

# Park Brake

## Specifications

### Fastener Tightening Specifications

Application	Specification	
	Metric	English
Hold Down Spring Screw	4 N·m	35 lb in
Park Brake Cable Mounting Bracket Bolt	17 N·m	12.6 lb ft
Park Brake Lever Mounting Bolts	25 N·m	18 lb ft
Park Brake Lever Mounting Nut	25 N·m	18 lb ft

### GM SPO Group Numbers

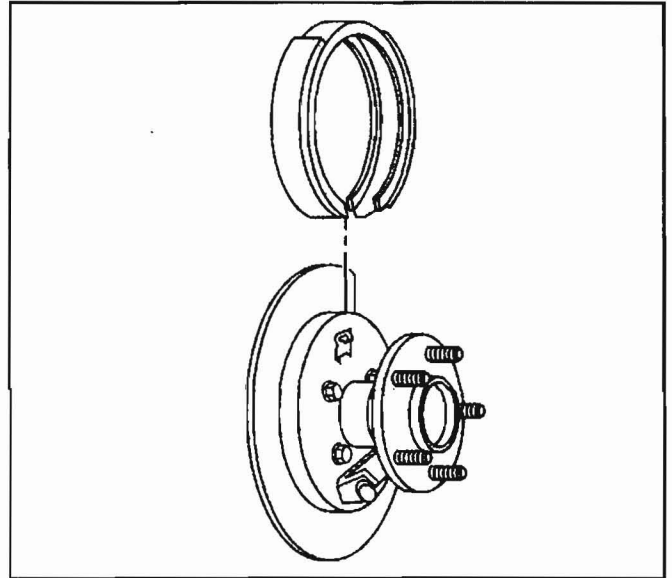
Application	GM SPO Group Number
Park Brake Alarm Switch and Connector	4.589
Park Brake Apply Lever	4.591
Park Brake Cable	4.779
Park Brake Cable Bracket, Clip, Grommet, Guide and Strap	4.785
Park Brake Cable Spring	4.784
Park Brake Release Handle	4.594
Park Brake Rod Connector, Equalizer, Nut and Retainer	4.765

## Repair Instructions

### Park Brake Shoe Replacement

#### Removal Procedure

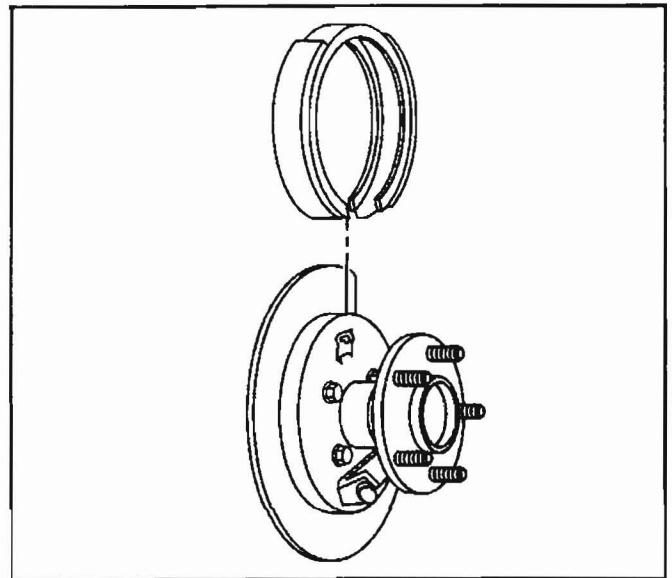
1. Raise the suitably support the vehicle. Refer to *Lifting and Jacking the Vehicle in General Information*.
2. Remove the wheel and the tire. Refer to *Tire and Wheel Removal and Installation in Tires and Wheels*.
3. Remove the caliper. Refer to *Brake Caliper Replacement - Rear*.
4. Remove the rotor. Refer to *Brake Rotor Replacement - Rear*.
5. Remove the park brake cable from the park brake lever.
6. Remove the park brake shoe assembly by sliding the shoe towards the hold down spring until the shoe is disengaged from the spring.
7. Remove the shoe from the actuation mechanism.
8. Clean the debris and the dust from the park brake components using a clean towel.
9. Turn the adjustment screw to the fully home position in the notched adjustment nut, then back it off ¼ turn.
10. Align the slots in both the adjusting screw and tappet to be parallel with the backing plate face.



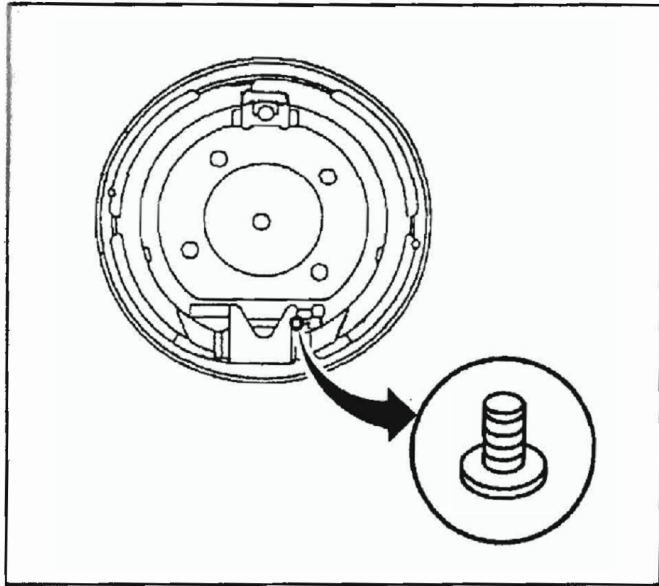
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#### Installation Procedure

1. Install a new park brake shoe.
2. Position the shoe on the inboard side of the actuation mechanism.
3. Clip the shoe on the hold down spring.
4. Inspect the shoe assembly position. The shoe must be central on the backing plate and with both tips located in the slots.
5. Manually check the park brake for proper operation.
6. Install the park brake cable to the park brake lever.
7. Adjust the park brake shoe.
8. Install the caliper. Refer to *Brake Caliper Replacement - Rear*.
9. Install the rotor. Refer to *Brake Rotor Replacement - Rear*.
10. Install the tire and wheel. Refer to *Tire and Wheel Removal and Installation in Tires and Wheels*.
11. Lower the vehicle.



