

PARKING BRAKE SYSTEM

PROBLEM SYMPTOMS TABLE

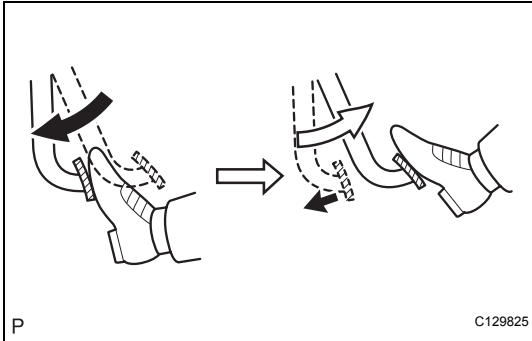
Use the table below to help find the cause of the problem. The likely causes are displayed in numerical order. Check each part in order and replace each part if necessary.

PARKING BRAKE SYSTEM

Symptom	Suspected Area	See page
Brake drag	1. Parking brake pedal travel (Out of adjustment)	PB-1
	2. Parking brake wire (Sticking)	PB-12
	3. Parking brake shoe clearance (Out of adjustment)	PB-1
	4. Parking brake shoe (Cracked or distorted)	PB-18
	5. Tension spring (Damaged)	PB-19

ADJUSTMENT

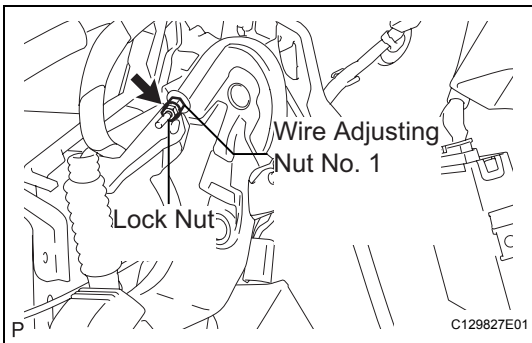
1. REMOVE REAR WHEEL
2. ADJUST PARKING BRAKE SHOE CLEARANCE (See page PB-20)
3. INSTALL REAR WHEEL
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
4. INSPECT PARKING BRAKE PEDAL TRAVEL
 - (a) Fully depress the parking brake pedal and release it to engage the parking brake.
 - (b) Depress the pedal to the floor again, and release it to disengage the parking brake.



- (c) Slowly depress the parking brake pedal to the floor, and count the number of clicks.

Parking brake pedal travel:

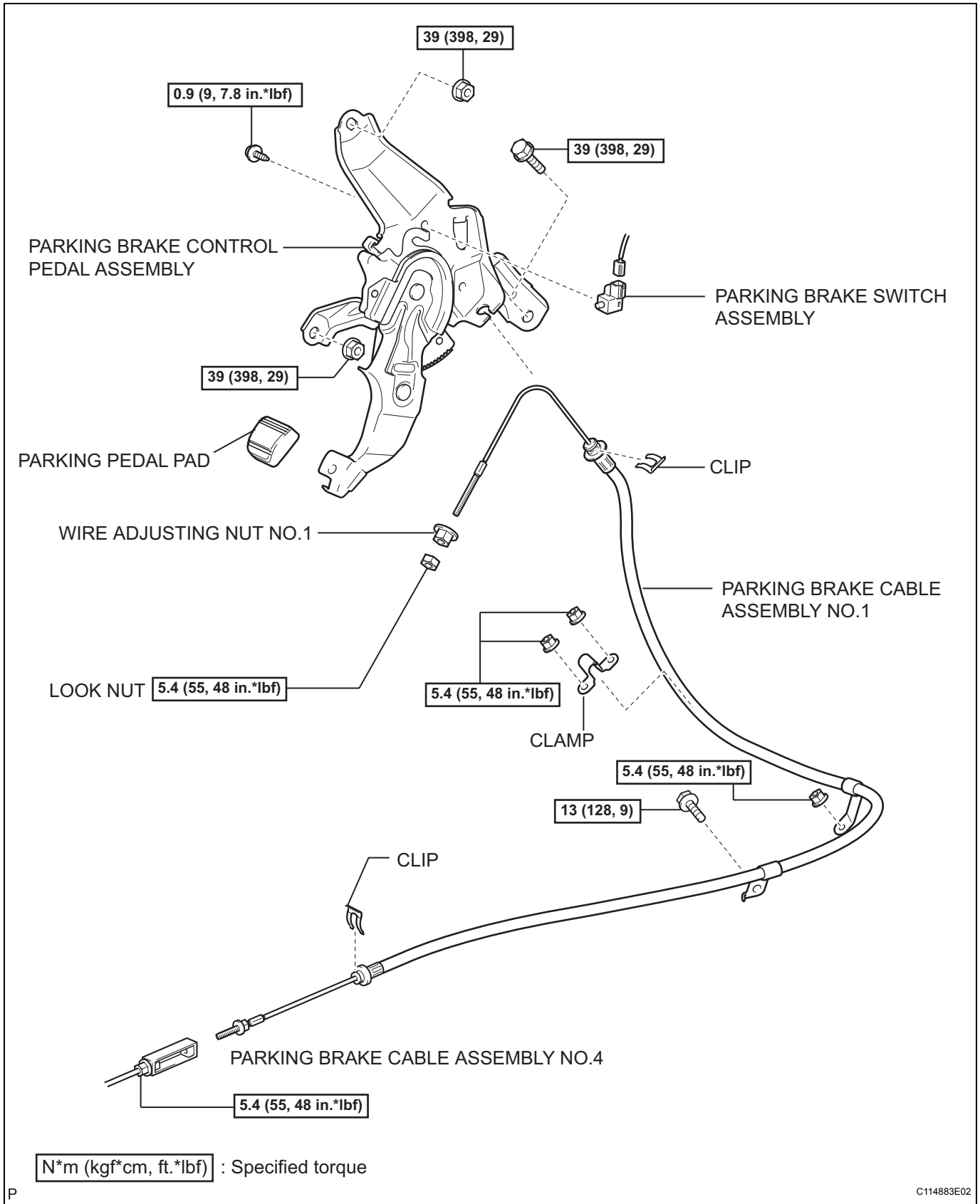
9 to 11 notches at 300 N (31 kgf, 67.5 lbf)

