Park Brake - Corvette

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Actuator Mounting Bolts	70 N.m	52 lb ft
Parking Brake Lever Assembly Mounting Bolts	28 N.m	21 lb ft
Parking Brake Lever Boot Nuts	10 N.m	89 lb in

DIAGNOSTIC INFORMATION AND PROCEDURES

DIAGNOSTIC STARTING POINT - PARK BRAKE

Begin the system diagnosis by reviewing the system description and operation. Reviewing the description and operation information will help you determine the correct symptom diagnostic procedure when a malfunction exists. Reviewing the description and operation information will also help you determine if the condition described by the customer is normal operation. Refer to **Symptoms - Park Brake** in order to identify the correct procedure for diagnosing the system and where the procedure is located.

SYMPTOMS - PARK BRAKE

IMPORTANT: Review the system operation in order to familiarize yourself with the system functions.

Refer to **Park Brake System Description and Operation** .

Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the park brake system.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

Symptom List

Refer to a symptom diagnostic procedure from the following list in order to diagnose the symptom:

Park Brake Will Not Hold or Release

PARK BRAKE WILL NOT HOLD OR RELEASE

Park Brake Will Not Hold or Release

Step	Action	Yes	No
1	Were you sent here from the Park Brake Symptom table?	Go to **Step 2**	Go to **Diagnostic Starting Point - Park Brake**
2	Inspect the park brake system for proper operation. Refer to **Park Brake System Diagnosis** . Did you find and correct a condition?	Go to **Step 5**	Go to **Step 3**
3	Inspect the disc brake system for proper operation. Refer to **Disc Brake System Diagnosis** in Hydraulic Brakes. Did you find and correct a condition?	Go to **Step 5**	Go to **Step 4**
4	Inspect the hydraulic brake system for proper operation. Refer to **Hydraulic Brake System Diagnosis** in Hydraulic Brakes. Did you find and correct a condition?	Go to **Step 5**	Go to **Diagnostic Starting Point - Park Brake**
5	Road test the vehicle in order to confirm proper operation. Refer to **Brake System Vehicle Road Test** in Hydraulic Brakes. Is the condition still present?	Go to **Step 2**	System OK

PARK BRAKE SYSTEM DIAGNOSIS

Park Brake System Diagnosis

Step	Action	Yes	No
DEFINITION: This diagnostic table is designed to diagnose ONLY the components of the PARK brake system in order to determine if the PARK brake system is operating properly. You will be directed by the appropriate Symptom table to go to other brake system diagnostic tables as appropriate.			
1	Were you sent here from a Hydraulic Brake Symptom table?	Go to **Step 4**	Go to **Step 2**
2	Were you sent here from a Park Brake Symptom table?	Go to **Step 4**	Go to **Step 3**
3	Is the symptom related to the ability of the park brake system to hold and/or release?	Go to **Diagnostic Starting Point - Park Brake**	Go to **Diagnostic Starting Point - Hydraulic Brakes** in Hydraulic Brakes
4	1. Raise and support the vehicle with the rear axle supported by jack stands. Refer to **Lifting and Jacking the Vehicle** in General Information. 2. Shift the transmission into NEUTRAL. 3. With the park brake RELEASED, attempt to rotate the rear wheels to check the rear brakes for a significant amount of drag. Do the rear brakes have a significant amount of drag?	Go to **Step 11**	Go to **Step 5**
	1. Shift the transmission into NEUTRAL. 2. Apply the park brake.		

5	3. Attempt to rotate the rear wheels to check the rear brakes for a significant amount of drag. Do the rear brakes have a significant amount of drag?	Go to **Step 6**	Go to **Step 7**
6	1. Release the park brake. 2. Rotate the rear wheels to check the rear brakes for a significant reduction in the amount of drag. Did the rear brakes exhibit a significant reduction in the amount of drag?	Go to **Step 21**	Go to **Step 11**
7	Visually inspect the park brake cable connections and the cables that are accessible on the UNDERSIDE of the vehicle for disconnections and/or damage. Were any of the park brake cables disconnected and/or damaged?	Go to **Step 8**	Go to **Step 9**
8	Reconnect or replace the park brake cables as necessary. Refer to the following procedures as necessary: • **Park Brake Cable Replacement - Front** • **Park Brake Cable Replacement - Rear** Did you complete the repair and/or replacement?	Go to **Step 9**	-
9	Check the adjustment of the park brake. Refer to **Park Brake Adjustment** . Was the park brake adjusted properly?	Go to **Step 11**	Go to **Step 10**
10	Adjust the park brake. Refer to **Park Brake Adjustment** . Were you able to adjust the park brake?	Go to **Step 16**	Go to **Step 11**
11	**NOTE:** **Do not depress the brake pedal with the brake rotors and/or the brake drums removed, or with the brake calipers repositioned away from the brake rotors, or damage to the brake system may result.** 1. Remove the rear brake rotors. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes. 2. Inspect the park brake shoe hardware for looseness, damaged, broken or missing components. 3. Check the park brake actuators for a seized condition. Does the park brake hardware and/or the park brake		

	actuators require replacement?	Go to **Step 12**	Go to **Step 13**
12	1. Replace park brake hardware components as necessary. Refer to **Park Brake Shoe Replacement** . 2. Replace the park brake actuators as necessary. Refer to **Park Brake Actuator Replacement** . Did you complete the replacement?	Go to **Step 13**	-
13	Have an assistant apply and release the park brake, while you observe the park brake cables for free movement. Did the park brake cables move freely?	Go to **Step 14**	Go to **Step 17**
14	Check the adjustment of the park brake. Refer to **Park Brake Adjustment** . Was the park brake adjusted properly?	Go to **Step 16**	Go to **Step 15**
15	Adjust the park brake. Refer to **Park Brake Adjustment** . Were you able to adjust the park brake?	Go to **Step 16**	Go to **Step 26**
16	1. With the transmission still in NEUTRAL, apply the park brake. 2. Attempt to rotate the rear wheels to check the rear brakes for a significant amount of drag. 3. Release the park brake. 4. Rotate the rear wheels to check the rear brakes for a significant reduction of drag. Did the park brake apply and release properly?	Go to **Step 28**	Return to Symptom Table
17	Disconnect the park brake cable connections that are accessible on the UNDERSIDE of the vehicle one at a time and check each cable for free movement. Do any of the park brake cables accessible on the underside of the vehicle require replacement?	Go to **Step 18**	Go to **Step 19**
18	Replace any of the park brake cables that do not have free movement - not releasing properly. Refer to the following procedures as necessary: • **Park Brake Cable Replacement - Front** • **Park Brake Cable Replacement - Rear** Did you complete the replacement?	Go to **Step 19**	-
	Disconnect the front park brake cable connection accessible INSIDE the vehicle at the park brake lever assembly and check for free movement.		

19	Replace the front park brake cable if it does not have free movement. Refer to **Park Brake Cable Replacement - Front** . Did you find and correct a condition?	Go to **Step 24**	Go to **Step 20**
20	Replace the park brake lever assembly - not releasing properly. Refer to **Park Brake Lever Assembly Replacement** . Did you complete the replacement?	Go to **Step 25**	-
21	Check the adjustment of the park brake. Refer to **Park Brake Adjustment** . Is the park brake adjusted properly?	Go to **Step 28**	Go to **Step 22**
22	Adjust the park brake. Refer to **Park Brake Adjustment** . Were you able to adjust the park brake?	Go to **Step 27**	Go to **Step 23**
23	1. Remove the rear brake rotors, if they have not yet been removed. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes. 2. Inspect the park brake actuators for a seized condition. 3. Replace the park brake actuators as necessary. Refer to **Park Brake Actuator Replacement** . Did you find and correct a condition?	Go to **Step 24**	Go to **Step 26**
24	Adjust the park brake. Refer to **Park Brake Adjustment** . Were you able to adjust the park brake?	Go to **Step 27**	Go to **Step 26**
25	Adjust the park brake. Refer to **Park Brake Adjustment** . Were you able to adjust the park brake?	Go to **Step 27**	Return to Symptom Table
26	1. Replace the component that is used to adjust the park brake system. Refer to **Park Brake Lever Assembly Replacement** . 2. Adjust the park brake. Refer to **Park Brake Adjustment** . Did you complete the replacement and adjustment?	Go to **Step 27**	Return to Symptom Table
27	1. With the transmission still in NEUTRAL, apply the park brake. 2. Attempt to rotate the rear wheels to check the rear brakes for a significant amount of drag. 3. Release the park brake. 4. Rotate the rear wheels to check the rear brakes for a significant reduction of drag.		

	Did the park brake apply and release properly?	Go to **Step 28**	Return to Symptom Table
28	Install or connect any components that were removed or disconnected during diagnosis. Did you complete the operation?	Park Brake System OK Return to Symptom Table	-

PARK BRAKE SHOE INSPECTION

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

1. Raise and suitably support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the rear brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.
3. Inspect and replace the park brake shoe and lining if any of the following conditions are found:
   - Excessive wear indicated by the park brake lining being worn down to the shoe
   - Brake lining cracking
   - Oil or fluid contamination
4. Adjust the park brake shoes if necessary. Refer to **Park Brake Adjustment** .
5. Install the rear brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.
6. Lower the vehicle.

REPAIR INSTRUCTIONS

PARK BRAKE SHOE REPLACEMENT

Removal Procedure

CAUTION: Refer to Brake Dust Caution in Cautions and Notices.

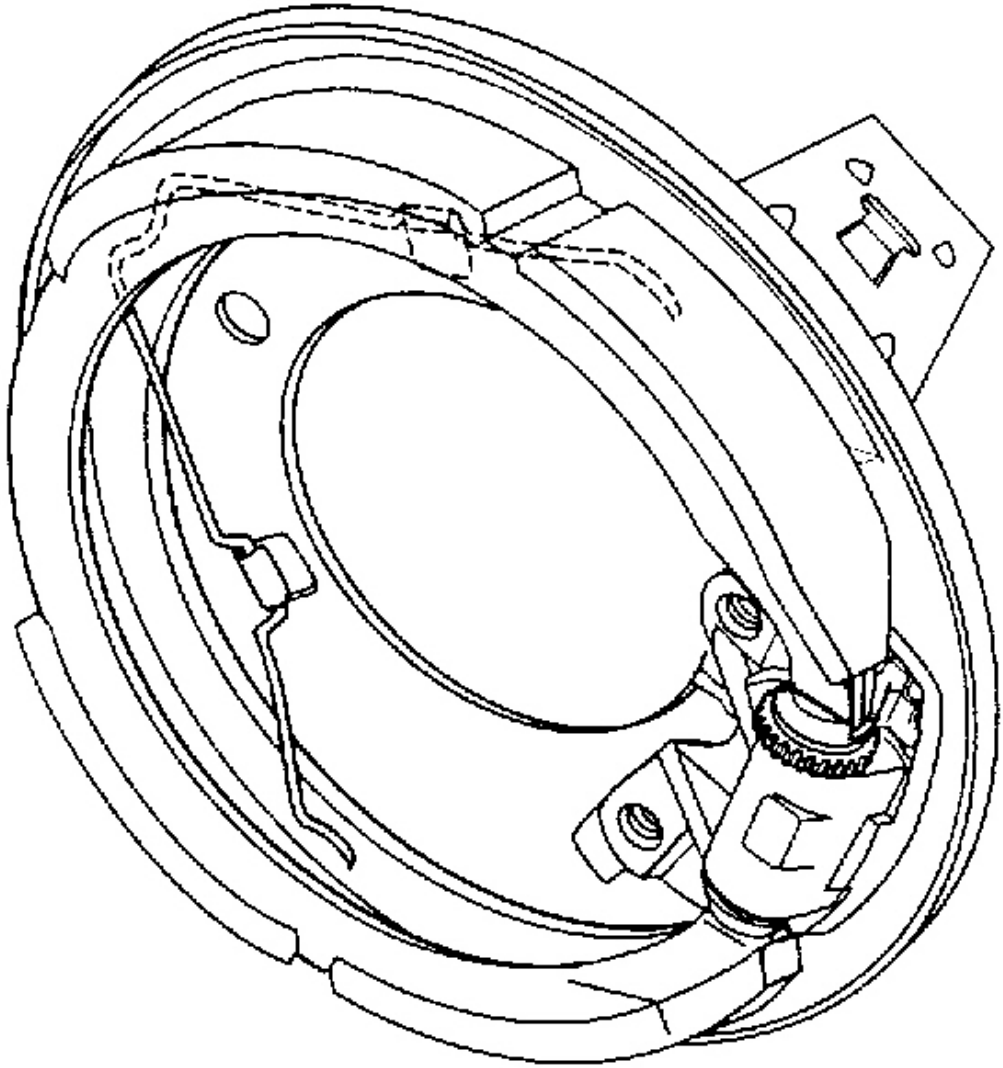


Fig. 1: View Of Drum Brake
Courtesy of GENERAL MOTORS CORP.

1. Remove the brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.
2. Remove the wheel bearing/hub. Refer to **Wheel Bearing/Hub Replacement - Rear** in Rear Suspension.
3. Rotate the parking brake adjusting nut until all park brake shoe adjustment has been removed.
4. Remove the parking brake shoe retaining spring.

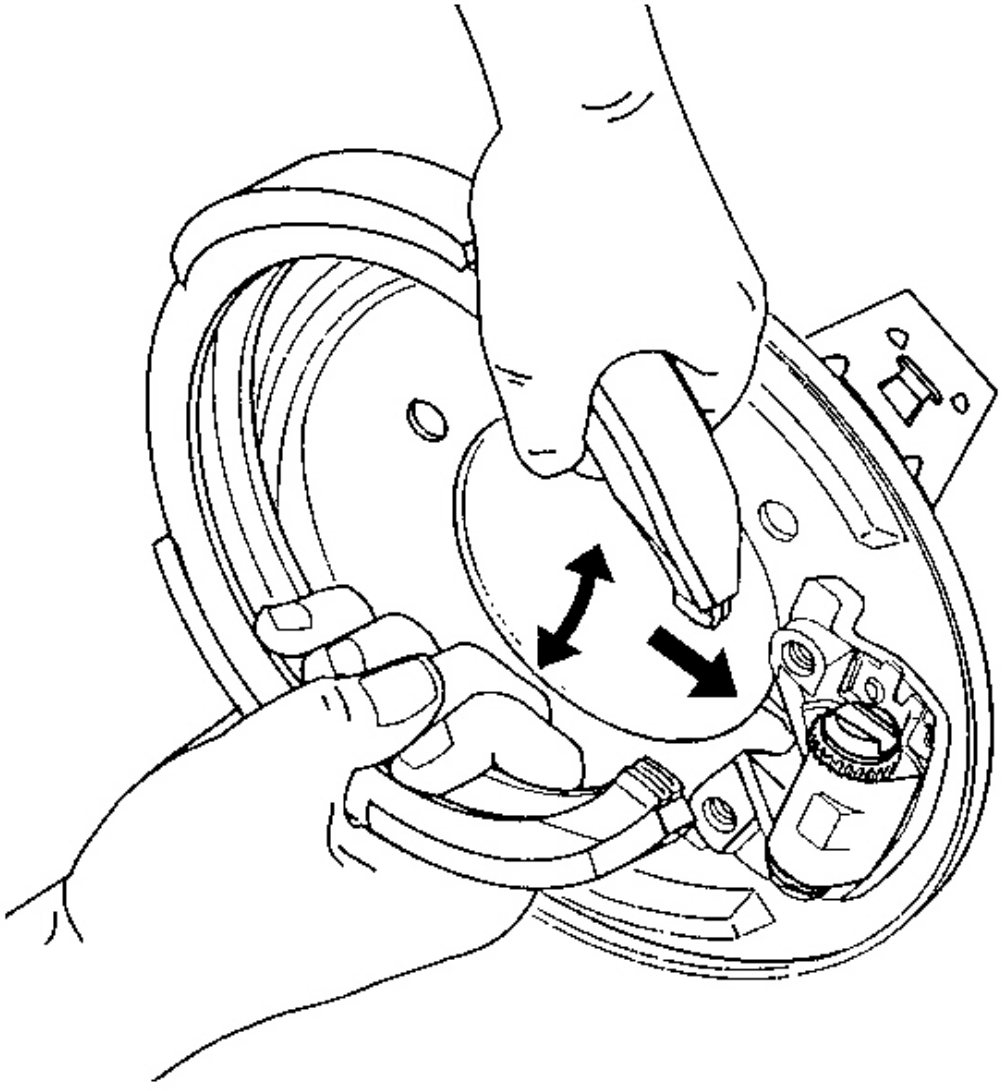


Fig. 2: Park Brake Shoe Assembly
Courtesy of GENERAL MOTORS CORP.

5. Remove the park brake shoe assembly by grasping the shoe and spreading slightly while pulling the shoe from the actuator assembly.

