

PARKING BRAKE SYSTEM

33045-02

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 or lever travel (Out of adjustment)	33-2
	2. Parking brake wire (Sticking)	33-10
		33-14
		33-17
	3. Parking brake shoe clearance (Out of adjustment)	33-19
	4. Parking brake shoe lining (Cracked or distorted)	33-19
	5. Tension or return spring (Damaged)	33-19

PARKING BRAKE CABLE ASSY NO.1 (From August, 2002)

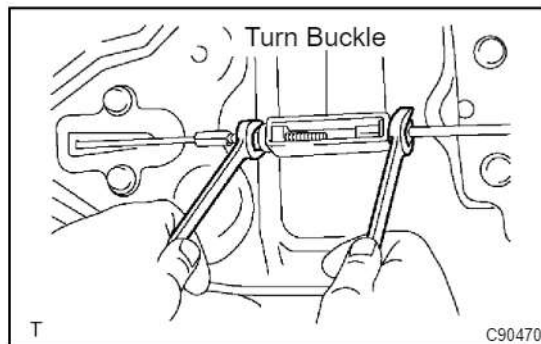
REPLACEMENT

3304W-03

HINT:

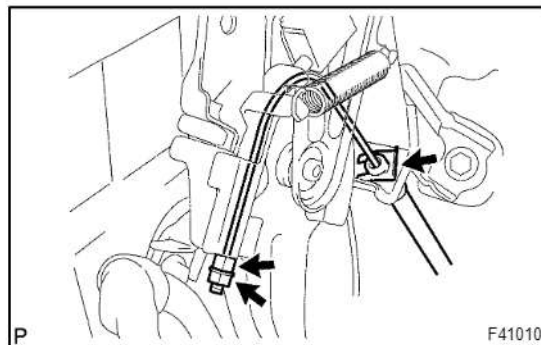
COMPONENTS: See page 33-3 and 71-9

1. REMOVE FRONT DOOR SCUFF PLATE LH (PEDAL TYPE PARKING BRAKE)(See page 71-16)
2. REMOVE COWL SIDE TRIM SUB-ASSY LH (PEDAL TYPE PARKING BRAKE)(See page 71-16)
3. REMOVE INSTRUMENT PANEL SUB-ASSY UPPER (PEDAL TYPE PARKING BRAKE)(See page 71-16)
4. REMOVE INSTRUMENT PNL INSERT SUB-ASSY LWR LH (PEDAL TYPE PARKING BRAKE)(See page 71-16)
5. REMOVE CONSOLE PANEL UPPER REAR(See page 71-16)
6. REMOVE CONSOLE BOX CARPET(See page 71-16)
7. REMOVE RR CONSOLE BOX(See page 71-16)
8. REMOVE INSTRUMENT PANEL ASH RECEPTACLE ASSY(See page 71-16)
9. REMOVE CONSOLE PANEL UPPER(See page 71-16)
10. REMOVE CONSOLE BOX FRONT(See page 71-16)
11. REMOVE AIR DUCT REAR NO.1(See page 71-16)
12. REMOVE AIR DUCT REAR NO.2(See page 71-16)
13. REMOVE CONSOLE BOX DUCT NO.1(See page 71-16)
14. REMOVE SHIFT LEVER SHAFT HOUSING ASSY(See page 71-16)
15. REMOVE YAWRATE SENSOR (W/ VSC)(See page 32-71)



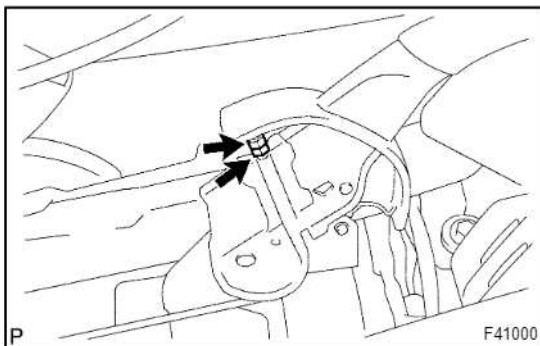
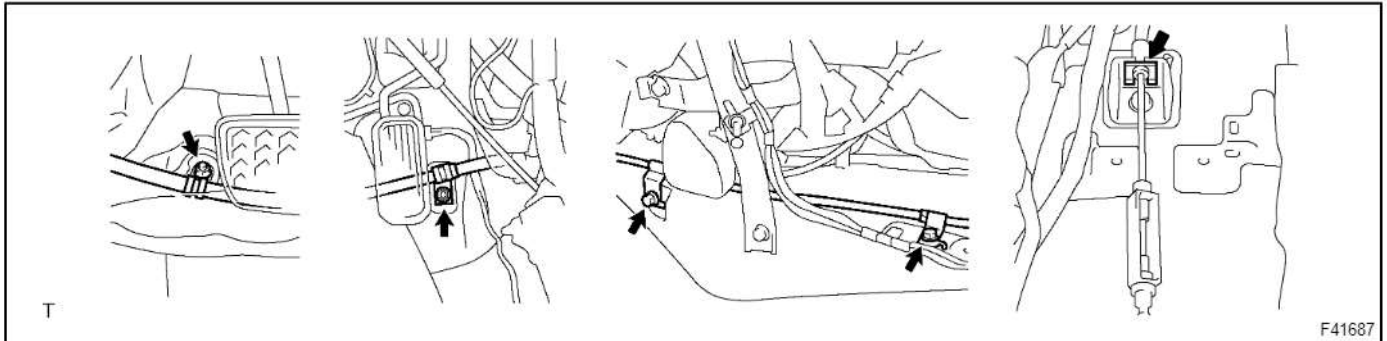
16. REMOVE PARKING BRAKE CABLE ASSY NO.1 (PEDAL TYPE PARKING BRAKE)

- (a) Loosen the turn buckle, disconnect the parking brake cable assy No.1 from the parking brake cable assy No.4.
- (b) Remove the 2 bolts and console box mounting bracket No.2.



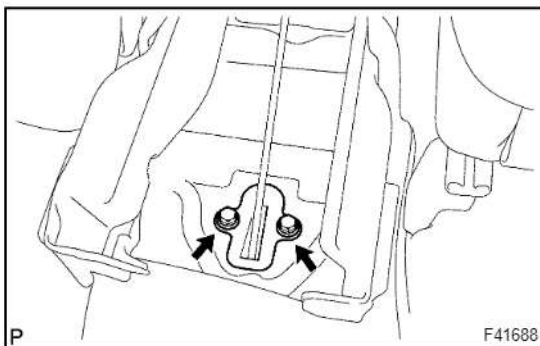
- (c) Remove the lock nut, adjusting nut, clip and disconnect the parking brake cable assy No.1 from the parking brake control pedal assy.

- (d) Remove the 2 nuts, 2 bolts, clip and parking brake cable assy No.1.



17. REMOVE PARKING BRAKE CABLE ASSY NO.1 (LEVER TYPE PARKING BRAKE)

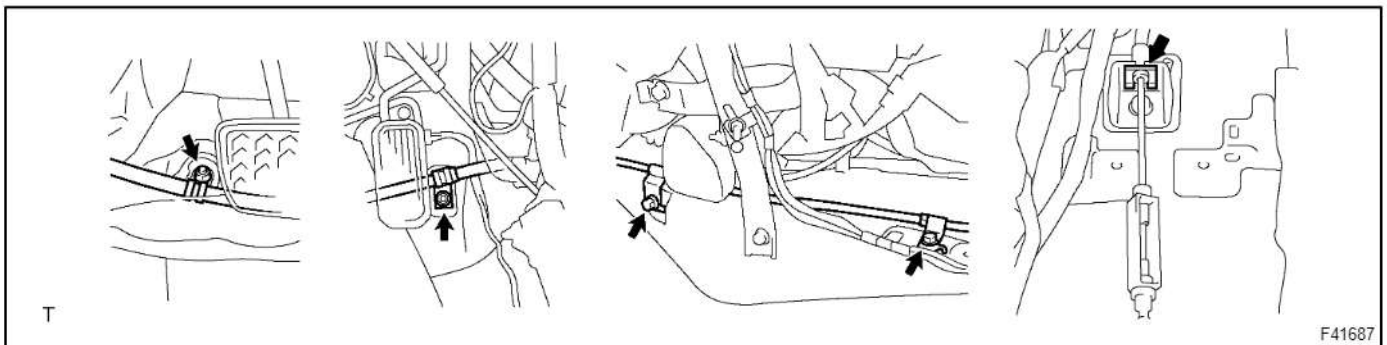
- (a) Remove the lock nut and adjusting nut from the parking brake cable assy No.1.
(b) Remove the 2 bolts and console box mounting bracket No.2.

