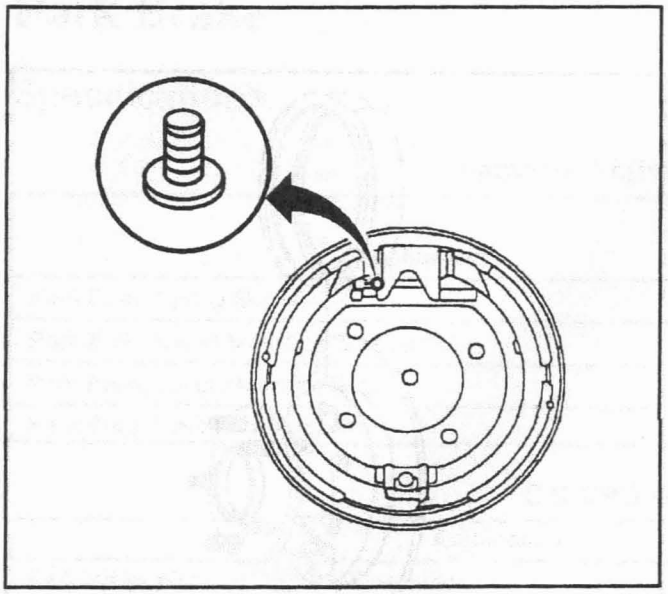
Don't use this procedure, use on on last page.



144129

Rear Brake tightening torque values: (page 5-72)

* caliper bracket to mounting plate: 52 ft-lbs
* guide-pin bolt: 23 ft-lbs
* mounting brake nut: 47 ft-lbs
* brake hose fitting: 40 ft-lbs

Park Brake Shoe Adjustment

The park brake must be adjusted any time the park brake cables have been replaced or disconnected, if the park brake shoes have been replaced or if under heavy foot pressure the pedal travel is less than half the pedal total travel. Before adjusting the park brake, check the condition of the service brakes. Refer to *Brake Pad Inspection*.

1. Raise the vehicle and support the vehicle with safety stands. Refer to *Lifting and Jacking the Vehicle* in General Information.
2. Remove the wheel and tire assembly. Refer to *Tire and Wheel Removal and Installation*.
3. Remove the caliper. Refer to *Brake Caliper Replacement - Rear*.
4. Remove the rotor. Refer to *Brake Rotor Replacement - Rear*.
5. Remove the park brake cable from the park brake lever.
6. Adjust the shoe diameter using the adjuster nut.
7. Turn the adjuster nut clockwise to increase the diameter until the rear wheel will not rotate without excessive force in a forward direction.
8. Connect the park brake cable to the park brake lever.
9. Install the caliper. Refer to *Brake Caliper Replacement - Rear*.
10. Install the rotor. Refer to *Brake Rotor Replacement - Rear*.
11. Install the wheel and the tire.
12. Adjust the rear park brake cables. Refer to *Park Brake Cable Service/Adjustment*.
13. Install the wheel and tire assembly. Refer to *Tire and Wheel Removal and Installation*.
14. Remove the safety stands and lower the vehicle.

Park Brake Lubrication Procedure

Clean and lubricate the park brake lever assembly with Lubriplate GM P/N 1050109 or the equivalent.

Plastic coated parking brake cables do not need periodic lubrication. However, before doing service which involves the adjuster, clean the exposed threads on each side of the nut, and lubricate the threads of the adjusting rod with Lubriplate GM P/N 1050109 or the equivalent before turning the nut.

PN 1050109 superceded by 89021668
89021668 is a PTFE based spray lubricant

Park Brake Cable Service/Adjustment

The park brake must be adjusted any time the park brake cables have been replaced or disconnected, or if under heavy foot pressure the pedal travel is less than half the pedal total travel. Before adjusting the park brake, check the condition of the service brakes. Refer to *Brake Drum Inspection* or *Brake Pad Inspection* in Disc Brakes. The rear brakes must be adjusted properly before adjusting the park brake.