Installation Procedure

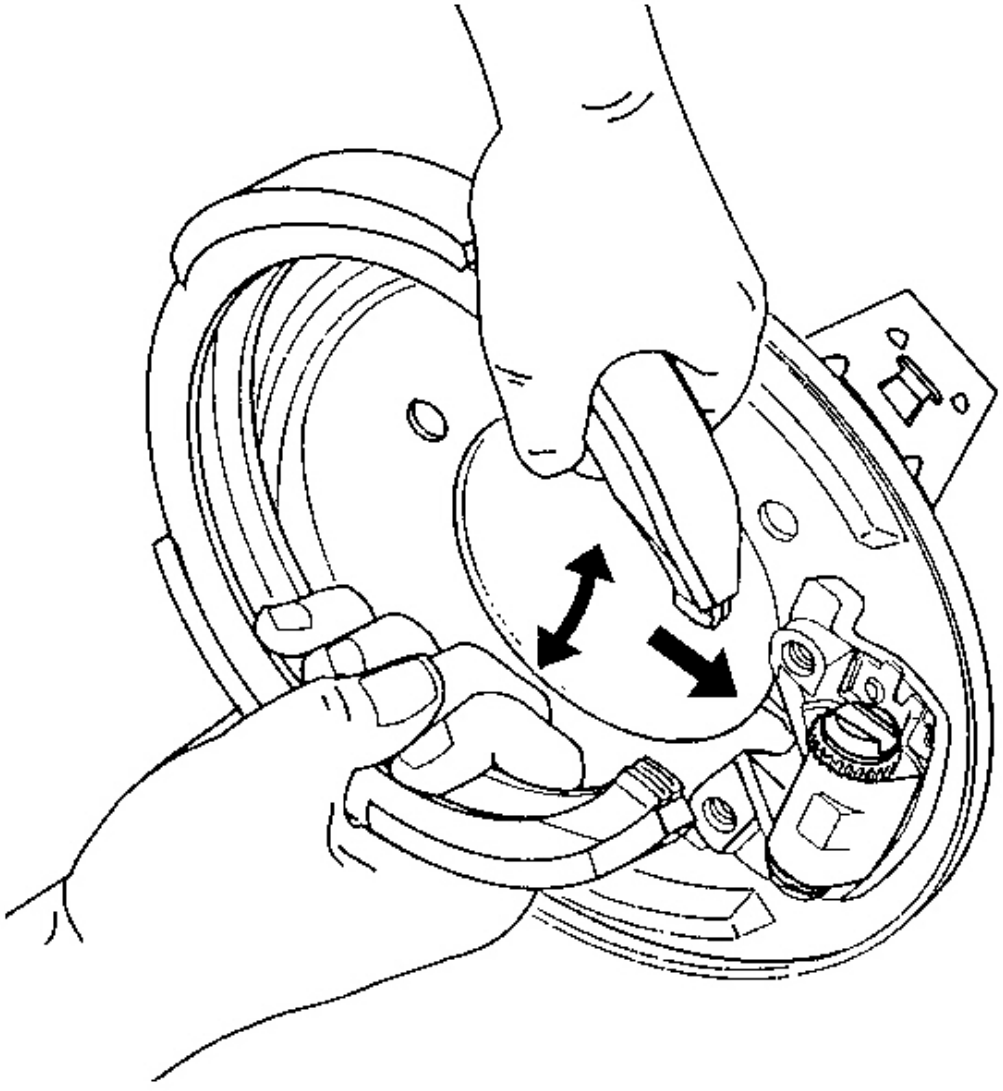


Fig. 3: Park Brake Shoe Assembly
Courtesy of GENERAL MOTORS CORP.

1. Install the park brake shoe assembly by grasping the shoe and spreading slightly while pulling the shoe over the actuator assembly.

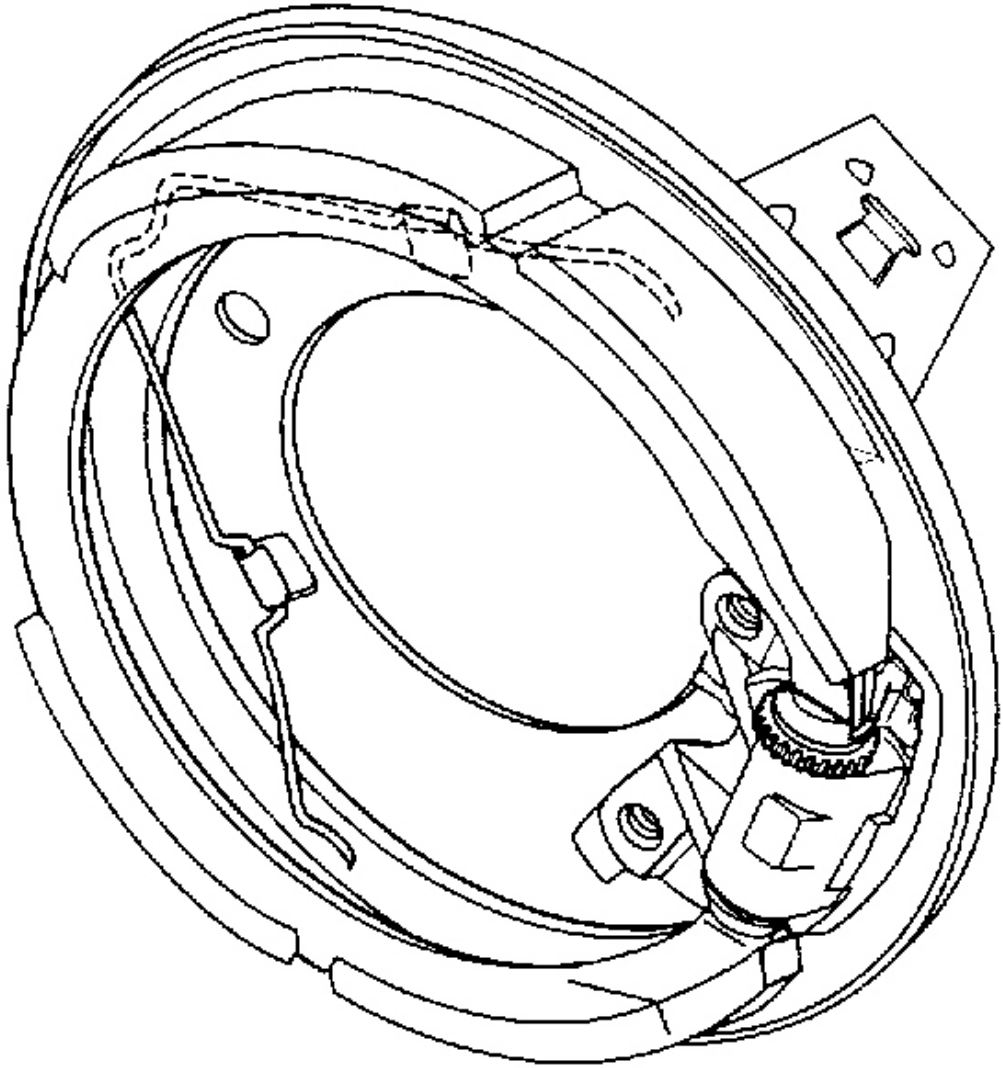


Fig. 4: View Of Drum Brake
Courtesy of GENERAL MOTORS CORP.

2. Install the parking brake shoe retaining spring.
3. Adjust the parking brake shoe-to-drum clearance. Refer to **Park Brake Adjustment** .
4. Install the wheel bearing/hub. Refer to **Wheel Bearing/Hub Replacement - Rear** in Rear Suspension.
5. Install the brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.

PARK BRAKE LEVER ASSEMBLY REPLACEMENT

Removal Procedure

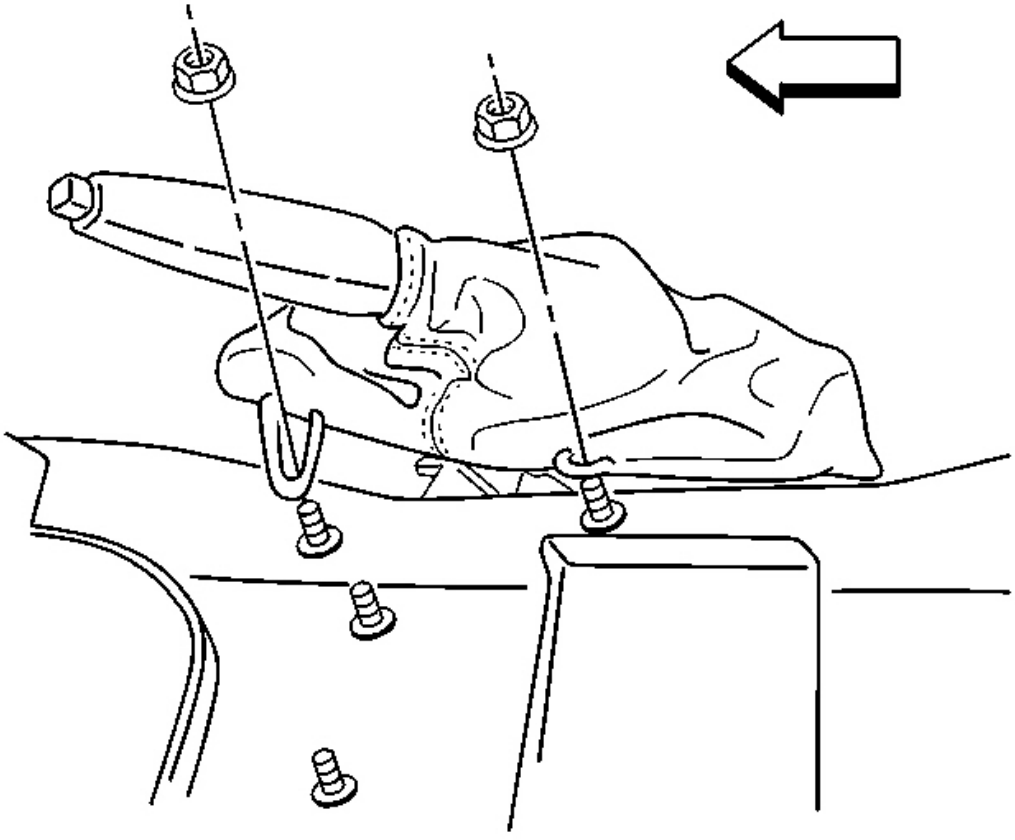


Fig. 5: Disengage Retainer Clips On Park Brake Lever Boot
Courtesy of GENERAL MOTORS CORP.

1. Remove the accessory trim plate. Refer to **Console Replacement** in Instrument Panel, Gages, and Console.
2. Remove the passenger seat. Refer to **Seat Replacement (Power)** or **Seat Replacement (Manual)** in Seats.
3. Lift and disengage retainer clips on park brake lever boot.

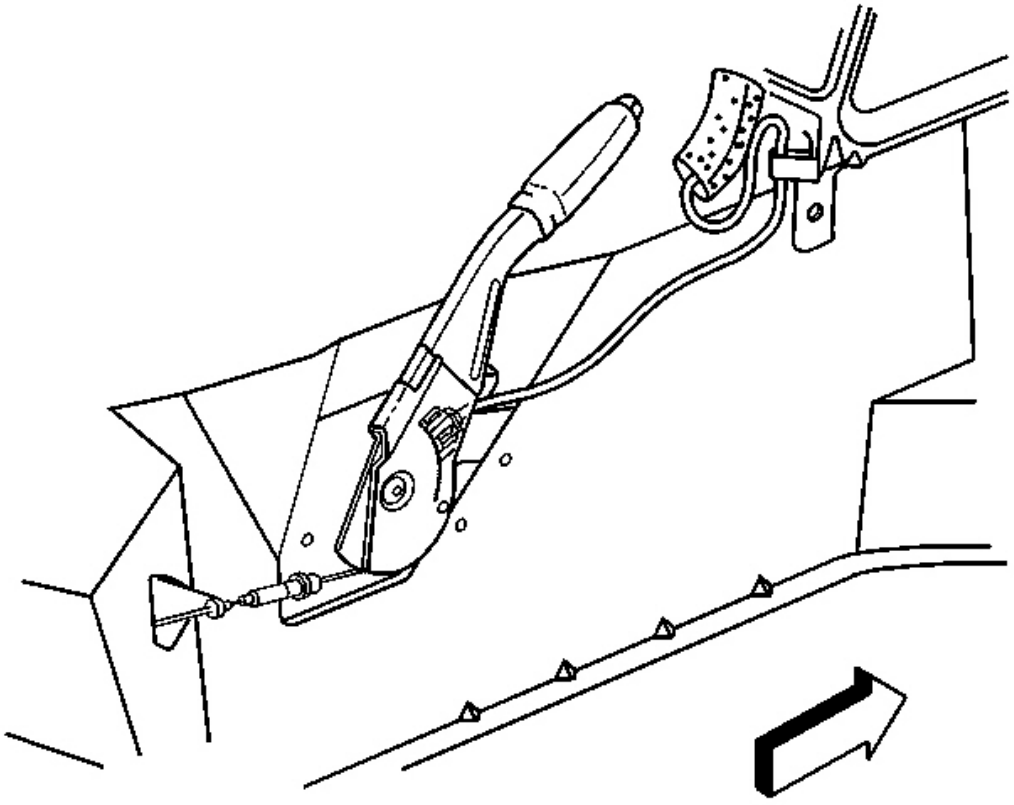


Fig. 6: Parking Brake Electrical Connector
Courtesy of GENERAL MOTORS CORP.

4. Disconnect the parking brake electrical connector.
5. Disable the parking brake automatic adjuster. Refer to **Disabling the Park Brake Cable Automatic Adjuster** .

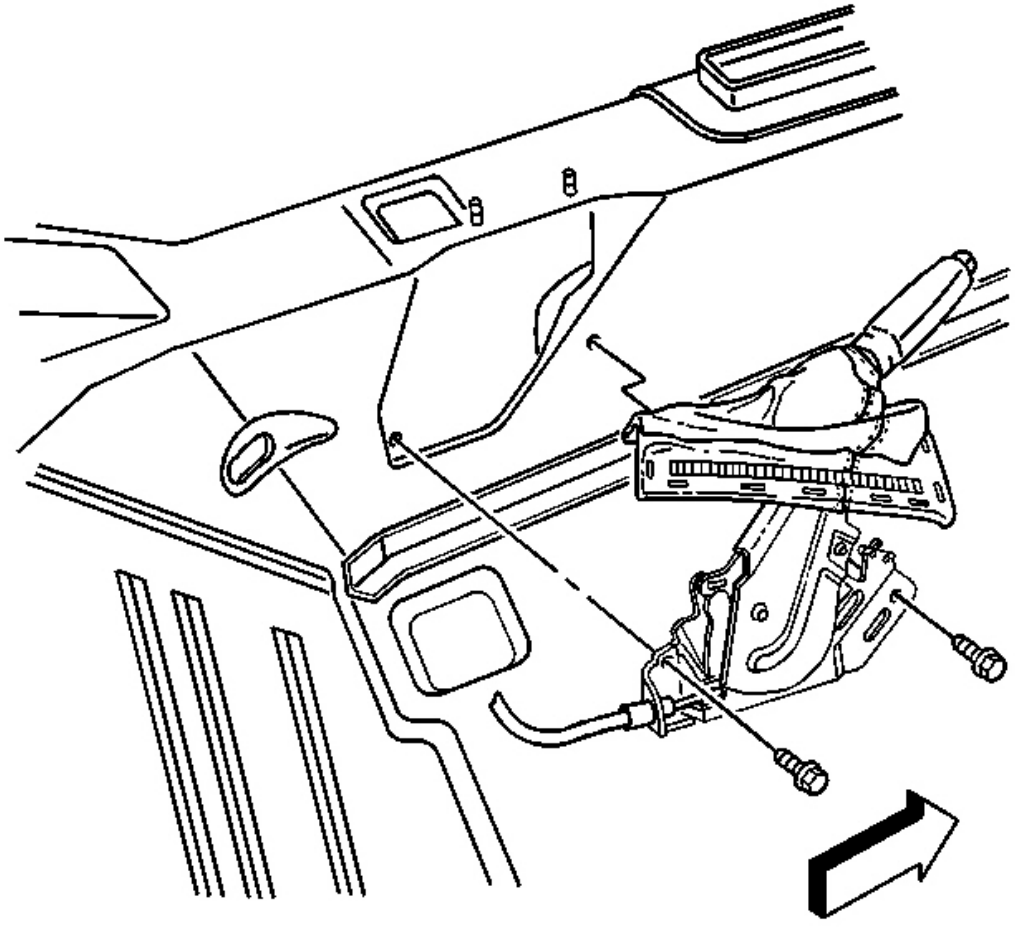


Fig. 7: Parking Brake Lever Assembly Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

6. Remove the parking brake lever assembly mounting bolts.
7. Reposition the park brake lever.

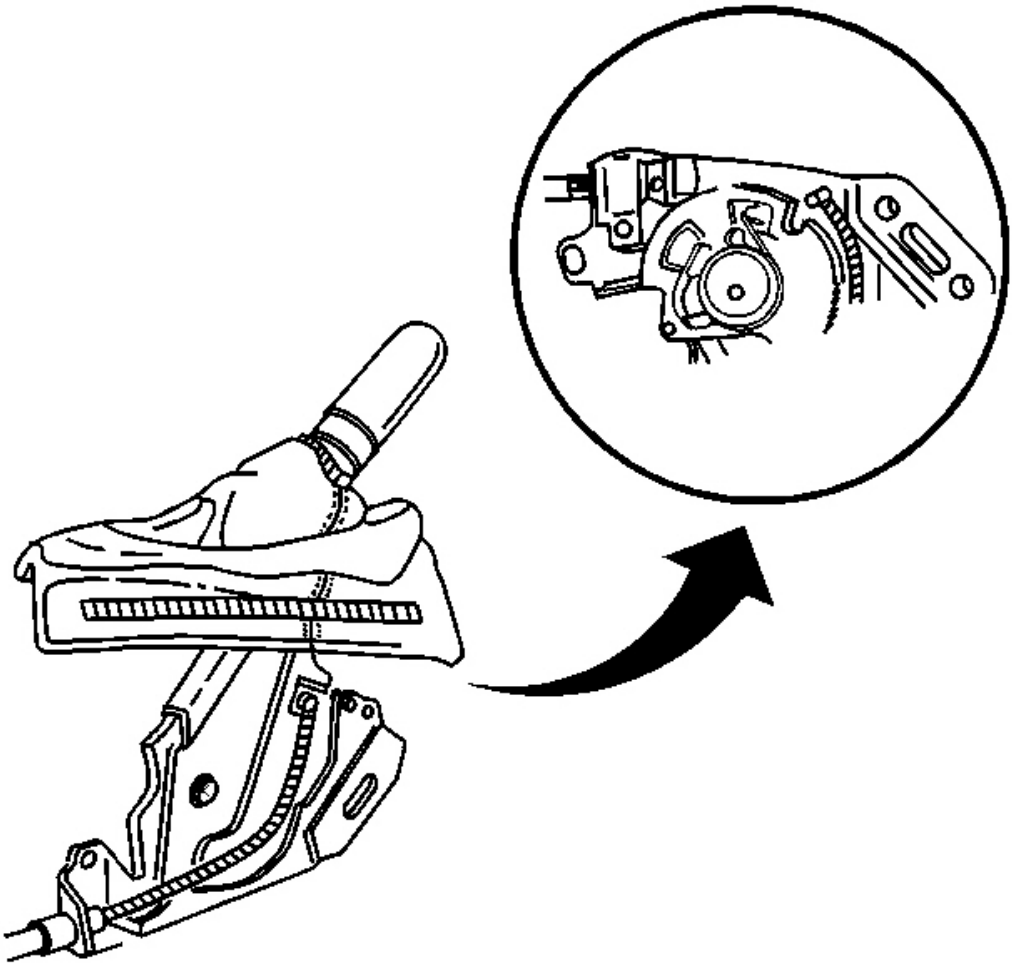


Fig. 8: Front Parking Brake Cable To Drive Sector & Park Brake Lever Assembly
Courtesy of GENERAL MOTORS CORP.