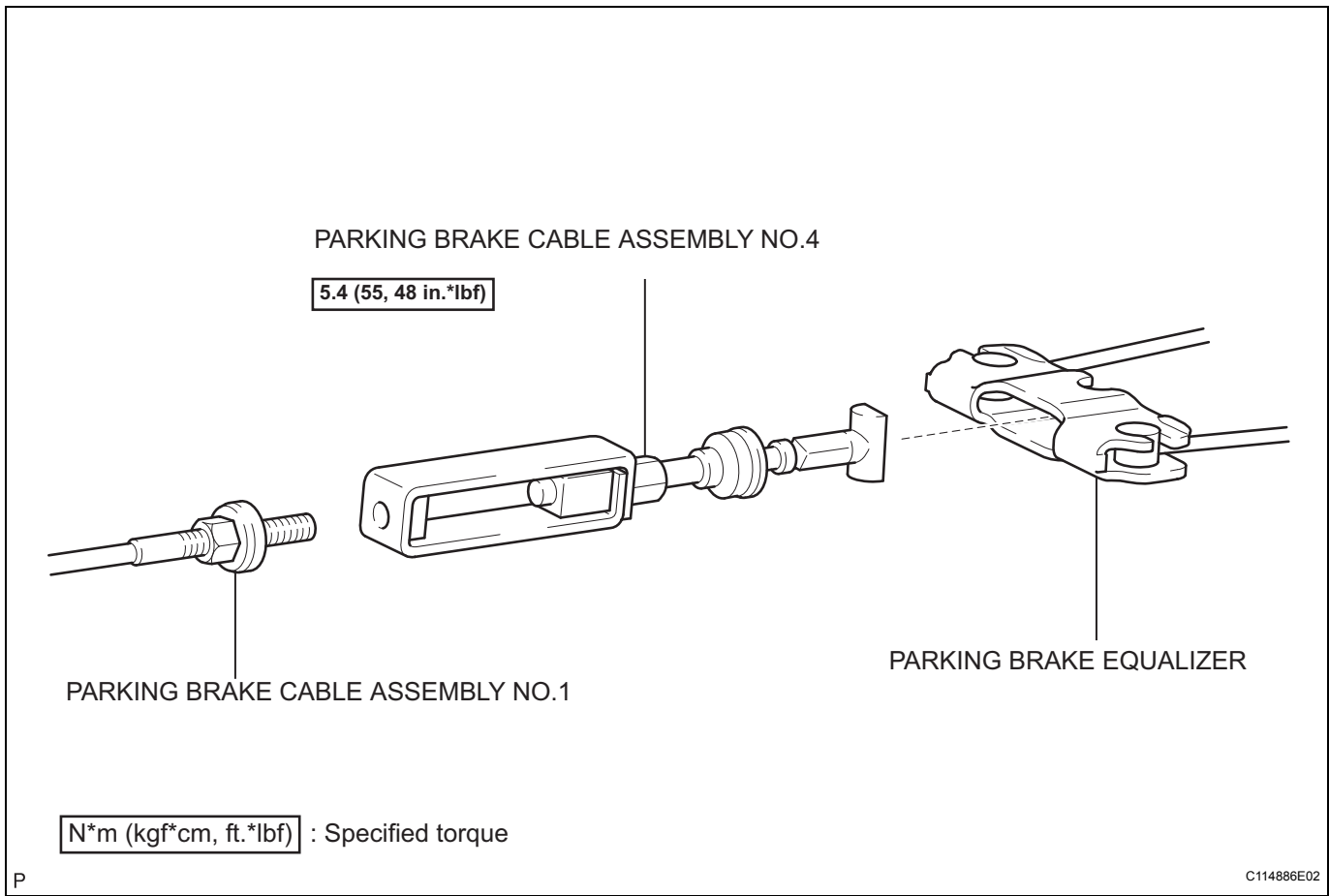


5. ADJUST PARKING BRAKE PEDAL TRAVEL
 - (a) Depress the parking brake pedal. Hold the wire adjusting nut No.1 using a wrench and loosen the lock nut.
 - (b) Release the parking brake pedal.
 - (c) Turn the wire adjusting nut No.1 until the parking brake pedal travel meets the above specification.
 - (d) Hold the wire adjusting nut No.1 using a wrench or equivalent tool and tighten the lock nut.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
 - (e) Count the number of clicks after depressing and releasing the parking brake pedal 3 or 4 times.
 - (f) Check whether the parking brake drags or not.
 - (g) When operating the parking brake pedal, check that the parking brake indicator light comes on.

PARKING BRAKE PEDAL

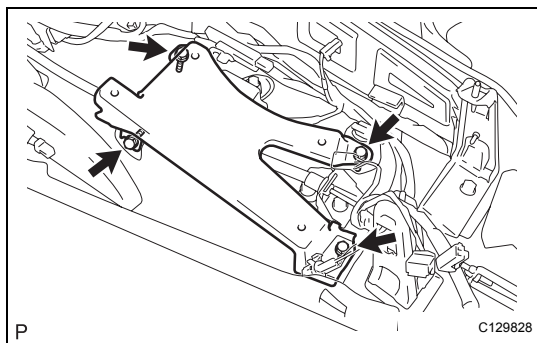
COMPONENTS

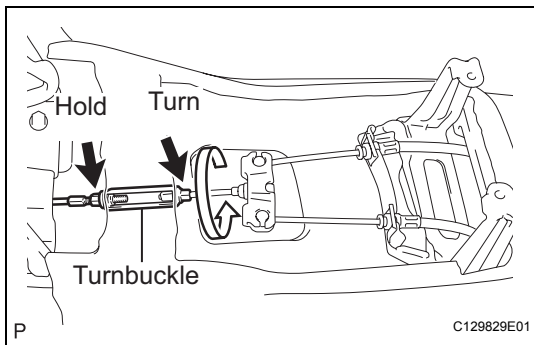




REMOVAL

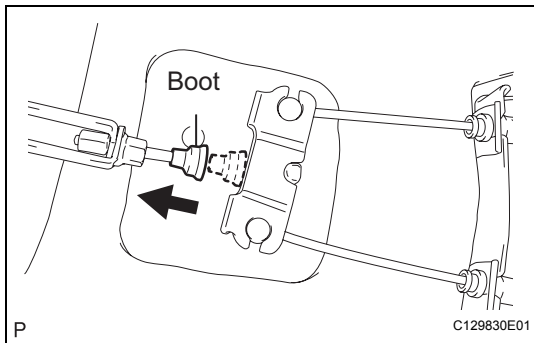
1. DISCONNECT BATTERY NEGATIVE TERMINAL (See page [RS-303](#))
2. REMOVE SEAT TRACK BRACKET COVER OUTER FRONT LH (See page [SE-50](#))
3. REMOVE SEAT TRACK BRACKET COVER INNER FRONT LH (See page [SE-50](#))
4. REMOVE FRONT SEAT TRACK COVER LH REAR OUTER (See page [SE-50](#))
5. REMOVE REAR SEAT TRACK BRACKET COVER INNER LH (See page [SE-51](#))
6. REMOVE FRONT LH SEAT ASSEMBLY (See page [SE-51](#))
7. REMOVE FRONT DOOR SCUFF PLATE LH (See page [IR-12](#))
8. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH (See page [IR-12](#))
9. REMOVE INSTRUMENT SIDE PANEL LH (See page [IP-14](#))
10. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL LH (See page [IP-12](#))
11. REMOVE INSTRUMENT PANEL AIR BAG ASSEMBLY LOWER NO.1
12. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page [IP-12](#))
13. REMOVE POSITION INDICATOR HOUSING ASSEMBLY (See page [IP-12](#))
14. REMOVE CONSOLE BOX UPPER
15. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER
16. REMOVE CONSOLE BOX ASSEMBLY (See page [IP-13](#))
17. REMOVE CONSOLE BOX FRONT (See page [IP-14](#))
18. REMOVE CONSOLE BOX DUCT NO.1
19. REMOVE TRANSMISSION FLOOR SHIFT ASSEMBLY
20. REMOVE SHIFT & SELECT LEVER SUPPORT
 - (a) Remove the 4 bolts and shift & select lever support from the body.



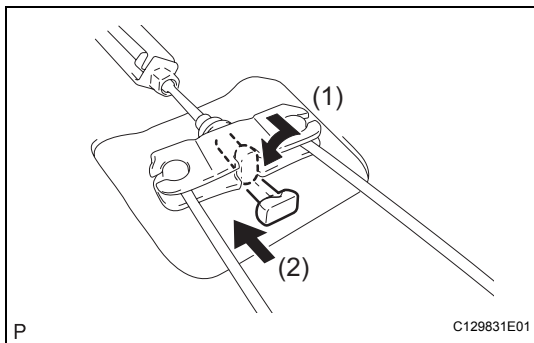


21. DISCONNECT PARKING BRAKE CABLE ASSEMBLY NO.4

- (a) Release the parking brake.
- (b) Hold the nut on the parking brake cable assembly No.1 using a wrench. Loosen and disconnect the turnbuckle of the parking brake cable assembly No.4 from the parking brake cable assembly No.1 using a wrench.



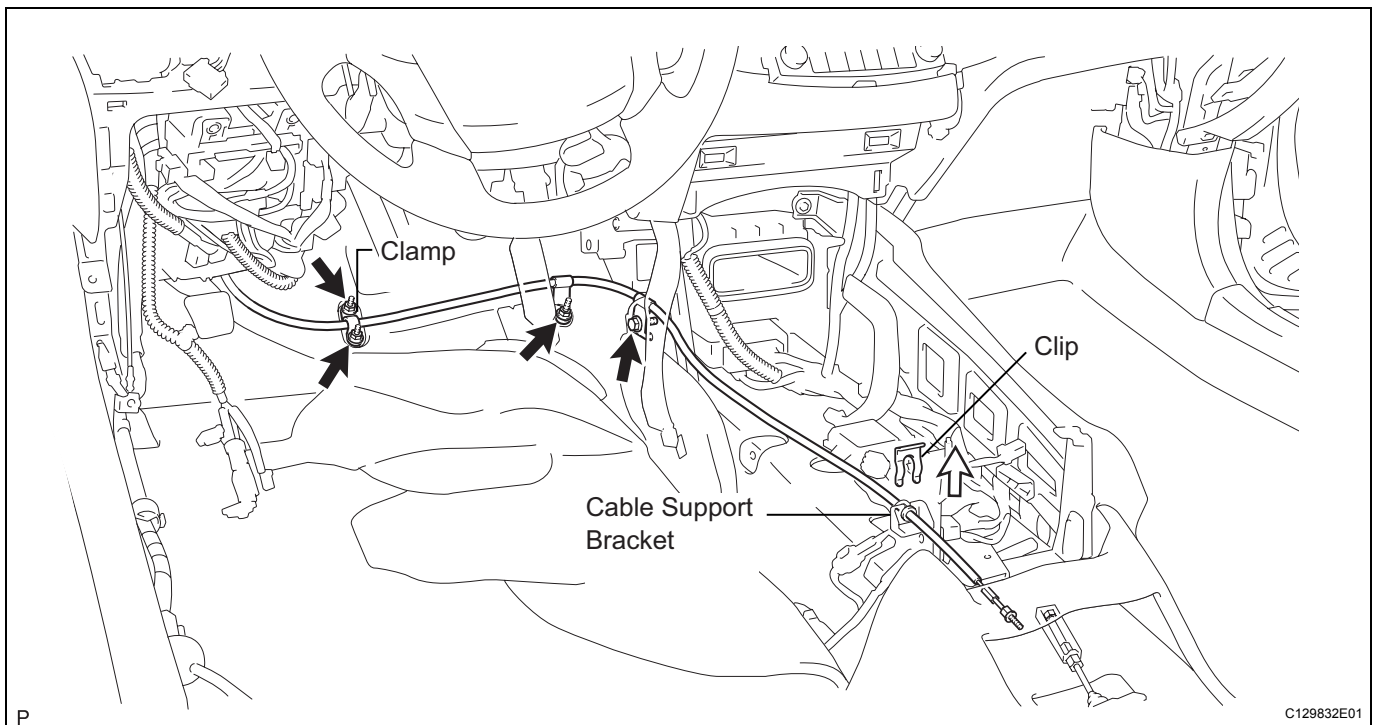
- (c) Slide the boot as shown in the illustration.



