

PARKING BRAKE SYSTEM

PROBLEM SYMPTOMS TABLE

HINT:
Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Parking brake system

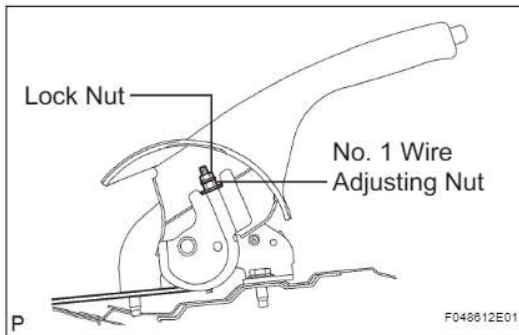
Symptom	Suspected Area	See page
Parking brake drags	1. Parking brake lever travel (adjustment necessary)	PB-1
	2. Parking brake wire (sticking)	PB-7
	3. Parking brake shoe clearance (adjustment necessary)	PB-19
	4. Parking brake shoe lining (cracked or distorted)	PB-15
	5. Tension or return spring (damaged)	PB-14

PB-2

PARKING BRAKE – PARKING BRAKE SYSTEM

ADJUSTMENT

1. REMOVE REAR WHEEL
2. ADJUST PARKING BRAKE SHOE CLEARANCE
3. INSTALL REAR WHEEL
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
4. CHECK PARKING BRAKE LEVER TRAVEL
 - (a) Pull the lever upward with a force of approximately 196 N (20 kgf, 44.1 lbf) and count the number of clicks.
OK:
6 to 9 clicks
5. ADJUST PARKING BRAKE LEVER TRAVEL
 - (a) Remove the rear console box.
 - (b) Loosen the lock nut and turn the No. 1 wire adjusting nut until the lever travel becomes correct.
 - (c) Tighten the lock nut.
Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)
 - (d) Install the rear console box.

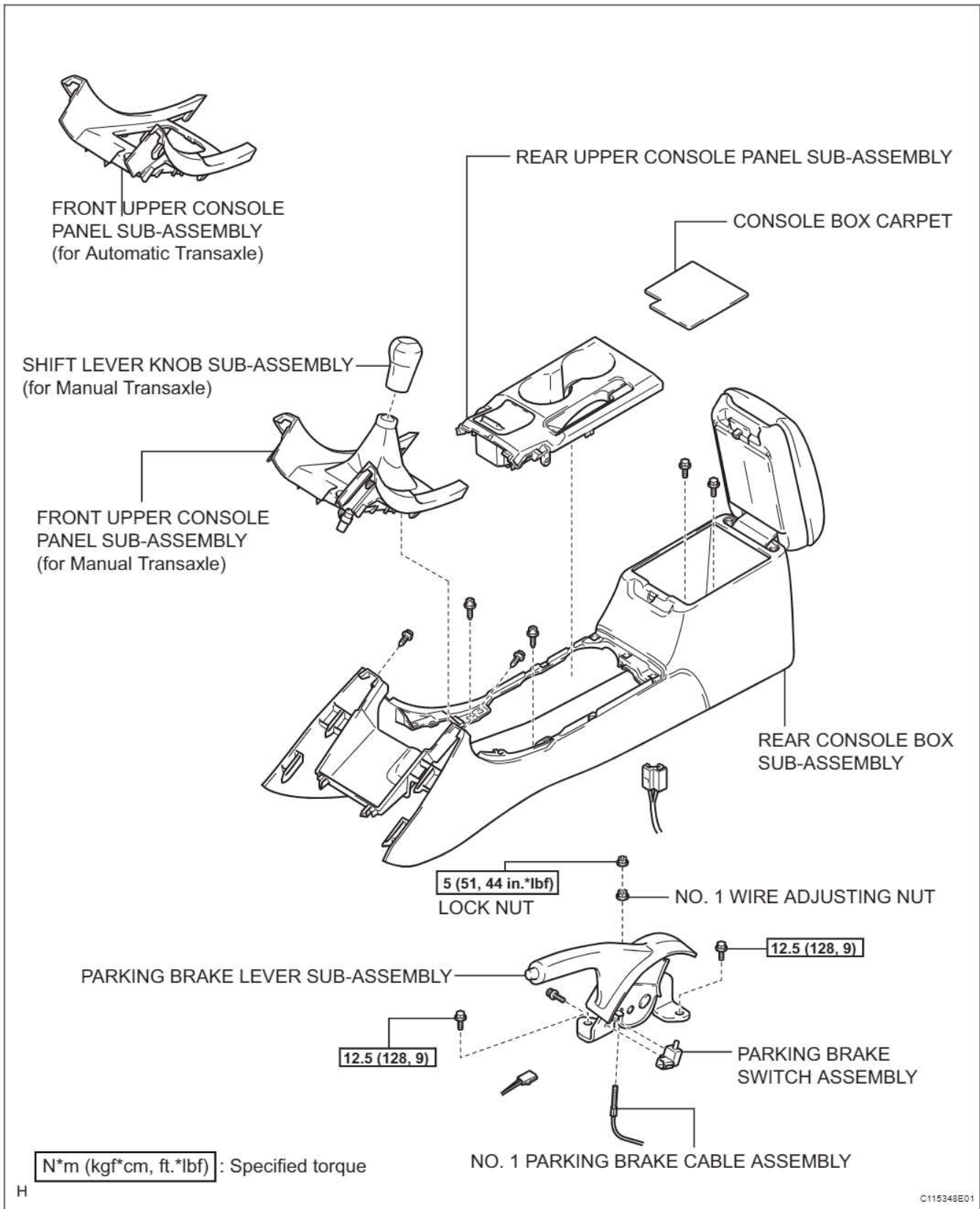


PB-2

PARKING BRAKE – PARKING BRAKE LEVER

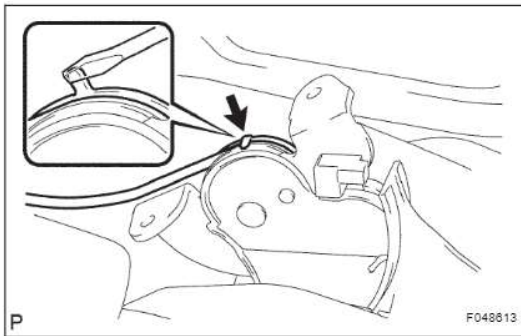
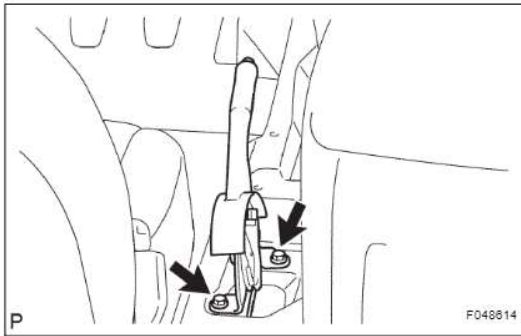
PARKING BRAKE LEVER

COMPONENTS



PARKING BRAKE – PARKING BRAKE LEVER**PB-3****REMOVAL**

1. **REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY** (for Manual Transaxle) (See page [IP-5](#))
2. **REMOVE FRONT UPPER CONSOLE PANEL SUB-ASSEMBLY** (See page [IP-5](#))
3. **REMOVE REAR UPPER CONSOLE PANEL SUB-ASSEMBLY** (See page [IP-18](#))
4. **REMOVE REAR CONSOLE BOX SUB-ASSEMBLY** (See page [IP-18](#))
5. **REMOVE PARKING BRAKE LEVER SUB-ASSEMBLY**
 - (a) Disconnect the parking brake switch connector from the parking brake switch.
 - (b) Remove the lock nut and No. 1 wire adjusting nut from the No. 1 parking brake cable.
 - (c) Remove the 2 bolts.