8. Disconnect the front parking brake cable from the drive sector and park brake lever assembly.

Installation Procedure

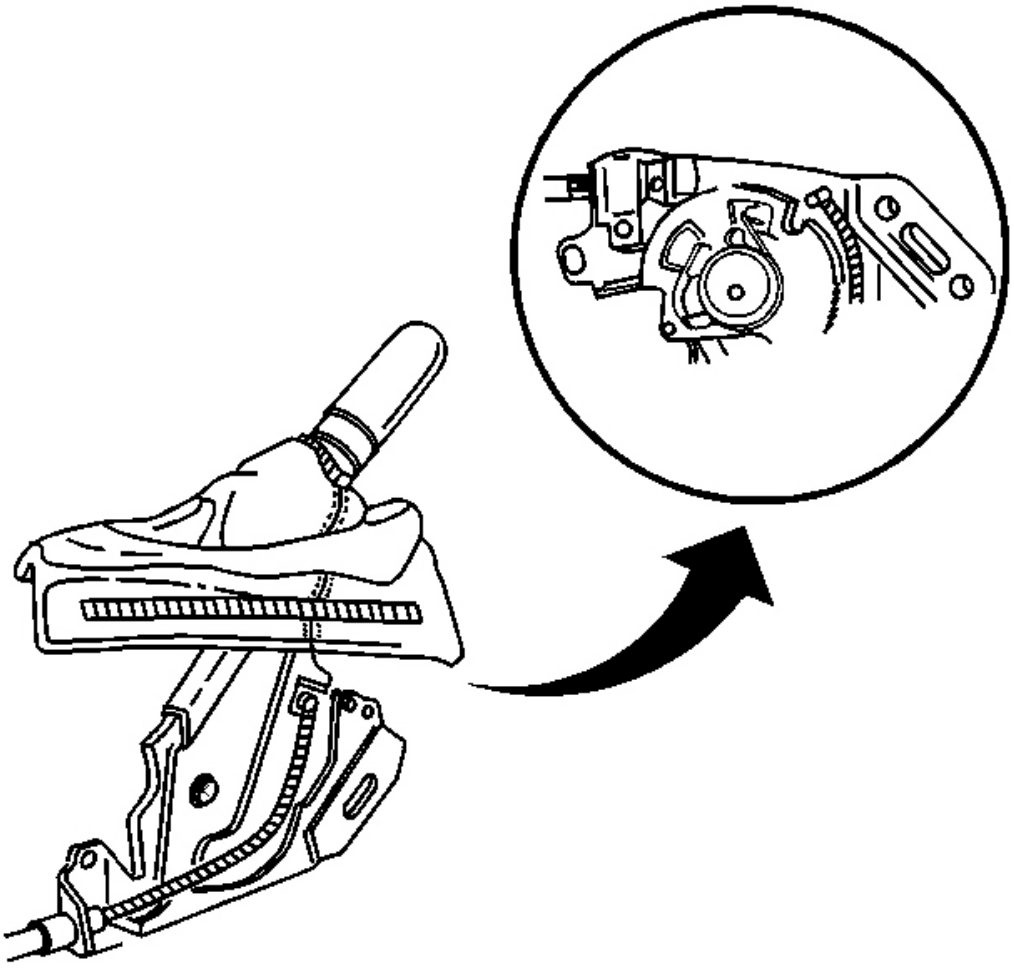


Fig. 9: Front Parking Brake Cable To Drive Sector & Park Brake Lever Assembly
Courtesy of GENERAL MOTORS CORP.

1. Connect the front parking brake cable to the drive sector and park brake lever assembly.

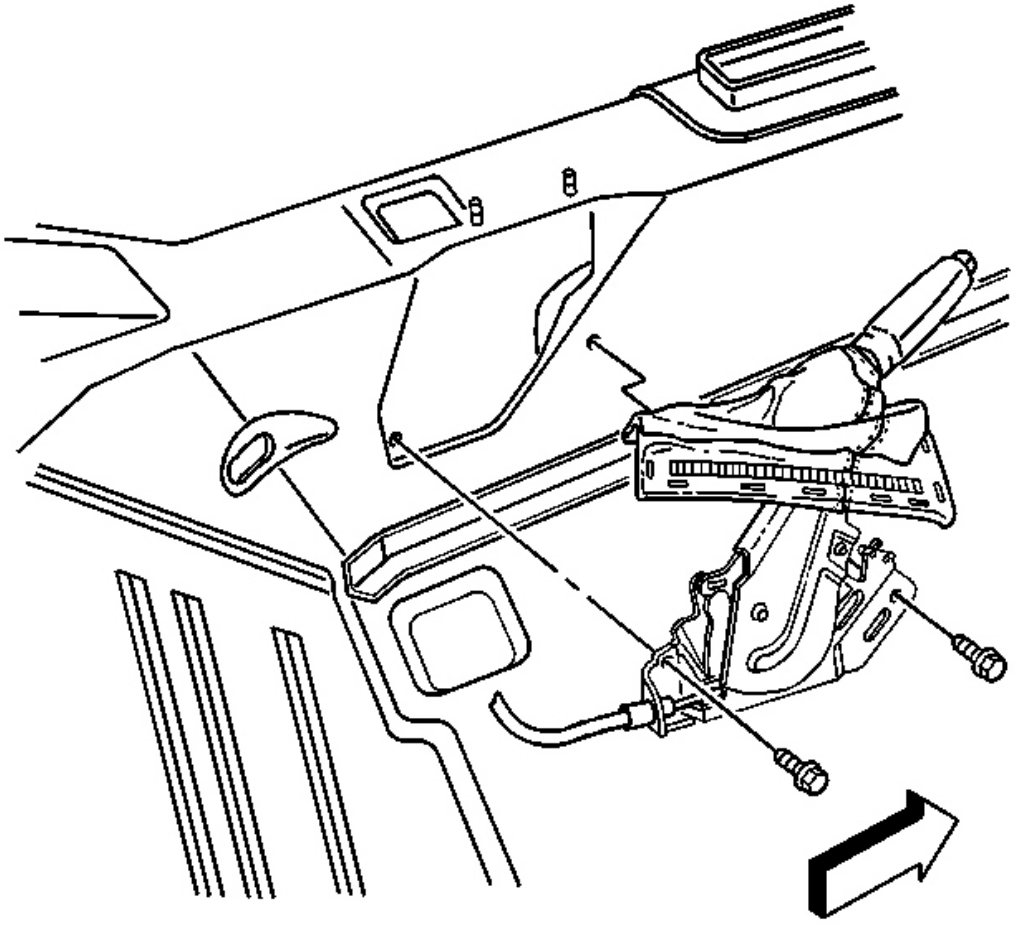


Fig. 10: Parking Brake Lever Assembly Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the parking brake lever assembly mounting bolts.

   Tighten: Tighten the parking brake lever assembly mounting bolts to 28 N.m (21 lb ft).

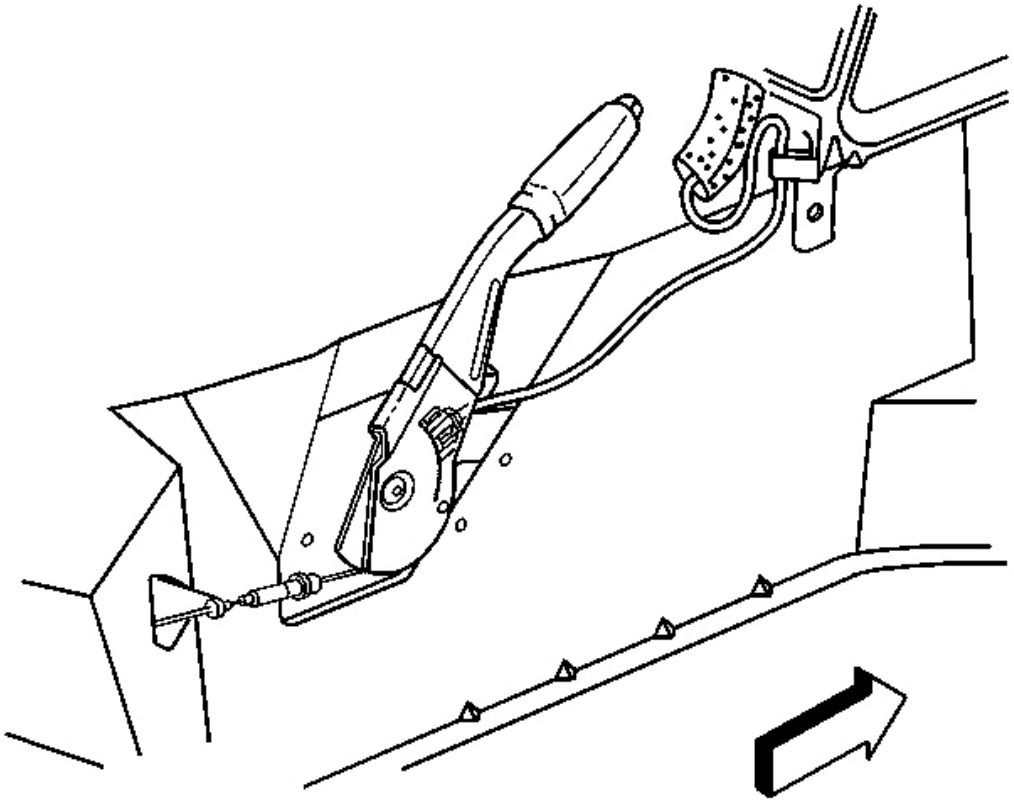


Fig. 11: Parking Brake Electrical Connector
Courtesy of GENERAL MOTORS CORP.

3. Connect the parking brake electrical connector.
4. Enable the parking brake automatic adjuster. Refer to **Enabling the Park Brake Cable Automatic Adjuster** .

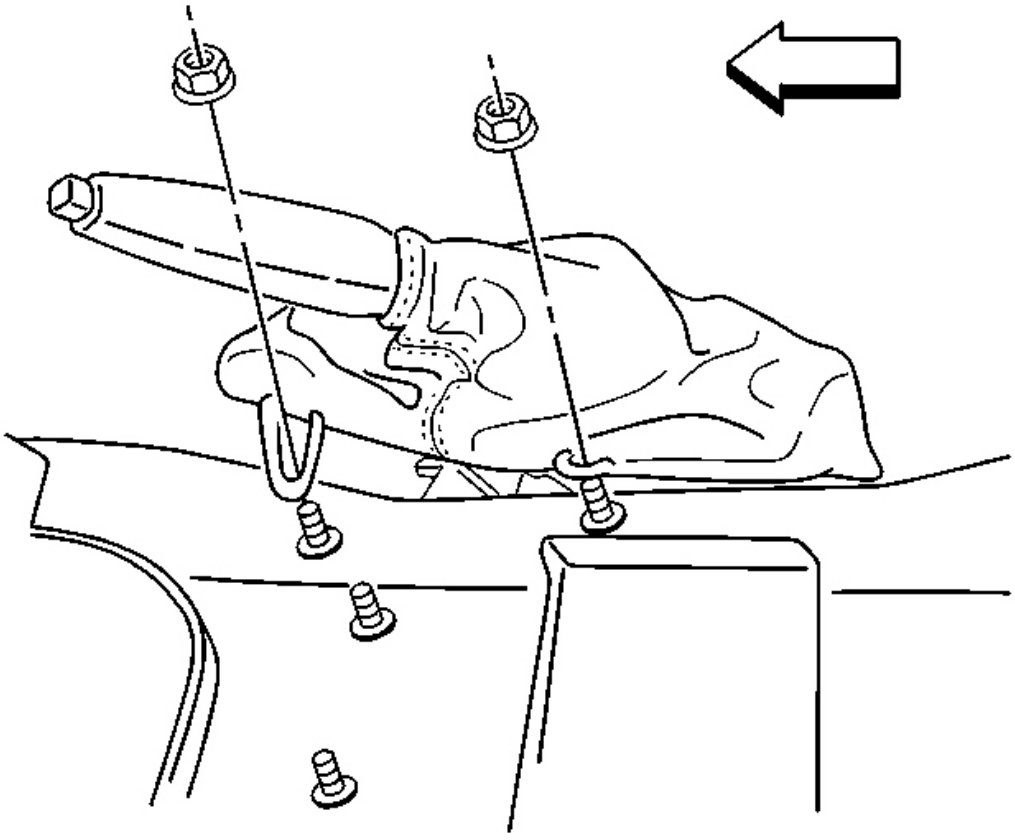


Fig. 12: Disengage Retainer Clips On Park Brake Lever Boot
Courtesy of GENERAL MOTORS CORP.

5. Install the parking brake lever boot nuts.

   Tighten: Tighten the parking brake lever boot nuts to 10 N.m (89 lb in).

6. Install the passenger seat. Refer to **Seat Replacement (Power)** or **Seat Replacement (Manual)** in Seats.
7. Install the accessory trim plate. Refer to **Console Replacement** in Instrument Panel, Gages, and Console.

PARK BRAKE WARNING LAMP SWITCH REPLACEMENT

Removal Procedure

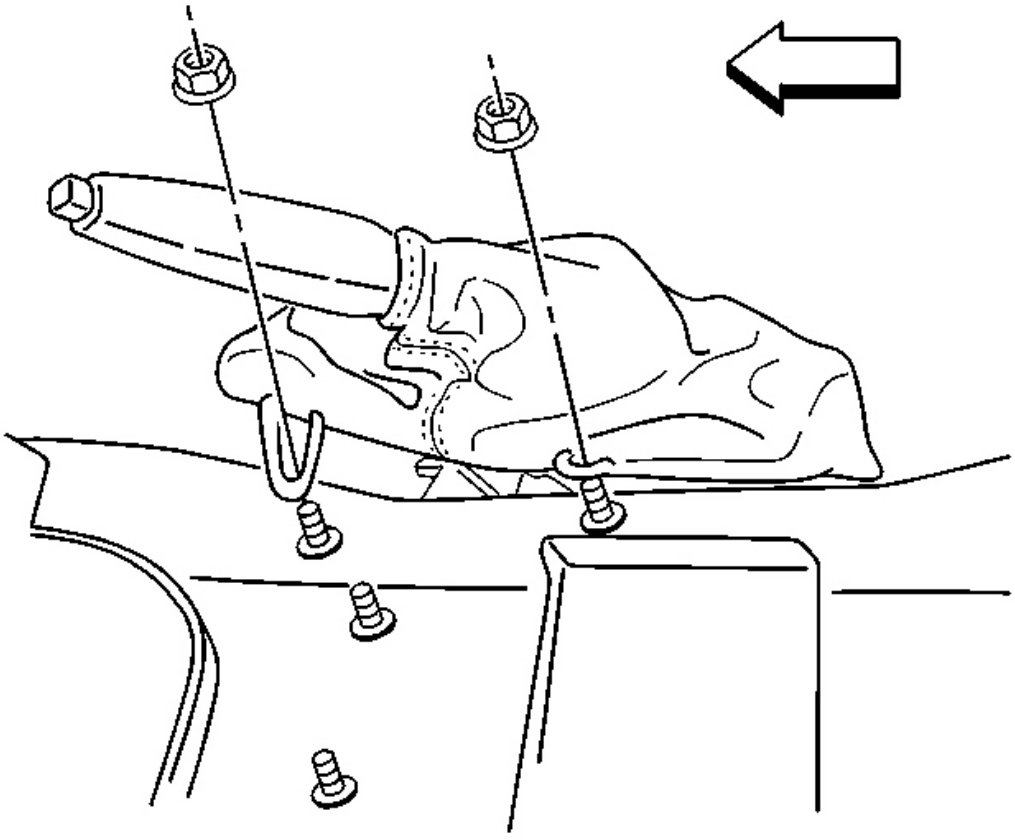


Fig. 13: Disengage Retainer Clips On Park Brake Lever Boot
Courtesy of GENERAL MOTORS CORP.

