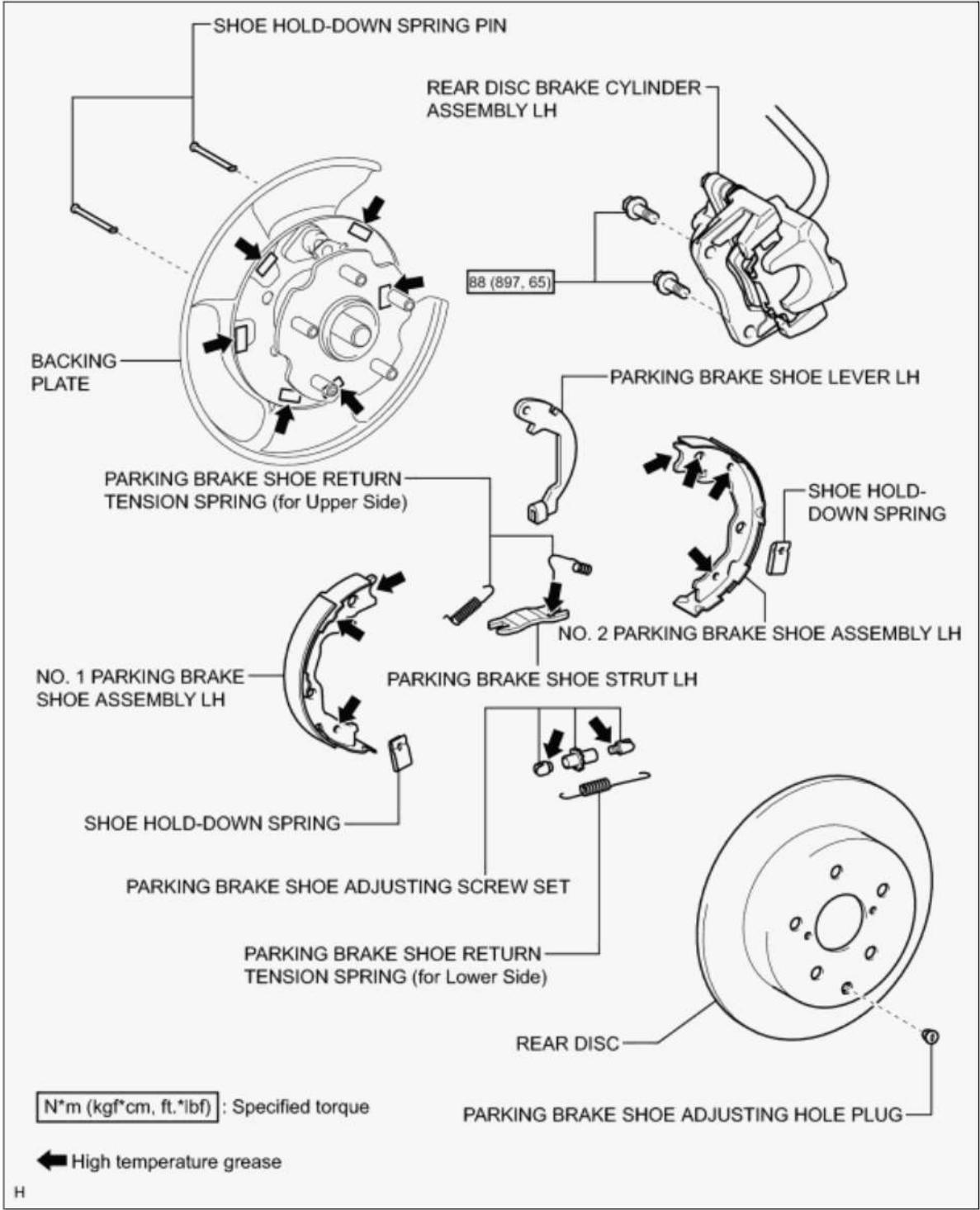


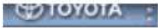
Last Modified: 9-7-2011	6.4 K	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001N1C00KX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



cardiagn.com



cardiagn.com

Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001N1D00KX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: DISASSEMBLY (2011 RAV4)		

DISASSEMBLY

HINT:

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

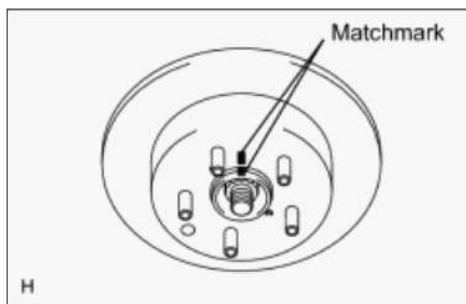
1. REMOVE REAR WHEEL

2. DISCONNECT REAR DISC BRAKE CYLINDER ASSEMBLY LH INFO

3. REMOVE PARKING BRAKE SHOE ADJUSTING HOLE PLUG

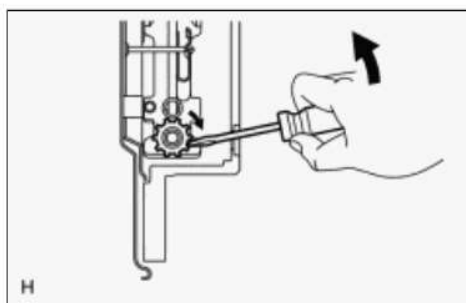
- (a) Remove the shoe adjusting hole plug from the rear disc.

4. REMOVE REAR DISC



- (a) Put matchmarks on the disc and axle hub.

- (b) Release the parking brake.

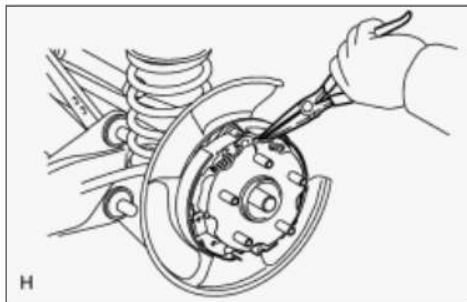


- (c) Turn the shoe adjuster until the disc turns freely, and then remove the disc.

- (d) Install the shoe adjusting hole plug to the disc.

5. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING (for Upper Side)

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



springs.