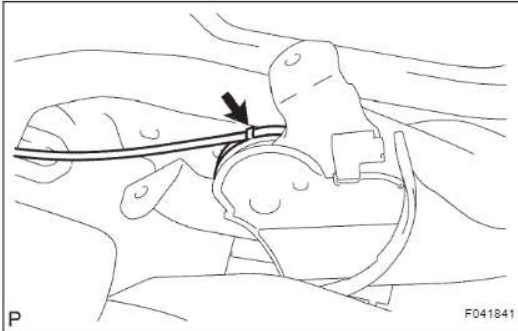


- (d) Using a screwdriver, raise the claw on the parking brake lever, and remove the No. 1 parking brake cable from the parking brake lever.
 - (e) Remove the parking brake lever from the body.
6. **REMOVE PARKING BRAKE SWITCH ASSEMBLY**
 - (a) Remove the screw and parking brake switch.

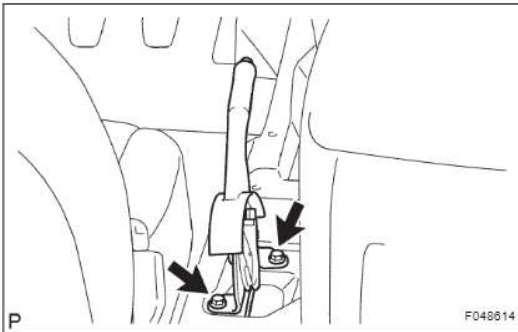
PB

PB-4**PARKING BRAKE – PARKING BRAKE LEVER****INSTALLATION****1. INSTALL PARKING BRAKE SWITCH ASSEMBLY**

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

**2. INSTALL PARKING BRAKE LEVER SUB-ASSEMBLY**

- (a) Install the No. 1 parking brake cable to the parking brake lever, and temporarily tighten the No. 1 wire adjusting nut and lock nut.
- (b) Using a screwdriver, fix the No. 1 parking brake cable to the claw.



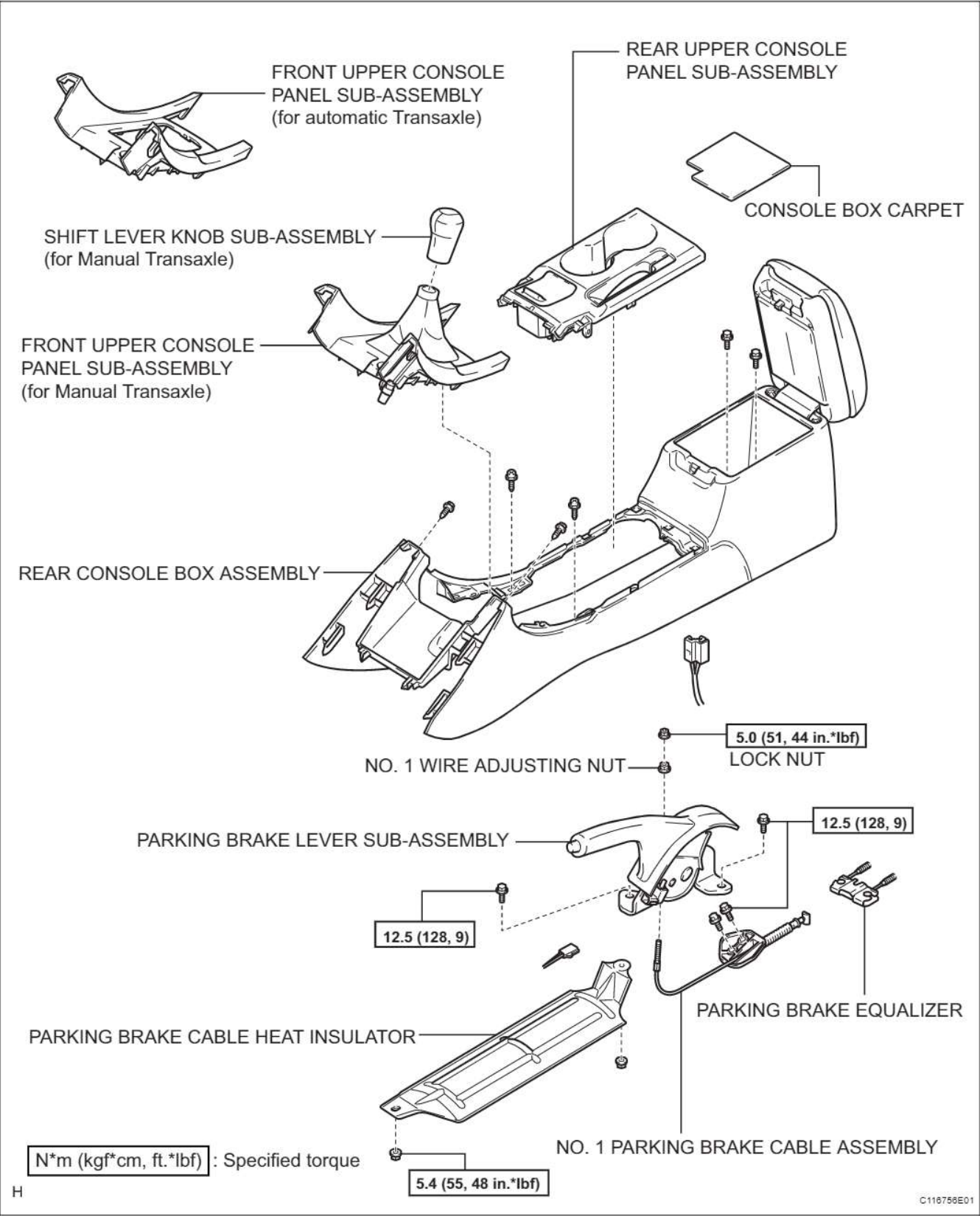
- (c) Install the parking brake lever with the 2 bolts.

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

- (d) Connect the parking brake switch connector to the parking brake switch.