1. Remove the console. Refer to **Console Replacement** in Instrument Panel, Gages, and Console.
2. Remove the passenger seat. Refer to **Seat Replacement (Power)** or **Seat Replacement (Manual)** in Seats.
3. Lift and disengage retainer clips on park brake lever boot.

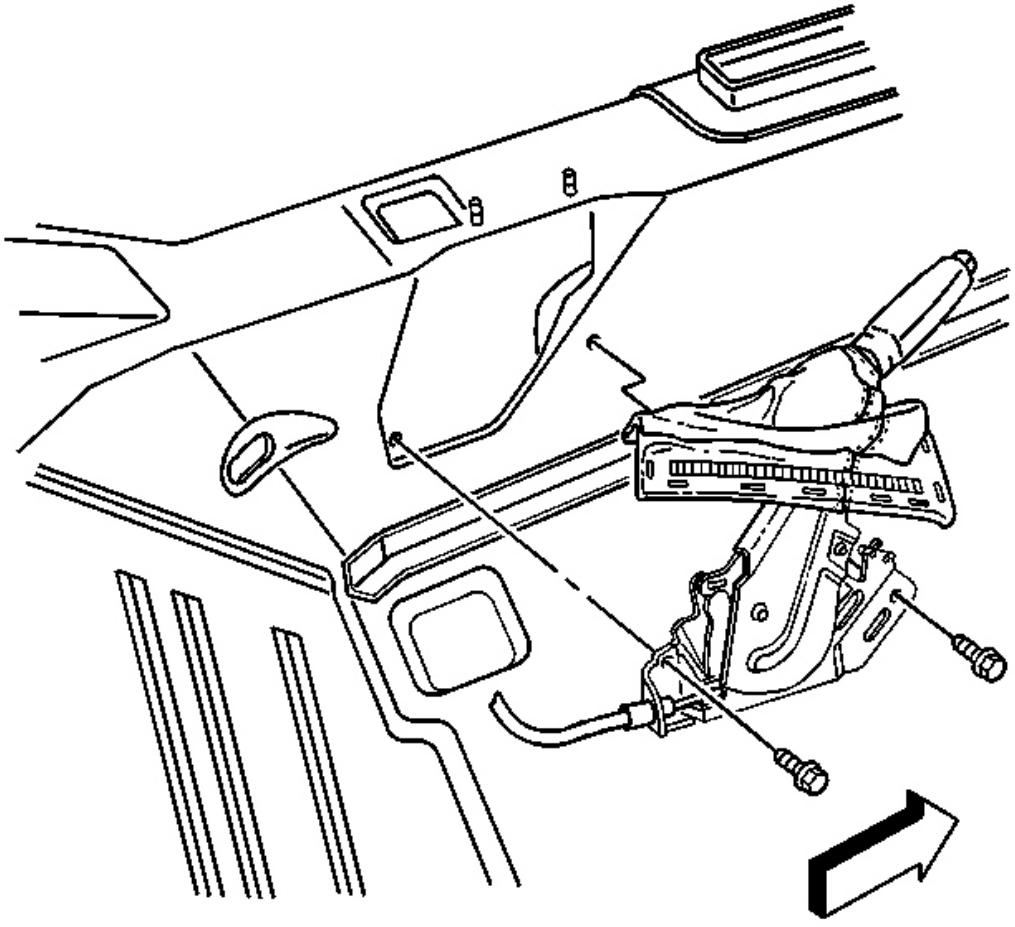


Fig. 14: Parking Brake Lever Assembly Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

4. Lift the park brake lever slightly until it engages the first stop.
5. Remove the park brake lever assembly mounting bolts.
6. Disconnect the electrical connector from the park brake switch.
7. Position the park brake lever assembly to the rear of the vehicle.
8. Remove the park brake switch.

Installation Procedure

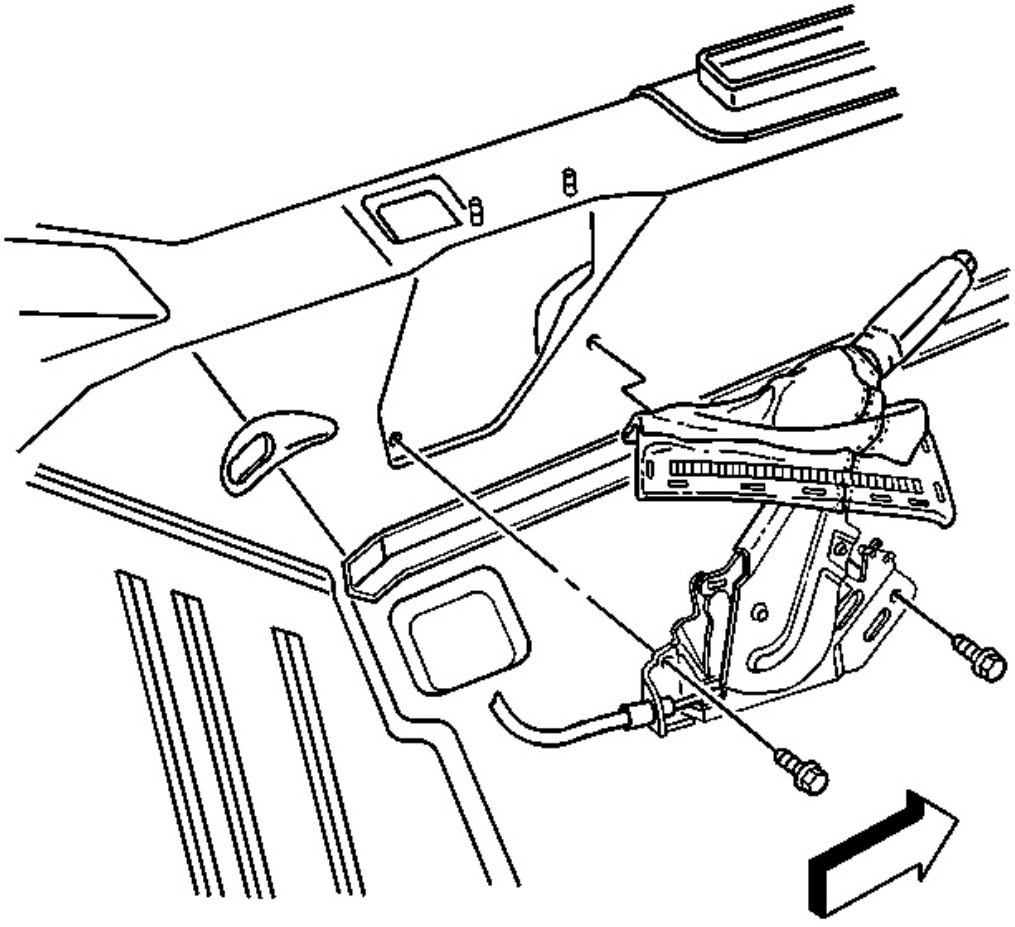


Fig. 15: Parking Brake Lever Assembly Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

1. Install the park brake switch to the park brake lever assembly.
2. Position the park brake lever assembly to the driveline tunnel.
3. Connect the electrical connector to the park brake switch.

NOTE: Refer to Fastener Notice in Cautions and Notices.

4. Install the mounting bolts to the park brake lever assembly.

Tighten: Tighten the park brake lever assembly mounting bolts to 28 N.m (21 lb ft)

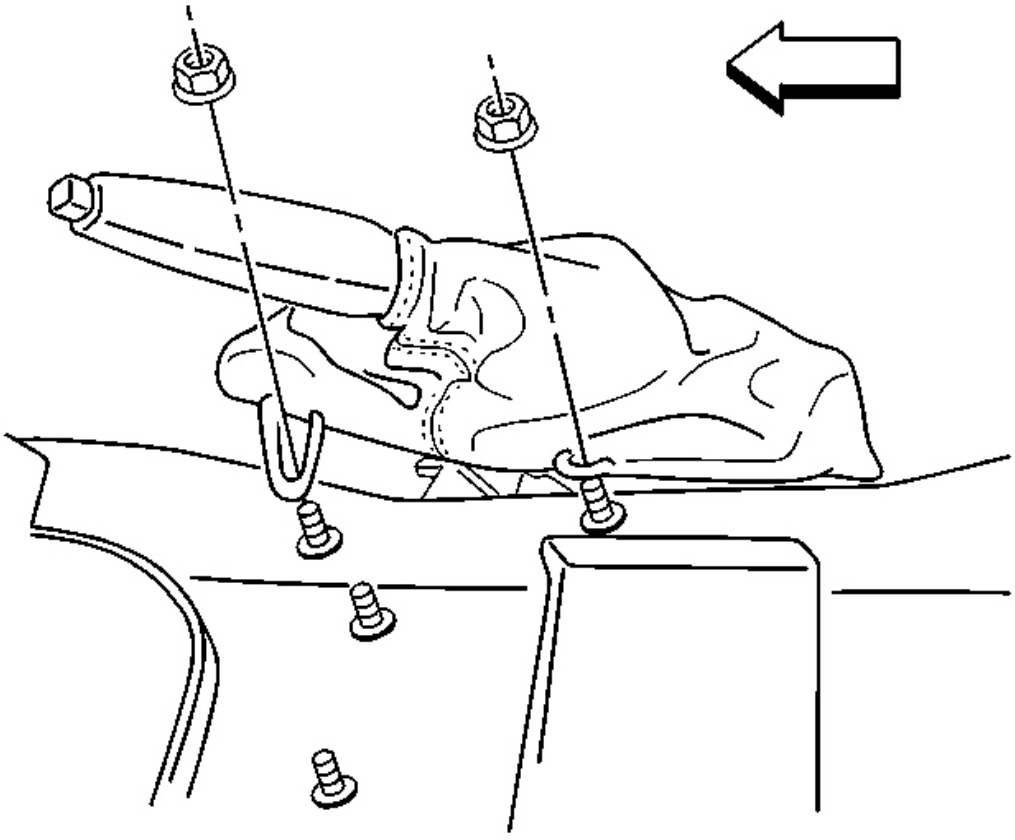


Fig. 16: Disengage Retainer Clips On Park Brake Lever Boot
Courtesy of GENERAL MOTORS CORP.

5. Position the park brake lever assembly boot to the driveline tunnel.
6. Install the park brake lever assembly boot nuts.

   Tighten: Tighten the park brake lever assembly boot nuts to 10 N.m (89 lb in)

7. Install the passenger seat. Refer to **Seat Replacement (Power)** or **Seat Replacement (Manual)** in Seats.
8. Install the console. Refer to **Console Replacement** in Instrument Panel, Gages, and Console.
9. Release the park brake lever.

PARK BRAKE CABLE REPLACEMENT - FRONT

Removal Procedure

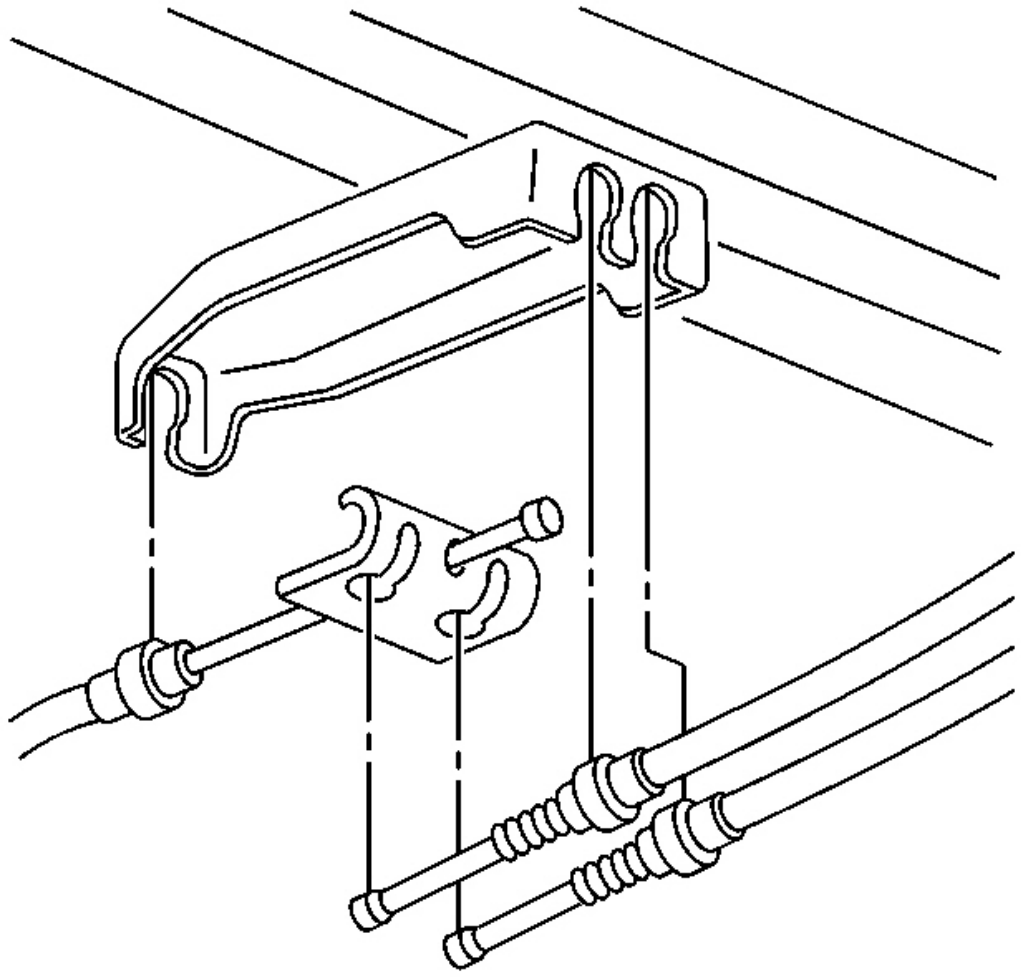


Fig. 17: Front & Rear Park Brake Cables To Equalizer & Retainer
Courtesy of GENERAL MOTORS CORP.

1. Remove the park brake lever. Refer to **Park Brake Lever Assembly Replacement** .
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the RH muffler. Refer to **Muffler Replacement - Right** in Engine Exhaust.
4. Disconnect the rear park brake cables from the equalizer.
5. Disconnect the front park brake cable from the cable retainer.

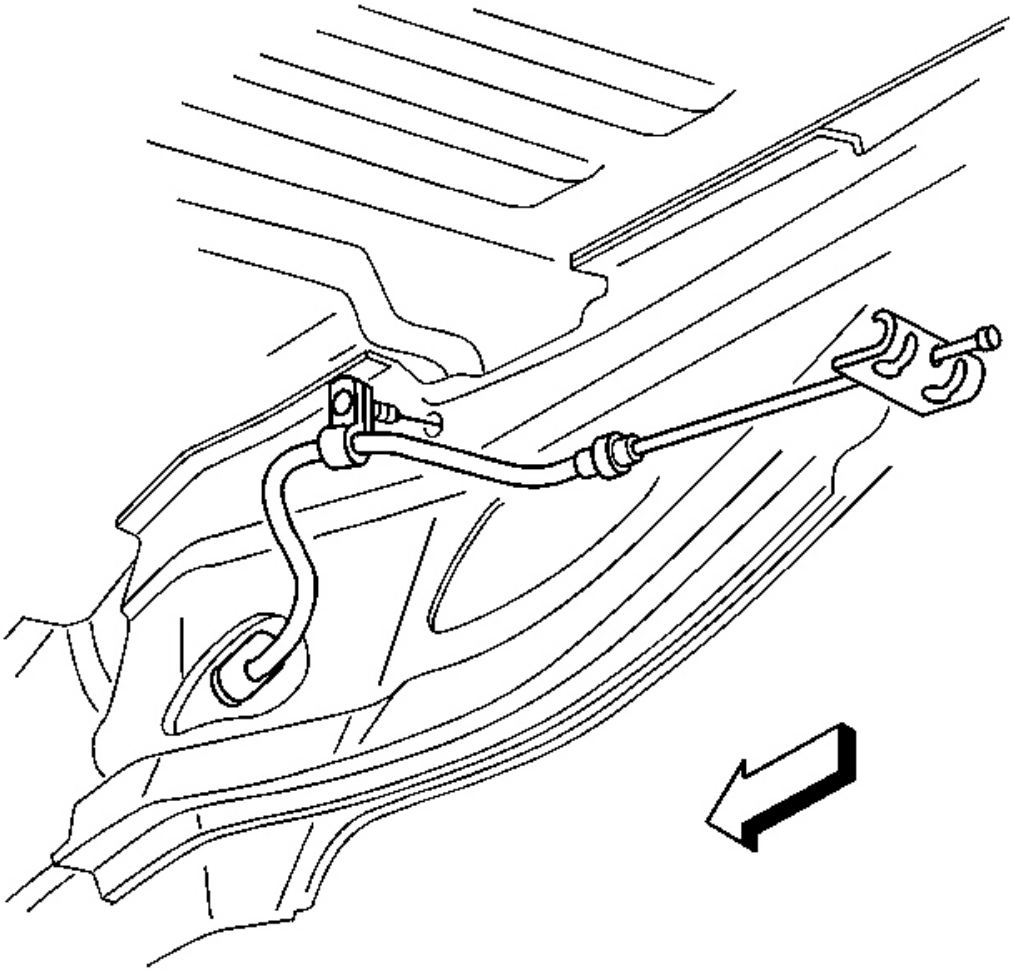


Fig. 18: Pass-Through Grommet & Front Bracket To Cable
Courtesy of GENERAL MOTORS CORP.

