2004 BRAKES

Park Brake - C/K SUV

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Backing Plate Bolts (15 Series)	135 N.m	100 lb ft
Backing Plate Bolts (25 Series)	135 N.m	100 lb ft
Cable Support Bracket Bolts	85 N.m	64 lb ft
Intermediate Cable Threaded Rod Nut	3.5 N.m	31 lb in
Park Brake Bracket Bolt, Rear	61 N.m	45 lb ft
Park Brake Cable Guide to Frame Bolt	18 N.m	13 lb ft
Park Brake Cable to Rear Axle Clip Bolt	25 N.m	18 lb ft
Park Brake Cable to Shock Absorber Bracket Bolt	25 N.m	18 lb ft
Park Brake Lever Mounting Bolts	25 N.m	18 lb ft
Park Brake Shoe Retaining Clip Bolt	3 N.m	25 lb in
Park Brake Warning Lamp Switch Bolt	3 N.m	25 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

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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 - Hydraulic Brakes**	Go to **Diagnostic Starting Point - Park Brake**

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		Park Brake	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**
5	1. Shift the transmission into NEUTRAL. 2. Apply the park brake. 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 22**	Go to **Step 11**
7	Visually check the park brake cable connections and the cables that are accessible on the UNDERSIDE of the vehicle for disconnections and/or damage. Were any or 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 - Intermediate** • **Park Brake Cable Replacement - Left Rear (without RPO NYS)** or **Park Brake Cable Replacement - Left Rear (with RPO NYS)**		-

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	• **Park Brake Cable Replacement - Right Rear (without RPO NYS)** or **Park Brake Cable Replacement - Right Rear (with RPO NYS)** 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 attain adjustment of 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 (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** 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 (Except RPO NYS, 25 Series)** or **Park Brake Shoe Replacement (RPO NYS)** or **Park Brake Shoe Replacement (25 Series)**. 2. Replace the park brake actuators as necessary. Refer to **Park Brake Actuator Replacement (15 Series)** or **Park Brake Actuator Replacement (25 Series)**. Did you complete the replacement?	Go to **Step 13**	-

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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 attain adjustment of the park brake?	Go to **Step 16**	Go to **Step 27**
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 29**	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 - Intermediate** • **Park Brake Cable Replacement - Left Rear (without RPO NYS)** or **Park Brake Cable Replacement - Left Rear (with RPO NYS)** • **Park Brake Cable Replacement - Right Rear (without RPO NYS)** or **Park Brake Cable Replacement - Right Rear (with RPO NYS)**		-

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	Did you complete the replacement?	Go to **Step 19**	
19	1. Disconnect the front park brake cable connection accessible INSIDE the vehicle at the park brake pedal assembly and check for free movement. 2. 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 25**	Go to **Step 20**
20	1. Disconnect the park brake release handle assembly cable connection from the park brake pedal assembly and check for free movement. 2. Replace the park brake release handle assembly if the release cable does not have free movement. Refer to **Park Brake Release Handle Assembly Replacement**. Did you find and correct a condition?	Go to **Step 25**	Go to **Step 21**
21	Replace the park brake pedal assembly (not releasing properly). Refer to **Park Brake Pedal Assembly Replacement**. Did you complete the replacement?	Go to **Step 26**	-
22	Check the adjustment of the park brake. Refer to **Park Brake Adjustment**. Is the park brake adjusted properly?	Go to **Step 29**	Go to **Step 23**
23	Adjust the park brake. Refer to **Park Brake Adjustment**. Were you able to attain adjustment of the park brake system?	Go to **Step 28**	Go to **Step 24**
24	1. Remove the rear brake rotors, if they have not yet been removed. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes. 2. Check the park brake actuators for a seized condition. 3. Replace the park brake actuators as necessary. Refer to **Park Brake Actuator Replacement (15 Series)** or **Park Brake Actuator Replacement (25 Series)**.		

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	Did you find and correct a condition?	Go to **Step 25**	Go to **Step 27**
25	Adjust the park brake. Refer to **Park Brake Adjustment**. Were you able to attain adjustment of the park brake system?	Go to **Step 28**	Go to **Step 27**
26	Adjust the park brake. Refer to **Park Brake Adjustment**. Were you able to attain adjustment of the park brake system?	Go to **Step 28**	Return to Symptom Table
27	1. Replace the component that is used to adjust the park brake system. Refer to **Park Brake Cable Equalizer Replacement**. 2. Adjust the park brake. Refer to **Park Brake Adjustment**. Did you complete the replacement and adjustment?	Go to **Step 28**	Return to Symptom Table
28	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 29**	Return to Symptom Table
29	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 support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Remove the rear brake caliper bracket with the rear brake caliper. Refer to **Brake Caliper Bracket Replacement - Rear (W/O NYS)** or **Brake Caliper Bracket Replacement - Rear (W/NYS)** in Disc Brakes.

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4. Remove the rear brake rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
5. 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 of the brake lining
6. Adjust the park brake shoe. Refer to **Park Brake Adjustment** in Park Brake.
7. Install the rear brake rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
8. Install the rear brake caliper with the rear brake caliper bracket. Refer to **Brake Caliper Bracket Replacement - Rear (W/O NYS)** or **Brake Caliper Bracket Replacement - Rear (W/NYS)** in Disc Brakes.
9. Install the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
10. Lower the vehicle.

REPAIR INSTRUCTIONS

PARK BRAKE SHOE REPLACEMENT (EXCEPT RPO NYS, 25 SERIES)

Removal Procedure

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

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the tire and the wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.
4. Remove the park brake cable from the park brake actuator lever.
5. Remove the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
6. Turn the adjustment screw (1) to the fully home position in the notched adjustment nut.
7. Remove the park brake shoe assembly from the backing plate by removing the tips from the slots and sliding the shoe (2) towards the retaining spring (3) until the shoe disengages from the spring.

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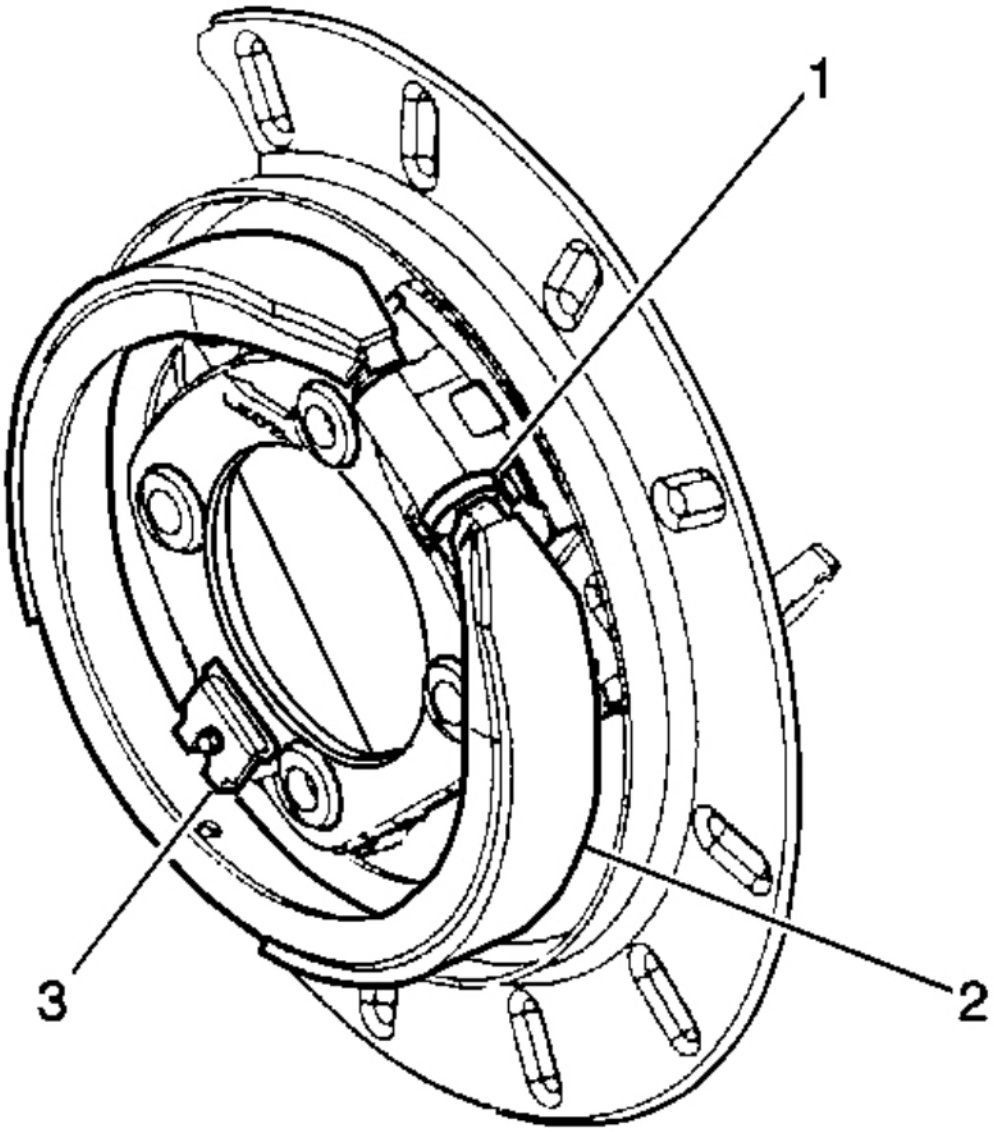


Fig. 1: Locating Adjustment Screw, Park Brake Shoe & Retaining Spring
Courtesy of GENERAL MOTORS CORP.

8. Remove the park brake shoe assembly from the vehicle by placing one of the open ends of the shoe over the axle flange and rotating the shoe until it has cleared the flange.

Installation Procedure

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1. Clean the debris and the dust from the park brake components using a clean shop cloth.
2. Align the slots in both the adjusting screw (1) and tappet to be parallel with the backing plate face.
3. Install the park brake shoe assembly to the vehicle by placing one of the open ends of the shoe (2) over the axle flange and rotating the shoe until it is behind the flange.
4. Position the park brake shoe (2) on the inboard side of the actuator.
5. Slide the park brake shoe (2) into position and seat into the retaining spring (3).

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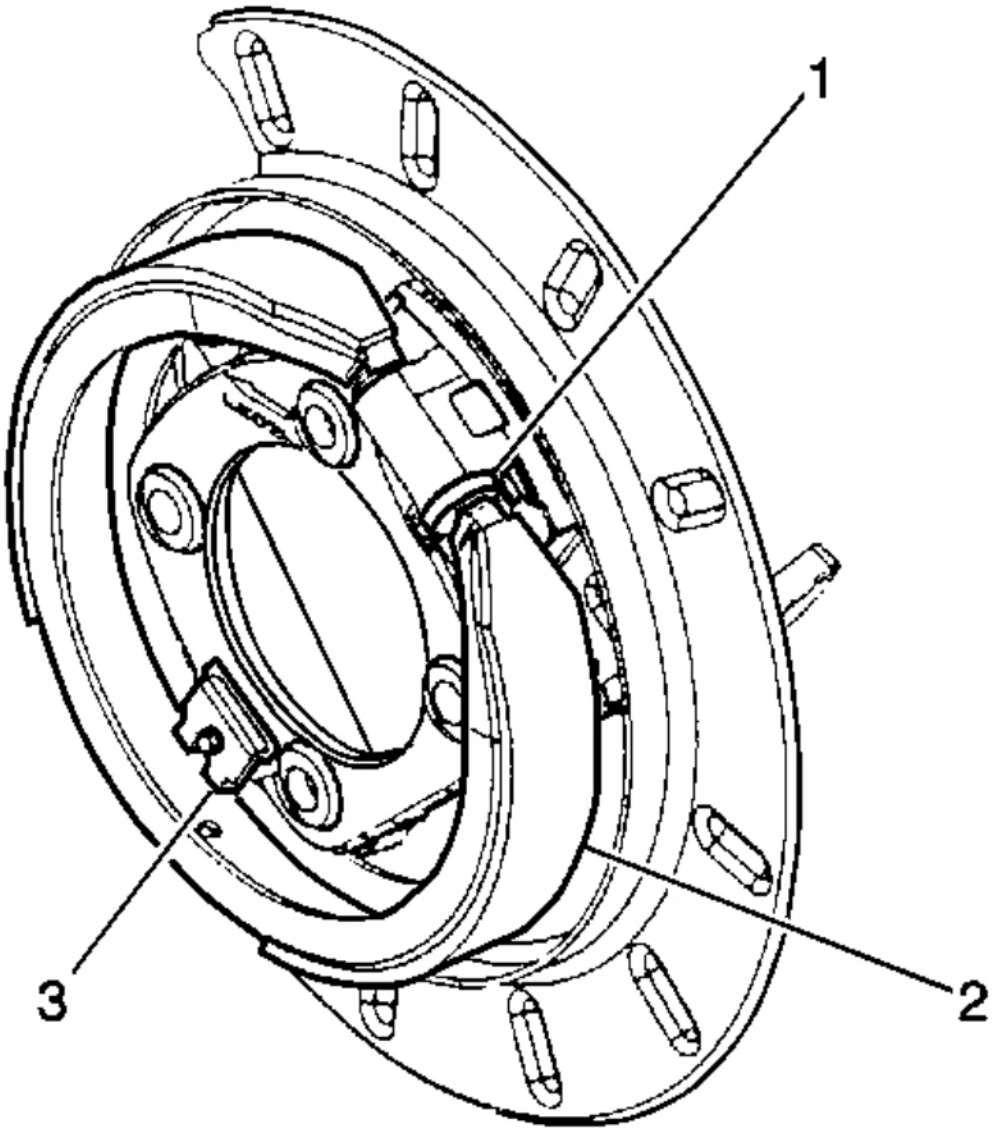


Fig. 2: Locating Adjustment Screw, Park Brake Shoe & Retaining Spring
Courtesy of GENERAL MOTORS CORP.

6. Inspect the shoe assembly position. The shoe must be central on the backing plate with both tips located in the slots.
7. Adjust the park brake shoe. Refer to **Park Brake Adjustment**.
8. Install the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement -**

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Rear (W/O NYS) in Disc Brakes.

9. Install the park brake cable to the park brake actuator lever.
10. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and installing the cable to the equalizer bar.
11. Install the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
12. Remove the safety stands.
13. Lower the vehicle.
14. Adjust park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE SHOE REPLACEMENT (RPO NYS)

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

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
4. Relieve the tension from the park brake cable by pulling down on the intermediate cable then release the cable from the equalizer bar.

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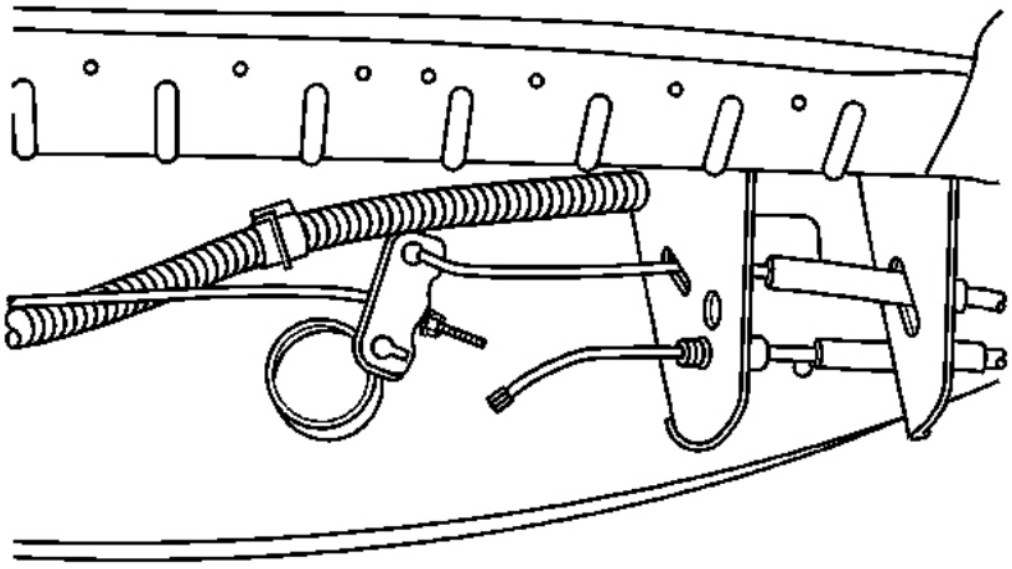


Fig. 3: Equalizer Bar & Park Brake Cable - Rear
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5. Remove the rear park brake bracket bolt.

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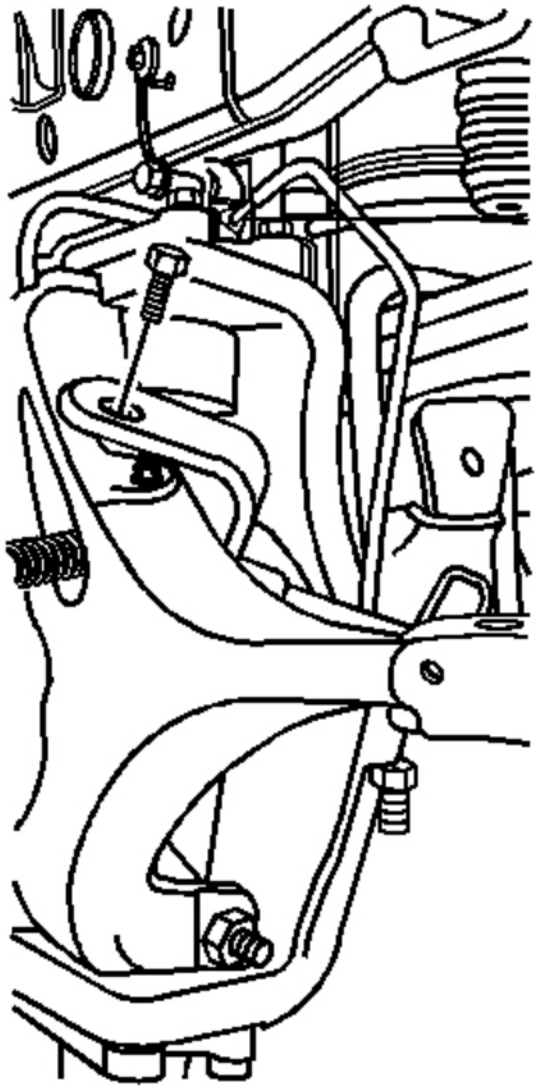


Fig. 4: Identifying Rear Park Brake Bracket Bolt
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6. Remove the park brake cable from the park brake actuator lever.

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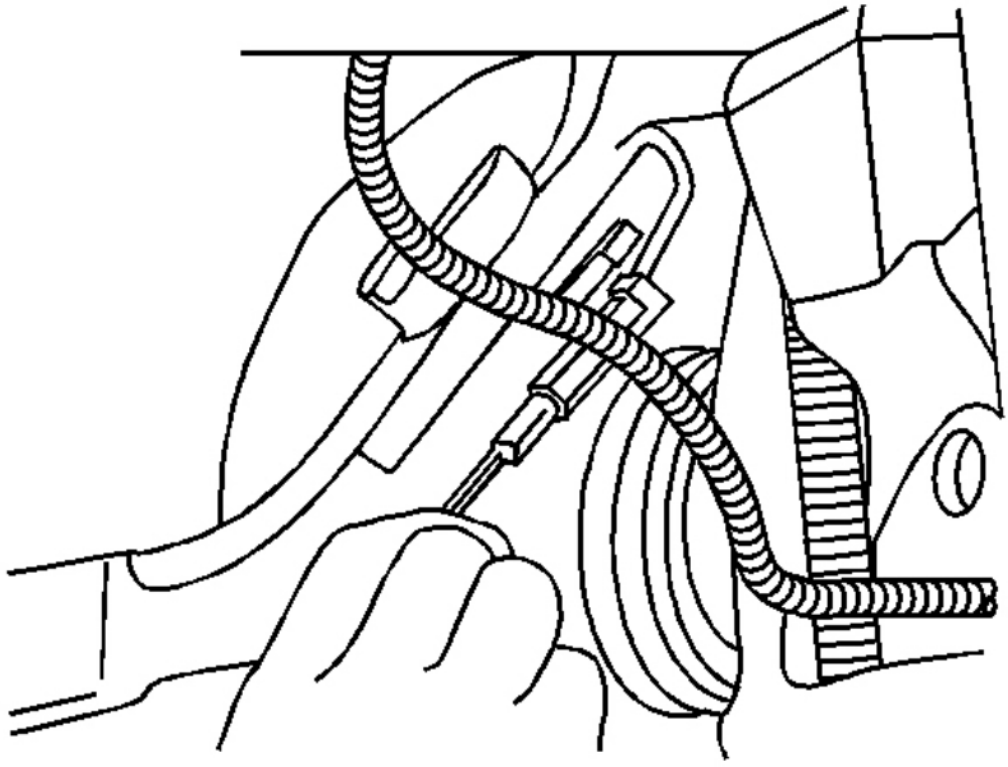


Fig. 5: View Of Park Brake Cable To Park Brake Actuator Lever
Courtesy of GENERAL MOTORS CORP.

7. Remove the wheel bearing. Refer to **Wheel Hub and Bearing Replacement** in Rear Wheel Steering.
8. Remove the park brake assembly and backing plate from the steering knuckle.
9. Remove the park brake shoe retaining clip bolt and retaining clip.
10. Remove the park brake shoe from the actuator.

Installation Procedure

1. Install the park brake shoe to the actuator.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the park brake shoe retaining clip and retaining clip bolt.

Tighten: Tighten the bolt to 3 N.m (25 lb in).

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3. Install the park brake assembly and backing plate to the steering knuckle.
4. Install the wheel bearing. Refer to **Wheel Hub and Bearing Replacement** in Rear Wheel Steering.
5. Install the park brake cable to the park brake actuator lever.

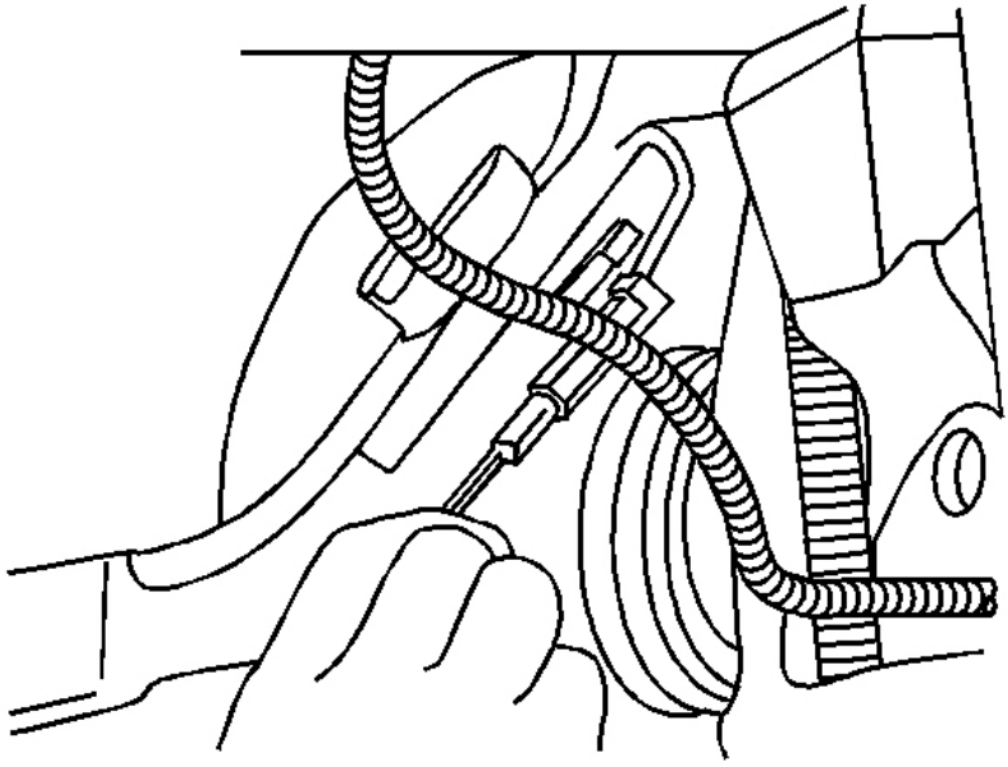


Fig. 6: View Of Park Brake Cable To Park Brake Actuator Lever
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6. Install the rear park brake bracket bolt.

   Tighten: Tighten the bolt to 61 N.m (45 lb ft).