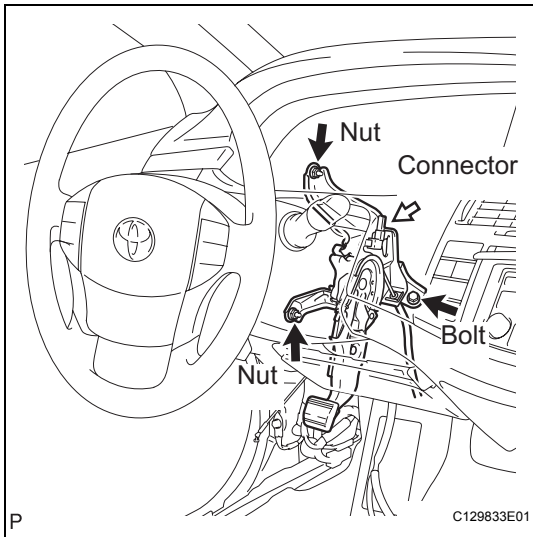
- (d) Remove the parking brake cable assembly No.4 from the parking brake equalizer as shown in the illustration.

22. REMOVE PARKING BRAKE CONTROL PEDAL ASSEMBLY

- (a) Remove the clip and separate the parking brake cable assembly No.1 from the cable support bracket.



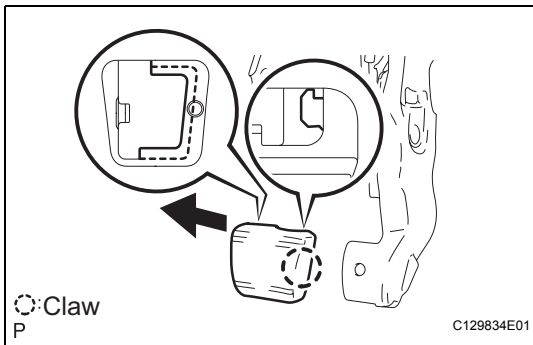
- (b) Remove the bolt, 3 nuts and clamp, and separate the parking brake cable assembly No.1 from the body.
- (c) Disconnect the connector.
- (d) Remove the bolt, 2 nuts and parking brake control pedal assembly from the body.



DISASSEMBLY

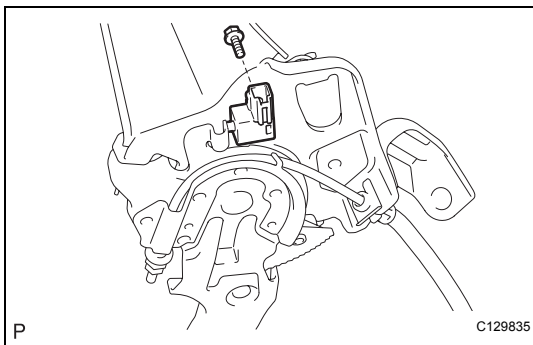
1. REMOVE PARKING PEDAL PAD

- (a) Disengage the claw and remove the parking pedal pad from the parking brake control pedal assembly.



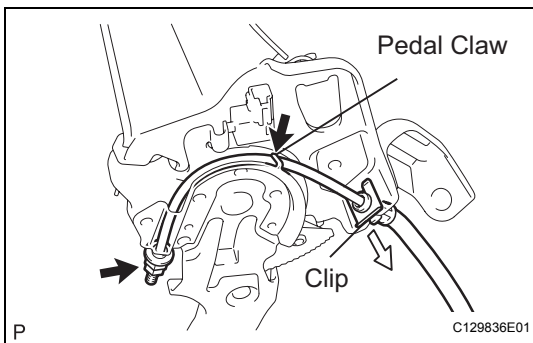
2. REMOVE PARKING BRAKE SWITCH ASSEMBLY

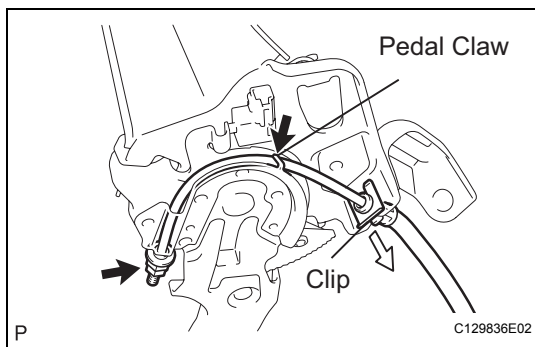
- (a) Remove the screw and parking brake switch assembly from the parking brake control pedal assembly.



3. REMOVE PARKING BRAKE CABLE ASSEMBLY NO.1

- (a) Pull up the parking brake pedal claw.
- (b) Remove the lock nut and wire adjusting nut No.1 of the parking brake cable assembly No.1 from the parking brake pedal assembly.
- (c) Remove the clip and parking brake cable assembly No.1 from the parking brake control pedal assembly.





REASSEMBLY

1. INSTALL PARKING BRAKE CABLE ASSEMBLY NO.1

- (a) Pass the parking brake cable assembly No.1 through the parking brake control pedal and hold the cable with the clip.
- (b) Pass the parking brake cable through the pedal guide. Temporarily tighten the wire adjusting nut No.1 and lock nut.

HINT:

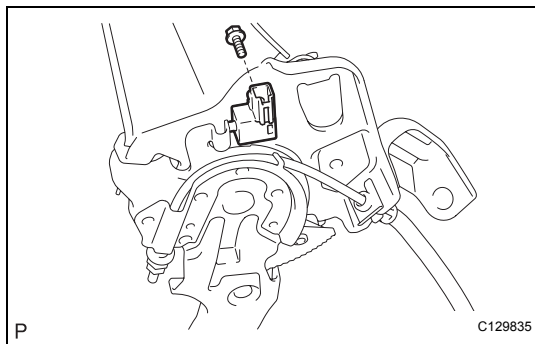
Fully tighten the wire adjusting nut No.1 and lock nut when adjusting the parking brake pedal free play.

- (c) Fully bend the parking brake pedal claw.

2. INSTALL PARKING BRAKE SWITCH ASSEMBLY

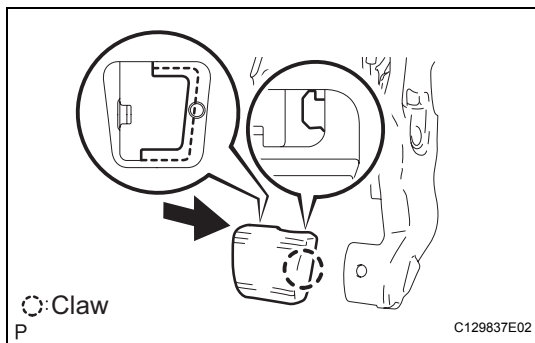
- (a) Install the parking brake switch assembly with the screw.

Torque: 0.9 N*m (9 kgf*cm, 7.8 in.*lbf)



3. INSTALL PARKING PEDAL PAD

- (a) Engage the claw and install the parking pedal pad on the parking brake control pedal assembly.



INSTALLATION

1. INSTALL PARKING BRAKE CONTROL PEDAL ASSEMBLY

- (a) Install the parking brake control pedal assembly with the bolt and 2 nuts.