6. REMOVE PARKING BRAKE SHOE STRUT LH

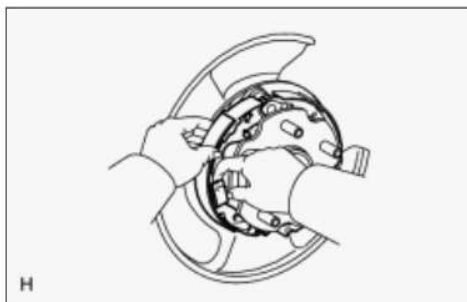
7. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING (for Lower Side)

(a) Using needle-nose pliers, remove the tension spring.

8. REMOVE PARKING BRAKE SHOE ADJUSTING SCREW SET

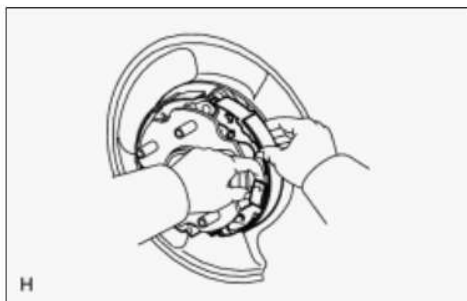
(a) Remove the screw set.

9. REMOVE NO. 1 PARKING BRAKE SHOE ASSEMBLY LH



(a) Press the shoe hold-down spring to remove the pin, shoe hold-down spring and shoe.

10. REMOVE NO. 2 PARKING BRAKE SHOE ASSEMBLY LH



(a) Slide the shoe to remove the shoe hold-down spring, pin and shoe.

(b) Disconnect the parking brake cable from the parking brake shoe lever.

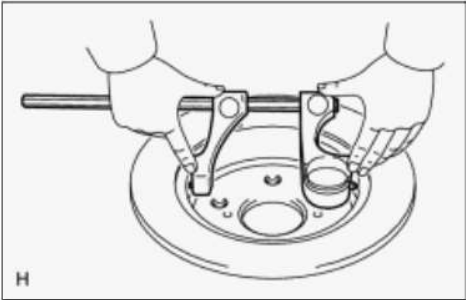
11. REMOVE PARKING BRAKE SHOE LEVER LH



Last Modified: 9-7-2011	6.4 G	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001N1B00MX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: INSPECTION (2011 RAV4)		

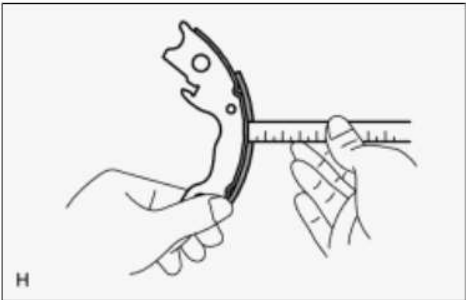
INSPECTION

1. CHECK BRAKE DISC INSIDE DIAMETER



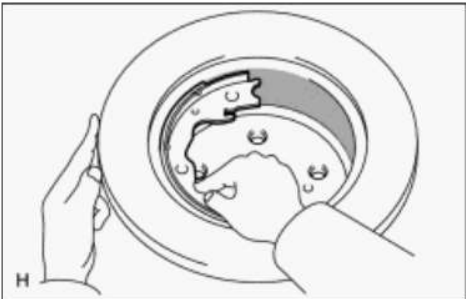
- (a) Using a drum gauge or equivalent, measure the inside diameter of the disc.
- Standard inside diameter:
173 mm (6.81 in.)
- Maximum inside diameter:
174 mm (6.85 in.)
- If the inside diameter is more than the maximum, replace the disc.

2. CHECK PARKING BRAKE SHOE LINING THICKNESS

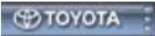


- (a) Using a ruler, measure the shoe lining thickness.
- Standard thickness:
3.5 mm (0.138 in.)
- Minimum thickness:
1.0 mm (0.0394 in.)
- If the shoe lining thickness is less than the minimum, replace the brake shoe assembly.

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



- (a) Apply white chalk to the inside surface of the disc. Touch the brake shoe to the disc and check that there is full contact between the brake shoe and disc (white chalk is transferred to the entire brake shoe).
- If the contact is not as specified, use a shoe grinder to repair the brake shoe, or replace the brake shoe assembly.



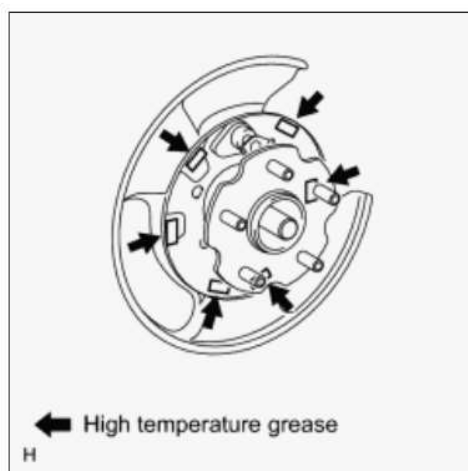
Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001N1E00RX
Title: PARKING BRAKE: PARKING BRAKE ASSEMBLY: REASSEMBLY (2011 RAV4)		

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

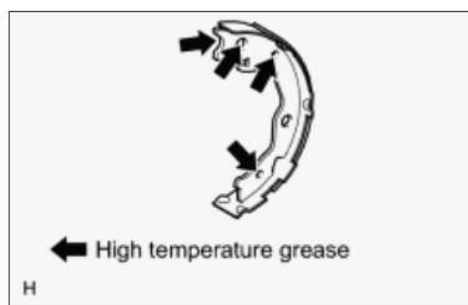


(a) Apply a light coat of high temperature grease to the areas of the backing plate that contact the shoes.

2. INSTALL PARKING BRAKE SHOE LEVER LH

3. INSTALL NO. 2 PARKING BRAKE SHOE ASSEMBLY LH

(a) Connect the parking brake cable to the parking brake shoe lever.



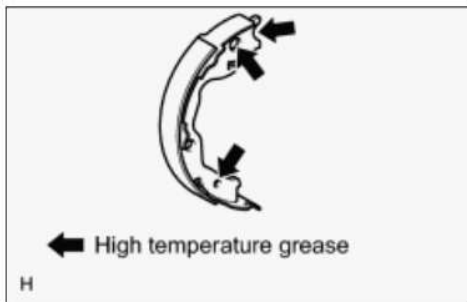
(b) Apply a light coat of high temperature grease to the following contact surfaces of the shoe.

- Shoe to anchor pin
- Shoe to parking brake lever pin
- Shoe to spring

(c) Install the shoe with the shoe hold-down spring and pin.