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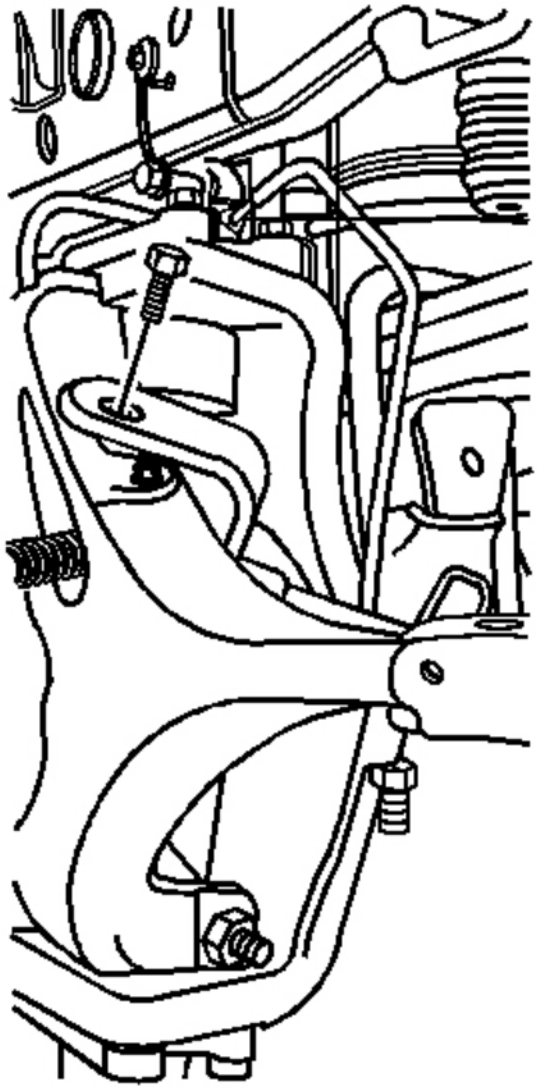


Fig. 7: Identifying Rear Park Brake Bracket Bolt
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7. Install the park brake cable to the equalizer bar.

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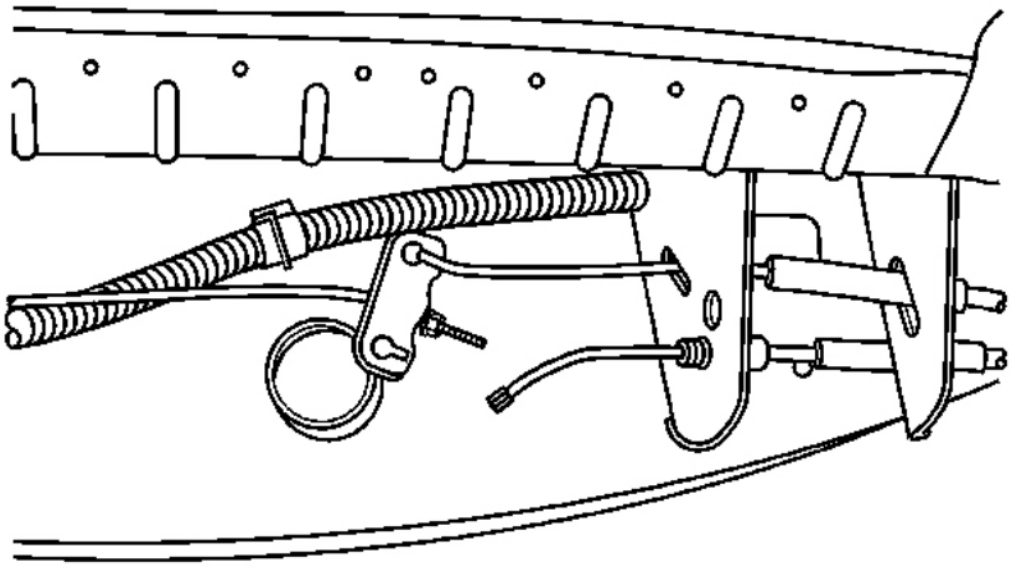


Fig. 8: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

8. Adjust the park brake shoe. Refer to **Park Brake Adjustment**.
9. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
10. Lower the vehicle.

PARK BRAKE SHOE REPLACEMENT (25 SERIES)

Removal Procedure

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

1. Relieve the tension from the park brake cable by pulling down on the park brake cable in front of the equalizer then removing the cable from the equalizer bar.

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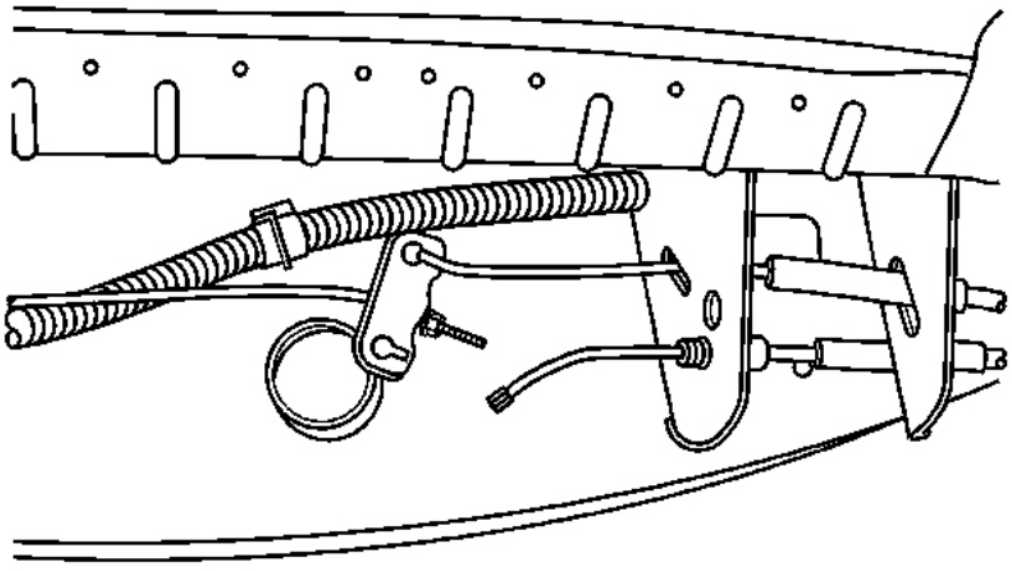


Fig. 9: Equalizer Bar & Park Brake Cable - Rear
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2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the tire and the wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
4. Perform the following procedure to remove the cable (2) from the backing plate (4):
    1. Compress the spring (3) by pushing towards the lever (1).
    2. Depress the locking tabs.
    3. Pull the cable housing out of the backing plate (4).
    4. Remove the cable (2) through the slot in the backing plate.
5. Remove the park brake cable (2) from the lever (1).

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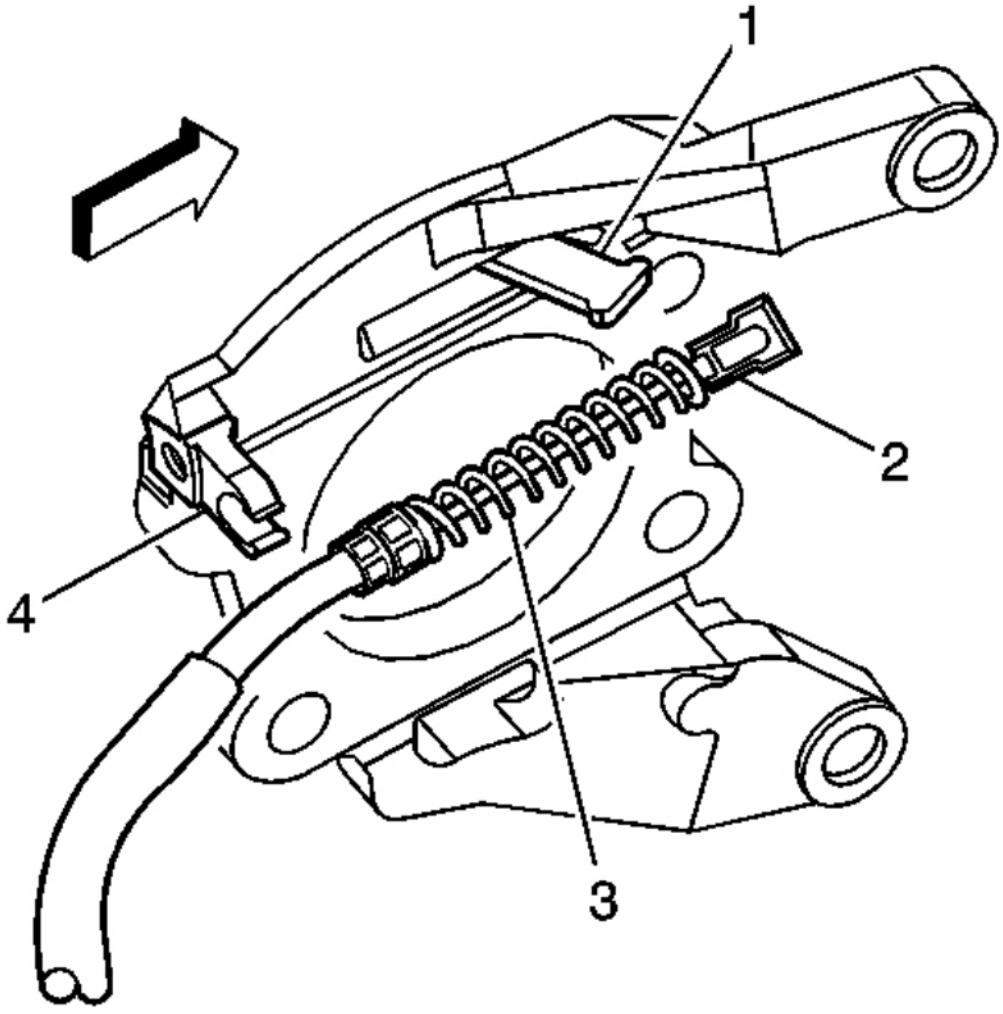


Fig. 10: View Of Lever, Park Brake Cable, Spring & Backing Plate
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6. Remove the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
7. Remove the rear axle shaft. Refer to **Rear Axle Shaft Replacement (8.6 Inch Axle W/O JL4, 9.5 Inch Axle)** or **Rear Axle Shaft Replacement (8.6 Inch Axle W/JL4)** or **Rear Axle Shaft Replacement (9.75 Inch Axle)** in Rear Drive Axle.
8. Remove the park brake shoe return spring (6).

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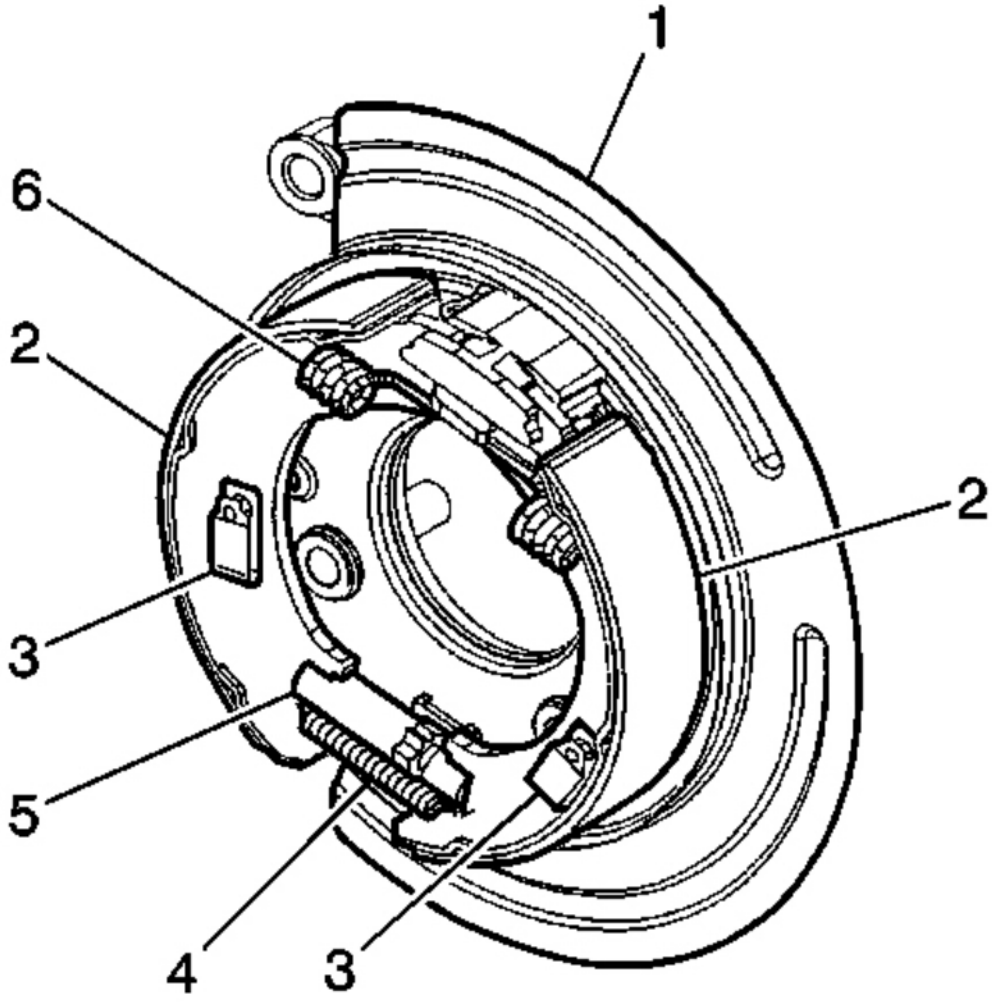


Fig. 11: Identifying Park Brake Shoe Components
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9. Remove the park brake shoe anchor springs and pins.

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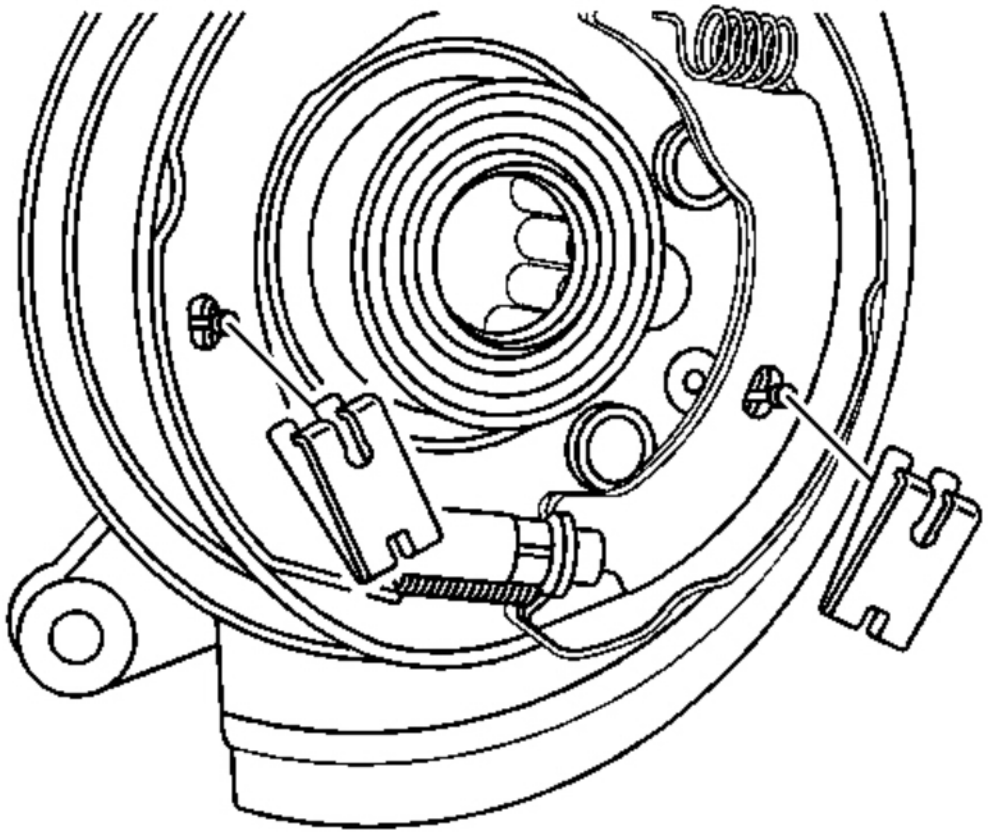


Fig. 12: View Of Park Brake Shoe Anchor Springs & Pins
Courtesy of GENERAL MOTORS CORP.

10. Separate the tips of the shoes from the park brake actuator and remove the park brake shoes and adjuster assembly from the vehicle.

Installation Procedure

1. Clean the debris and the dust from the park brake components using a clean shop cloth.
2. Install the adjuster assembly to the park brake shoes.
3. Separate the tips of the shoes and install the park brake shoes to the park brake actuator.
4. Install the park brake shoe anchor springs and pins.

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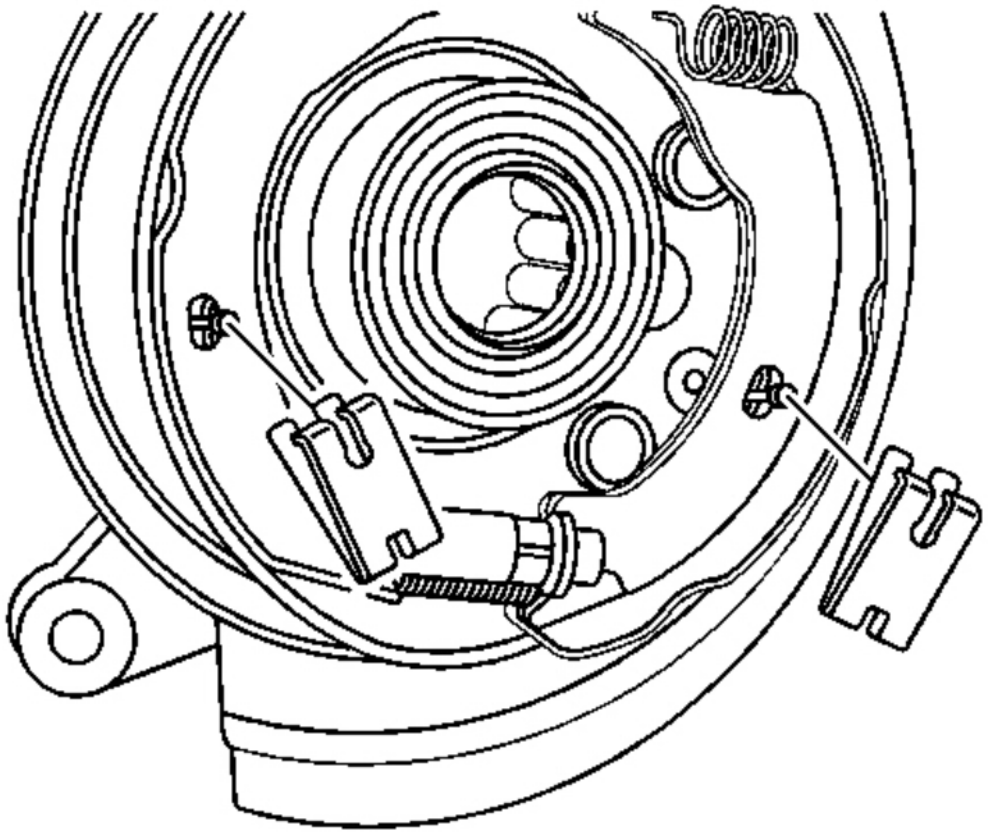


Fig. 13: View Of Park Brake Shoe Anchor Springs & Pins
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5. Install the park brake shoe return spring (6).

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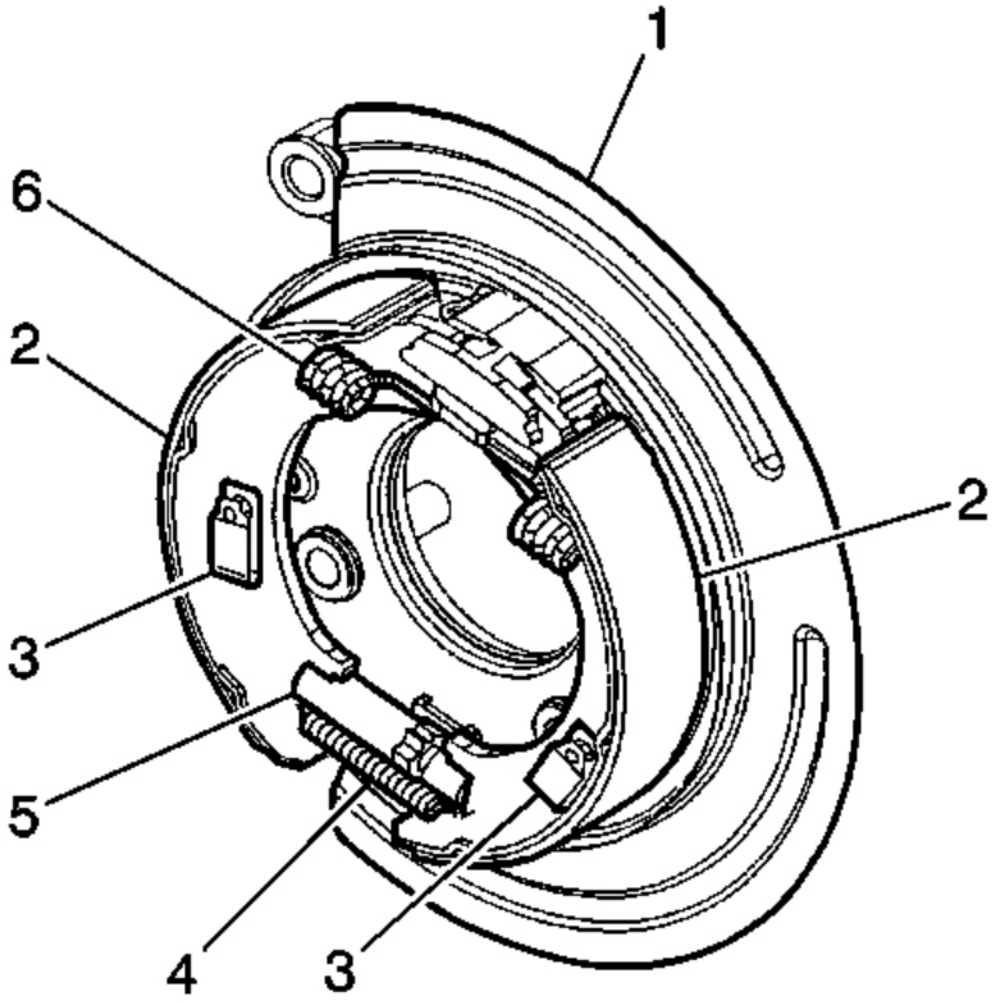


Fig. 14: Identifying Park Brake Shoe Components
Courtesy of GENERAL MOTORS CORP.

6. Adjust the park brake shoe. Refer to **Park Brake Adjustment**.
7. Install the rear axle shaft. Refer to **Rear Axle Shaft Replacement (8.6 Inch Axle W/O JL4, 9.5 Inch Axle)** or **Rear Axle Shaft Replacement (8.6 Inch Axle W/JL4)** or **Rear Axle Shaft Replacement (9.75 Inch Axle)** in Rear Drive Axle.
8. Install the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
9. Install the park brake cable (2) to the lever (1).

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10. Perform the following procedure to install the cable (2) to the backing plate (4):
    1. Compress the spring (3) by pushing towards the lever (1).
    2. Route the cable (2) through the slot in the backing plate.
    3. Push the cable housing into the backing plate (4) until the locking tabs snap into place.

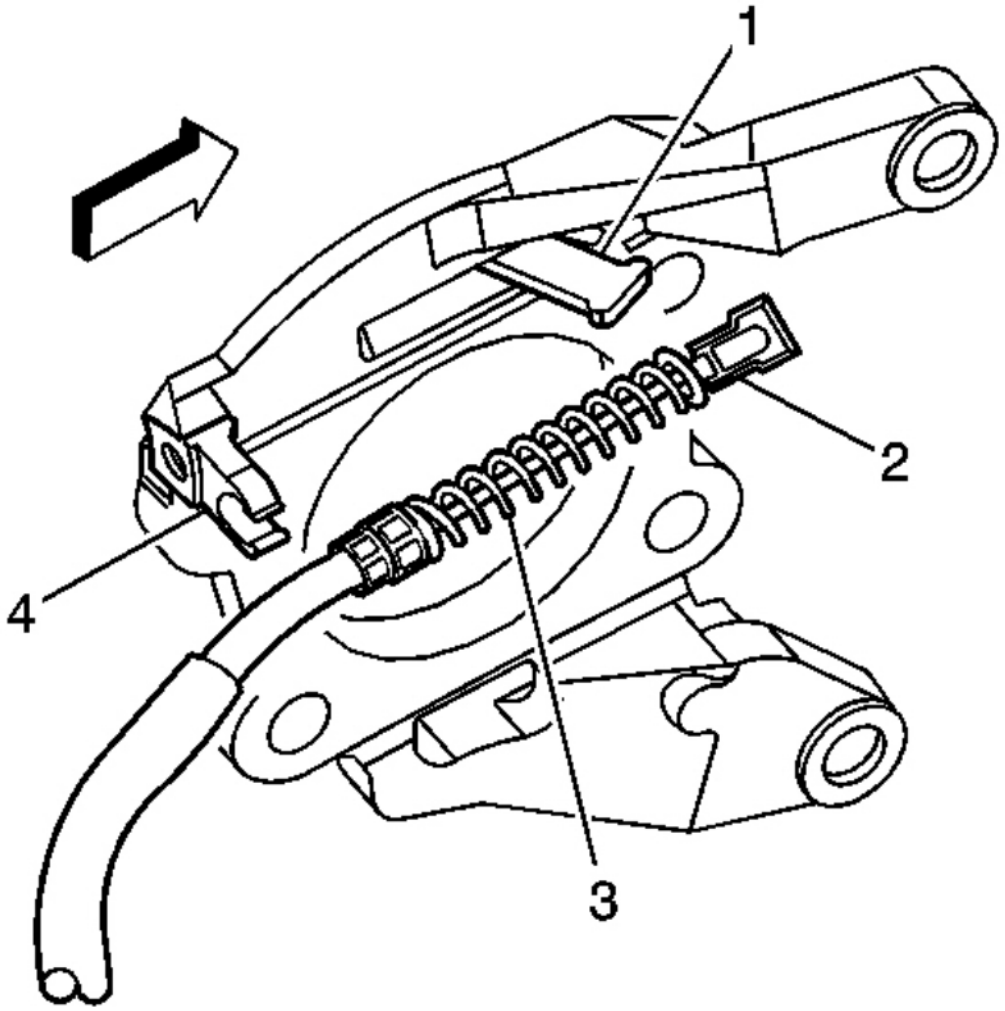


Fig. 15: View Of Lever, Park Brake Cable, Spring & Backing Plate
Courtesy of GENERAL MOTORS CORP.

