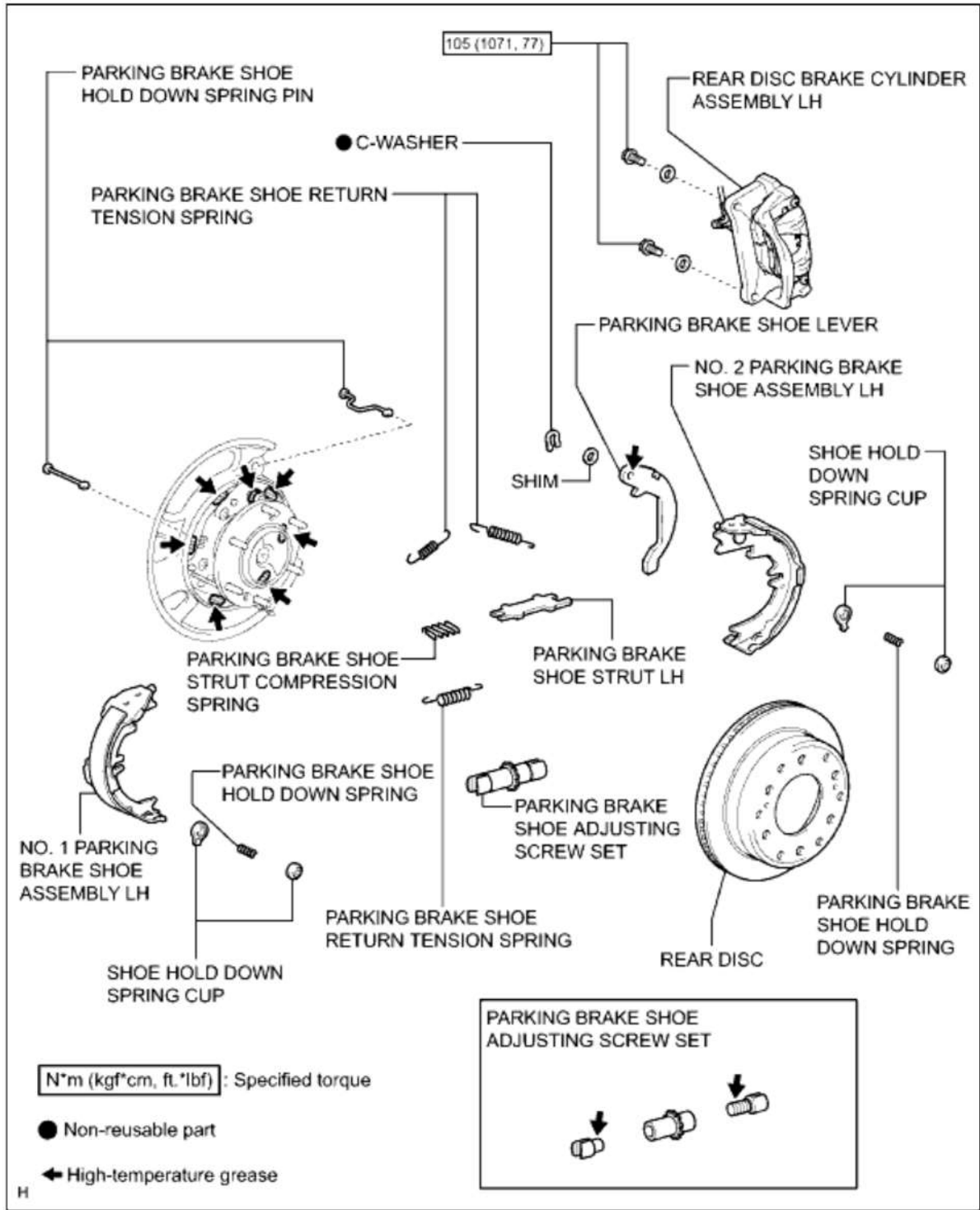


Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011CA00LX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: COMPONENTS (2010 4Runner)		

COMPONENTS

ILLUSTRATION





cardiagn.com

Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011CB00MX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: DISASSEMBLY (2010 4Runner)		

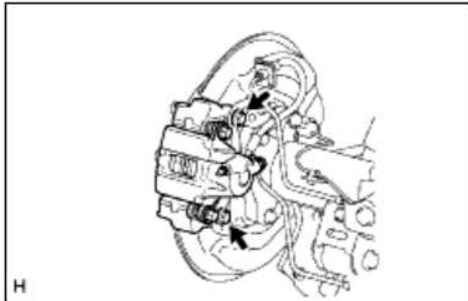
DISASSEMBLY

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

1. REMOVE REAR WHEEL

2. DISCONNECT REAR DISC BRAKE CYLINDER ASSEMBLY LH



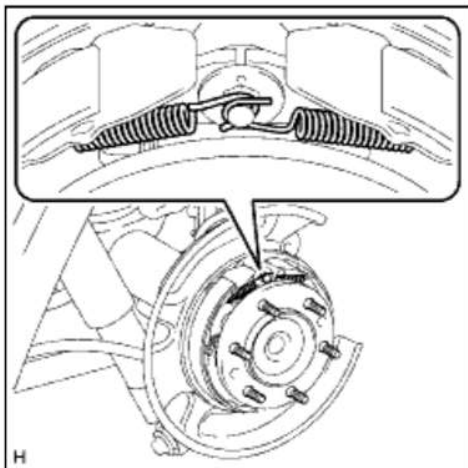
(a) Remove the 2 bolts and disconnect the rear disc brake cylinder.

NOTICE:

- Do not disconnect the flexible hose from the disc brake cylinder.
- Do not twist or bend the flexible hose.

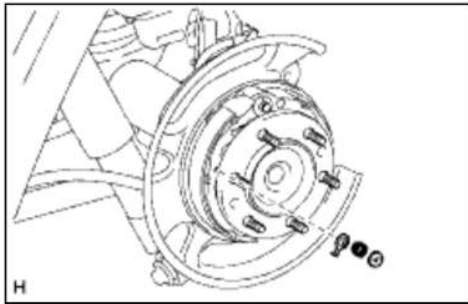
3. REMOVE REAR DISC INFO

4. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING



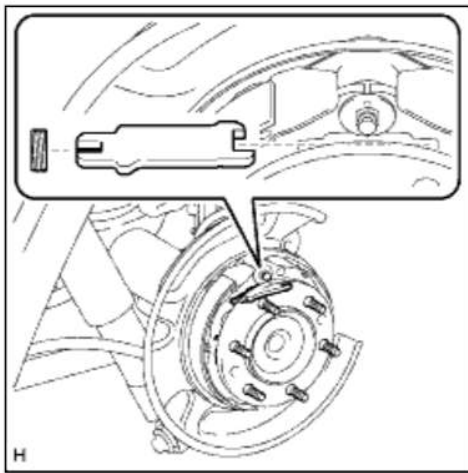
(a) Remove the 2 parking brake shoe return tension springs.

5. DISCONNECT NO. 1 PARKING BRAKE SHOE ASSEMBLY LH



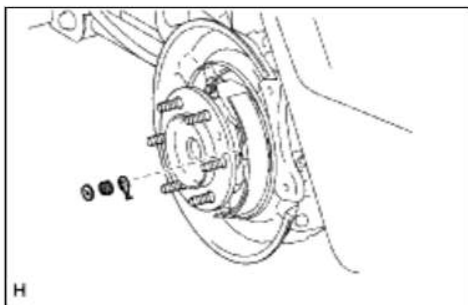
- (a) Remove the parking brake shoe hold down spring cup and parking brake shoe hold down spring to disconnect the No. 1 parking brake shoe assembly from the backing plate.

6. REMOVE PARKING BRAKE SHOE STRUT LH



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

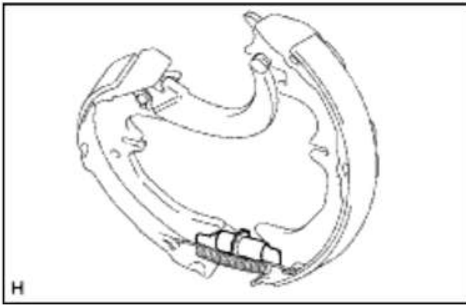
7. DISCONNECT NO. 2 PARKING BRAKE SHOE ASSEMBLY LH



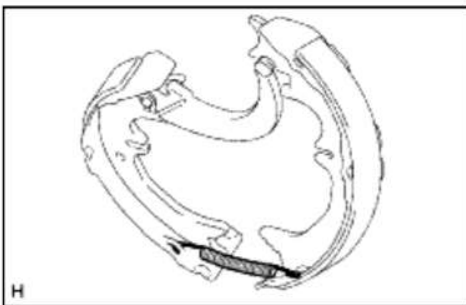
- (a) Remove the parking brake shoe hold down spring cup and parking brake shoe hold down spring to disconnect the No. 2 parking brake shoe assembly from the backing plate.

8. REMOVE PARKING BRAKE SHOE ADJUSTING SCREW SET

- (a) Remove the parking brake shoe adjusting screw set.