3. CHECK PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))**4. ADJUST PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))****5. INSTALL REAR CONSOLE BOX SUB-ASSEMBLY (See page [IP-22](#))****6. INSTALL REAR UPPER CONSOLE PANEL SUB-ASSEMBLY (See page [IP-23](#))****7. INSTALL FRONT UPPER CONSOLE PANEL SUB-ASSEMBLY (See page [IP-11](#))****8. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page [IP-12](#))**

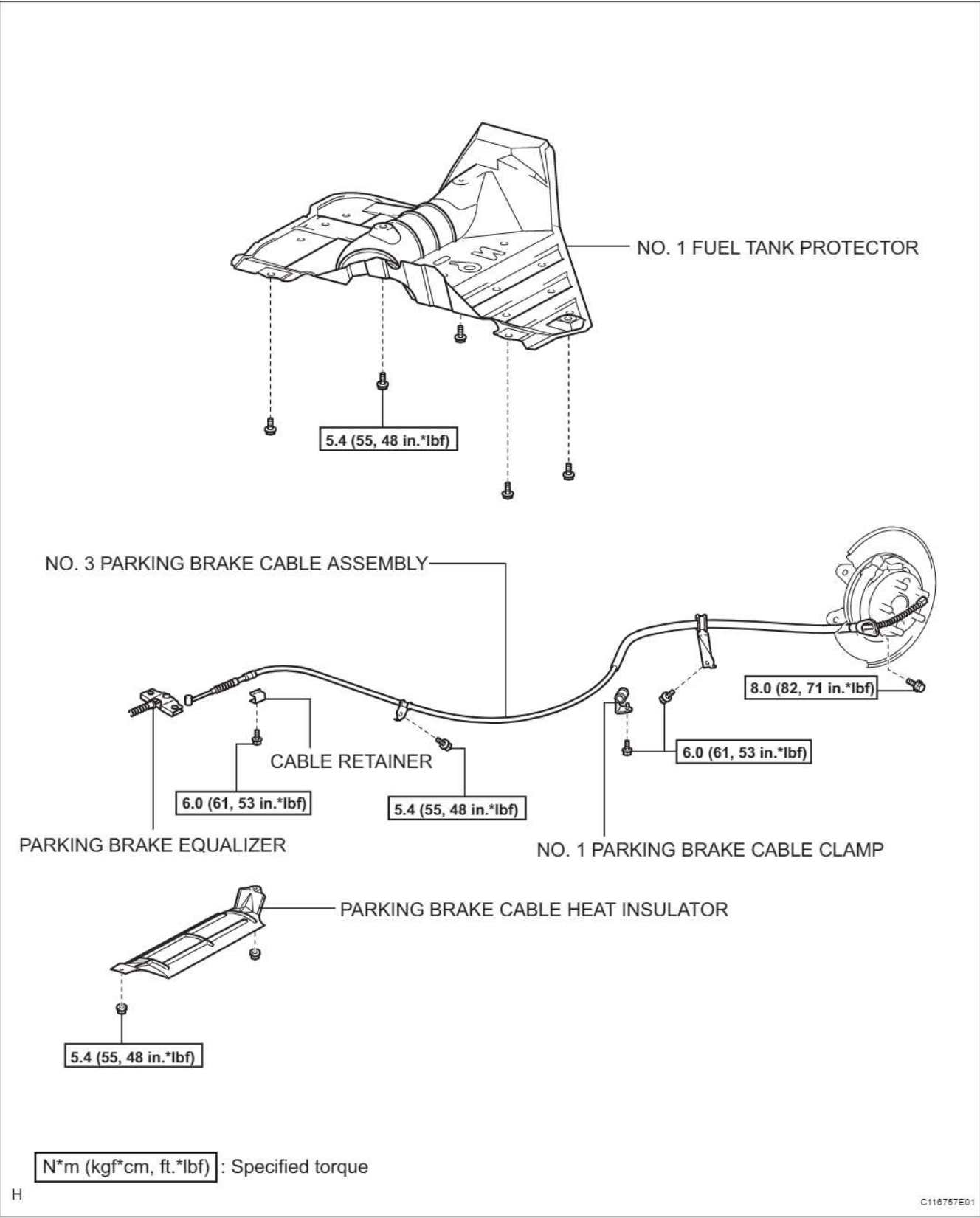
PARKING BRAKE CABLE
COMPONENTS



PB

PB-6

PARKING BRAKE – PARKING BRAKE CABLE



REMOVAL

HINT:

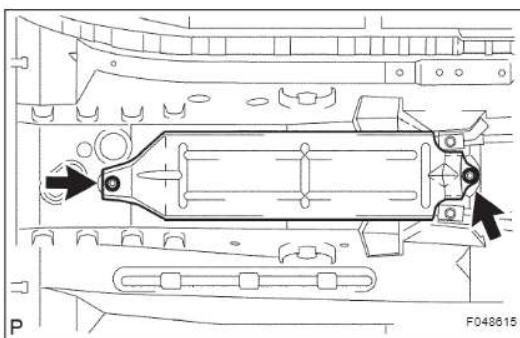
For the No. 2 parking brake cable, employ the same procedures as for the No. 3 parking brake cable.

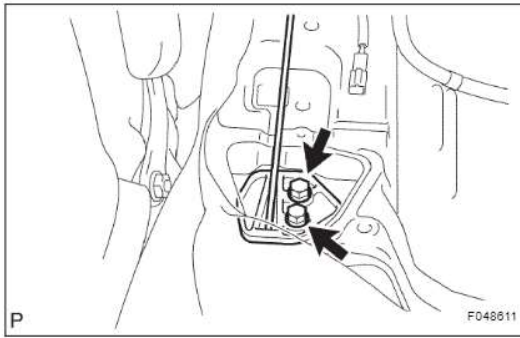
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

2. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) (See page [IP-5](#))
3. REMOVE FRONT UPPER CONSOLE PANEL SUB-ASSEMBLY (See page [IP-5](#))
4. REMOVE REAR UPPER CONSOLE PANEL SUB-ASSEMBLY (See page [IP-18](#))
5. REMOVE REAR CONSOLE BOX SUB-ASSEMBLY (See page [IP-18](#))
6. REMOVE PARKING BRAKE LEVER SUB-ASSEMBLY (See page [PB-3](#))
7. REMOVE FRONT DOOR SCUFF PLATE RH (See page [IP-19](#))
8. REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH (See page [IP-19](#))
9. REMOVE FRONT SEAT ASSEMBLY RH
 - (a) Remove the front seat (see page [SE-5](#)).
10. REMOVE CENTER EXHAUST PIPE ASSEMBLY (See page [EX-2](#))
11. REMOVE PARKING BRAKE CABLE HEAT INSULATOR
 - (a) Remove the 2 nuts and heat insulator.
12. REMOVE NO. 1 PARKING BRAKE CABLE ASSEMBLY
 - (a) Disconnect the parking brake cable from the parking brake equalizer.
 - (b) Turn back the floor carpet.



PB-8**PARKING BRAKE – PARKING BRAKE CABLE**

(c) Remove the 2 bolts and parking brake cable.

13. REMOVE REAR WHEEL**14. REMOVE REAR DISC BRAKE CYLINDER MOUNTING LH WITH REAR DISC BRAKE CYLINDER ASSEMBLY LH**

(a) Remove the brake cylinder mounting with brake cylinder (see page [BR-31](#)).

15. REMOVE REAR DISC (See page [BR-32](#))**16. REMOVE PARKING BRAKE SHOE STRUT LH (See page [PB-14](#))****17. REMOVE PARKING BRAKE SHOE ADJUSTING SCREW SET (See page [PB-14](#))****18. REMOVE PARKING BRAKE SHOE ASSEMBLY LH (See page [PB-15](#))****19. REMOVE PARKING BRAKE SHOE LEVER LH (See page [PB-15](#))****20. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**

(a) Remove the bolt and disconnect the parking brake cable from the backing plate.

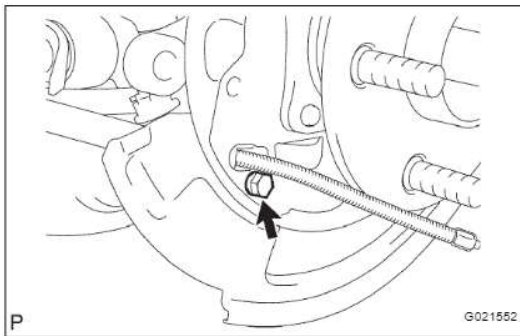
21. REMOVE NO. 1 FUEL TANK PROTECTOR

(a) Remove the 5 bolts and fuel tank protector.