11. Install the tire and wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
12. Remove the safety stands.

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13. Lower the vehicle.
14. Install the park brake cable to the equalizer by pulling down on the park brake cable in front of the equalizer then installing the cable to the equalizer bar.

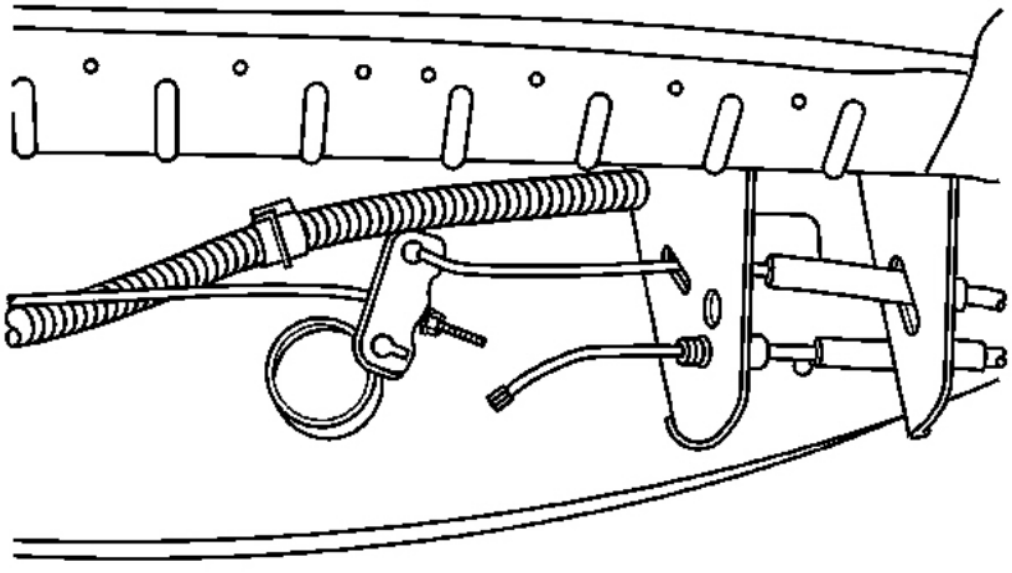


Fig. 16: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

15. Adjust the park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE RELEASE HANDLE ASSEMBLY REPLACEMENT

Removal Procedure

1. Remove the park brake release lever mounting bolt.
2. Remove the park brake release lever handle from the knee bolster.

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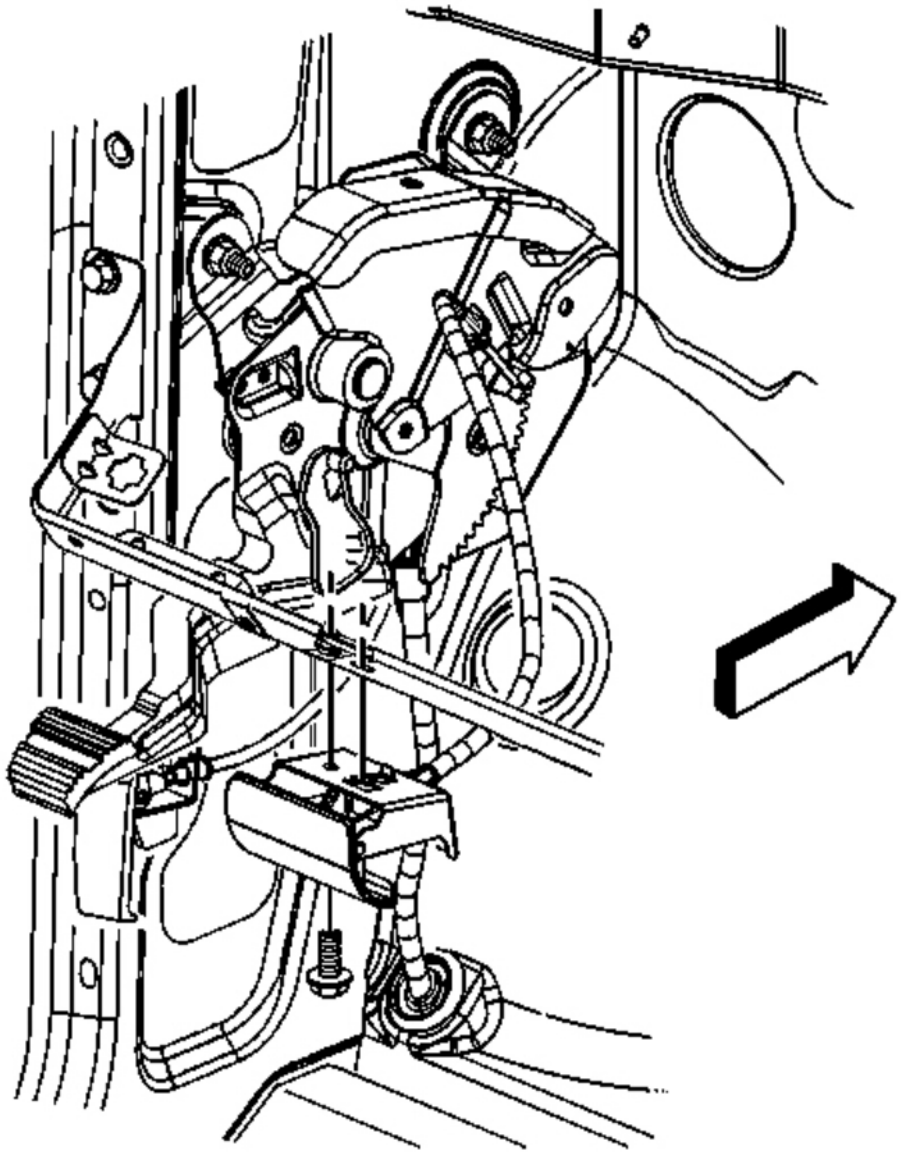


Fig. 17: View Of Park Brake Release Lever Handle & Bolt
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the park brake release lever handle to the knee bolster.

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

2. Install the park brake release lever mounting bolt.

   Tighten: Tighten to 25 N.m (18 lb ft).

3. Connect the park brake release cable to the lever.

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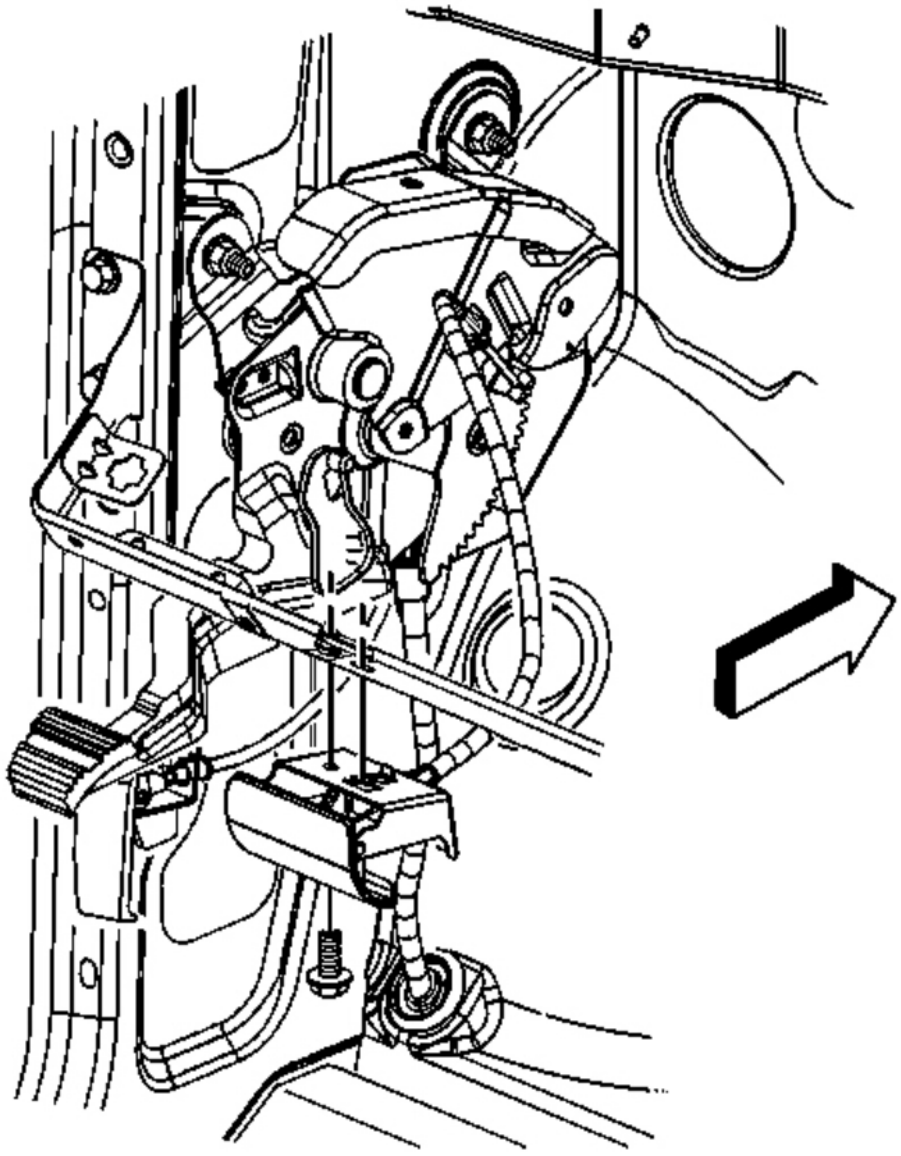


Fig. 18: View Of Park Brake Release Lever Handle & Bolt
Courtesy of GENERAL MOTORS CORP.

PARK BRAKE PEDAL ASSEMBLY REPLACEMENT

Removal Procedure

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CAUTION: Refer to Battery Disconnect Caution in Cautions and Notices.

1. Disconnect the negative battery cable.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.

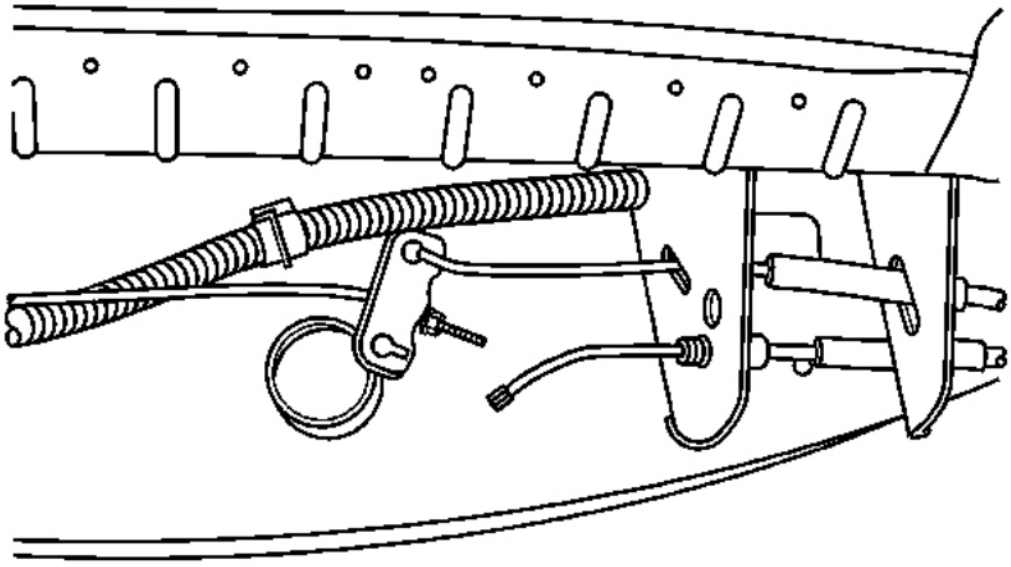


Fig. 19: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

4. Remove the safety stands.
5. Lower the vehicle.
6. Remove the left side hinge pillar panel. Refer to **Trim Panel Replacement - Hinge Pillar** in Interior Trim.
7. Disconnect the park brake warning lamp connection.
8. Remove the MID-Bussed Electrical Center from the bracket.
9. Disconnect the park brake release cable from the park brake lever.

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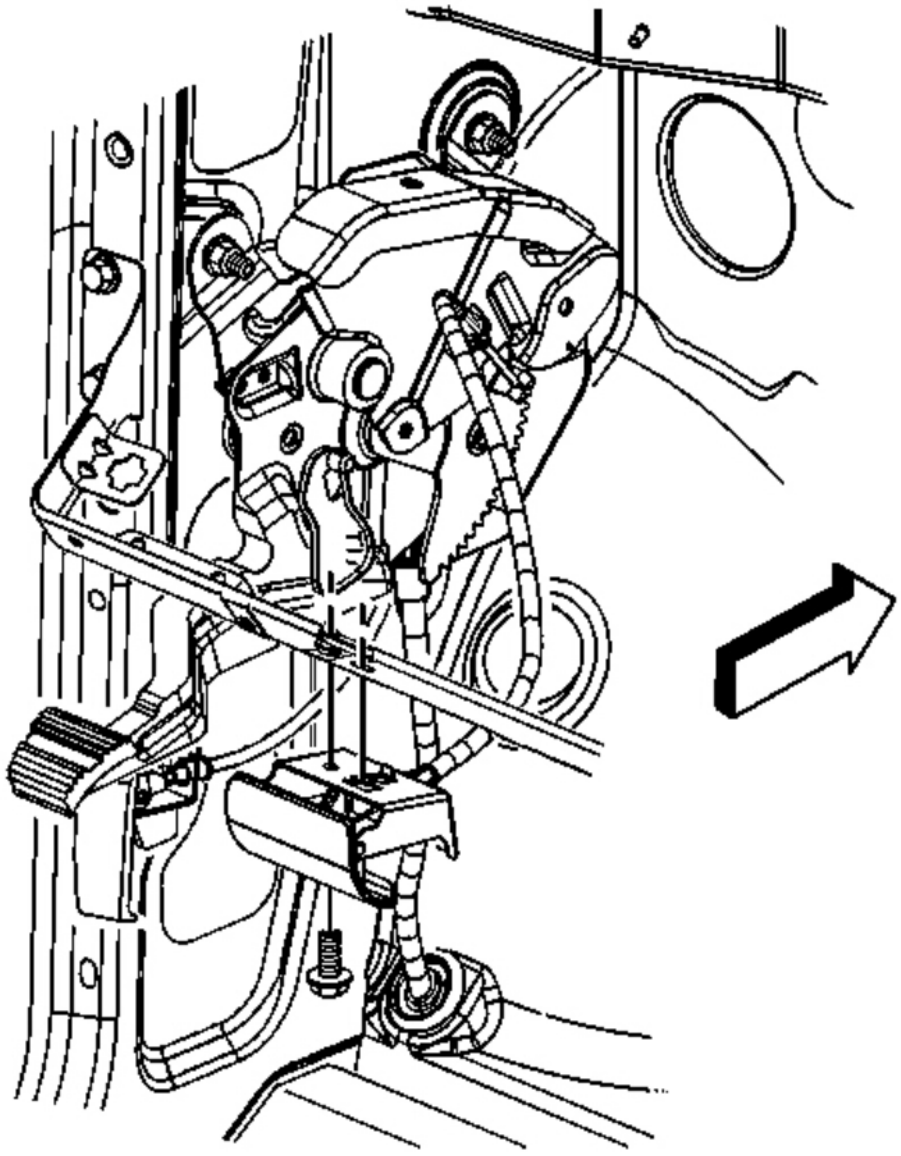


Fig. 20: View Of Park Brake Release Lever Handle & Bolt
Courtesy of GENERAL MOTORS CORP.

10. Remove the park brake lever mounting nuts.

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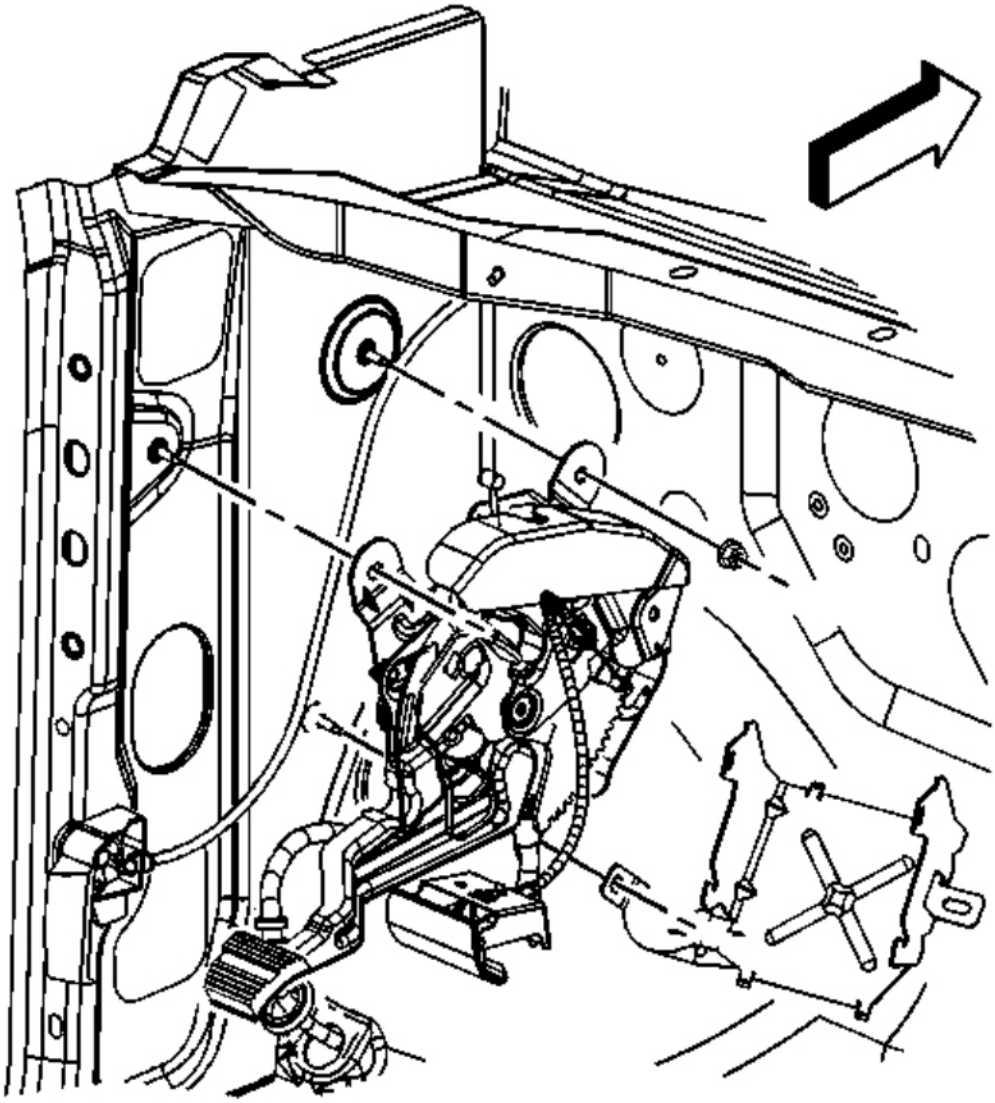


Fig. 21: View Of Park Brake Lever Mounting Nuts
Courtesy of GENERAL MOTORS CORP.

11. Disconnect the front park brake cable from the park brake lever.

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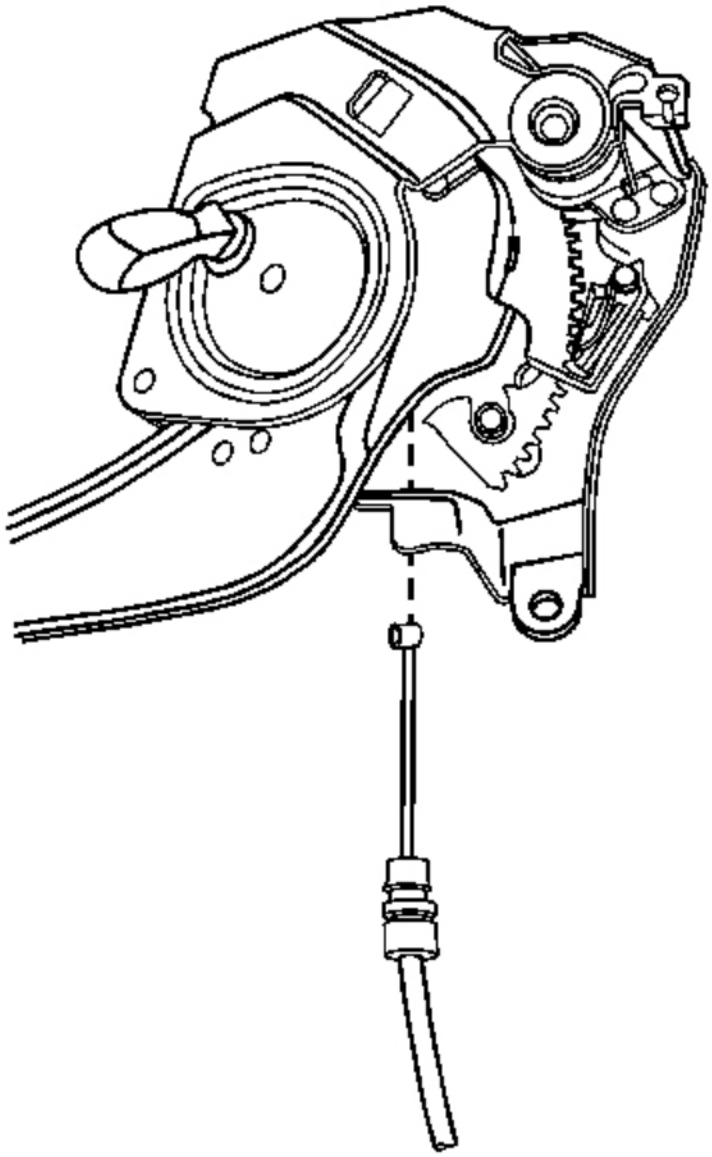


Fig. 22: View Of Front Park Brake Cable To Park Brake Lever
Courtesy of GENERAL MOTORS CORP.

12. Remove the park brake lever.

Installation Procedure

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1. Connect the front park brake cable to the park brake lever.

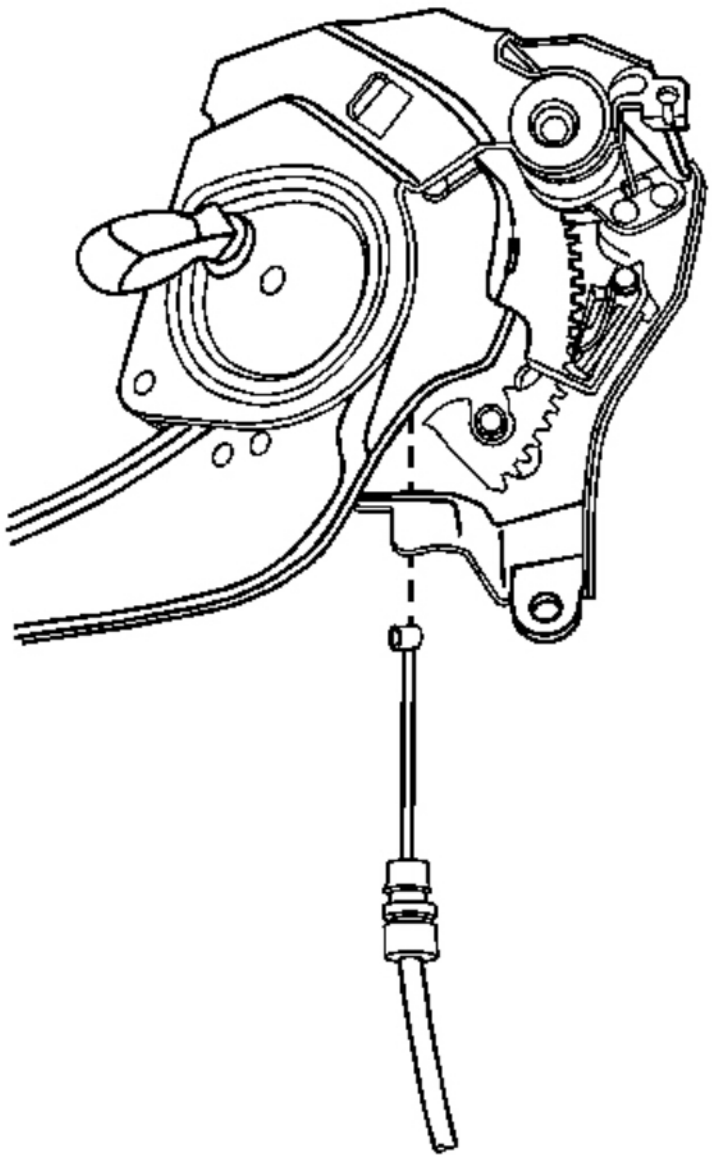


Fig. 23: View Of Front Park Brake Cable To Park Brake Lever
Courtesy of GENERAL MOTORS CORP.