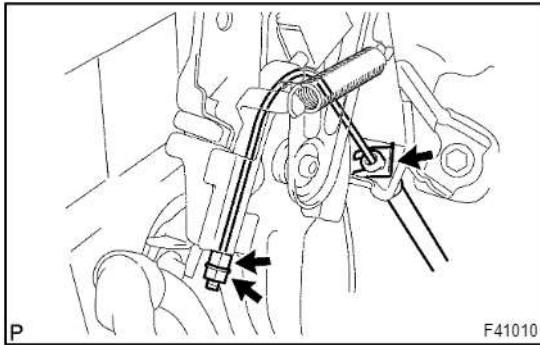


- (c) Remove the 2 bolts and separate the parking brake cable No.1 from the parking brake equalizer.

18. INSTALL PARKING BRAKE CABLE ASSY NO.1 (PEDAL TYPE PARKING BRAKE)

- (a) Install the parking brake cable assy No.1 with the 2 nuts, 2 bolts and clip.



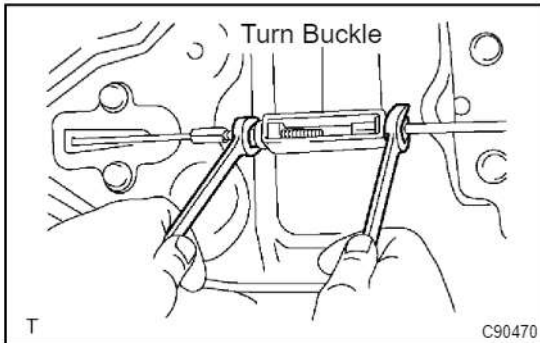


- (b) Install the parking brake cable assy No.1 with the clip, adjusting nut and lock nut to the parking brake control pedal assy.

Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

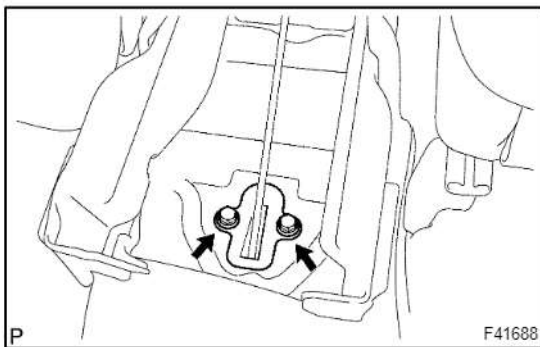
- (c) Install the console box mounting bracket No.2 with the 2 bolts.

Torque: 12.5 N·m (128 kgf·cm, 9 ft·lbf)



- (d) Tighten the turn buckle, connect the parking brake cable assy No. 1 to the parking brake cable assy No.4.

Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)



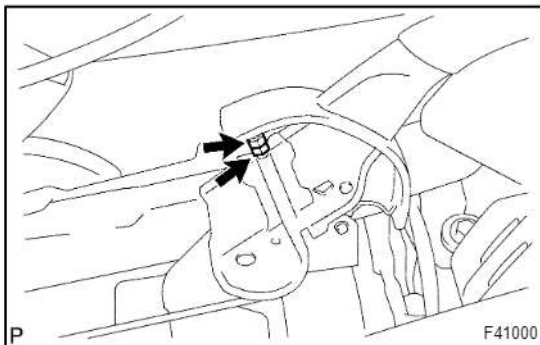
19. INSTALL PARKING BRAKE CABLE ASSY NO.1 (LEVER TYPE PARKING BRAKE)

- (a) Install the parking brake cable assy No.1 with the 2 bolts to the parking brake equalizer.

Torque: 23 N·m (235 kgf·cm, 17 ft·lbf)

- (b) Install the console box mounting bracket No.2 with the 2 bolts.

Torque: 12.5 N·m (128 kgf·cm, 9 ft·lbf)



- (c) Install the parking brake cable assy No.1 with the adjusting nut and lock nut to the parking brake lever assy.

Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)

20. INSTALL YAWRATE SENSOR (W/ VSC)(See page 32-71)
21. INSTALL SHIFT LEVER SHAFT HOUSING ASSY(See page 71-16)
22. INSTALL CONSOLE BOX DUCT NO.1(See page 71-16)
23. INSTALL AIR DUCT REAR NO.2(See page 71-16)
24. INSTALL AIR DUCT REAR NO.1(See page 71-16)
25. INSTALL CONSOLE BOX FRONT(See page 71-16)
26. INSTALL CONSOLE PANEL UPPER(See page 71-16)
27. INSTALL INSTRUMENT PANEL ASH RECEPTACLE ASSY(See page 71-16)
28. INSTALL RR CONSOLE BOX(See page 71-16)
29. INSTALL CONSOLE BOX CARPET(See page 71-16)

30. INSTALL CONSOLE PANEL UPPER REAR(See page [71-16](#))
31. INSTALL INSTRUMENT PNL INSERT SUB-ASSY LWR LH (PEDAL TYPE PARKING BRAKE)(See page [71-16](#))
32. INSTALL INSTRUMENT PANEL SUB-ASSY UPPER (PEDAL TYPE PARKING BRAKE)(See page [71-16](#))
33. INSTALL COWL SIDE TRIM SUB-ASSY LH (PEDAL TYPE PARKING BRAKE)(See page [71-16](#))
34. INSTALL FRONT DOOR SCUFF PLATE LH (PEDAL TYPE PARKING BRAKE)(See page [71-16](#))
35. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (PEDAL TYPE PARKING BRAKE)(See page [33-2](#))
36. INSPECT AND ADJUST PARKING BRAKE LEVER TRAVEL (LEVER TYPE PARKING BRAKE)(See page [33-2](#))
37. PERFORM YAWRATE SENSOR ZERO POINT CALIBRATION (W/ VSC)(See page [05-987](#))

PARKING BRAKE CABLE ASSY NO.3

REPLACEMENT

3304X-05

HINT:

- COMPONENTS: See page 33-3
- For parking brake cable No.2, employ the same procedure to the RH side.

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 the flexible hose from the brake caliper assy LH.

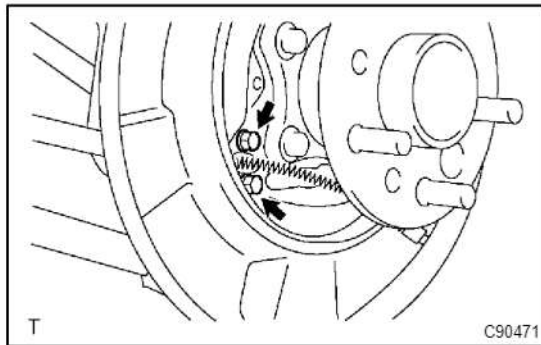
3. REMOVE REAR BRAKE DRUM SUB-ASSY (DRUM REAR BRAKE TYPE)(See page 32-50)

4. REMOVE REAR DISC (DISC REAR BRAKE TYPE)(See page 33-19)

5. REMOVE PARKING BRAKE SHOE(See page 33-19)

6. REMOVE PARKING BRAKE CABLE HEAT INSULATOR

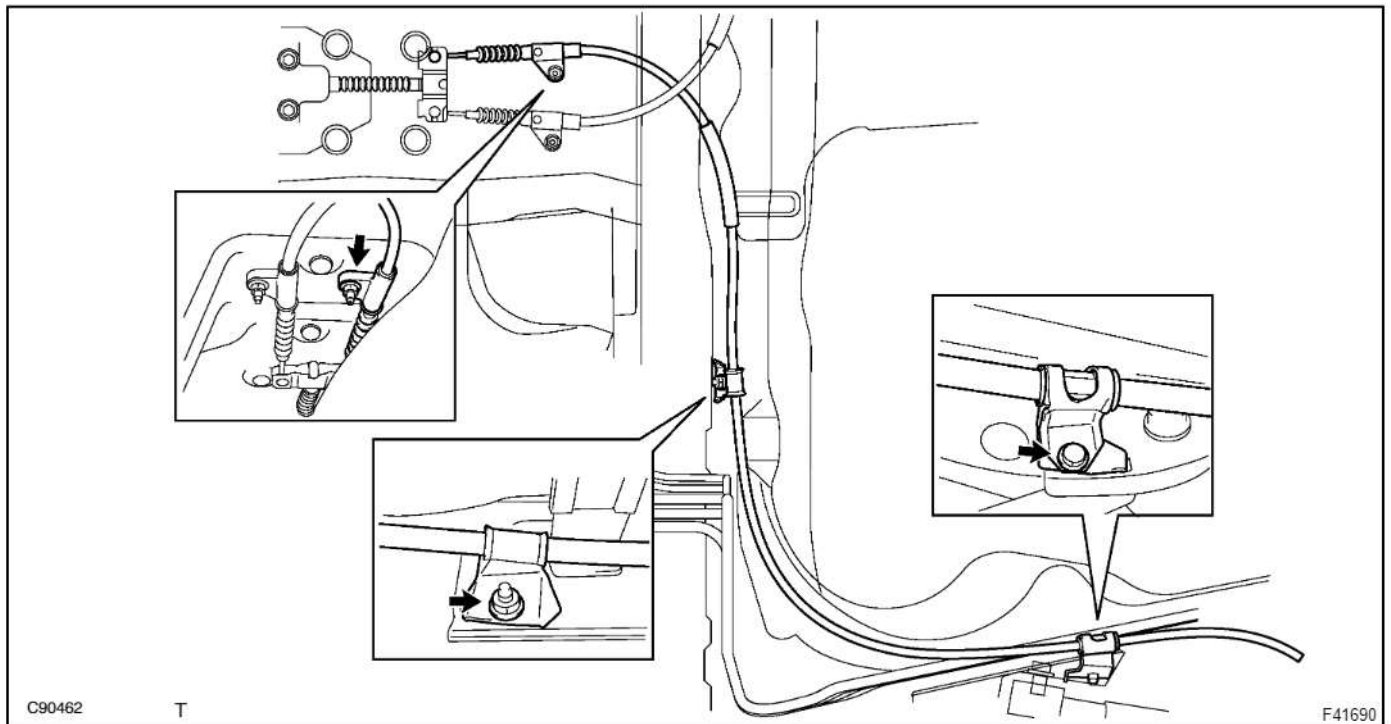
- (a) Remove the 3 nuts and parking brake heat insulator.



