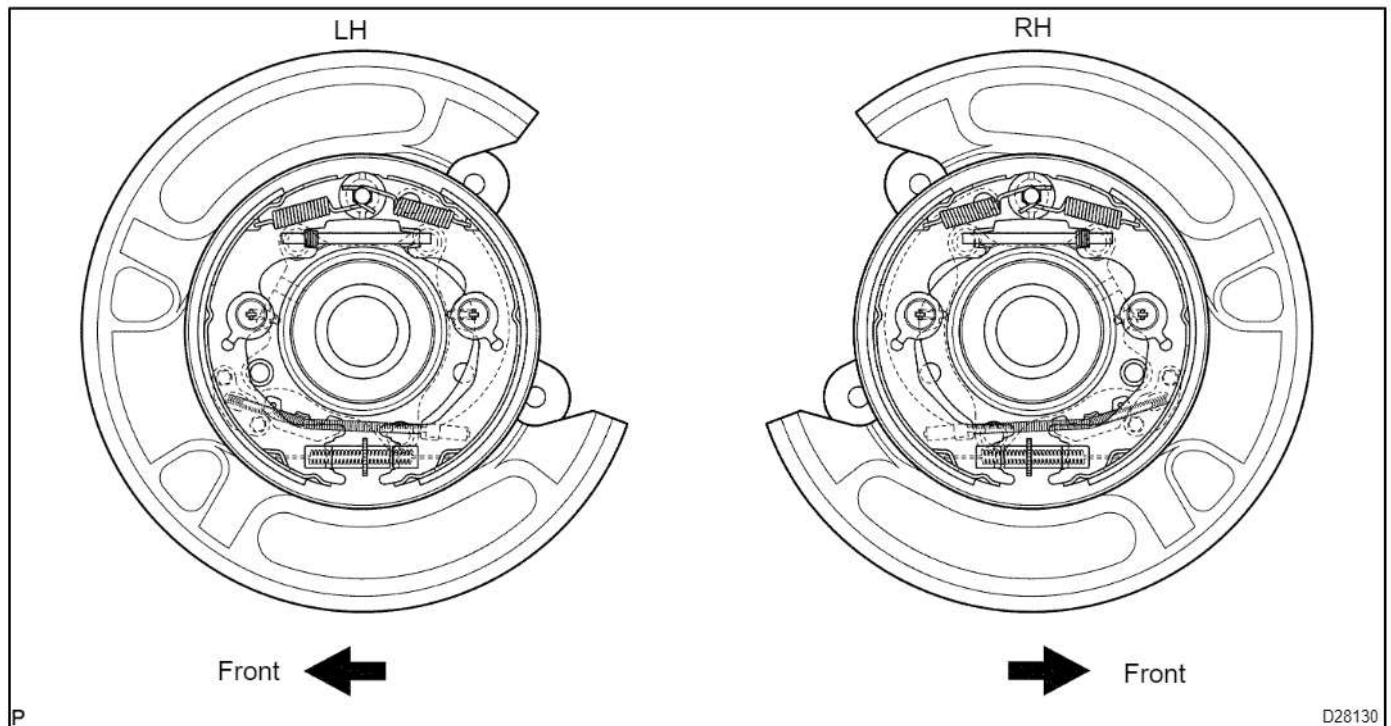
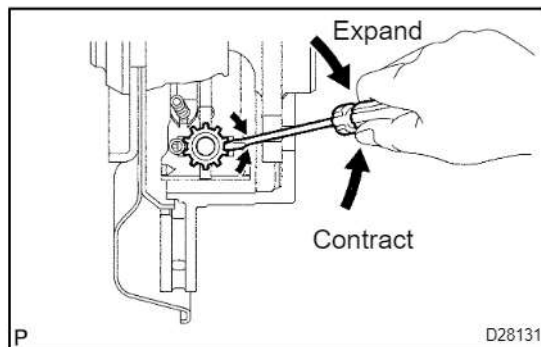
Install front side spring first, rear side spring next.

16. CHECK PARKING BRAKE INSTALLATION

- (a) Check that each part is installed properly.

NOTICE:

There should be no oil or grease adhering to the friction surface of the shoe lining and disc.

**17. INSTALL REAR DISC****18. ADJUST PARKING BRAKE SHOE CLEARANCE**

- Temporarily install the hub nuts.
- Remove the hole plug, and turn the adjuster and expand the shoes until the disc locks.
- Contract the shoe adjuster until the disc rotates smoothly.
Standard : Return 8 notches
- Check the shoe has no brake drag.
- Install the hole plug.

19. CONNECT REAR DISC BRAKE CALIPER ASSY LH

- (a) Install the rear disc brake caliper with the 2 bolts.
Torque: 105 N·m (1,071 kgf·cm, 77 ft·lbf)

20. INSTALL REAR WHEEL

Torque: 112 N·m (1,137 kgf·cm, 83 ft·lbf)

21. INSPECT PARKING BRAKE PEDAL TRAVEL (See page 33-2)**22. ADJUST PARKING BRAKE PEDAL TRAVEL (See page 33-2)**