2. Install the park brake lever.

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

3. Install the park brake lever mounting nuts.

   Tighten: Tighten the nuts to 25 N.m (18 lb ft).

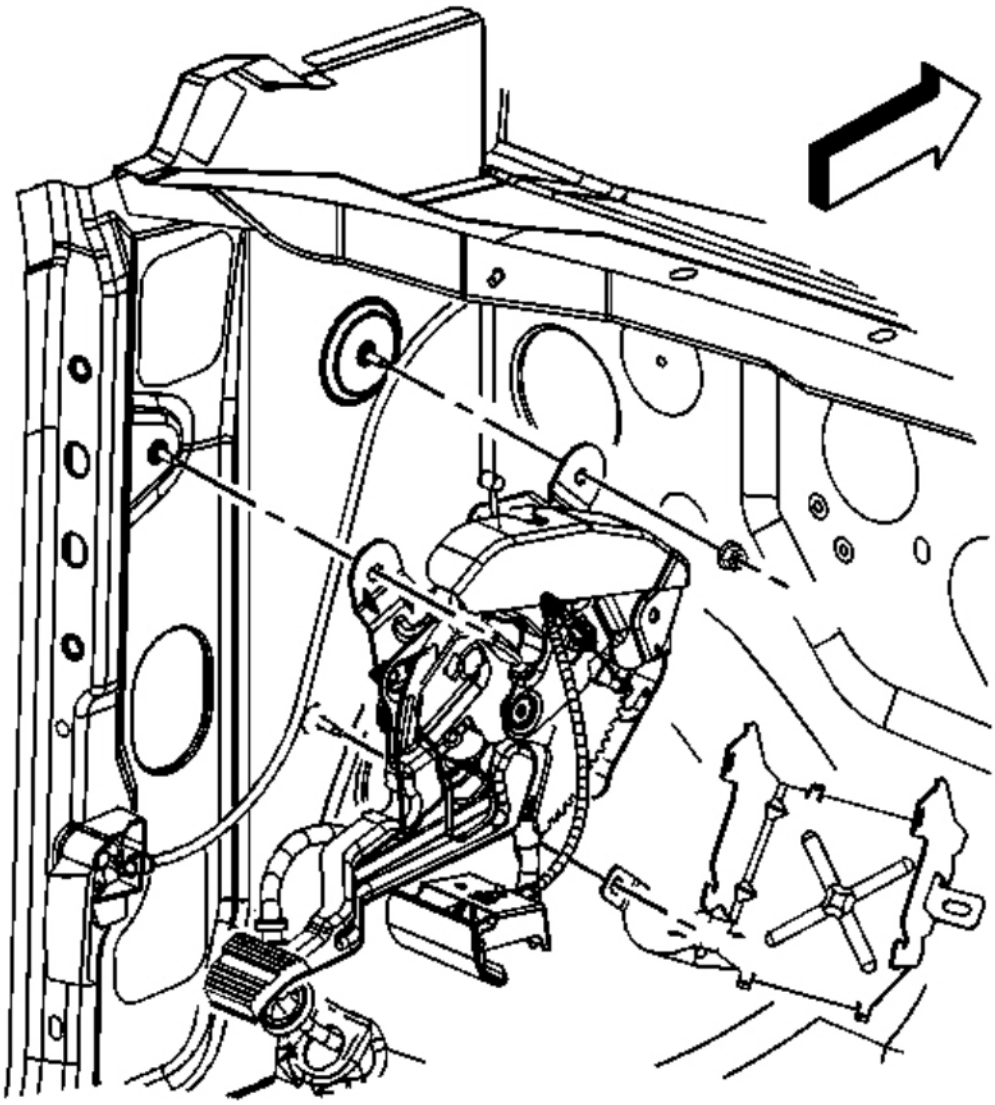


Fig. 24: View Of Park Brake Lever Mounting Nuts
Courtesy of GENERAL MOTORS CORP.

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4. Connect the park brake release cable to the park brake lever.

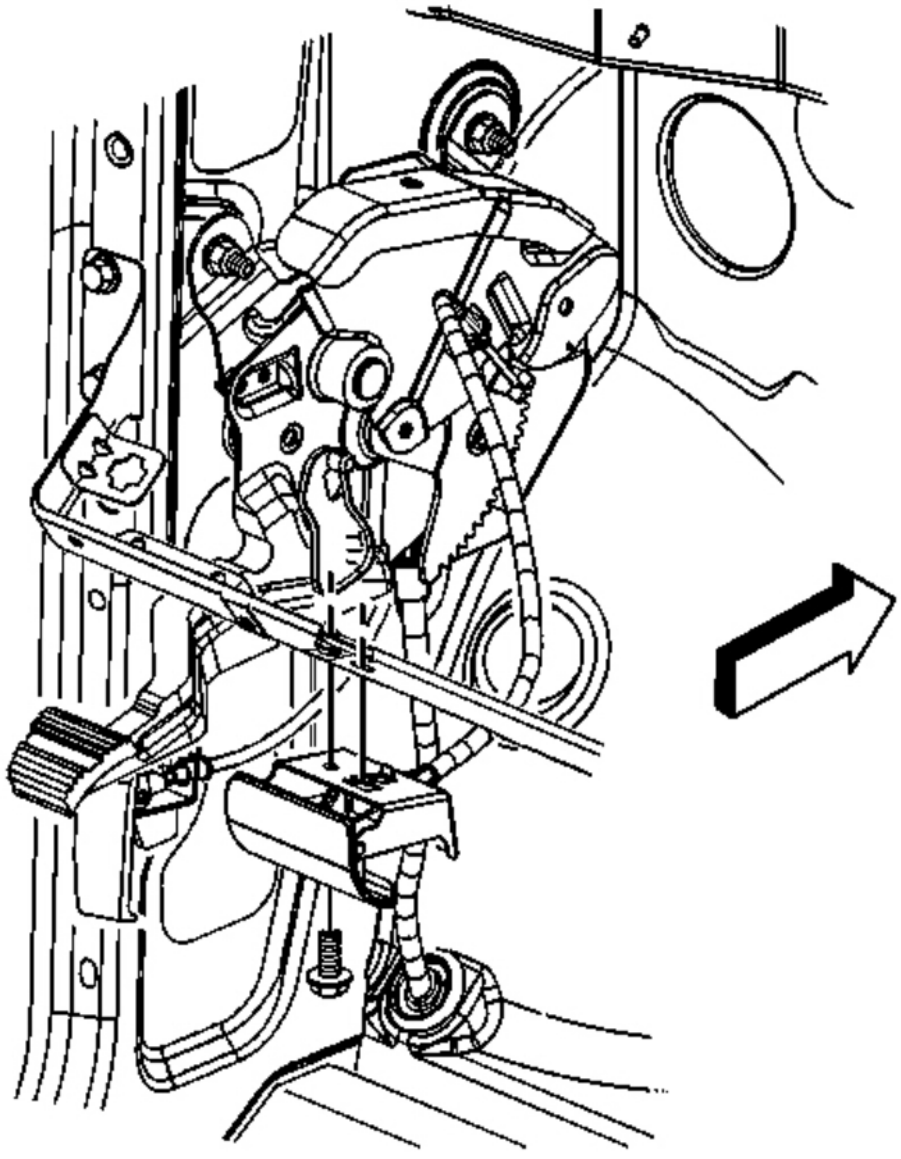


Fig. 25: View Of Park Brake Release Lever Handle & Bolt
Courtesy of GENERAL MOTORS CORP.

5. Connect the park brake warning lamp connector.

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6. Install the left side hinge pillar panel. Refer to **Trim Panel Replacement - Hinge Pillar** in Interior Trim.
7. Install the left side kick panel.
8. Install the MID-Bussed Electrical Center to the bracket.
9. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and installing the cable to the equalizer bar.

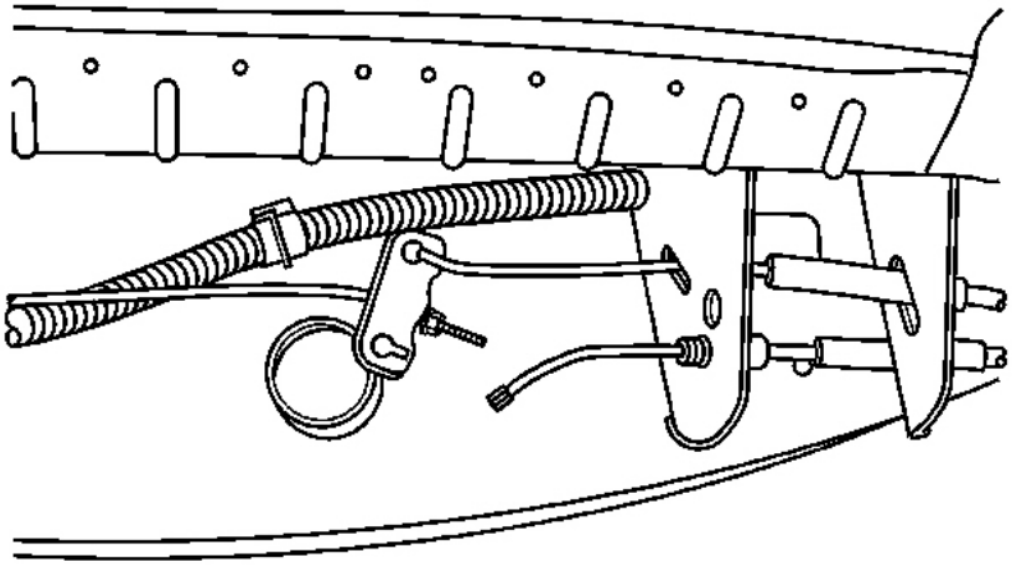


Fig. 26: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

10. Remove the safety stands.
11. Lower the vehicle.
12. Connect the negative battery cable. Refer to **Battery Negative Cable Disconnect/Connect Procedure** in Engine Electrical.

PARK BRAKE WARNING LAMP SWITCH REPLACEMENT

Removal Procedure

CAUTION: Refer to Battery Disconnect Caution in Cautions and Notices.

1. Disconnect the negative battery cable. Refer to **Battery Negative Cable Disconnect/Connect Procedure**

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in Engine Electrical.

2. Remove the MID-bussed electrical center from the bracket.
3. Remove the park brake warning lamp switch electrical connector.

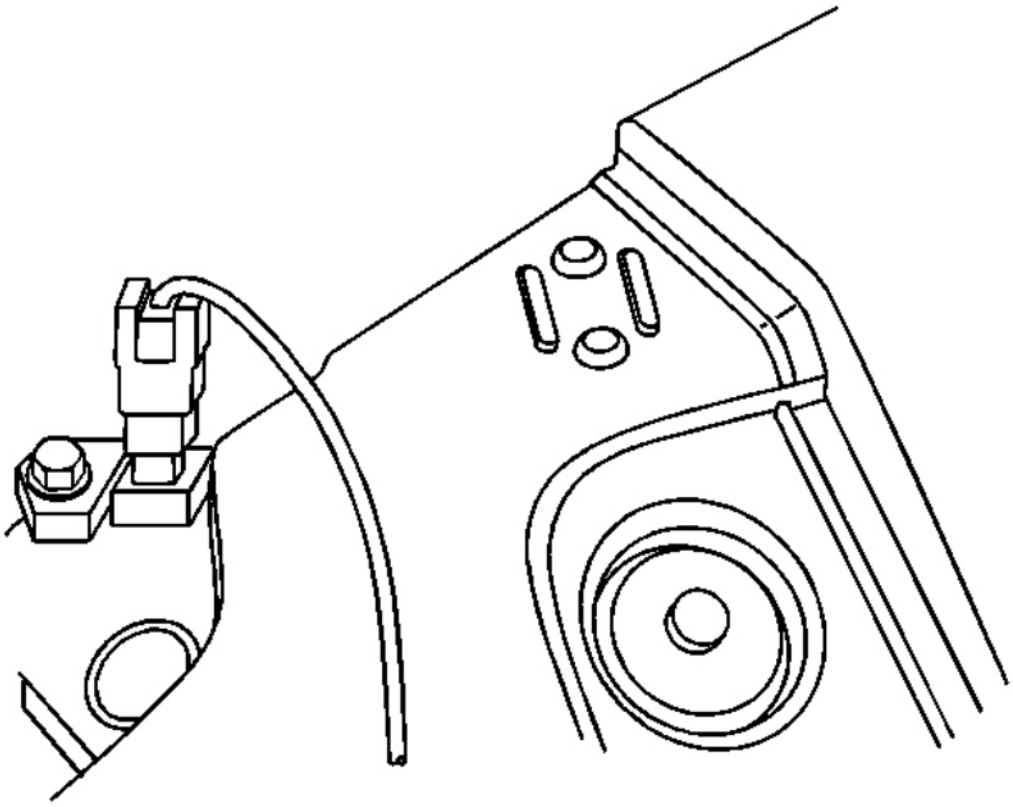


Fig. 27: Park Brake Warning Lamp Switch Electrical Connector
Courtesy of GENERAL MOTORS CORP.

4. Remove the park brake warning lamp switch mounting bolt.
5. Remove the park brake warning lamp switch.

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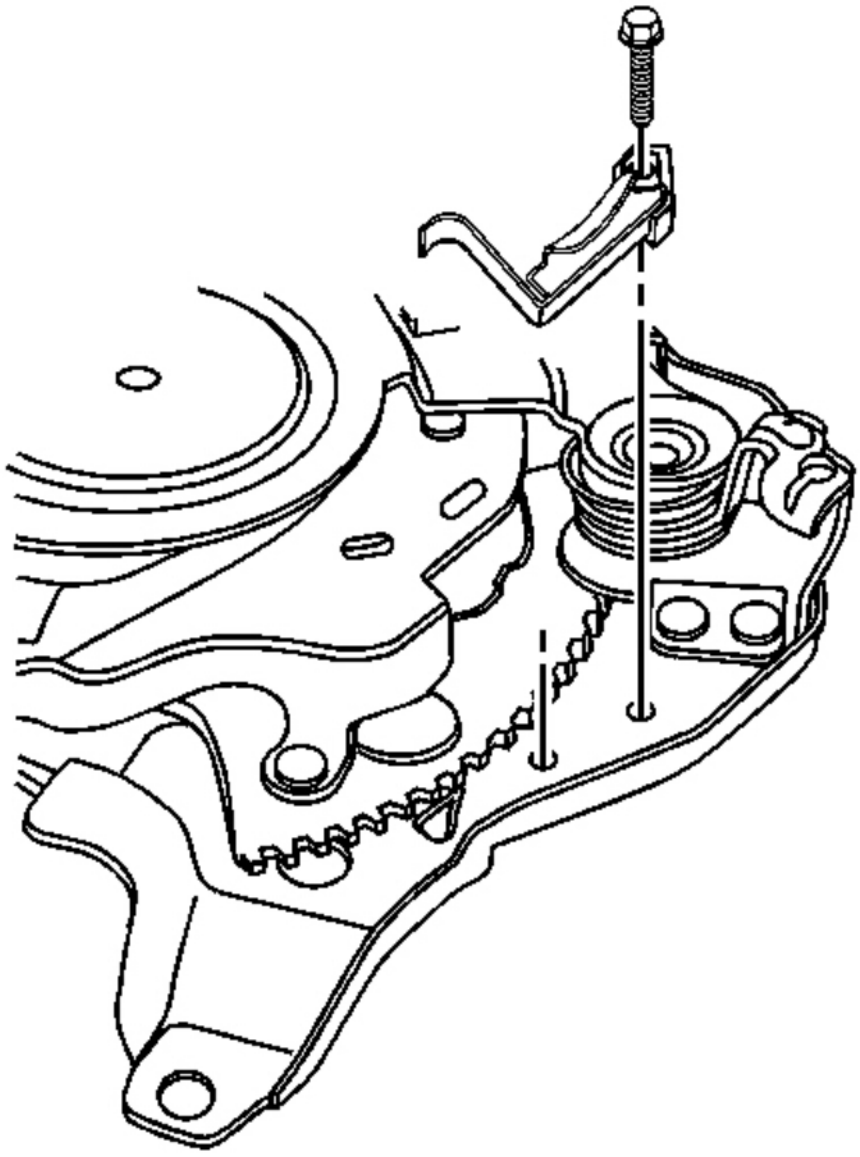


Fig. 28: View Of Park Brake Warning Lamp Switch & Mounting Bolt
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

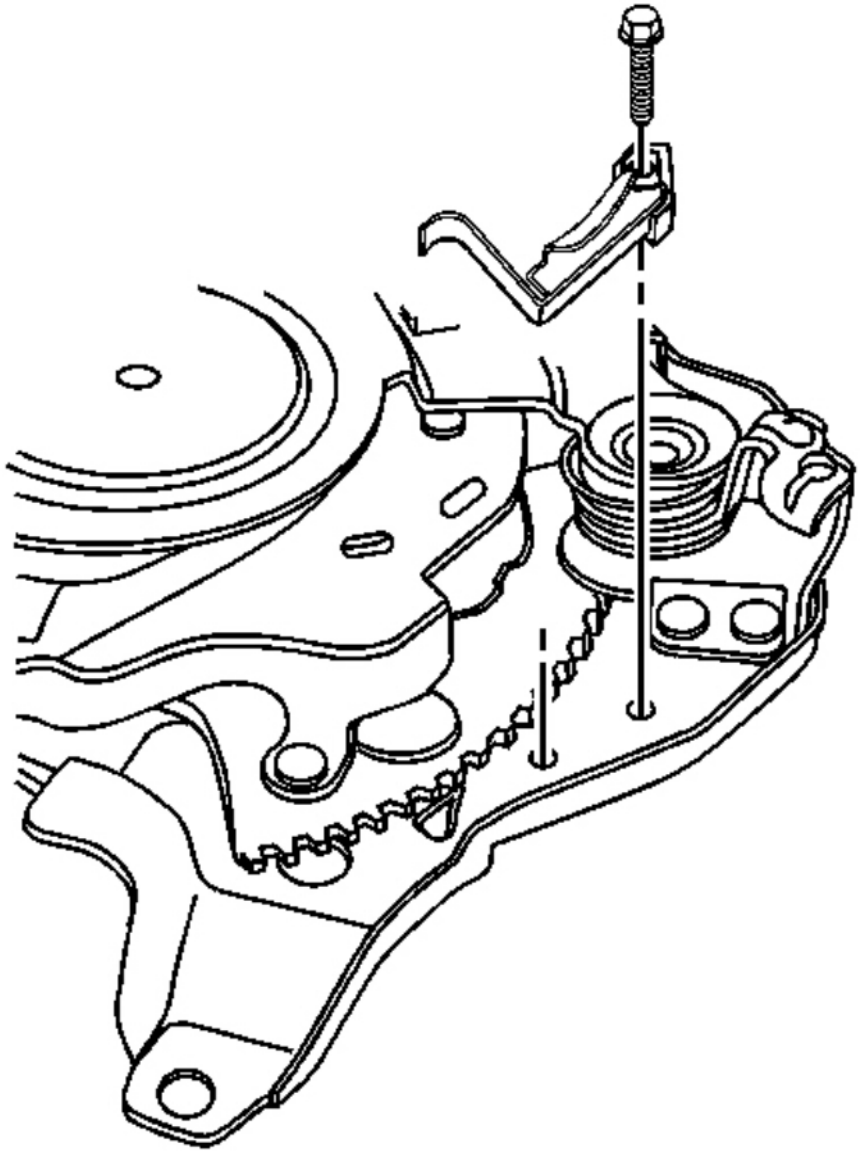
1. Install the park brake warning lamp switch.

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

2. Install the park brake warning lamp switch mounting bolt.

   Tighten: Tighten the bolt to 3 N.m (25 lb in).



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Fig. 29: View Of Park Brake Warning Lamp Switch & Mounting Bolt
Courtesy of GENERAL MOTORS CORP.

3. Connect the park brake warning lamp switch electrical connector.

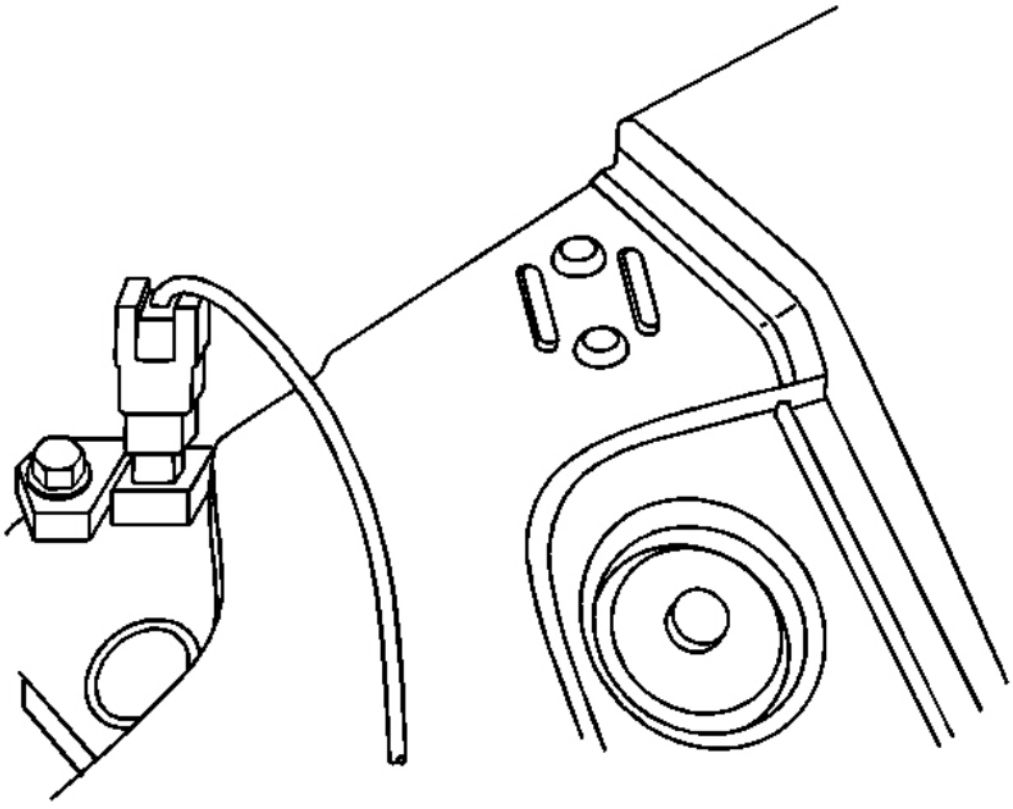


Fig. 30: Park Brake Warning Lamp Switch Electrical Connector
Courtesy of GENERAL MOTORS CORP.

4. Install the MID-bussed electrical center to the bracket.
5. Connect the negative battery cable. Refer to **Battery Negative Cable Disconnect/Connect Procedure** in Engine Electrical.

PARK BRAKE CABLE REPLACEMENT - FRONT

Removal Procedure

1. Release the park brake.

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2. Remove the park brake pedal. Refer to **Park Brake Pedal Assembly Replacement**.
3. Roll the carpet back to access cable grommet.

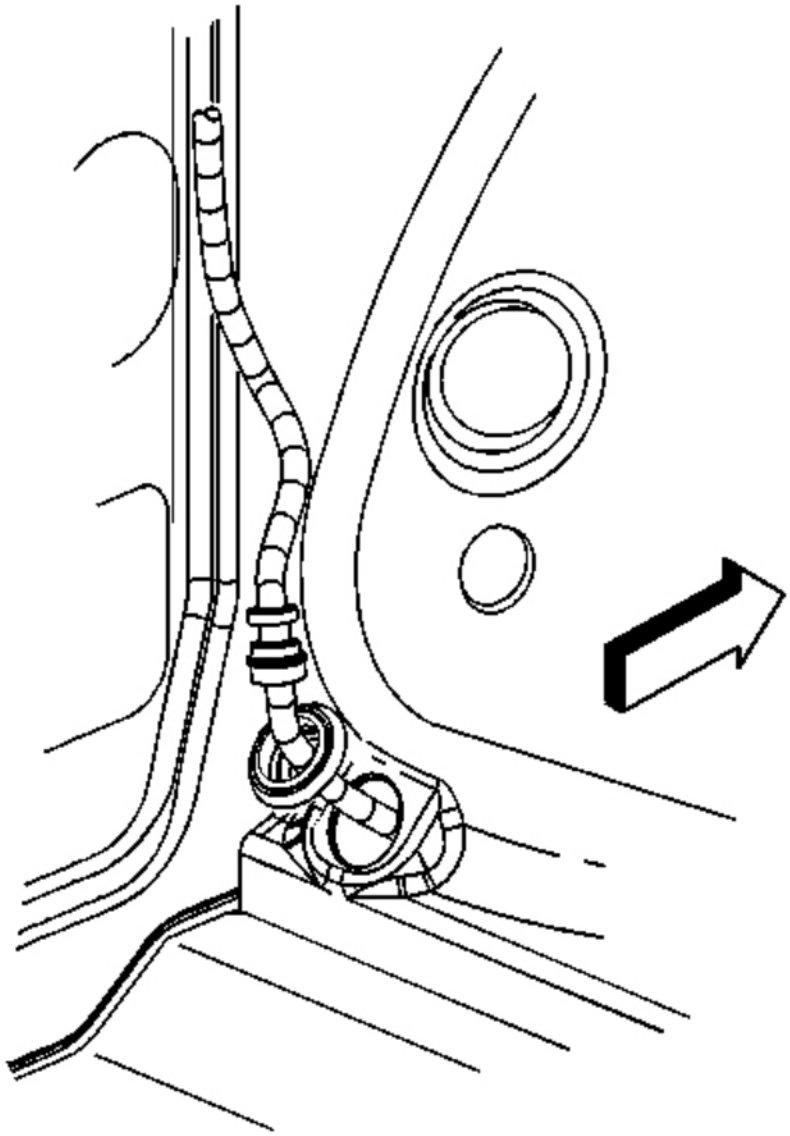


Fig. 31: Locating Cable Grommet Beneath Carpet
Courtesy of GENERAL MOTORS CORP.

4. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.

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5. Disengage the grommet and the cable from the floor pan.
6. Disconnect the front cable from the intermediate cable.
7. Remove the cable from the body mount by depressing the retaining tabs.
8. Remove the cable.

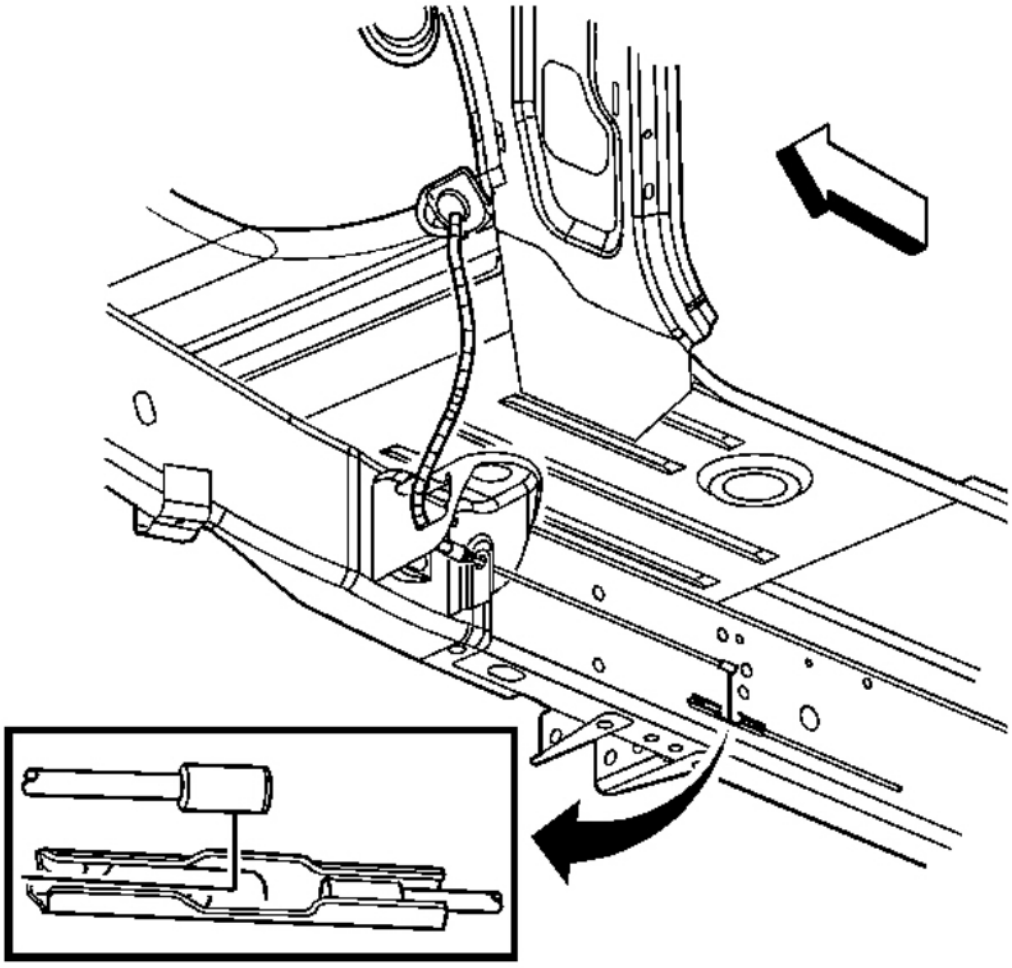


Fig. 32: View Of Park Brake Cable - Front/Intermediate
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the cable.
2. Snap the retainer tabs into the body mount.

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3. Connect the front cable to the intermediate cable.
4. Route the cable in through the floor pan and engage the grommet.

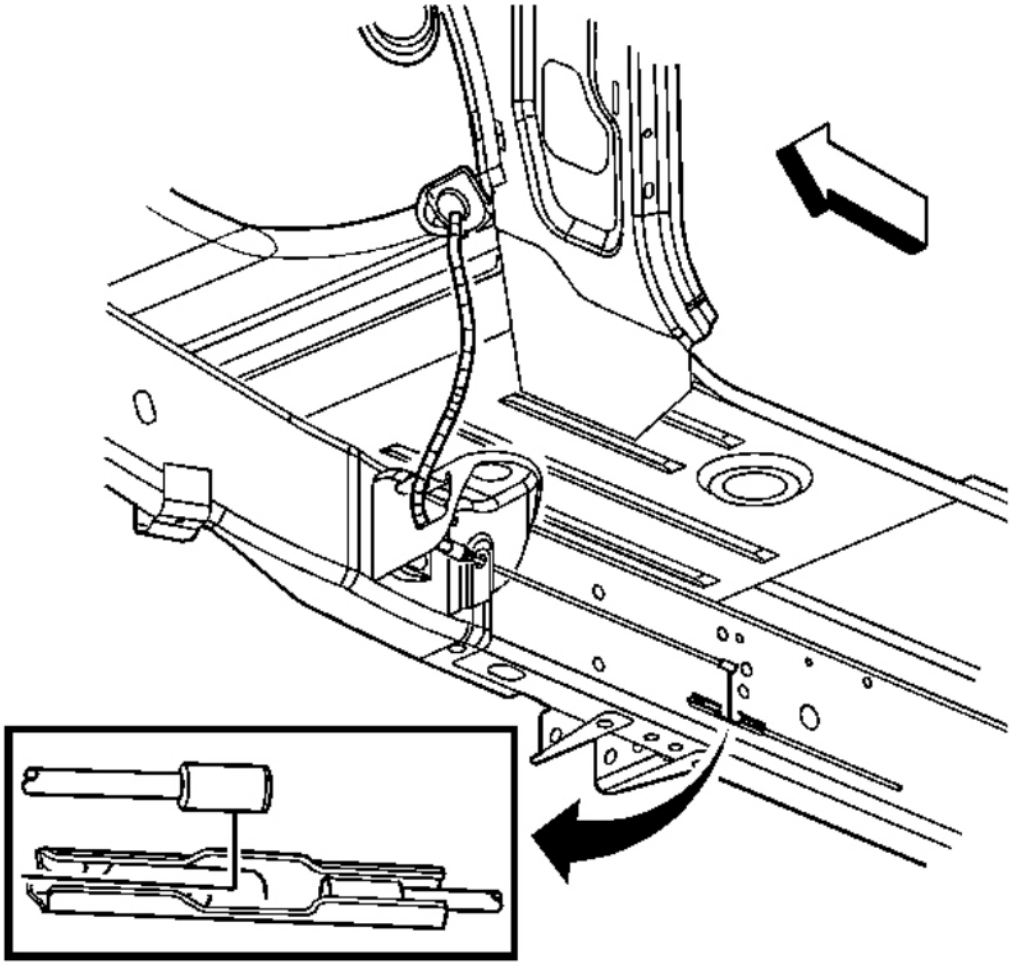


Fig. 33: View Of Park Brake Cable - Front/Intermediate
Courtesy of GENERAL MOTORS CORP.

5. Remove the safety stands.
6. Lower the vehicle.
7. Roll the carpet into place.

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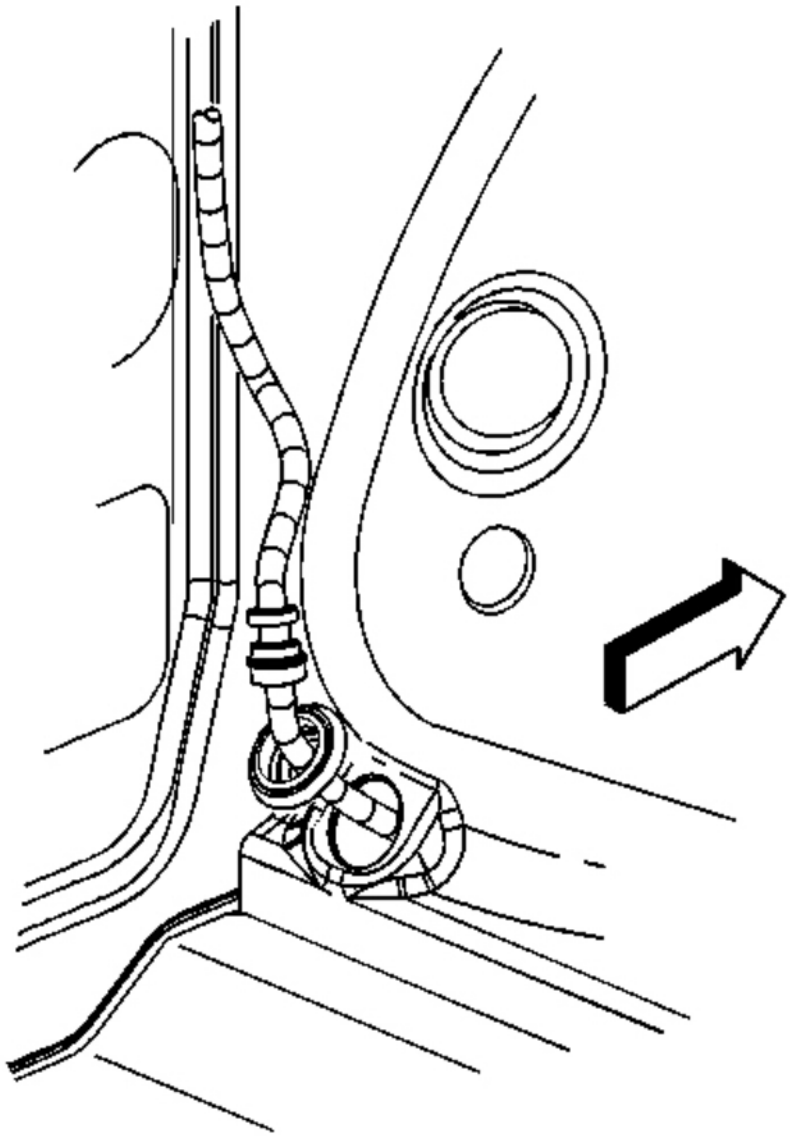


Fig. 34: Locating Cable Grommet Beneath Carpet
Courtesy of GENERAL MOTORS CORP.

8. Install the park brake pedal. Refer to **Park Brake Pedal Assembly Replacement**.
9. Adjust the park brake system. Refer to **Park Brake Adjustment**.

PARK BRAKE CABLE REPLACEMENT - INTERMEDIATE

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Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the nut from the threaded end of the intermediate cable.

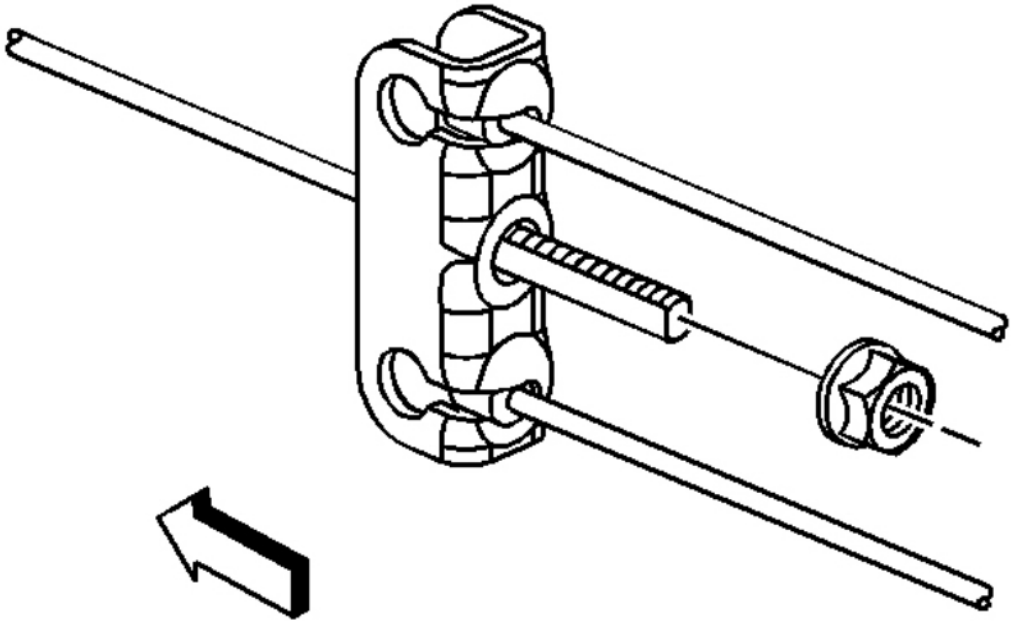


Fig. 35: View Of Nut At Threaded End Of Intermediate Cable
Courtesy of GENERAL MOTORS CORP.

4. Disconnect the equalizer from the rear park brake cables.
5. Disconnect the intermediate cable from the front cable.
6. Remove the intermediate cable.

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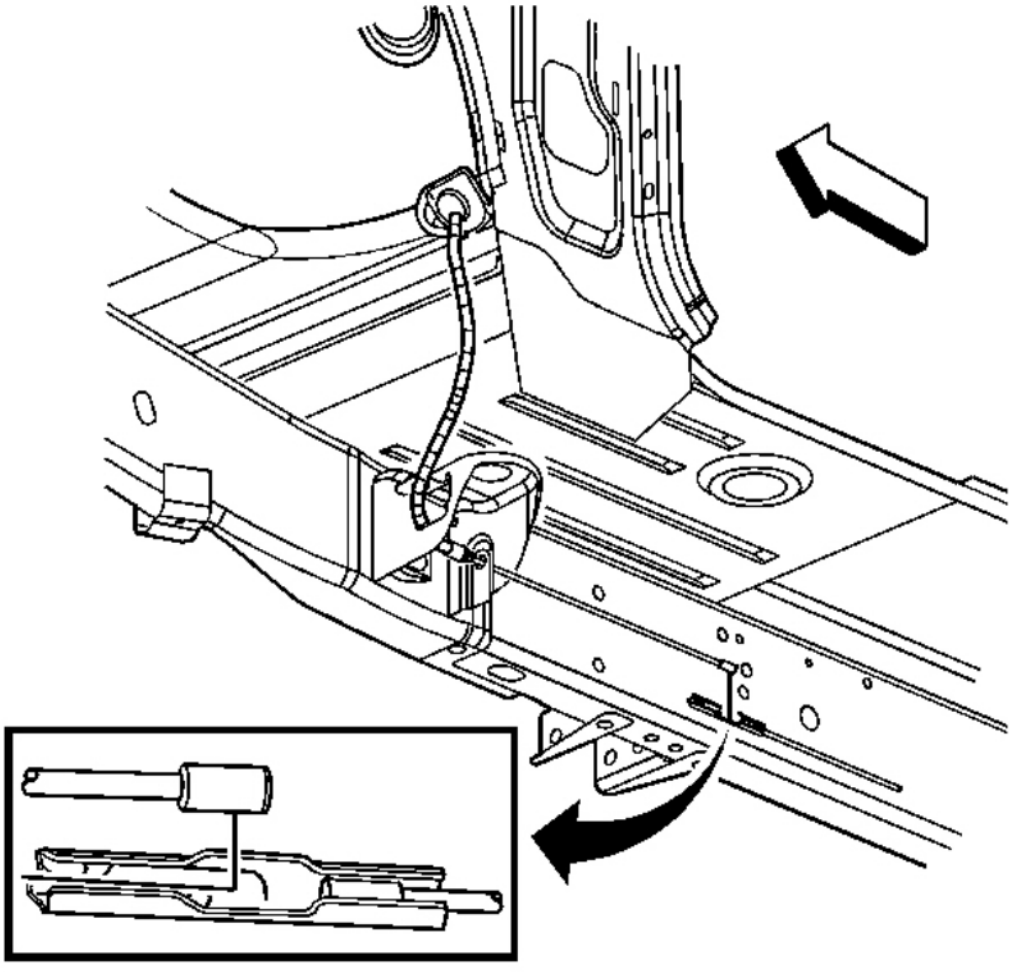


Fig. 36: View Of Park Brake Cable - Front/Intermediate
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the intermediate cable.
2. Connect the intermediate cable to the front cable.
3. Connect the equalizer to the rear park brake cables.

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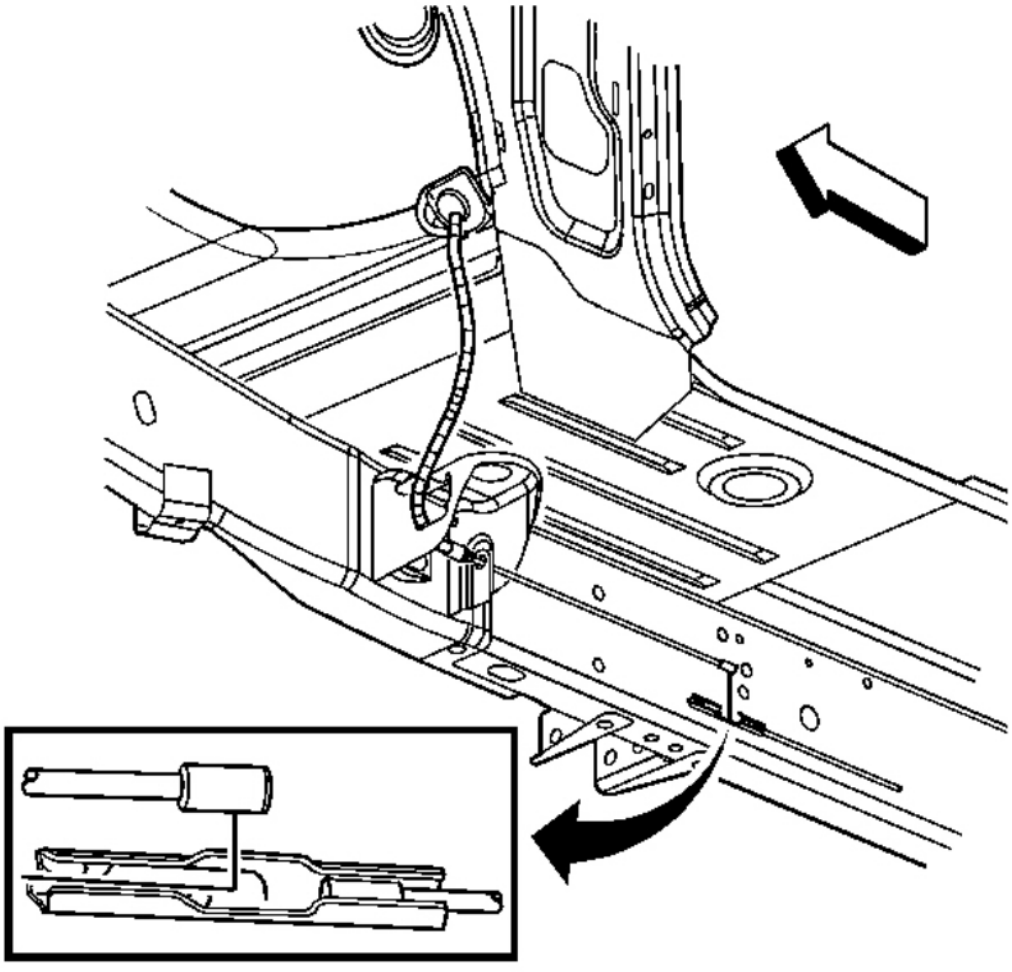


Fig. 37: View Of Park Brake Cable - Front/Intermediate
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

4. Install the nut to the threaded end of the intermediate cable.

   Tighten: Tighten the nut to 3.5 N.m (31 lb in).

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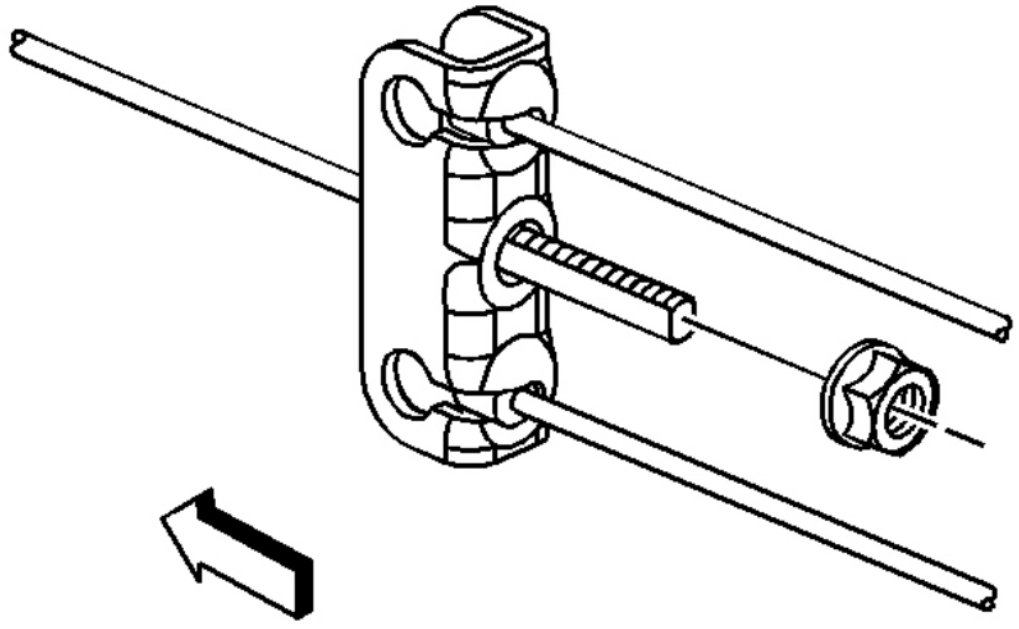


Fig. 38: View Of Nut At Threaded End Of Intermediate Cable
Courtesy of GENERAL MOTORS CORP.

5. Remove the safety stands.
6. Lower the vehicle.
7. Adjust the park brake system. Refer to **Park Brake Adjustment**.

PARK BRAKE CABLE REPLACEMENT - LEFT REAR (WITHOUT RPO NYS)

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.