22. REMOVE NO. 3 PARKING BRAKE CABLE ASSEMBLY

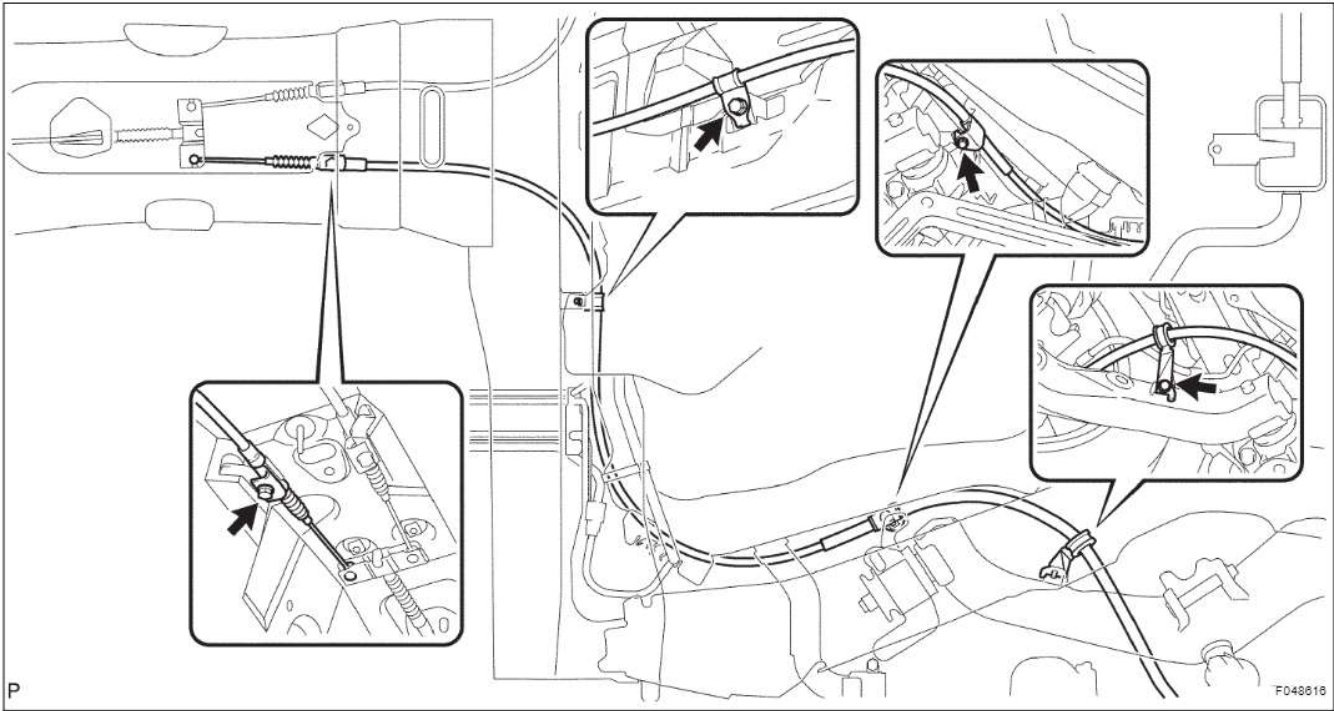
(a) Remove the 4 bolts and cable retainer from the body.

(b) Disconnect the parking brake cable from the parking brake equalizer, and remove the parking brake cable.



PARKING BRAKE – PARKING BRAKE CABLE

PB-9



PB-10

PARKING BRAKE – PARKING BRAKE CABLE

INSTALLATION

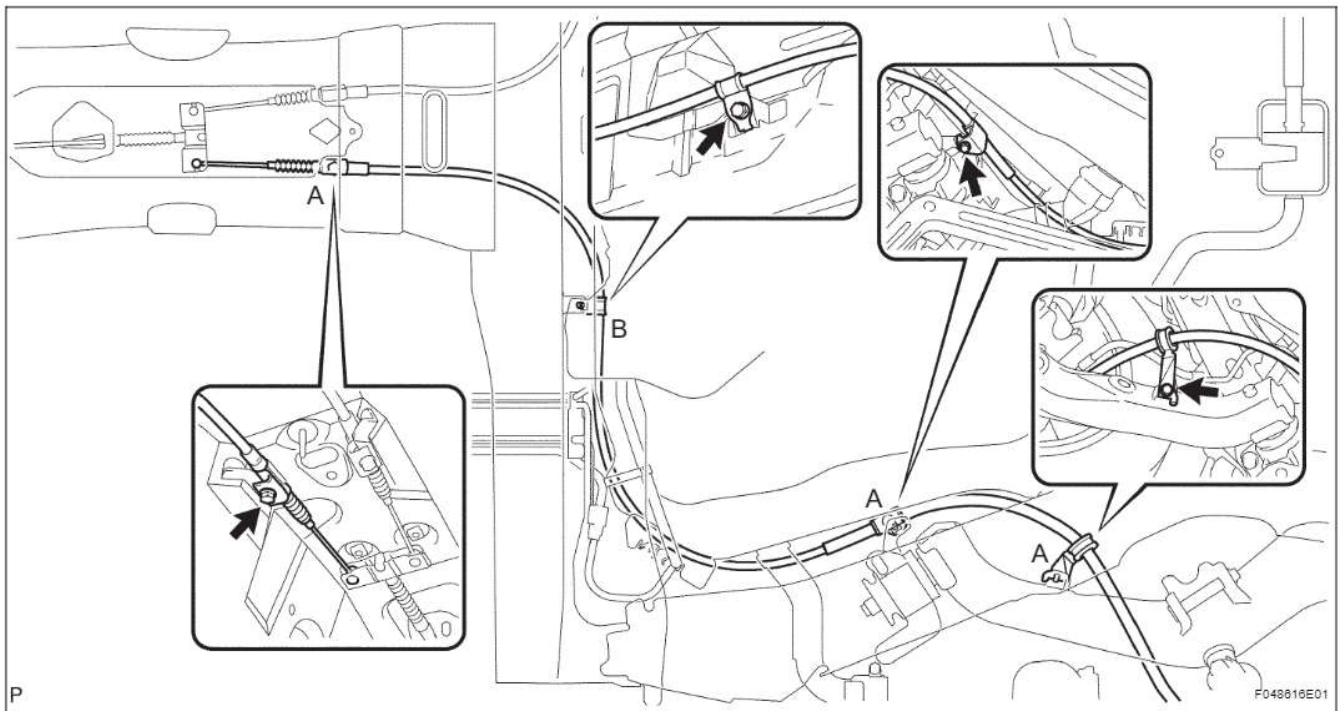
HINT:

For the No. 2 parking brake cable, employ the same procedures as for the No.3 parking brake cable.

1. INSTALL NO. 3 PARKING BRAKE CABLE ASSEMBLY

- (a) Connect the parking brake cable to the parking brake cable equalizer.
- (b) Install the parking brake cable with the 4 bolts.