1. Block the front wheels.
2. Raise the rear axle and support the rear axle with safety stands.
3. Loosen the equalizer nut.
4. Fully release the park brake pedal.
5. Tighten the equalizer nut until the rear wheels will not rotate without excessive force in a forward direction.
6. Loosen the equalizer nut until there is little or no drag when the rear wheels are rotated in a forward direction.
7. Lower the vehicle.
8. Remove the blocks from the front wheels.

Description and Operation

System Description

The park brake system is applied by depressing the park brake pedal. Applying the park brake pedal places tension on the park brake cables, which actuates the rear park brake mechanism. The system mechanically forces the rear brake shoes against the brake drums, locking the rear brakes.

All vehicles, except the RWD pickups, are equipped with a four-wheel disc braking system. The park brake shoes on these vehicles are inside a brake drum which is part of a one-piece drum/rotor casting. The park brake shoes are mechanically applied to lock the rear wheels.

This section covers park brake component replacement and adjustment. The park brake must be adjusted any time the park brake cables have been replaced or disconnected, or if the park brake holding ability is inadequate. The lever on the disc brakes must also be properly seated when this procedure is performed.

The park brake is not designed for use in the place of service brakes and should be applied only after the vehicle is brought to a complete stop, except in an emergency. Before working on the park brake system, make sure the service brakes are in good working order and adjusted properly.

Park Brake Lever

The park brake lever is located on the left side of the driver's compartment and is activated by foot pressure. The lever assembly has a clutch mechanism in it to allow varying degrees of park brake application. The park brake release handle under the instrument panel allows the driver to release the park brake and control the foot lever release velocity.

Cable System

The park brake uses a cable system that includes one front cable and two rear cables. The front cable connects to the park brake lever on one end and the equalizer on the other end. The rear cables attach to the equalizer on one end and to either the park brake struts in the drum brakes, or the lever on the disc brakes on the other end.

Notice: Handling of the parking brake cables during service requires extra care. Damage to the nylon coating reduces the corrosion protection. If the damaged area passes through the seal, increased parking brake effort could result. Avoid contacting the coating with sharp-edged tools, or the sharp surfaces of the vehicle underbody.

This vehicle is equipped with coated park brake cable assemblies. The wire strand is coated with a nylon material that slides over plastic seals inside the conduit end fittings. This is for corrosion protection and reduced park brake effort.