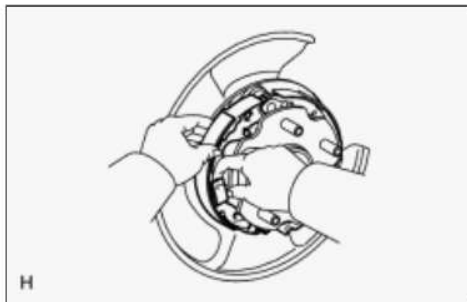


4. INSTALL NO. 1 PARKING BRAKE SHOE ASSEMBLY LH



(a) Apply a light coat of high temperature grease to the following contact surfaces of the shoe.

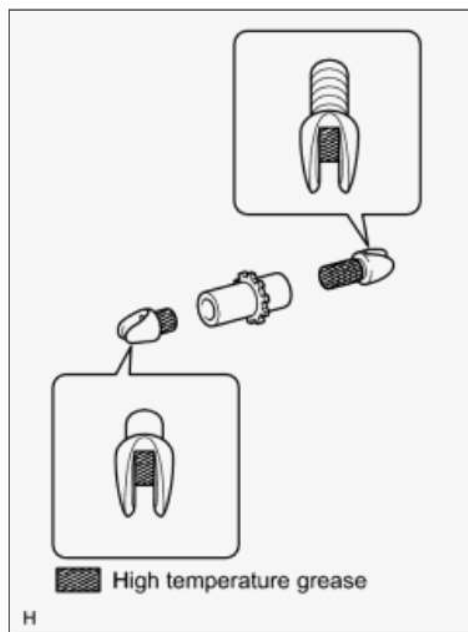
- Shoe to anchor pin
- Shoe to spring



(b) Install the shoe with the shoe hold-down spring and pin.

5. 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.

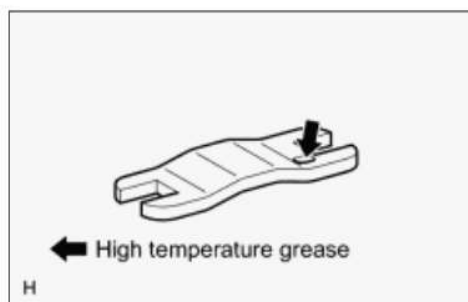


(b) Install the screw set.

6. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING (for Lower Side)

(a) Using needle-nose pliers, install the tension spring.

7. INSTALL PARKING BRAKE SHOE STRUT LH

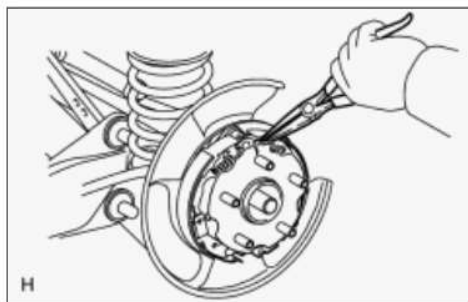


(a) Apply a light coat of high temperature grease to the contact surface of the strut and shoe return tension spring.

(b) Install the strut.

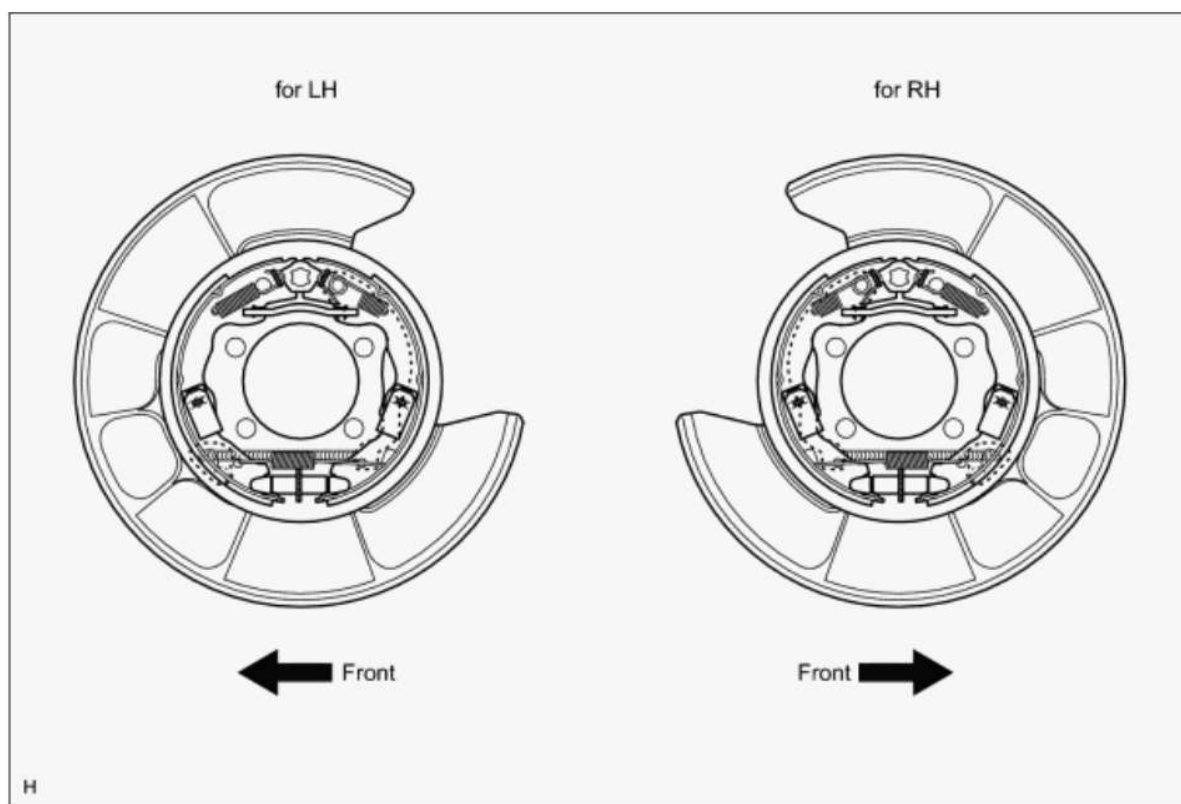
8. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING (for Upper Side)

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



9. CHECK PARKING BRAKE INSTALLATION

(a) Check that each part is installed properly.