7. 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 2 nuts, bolt and parking brake cable assy No.3.

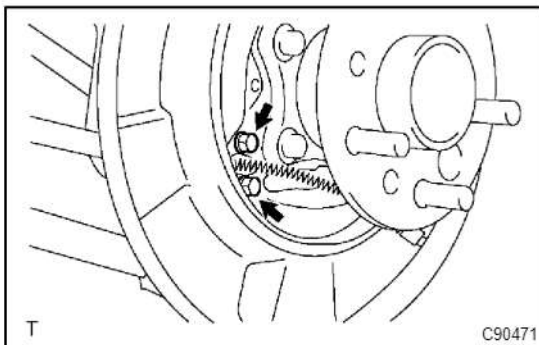
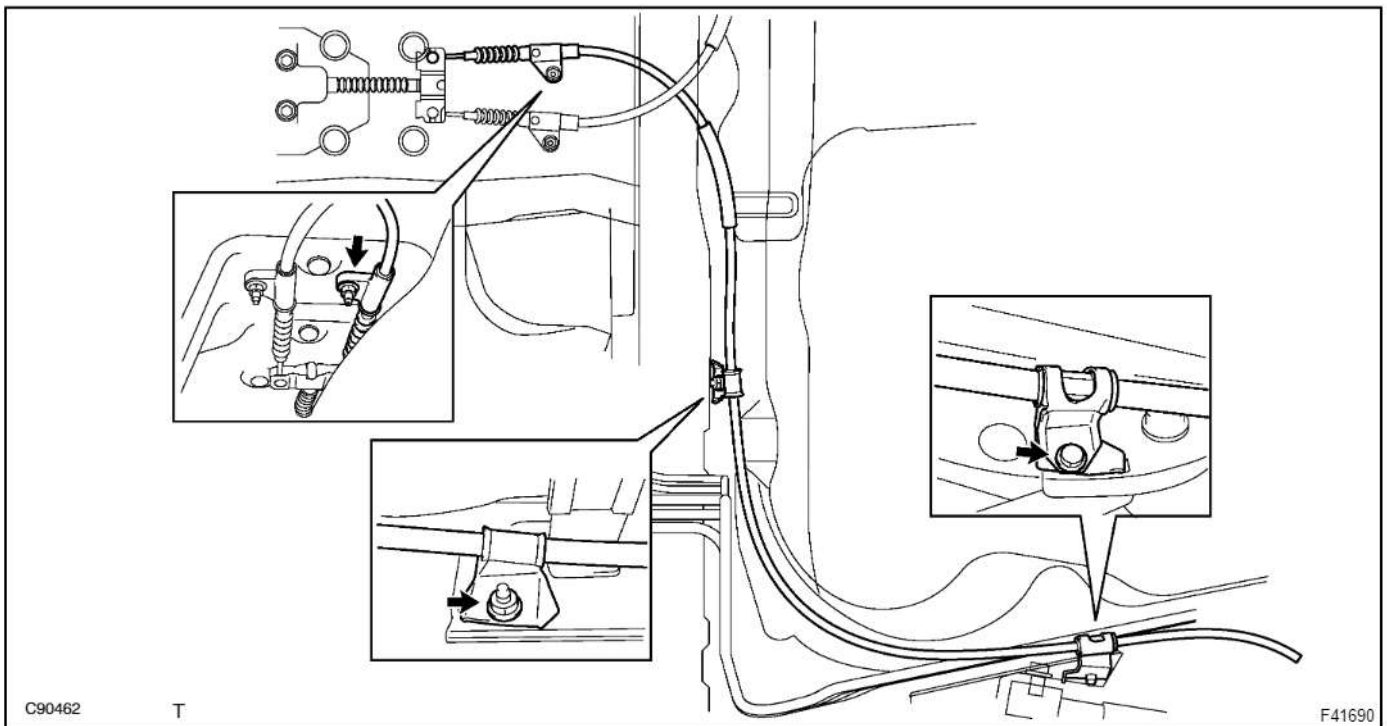


- (c) Disconnect the parking brake cable assy No.3 from the parking brake equalizer.

8. INSTALL PARKING BRAKE CABLE ASSY NO.3

- (a) Connect the parking brake cable assy No.3 to the parking brake equalizer.
 (b) Install the parking brake cable assy No.3 with the 2 nuts and bolt.

Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)



- (c) Install the parking brake cable assy No.3 with the 2 bolts to the backing plate.

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

9. INSTALL PARKING BRAKE CABLE HEAT INSULATOR

- (a) Install the parking brake heat insulator with the 3 nuts.

Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

10. APPLICATION HIGH TEMPERATURE GREASE(See page 33-19)

11. INSTALL PARKING BRAKE SHOE(See page 33-19)

12. CHECK PARKING BRAKE INSTALLATION(See page [33-19](#))
13. INSTALL REAR BRAKE DRUM SUB-ASSY (DRUM REAR BRAKE TYPE)(See page [32-50](#))
14. INSTALL REAR DISC (DISC REAR BRAKE TYPE)(See page [33-19](#))
15. ADJUST PARKING BRAKE SHOE CLEARANCE(See page [33-19](#))
16. INSTALL REAR DISC BRAKE CALIPER ASSY LH
 - (a) Install the rear disc brake caliper with the 2 bolts.
Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)
17. INSTALL REAR WHEEL
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
18. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (PEDAL TYPE PARKING BRAKE)(See page [33-2](#))
19. INSPECT AND ADJUST PARKING BRAKE LEVER TRAVEL (LEVER TYPE PARKING BRAKE)(See page [33-2](#))

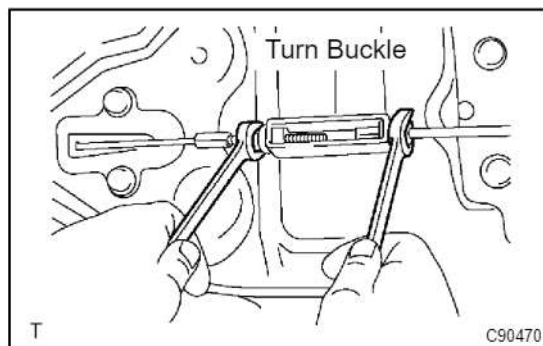
PARKING BRAKE CABLE ASSY NO.4 (From August, 2002) REPLACEMENT

3304Y-03

HINT:

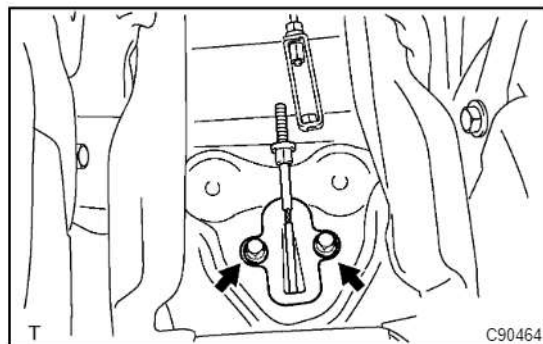
COMPONENTS: See page 33-3

1. REMOVE CONSOLE PANEL UPPER REAR(See page 71-16)
2. REMOVE CONSOLE BOX CARPET(See page 71-16)
3. REMOVE RR CONSOLE BOX(See page 71-16)
4. REMOVE CONSOLE BOX MOUNTING BRACKET NO.2
 - (a) Remove the 2 bolts and console box mounting bracket No.2.
5. REMOVE YAWRATE SENSOR (W/ VSC)(See page 32-71)

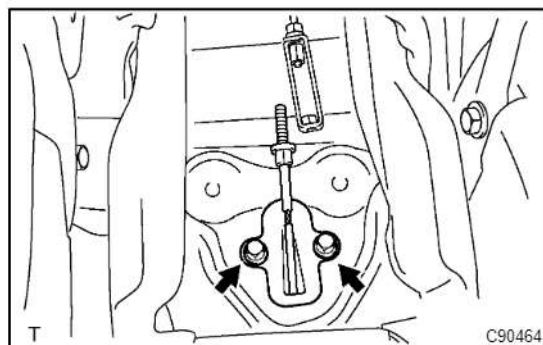


6. REMOVE PARKING BRAKE CABLE ASSY NO.4

- (a) Loosen the turn buckle, disconnect the parking brake cable assy No.4 from the parking brake cable assy No.1.
- (b) Disconnect the parking brake cable assy No.4 from the parking brake equalizer.