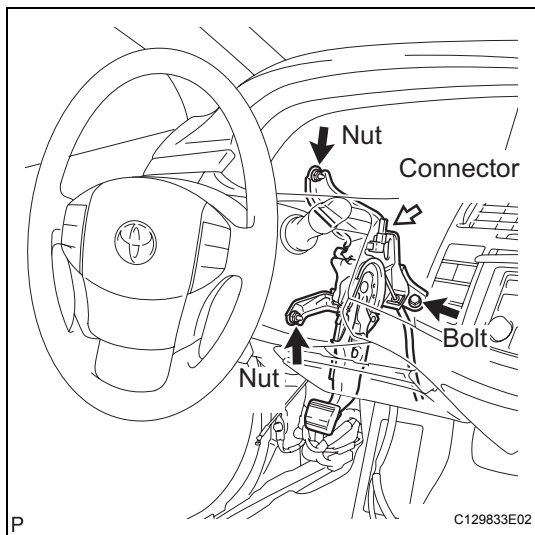
Torque: Bolt

39 N*m (398 kgf*cm, 29 ft.*lbf)

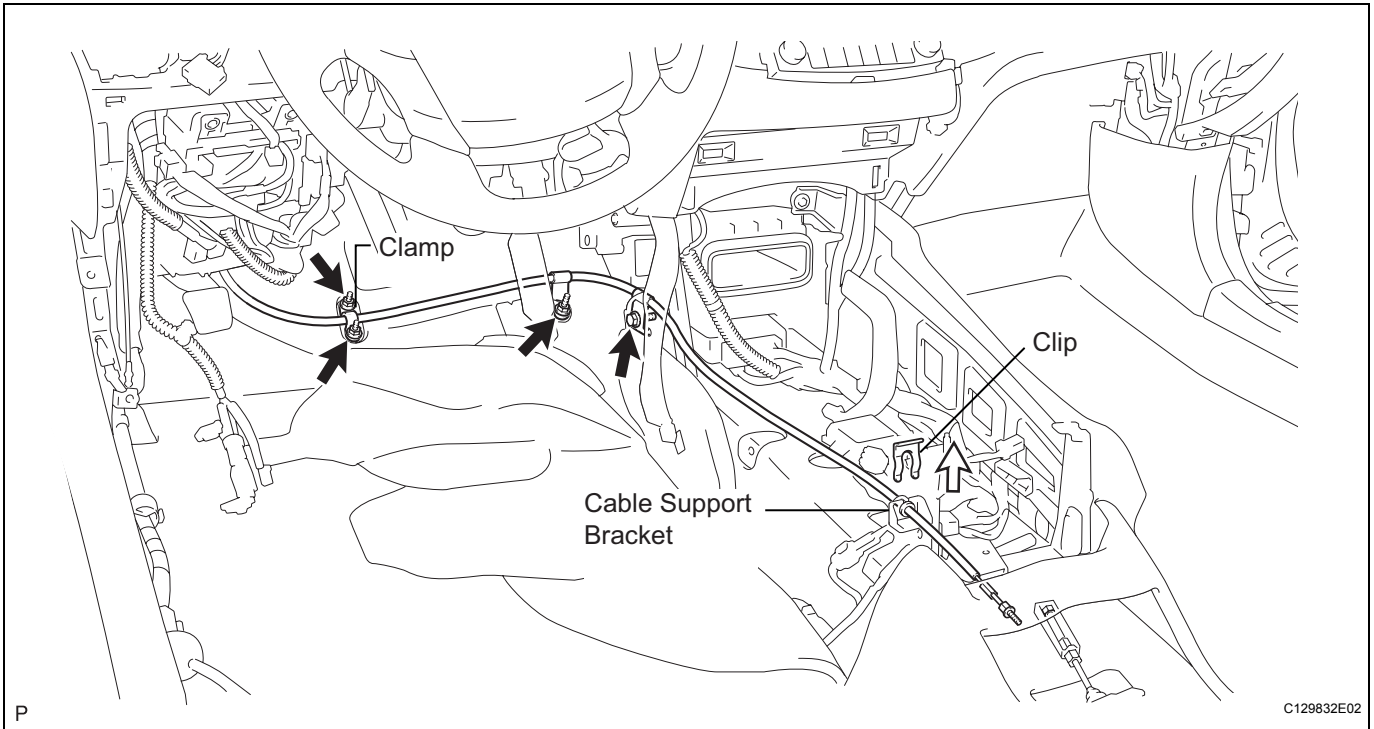
Nut

39 N*m (398 kgf*cm, 29 ft.*lbf)

- (b) Connect the connector to the parking brake switch assembly.



- (c) Install the parking brake cable assembly No.1 to the body with the clamp, 3 nuts and bolt.



Torque: Bolt

13 N*m (128 kgf*cm, 9 ft.*lbf)

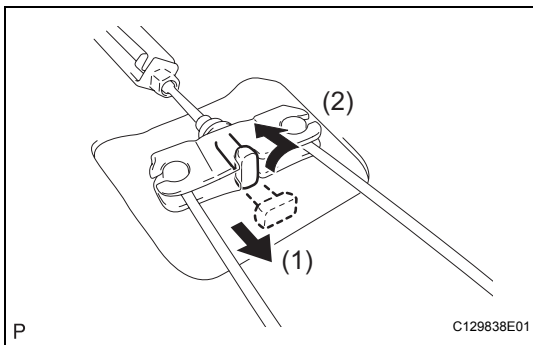
Nut

5.4 N*m (55 kgf*cm, 48 ft.*lbf)

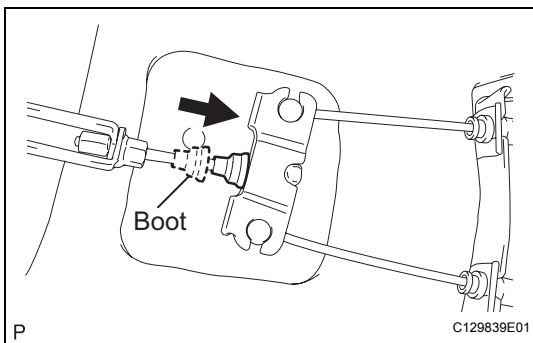
- (d) Install the parking brake cable assembly No.1 to the cable support bracket with the clip.

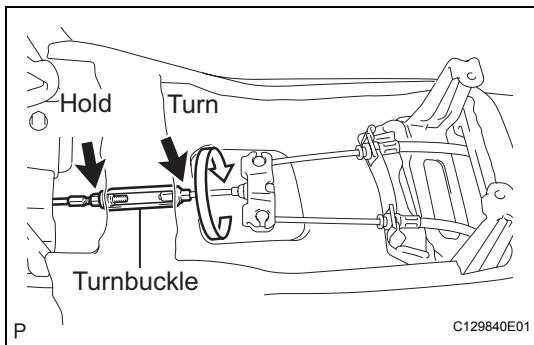
2. INSTALL PARKING BRAKE CABLE ASSEMBLY NO.4

- (a) Install the parking brake cable assembly No.4 to the parking brake equalizer as shown in the illustration.

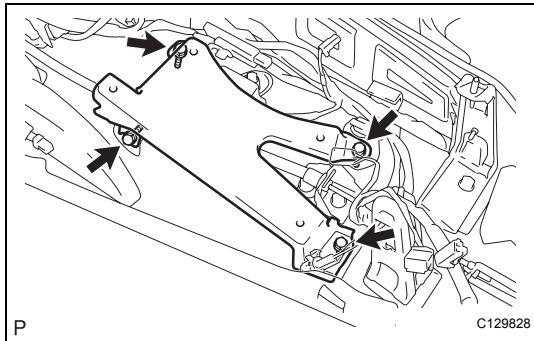


- (b) Slide the boot back as shown in the illustration.





- (c) Hold the nut on the parking brake cable assembly No.1 using a wrench. Tighten the turnbuckle of the parking brake cable assembly No.4 using a wrench.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)



3. INSTALL SHIFT & SELECT LEVER SUPPORT

- (a) Install the shift & select lever support to the body with the 4 bolts.