NOTICE:

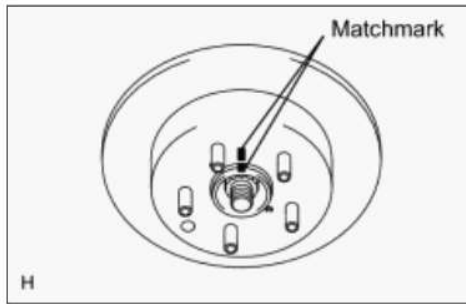
There should be no oil or grease adhering to the friction surfaces of the shoe lining and disc.

10. INSTALL REAR DISC

(a) Align the matchmarks and install the disc.

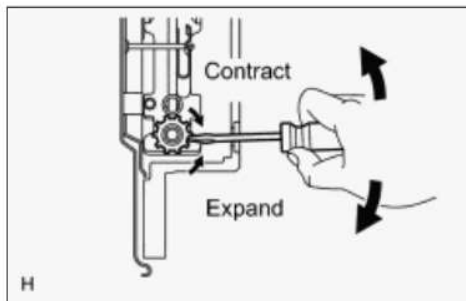
HINT:

When replacing the disc with a new one, select the installation position where the disc has the smallest runout.



11. ADJUST PARKING BRAKE SHOE CLEARANCE

- (a) Temporarily install the hub nuts.



- (b) Remove the shoe adjusting hole plug, and then turn the adjuster to expand the shoe adjuster until the disc locks.

- (c) Turn the shoe adjuster so that it contracts to a point where the disc can rotate smoothly.

Standard:

8 notches

- (d) Check that the shoe has no brake drag.

12. INSTALL PARKING BRAKE SHOE ADJUSTING HOLE PLUG

- (a) Install the shoe adjusting hole plug to the rear disc.

13. CONNECT REAR DISC BRAKE CYLINDER ASSEMBLY LH INFO

14. INSTALL REAR WHEEL INFO

15. SETTLE PARKING BRAKE SHOE AND DISC

- (a) Pull the parking brake lever with a force of 147 N (15 kgf, 33 lbf).
 (b) Drive the vehicle at approximately 50 km/h (31 mph) for approximately 400 m (0.25 miles).

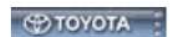
NOTICE:

Drive the vehicle on a safe, level and dry road.

- (c) Repeat the above steps 2 or 3 times.

16. CHECK PARKING BRAKE LEVER TRAVEL INFO

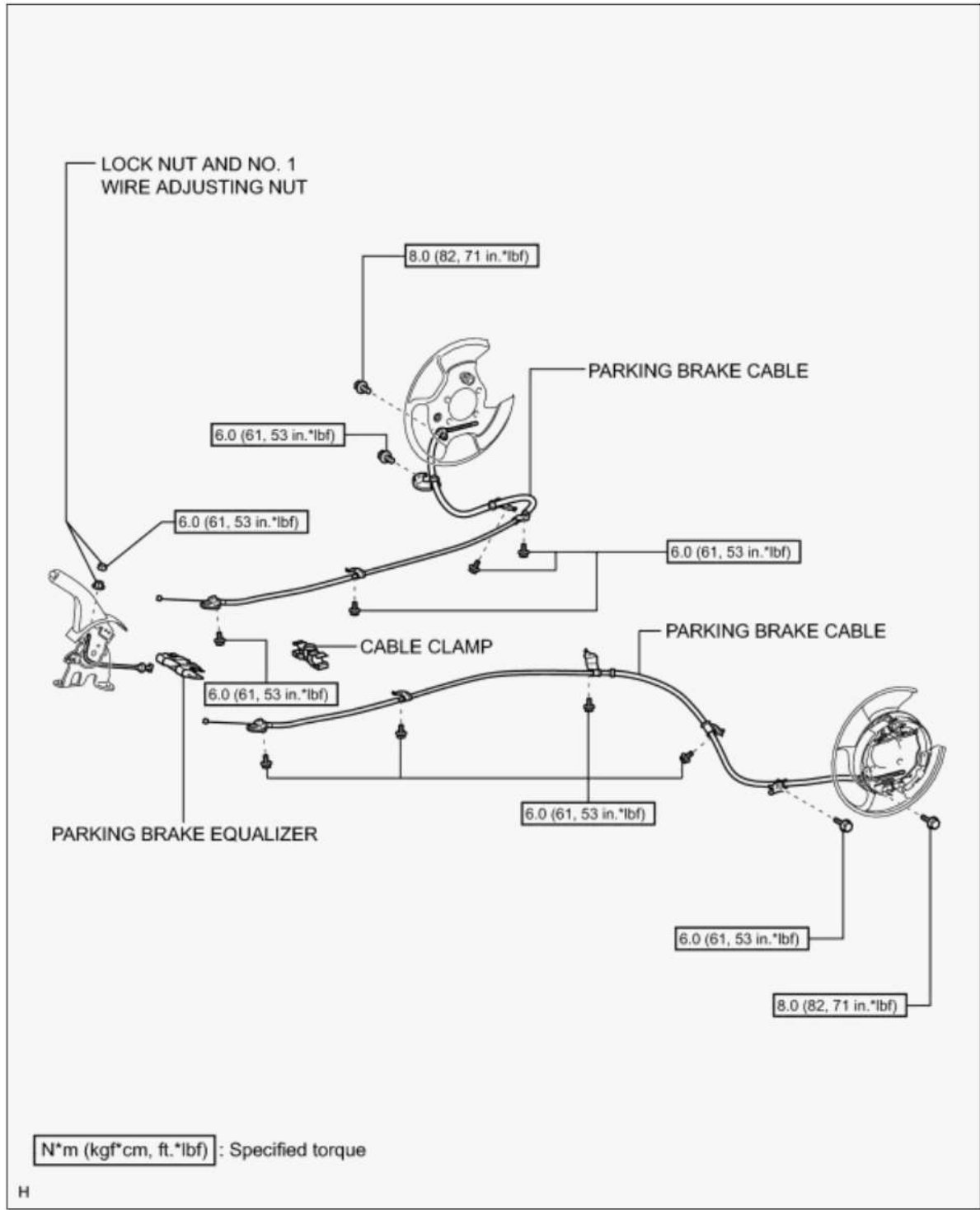
17. ADJUST PARKING BRAKE LEVER TRAVEL INFO

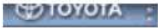


Last Modified: 9-7-2011	6.4 K	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4P01KX
Title: PARKING BRAKE: PARKING BRAKE CABLE: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