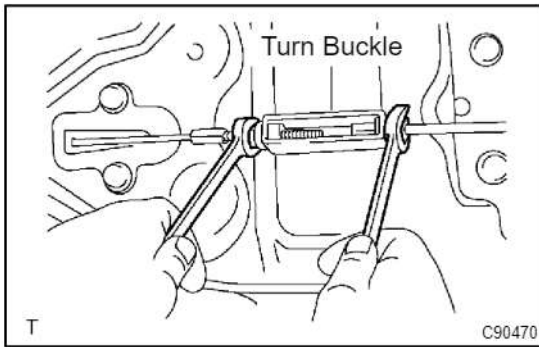


- (c) Remove the 2 bolts and parking brake cable assy No.4.



7. INSTALL PARKING BRAKE CABLE ASSY NO.4

- (a) Install the parking brake cable No.4 with the 2 bolts.
Torque: 12.5 N·m (128 kgf·cm, 9 ft·lbf)
- (b) Connect the parking brake cable assy No.4 to the parking brake equalizer.



- (c) Tighten the turn buckle, connect the parking brake cable assy No.4 to the parking brake cable assy No.1.
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

8. INSTALL YAWRATE SENSOR (W/ VSC)(See page 32-71)

9. INSTALL CONSOLE BOX MOUNTING BRACKET NO.2

- (a) Install the console box mounting bracket No.2 with the 2 bolts.

Torque: 12.5 N·m (128 kgf·cm, 9 ft·lbf)

10. INSTALL RR CONSOLE BOX(See page 71-16)

11. INSTALL CONSOLE BOX CARPET(See page 71-16)

12. INSTALL CONSOLE PANEL UPPER REAR(See page 71-16)

13. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL(See page 33-2)

14. PERFORM YAWRATE SENSOR ZERO POINT CALIBRATION (W/ VSC)(See page 05-987)

PARKING BRAKE ASSY OVERHAUL

33050-02

HINT:

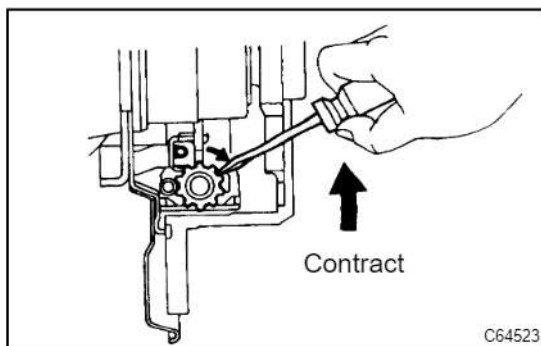
- COMPONENTS: See page 33-3
- Overhaul the RH side by the same procedures with LH side.

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:

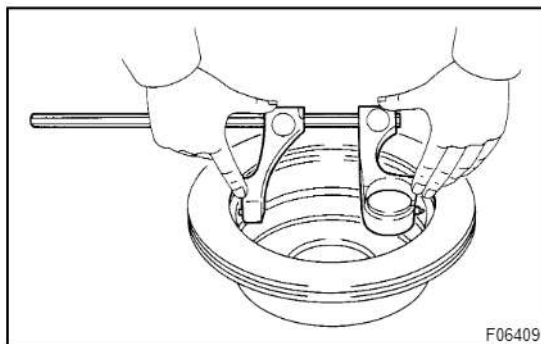
Do not disconnect the flexible hose from the brake caliper.

**3. REMOVE REAR DISC**

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

HINT:

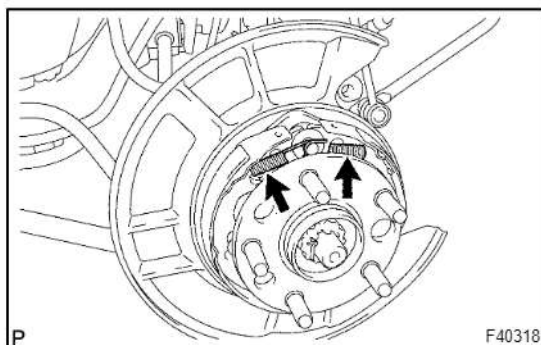
- Put matchmarks on the disc and the axle hub.
- If the disc cannot be removed easily, turn the shoe adjuster until the wheel turns freely.

**4. INSPECT BRAKE DISC INSIDE DIAMETER**

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

Standard inside diameter: 170 mm (6.69 in.)

Maximum inside diameter: 171 mm (6.73 in.)

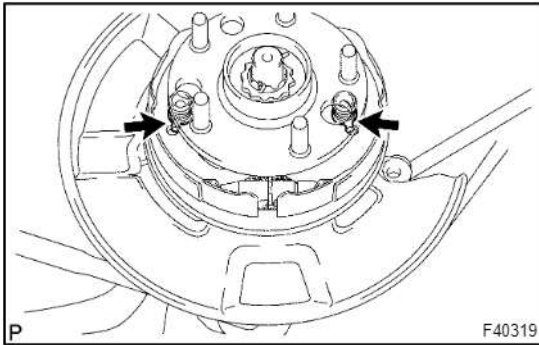
**5. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING**

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

6. REMOVE PARKING BRAKE SHOE STRUT COMPRESSION SPRING

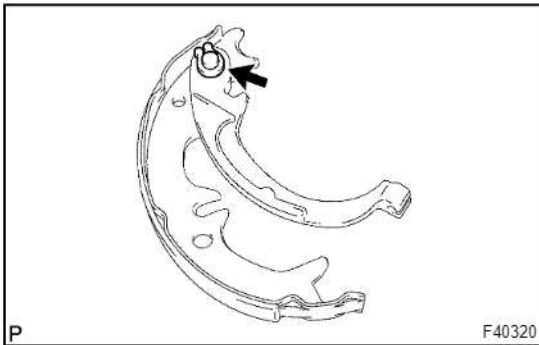
- (a) Slide out the front shoe and remove the compression spring.

7. REMOVE PARKING BRAKE SHOE STRUT LH

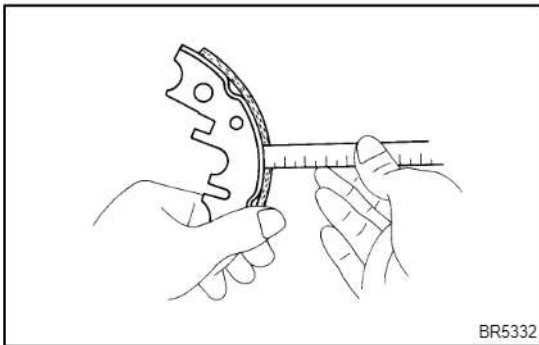


8. REMOVE PARKING BRAKE SHOE

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



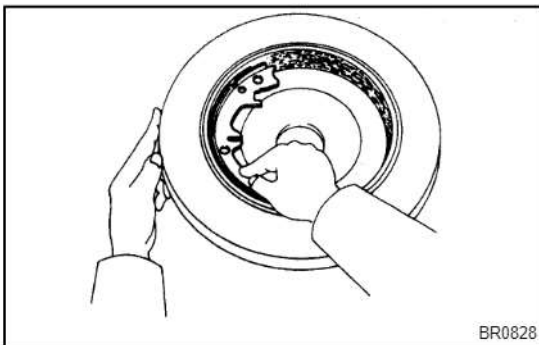
- (e) Using a screwdriver, remove the C-washer.
- (f) Remove the shim and shoe lever from the parking brake shoe.



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



10. 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.