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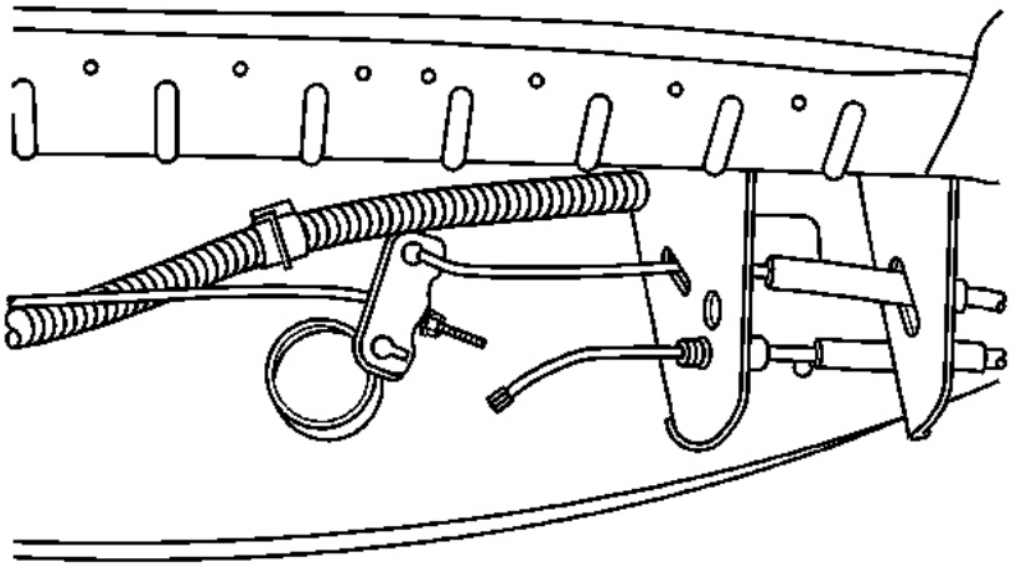


Fig. 39: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

4. Remove the cable from the mounting bracket by depressing the locking tabs.

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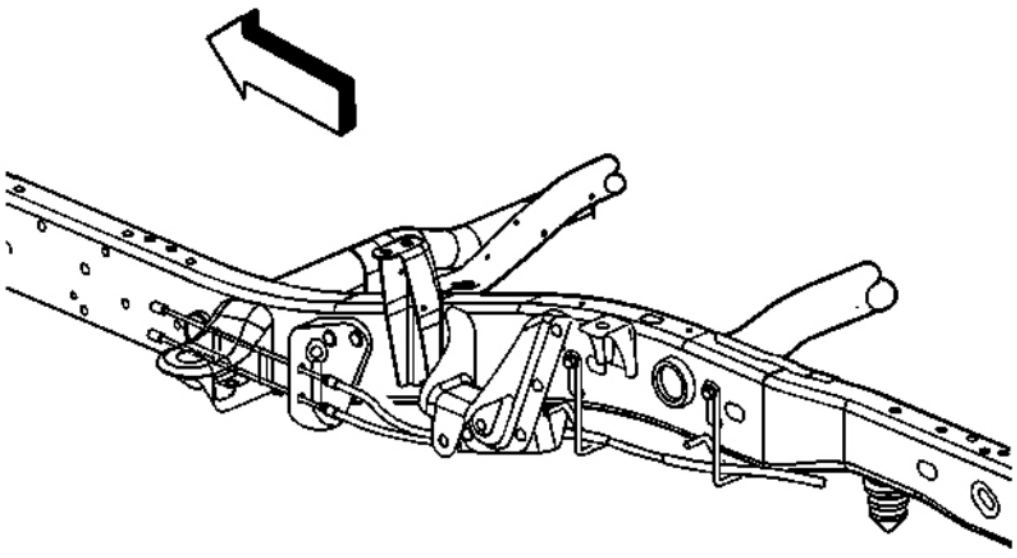


Fig. 40: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

5. Remove the cable at the shock absorber bracket by removing the bolt.

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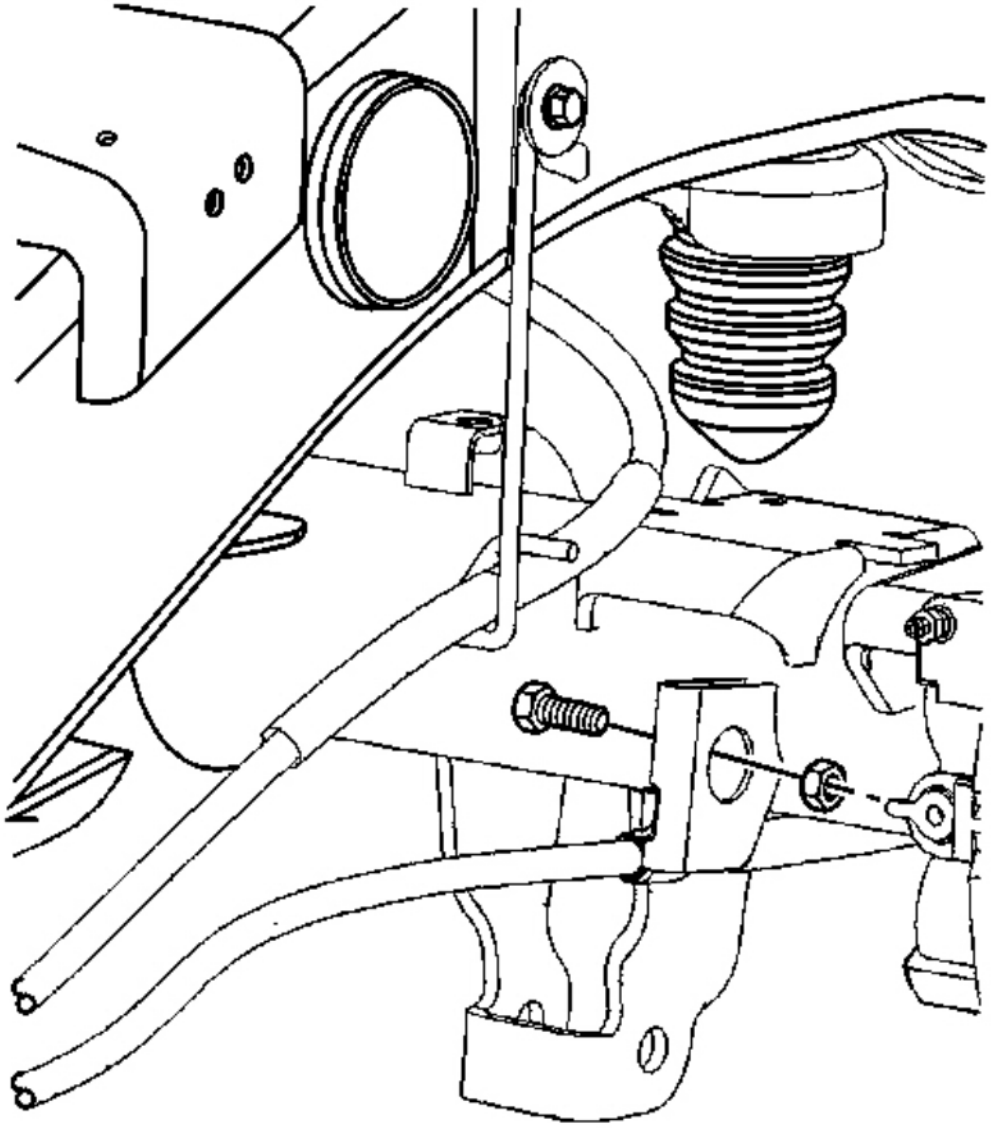


Fig. 41: View Of Park Brake Cable To Shock Absorber Bracket Bolt
Courtesy of GENERAL MOTORS CORP.

6. Remove the cable from the lever (25 series).
7. Remove the cable from the backing plate by depressing the locking tabs.
8. Remove the cable.

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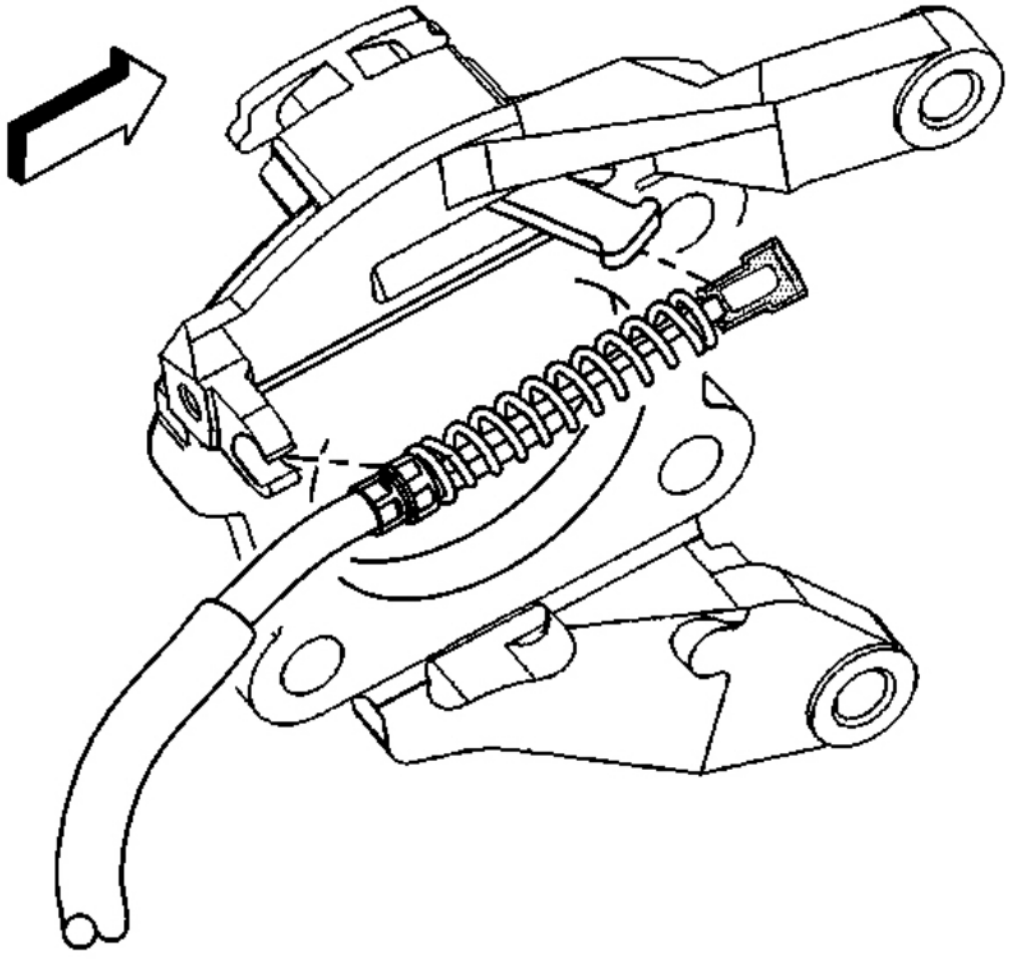


Fig. 42: View Of Park Brake Cable - Rear (W/O RPO NYS - 25 Series)
Courtesy of GENERAL MOTORS CORP.

9. Remove the cable from the lever (15 series).
10. Remove the cable from the backing plate by depressing the locking tabs.
11. Remove the cable.

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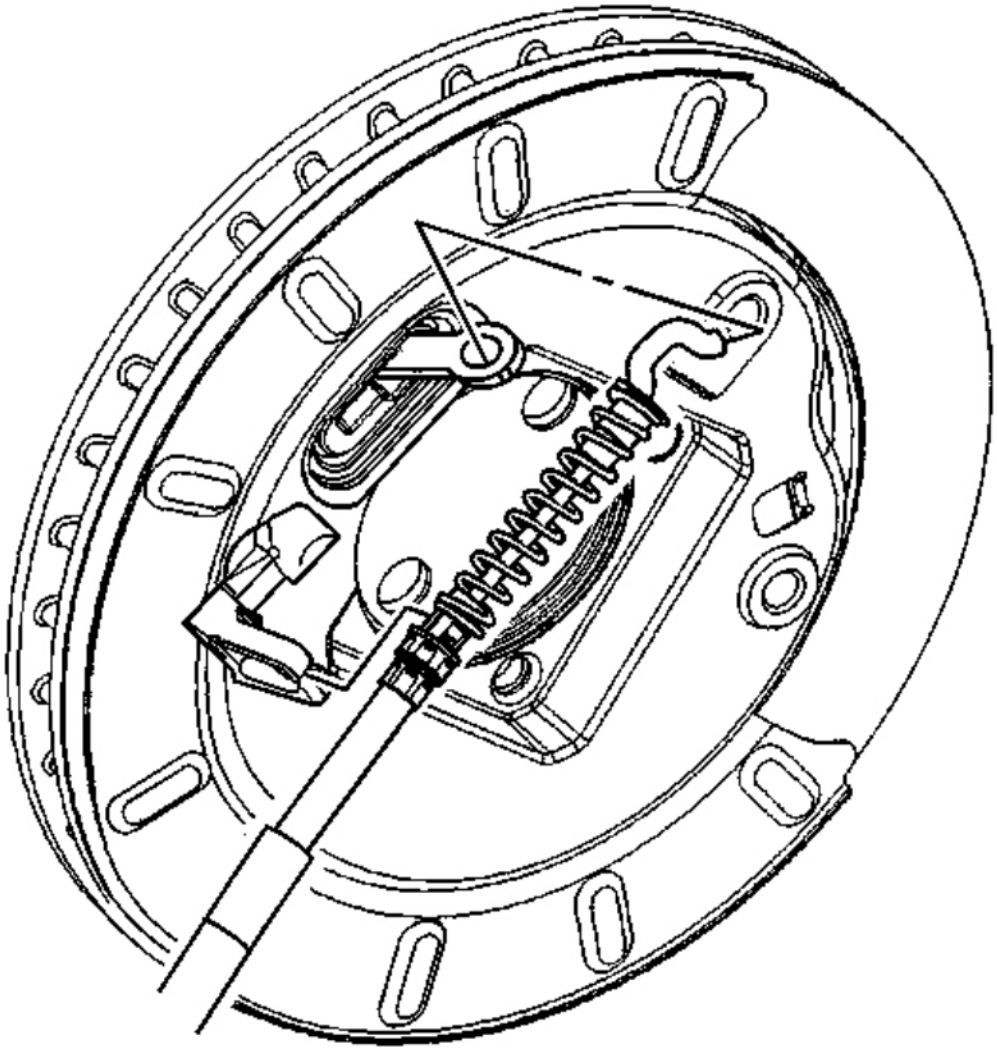


Fig. 43: View Of Park Brake Cable - Rear (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the cable taking care to correctly route the cable through the guides and the body mounts.
2. Install the cable to the backing plate by pressing the cable into place until locking tabs snap into place (15 series).
3. Install the cable to the lever.

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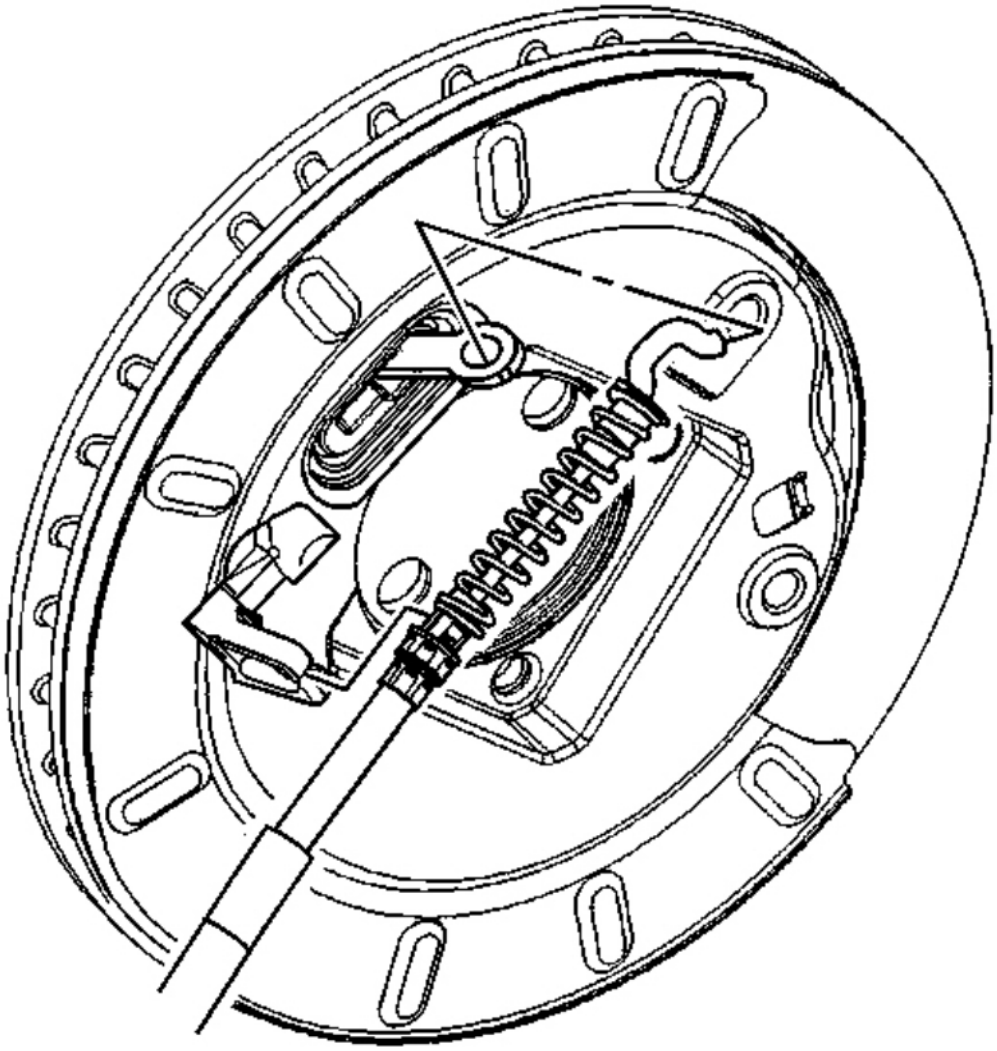


Fig. 44: View Of Park Brake Cable - Rear (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

4. Install the cable taking care to correctly route the cable through the guides and the body mounts.
5. Install the cable to the backing plate by pressing the cable into place until locking tabs snap into place (25 series).
6. Install the cable to the lever.

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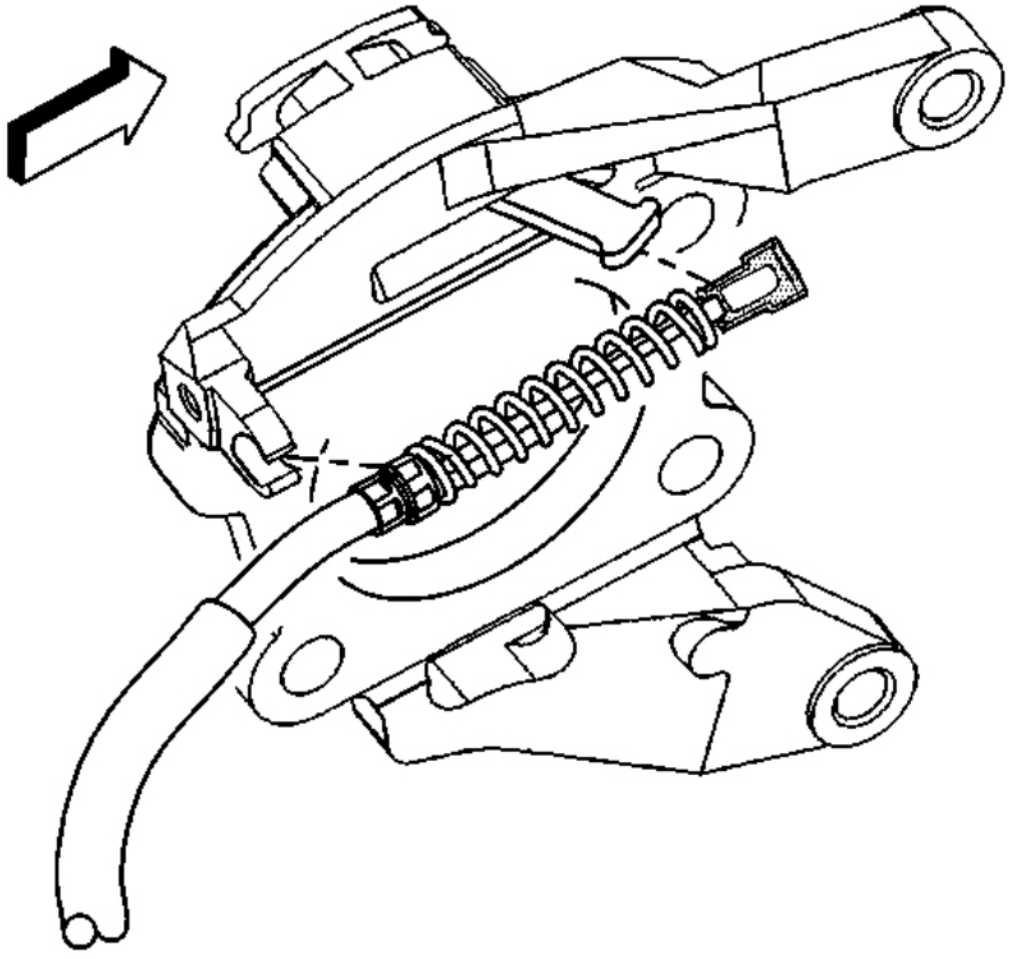


Fig. 45: View Of Park Brake Cable - Rear (W/O RPO NYS - 25 Series)
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

7. Install the cable at the shock absorber bracket and install the bolt.

   Tighten: Tighten the bolt to 25 N.m (18 lb ft).

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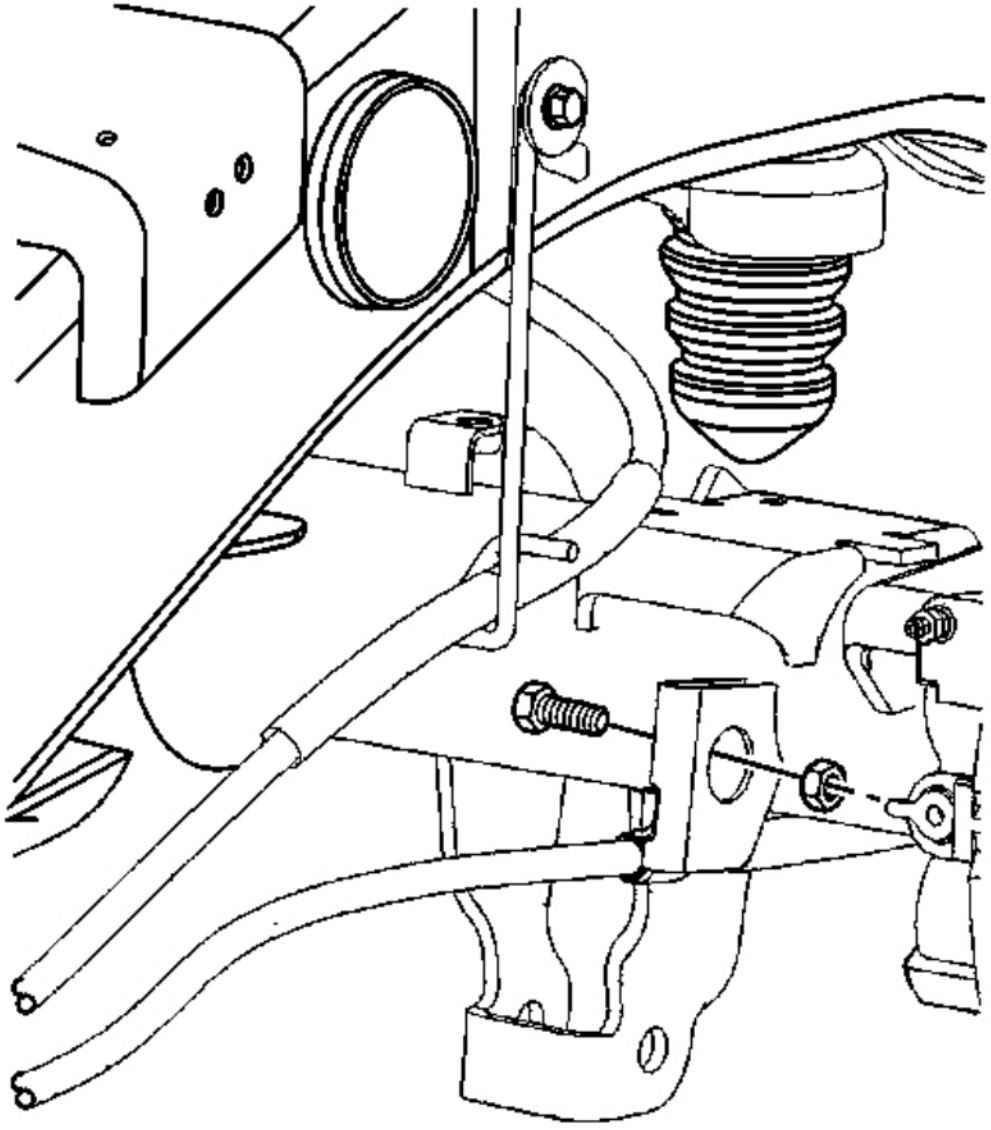


Fig. 46: View Of Park Brake Cable To Shock Absorber Bracket Bolt
Courtesy of GENERAL MOTORS CORP.

8. Install the cable to the mounting bracket until the locking tabs snap into place.

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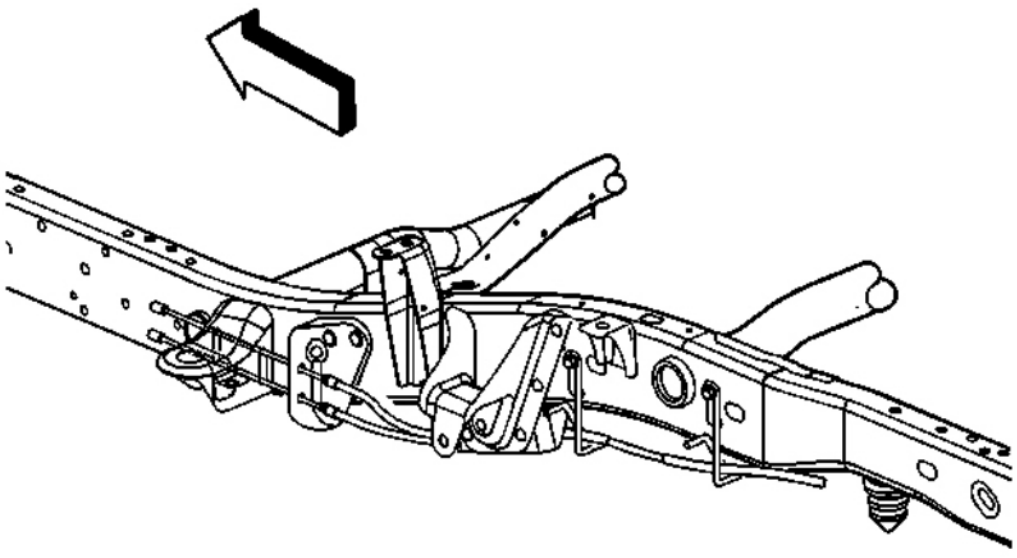


Fig. 47: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

9. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and installing the cable to the equalizer bar.