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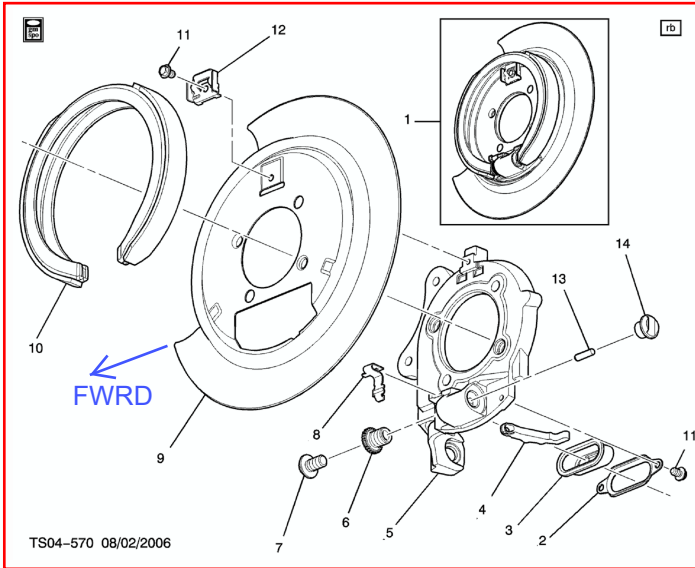


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### Park Brake Shoe Adjustment

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.



TS04-570 08/02/2006

Left Rear park brake

### Park Brake Lubrication Procedure

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

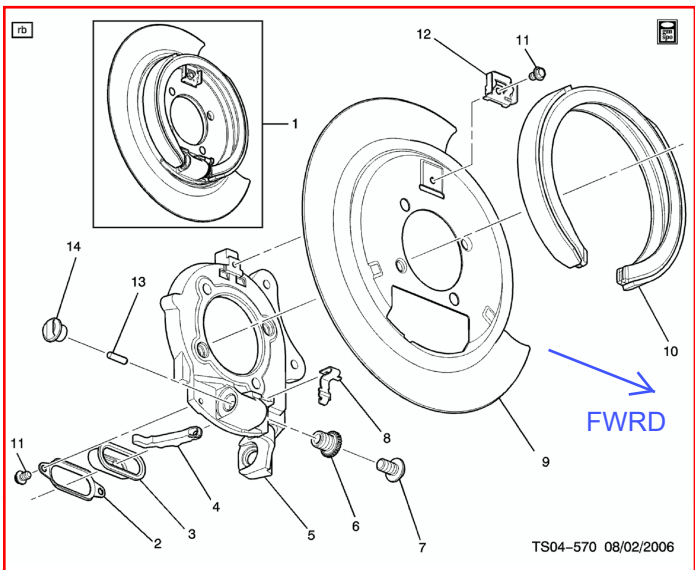
Plastic coated parking brake cables do not need periodic lubrication. However, before doing service which involves the adjuster, clean the exposed threads on each side of the nut, and lubricate the threads of the adjusting rod with Lubriplate GM P/N 1050109 or the equivalent before turning the nut.

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

\* When adjusting the park brake adjuster nut, be sure that the park brake lever on the wheel is fully in its released position. This ensures that the shoes are fully retracted when test-fitting the rotor.

Between adjustments, apply the park brake lever to expand the shoes to the inside of the rotor drum.

The rotor may be hard to remove while free to rotate. The adjustment nut should be turned just enough to allow free rotation of the rotor with slight drag. The difference between free to rotate with slight drag and too tight can be a quarter of a turn.



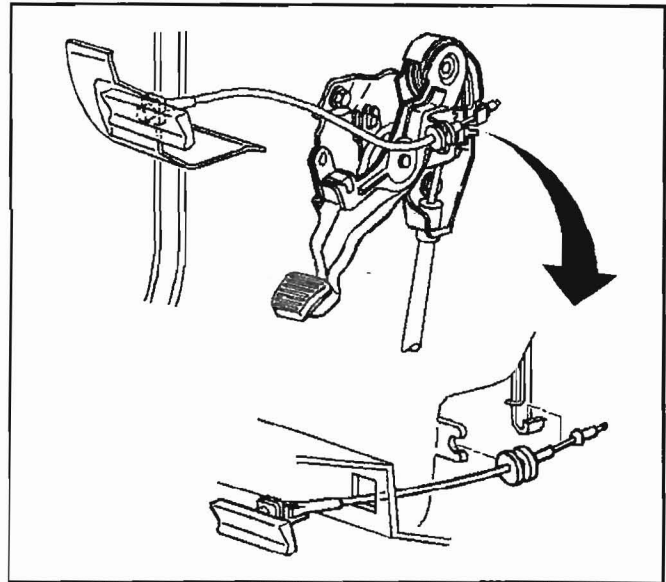
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Right Rear park brake

## Park Brake Lever Replacement

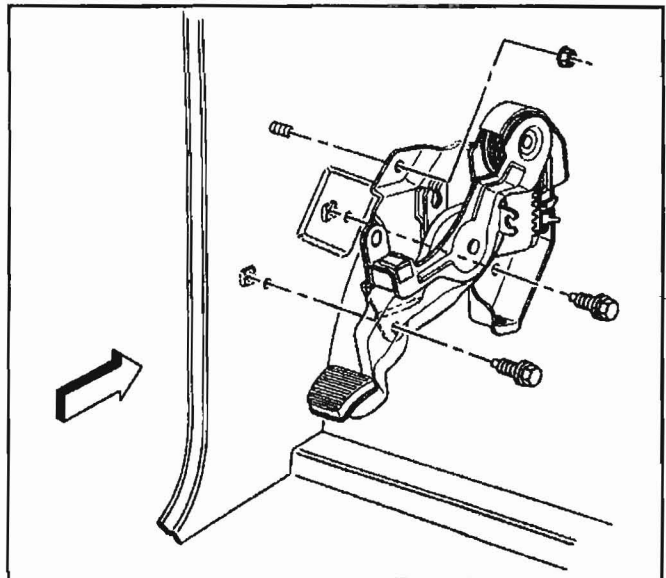
### Removal Procedure

1. Release the park brake.
2. Remove the left I/P sound insulator. Refer to *Closeout/Insulator Panel Replacement - Left* in Instrument Panel, Gauges, and Controls.
3. Loosen the front cable at the equalizer.
4. Remove the brake release handle.