4. INSTALL TRANSMISSION FLOOR SHIFT ASSEMBLY

5. INSTALL CONSOLE BOX DUCT NO.1

6. INSTALL CONSOLE BOX FRONT

7. INSTALL CONSOLE BOX ASSEMBLY

8. INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER

9. INSTALL CONSOLE BOX UPPER

10. INSTALL POSITION INDICATOR HOUSING ASSEMBLY

11. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY

12. INSTALL INSTRUMENT PANEL AIR BAG ASSEMBLY LOWER NO.1

13. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL LH

14. INSTALL INSTRUMENT SIDE PANEL LH

15. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH

16. INSTALL FRONT DOOR SCUFF PLATE LH

17. INSTALL FRONT LH SEAT ASSEMBLY (See page [SE-63](#))

18. INSTALL REAR SEAT TRACK BRACKET COVER INNER LH

19. INSTALL FRONT SEAT TRACK COVER LH REAR OUTER

20. INSTALL SEAT TRACK BRACKET COVER INNER FRONT LH

21. INSTALL SEAT TRACK BRACKET COVER OUTER FRONT LH

22. CONNECT BATTERY NEGATIVE TERMINAL

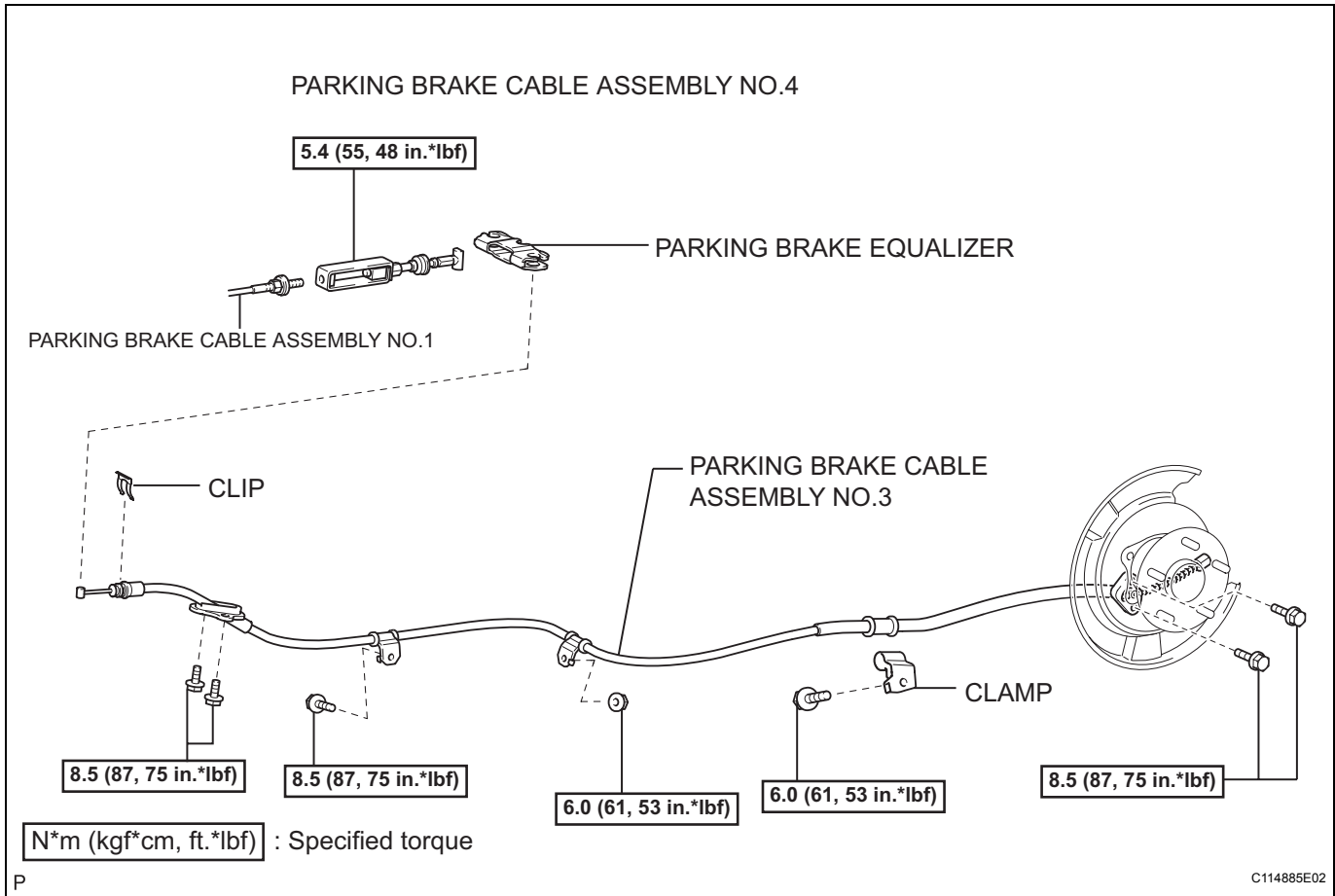
23. PERFORM INITIALIZATION (See page [RS-306](#))

24. INSPECT SRS WARNING LIGHT (See page [RS-306](#))

25. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (See page [PB-2](#))

PARKING BRAKE CABLE

COMPONENTS

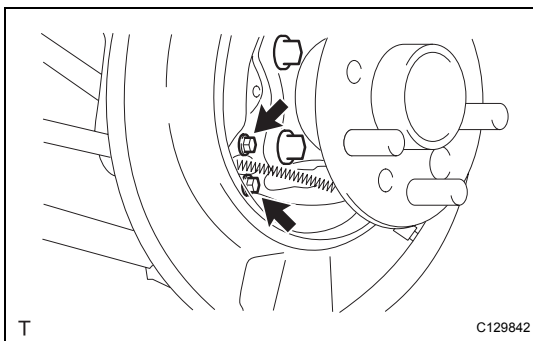
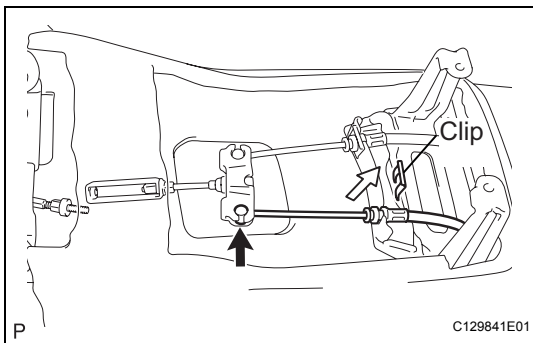


REMOVAL

HINT:

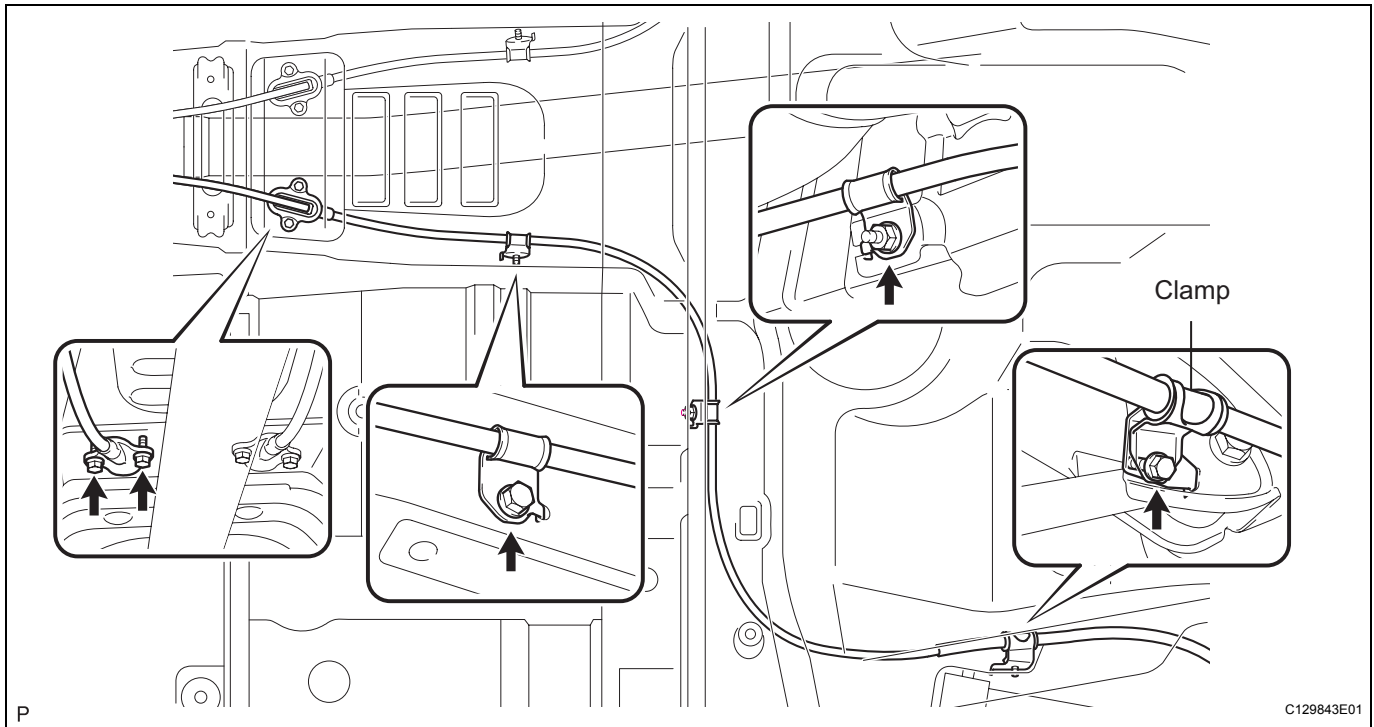
Replace the parking brake cable assembly No.2 using the same procedures as for the parking brake cable assembly No.3.

1. REMOVE REAR WHEEL
2. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY LH (See page [AH-19](#))
3. REMOVE REAR DISC
4. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING (See page [PB-17](#))
5. REMOVE PARKING BRAKE SHOE STRUT LH (See page [PB-17](#))
6. REMOVE PARKING BRAKE SHOE (See page [PB-18](#))
7. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page [IP-12](#))
8. REMOVE POSITION INDICATOR HOUSING ASSEMBLY (See page [IP-12](#))
9. REMOVE CONSOLE BOX UPPER
10. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER
11. REMOVE CONSOLE BOX ASSEMBLY (See page [IP-13](#))
12. DISCONNECT PARKING BRAKE CABLE ASSEMBLY NO.4 (See page [PB-5](#))
13. REMOVE PARKING BRAKE CABLE ASSEMBLY NO.3
 - (a) Removal the clip and separate the parking brake cable assembly No.3 from the parking brake equalizer.

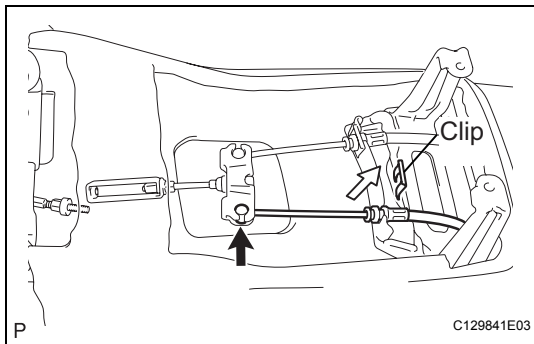


- (b) Remove the 2 bolts and separate the parking brake cable assembly No.3 from the backing plate.