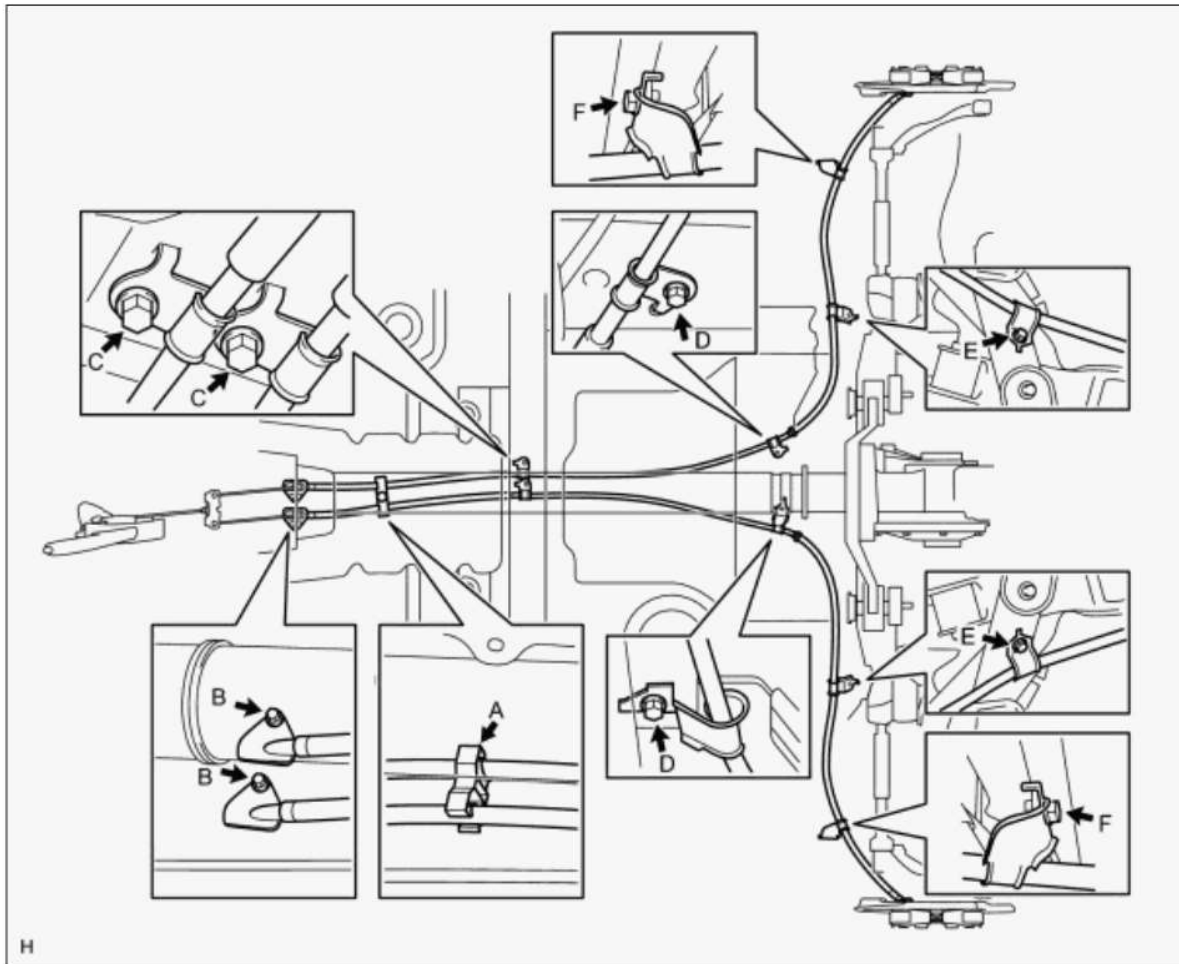


cardiagn.com

Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4001RX
Title: PARKING BRAKE: PARKING BRAKE CABLE: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL PARKING BRAKE CABLE



(a) Connect the cables to the backing plates and parking brake shoe levers.

(1) Pass the cables through the backing plates, and then connect the cables to the levers.

(2) Install the cables to the backing plates with the bolts.

Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

(b) Install the clamps to the trailing arms with the clamp bolts labeled F.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

NOTICE:

Securely install the clamps.

(c) Install the clamps to the rear suspension crossmember with the clamp bolts labeled E.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

NOTICE:

Securely install the clamps.

- (d) Install the clamps to the crossmember with the clamp bolts labeled D.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

NOTICE:

Securely install the clamps.

- (e) Install the clamps to the vehicle body with the clamp bolts labeled C.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

NOTICE:

Securely install the clamps.

- (f) Install the casing caps to the vehicle body with the casing cap bolts labeled B.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

NOTICE:

Securely install the casing caps.

- (g) Install the cable clamp labeled A to the parking brake cable and vehicle body.

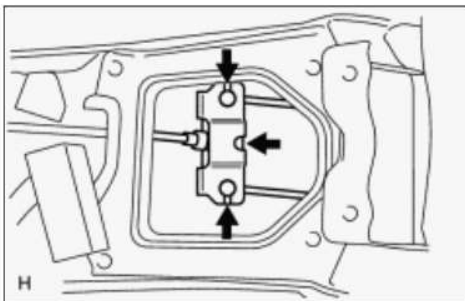
NOTICE:

Securely install the clamp.

2. INSTALL PROPELLER SHAFT WITH CENTER BEARING SHAFT ASSEMBLY

- (a) Install the propeller shaft with center bearing shaft [INFO](#).

3. INSTALL PARKING BRAKE EQUALIZER



- (a) Connect the 3 cable ends to the equalizer to install it.

4. INSTALL REAR WHEEL [INFO](#)

5. ADJUST PARKING BRAKE LEVER TRAVEL [INFO](#)

6. INSTALL CENTER AIRBAG SENSOR ASSEMBLY [INFO](#)

7. INSTALL REAR CONSOLE BOX SUB-ASSEMBLY

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

8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4Q01QX
Title: PARKING BRAKE: PARKING BRAKE CABLE: REMOVAL (2011 RAV4)		

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.

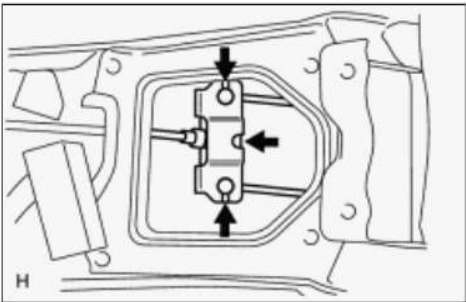
2. REMOVE REAR CONSOLE BOX SUB-ASSEMBLY

(a) Remove the rear console box [INFO](#) .