Parking Brake Adjustment
2017 06 16

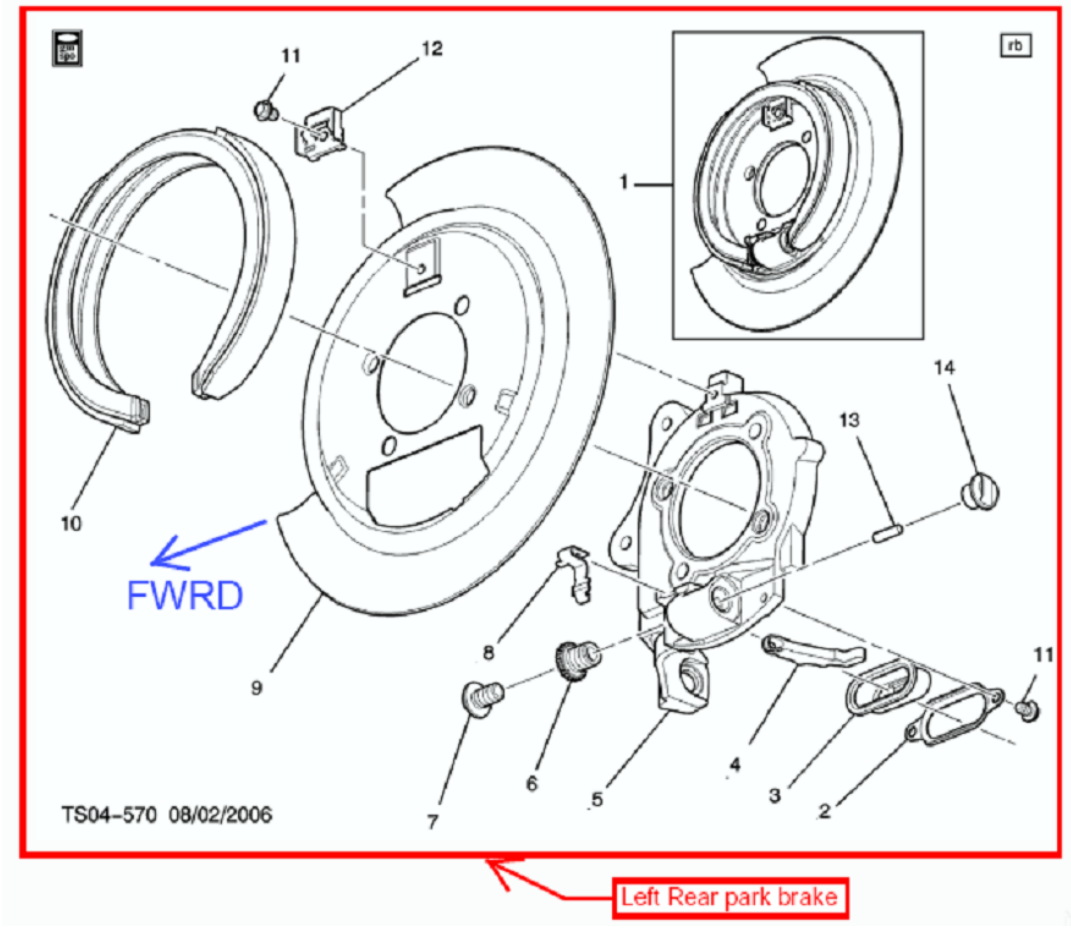
Pictures show park brake pedal at full release and full depression. The two marks show the amount to which the pedal needs to be depressed to secure the truck on a slope of 15 degrees and 19 degrees.

Procedure:

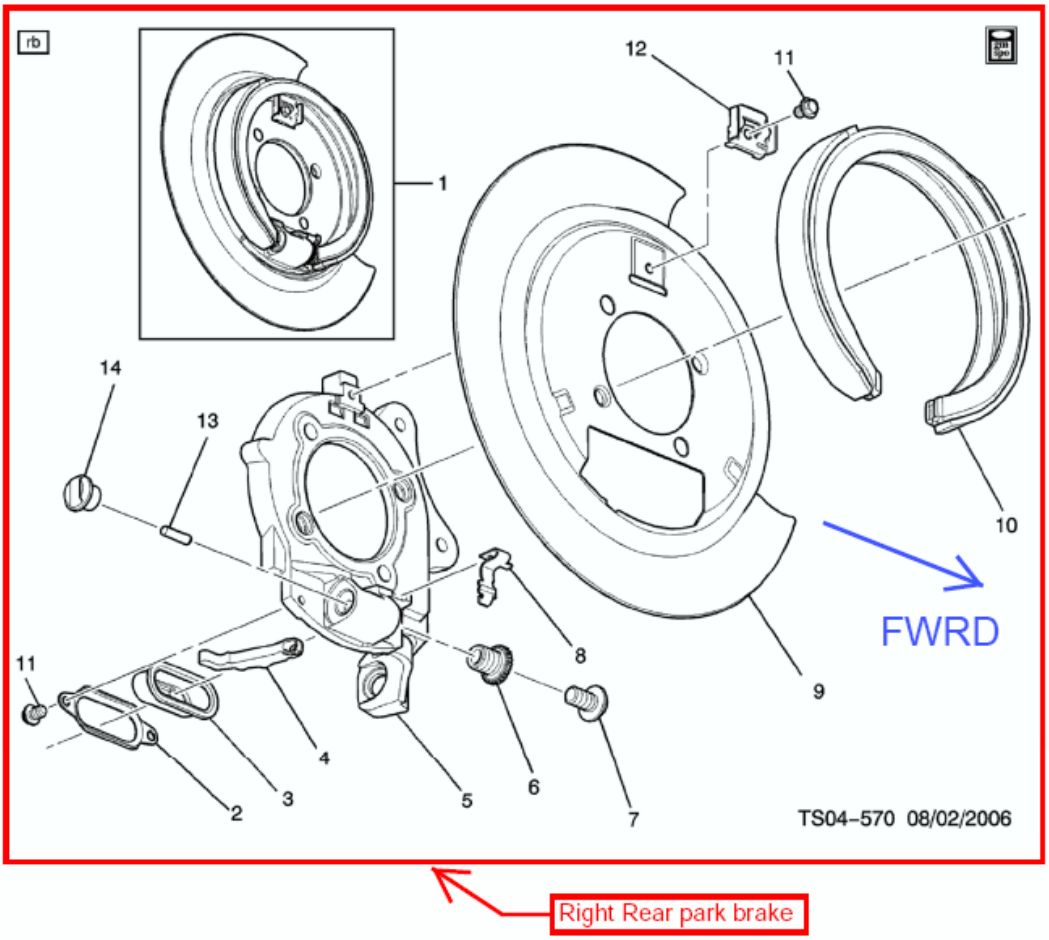
- Block front tires and jack up rear of truck at rear axle. Remove tires. Release park brake pedal.
- Loosen nut on equalizer mechanism on front park brake cable located approximately under the driver's seat. (This may need some penetrant to loosen. A small wrench, 6 mm?, can be used to keep the threaded rod from rotating while the nut is loosened.
- For both sides, remove brake caliper, brake pads, caliper mount, and rotor.
- Remove any rust on inner edge of park brake drum on inside of rotor that would add any resistance to installing or removing the rotor. 60 grit sandpaper works well on the rusty lip.
- Adjustment:
  - Adjust one side at a time with the rotor removed on the side not being adjusted.
  - Turn adjustment screw so that it is about ⅛ to ¼ turn shy of making shoes too large to easily put rotor on or take off.
  - Reinstall the rotor with three lug nuts so that the rotor is seated against the axle flange. (The wheel may be installed too. With the wheel installed, the adjustment can be done with a bit more sensitivity.)
  - Engage and then release the parking brake mechanism by pulling down on the loosened park brake cable under the driver's seat or by pushing the park brake mechanism lever on the brake mounting plate to center the parking brake shoes.
  - Now test for ease of rotation of the rotor. When the park brakes shoes are properly adjusted, rotating the wheel with the rotor installed (or rotating the rotor with only the rotor installed) can cause some light scraping sounds. The goal is to be able to remove the rotor easily with the adjusters as expanded as much as possible to minimize the distance between the shoe surfaces and the drum surfaces. This is why removing rust that can form a lip for the drum surface needs to be done.
  - If there is no light scraping sound and the rotor is easy to remove after the test, remove the wheel and rotor and readjust the adjuster and retest until you get some noticeable resistance, i.e., more than light scraping, and the rotor cannot be removed easily. If you are not sure, reengage the park-brake mechanism to recenter the shoes. Once you have some noticeable resistance and the rotor is not removed easily, remove the rotor again and back off the adjuster by about 1/8 of a turn and retest to confirm that there is free motion and the rotor is easily removed.
  - The goal is to have the park brake mechanism on each wheel engage at the same time. See 1999 service manual page 5-132 "**Park Brake Cable Service/Adjustment.**"
- Reinstall all brake parts and install wheels.
  - With rear still elevated, installed rear tires.
  - With the park brake pedal released, tighten nut at equalizer mechanism until rear wheels do not easily rotate in forward direction.
  - Back off nut at equalizer just enough so that the wheels can rotate freely without much extra effort.

Park brake pedal at full depression:

Park brake pedal at full release:



Left Rear park brake



Right Rear park brake