- (c) Remove the 4 bolts and nut shown in the illustration, then remove the parking brake cable assembly No.3.



- (d) Remove the clamp from the parking brake cable assembly No.3.



INSTALLATION

1. INSTALL PARKING BRAKE CABLE ASSEMBLY NO.3

- Connect the parking brake cable assembly No.3 to the parking brake equalizer.
- Fix the parking brake cable assembly No.3 with the clip.
- Install the parking brake cable assembly No.3 with the bolts, nut and clamp as shown in the illustration.

Torque: Bolt A

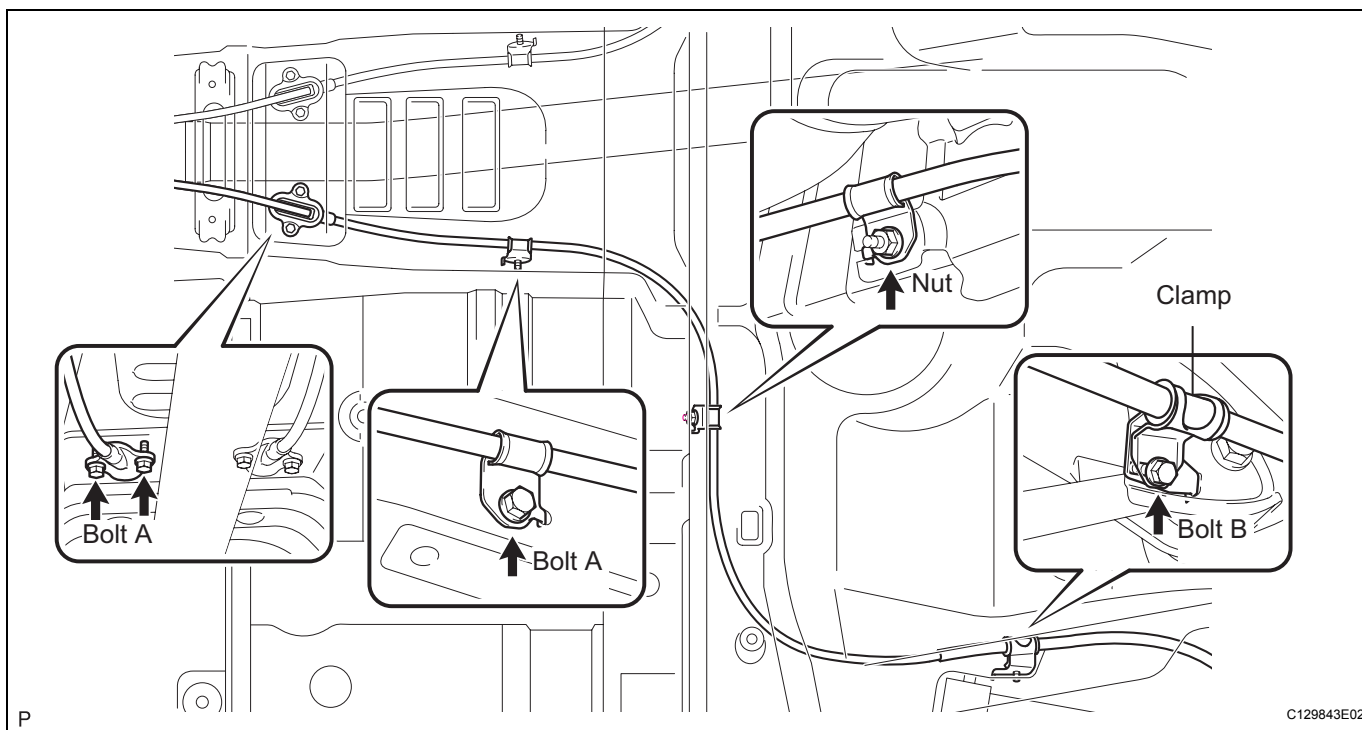
8.5 N*m (87 kgf*cm, 75 in.*lbf)

Bolt B

6.0 N*m (61 kgf*cm, 53 in.*lbf)

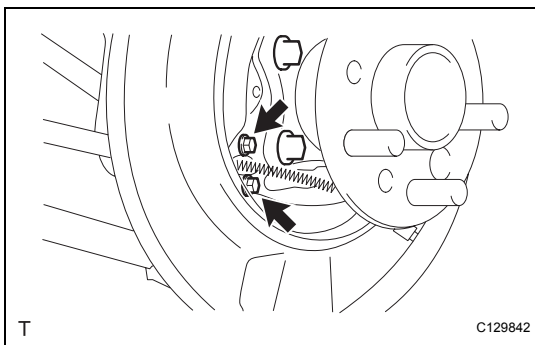
Nut

6.0 N*m (61 kgf*cm, 53 in.*lbf)



P

C129843E02



T

C129842

(d) Connect the parking brake cable assembly No.3 to the backing plate with the 2 bolts.

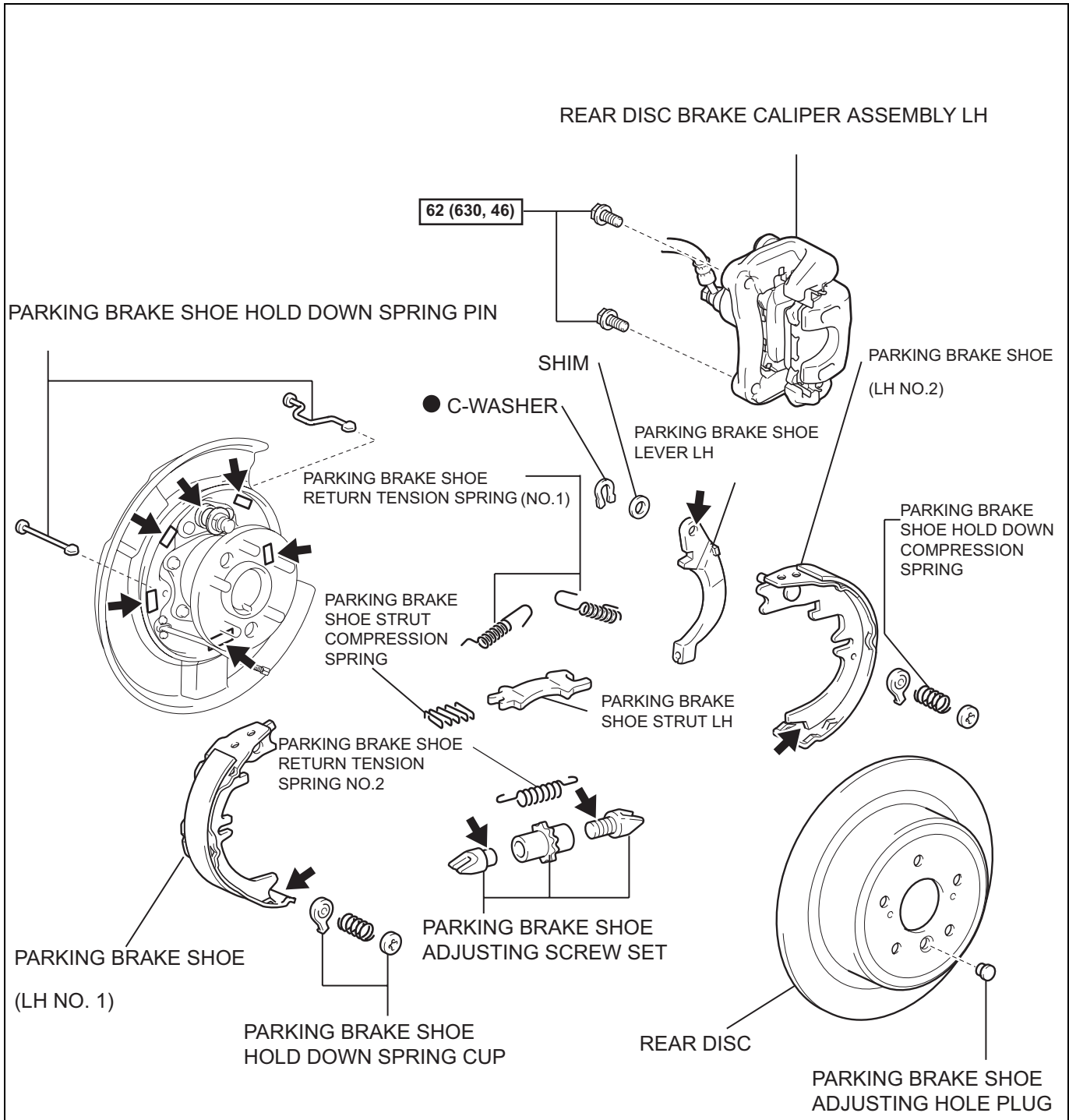
Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