3. REMOVE CENTER AIRBAG SENSOR ASSEMBLY [INFO](#)

4. LOOSEN LOCK NUT AND NO. 1 WIRE ADJUSTING NUT [INFO](#)

5. REMOVE PARKING BRAKE EQUALIZER



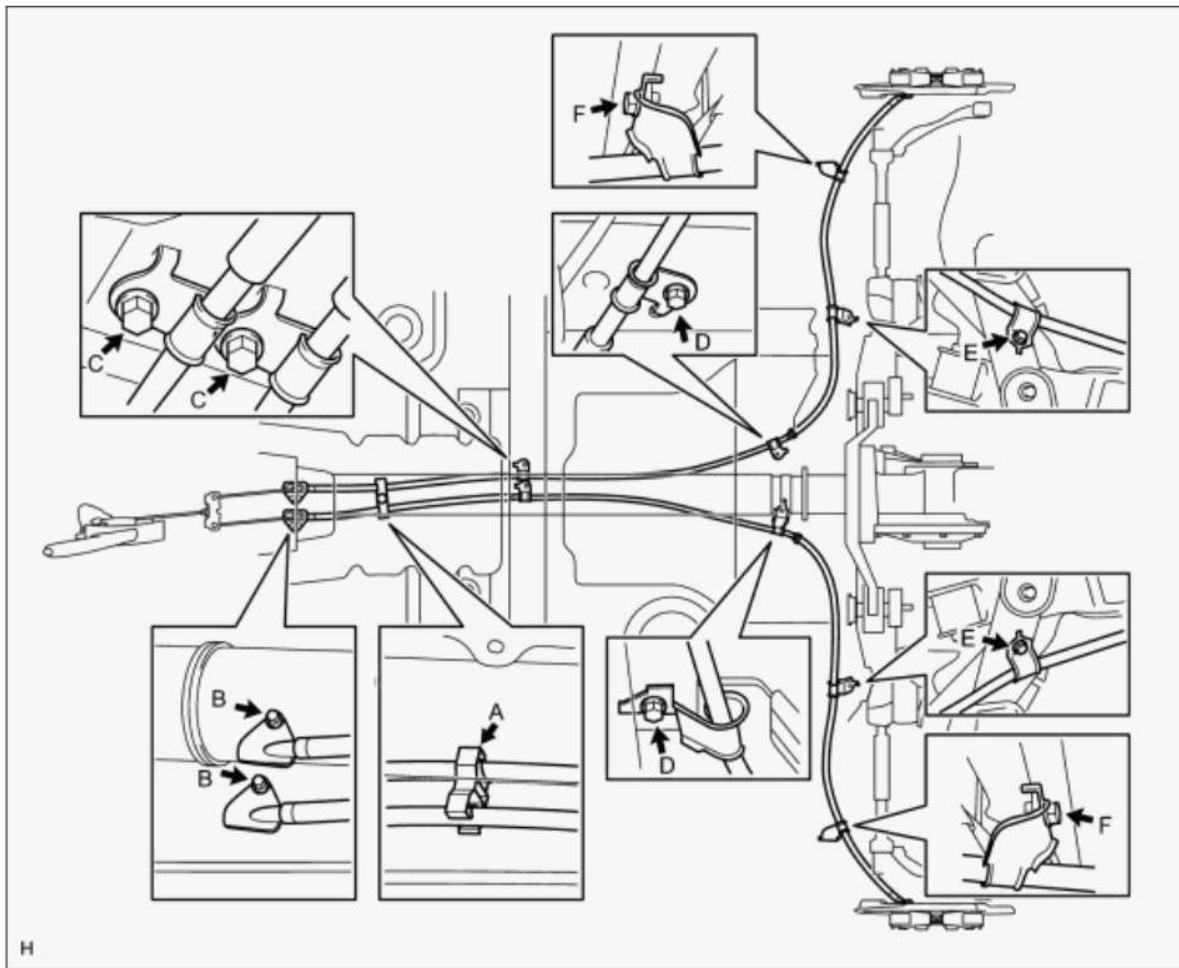
(a) Disconnect the 3 cable ends and remove the equalizer.

6. REMOVE REAR WHEEL

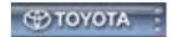
7. REMOVE PROPELLER SHAFT WITH CENTER BEARING SHAFT ASSEMBLY

(a) Remove the propeller shaft with center bearing shaft [INFO](#) .