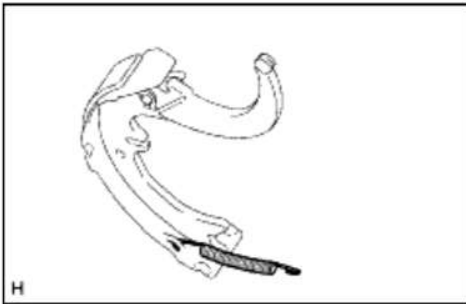


9. REMOVE NO. 1 PARKING BRAKE SHOE ASSEMBLY LH



- (a) Disconnect the parking brake shoe return tension spring to remove the No. 1 parking brake shoe assembly.

10. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING



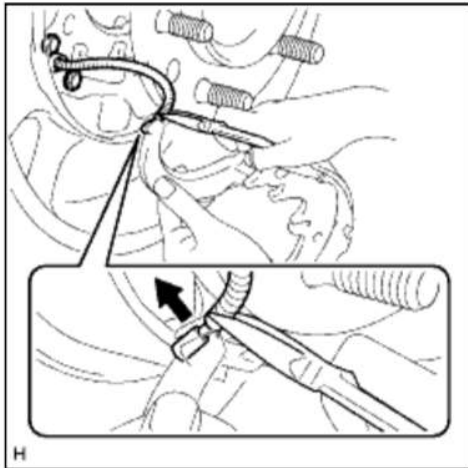
- (a) Remove the parking brake shoe return tension spring from the No. 2 parking brake shoe assembly.

11. REMOVE NO. 2 PARKING BRAKE SHOE ASSEMBLY WITH PARKING BRAKE SHOE LEVER

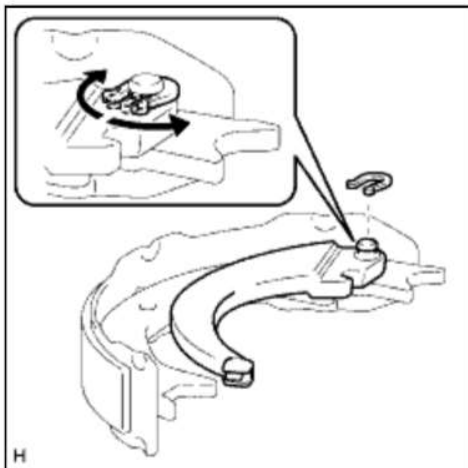
- (a) Using needle-nose pliers, disconnect the No. 3 parking brake cable assembly from the parking brake shoe lever as shown in the illustration.

NOTICE:

Be careful not to damage the No. 3 parking brake cable assembly.



12. REMOVE PARKING BRAKE SHOE LEVER



- (a) Remove the C-washer, shim and parking brake shoe lever from the No. 2 parking brake shoe assembly as shown in the illustration.

13. REMOVE PARKING BRAKE SHOE HOLD DOWN SPRING PIN

- (a) Remove the parking brake shoe hold down spring pin (for front side).
(b) Remove the parking brake shoe hold down spring pin (for rear side).



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011CC00NX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: REASSEMBLY (2010 4Runner)		

REASSEMBLY

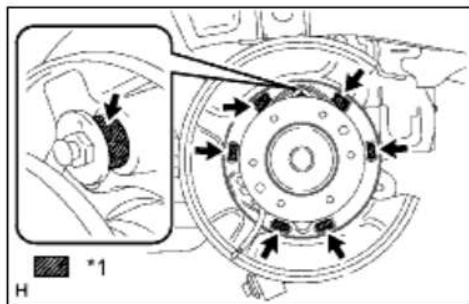
HINT:

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

1. INSTALL PARKING BRAKE SHOE HOLD DOWN SPRING PIN

- Install the parking brake shoe hold down spring pin (for front side).
- Install the parking brake shoe hold down spring pin (for rear side).

2. APPLY HIGH-TEMPERATURE GREASE



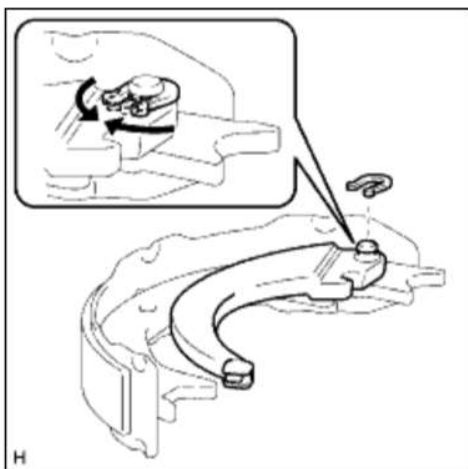
- Apply a light coat of high-temperature grease to the areas of the backing plate which make contact with the shoe as shown in the illustration.

Text in Illustration

*1	High-temperature grease
----	-------------------------

3. INSTALL PARKING BRAKE SHOE LEVER

- Apply a light coat of high-temperature grease to the areas of the parking brake shoe lever which make contact with the No. 2 parking brake shoe assembly.



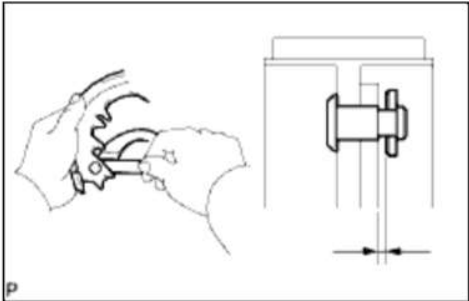
- Install the parking brake shoe lever and shim to the No. 2 parking brake shoe assembly with a new C-washer as shown in the illustration.

- (c) Using a feeler gauge, measure the clearance between the No. 2 parking brake shoe assembly and parking brake shoe lever.

Standard clearance:
Less than 0.25 mm (0.00984 in.)

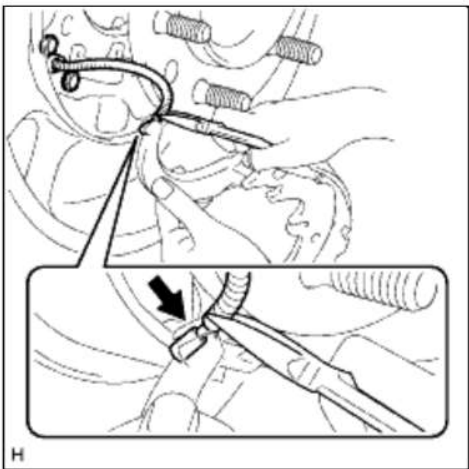
If the clearance is not within the specification, replace the shim with one of a different thickness so that the clearance is within the specification.

Standard Shim:



THICKNESS	THICKNESS
0.2 mm (0.00787 in.)	0.5 mm (0.0197 in.)
0.3 mm (0.0118 in.)	0.6 mm (0.0236 in.)
0.4 mm (0.0157 in.)	0.9 mm (0.0354 in.)

4. INSTALL NO. 2 PARKING BRAKE SHOE ASSEMBLY WITH PARKING BRAKE SHOE LEVER



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

NOTICE:
Be careful not to damage the No. 3 parking brake cable assembly.

5. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING

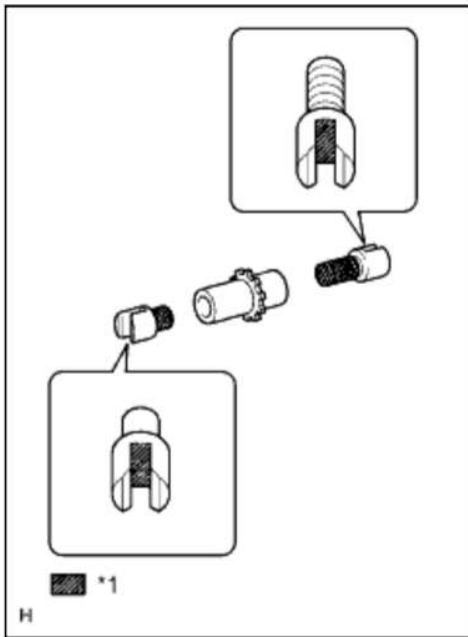
- (a) Install the parking brake shoe return tension spring to the No. 2 parking brake shoe assembly.

6. INSTALL NO. 1 PARKING BRAKE SHOE ASSEMBLY LH

- (a) Connect the parking brake shoe return tension spring to install the No. 1 parking brake shoe assembly.

7. INSTALL PARKING BRAKE SHOE ADJUSTING SCREW SET

- (a) Apply a light coat of high-temperature grease to the areas of the shoe adjusting screw set shown in the illustration.



Text in Illustration

*1	High-temperature grease
----	-------------------------

(b) Install the parking brake shoe adjusting screw set.

8. INSTALL NO. 2 PARKING BRAKE SHOE ASSEMBLY LH

(a) Install the No. 2 parking brake shoe assembly to the backing plate with the parking brake shoe hold down spring cup and parking brake shoe hold down spring.

9. INSTALL PARKING BRAKE SHOE STRUT

(a) Install the parking brake shoe strut and parking parking brake shoe strut compression spring.

10. INSTALL NO. 1 PARKING BRAKE SHOE ASSEMBLY LH

(a) Install the No. 1 parking brake shoe assembly to the backing plate with the parking brake shoe hold down spring cup and parking brake shoe hold down spring.