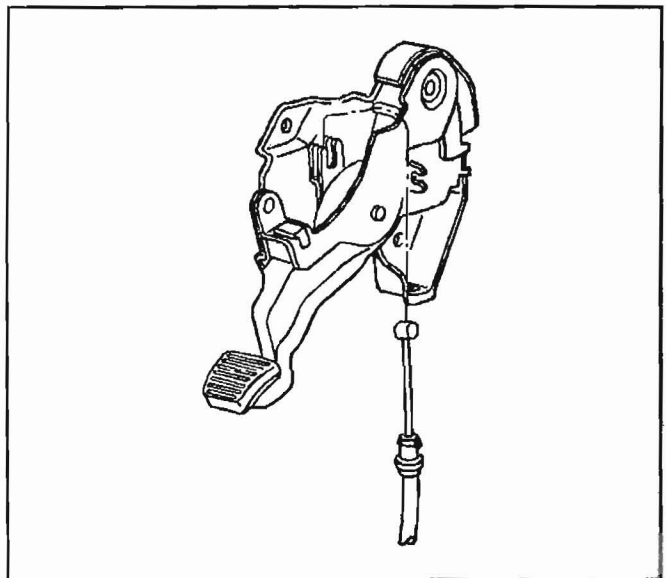
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5. Remove the mounting bolts and nut.
6. Remove the lever assembly.

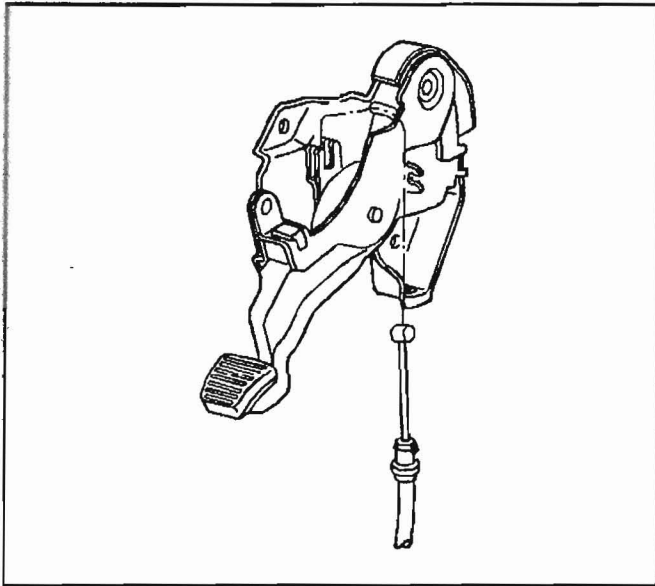


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7. Disconnect the cable from the lever.
8. Remove the brake cable retainer from the park brake lever bracket. Press in on the retaining fingers in order to remove.
9. Inspect the brake cable for fraying, binding or kinking.
10. Replace frayed, bound, or kinked brake cable.



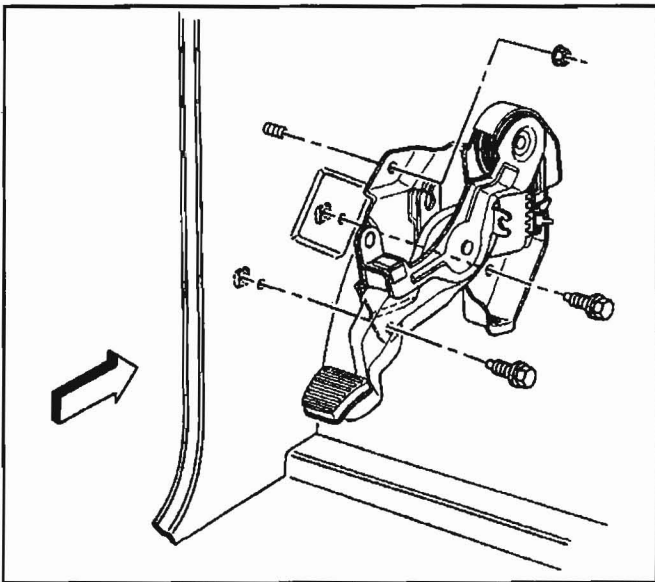
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### Installation Procedure

1. Lubricate the park brake assembly. Refer to *Park Brake Lubrication Procedure*.
2. Install the front brake cable to the brake lever assembly.
3. Install the brake cable retainer into the park brake lever bracket. Verify the brake cable retainer fingers expand when the retainer is inserted into the park brake lever bracket.



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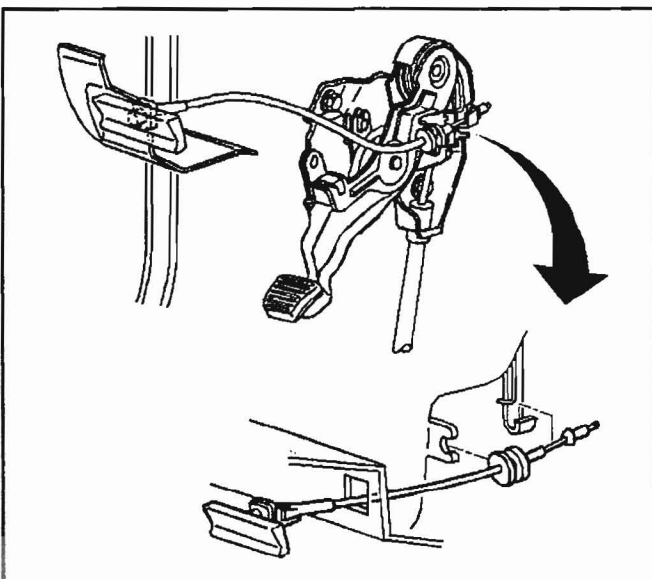
4. Install the brake lever assembly.