8. REMOVE PARKING BRAKE CABLE



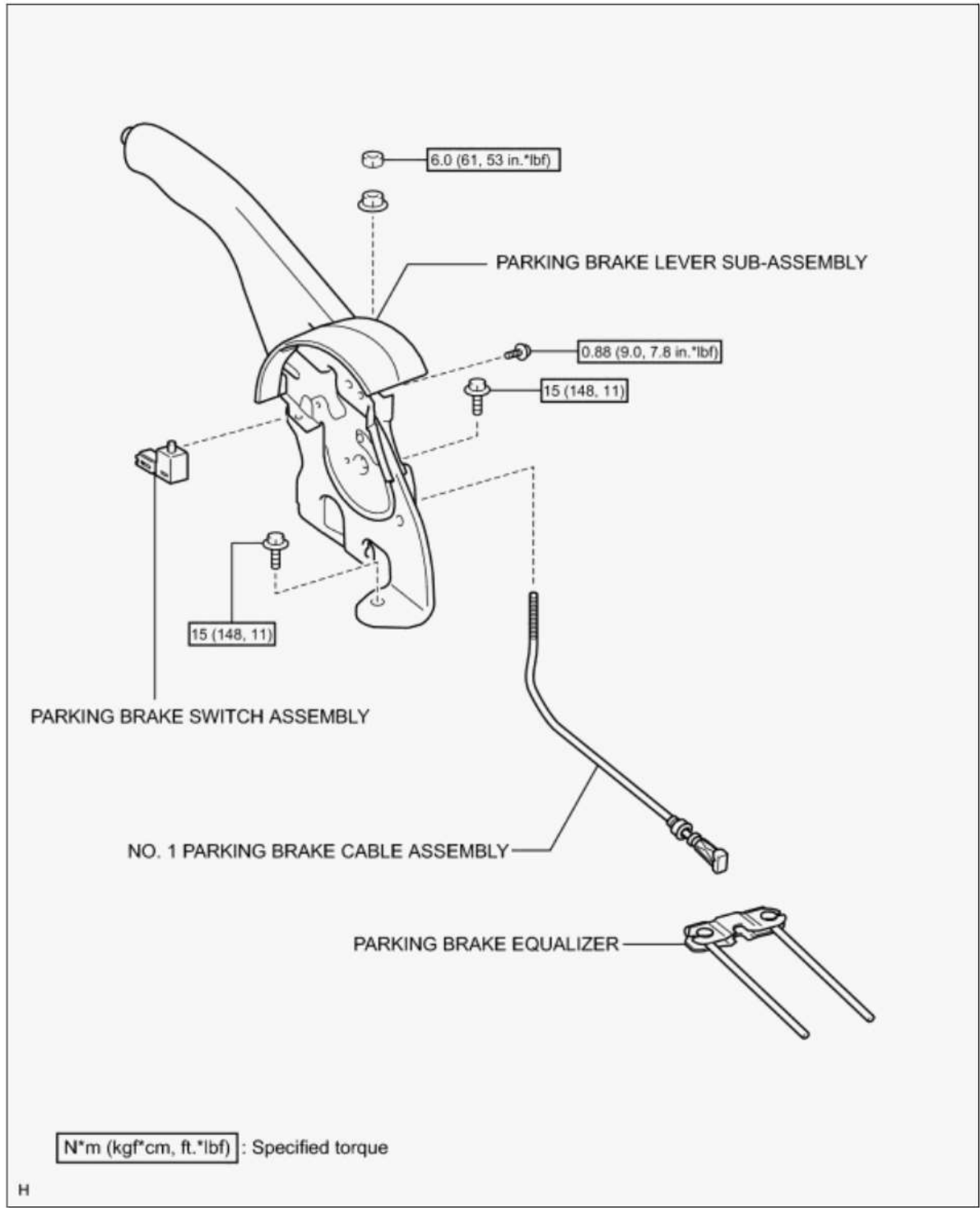
- (a) Remove the cable clamp labeled A from the parking brake cable and vehicle body.
- (b) Remove the casing cap bolts labeled B from the vehicle body.
- (c) Remove the clamp bolts labeled C from the vehicle body.
- (d) Remove the clamp bolts labeled D from the crossmember.
- (e) Remove the clamp bolts labeled E from the rear suspension crossmember.
- (f) Remove the clamp bolts labeled F from the trailing arms.
- (g) Disconnect the cables from the parking brake shoe levers and backing plates.
 - (1) Disconnect the cables from the levers INFO.
 - (2) Remove the bolts and disconnect the cables from the backing plates.



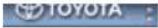
Last Modified: 9-7-2011	6.4 K	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4S01GX
Title: PARKING BRAKE: PARKING BRAKE LEVER: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



cardiagn.com



cardiagn.com

Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4R01OX
Title: PARKING BRAKE: PARKING BRAKE LEVER: INSTALLATION (2011 RAV4)		

INSTALLATION

1. INSTALL PARKING BRAKE SWITCH ASSEMBLY

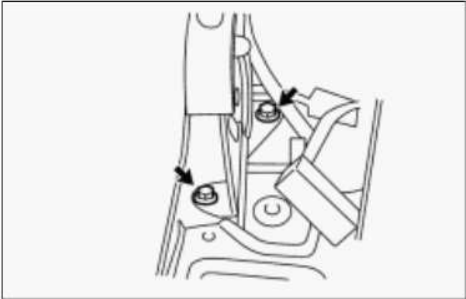
(a) Install the parking brake switch with the screw.

Torque: 0.88 N·m (9.0 kgf·cm, 7.8in·lbf)

2. CONNECT NO. 1 PARKING BRAKE CABLE ASSEMBLY

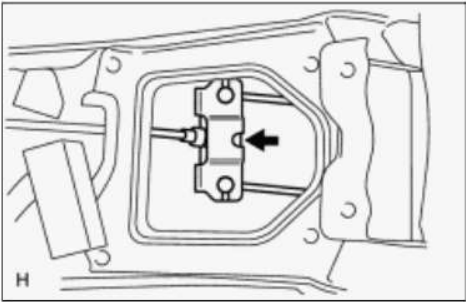
(a) Connect the cable to the lever.

3. INSTALL PARKING BRAKE LEVER SUB-ASSEMBLY

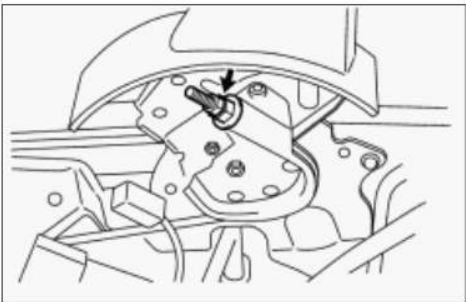


(a) Install the parking brake lever (with the No. 1 parking brake cable) with the 2 bolts.

Torque: 15 N·m (148 kgf·cm, 11ft·lbf)



(b) Connect the No. 1 parking brake cable to the parking brake equalizer.



(c) Temporarily install the wire adjusting nut and lock nut.

(d) Connect the parking brake switch connector.

4. CHECK PARKING BRAKE LEVER TRAVEL

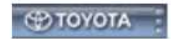
5. ADJUST PARKING BRAKE LEVER TRAVEL

6. INSTALL CENTER AIRBAG SENSOR ASSEMBLY

7. INSTALL REAR CONSOLE BOX SUB-ASSEMBLY

(a) Install the rear console box  .

8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



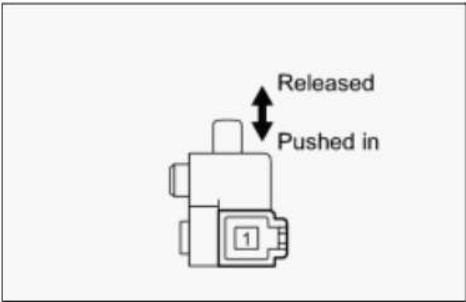
Last Modified: 9-7-2011	6.4 G	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM00000200G00DX
Title: PARKING BRAKE: PARKING BRAKE LEVER: ON-VEHICLE INSPECTION (2011 RAV4)		

ON-VEHICLE INSPECTION

1. CHECK PARKING BRAKE SWITCH ASSEMBLY

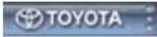
- (a) Remove the rear console box  .
- (b) Disconnect the parking brake switch connector.
- (c) Measure the resistance of the switch.