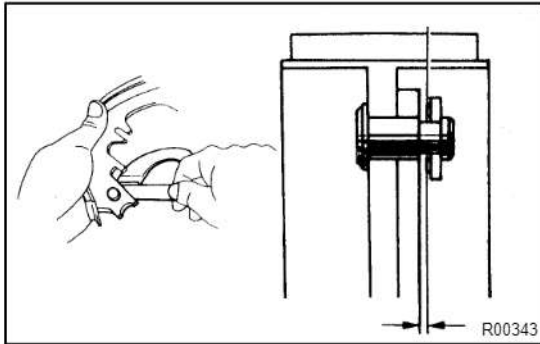
If the contact between the brake disc and the shoe lining is improper, repair it using a brake shoe grinder or replace the brake shoe assembly.

11. APPLICATION HIGH TEMPERATURE GREASE

- (a) Apply the high temperature grease to the shoe attached surface of backing plate.

12. INSTALL PARKING BRAKE SHOE

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

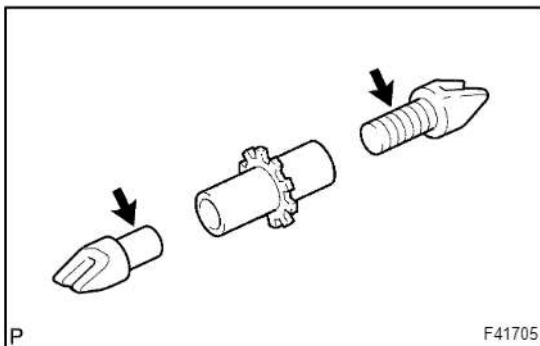


- (b) Using a feeler gauge, measure the clearance.

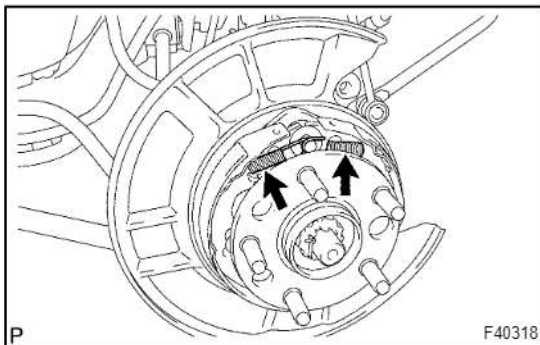
Standard clearance: Less than 0.35 mm (0.0138 in.)

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 the high temperature grease to the adjusting bolt.
 (d) Install the shoe adjusting screw set and 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**

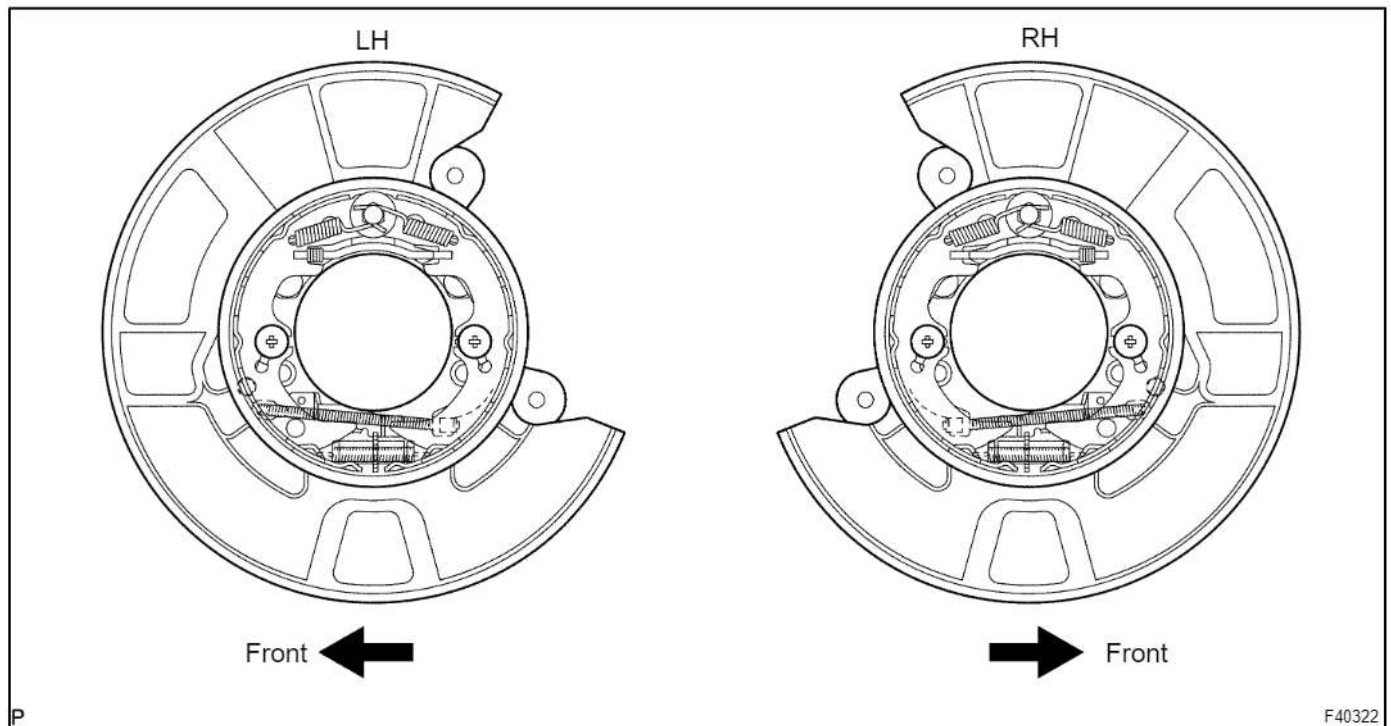
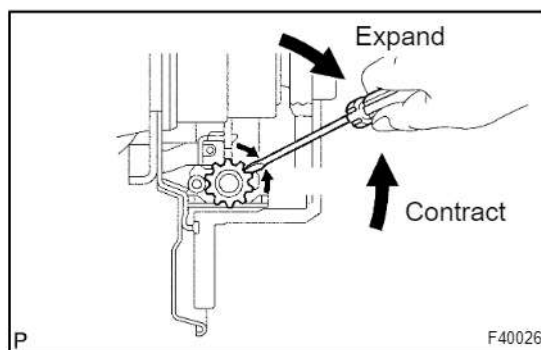
- (a) Using a needle nose pliers, install the 2 return tension springs.

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 can rotate smoothly.

Standard : Return 8 notches

- Check shoe is no brake drag.
- Install the hole plug.

19. INSTALL REAR DISC BRAKE CALIPER ASSY LH

- (a) Install the rear disc brake caliper with the 2 bolts.

Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)

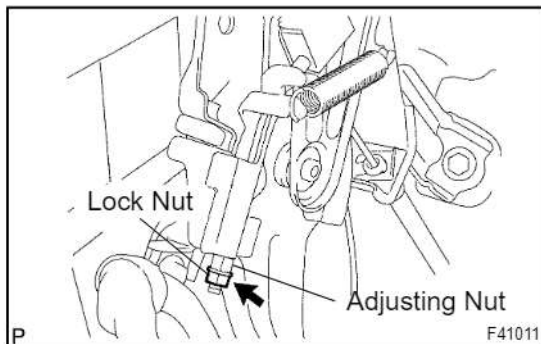
20. INSTALL REAR WHEEL

Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

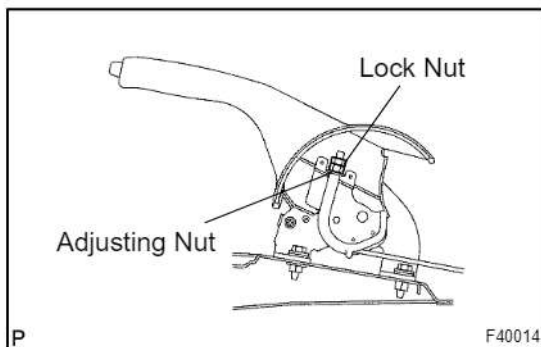
21. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL (PEDAL TYPE PARKING BRAKE)(See page 33-2)**22. INSPECT AND ADJUST PARKING BRAKE LEVER TRAVEL (LEVER TYPE PARKING BRAKE) (See page 33-2)**

ADJUSTMENT

1. REMOVE REAR WHEEL
2. ADJUST PARKING BRAKE SHOE CLEARANCE(See page 33-19)
3. INSTALL REAR WHEEL
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
4. INSPECT PARKING BRAKE PEDAL TRAVEL (PEDAL TYPE PARKING BRAKE)
 - (a) Slowly depress the parking brake pedal all the way, and count the number of clicks.
Parking brake pedal travel: 3 - 6 clicks at 300 N (31 kgf, 68.3 lbf)
5. INSPECT PARKING BRAKE LEVER TRAVEL (LEVER TYPE PARKING BRAKE)
 - (a) Pull the parking brake lever all the way up, and count the number of clicks.
Parking brake lever travel: 6 - 9 clicks at 200 N (20 kgf, 44.1 lbf)



6. ADJUST PARKING BRAKE PEDAL TRAVEL (PEDAL TYPE PARKING BRAKE)
 - (a) Depress the parking brake pedal 3 notches to make a room for the procedure, and loosen the lock nut.
 - (b) Return the parking brake pedal to the original position.
 - (c) Turn the adjusting nut until the parking brake pedal travel is correct.
 - (d) Depress the parking brake pedal 3 notches to make a room for the procedure, and tighten the lock nut.
Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)
 - (e) Return the parking brake pedal to the original position.
 - (f) Check whether parking brake drags or not.
 - (g) When operating the parking brake pedal, check that the parking brake pedal indicator light lights up.
7. ADJUST PARKING BRAKE LEVER TRAVEL (LEVER TYPE PARKING BRAKE)
 - (a) Remove the console panel upper.
 - (b) Remove the air duct rear No. 1.