**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

5. Install the park brake lever mounting bolts and the nut.

#### Tighten

Tighten the bolts and the nut to 25 N·m (18 lb ft).



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6. Install the brake release handle.
7. Install the left side sound insulator. Refer to *Closeout/Insulator Panel Replacement - Left* in Instrument Panel, Gauges, and Controls.
8. Adjust the park brake cable. Refer to *Park Brake Cable Service/Adjustment*.

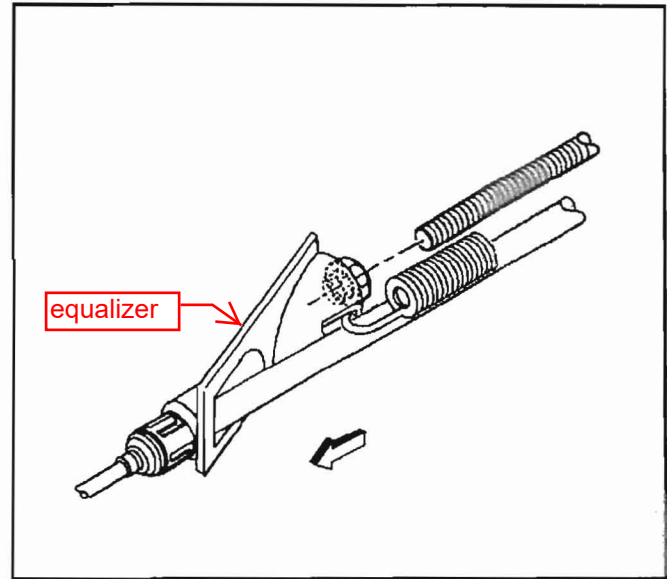
### Park Brake Cable Inspection

Inspect the park brake for smooth operation. The brake lever must return to the released position without sticking or binding. If a problem is present, check the cables for kinks or binding.

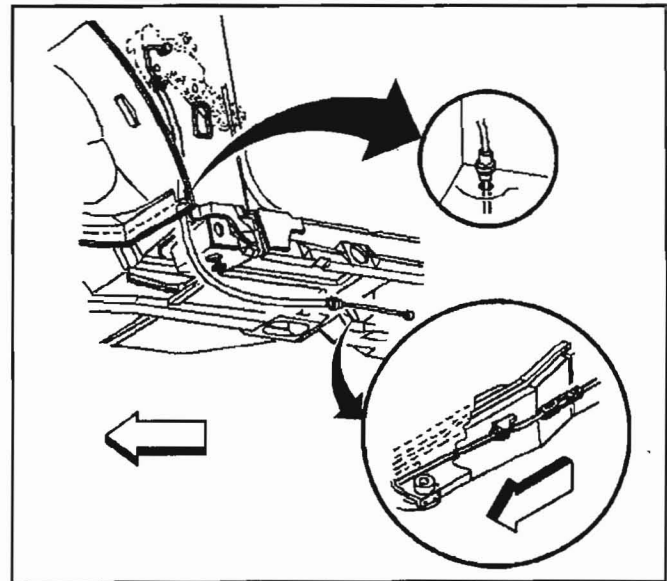
### Park Brake Cable Replacement - Front

#### Removal Procedure

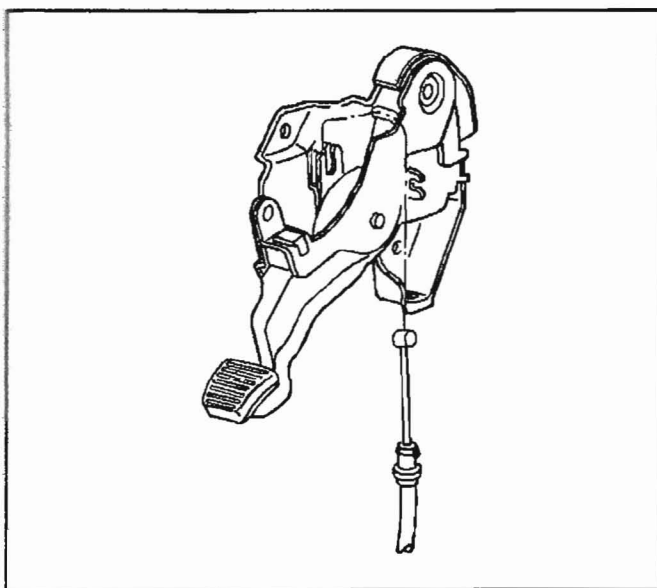
1. Raise the vehicle and support the vehicle with safety stands. Refer to *Lifting and Jacking the Vehicle* in General Information.
2. Disconnect the right rear cable at the equalizer.
3. Remove the retainer.
4. Disconnect the left side sound insulator panel. Refer to Instrument Panel Sound Insulator Replacement in Interior Trim.
5. Remove the retainer and the grommet.