Standard Resistance:



TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
1 - Body ground	Parking brake switch ON (Switch pin released)	Below 1 Ω
	Parking brake switch OFF (Switch pin pushed in)	10 kΩ or higher

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



Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4T01MX
Title: PARKING BRAKE: PARKING BRAKE LEVER: REMOVAL (2011 RAV4)		

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.

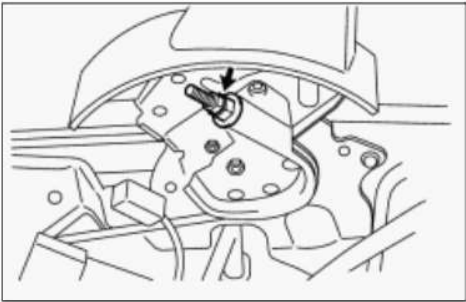
2. REMOVE REAR CONSOLE BOX SUB-ASSEMBLY

(a) Remove the rear console box INFO .

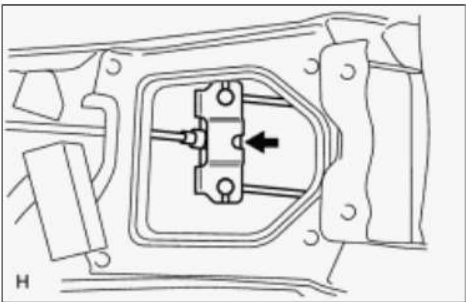
3. REMOVE CENTER AIRBAG SENSOR ASSEMBLY INFO

4. REMOVE PARKING BRAKE LEVER SUB-ASSEMBLY

(a) Disconnect the parking brake switch connector.

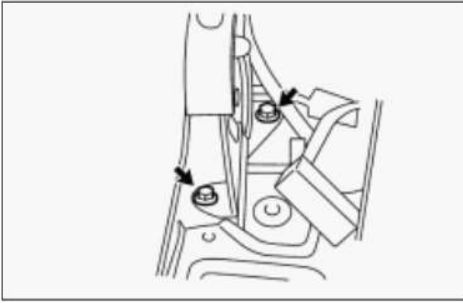


(b) Remove the lock nut and wire adjusting nut.



(c) Disconnect the No. 1 parking brake cable from the parking brake equalizer.

(d) Remove the 2 bolts and parking brake lever (with the No. 1 parking brake cable).

**5. DISCONNECT NO. 1 PARKING BRAKE CABLE ASSEMBLY**

- (a) Disconnect the cable from the lever.

6. REMOVE PARKING BRAKE SWITCH ASSEMBLY

- (a) Remove the screw and switch from the lever.



Last Modified: 9-7-2011	6.4 N	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4Y01SX
Title: PARKING BRAKE: PARKING BRAKE SYSTEM: ADJUSTMENT (2011 RAV4)		

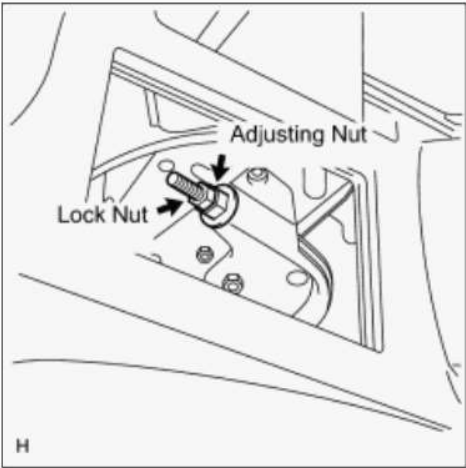
ADJUSTMENT

1. CHECK PARKING BRAKE LEVER TRAVEL

- (a) Pull the lever upward with a force of approximately 200 N (20 kgf, 44 lbf) and count the number of clicks.
OK:
6 to 8 clicks (without rear brake dragging)

2. REMOVE UPPER REAR CONSOLE PANEL SUB-ASSEMBLY

- (a) Remove the upper rear console panel sub-assembly [INFO](#) .



3. LOOSEN LOCK NUT AND NO. 1 WIRE ADJUSTING NUT

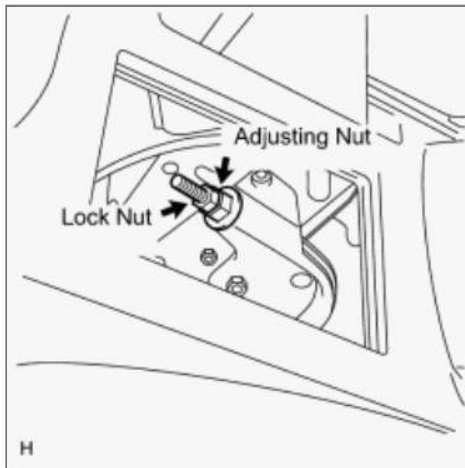
4. REMOVE REAR WHEEL

5. ADJUST PARKING BRAKE SHOE CLEARANCE [INFO](#)

6. INSTALL REAR WHEEL [INFO](#)

7. ADJUST PARKING BRAKE LEVER TRAVEL

- (a) Turn the No. 1 wire adjusting nut until the lever travel is correct.
OK:
6 to 8 clicks (without rear brake dragging)
<Lever pulling force: approximately 200 N (20 kgf, 44 lbf)>



(b) Tighten the lock nut.

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

(c) Operate the parking brake lever 3 to 4 times, and check the parking brake lever travel.

OK:

6 to 8 clicks (without rear brake dragging)

<Lever pulling force: approximately 200 N (20 kgf, 44 lbf)>

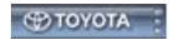
(d) When operating the parking brake lever, check that the brake warning light illuminates at the first click.

OK:

Brake warning light always illuminates at the first click.

8. INSTALL UPPER REAR CONSOLE PANEL SUB-ASSEMBLY

(a) Install the upper rear console panel sub-assembly  .



Last Modified: 9-7-2011	6.4 T	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001C4Z01TX
Title: PARKING BRAKE: PARKING BRAKE SYSTEM: PROBLEM SYMPTOMS TABLE (2011 RAV4)		

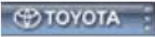
PROBLEM SYMPTOMS TABLE

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 drags	Parking brake lever travel (adjustment necessary)	INFO
	No. 1 parking brake cable (sticking)	INFO
	No. 2 parking brake cable (sticking)	INFO
	No. 3 parking brake cable (sticking)	INFO
	Parking brake shoe clearance (adjustment necessary)	INFO
	Shoe return tension spring (damaged)	INFO



cardiagn.com