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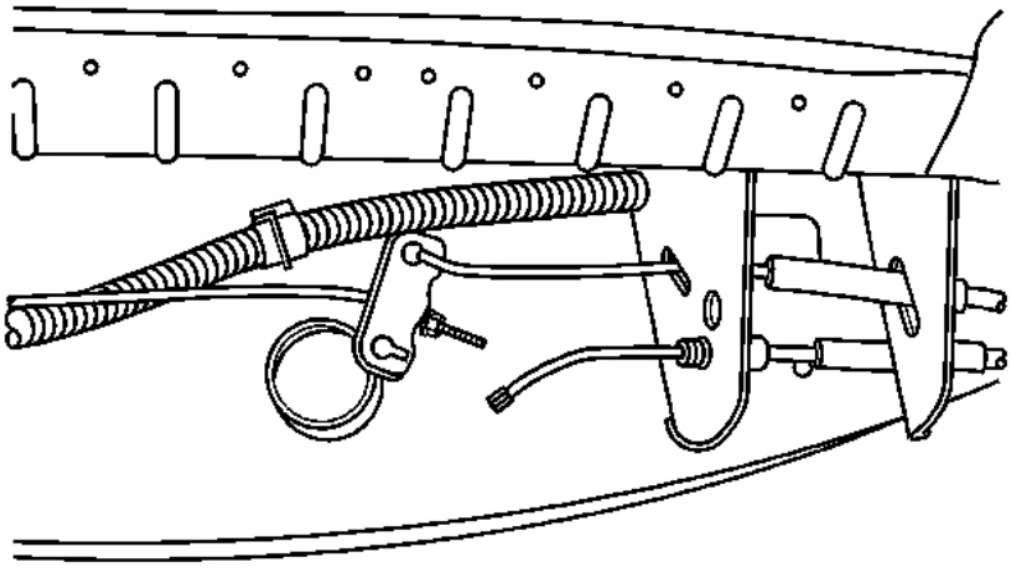


Fig. 48: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

10. Remove the safety stands.
11. Lower the vehicle.
12. Adjust the park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE CABLE REPLACEMENT - LEFT REAR (WITH RPO NYS)

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the park brake cable from the equalizer by pulling down on the intermediate cable and release the cable from the equalizer bar.

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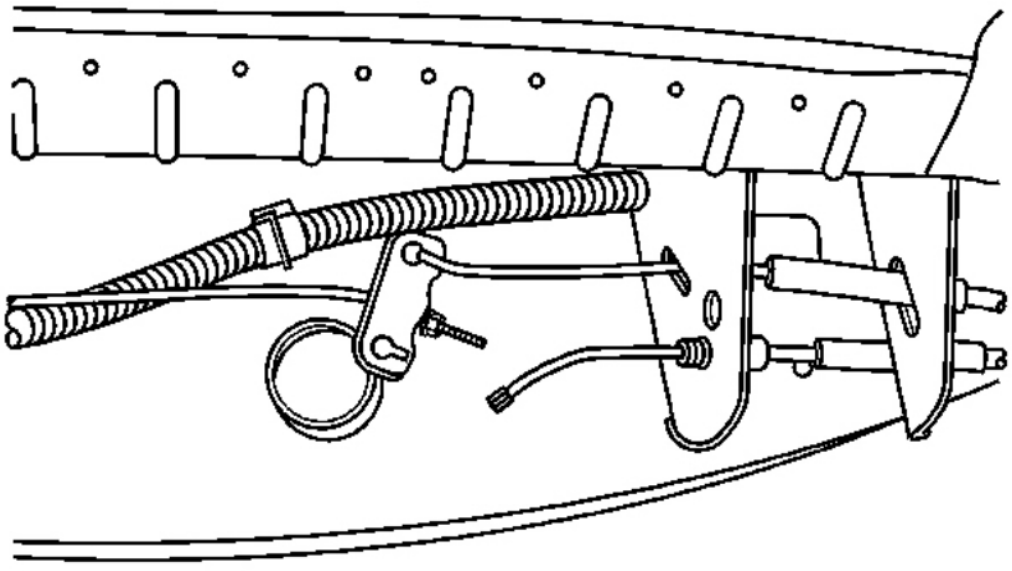


Fig. 49: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

4. Remove the cable from the mounting bracket by depressing the locking tabs.

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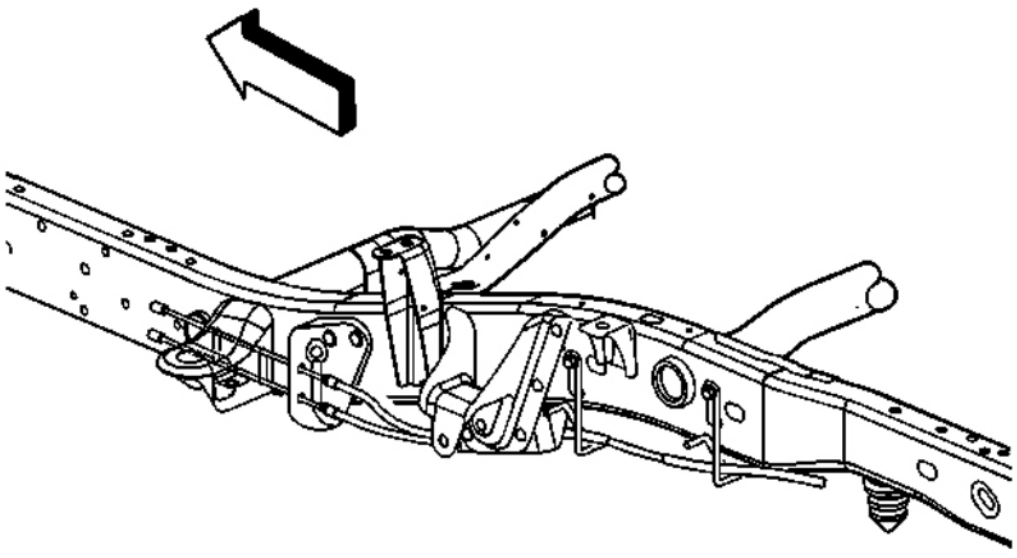


Fig. 50: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

5. Remove the cable at the lower shock absorber mount by removing the bolt.

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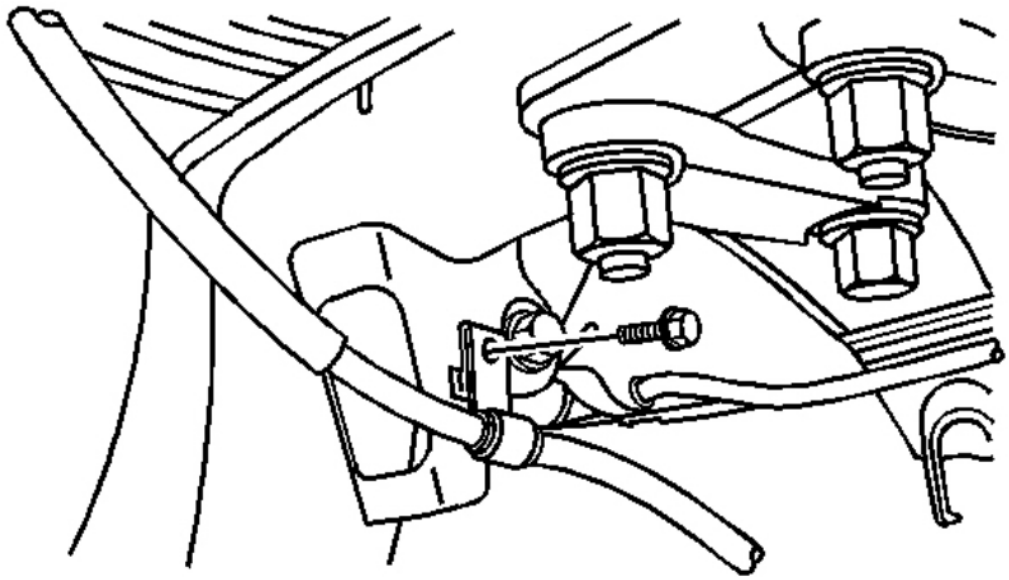


Fig. 51: View Of Park Brake Cable To Lower Shock Absorber Mount Bolt
Courtesy of GENERAL MOTORS CORP.

6. Remove the rear cable mounting bracket bolt.

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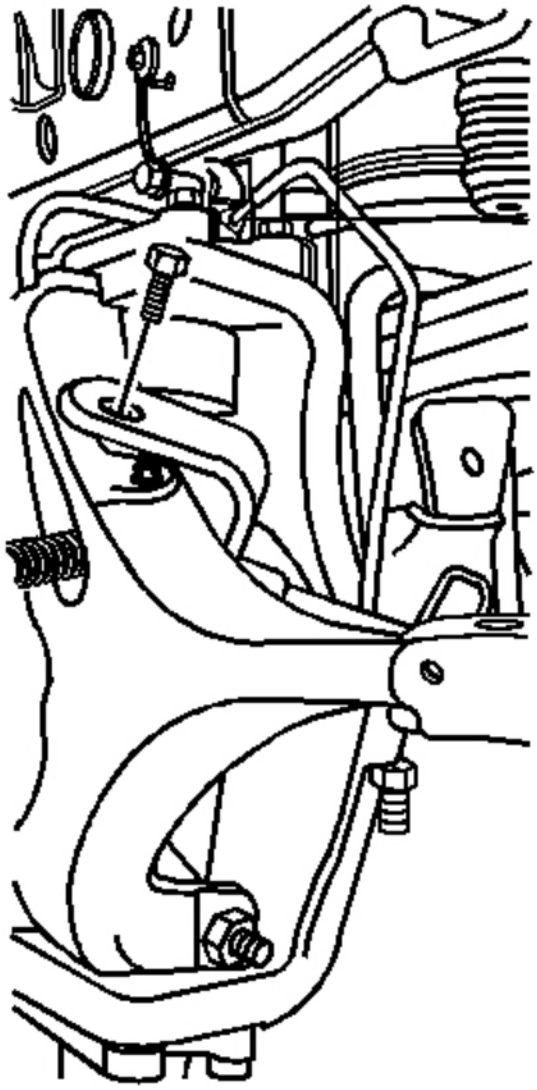


Fig. 52: Identifying Rear Park Brake Bracket Bolt
Courtesy of GENERAL MOTORS CORP.

7. Remove the cable from the lever.

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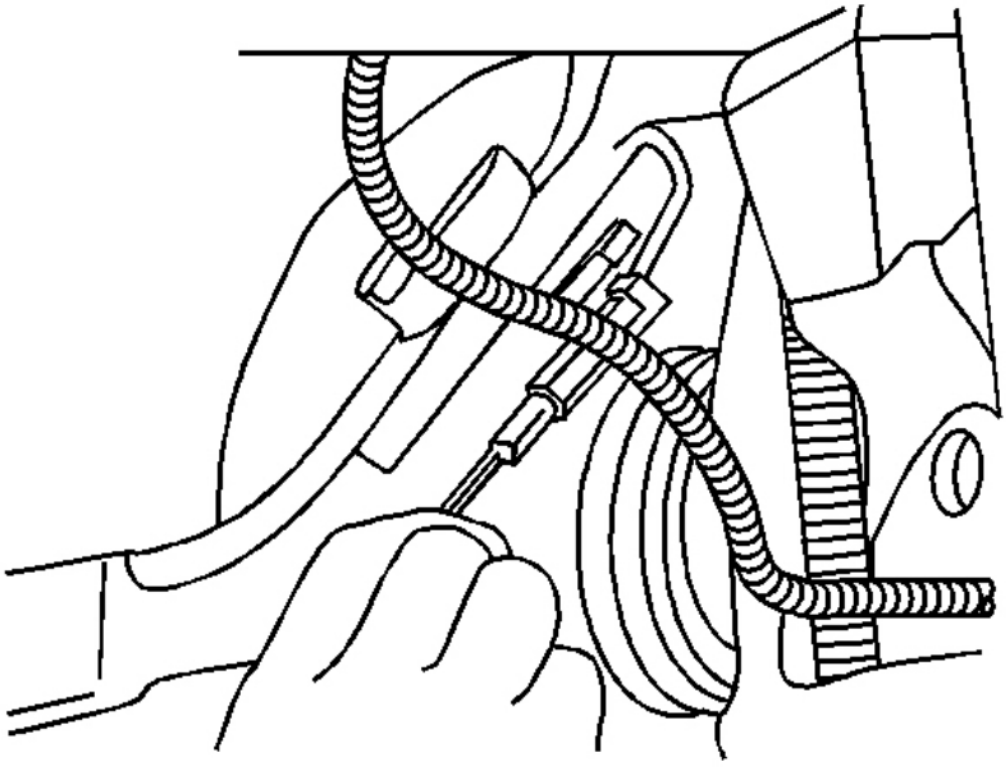


Fig. 53: View Of Park Brake Cable To Park Brake Actuator Lever
Courtesy of GENERAL MOTORS CORP.

8. Remove the cable (2) from the rear brake cable mounting bracket (3) by depressing the locking tabs (1) on the brake cable.

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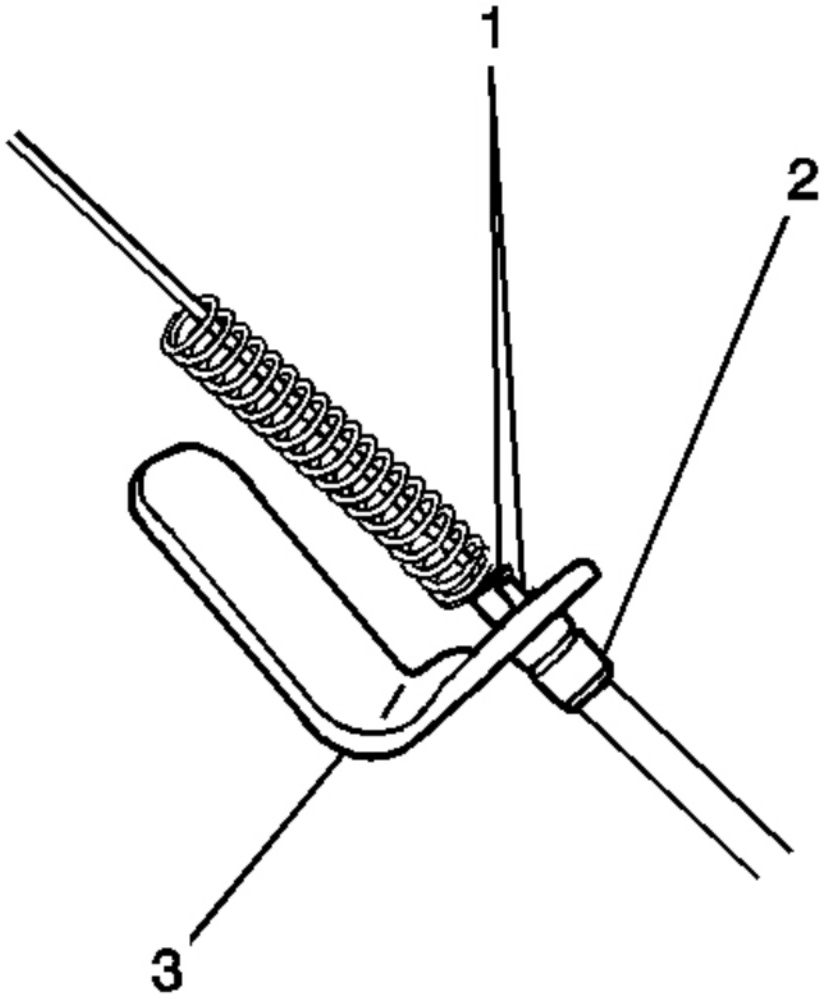


Fig. 54: Identifying Park Brake Cable & Rear Brake Cable Mounting Bracket (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

9. Remove the cable from the guides and the body mounts.

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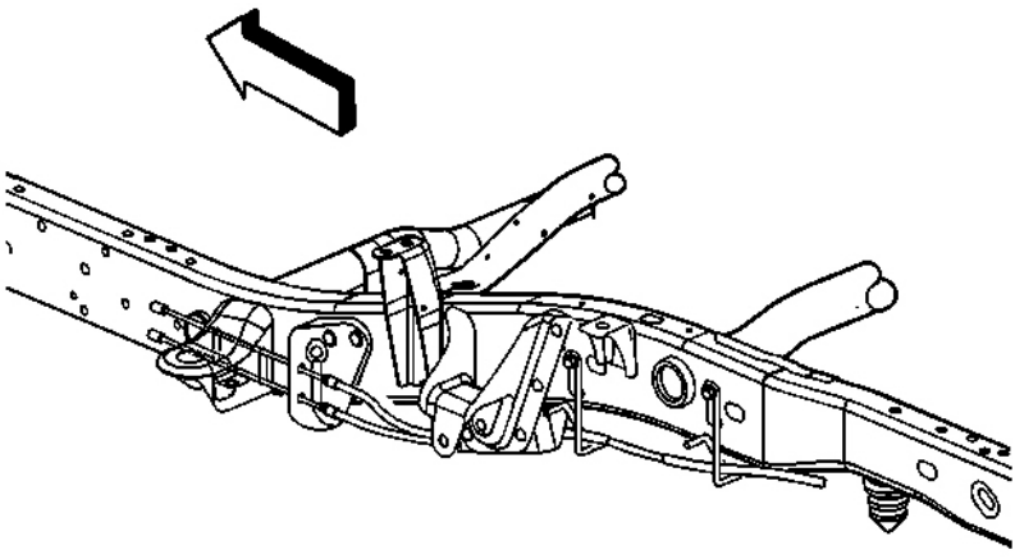


Fig. 55: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the new brake cable (2) into the rear brake cable mounting bracket (3) by pushing the cable into place until the locking tabs (1) snap into place.

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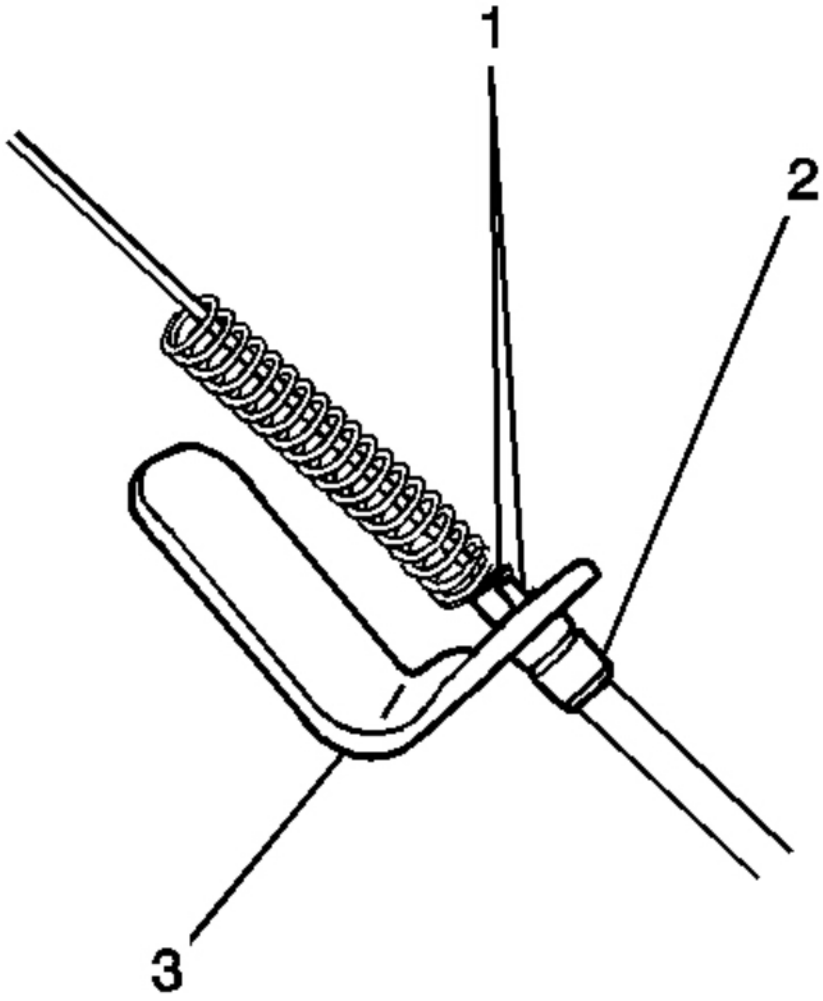


Fig. 56: Identifying Park Brake Cable & Rear Brake Cable Mounting Bracket (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

2. Install the park brake cable to the lever.

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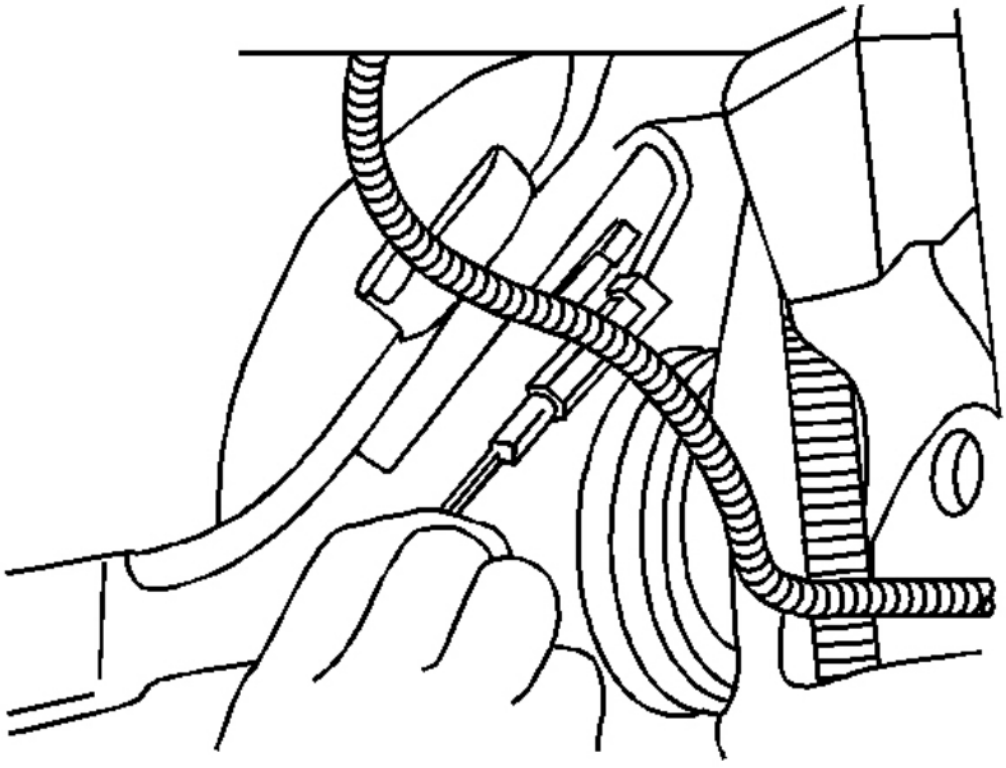


Fig. 57: View Of Park Brake Cable To Park Brake Actuator Lever
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the rear park brake cable bracket bolt.

Tighten: Tighten the rear park brake cable bracket bolt to 61 N.m (45 lb ft).

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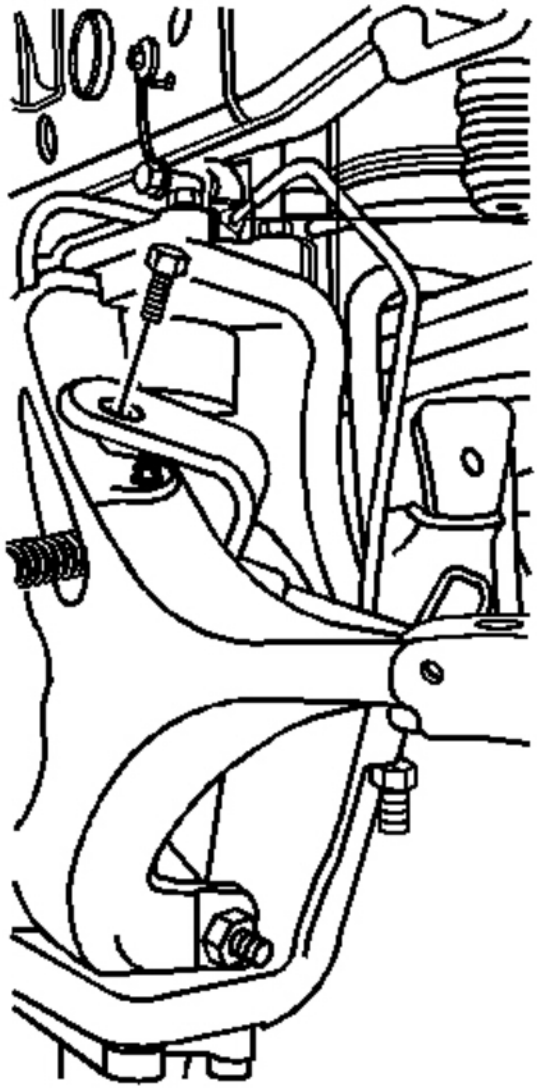


Fig. 58: Identifying Rear Park Brake Bracket Bolt
Courtesy of GENERAL MOTORS CORP.

4. Install the park brake cable and the bolt to the lower shock absorber mount.

   Tighten: Tighten the park brake cable bolt to 25 N.m (18 lb ft).