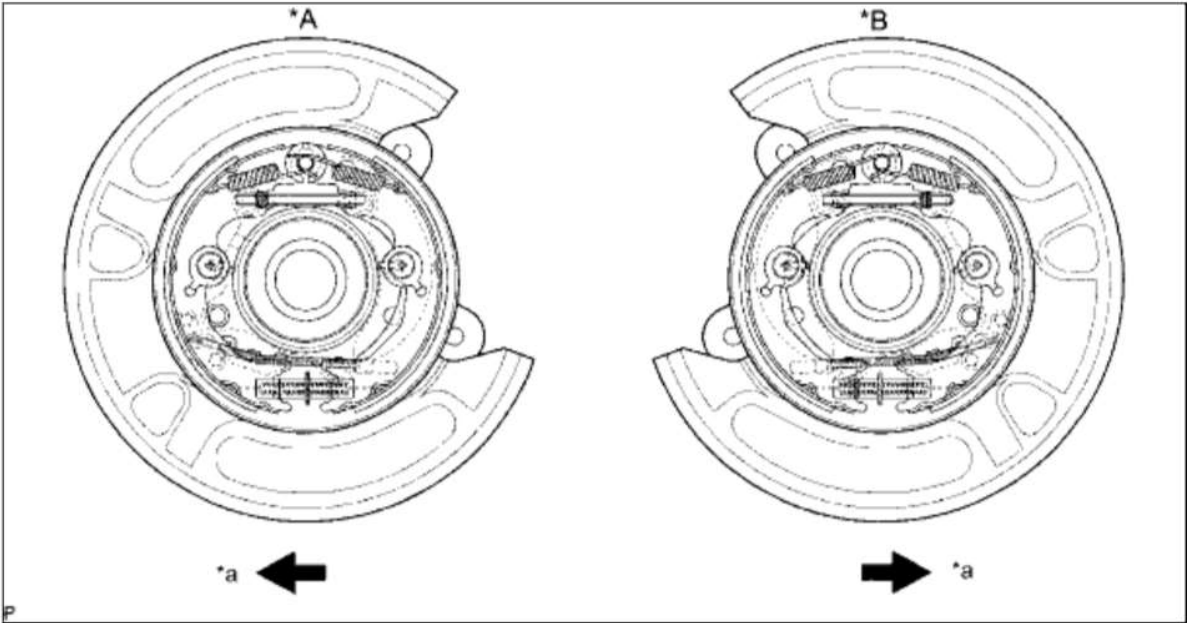
11. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING

(a) Install the 2 parking brake shoe return tension springs.

HINT:

First install the front side spring, and then the rear side spring.

12. CHECK PARKING BRAKE INSTALLATION



Text in Illustration

*A	LH	*B	RH
*a	Front	-	-

(a) Check that each part is installed properly.

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

13. INSTALL REAR DISC INFO

14. CONNECT REAR DISC BRAKE CYLINDER ASSEMBLY LH

(a) Connect the rear disc brake cylinder with the 2 bolts.

Torque: 105 N·m (1071 kgf·cm, 77ft·lbf)

15. ADJUST PARKING BRAKE SHOE CLEARANCE AND PARKING BRAKE PEDAL TRAVEL

INFO

16. INSPECT PARKING BRAKE PEDAL TRAVEL INFO

17. INSTALL REAR WHEEL INFO

18. SETTLE PARKING BRAKE SHOE AND DISC

(a) Drive the vehicle for approximately 400 m (0.25 miles) under the following conditions.

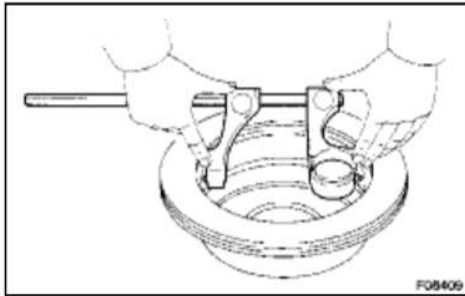
- (1) The vehicle speed is approximately 50 km/h (31 mph) and the vehicle is on a safe, level and dry road.
- (2) The parking brake pedal is being depressed with a force of 150 N (15 kgf, 33.7 lbf).

NOTICE:
Set a 5-minute interval between each procedure to prevent the brake assembly from overheating.

Last Modified: 5-10-2010	6.4 G	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C900LX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: INSPECTION (2010 4Runner)		

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:

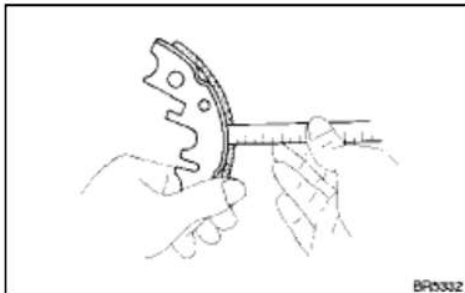
210 mm (8.27 in.)

Maximum inside diameter:

211 mm (8.31 in.)

If the inside diameter is more than the maximum, replace the disc.

2. CHECK PARKING BRAKE SHOE LINING THICKNESS



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

Standard thickness:

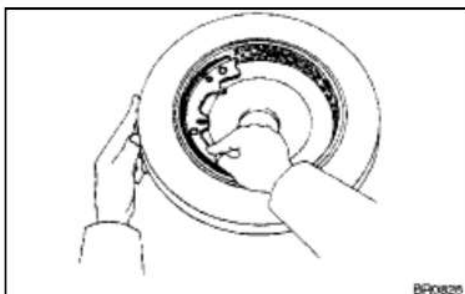
4.0 mm (0.157 in.)

Minimum thickness:

1.0 mm (0.0394 in.)

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

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



- (a) Apply chalk to the inside surface of the disc. Rub the brake shoe lining against the disc and check that full contact is achieved between the brake shoe and disc (chalk is transferred to the entire brake shoe lining).

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



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C800UX
Title: PARKING BRAKE: PARKING BRAKE CABLE: REMOVAL (2010 4Runner)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected .

2. REMOVE REAR CONSOLE BOX ASSEMBLY

- (a) Remove the rear console box assembly .

3. REMOVE NO. 1 PARKING BRAKE CABLE ASSEMBLY

- (a) Remove the No. 1 parking brake cable assembly .

4. REMOVE FUEL TANK SUB-ASSEMBLY

- (a) Remove the fuel tank sub-assembly .

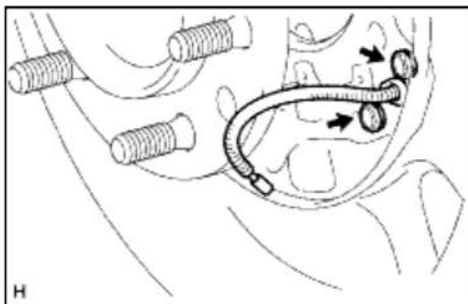
5. REMOVE NO. 2 PARKING BRAKE SHOE ASSEMBLY WITH PARKING BRAKE SHOE LEVER

HINT:

Refer to the procedures up to "Remove No. 2 Parking Brake Shoe Assembly with Parking Brake Shoe Lever"

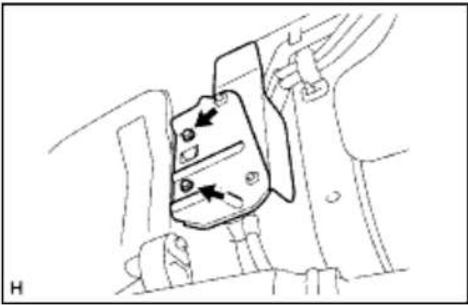


6. REMOVE NO. 2 PARKING BRAKE CABLE ASSEMBLY

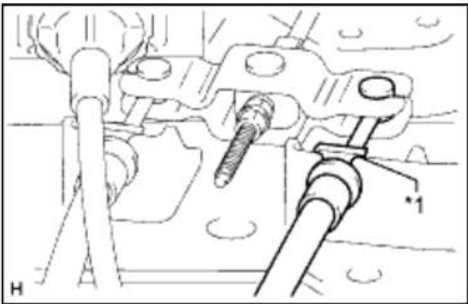
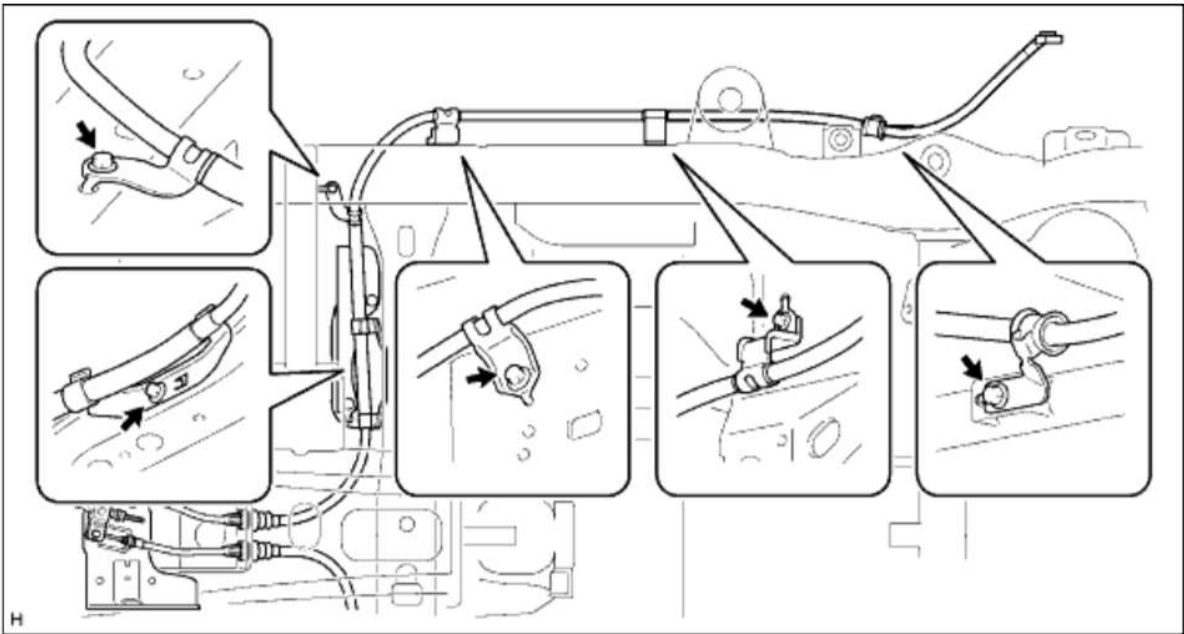