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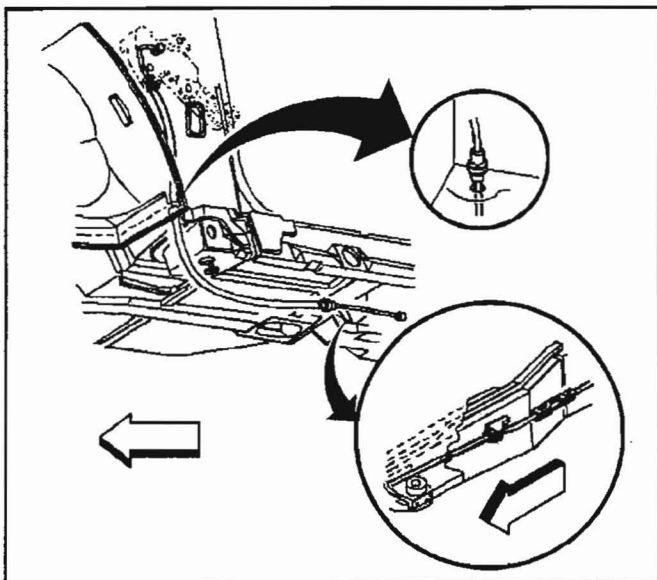


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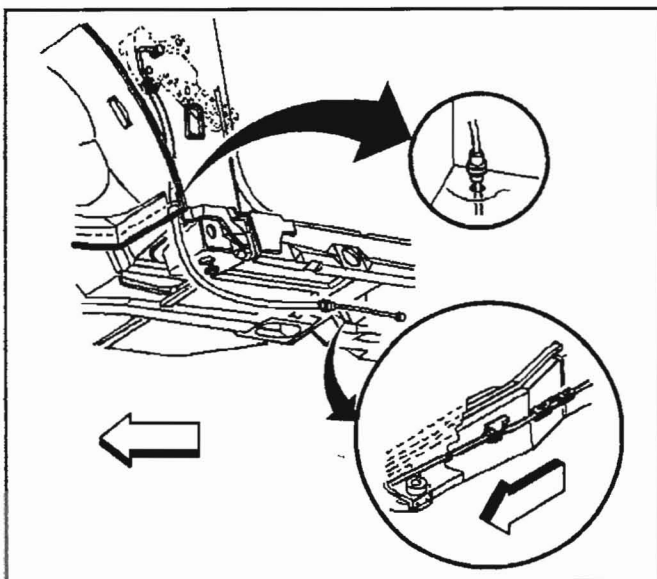
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6. Disconnect the cable from the lever.



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7. Disconnect the front cable.

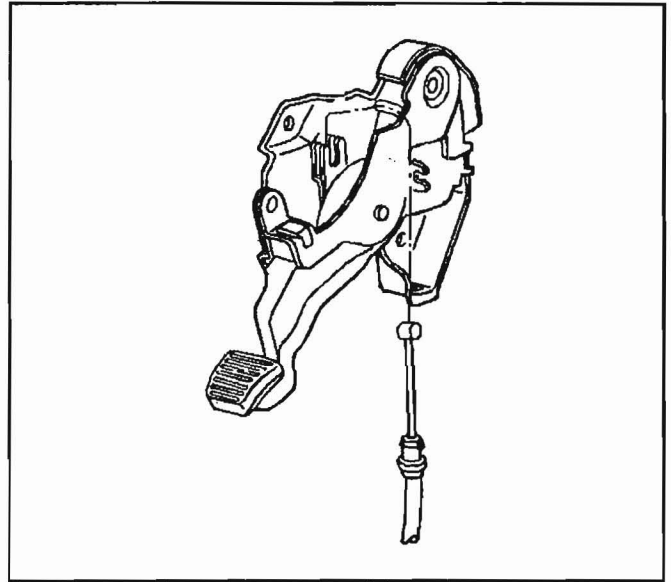


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**Installation Procedure**

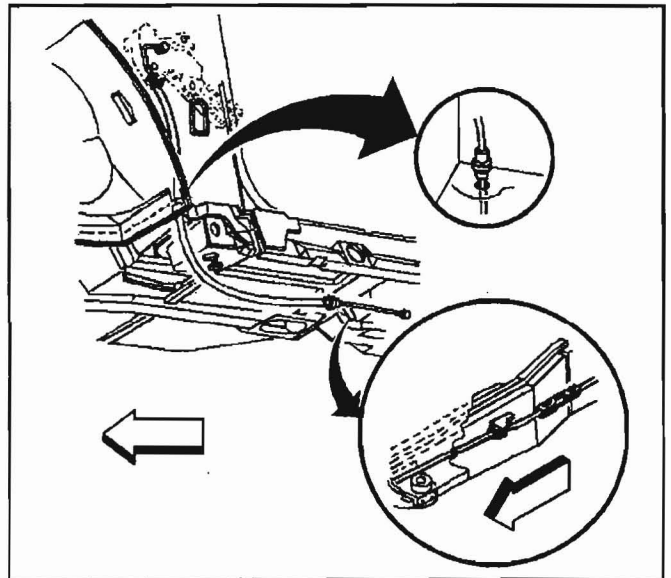
1. Install the front cable.

2. Connect the retainer and the grommet. All retaining fingers must be completely through the hole.
3. Connect the cable to the lever.
4. Install the left side sound insulator panel. Refer to Instrument Panel Sound Insulator Replacement in Interior Trim.



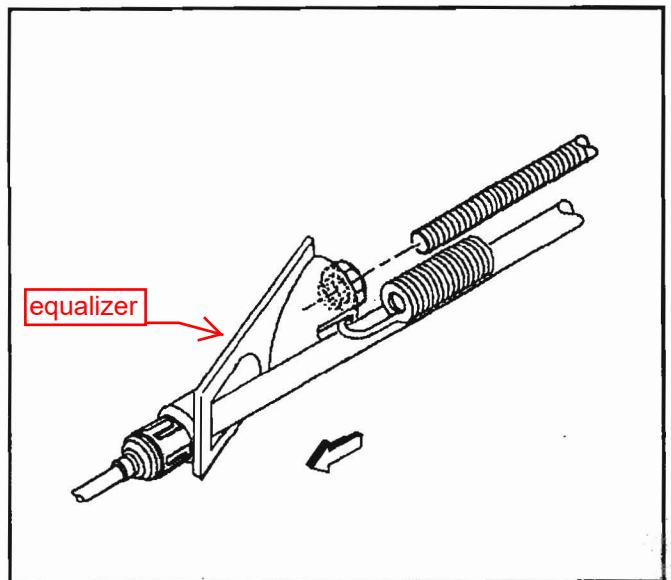
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5. Install the retainer.