Torque: 6.0 N*m (61 kgf*cm, 53 in.*lbf) for bolt A
5.4 N*m (55 kgf*cm, 48 in.*lbf) for bolt B

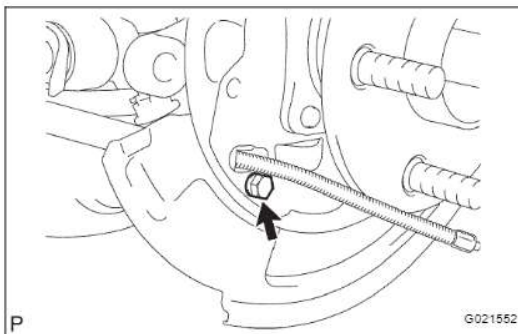


2. INSTALL NO. 1 FUEL TANK PROTECTOR

- (a) Install the fuel tank protector with the 5 bolts.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

3. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY

- (a) Connect the parking brake cable to the backing plate with the bolt.
Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)



4. APPLY HIGH TEMPERATURE GREASE (See page PB-16)

5. INSTALL PARKING BRAKE SHOE LEVER LH (See page PB-16)

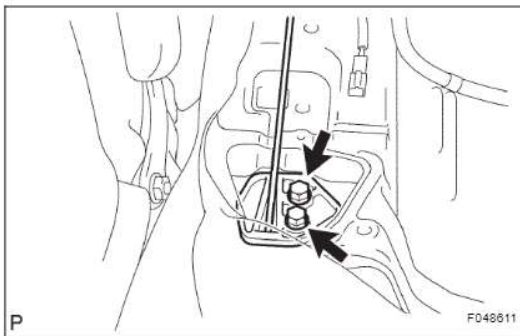
6. INSTALL PARKING BRAKE SHOE ASSEMBLY LH (See page PB-16)

7. INSTALL PARKING BRAKE SHOE ADJUSTING SCREW SET (See page PB-17)

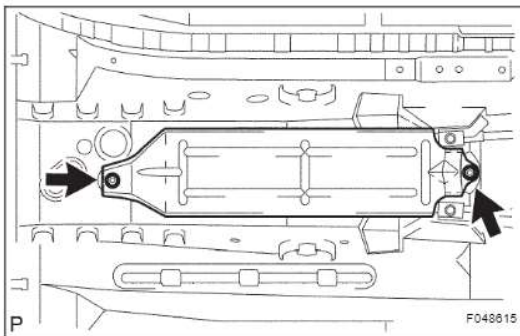
8. INSTALL PARKING BRAKE SHOE STRUT LH (See page PB-17)

PARKING BRAKE – PARKING BRAKE CABLE**PB-11**

9. **INSTALL REAR DISC** (See page [BR-35](#))
10. **INSTALL REAR DISC BRAKE CYLINDER MOUNTING LH WITH REAR DISC BRAKE CYLINDER ASSEMBLY LH**
 - (a) Install the disc brake cylinder mounting with brake cylinder (see page [BR-34](#)).
11. **ADJUST PARKING BRAKE SHOE CLEARANCE** (See page [PB-19](#))
12. **INSTALL REAR WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)



13. **INSTALL NO. 1 PARKING BRAKE CABLE ASSEMBLY**
 - (a) Install the parking brake cable with the 2 bolts.
Torque: 12.5 N*m (128 kgf*cm, 9 ft.*lbf)
 - (b) Install the floor carpet.
 - (c) Connect the parking brake cable to the parking brake equalizer and install the parking brake cable.



14. **INSTALL PARKING BRAKE CABLE HEAT INSULATOR**
 - (a) Install the heat insulator with the 2 nuts.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
15. **INSTALL CENTER EXHAUST PIPE ASSEMBLY** (See page [EX-4](#))
16. **INSTALL PARKING BRAKE LEVER SUB-ASSEMBLY** (See page [PB-3](#))
17. **INSTALL FRONT SEAT ASSEMBLY RH**
 - (a) Install the front seat (see page [SE-11](#)).
18. **INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH** (See page [IP-22](#))
19. **INSTALL FRONT DOOR SCUFF PLATE RH** (See page [IP-22](#))
20. **INSTALL REAR CONSOLE BOX ASSEMBLY** (See page [IP-22](#))
21. **INSTALL REAR UPPER CONSOLE PANEL SUB-ASSEMBLY** (See page [IP-23](#))
22. **INSTALL FRONT UPPER CONSOLE PANEL SUB-ASSEMBLY** (See page [IP-11](#))
23. **INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY** (for Manual Transaxle) (See page [IP-12](#))
24. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

PB

PB-12**PARKING BRAKE – PARKING BRAKE CABLE**

25. PERFORM INITIALIZATION

- (a) Perform initialization (see page [IN-23](#)).

NOTICE:

Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

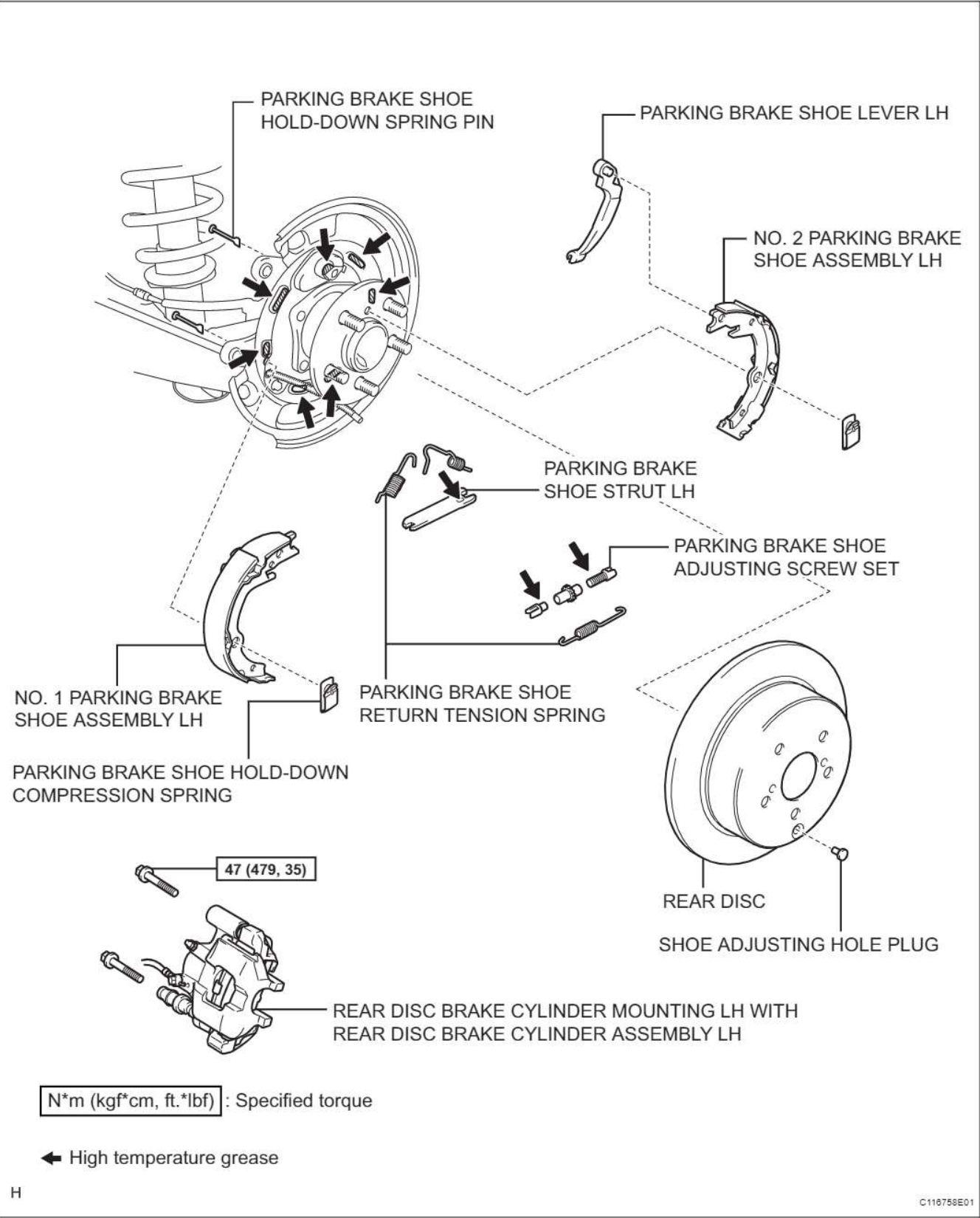
26. CHECK ABS SENSOR SIGNAL CHECK

- (a) Check the sensor signal check (see page [BC-12](#)).