6. Remove the front park brake cable bracket from the tunnel.
7. Lower the vehicle.
8. Remove the front cable from the vehicle
9. Remove the pass-through grommet and front bracket from the cable.

Installation Procedure

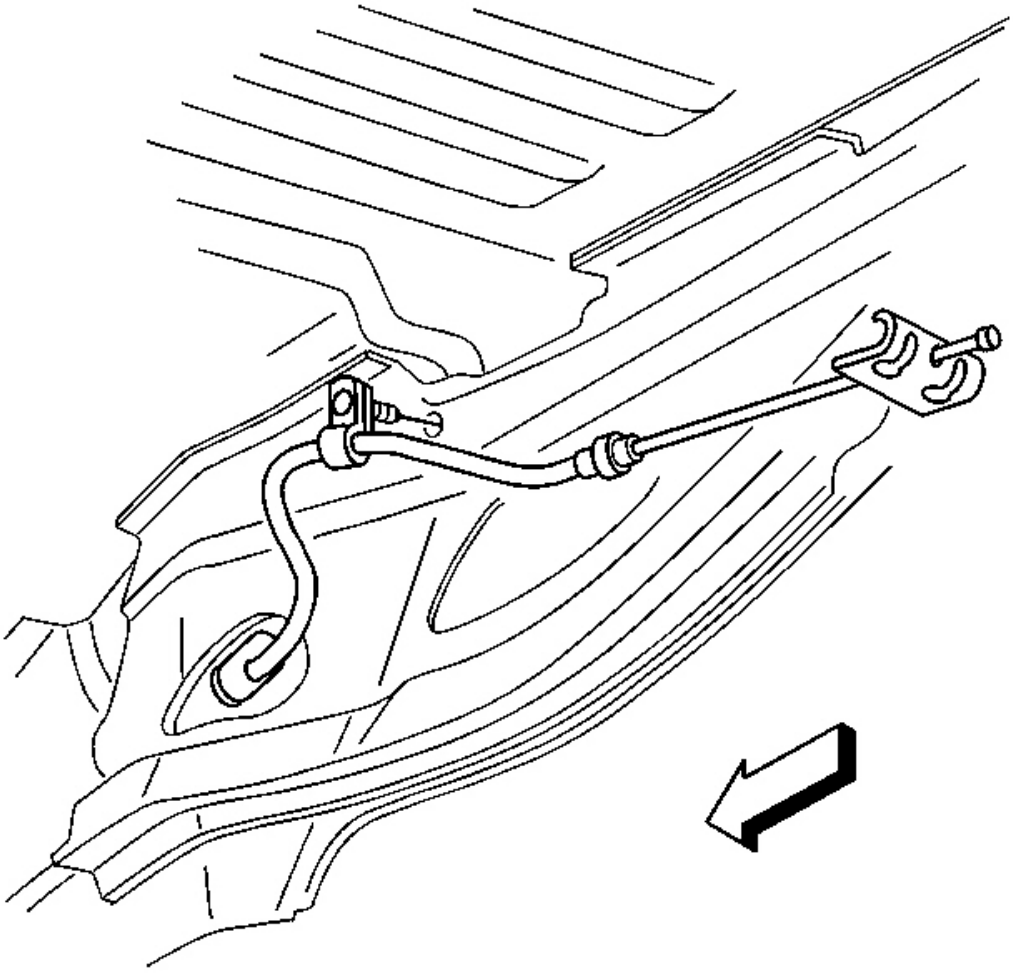


Fig. 19: Pass-Through Grommet & Front Bracket To Cable
Courtesy of GENERAL MOTORS CORP.

1. Install the front bracket and pass-through grommet to the cable.
2. Install the front park brake cable to the vehicle. Insure the pass-through grommet is properly installed.
3. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
4. Install the front park brake cable bracket to the tunnel.

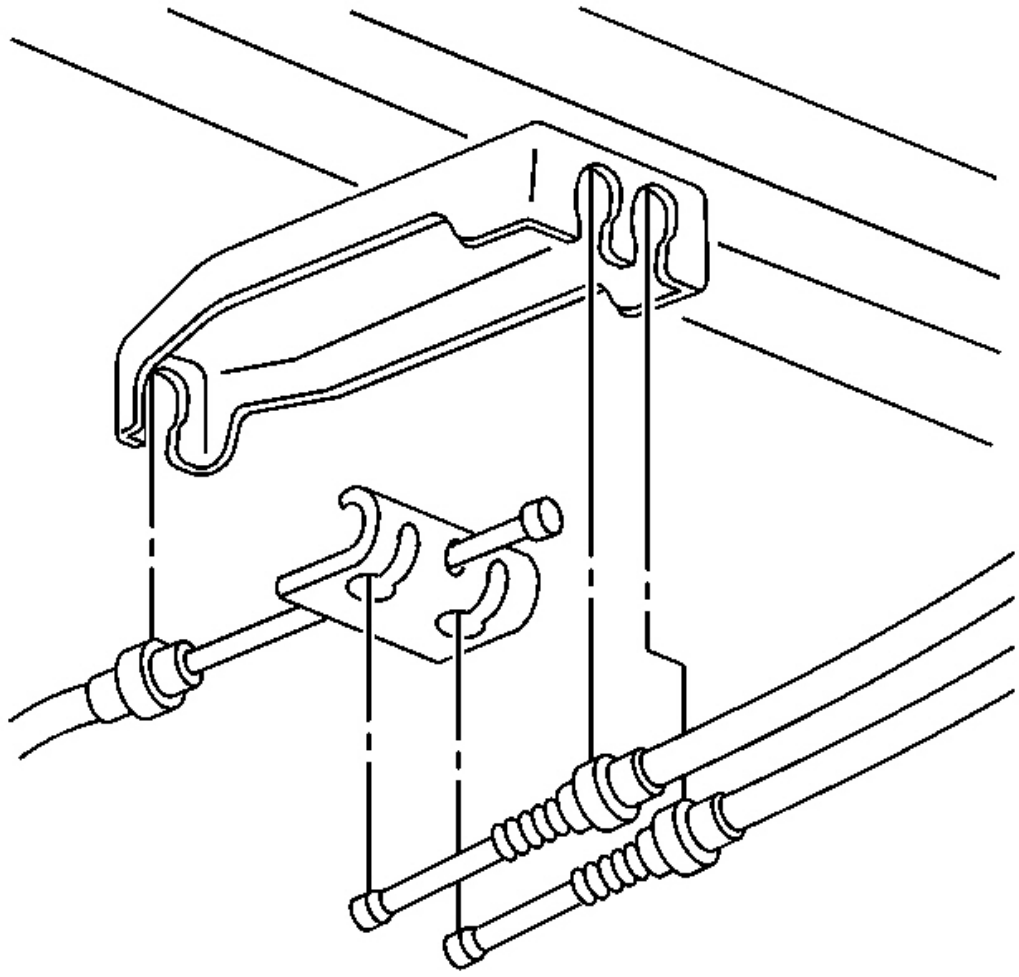


Fig. 20: Front & Rear Park Brake Cables To Equalizer & Retainer
Courtesy of GENERAL MOTORS CORP.

5. Connect the front park brake cable to the park brake cable retainer.
6. Connect the rear park brake cables to the equalizer.
7. Install the RH muffler. Refer to **Muffler Replacement - Right** in Engine Exhaust.
8. Lower the vehicle.
9. Install the park brake lever. Refer to **Park Brake Lever Assembly Replacement** .

PARK BRAKE CABLE REPLACEMENT - REAR

Removal Procedure

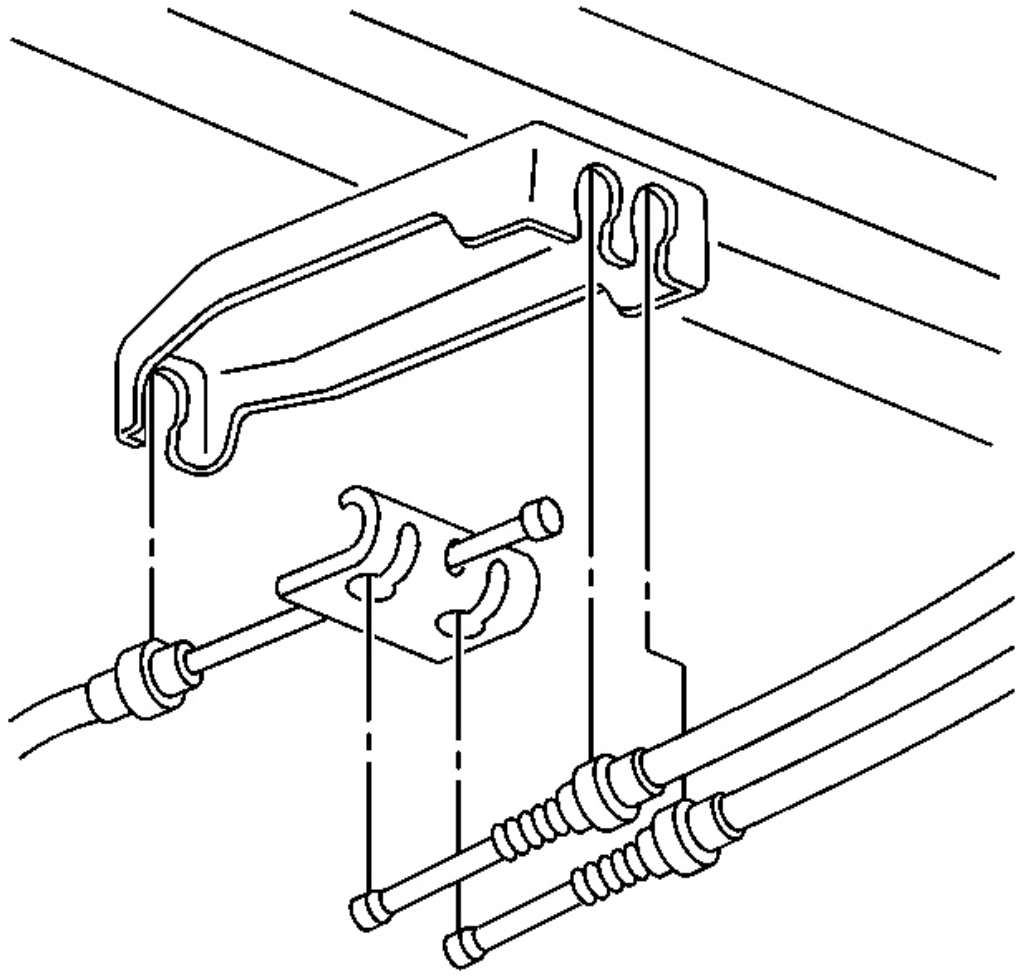


Fig. 21: Front & Rear Park Brake Cables To Equalizer & Retainer
Courtesy of GENERAL MOTORS CORP.

1. Disable the park brake automatic adjuster. Refer to **Disabling the Park Brake Cable Automatic Adjuster** .
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the RH muffler. Refer to **Muffler Replacement - Right** in Engine Exhaust.
4. Disconnect the rear park brake cable at the retainer and equalizer.

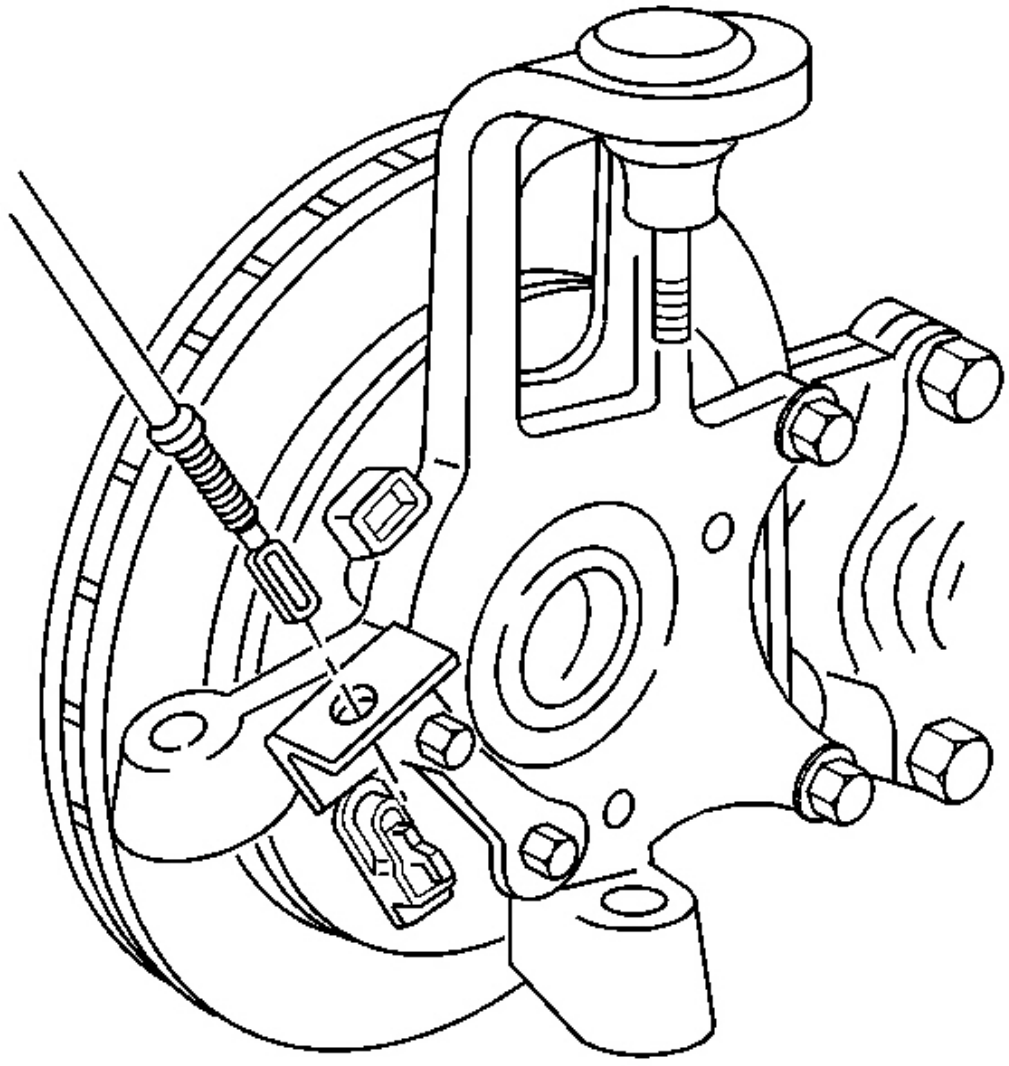


Fig. 22: Rear Park Brake Cable To Rear Suspension Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

5. Remove the rear park brake cable from the rear suspension mounting bracket.
6. Remove the rear park brake cable retainer nut.
7. Remove the rear park brake cable from the vehicle.