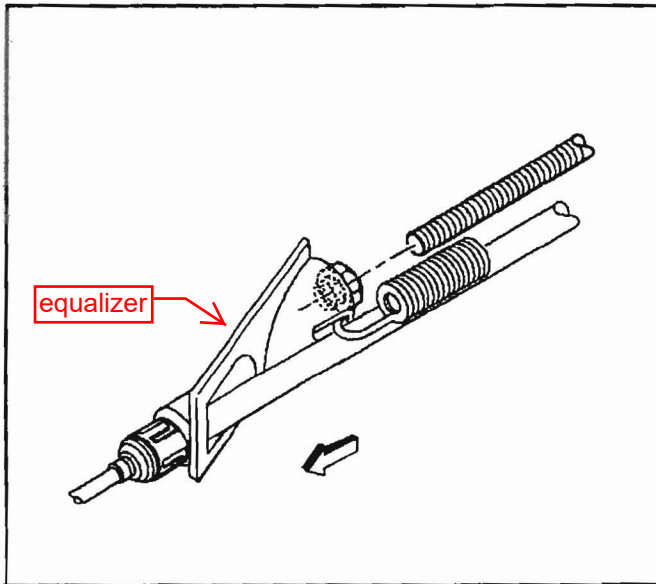


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6. Connect the right rear cable to the equalizer and to the nut.
7. Adjust the park brake. Refer to *Park Brake Cable Service/Adjustment*.
8. Lower the vehicle.



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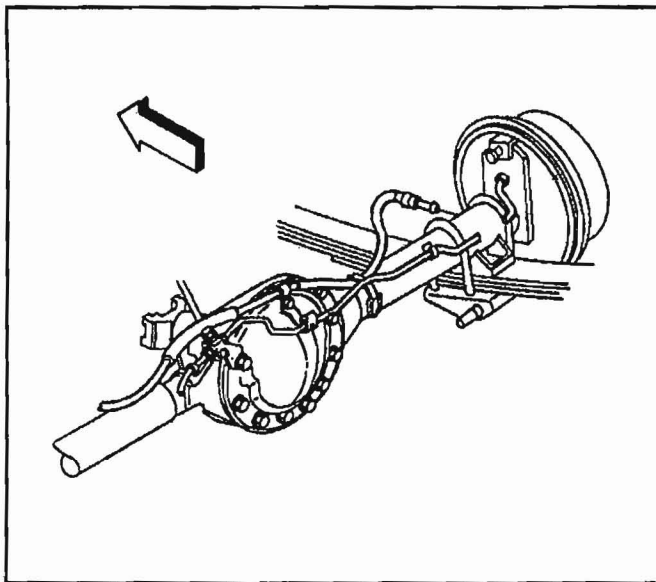


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## Park Brake Cable Replacement - Rear (RWD Pickups)

### Removal Procedure

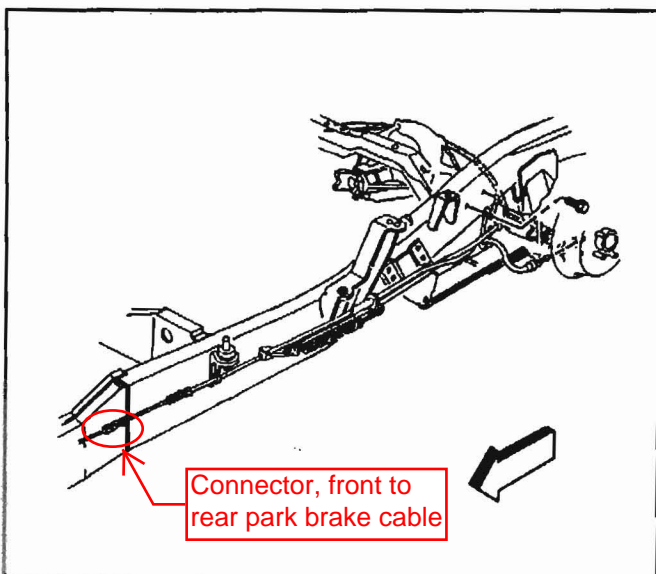
1. Release the park brake.
2. Raise the vehicle and support the vehicle with safety stands. Refer to *Lifting and Jacking the Vehicle* in General Information.
3. Lubricate the park brake cable adjuster. Refer to *Park Brake Lubrication Procedure*.
4. Loosen the adjuster nut at the equalizer.
5. Remove the front parking brake cable from the rear parking brake cables.
6. Remove the brake drum(s) and the brake shoes. Refer to *Brake Shoe Replacement* in Drum Brakes.
7. Disconnect the rear cable from the park brake lever.
8. Disconnect the rear cable(s) attachments from the frame and/or axle and/or equalizer.
9. Disconnect the cable retainer at the backing plate. Push the cable retainer fingers in to disconnect.
10. Remove the rear cable from the vehicle.



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### Installation Procedure

1. Connect the rear park brake cable(s) to the park brake lever.
  - 1.1. Slide the brake cable into the brake backing plate opening.
  - 1.2. Install the cable retainer into the backing plate.
  - 1.3. Verify the cable retainer fingers expand when the cable retainer is inserted into the backing plate.
  - 1.4. Pull the cable end fitting as far rearward as possible.
  - 1.5. Install the cable end fitting into the parking brake lever.
2. Install the brake shoes and drum(s). Refer to *Brake Shoe Replacement* in Drum Brakes.