27. SETTLING PARKING BRAKE SHOE AND DISC (See page [PB-19](#))**28. CHECK PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))****29. ADJUST PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))****30. INSPECT FOR EXHAUST GAS LEAK**

PARKING BRAKE ASSEMBLY

COMPONENTS



PB-14**PARKING BRAKE – PARKING BRAKE ASSEMBLY**

REMOVAL**HINT:**

- Use the same procedures for the LH side and RH side.
- The procedures listed below are for the LH side.

1. REMOVE REAR WHEEL**2. REMOVE REAR DISC BRAKE CYLINDER MOUNTING
LH WITH REAR DISC BRAKE CYLINDER ASSEMBLY
LH**

- (a) Remove the disc cylinder mounting with disc brake cylinder (see page [BR-31](#)).

PARKING BRAKE – PARKING BRAKE ASSEMBLY**PB-15****DISASSEMBLY****HINT:**

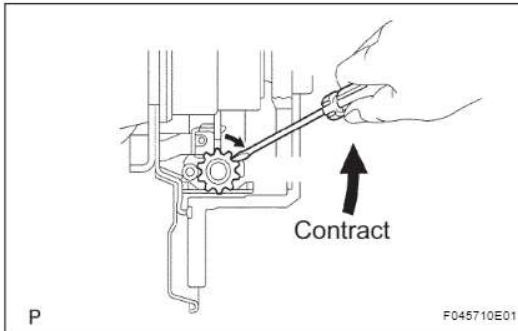
- Use the same procedures for the LH side and RH side.
- The procedures listed below are for the LH side.

1. REMOVE REAR DISC

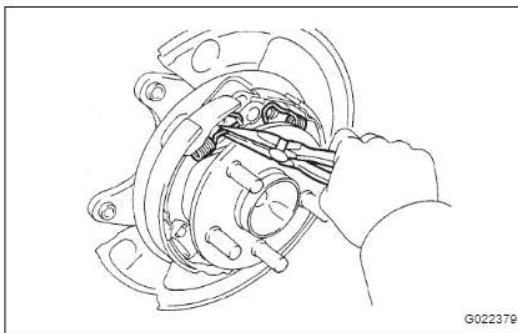
- (a) Release the parking brake, and remove the rear disc.

HINT:

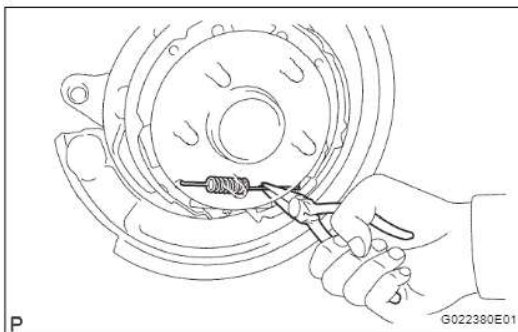
- Put matchmarks on the disc and axle hub.
- If the disc cannot be removed easily, turn the shoe adjuster until the disc turns freely.

**2. REMOVE PARKING BRAKE SHOE STRUT LH**

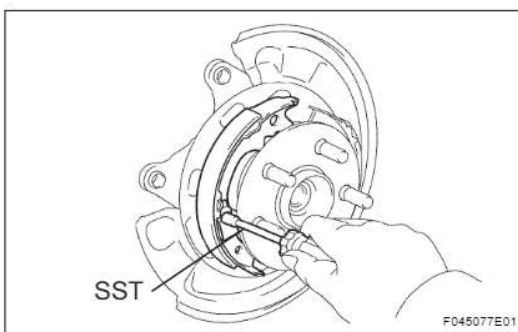
- (a) Using needle-nose pliers, remove the 2 parking brake shoe return tension springs on the upper side of the shoe.
- (b) Remove the shoe strut.

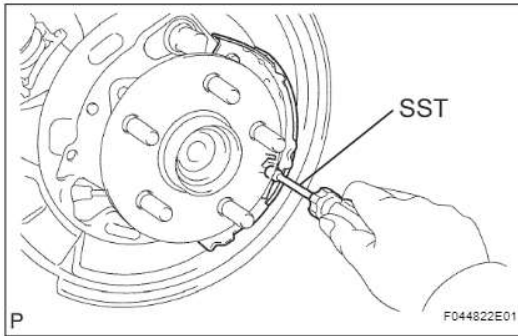
**3. REMOVE PARKING BRAKE SHOE ADJUSTING SCREW SET**

- (a) Using needle-nose pliers, remove the anchor side parking brake shoe return tension spring.
- (b) Remove the adjusting screw set.

**4. REMOVE PARKING BRAKE SHOE ASSEMBLY LH**

- (a) Using SST, remove the parking brake shoe hold-down compression spring, parking brake shoe hold-down spring pin and No. 1 parking brake shoe.

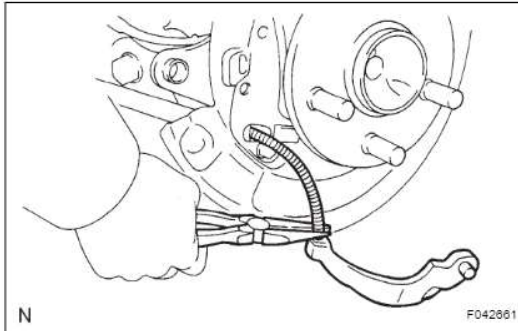
SST 09718-00010**PB**

PB-16**PARKING BRAKE – PARKING BRAKE ASSEMBLY**

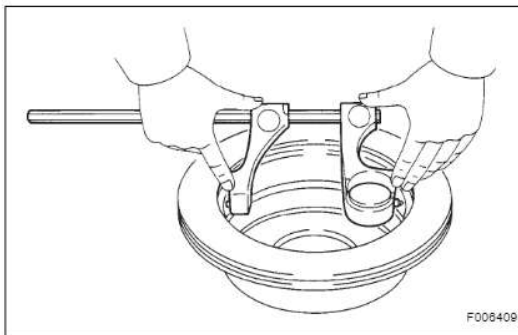
- (b) Using SST, remove the parking brake shoe hold-down compression spring and parking brake shoe hold-down spring pin.

SST 09718-00010

- (c) Disconnect the No. 2 parking brake shoe from the parking brake shoe lever, and remove the No. 2 parking brake shoe.