Installation Procedure

1. Install the rear parking brake cable to the vehicle.
2. Install the rear parking brake cable retainer nut.

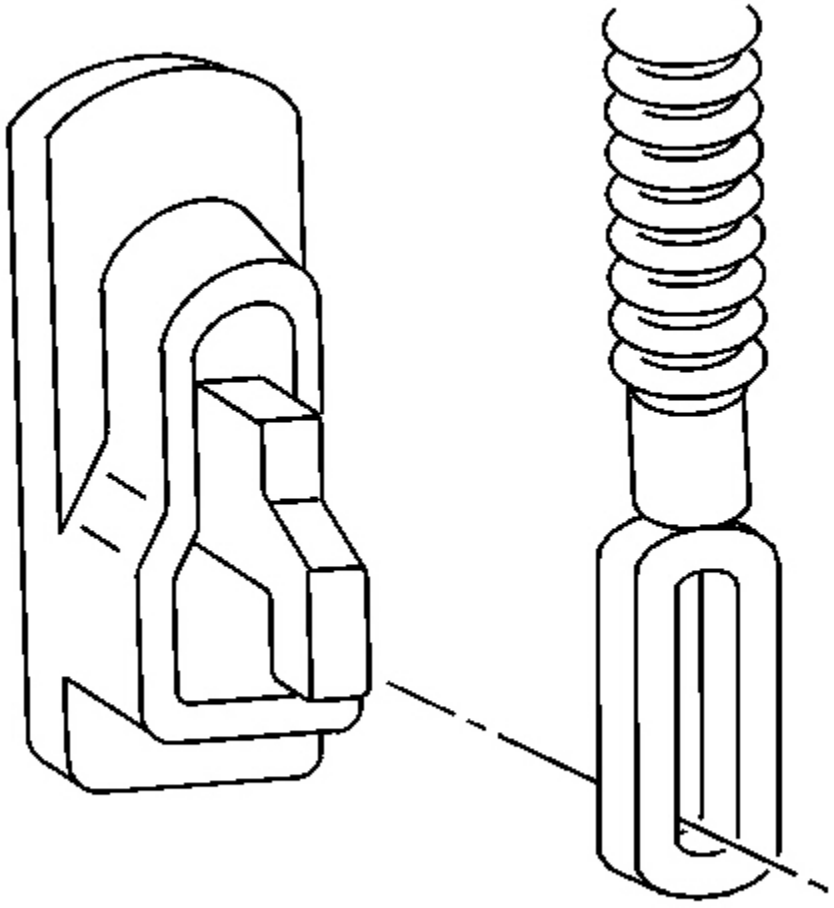


Fig. 23: Rear Park Brake Cable To Rear Suspension Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

3. Connect the rear park brake cable to the rear suspension mounting bracket.

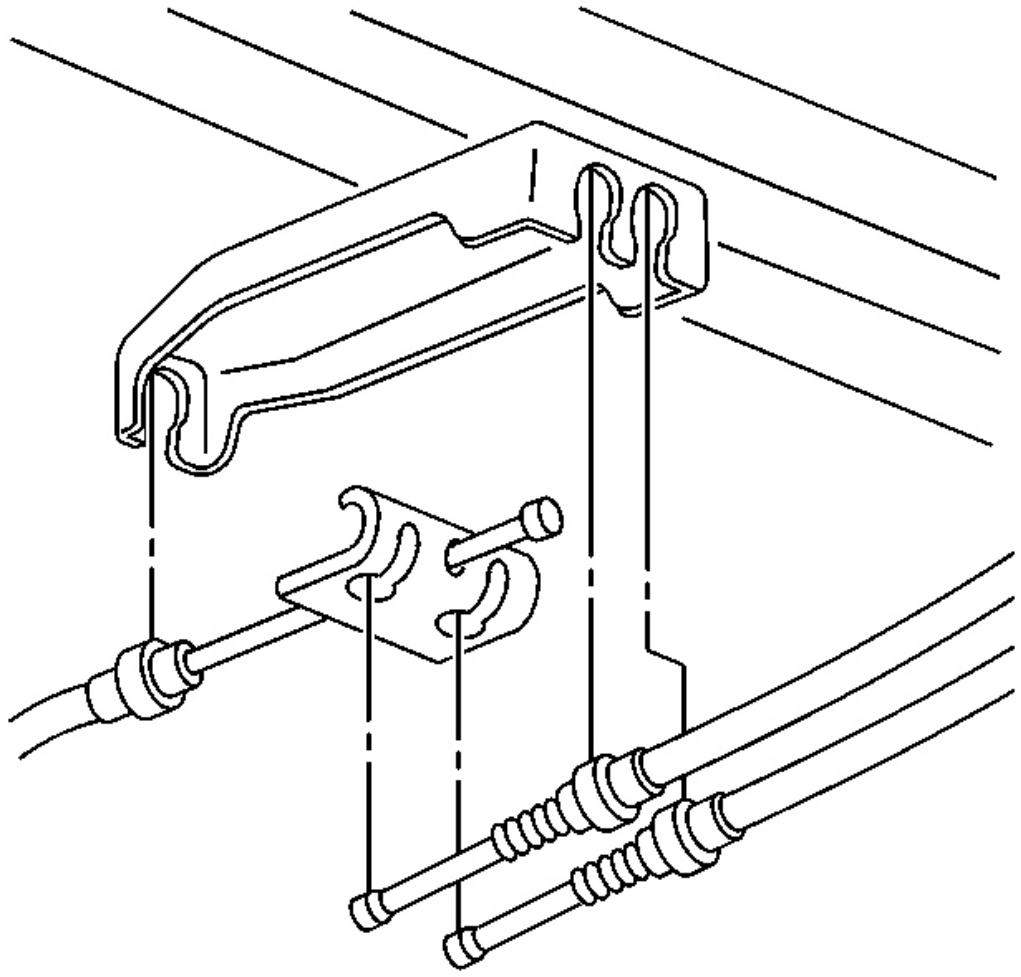


Fig. 24: Front & Rear Park Brake Cables To Equalizer & Retainer
Courtesy of GENERAL MOTORS CORP.

4. Connect the rear park brake cable to the retainer and equalizer.
5. Install the RH muffler. Refer to **Muffler Replacement - Right** in Engine Exhaust.
6. Lower the vehicle.
7. Enable park brake automatic adjuster. Refer to **Enabling the Park Brake Cable Automatic Adjuster** .

DISABLING THE PARK BRAKE CABLE AUTOMATIC ADJUSTER

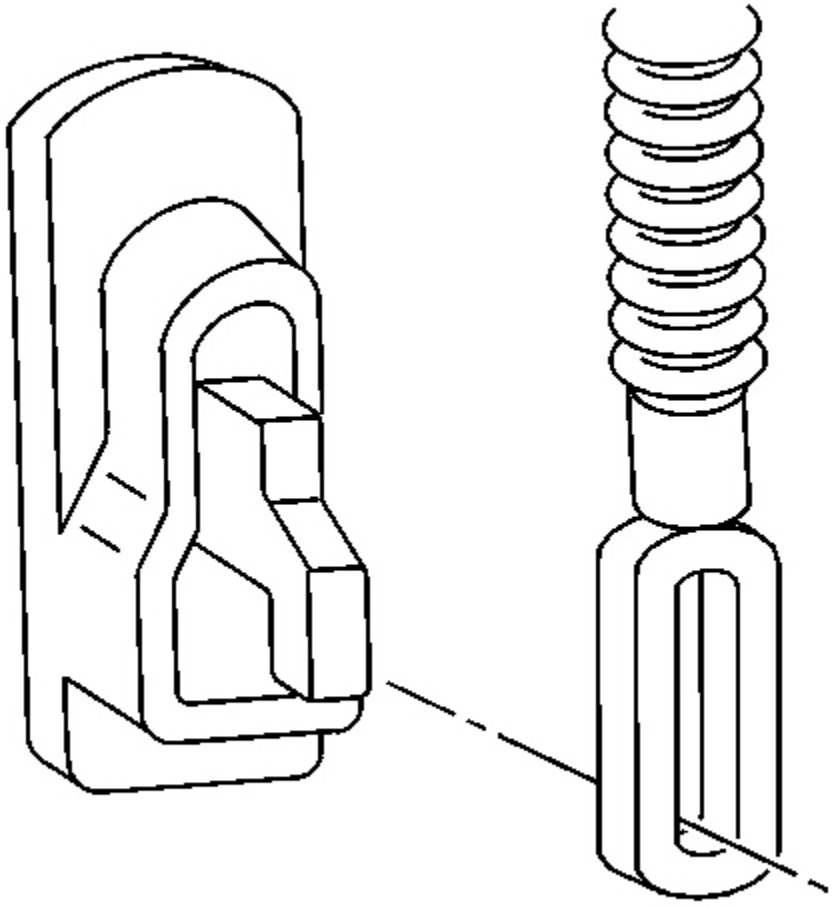


Fig. 25: Rear Park Brake Cable To Rear Suspension Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Disconnect the park brake cable from the left and right park brake actuators.
4. Lower the vehicle.
5. Reposition carpet away from park brake lever.

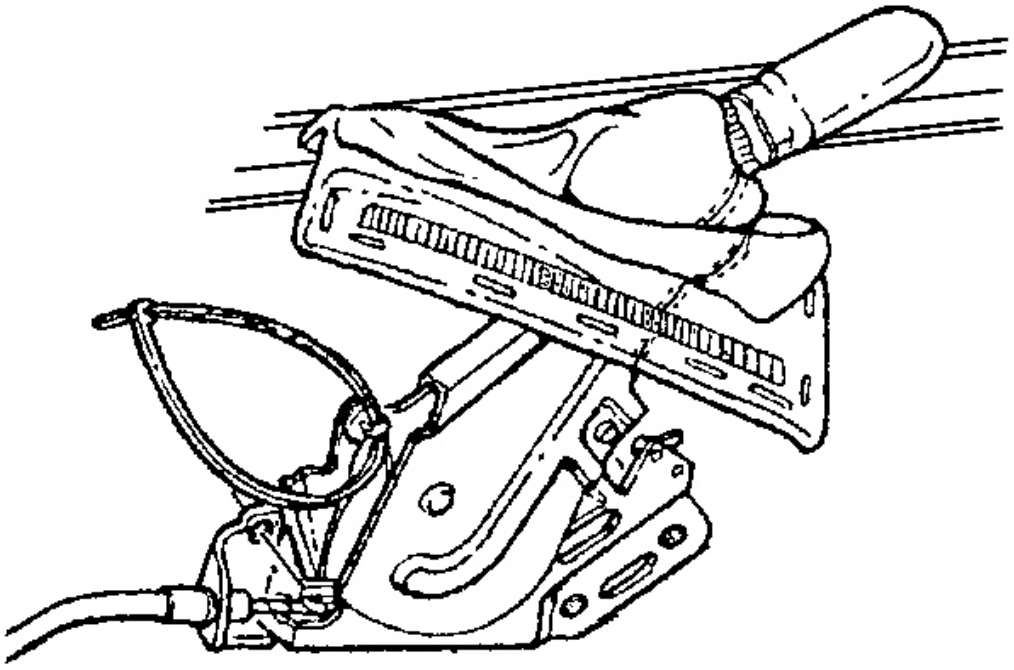


Fig. 26: Park Brake Cable At Rivet To Park Brake Lever
Courtesy of GENERAL MOTORS CORP.

6. With the aid of an assistant, pull the disconnected park brake cable downward until it is fully extended and insert a rivet, drill bit or cotter key through the holes in the park brake lever mechanism as they line up. Do not overextend the cable.

ENABLING THE PARK BRAKE CABLE AUTOMATIC ADJUSTER

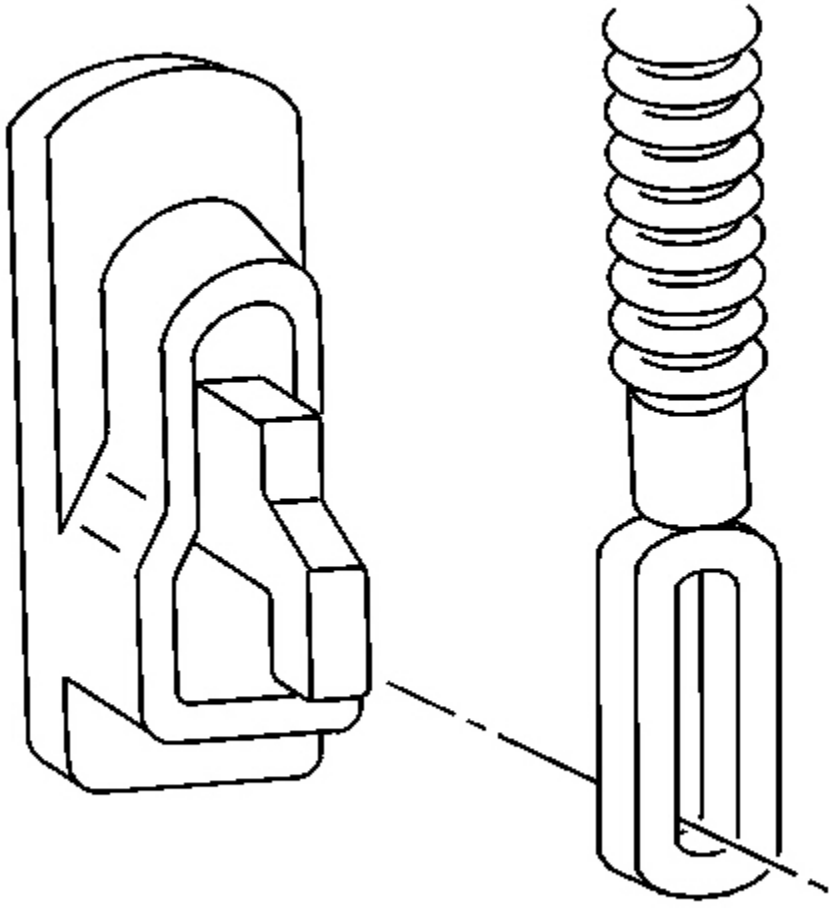


Fig. 27: Rear Park Brake Cable To Rear Suspension Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Install the park brake cable to the left and right park brake actuators.
4. Install the rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
5. Lower the vehicle.

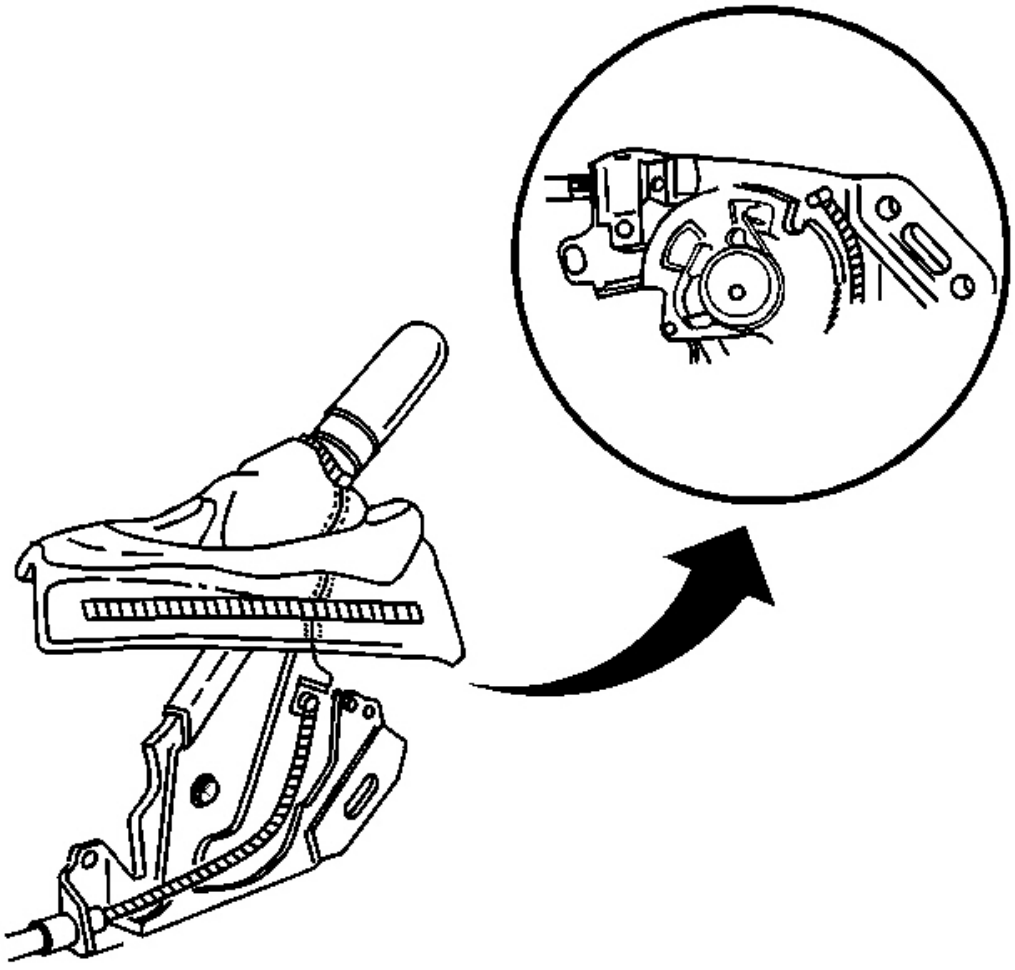


Fig. 28: Front Parking Brake Cable To Drive Sector & Park Brake Lever Assembly
Courtesy of GENERAL MOTORS CORP.

6. Reposition the carpet away from the parking brake lever.
7. Remove any rivet, drill bit or cotter key from the park brake lever.
8. Install the park brake cable to the park brake lever.
9. Install the carpet to its original position.
10. Cycle the park brake lever three times in order to obtain proper park brake cable tension.