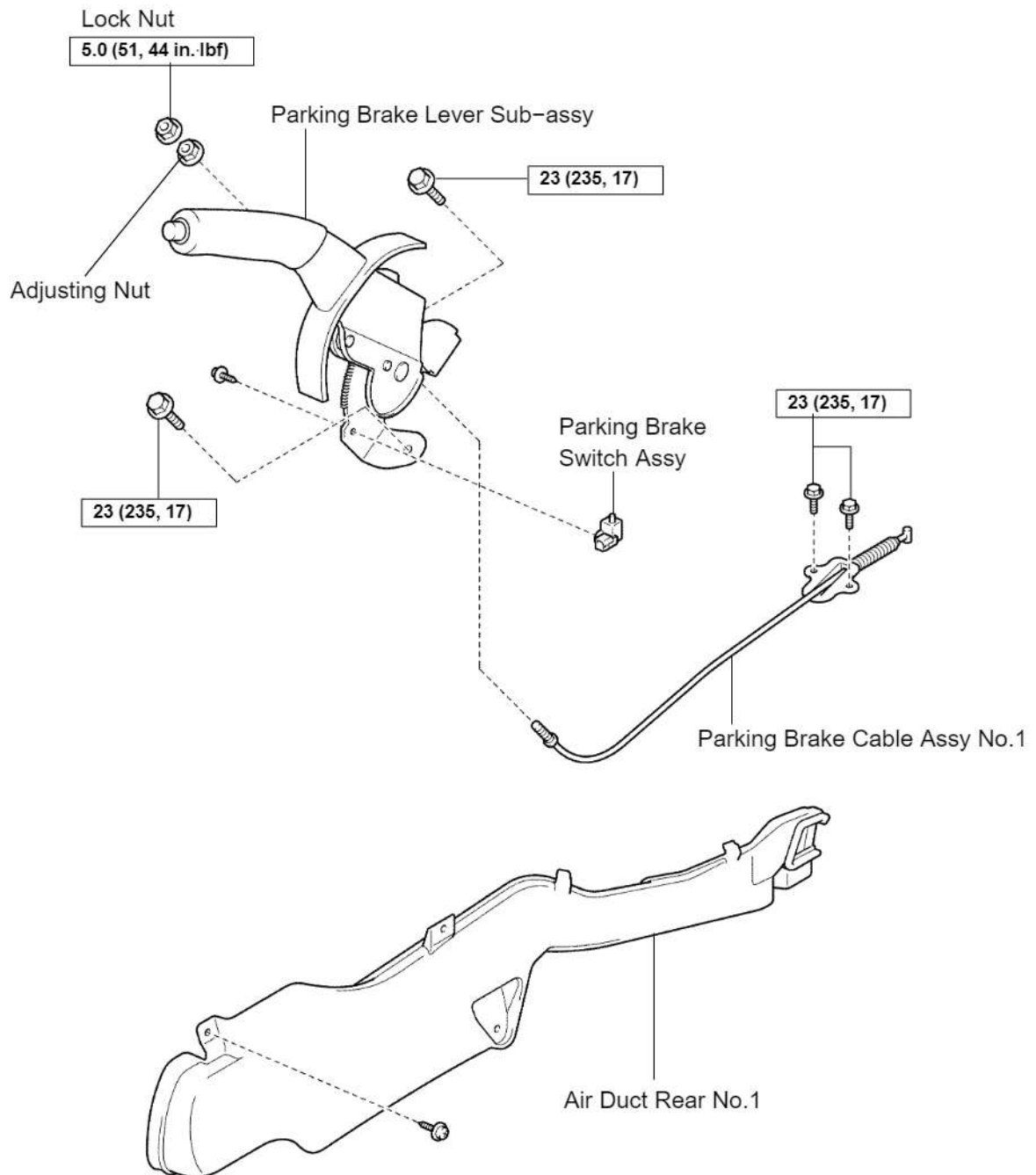


- (c) Loosen the lock nut and turn the adjusting nut until the lever travel is correct.
- (d) Tighten the lock nut.
Torque: 5.0 N·m (51 kgf·cm, 44 in·lbf)
- (e) Install the air duct rear No.1.
- (f) Install the console panel upper.

PARKING BRAKE (From August, 2002) COMPONENTS

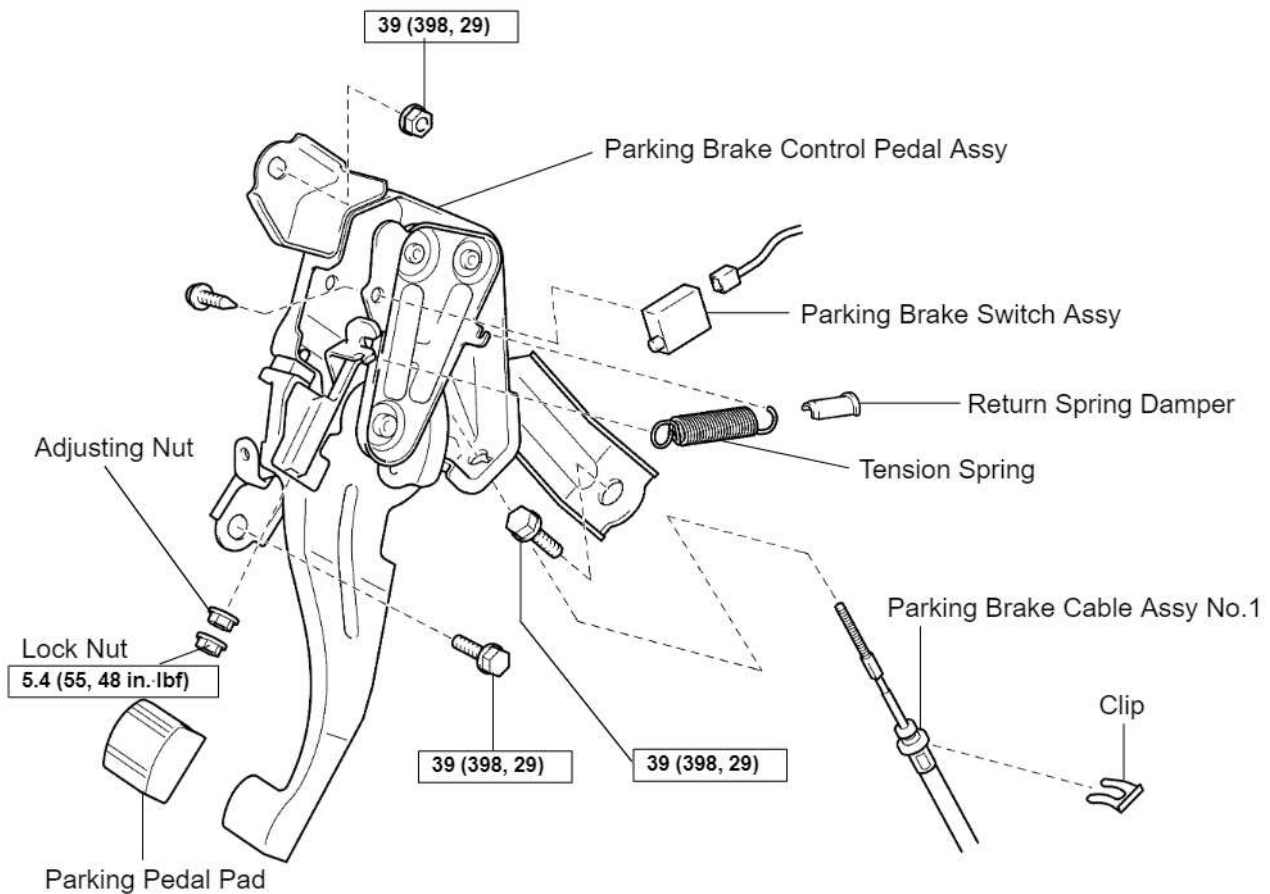
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Parking Brake Lever Sub-assy:



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

F41002

Parking Brake Control Pedal Assy:

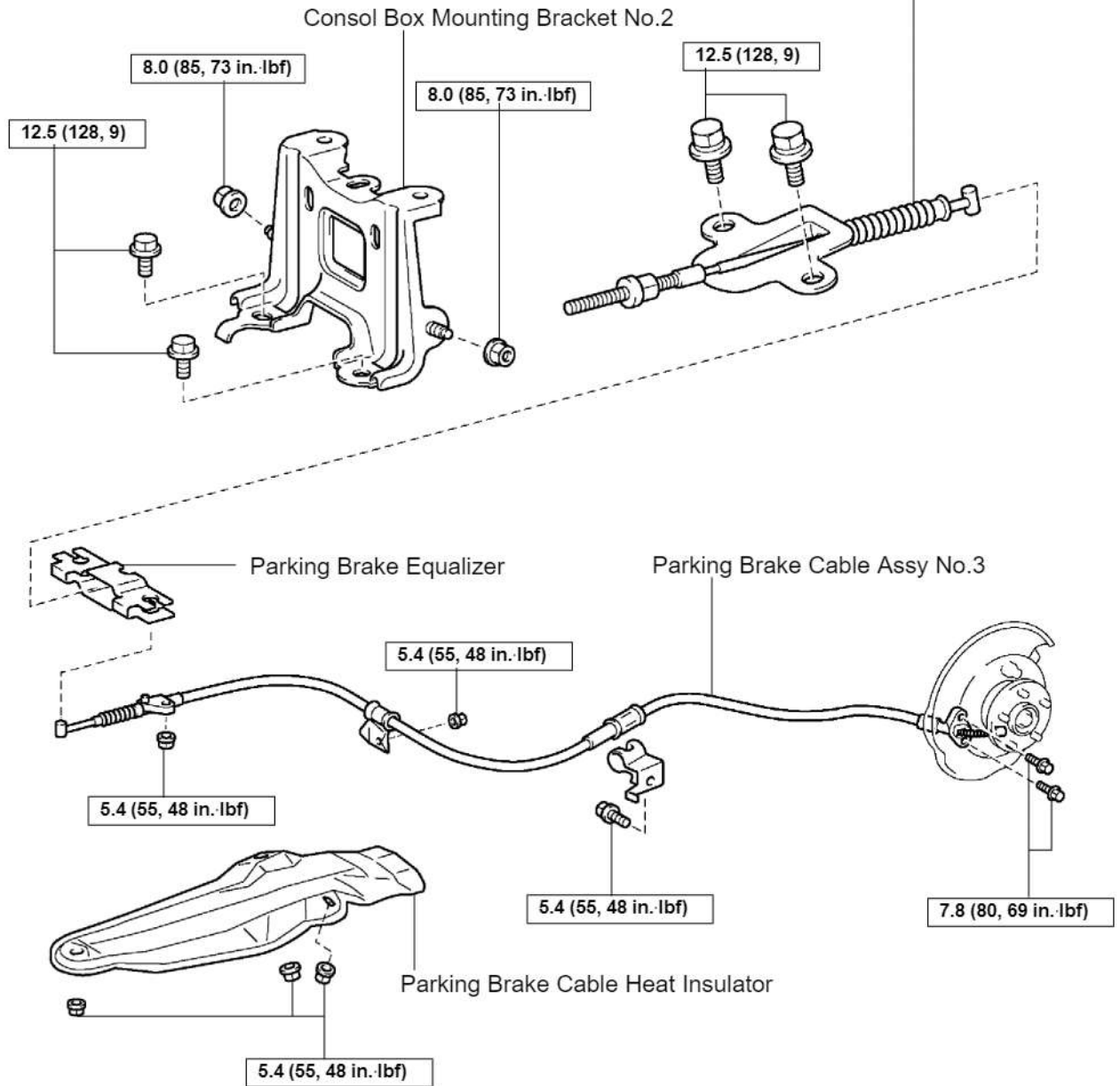
P N·m (kgf·cm, ft·lbf) : Specified torque

F41008

Parking Brake Cable:

Parking Brake Control Pedal Models:

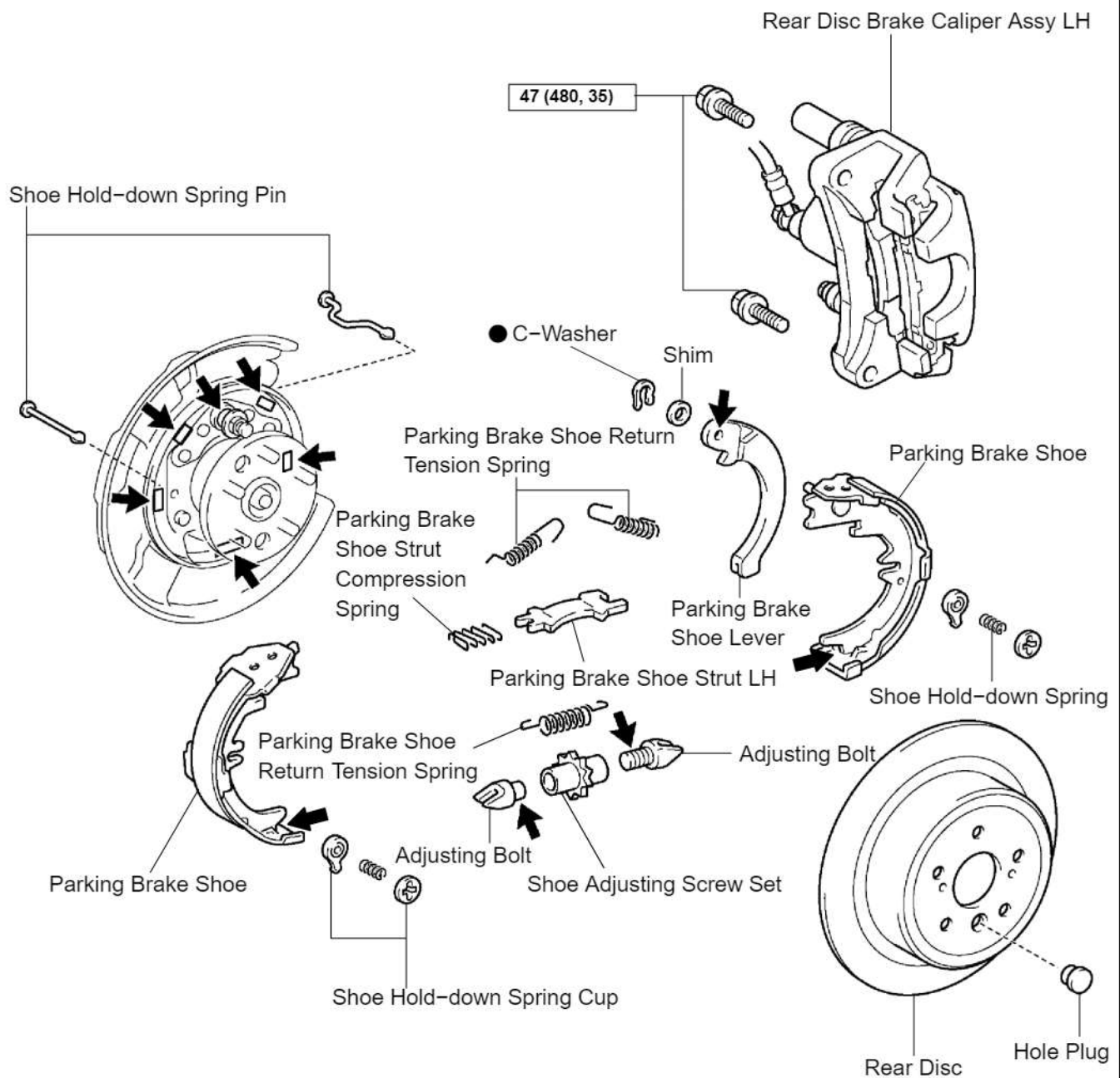
Parking Brake Cable Assy No.4



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

C90467

F41686

Parking Brake Assy:

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

● Non-reusable part

➡ High Temperature grease

C90458

F41967

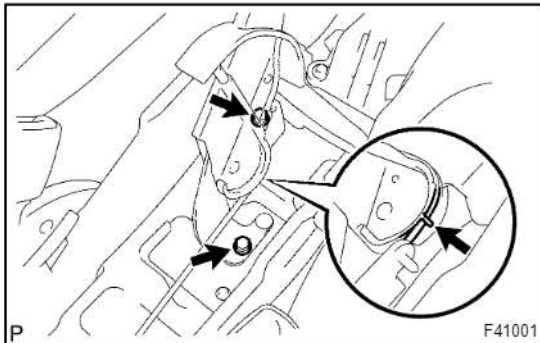
PARKING BRAKE LEVER SUB-ASSY (From August, 2002) REPLACEMENT