- (a) Remove the 2 bolts and disconnect the No. 2 parking brake cable assembly from the backing plate.

- (b) Remove the No. 1 parking brake cable heat insulator.



(c) Remove the 5 bolts from the No. 2 parking brake cable assembly.

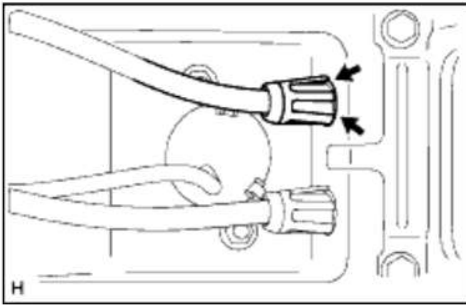


(d) Remove the clip and disconnect the No. 2 parking brake cable assembly from the parking brake equalizer.

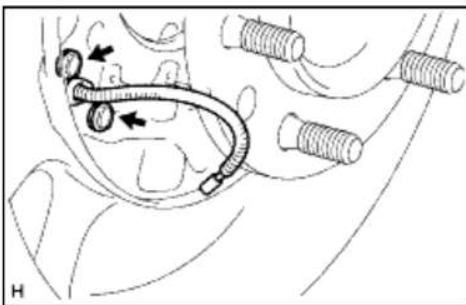
Text in Illustration

* 1	Clip
-----	------

(e) Pinch the claws of the No. 2 parking brake cable and push the cable outside of the vehicle slightly.

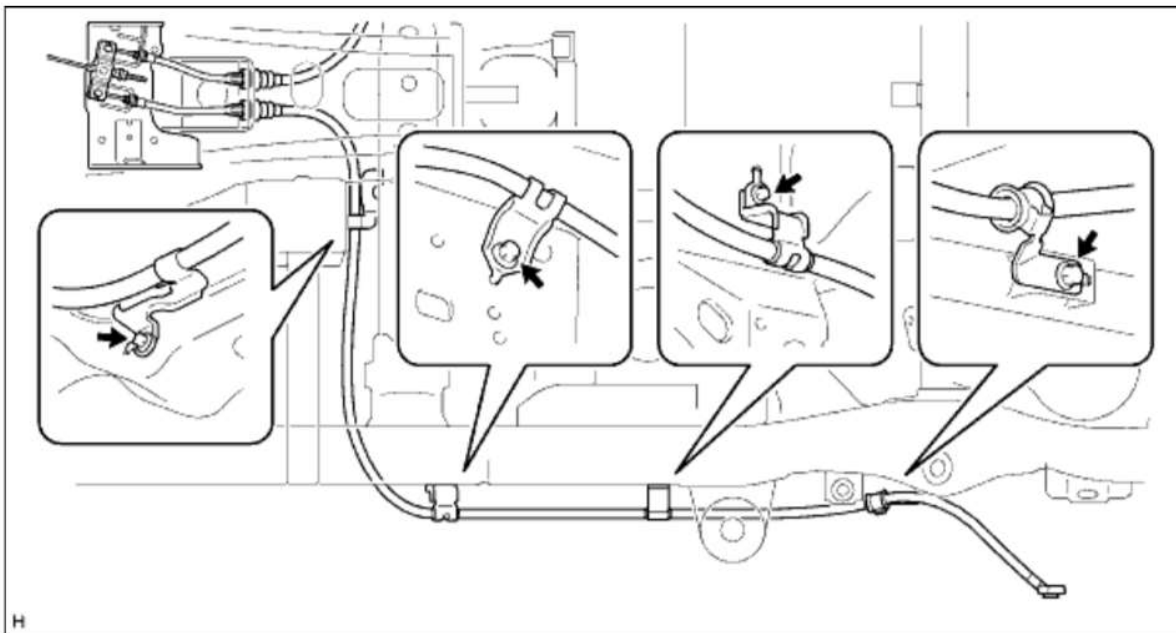


7. REMOVE NO. 3 PARKING BRAKE CABLE ASSEMBLY



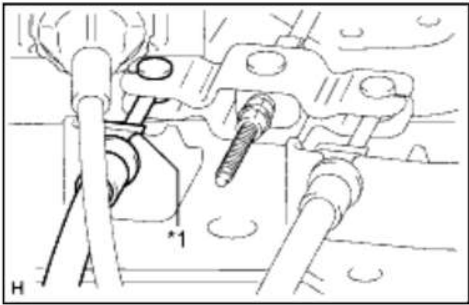
(a) Remove the 2 bolts and disconnect the No. 3 parking brake cable assembly from the backing plate.

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

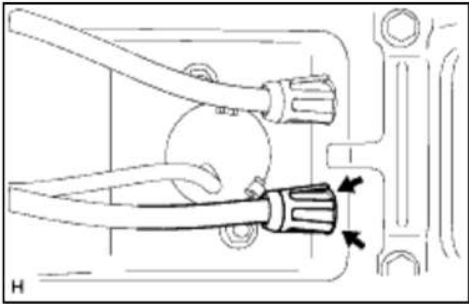


(c) Remove the clip and disconnect the parking brake cable assembly No. 3 from the parking brake equalizer.

Text in Illustration



* 1	Clip
-----	------

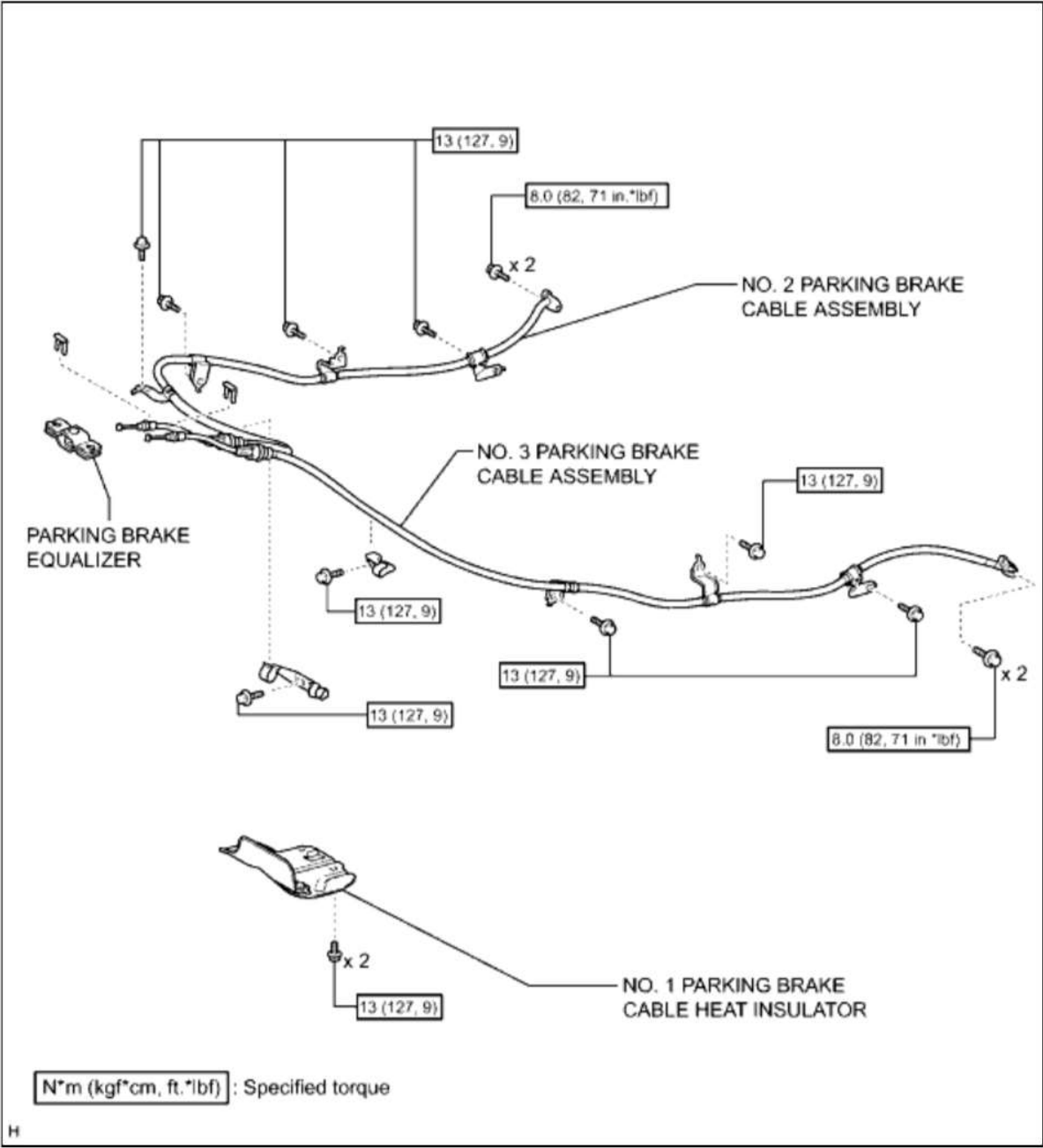


(d) Pinch the claws of the No. 3 parking brake cable and push the cable outside of the vehicle slightly.

Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C700TX
Title: PARKING BRAKE: PARKING BRAKE CABLE: COMPONENTS (2010 4Runner)		

COMPONENTS

ILLUSTRATION



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C600VX
Title: PARKING BRAKE: PARKING BRAKE CABLE: INSTALLATION (2010 4Runner)		

INSTALLATION

1. INSTALL NO. 2 PARKING BRAKE CABLE ASSEMBLY

- (a) Attach the claws of the No. 2 parking brake cable.
- (b) Install the No. 2 parking brake cable assembly to the parking brake equalizer with the clip.
- (c) Install the No. 2 parking brake cable assembly with the 5 bolts.

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

- (d) Install the No. 1 parking brake cable heat insulator.

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

- (e) Install the No. 2 parking brake cable assembly to the backing plate with the 2 bolts.

Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

2. INSTALL NO. 3 PARKING BRAKE CABLE ASSEMBLY

- (a) Attach the claws of the No. 3 parking brake cable.
- (b) Install the No. 3 parking brake cable assembly to the parking brake equalizer with the clip.
- (c) Install the No. 3 parking brake cable assembly with the 4 bolts.

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

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

Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

3. INSTALL NO. 2 PARKING BRAKE SHOE ASSEMBLY WITH PARKING BRAKE SHOE LEVER

HINT:

Refer to the procedures from "Install No. 2 Parking Brake Shoe Assembly with Parking Brake Shoe Lever" 

4. INSTALL FUEL TANK SUB-ASSEMBLY

- (a) Install the fuel tank sub-assembly .

5. ADJUST PARKING BRAKE SHOE CLEARANCE AND PARKING BRAKE PEDAL TRAVEL



6. INSTALL REAR CONSOLE BOX ASSEMBLY

- (a) Install the rear console box assembly .

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

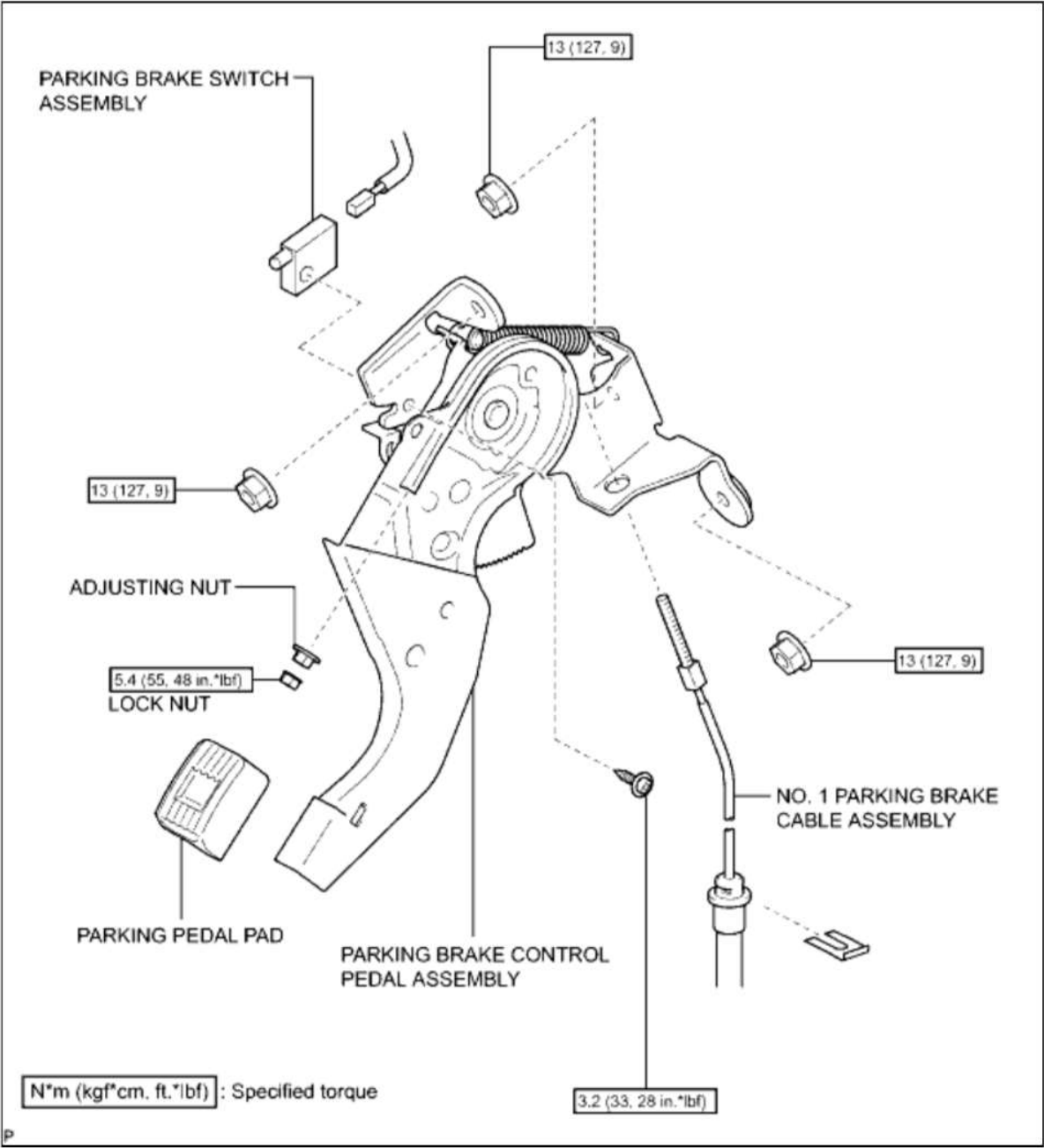
When disconnecting the cable, some systems need to be initialized after the cable is reconnected .



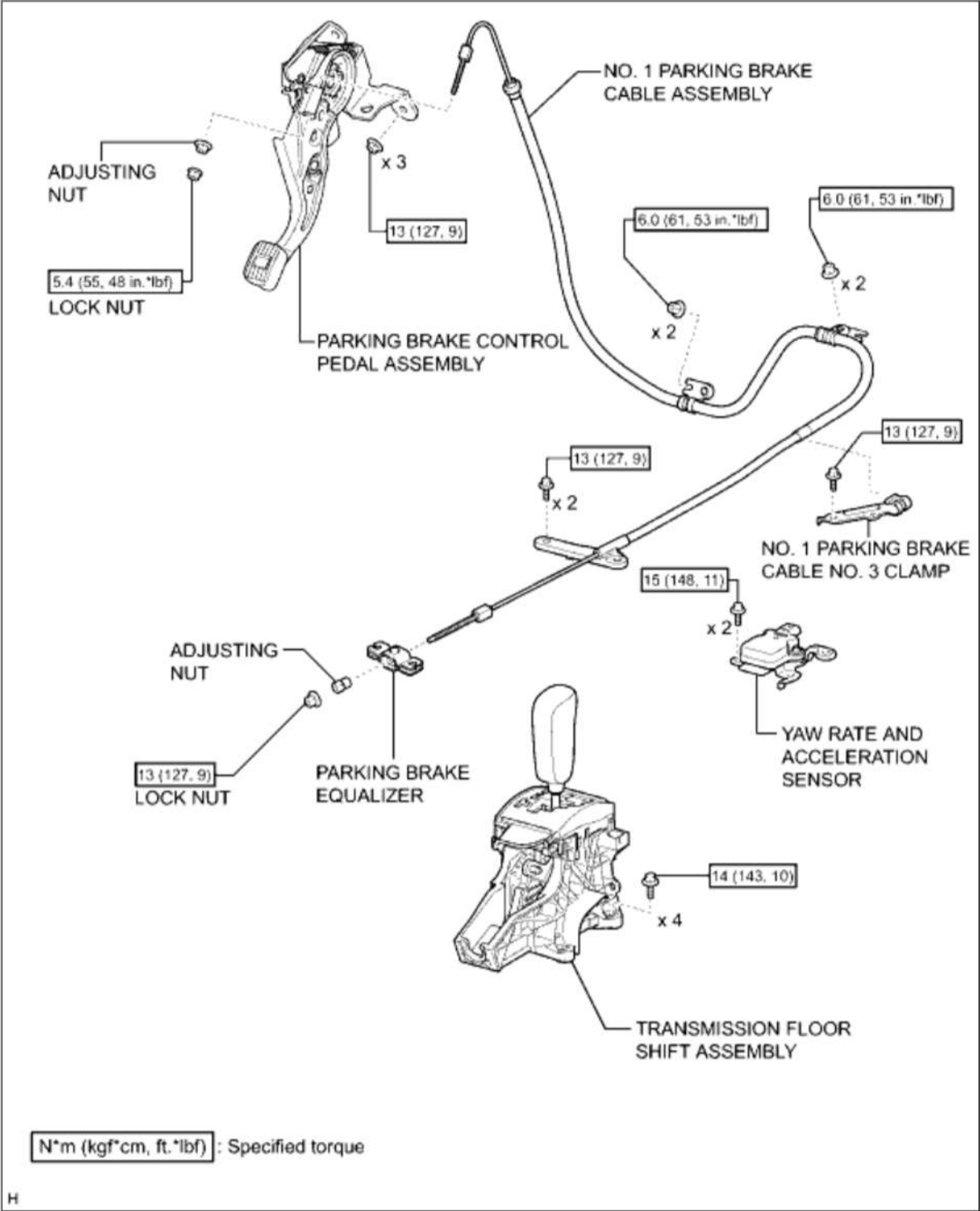
Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C200GX
Title: PARKING BRAKE: PARKING BRAKE PEDAL: COMPONENTS (2010 4Runner)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C300HX
Title: PARKING BRAKE: PARKING BRAKE PEDAL: REMOVAL (2010 4Runner)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected .

2. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

(a) Remove the lower No. 1 instrument panel airbag assembly .

3. REMOVE REAR CONSOLE BOX ASSEMBLY

(a) Remove the rear console box assembly .

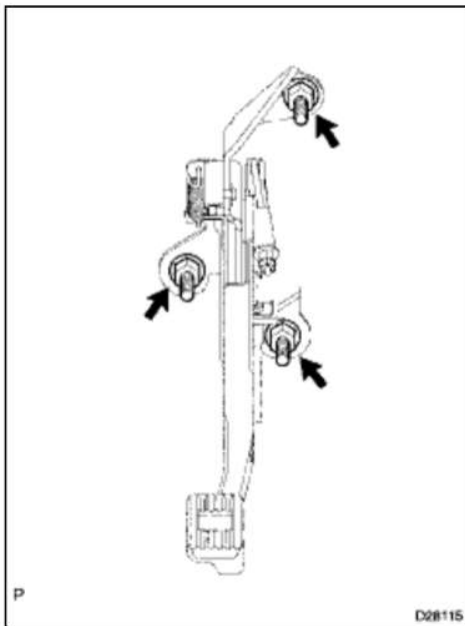
4. REMOVE AIRBAG SENSOR ASSEMBLY

5. REMOVE YAW RATE AND ACCELERATION SENSOR

6. REMOVE TURN SIGNAL FLASHER ASSEMBLY

7. REMOVE TIRE PRESSURE WARNING ECU

8. REMOVE PARKING BRAKE CONTROL PEDAL ASSEMBLY



(a) Release the parking brake pedal.

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

9. REMOVE TRANSMISSION FLOOR SHIFT ASSEMBLY

- (a) Transmission type A750F:

Remove the transmission floor shift assembly .

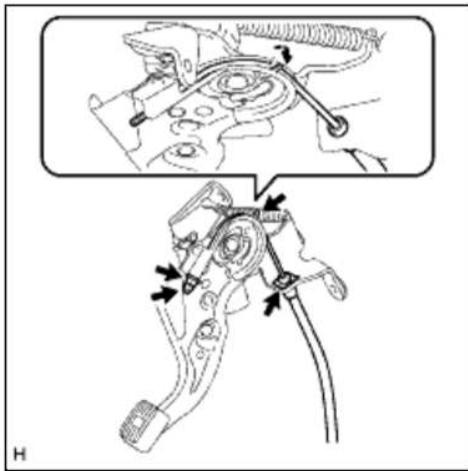
- (b) Transmission type A750E:

Remove the transmission floor shift assembly .

- (c) Transmission type A343E:

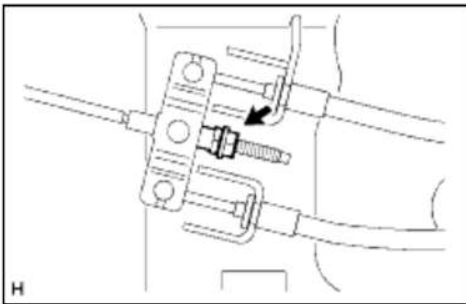
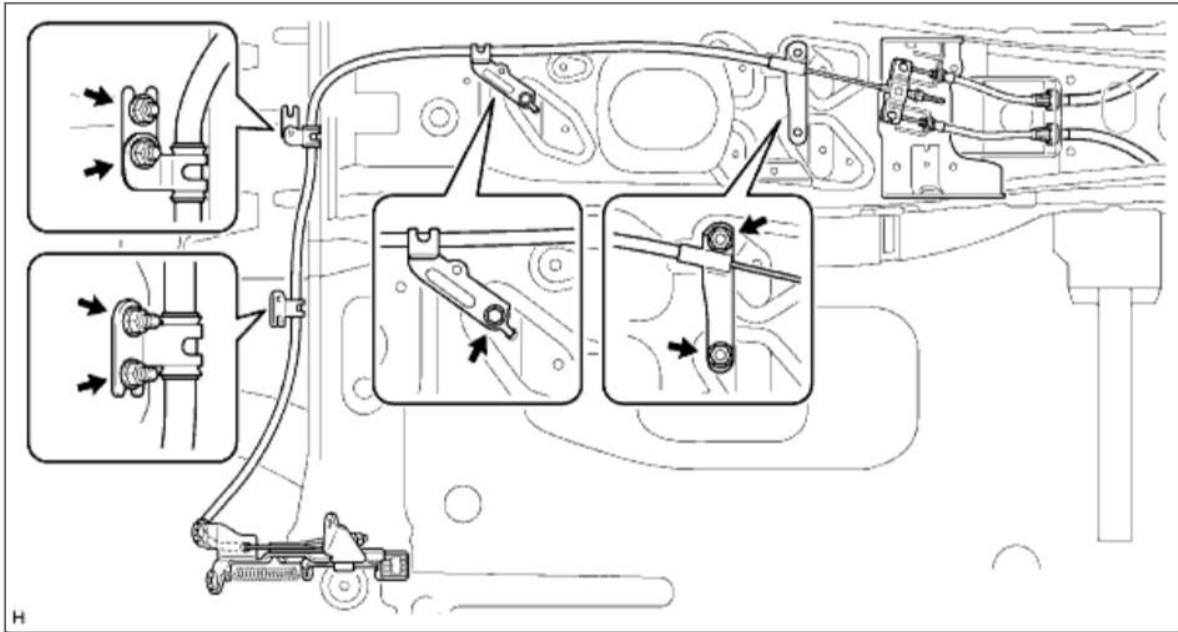
Remove the transmission floor shift assembly .

10. REMOVE NO. 1 PARKING BRAKE CABLE ASSEMBLY



- (a) Remove the lock nut and adjusting nut.

- (b) Remove the clip.
- (c) Pull up the parking brake pedal claw.
- (d) Remove the No. 1 parking brake cable assembly.
- (e) Remove the 4 nuts and 3 bolts from the No. 1 parking brake cable assembly.



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

11. REMOVE PARKING PEDAL PAD

- (a) Remove the parking pedal pad.