2. **APPLY HIGH TEMPERATURE GREASE** (See page [PB-19](#))
3. **INSTALL PARKING BRAKE SHOE** (See page [PB-19](#))
4. **INSTALL PARKING BRAKE SHOE STRUT LH** (See page [PB-19](#))
5. **INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING** (See page [PB-19](#))
6. **CHECK PARKING BRAKE INSTALLATION** (See page [PB-20](#))
7. **INSTALL REAR DISC** (See page [PB-20](#))
8. **ADJUST PARKING BRAKE SHOE CLEARANCE** (See page [PB-20](#))
9. **INSTALL REAR DISC BRAKE CALIPER ASSEMBLY LH** (See page [PB-21](#))
10. **INSTALL REAR WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
11. **INSTALL PARKING BRAKE CABLE ASSEMBLY NO.4** (See page [PB-9](#))
12. **INSTALL CONSOLE BOX ASSEMBLY**
13. **INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER**
14. **INSTALL CONSOLE BOX UPPER**
15. **INSTALL POSITION INDICATOR HOUSING ASSEMBLY**

16. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY
17. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (See page [PB-2](#))

PARKING BRAKE ASSEMBLY

COMPONENTS



$N \cdot m$ (kgf \cdot cm, ft. \cdot lbf) : Specified torque

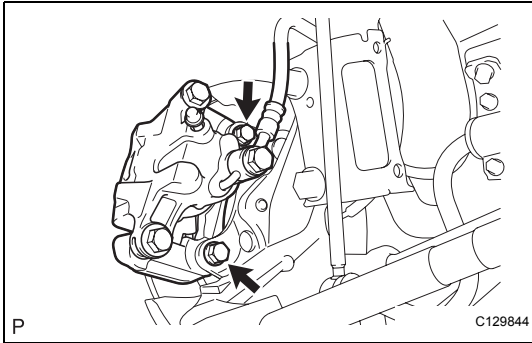
● Non-reusable part

← High Temperature grease

PB

DISASSEMBLY

1. REMOVE REAR WHEEL

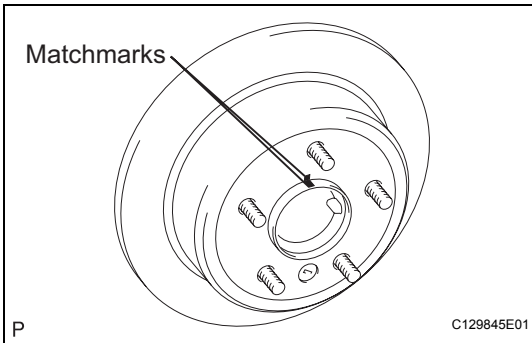


2. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY LH

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

HINT:

Do not disconnect the flexible hose from the disc brake caliper assembly LH.



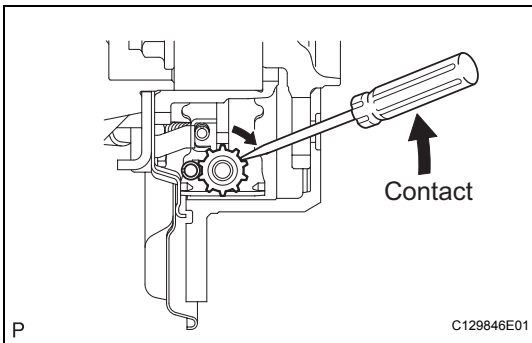
3. REMOVE REAR DISC

- (a) Release the parking brake.
 (b) Put matchmarks on the rear disc and the axle hub.

- (c) Remove the rear disc.

HINT:

If the disc cannot be removed easily, turn the shoe adjuster until the wheel turns freely.

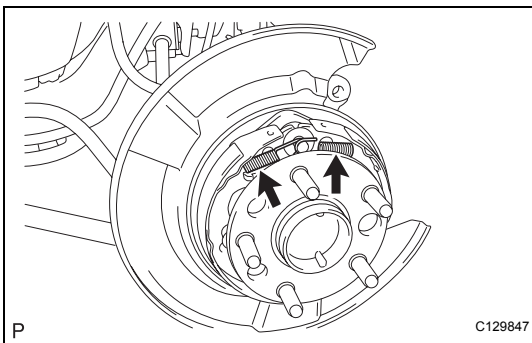


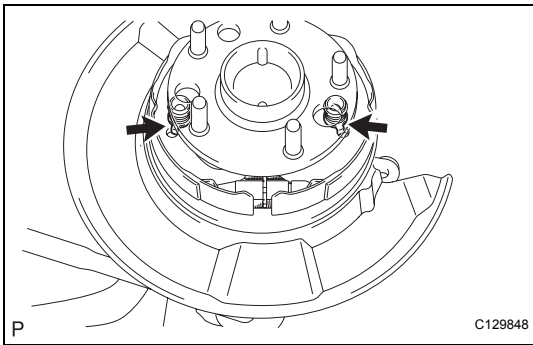
4. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING

- (a) Using needle-nose pliers, remove the 2 return tension springs No.1.

5. REMOVE PARKING BRAKE SHOE STRUT LH

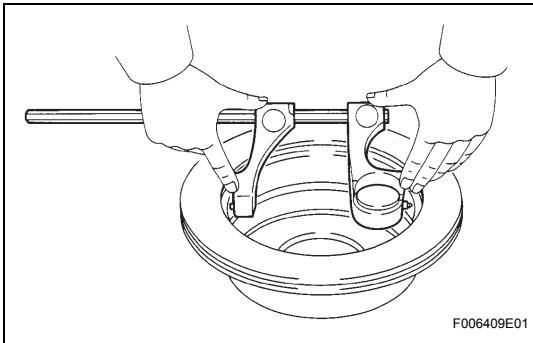
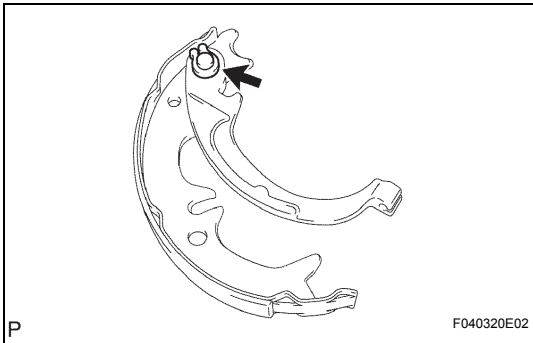
- (a) Remove the parking brake shoe strut LH and strut compression spring.





6. REMOVE PARKING BRAKE SHOE

- (a) Release the spring cup claw and remove the parking brake shoe assembly LH No.2 and No.1.
- (b) Disconnect the parking brake cable assembly No.3 from the shoe lever.
- (c) Remove the return tension spring No.2 and adjusting screw set from the parking brake shoe assembly LH No.2 and No.1
- (d) Remove the 2 hold down compression springs, 4 hold down spring cups and 2 hold down spring pins.
- (e) Using a screwdriver, remove the C-washer.
- (f) Remove the shim and shoe lever from the parking brake shoe assembly LH No. 2.



INSPECTION

1. INSPECT BRAKE DISC INSIDE DIAMETER

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

Standard inside diameter:

170 mm (6.69 in.)

Maximum inside diameter:

171 mm (6.73 in.)

If the inside diameter exceeds the maximum, replace the brake disc.

2. INSPECT PARKING BRAKE SHOE LINING THICKNESS

- (a) Using a ruler, measure the thickness of the shoe lining.

Standard thickness:

2.0 mm (0.079 in.)

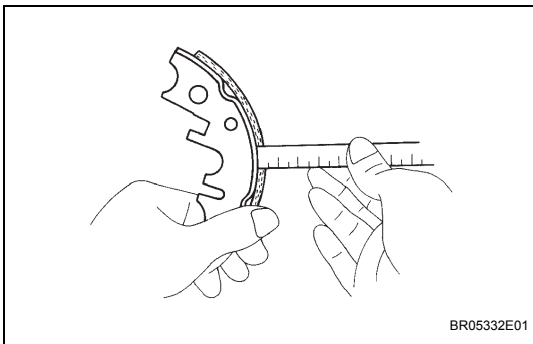
Minimum thickness:

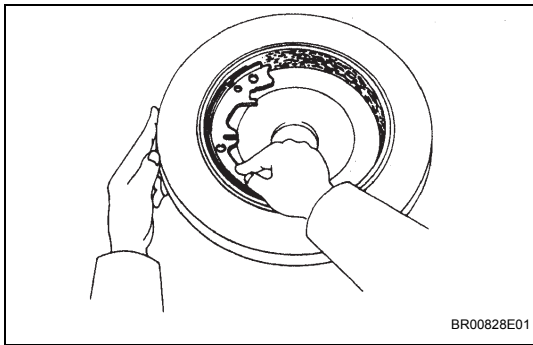
1.0 mm (0.039 in.)

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

NOTICE:

Replace both the right and left parking brake shoes as a set.





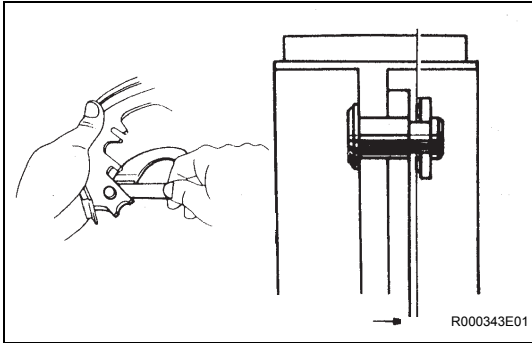
3. INSPECT BRAKE DISC AND PARKING BRAKE SHOE LINING FOR PROPER CONTACT

- (a) Apply chalk to the inside surface of the disc, then grind down the brake shoe lining to fit the disc. If the contact between the disc and the brake shoe lining is improper, repair it using a brake shoe grinder or replace the brake shoe.