**5. REMOVE PARKING BRAKE SHOE LEVER LH**

- (a) Using needle-nose pliers, disconnect the No. 3 parking brake cable and remove the parking brake shoe lever.

**INSPECTION****1. CHECK BRAKE DISC INSIDE DIAMETER**

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

Standard inside diameter:

173 mm (6.81 in.)

Maximum inside diameter:

174 mm (6.85 in.)

If the inside diameter of the disc is greater than the maximum, replace the disc.

2. CHECK BRAKE SHOE LINING THICKNESS

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

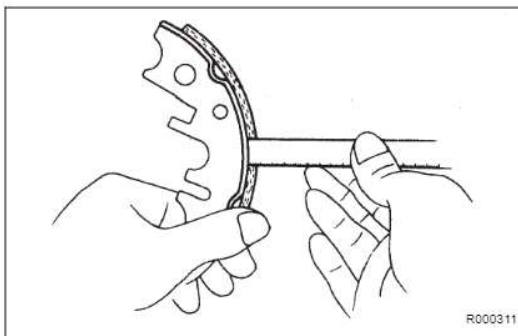
Standard thickness:

3.2 mm (0.126 in.)

Minimum thickness:

1.0 mm (0.039 in.)

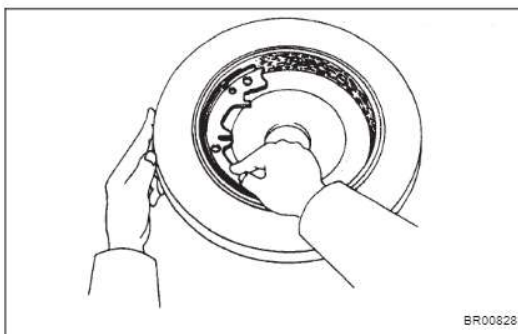
If the lining thickness is equal to or less than the minimum, or if severe or uneven wear is present, replace the shoe.

**3. CHECK BRAKE DISC AND PARKING BRAKE SHOE LINING FOR PROPER CONTACT**

- (a) Apply chalk to the inside surface of the disc. Then grind the brake shoe lining on the disc inside full contact is achieved.

If the disc and brake shoe lining do not have full contact, use a brake shoe grinder or replace the brake shoe.

- (b) Wipe chalk after inspection for the inside surface of the disc and lining surface.

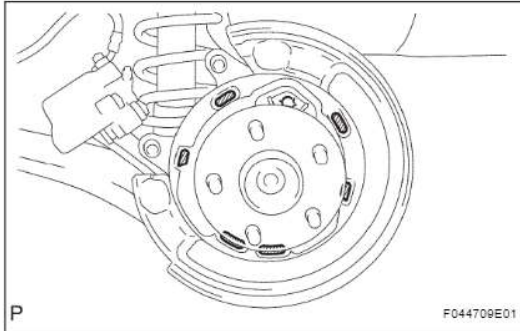
**PB**

PARKING BRAKE – PARKING BRAKE ASSEMBLY**PB-17****REASSEMBLY****HINT:**

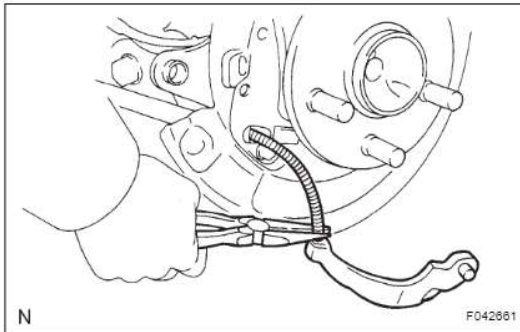
- Use the same procedures for the LH side and RH side.
- The procedures listed below are for the LH side.

1. APPLY HIGH TEMPERATURE GREASE

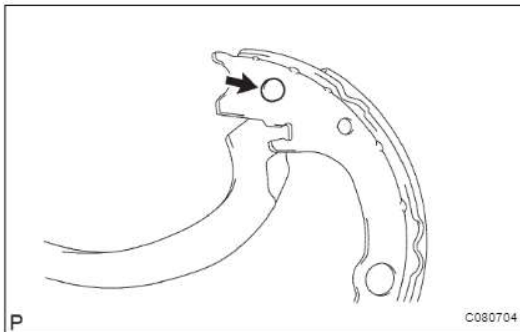
- (a) Apply high temperature grease to the shoe attaching surface of the backing plate.

**2. INSTALL PARKING BRAKE SHOE LEVER LH**

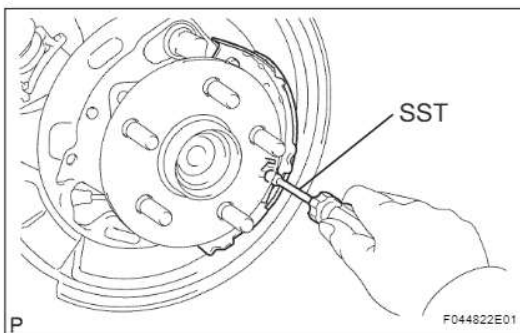
- (a) Using needle-nose pliers, connect the No. 3 parking brake cable to the parking brake shoe lever.

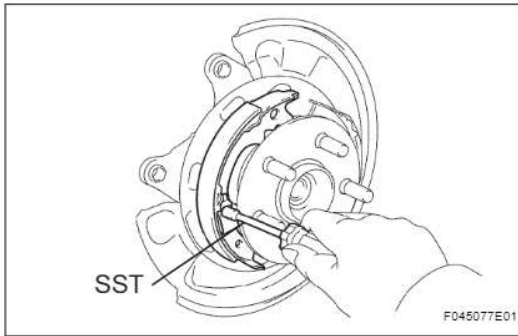
**3. INSTALL PARKING BRAKE SHOE ASSEMBLY**

- (a) Apply high temperature grease to the contact part of the No. 2 parking brake shoe and parking brake shoe lever.



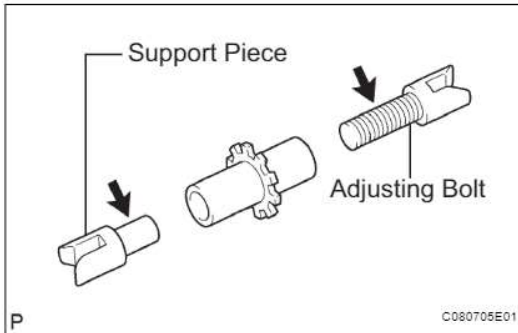
- (b) Using SST, install the No. 2 parking brake shoe with the parking brake shoe hold-down compression spring and parking brake shoe hold-down spring.
SST 09718-00010

**PB**

PB-18**PARKING BRAKE – PARKING BRAKE ASSEMBLY**

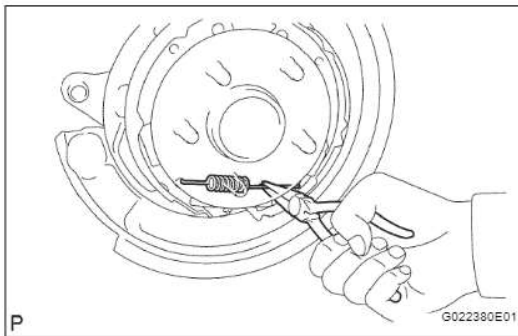
- (c) Using SST, install the No. 1 parking brake shoe with the parking brake shoe hold-down compression spring and parking brake shoe hold-down spring pin.