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011C100IX
Title: PARKING BRAKE: PARKING BRAKE PEDAL: INSTALLATION (2010 4Runner)		

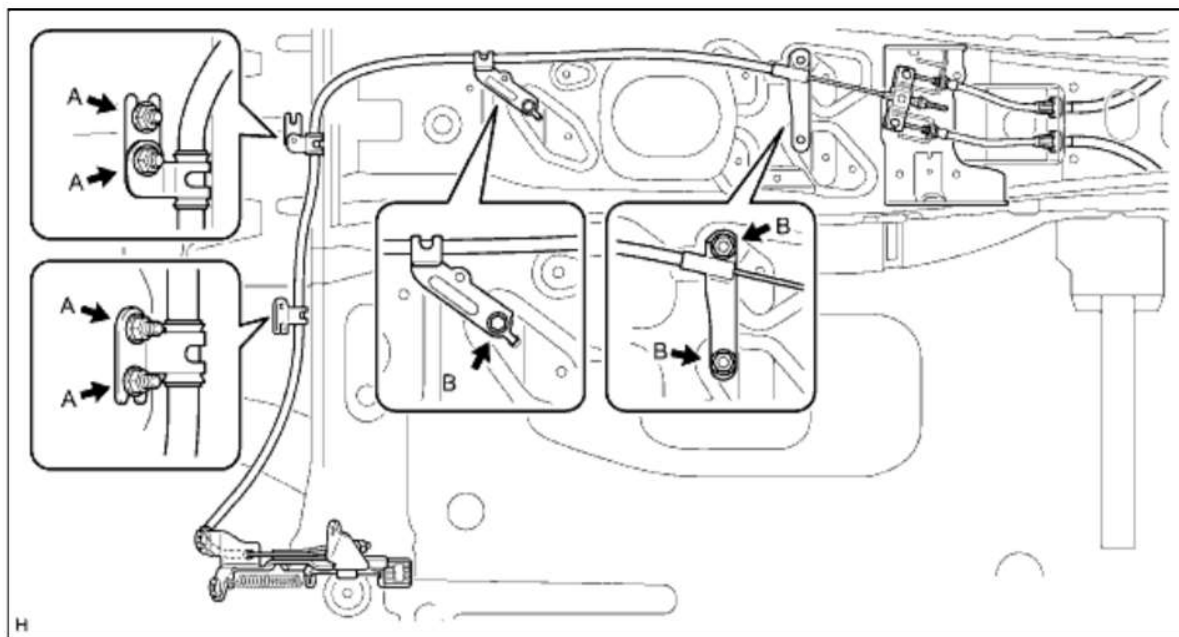
INSTALLATION

1. INSTALL PARKING PEDAL PAD

- (a) Install the parking pedal pad.

2. INSTALL NO. 1 PARKING BRAKE CABLE ASSEMBLY

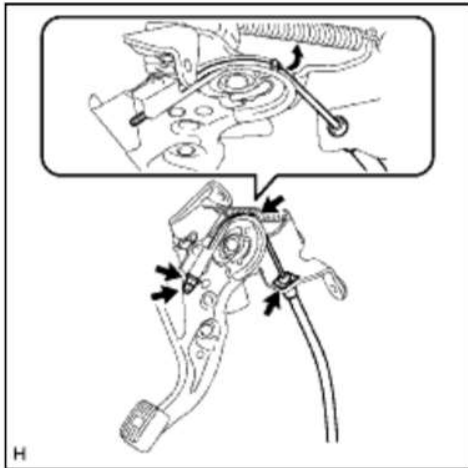
- (a) Temporarily install the No. 1 parking brake cable assembly with the adjusting nut and lock nut.
(b) Install the No. 1 parking brake cable assembly with the 4 nuts and 3 bolts.



for nut A - Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

for bolt B - Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

- (c) Pass the No. 1 parking brake cable through the parking brake pedal.



- (d) Install the clip.
- (e) Bend the parking brake pedal claw.
- (f) Temporarily install the adjusting nut and lock nut to the No. 1 parking brake cable.

3. INSTALL PARKING BRAKE CONTROL PEDAL ASSEMBLY

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

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

- (b) Connect the parking brake switch connector.

4. INSTALL TRANSMISSION FLOOR SHIFT ASSEMBLY

- (a) Transmission type A750F:

Install the transmission floor shift assembly [INFO](#).

- (b) Transmission type A750E:

Install the transmission floor shift assembly [INFO](#).

- (c) Transmission type A343E:

Install the transmission floor shift assembly [INFO](#).

5. INSTALL AIRBAG SENSOR ASSEMBLY [INFO](#)

6. INSTALL YAW RATE AND ACCELERATION SENSOR [INFO](#)

7. INSTALL TIRE PRESSURE WARNING ECU [INFO](#)

8. INSTALL TURN SIGNAL FLASHER ASSEMBLY [INFO](#)

9. INSTALL REAR CONSOLE BOX ASSEMBLY

- (a) Install the rear console box assembly [INFO](#).

10. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

- (a) Install the lower No. 1 instrument panel airbag assembly [INFO](#).

11. ADJUST PARKING BRAKE SHOE CLEARANCE AND PARKING BRAKE PEDAL TRAVEL



12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

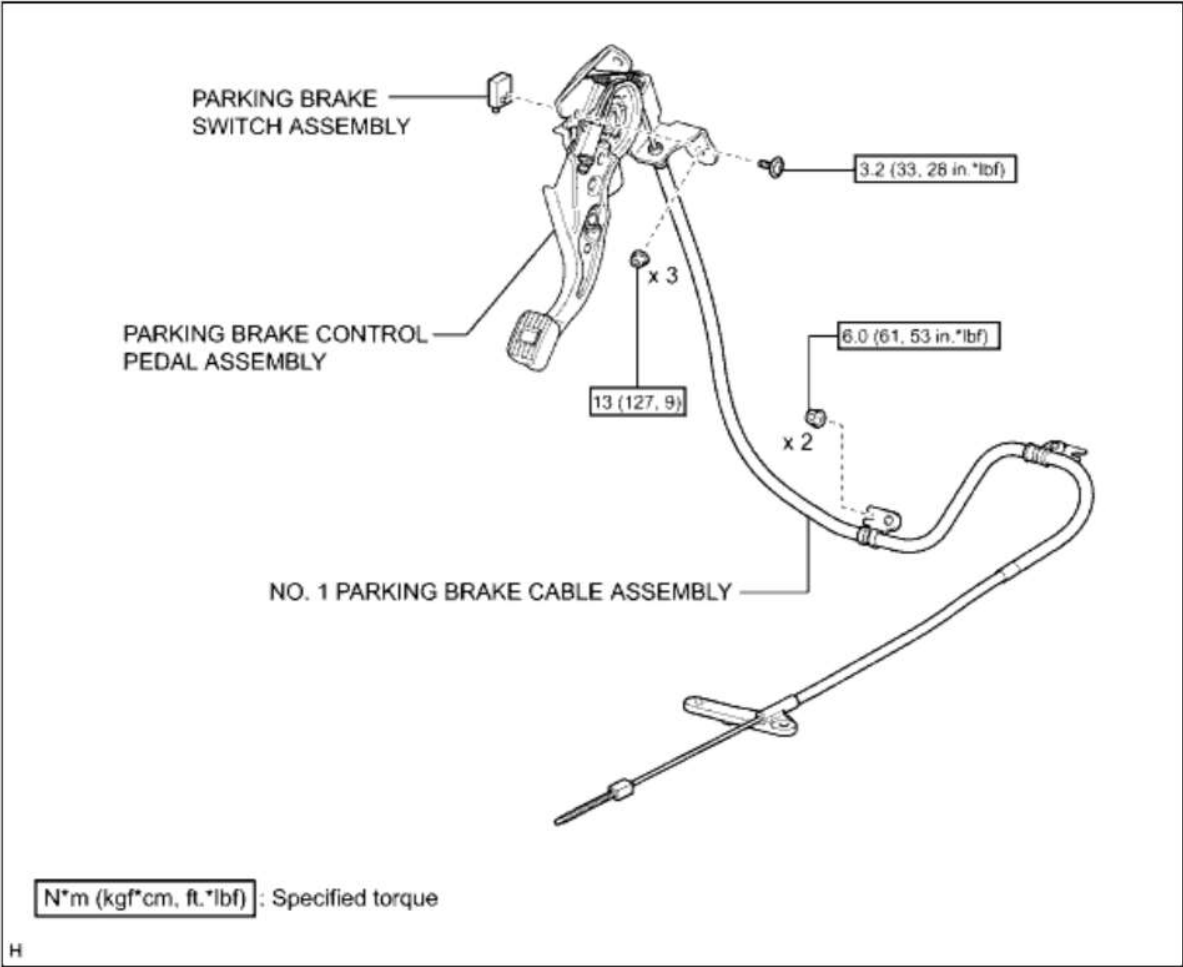
When disconnecting the cable, some systems need to be initialized after the cable is reconnected



Last Modified: 5-10-2010	6.4 K	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003EYH00LX
Title: PARKING BRAKE: PARKING BRAKE SWITCH: COMPONENTS (2010 4Runner)		

COMPONENTS

ILLUSTRATION



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003EYI00MX
Title: PARKING BRAKE: PARKING BRAKE SWITCH: REMOVAL (2010 4Runner)		

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected .

2. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

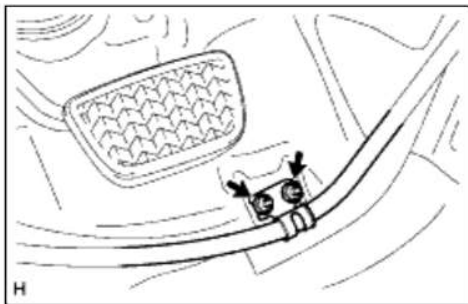
(a) Remove the lower No. 1 instrument panel airbag assembly .