PARK BRAKE ACTUATOR REPLACEMENT

Removal Procedure

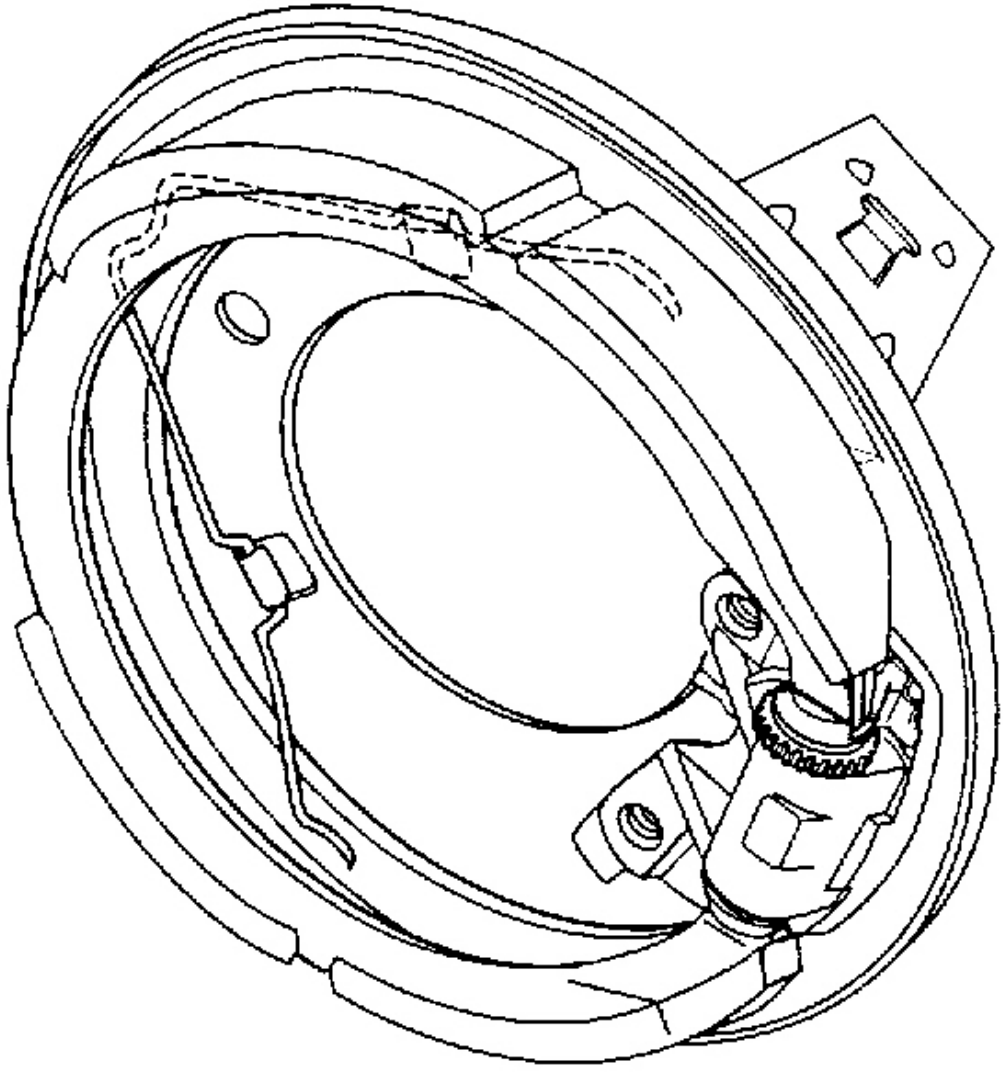


Fig. 29: View Of Drum Brake
Courtesy of GENERAL MOTORS CORP.

1. Remove the rear brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.
2. Rotate the park brake adjuster nut until the bolt is in the closed position.
3. Remove the park brake shoe retaining spring.

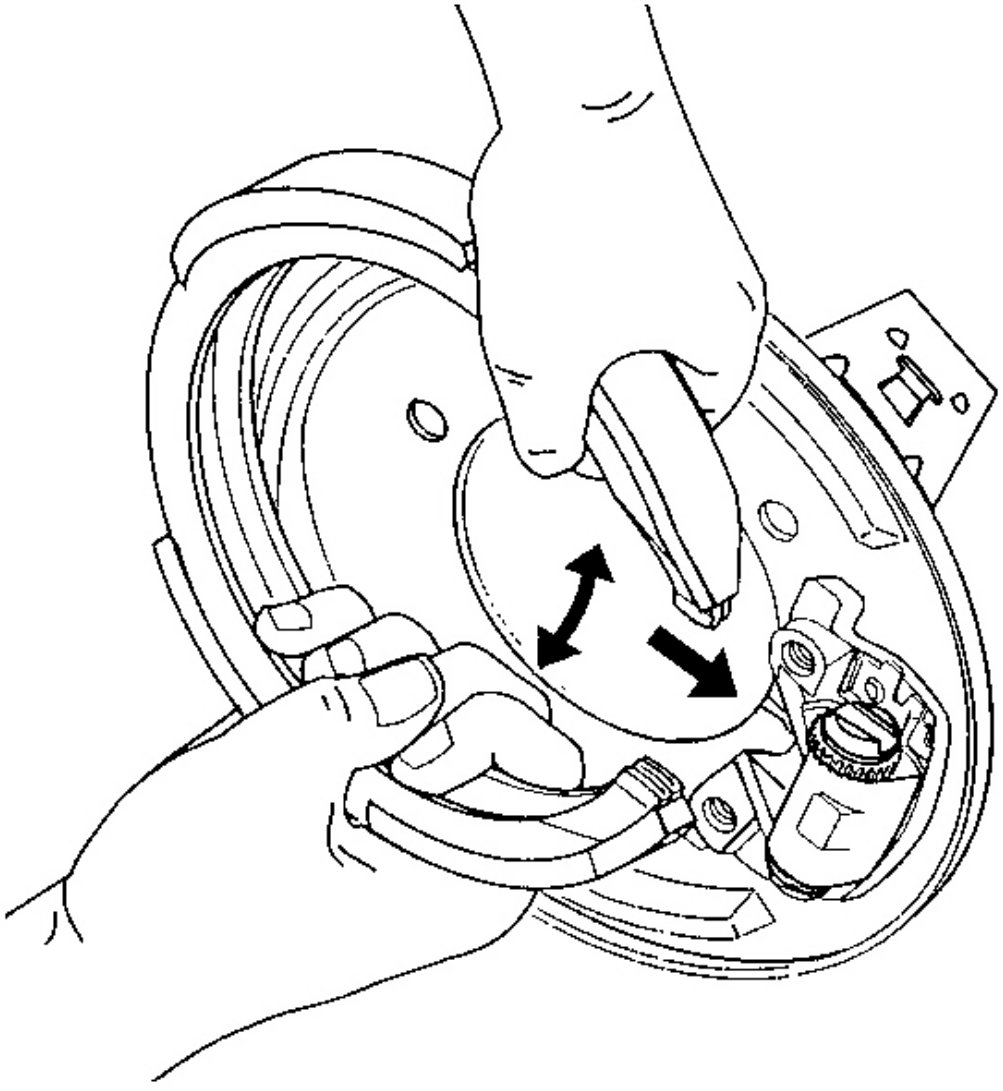


Fig. 30: Park Brake Shoe Assembly
Courtesy of GENERAL MOTORS CORP.

4. Remove the park brake shoe assembly by grasping the shoe and spreading slightly while pulling the shoe from the actuator assembly.

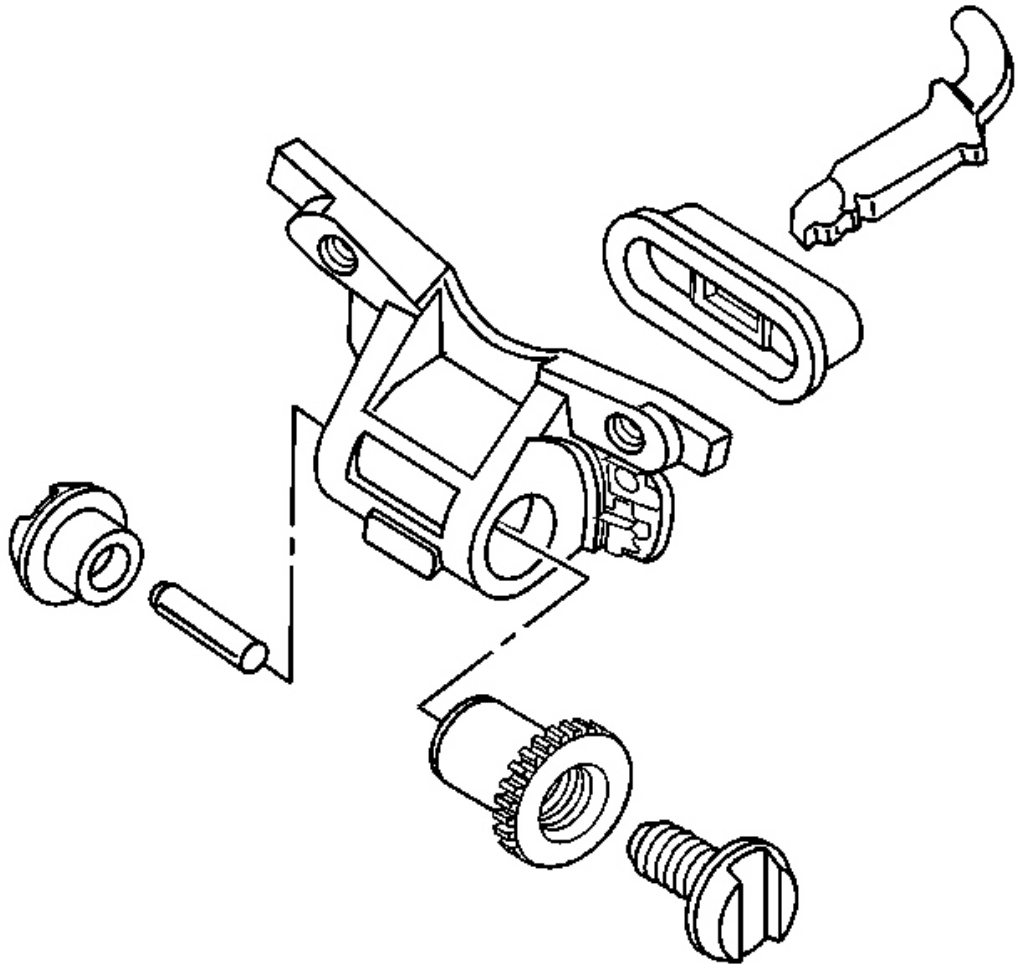


Fig. 31: Actuator Mounting Bolts
Courtesy of GENERAL MOTORS CORP.

5. Remove the two actuator mounting bolts.
6. Remove the actuator assembly from the dust shield.

Installation Procedure

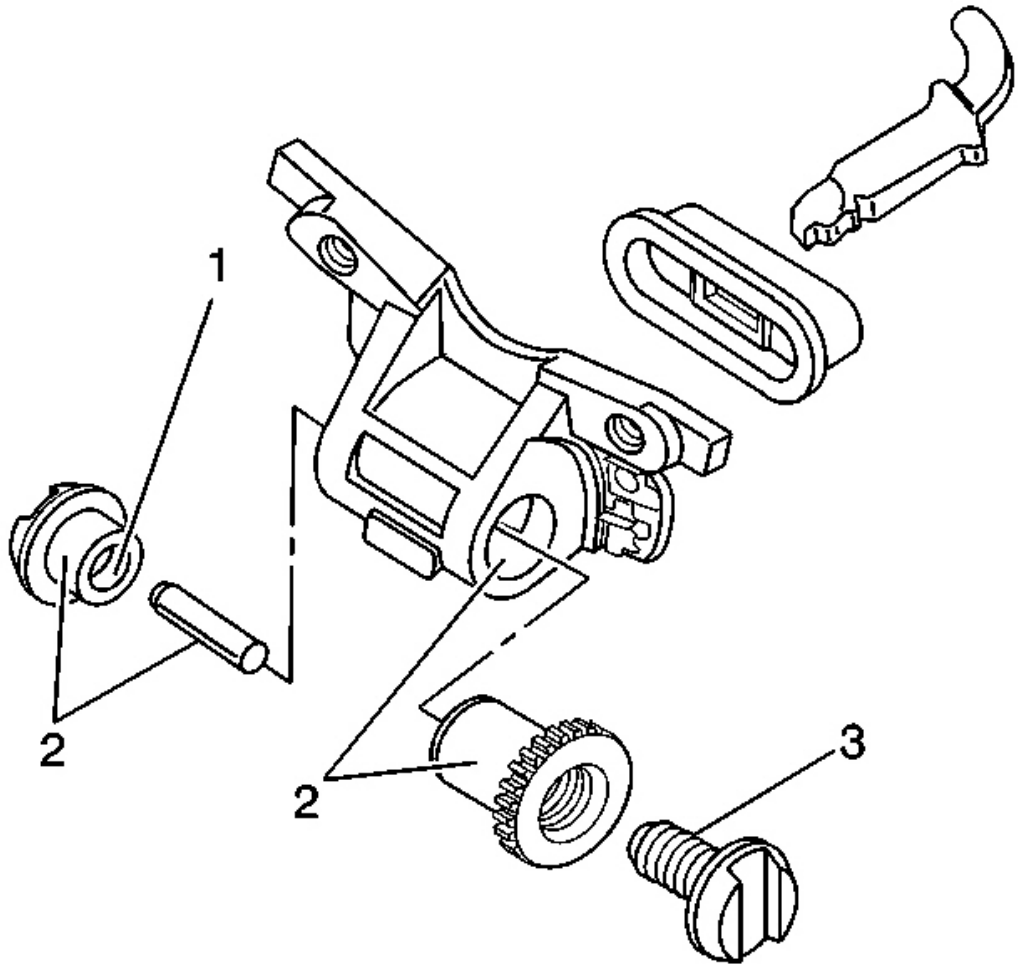


Fig. 32: Brake Caliper Bolt Shaft
Courtesy of GENERAL MOTORS CORP.

1. Apply high temperature, silicone lubricant to positions 1 and 2. Do not apply grease to the bolt threads (3).
2. Install the actuator to the dust shield.
3. Apply high temperature, silicone lubricant to the brake caliper bolt shaft. Do not lubricate the bolt threads.

NOTE: Refer to Fastener Notice in Cautions and Notices.

4. Install the actuator mounting bolts.

Tighten: Tighten the actuator mounting bolts to 70 N.m (52 lb ft)

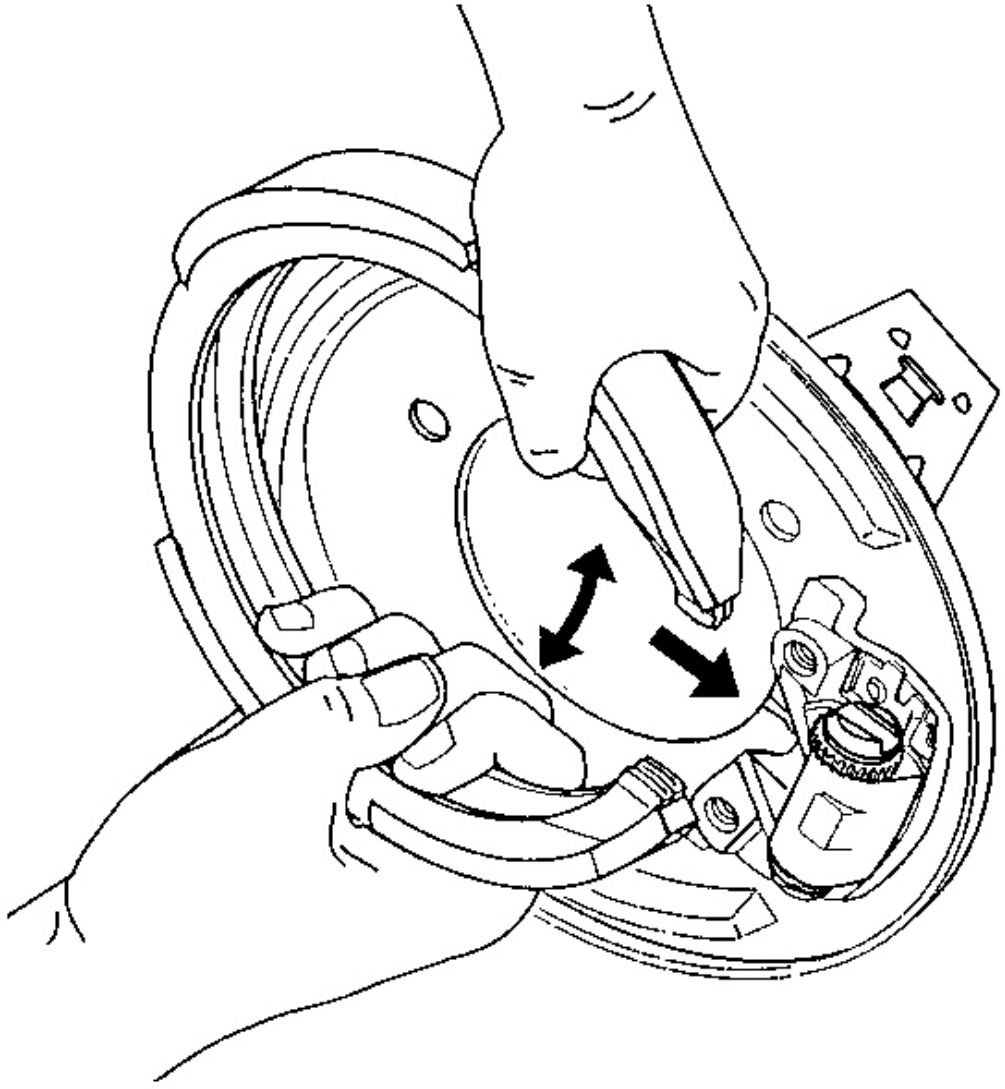


Fig. 33: Park Brake Shoe Assembly
Courtesy of GENERAL MOTORS CORP.