3304U-05

HINT:

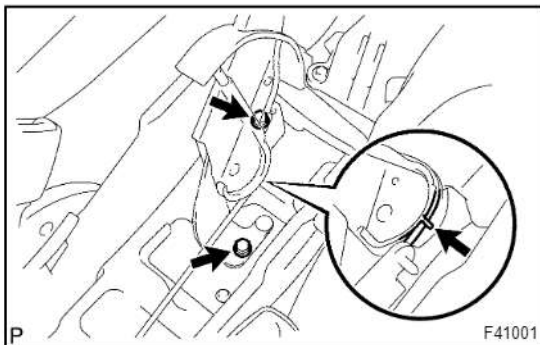
COMPONENTS: See page 33-3 and 71-9

1. REMOVE CONSOLE PANEL UPPER(See page 71-16)
2. REMOVE AIR DUCT REAR NO.1(See page 71-16)
3. REMOVE PARKING BRAKE LEVER SUB-ASSY
 - (a) Disconnect the parking brake switch connector.
 - (b) Remove the lock nut and adjusting nut.



- (c) Remove the 2 bolts.
- (d) Using a screwdriver, disconnect the parking brake cable No. 1 and remove the parking brake lever sub-assy.

4. REMOVE PARKING BRAKE SWITCH ASSY
 - (a) Remove the screw and parking brake switch assy.
5. INSTALL PARKING BRAKE SWITCH ASSY
 - (a) Install the parking brake switch assy with the screw.



6. INSTALL PARKING BRAKE LEVER SUB-ASSY
 - (a) Connect the parking brake cable to the lever and install the adjusting nut and lock nut.
 - (b) Install the parking brake lever sub-assy with the 2 bolts.
Torque: 23 N·m (235 kgf·cm, 17 ft·lbf)
 - (c) Connect the parking brake switch connector.

7. INSTALL AIR DUCT REAR NO.1(See page 71-16)
8. INSTALL CONSOLE PANEL UPPER(See page 71-16)
9. CHECK PARKING BRAKE LEVER TRAVEL(See page 33-2)
10. ADJUST PARKING BRAKE LEVER TRAVEL(See page 33-2)

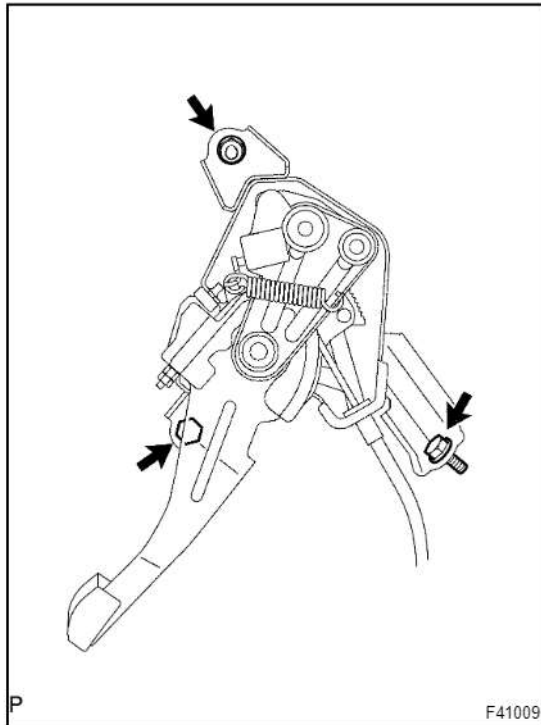
PARKING BRAKE CONTROL PEDAL ASSY OVERHAUL

3304V-03

HINT:

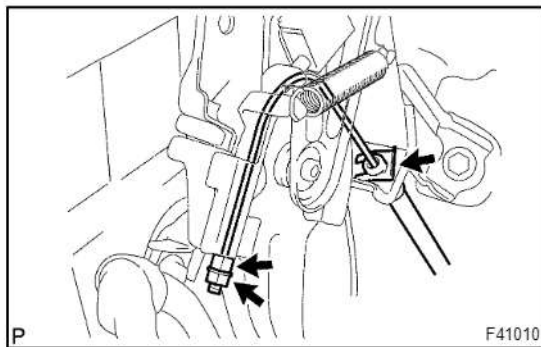
COMPONENTS: See page 33-3 and 71-9

1. REMOVE INSTRUMENT CLUSTER FINISH PANEL(See page 71-16)
2. REMOVE COMBINATION METER ASSY(See page 71-16)
3. REMOVE FRONT DOOR SCUFF PLATE LH(See page 71-16)
4. REMOVE COWL SIDE TRIM SUB-ASSY LH(See page 71-16)
5. REMOVE INSTRUMENT PANEL SUB-ASSY UPPER(See page 71-16)
6. REMOVE INSTRUMENT PNL INSERT SUB-ASSY LWR LH(See page 71-16)



7. REMOVE PARKING BRAKE CONTROL PEDAL ASSY

- (a) Disconnect the parking brake switch connector.
- (b) Remove the 2 bolts, nut and parking brake control pedal assy.



8. REMOVE PARKING BRAKE CABLE ASSY NO.1

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

9. REMOVE PARKING BRAKE SWITCH ASSY

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

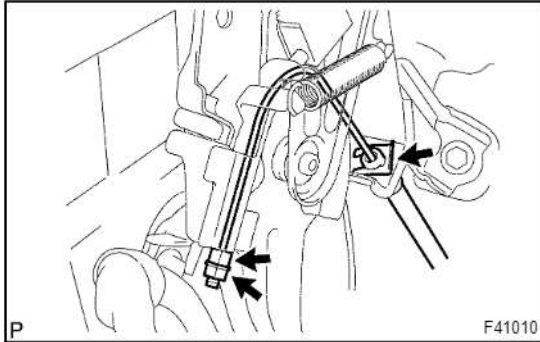
10. REMOVE TENSION SPRING

11. REMOVE RETURN SPRING DAMPER

12. REMOVE PARKING PEDAL PAD

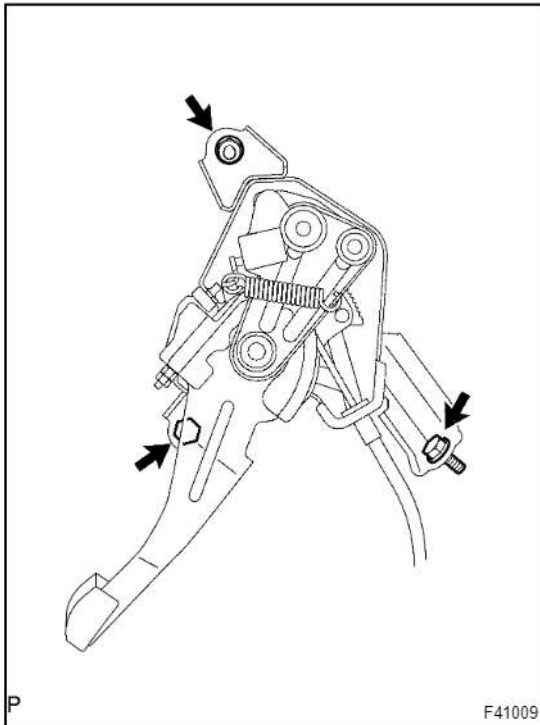
13. INSTALL PARKING PEDAL PAD
14. INSTALL RETURN SPRING DAMPER
15. INSTALL TENSION SPRING
16. INSTALL PARKING BRAKE SWITCH ASSY

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



17. INSTALL PARKING BRAKE CABLE ASSY NO.1

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



18. INSTALL PARKING BRAKE CONTROL PEDAL ASSY

- (a) Install the parking brake control pedal assy with the 2 bolts and nut.

Torque: 39 N·m (398 kgf·cm, 29 ft·lbf)

- (b) Connect the parking brake switch connector.

19. INSTALL INSTRUMENT PNL INSERT SUB-ASSY LWR LH(See page 71-16)
20. INSTALL INSTRUMENT PANEL SUB-ASSY UPPER(See page 71-16)
21. INSTALL COWL SIDE TRIM SUB-ASSY LH(See page 71-16)
22. INSTALL FRONT DOOR SCUFF PLATE LH(See page 71-16)
23. INSTALL COMBINATION METER ASSY(See page 71-16)
24. INSTALL INSTRUMENT CLUSTER FINISH PANEL(See page 71-16)
25. INSPECT AND ADJUST PARKING BRAKE PEDAL TRAVEL(See page 33-2)