3. REMOVE TURN SIGNAL FLASHER ASSEMBLY

4. REMOVE TIRE PRESSURE WARNING ECU

5. DISCONNECT PARKING BRAKE CONTROL PEDAL ASSEMBLY

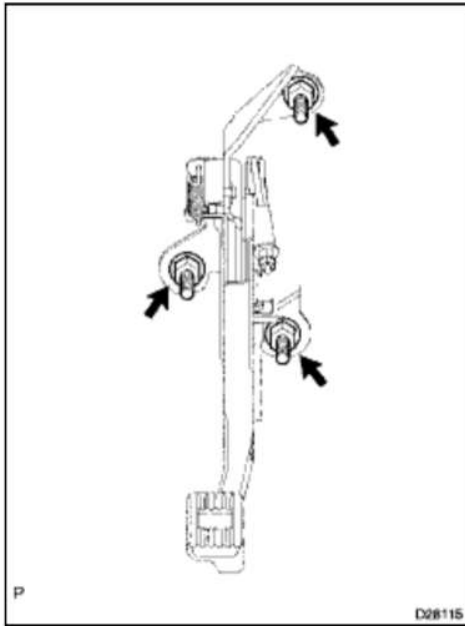
(a) Partially remove the front floor carpet.



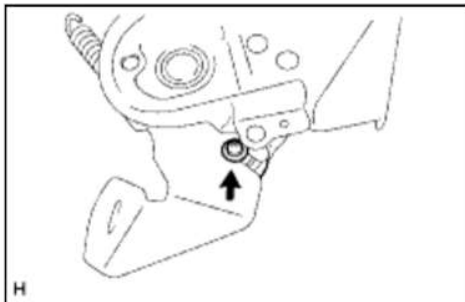
(b) Remove the 2 nuts and disconnect the No. 1 parking brake cable assembly from the body.

(c) Disconnect the parking brake switch connector.

(d) Remove the 3 nuts and disconnect the parking brake control pedal assembly from the body.



6. REMOVE PARKING BRAKE SWITCH ASSEMBLY



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

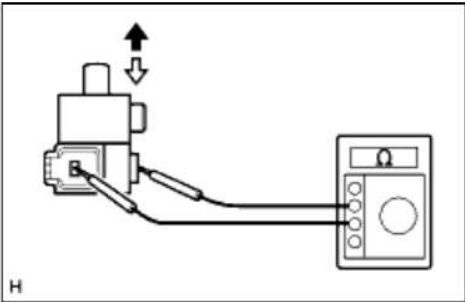


Last Modified: 5-10-2010	6.4 G	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000001QW200XX
Title: PARKING BRAKE: PARKING BRAKE SWITCH: INSPECTION (2010 4Runner)		

INSPECTION

1. INSPECT PARKING BRAKE SWITCH ASSEMBLY

(a) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
Switch connector - Switch body	On (Shaft is not pressed)	Below 1 Ω
	Off (Shaft is pressed)	10 kΩ or higher

Text in Illustration

	On
	Off

If the result is not as specified, replace the parking brake switch assembly.



Last Modified: 5-10-2010	6.4 A	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM000003EYG00MX
Title: PARKING BRAKE: PARKING BRAKE SWITCH: INSTALLATION (2010 4Runner)		

INSTALLATION

1. INSTALL PARKING BRAKE SWITCH ASSEMBLY

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

Torque: 3.2 N·m (33 kgf·cm, 28in·lbf)

2. INSTALL PARKING BRAKE CONTROL PEDAL ASSEMBLY

- (a) Temporarily install the parking brake control pedal assembly with the 3 nuts.
(b) Tighten the 3 nuts.

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

- (c) Connect the parking brake switch connector.
(d) Install the No. 1 parking brake cable assembly to the body with the 2 nuts.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

3. INSTALL TIRE PRESSURE WARNING ECU



4. INSTALL TURN SIGNAL FLASHER ASSEMBLY



5. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

- (a) Install the lower No. 1 instrument panel airbag assembly



6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected



Last Modified: 5-10-2010	6.4 T	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011BL00SX
Title: PARKING BRAKE: PARKING BRAKE SYSTEM: PROBLEM SYMPTOMS TABLE (2010 4Runner)		

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, 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 drag	Parking brake pedal travel (Out of adjustment)	INFO
	Parking brake wire (Sticking)	INFO
	Parking brake shoe clearance (Out of adjustment)	INFO
	Parking brake shoe lining (Cracked or distorted)	INFO
	Tension or return spring (Damaged)	INFO



Last Modified: 5-10-2010	6.4 N	From: 200908
Model Year: 2010	Model: 4Runner	Doc ID: RM0000011BK00UX
Title: PARKING BRAKE: PARKING BRAKE SYSTEM: ADJUSTMENT (2010 4Runner)		

ADJUSTMENT

1. INSPECT PARKING BRAKE PEDAL TRAVEL

- (a) Fully depress the parking brake pedal to engage the parking brake.
- (b) Depress the pedal again to disengage the parking brake.
- (c) Slowly depress the parking brake pedal using the specified force and count the number of clicks.

Standard parking brake pedal travel:

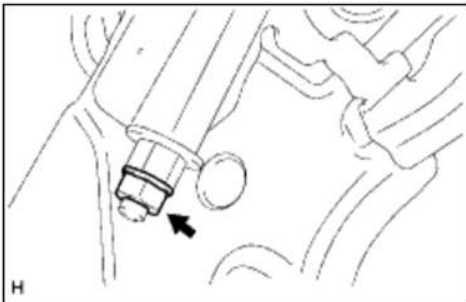
5 to 7 clicks at 294 N (30 kgf, 66 lbf)

If the parking brake pedal travel is not as specified, adjust the parking brake shoe clearance and parking brake pedal travel.

2. REMOVE REAR WHEEL

3. ADJUST PARKING BRAKE SHOE CLEARANCE AND PARKING BRAKE PEDAL TRAVEL

- (a) Remove the lower instrument panel finish panel sub-assembly .
- (b) Completely release the parking brake pedal.



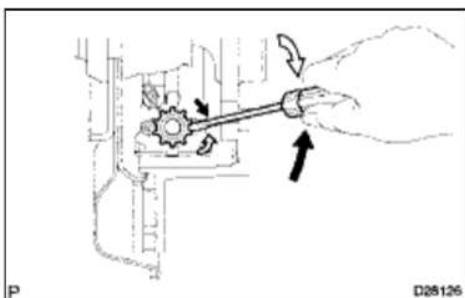
- (c) Loosen the lock nut and adjusting nut to completely release the parking brake cable.

- (d) Temporarily install the hub nuts to the hub bolts.

HINT:

Securely install the hub nuts to the rear disc.

- (e) Turn the shoe adjuster so that it expands until the disc locks.



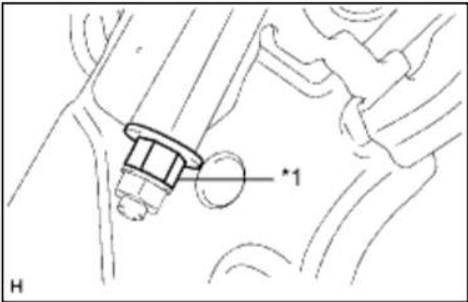
Text in Illustration

	Shoe Adjuster Contracts
	Shoe Adjuster Expands

(f) Turn the shoe adjuster so that it contracts until the disc can rotate smoothly.

Standard:
8 notches

(g) Check that there is no brake drag against the shoe.



(h) Turn the adjusting nut until the parking brake pedal travel is corrected to be within the specified range.

Standard parking brake pedal travel:
5 to 7 clicks at 294 N (30 kgf, 66 lbf)

Text in Illustration

* 1	Adjusting Nut
-----	---------------

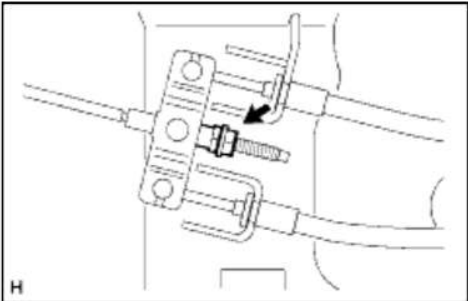
(i) Using a wrench or an equivalent tool, hold the adjusting nut and tighten the lock nut.

Torque: 5.4 N·m (55 kgf·cm, 48in·lbf)

(j) Operate the parking brake pedal 3 to 4 times and check the parking brake pedal travel.

(k) Check that there is no brake drag against the shoe.

(l) Additionally, excessive pedal travel can be adjusted on the No. 1 parking brake cable as follows.



(1) Loosen the No. 1 parking brake cable lock nut.

(2) Turn the No. 1 parking brake cable adjustment nut until the parking brake pedal travel is correct.

Standard parking brake pedal travel:
5 to 7 clicks at 294 N (30 kgf, 66 lbf)

(3) Tighten the No. 1 parking brake cable lock nut.

Torque: 13 N·m (127 kgf·cm, 9ft·lbf)

NOTICE:

Pay attention that the adjustment nut does not rotate together with the lock nut during tightening.

(4) Depress and release the parking brake pedal 3 or 4 times. Then check the number of clicks when depressing the pedal.

Standard:

5 to 7 notches

If the result is not as specified, adjust the parking brake pedal travel again.

(m) Remove the hub nuts from the hub bolts.

(n) Install the lower instrument panel finish panel sub-assembly .

(o) When operating the parking brake lever, check that the brake warning light comes on.

OK:

The brake warning light always illuminates at the first click.

4. INSTALL REAR WHEEL