5. Install the park brake shoe assembly by grasping the shoe and spreading slightly while pulling the shoe over the actuator assembly.

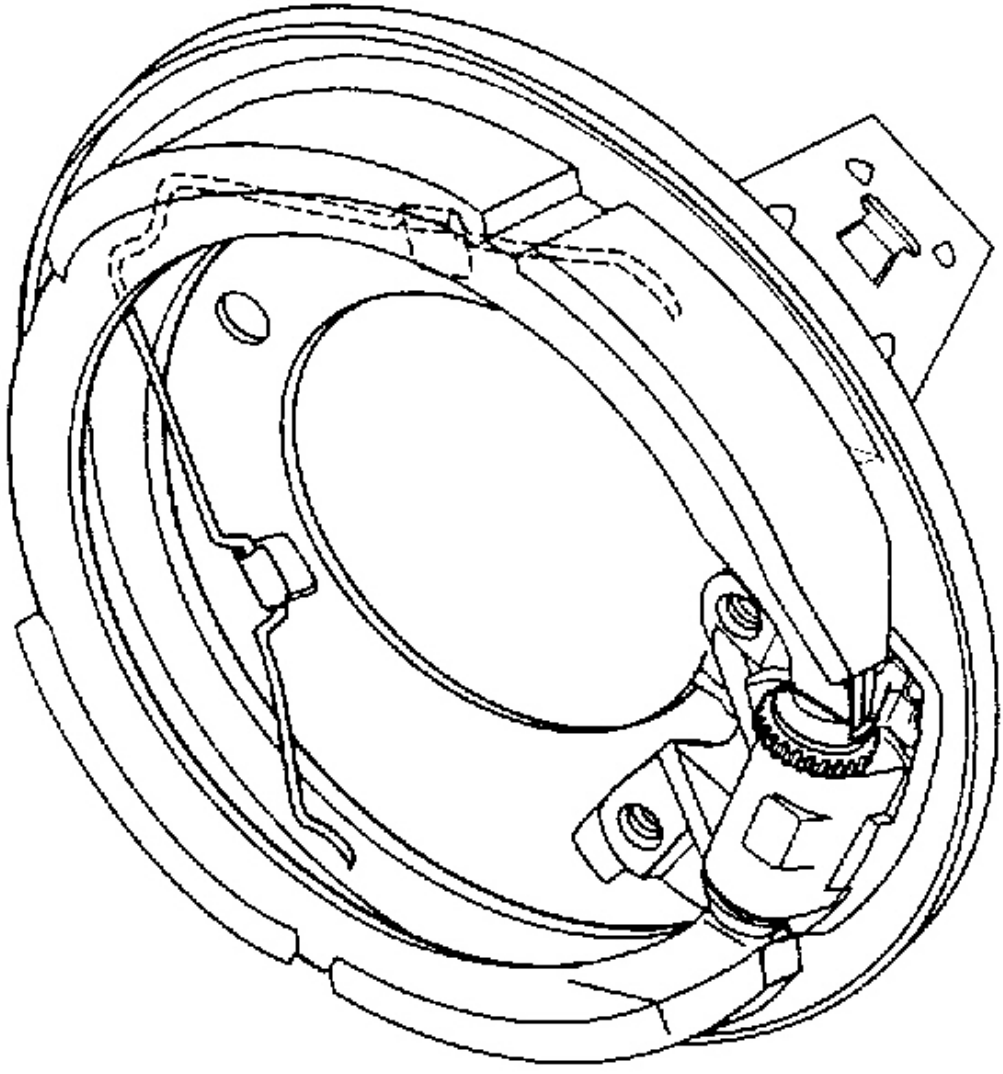


Fig. 34: View Of Drum Brake
Courtesy of GENERAL MOTORS CORP.

6. Install the park brake shoe retaining spring.
7. Adjust the park brake. Refer to **Park Brake Adjustment** .
8. Install the brake rotor. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.

PARK BRAKE ADJUSTMENT

Tools Required

J 21177-A Drum to Brake Shoe Clearance Gauge. See **Special Tools and Equipment** .

IMPORTANT: Park brake adjustment is not necessary after replacing the park brake lever or park brake cables. The park brake cables are tensioned automatically by cycling the park brake lever three times.

1. Apply and fully release the parking brake three times.
2. Verify that the parking brake lever releases completely.
3. Turn ON the ignition. Verify that the red BRAKE warning indicator lamp is off.
4. Turn OFF the ignition.
5. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
6. Remove the rear tire and wheel assemblies. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.

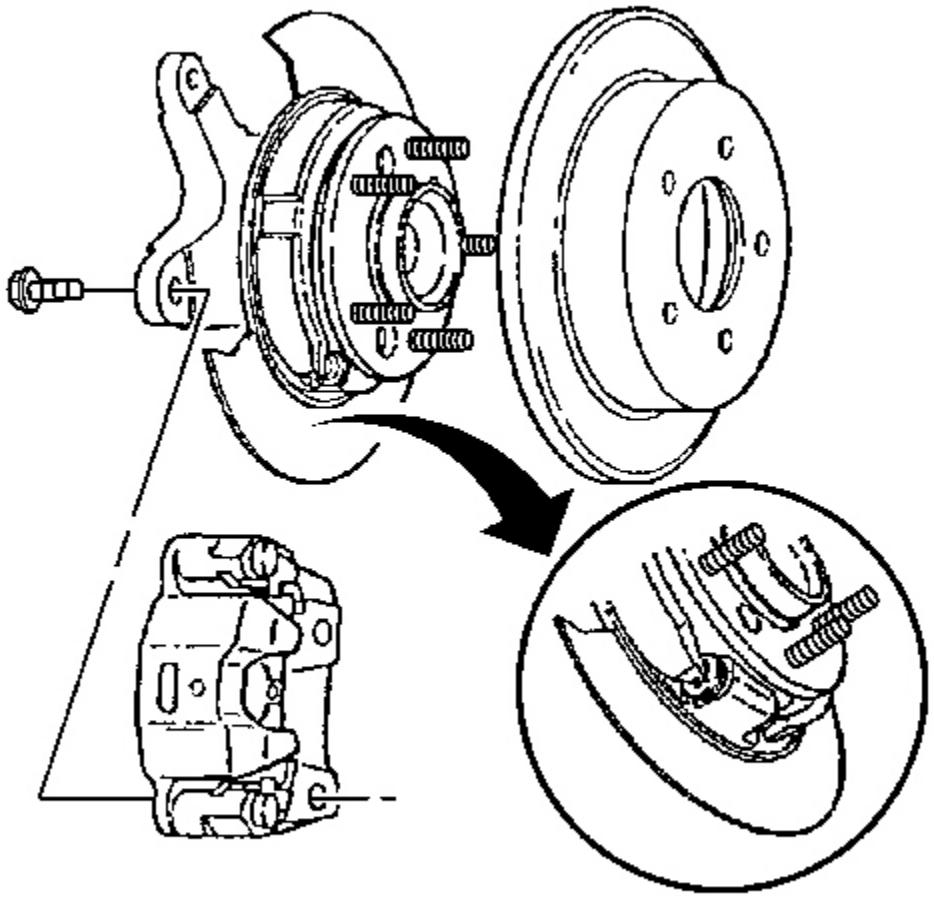


Fig. 35: Identifying Rear Brake Components
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Do not operate the park brake lever with the rear disc brake rotor removed.

7. Remove the rear disc brake rotors. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.

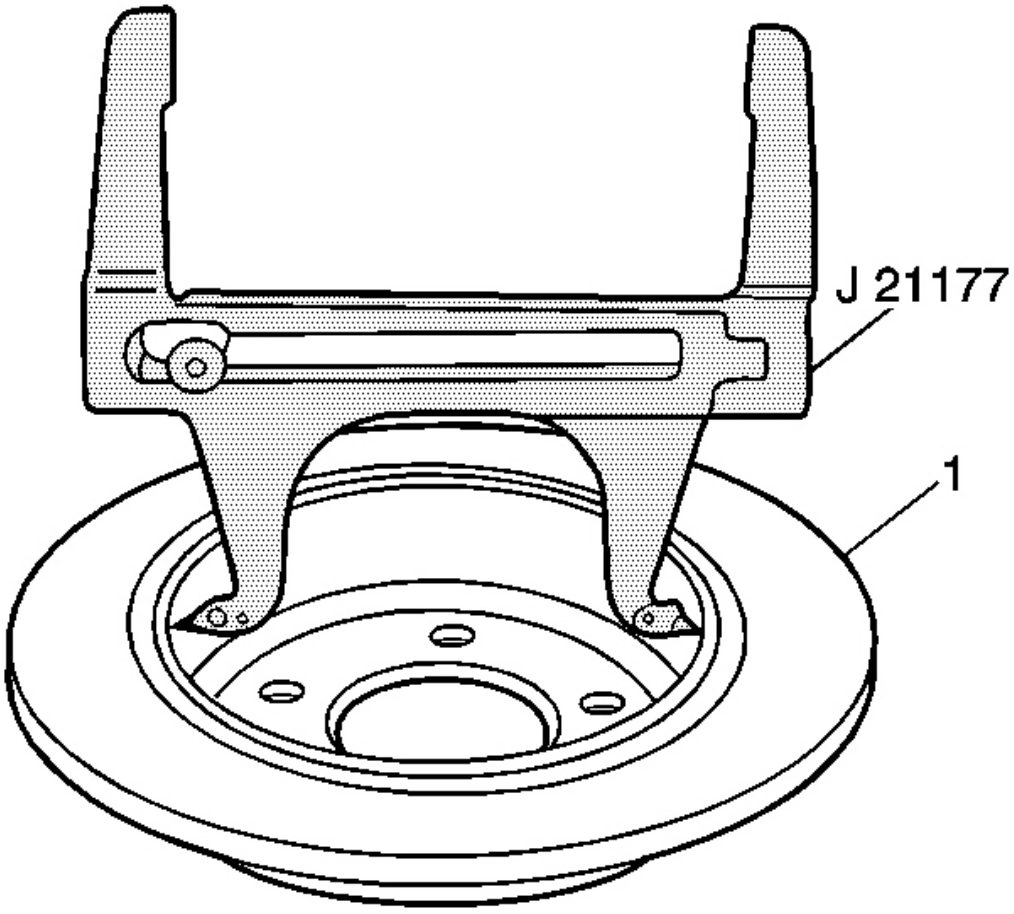


Fig. 36: Applying J 21177-A To Inside Of Brake Drum
Courtesy of GENERAL MOTORS CORP.

8. Place the inside measurement contacts of the**J 21177-A** at the widest point of the drum portion of the brake rotor (1). See **Special Tools and Equipment** .
9. Tighten the set screw on the tool in order to ensure the proper measurement when removing the tool from the drum.

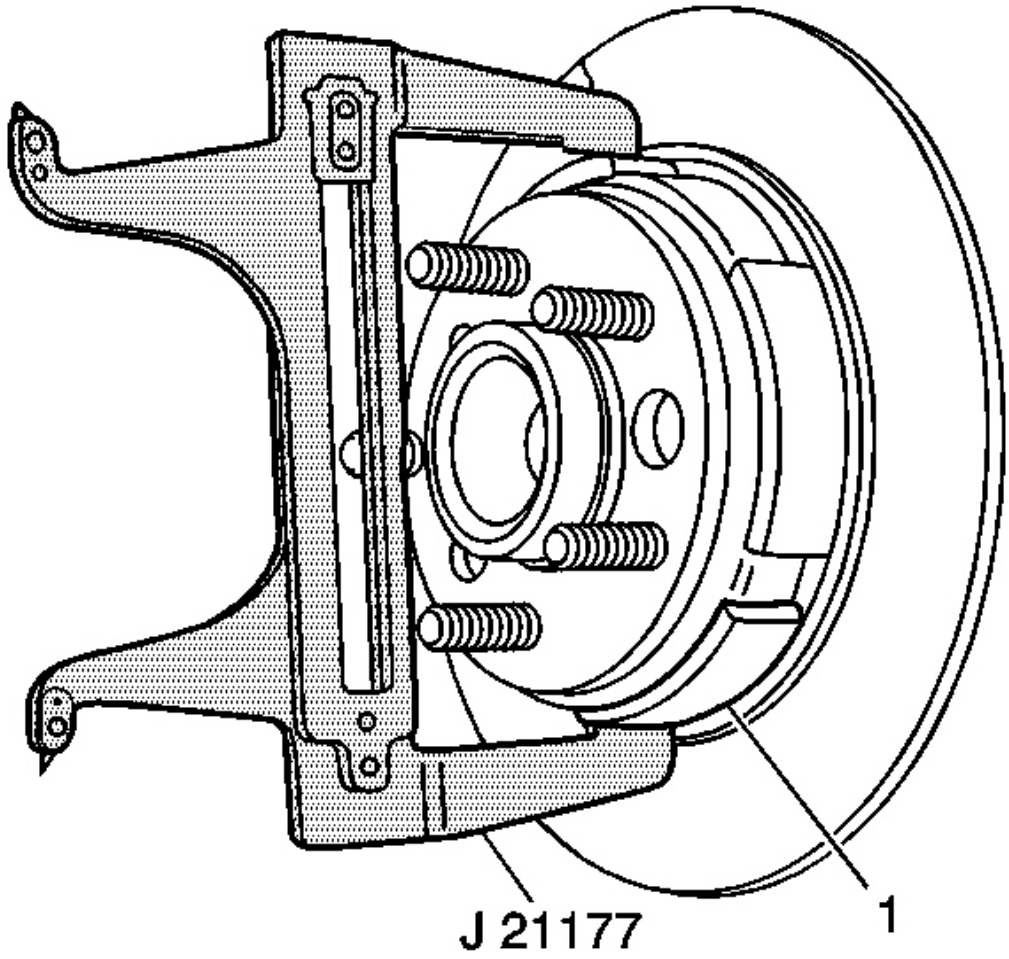


Fig. 37: Adjusting Parking Brake Shoes Using J 21177-A
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: If the gap between the adjuster nut and the adjuster screw exceeds 5 mm (0.25 in) during the adjustment procedure, the park brake shoe must be replaced.

10. Position the outside measurement contacts of the **J 21177-A** over the park brake shoe (1) at the widest point. See **Special Tools and Equipment** .
11. Adjust the park brake shoe-to-drum clearance by rotating the adjustment nut on the park brake actuator.

Specification: 0.38 mm (0.015 in)

12. Install the rear brake rotors. Refer to **Brake Rotor Replacement - Rear** in Disc Brakes.
13. Install the rear tire and wheel assemblies. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
14. Apply and release the park brake lever three times.
15. Apply the park brake lever. Inspect the rotation of the rear wheels:
    - The wheels should not rotate forward.
    - The wheels should drag or not rotate rearward.
16. If the rear tire and wheel assemblies rotate forward or do not exhibit drag rearward, repeat the adjustment procedure.
17. Release the parking lever. Verify that the wheels rotate freely
18. Lower the vehicle

DESCRIPTION AND OPERATION

PARK BRAKE SYSTEM DESCRIPTION AND OPERATION

System Component Description

The park brake system consists of the following:

Park Brake Lever Assembly

Receives and transfers park brake system apply input force from driver to park brake cable system. Releases applied park brake system when the lever is returned to the at-rest rest position.

Park Brake Cables

Transfers input force received from park brake lever, through park brake cable equalizer, to park brake apply lever.

Park Brake Cable Equalizer

Evenly distributes input force to both the left and right park brake units. An auto adjust spring is used to remove the slack in the park brake cables.

Park Brake Actuator/Adjuster

Uses multiplied input force from apply lever via the cables to expand park brake shoe toward the friction surface of the drum-in-hat portion of the rear brake rotor. Threaded park brake actuators/adjusters are also used to control clearance between the park brake shoe and the friction surface of the drum-in-hat portion of the rear brake rotor.

Park Brake Shoe (Rear Disc, Drum-In-Hat System)

Applies mechanical output force from park brake actuator/adjuster to friction surface of the drum-in-hat portion of the rear brake rotor.

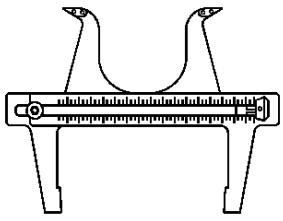
System Operation

Park brake apply input force is received by the park brake lever assembly being raised, transferred and evenly distributed, through the park brake cables and the park brake cable equalizer, to the left and right park brake apply levers. The park brake apply levers multiply and transfer the apply input force to the park brake actuators/adjusters which expand the park brake shoe toward the friction surface of the drum-in-hat portion of the rear brake rotor in order to prevent the rotation of the rear tire and wheel assemblies. The park brake lever assembly releases an applied park brake system when the lever is returned to the at-rest rest position.

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Special Tools

Illustration	Tool Number/ Description
	J 21177-A Drum to Brake Shoe Clearance Gauge