SST 09718-00010

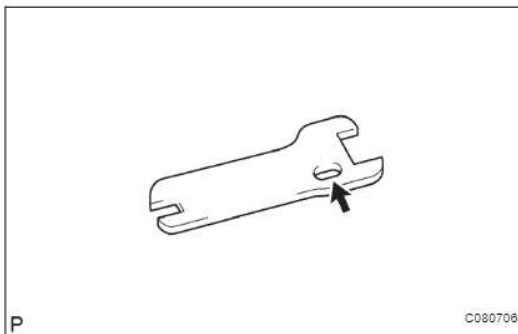


4. INSTALL PARKING BRAKE SHOE ADJUSTING SCREW SET

- (a) Apply high temperature grease to the adjusting bolt and support piece.
(b) Install the adjusting screw set.



- (c) Using needle-nose pliers, install the anchor side parking brake shoe return tension spring.



5. INSTALL PARKING BRAKE SHOE STRUT LH

- (a) Apply high temperature grease to the contact part of the parking brake shoe strut and parking brake shoe return tension spring.
(b) Install the parking brake shoe strut.
(c) Using needle-nose pliers, install the 2 parking brake shoe return tension springs on the upper side of the shoe.

HINT:

Fit the parking brake shoe return tension springs securely into the grooves of the parking brake shoe strut.

6. CHECK PARKING BRAKE INSTALLATION

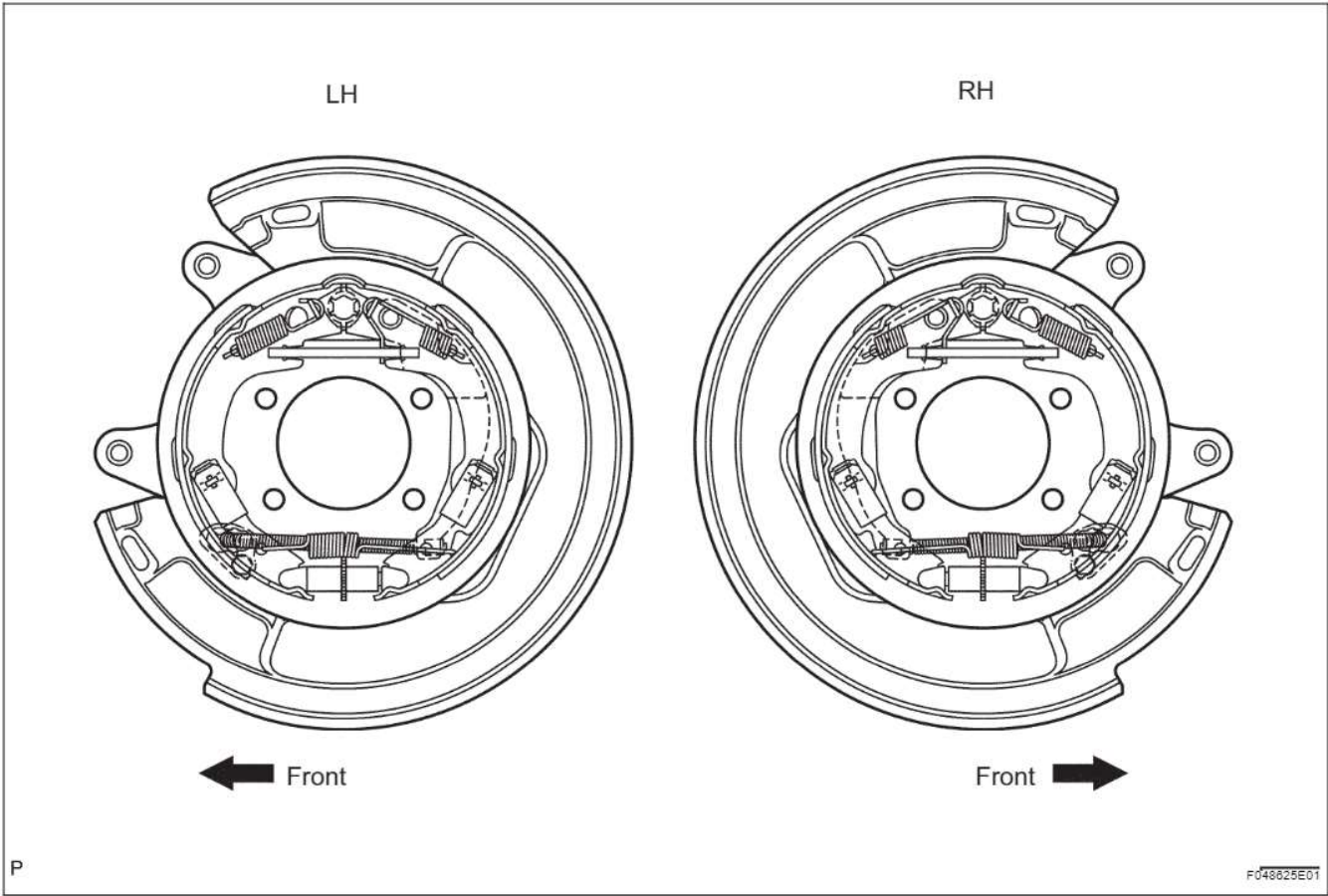
- (a) Check that each part is installed properly.

NOTICE:

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

PARKING BRAKE – PARKING BRAKE ASSEMBLY

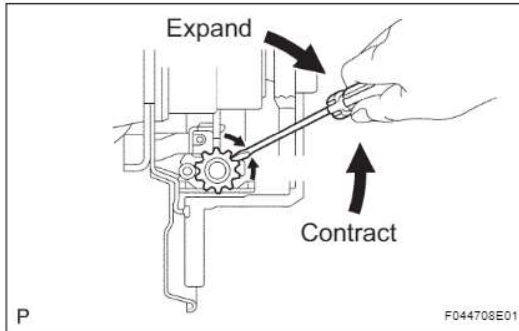
PB-19



7. INSTALL REAR DISC

PB-20**PARKING BRAKE – PARKING BRAKE ASSEMBLY****INSTALLATION****HINT:**

- Use the same procedures for the LH side and RH side.
- The procedures listed below are for the LH side.

**1. ADJUST PARKING BRAKE SHOE CLEARANCE**

- Temporarily install the hub nuts.
- Remove the hole plug, and turn the adjuster to expand the shoes until the disc lock.
- Contract the shoe adjuster until the disc can rotate smoothly.

OK:**Return 8 notches**

- Check that there is no brake drag.
 - Install the hole plug.
 - Remove the hub nuts.
- 2. INSTALL REAR DISC BRAKE CYLINDER MOUNTING LH WITH REAR DISC BRAKE CYLINDER ASSEMBLY LH**
- Install the brake cylinder mounting with disc brake cylinder (see page [BR-34](#)).
- 3. INSTALL REAR WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
- 4. SETTLING PARKING BRAKE SHOES AND DISC**
- Drive the vehicle at about 50 km/h (31 mph) on a safe, level and dry road.
 - With the parking brake release button pushed in, pull the lever with 98 N (10 kgf, 22 lbf) of force.
 - Drive the vehicle for about 400 m (0.25 mile) in this condition.
 - Repeat this procedures 2 or 3 times.
- 5. CHECK PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))**
- 6. ADJUST PARKING BRAKE LEVER TRAVEL (See page [PB-1](#))**