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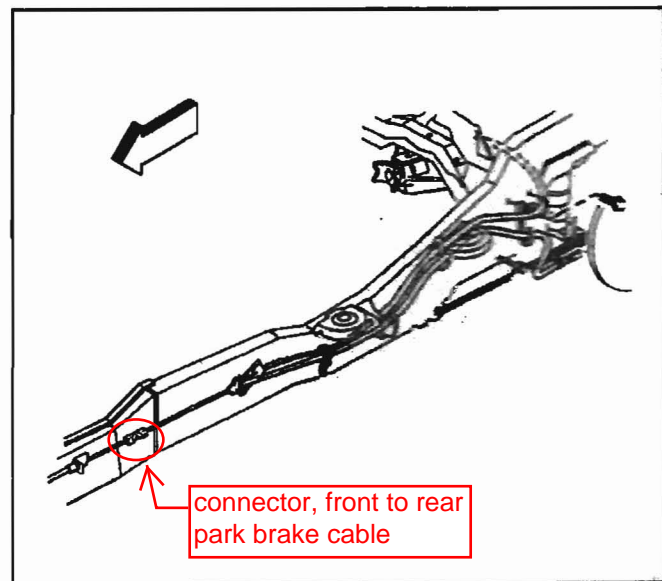
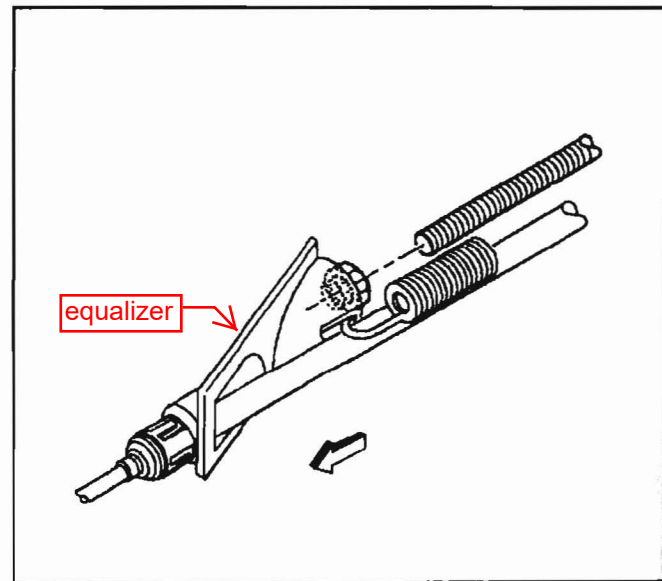
**Important:** When routing the cable(s) through the guide loop, route the left side cable first.

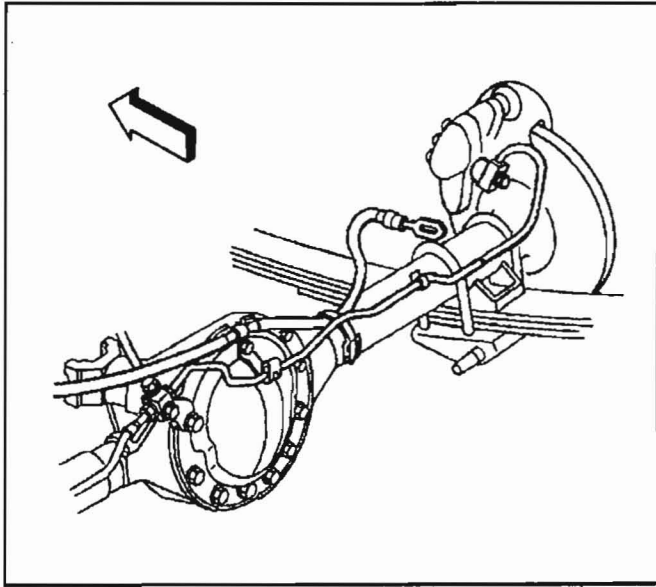
3. Route the rear cable(s) through the attachments and guides at the frame and/or axle and/or equalizer.
4. Verify the cable retainers fingers expanded and the retainers are secure at all locations for cable(s) removed.
5. Strap the right rear park brake cable tight against the rear axle.
  - 5.1. Tighten the strap so it does not move along the rear axle.
  - 5.2. Secure the loose end of the strap back through the tabs in the buckle.
6. Adjust the park brake. Refer to *Park Brake Cable Service/Adjustment*.
7. Lower the vehicle.

### Park Brake Cable Replacement - Rear (4WD Pickups and Utilities)

#### Removal Procedure

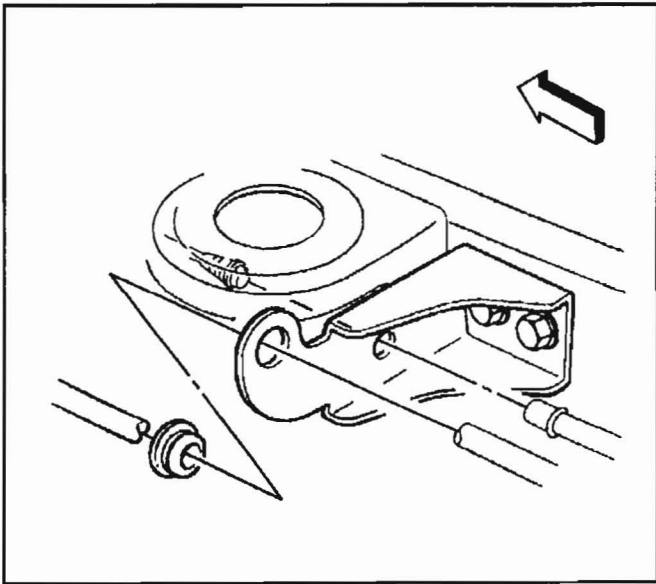
1. Release the park brake.
2. Raise the vehicle and support the vehicle with safety stands. Refer to *Lifting and Jacking the Vehicle* in General Information.
3. Loosen the front cable at the equalizer.
  4. Disconnect the front cable connector from the rear park brake cable.