REASSEMBLY

1. APPLY HIGH TEMPERATURE GREASE

- (a) Apply high temperature grease to the backing plate which makes contact with the shoe (See page PB-16).



2. INSTALL PARKING BRAKE SHOE

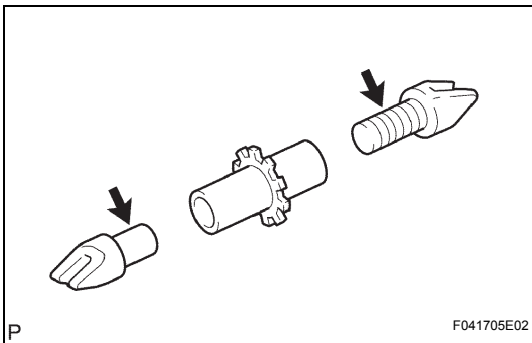
- (a) Install the shoe lever and shim to the parking brake shoe assembly LH No.2 with a new C-washer.
- (b) Using a feeler gauge, measure the clearance.

Standard clearance:

Less than 0.35 mm (0.0138 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.)	0.9 mm (0.035 in.)
0.6 mm (0.024 in.)	-



- (c) Apply high temperature grease to the adjusting screw set.
- (d) Install the adjusting screw set and return tension spring No.2 to the parking brake shoe assembly LH No.1 and No.2.
- (e) Install the 2 hold down spring pins, 4 hold down spring cups and 2 hold down compression springs.
- (f) Connect the parking brake cable assembly No.3 to the shoe lever.
- (g) Install the parking brake shoe assembly LH No.1 and No.2.

3. INSTALL PARKING BRAKE SHOE STRUT LH

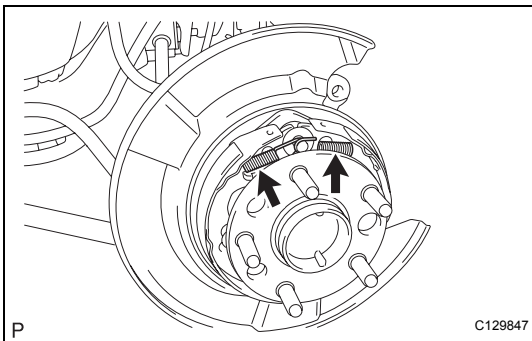
- (a) Attach the parking brake shoe strut LH and strut compression spring to the parking brake shoe assembly LH NO.2 and NO.1.

4. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING

- (a) Using needle-nose pliers, install the 2 return tension springs No.1.

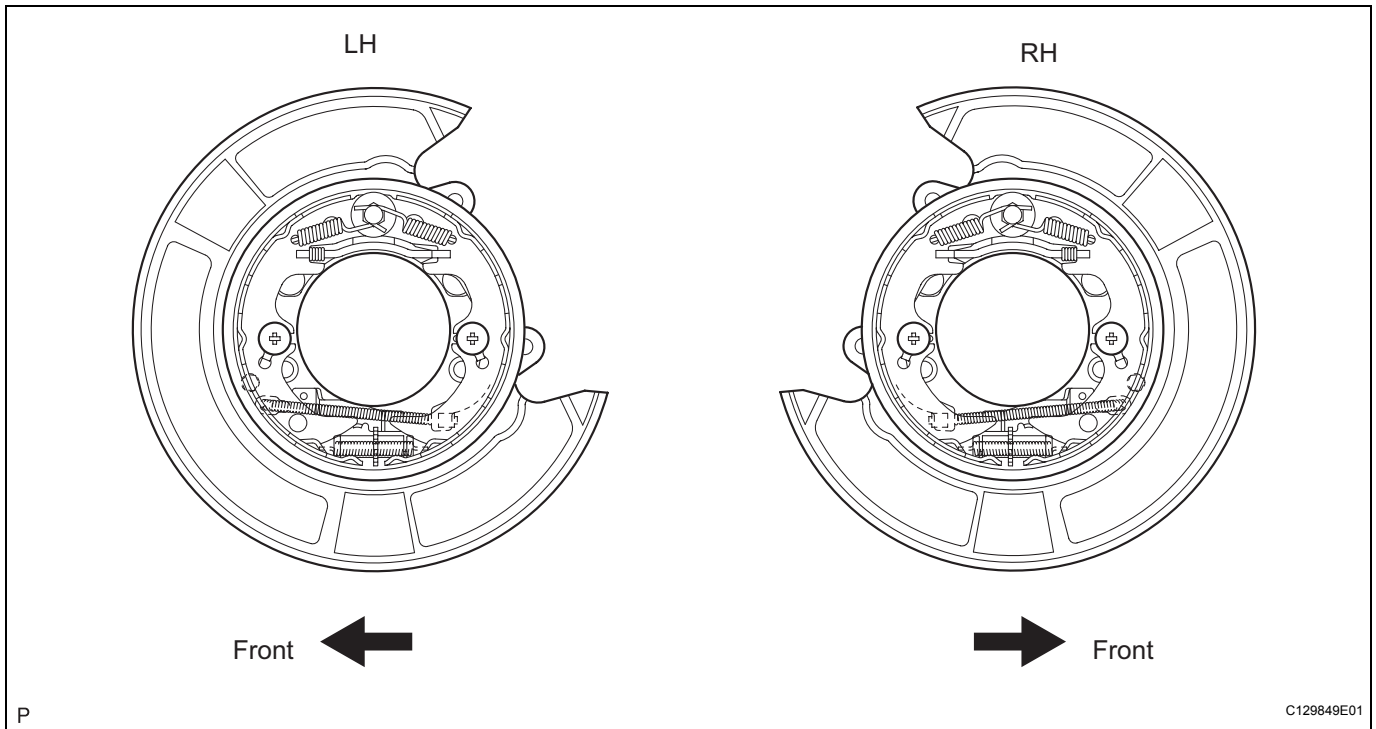
HINT:

Install the front side spring before the rear side spring.



5. CHECK PARKING BRAKE INSTALLATION

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

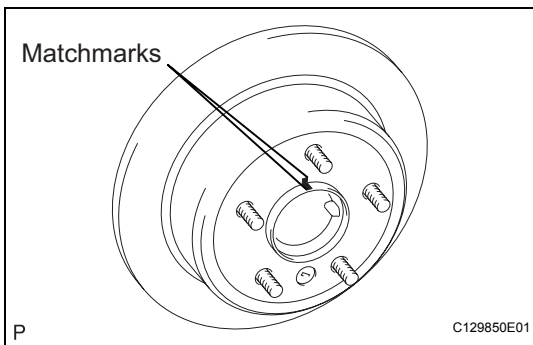


NOTICE:

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

6. INSTALL REAR DISC

- (a) Align the matchmarks and install the rear disc.

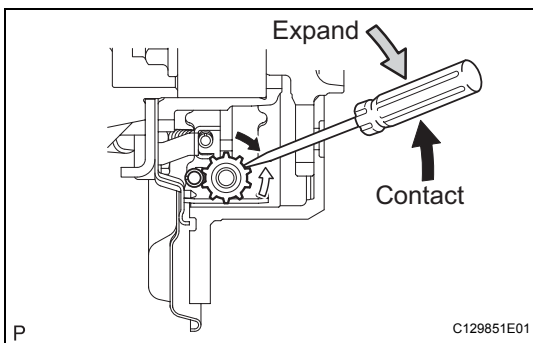


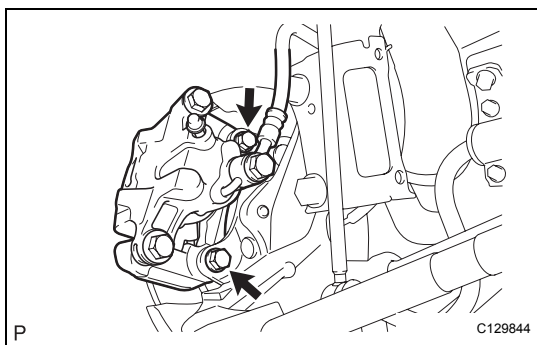
7. ADJUST PARKING BRAKE SHOE CLEARANCE

- (a) Temporarily install the hub nuts.
 (b) Remove the hole plug, turn the adjuster and expand the shoes until the disc locks.
 (c) Contract the shoe adjuster until the disc rotates smoothly.

Standard:
Return 8 notches

- (d) Check that there is no brake drag against the shoe.
 (e) Install the hole plug.





8. **INSTALL REAR DISC BRAKE CALIPER ASSEMBLY LH**
 - (a) Install the rear disc brake caliper assembly LH with the 2 bolts.
Torque: 62 N*m (630 kgf*cm, 46 ft.*lbf)
9. **INSTALL REAR WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
10. **INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (See page [PB-2](#))**