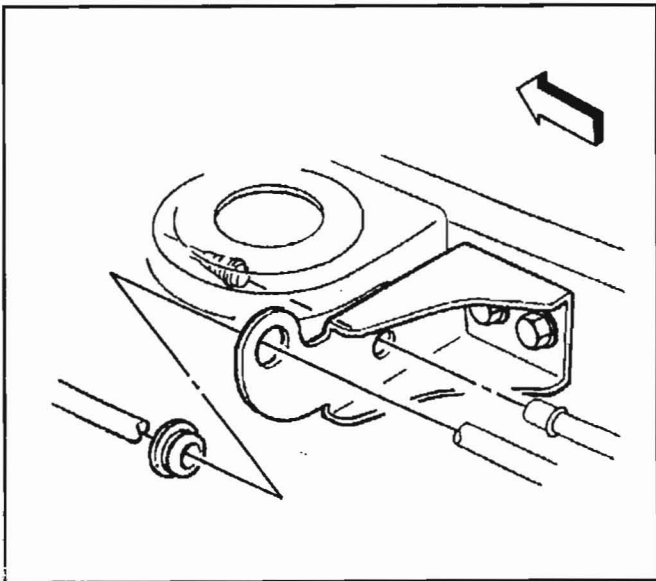
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5. Disconnect the cable from the park brake lever at the rear axle.
6. Unclip the park brake cables from the rear axle differential retainer.



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7. Route the cables through the cable bracket.
8. Remove the rear park brake cable assembly.

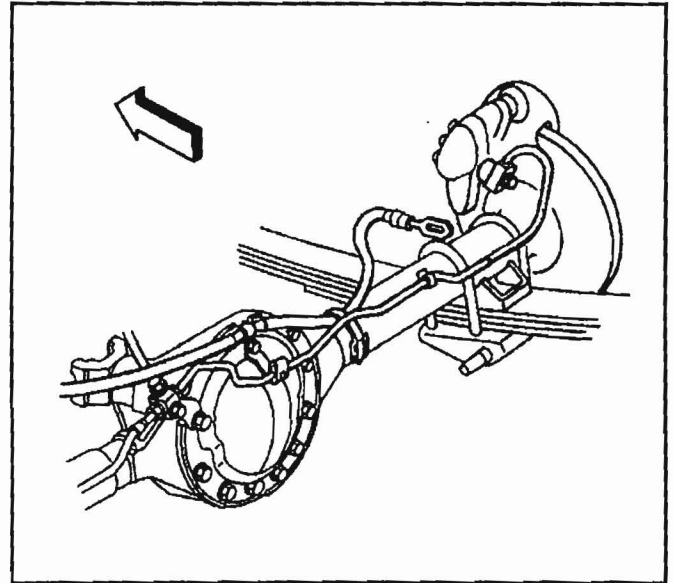


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### Installation Procedure

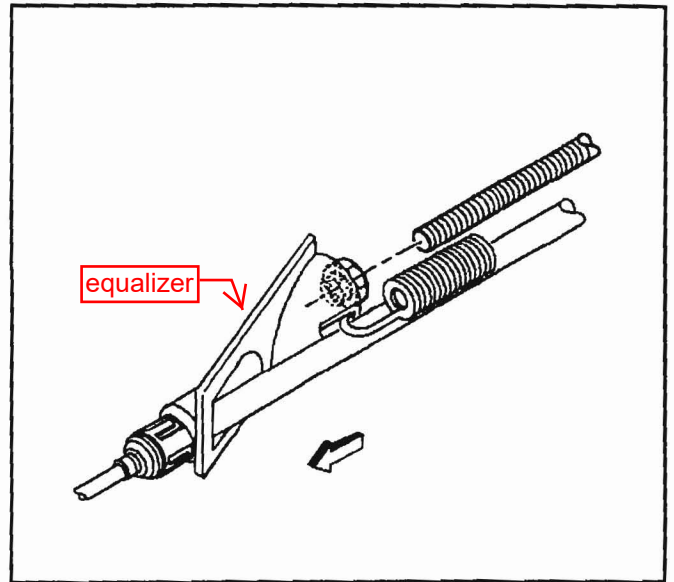
1. Route the cables through the cable bracket.
2. Connect the rear park brake cable to the lever.

3. Install the cable to the park brake lever at the rear axle.
4. Clip the park brake cables to the rear axle differential retainer.



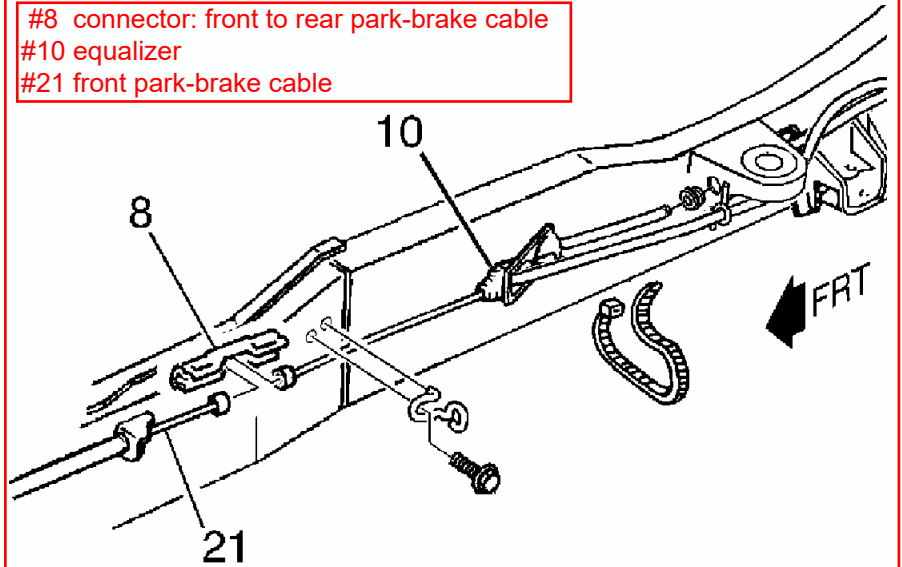
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5. Install the front cable at the equalizer.
6. Adjust the park brake shoes. Refer to *Park Brake Shoe Adjustment*.
7. Adjust the park brake cable. Refer to *Park Brake Cable Service/Adjustment*.



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#8 connector: front to rear park-brake cable  
 #10 equalizer  
 #21 front park-brake cable



## 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.