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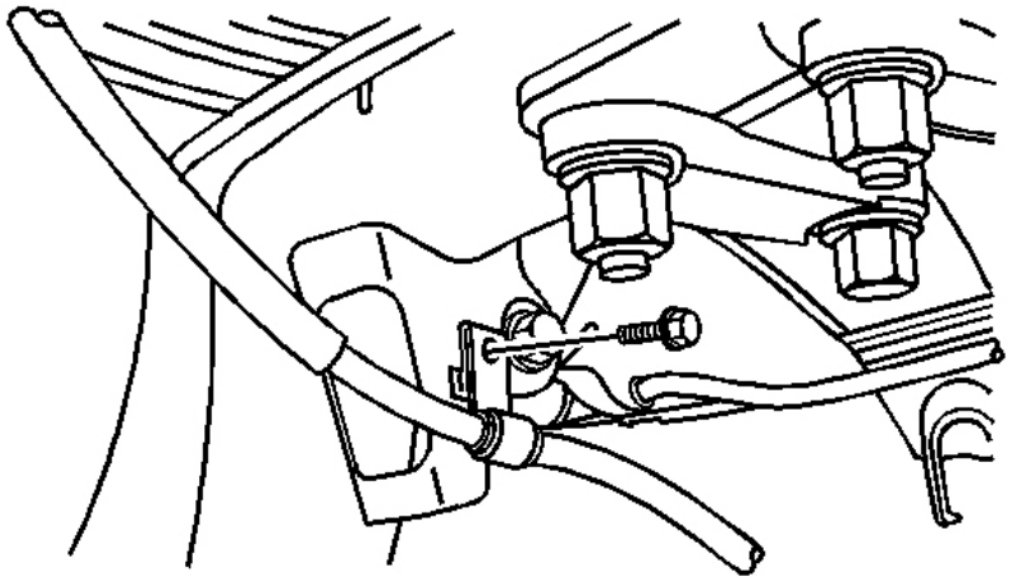


Fig. 59: View Of Park Brake Cable To Lower Shock Absorber Mount Bolt
Courtesy of GENERAL MOTORS CORP.

5. Install the park brake cable taking care to correctly route the cable though the guides and the body mounts.

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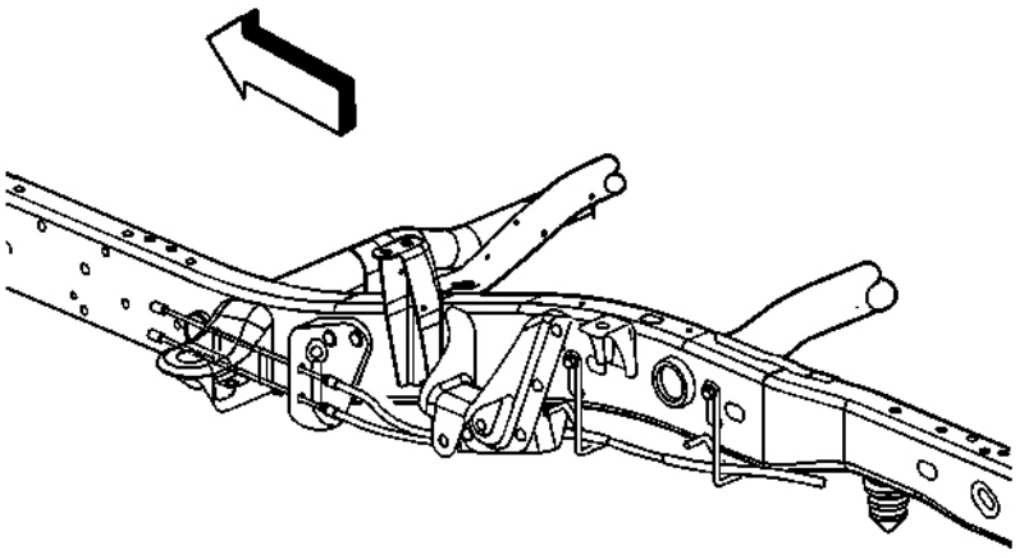


Fig. 60: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

6. Install the park brake cable to the equalizer bar.

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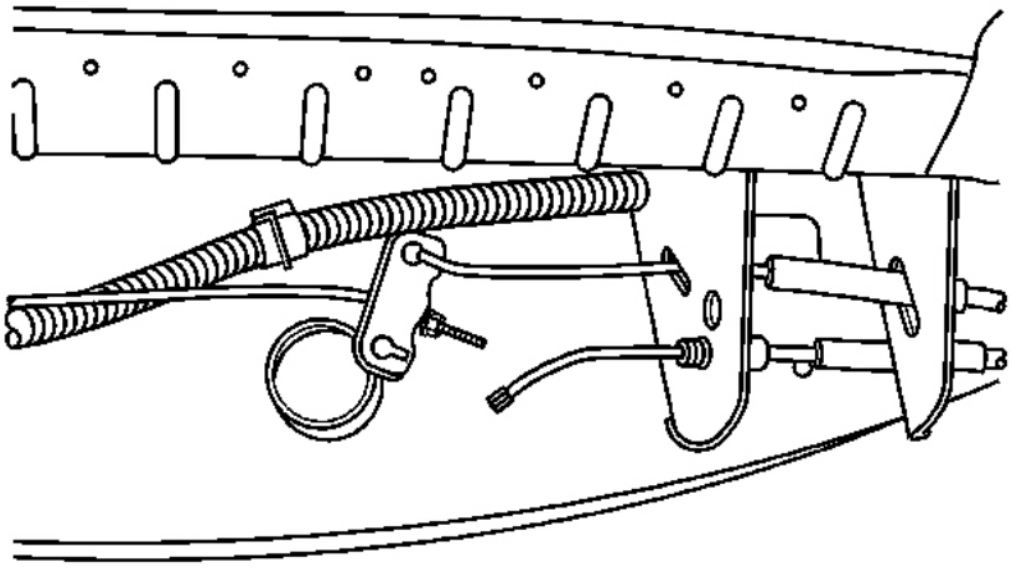


Fig. 61: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

7. Remove the safety stands.
8. Lower the vehicle.

PARK BRAKE CABLE REPLACEMENT - RIGHT REAR (WITHOUT RPO NYS)

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.
4. Disconnect the cable from the equalizer.

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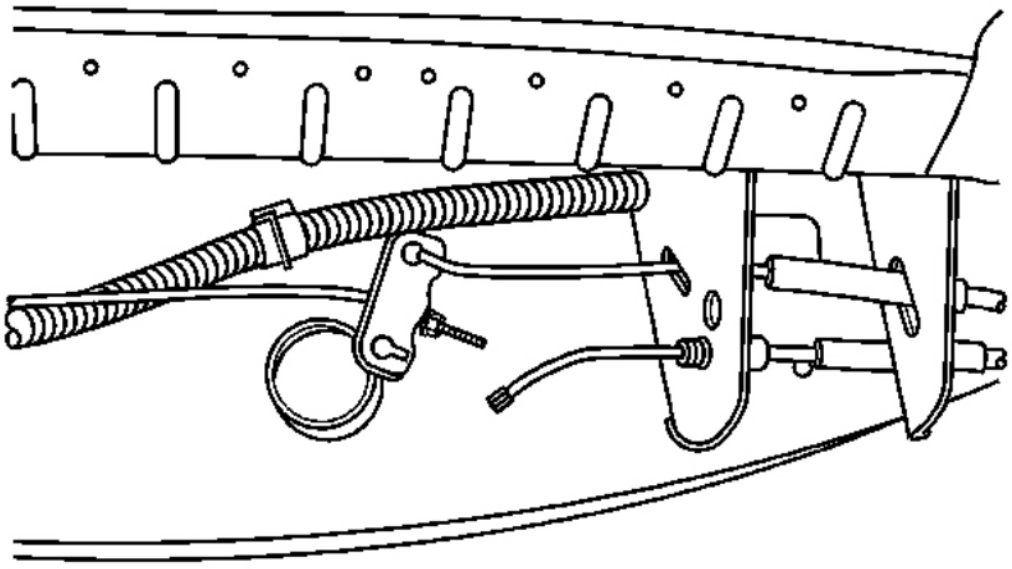


Fig. 62: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

5. Remove the bolt from the rear axle clip.
6. Remove the cable from the differential clip.

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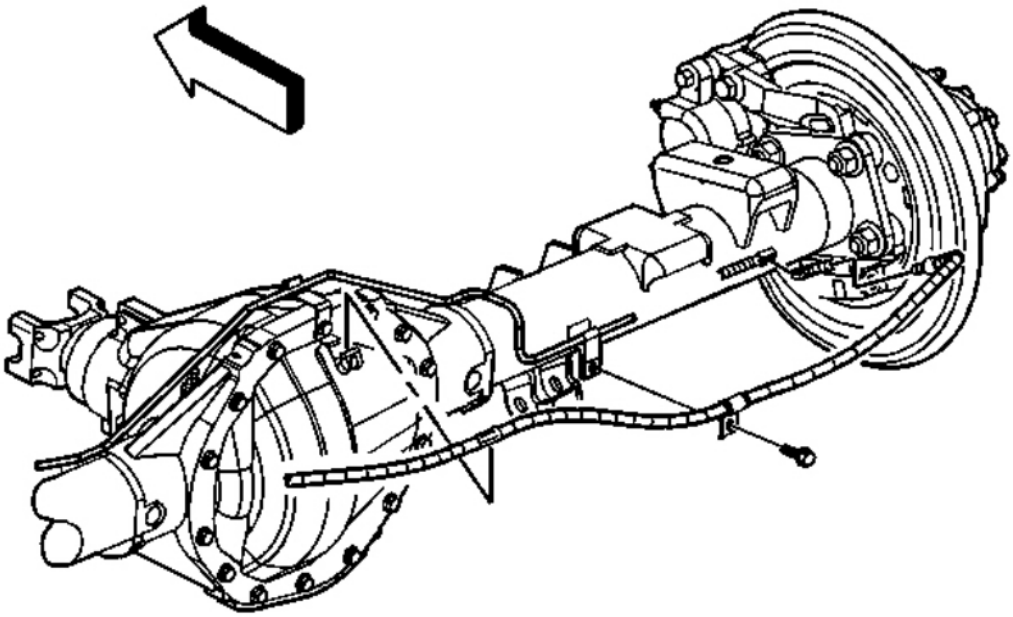


Fig. 63: View Of Park Brake Cable To Differential Clip
Courtesy of GENERAL MOTORS CORP.

7. Remove the cable from the mounting bracket by depressing the locking tabs.

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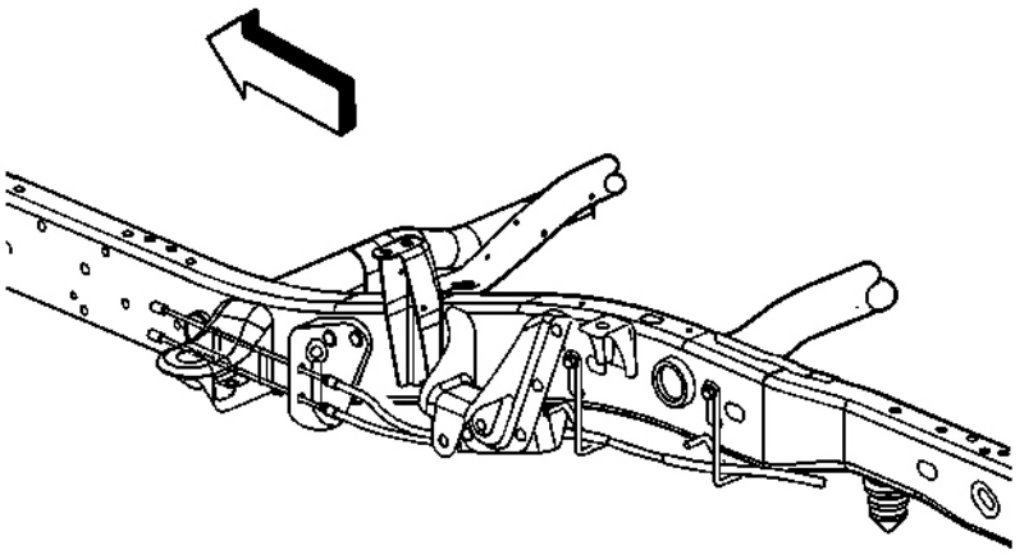


Fig. 64: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

8. Remove the cable from the left and right side cable guides (15 series).
9. Remove the cable from the track bar clips.

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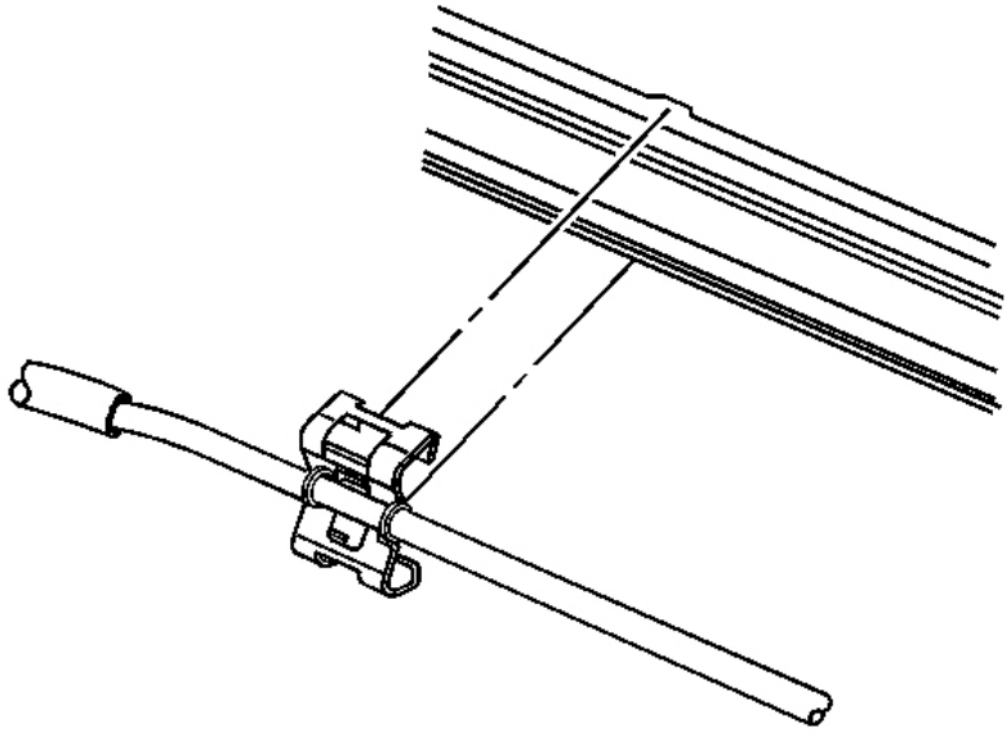


Fig. 65: View Of Park Brake Cable & Cable Guides (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

10. Remove the cable from the lever (25 series).
11. Remove the cable from the backing plate by depressing the locking tabs.
12. Remove the cable from the retaining bracket.
13. Remove the cable.

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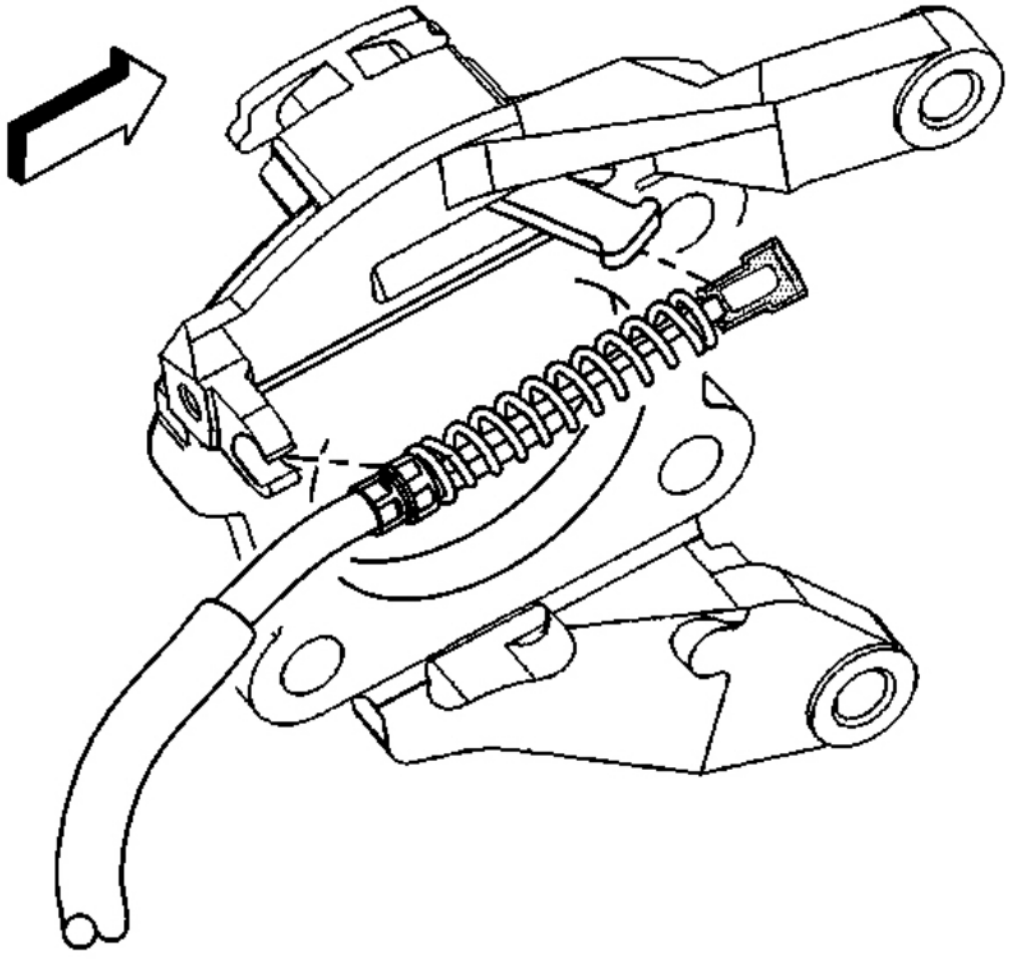


Fig. 66: View Of Park Brake Cable - Rear (W/O RPO NYS - 25 Series)
Courtesy of GENERAL MOTORS CORP.

14. Remove the cable from the lever (15 series).
15. Remove the cable from the backing plate by depressing the locking tabs.
16. Remove the cable from the retaining bracket.
17. Remove the cable.

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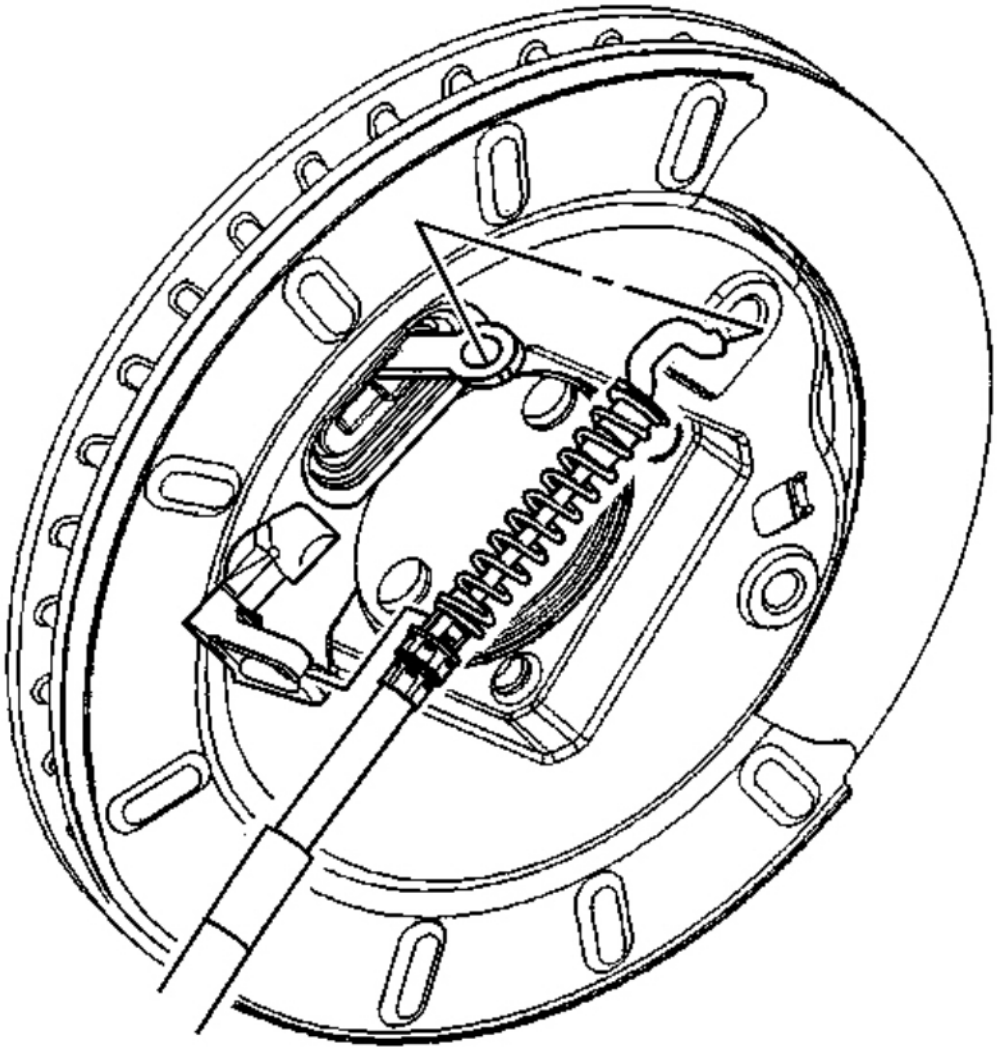


Fig. 67: View Of Park Brake Cable - Rear (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the cable taking care to correctly route the cable through the guides and the body mounts.
2. Install the cable to the backing plate by pressing the cable into place until locking tabs snap into place (15 series).
3. Attach the cable to the lever.

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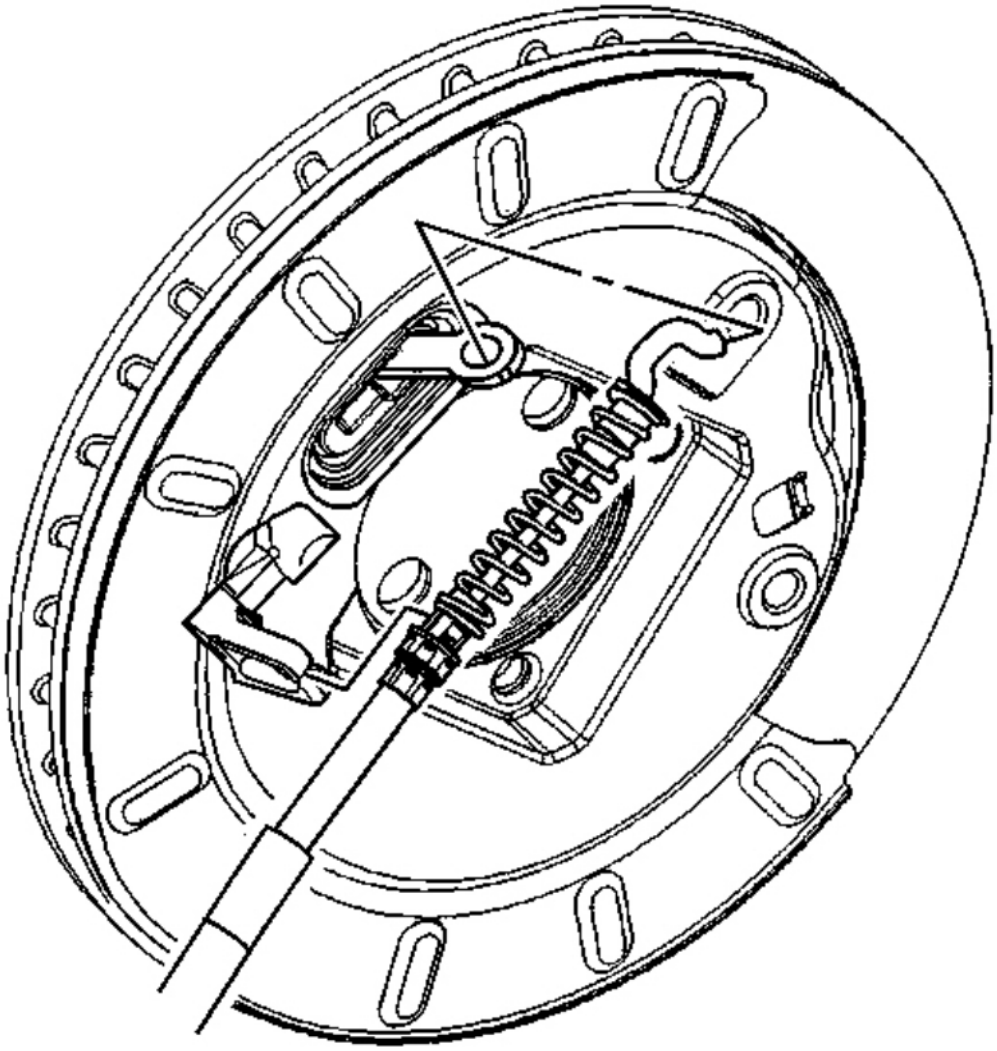


Fig. 68: View Of Park Brake Cable - Rear (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

4. Install the cable taking care to correctly route the cable through the guides and the body mounts.
5. Install the cable to the backing plate by pressing the cable into place until locking tabs snap into place (25 series).
6. Attach the cable to the lever.

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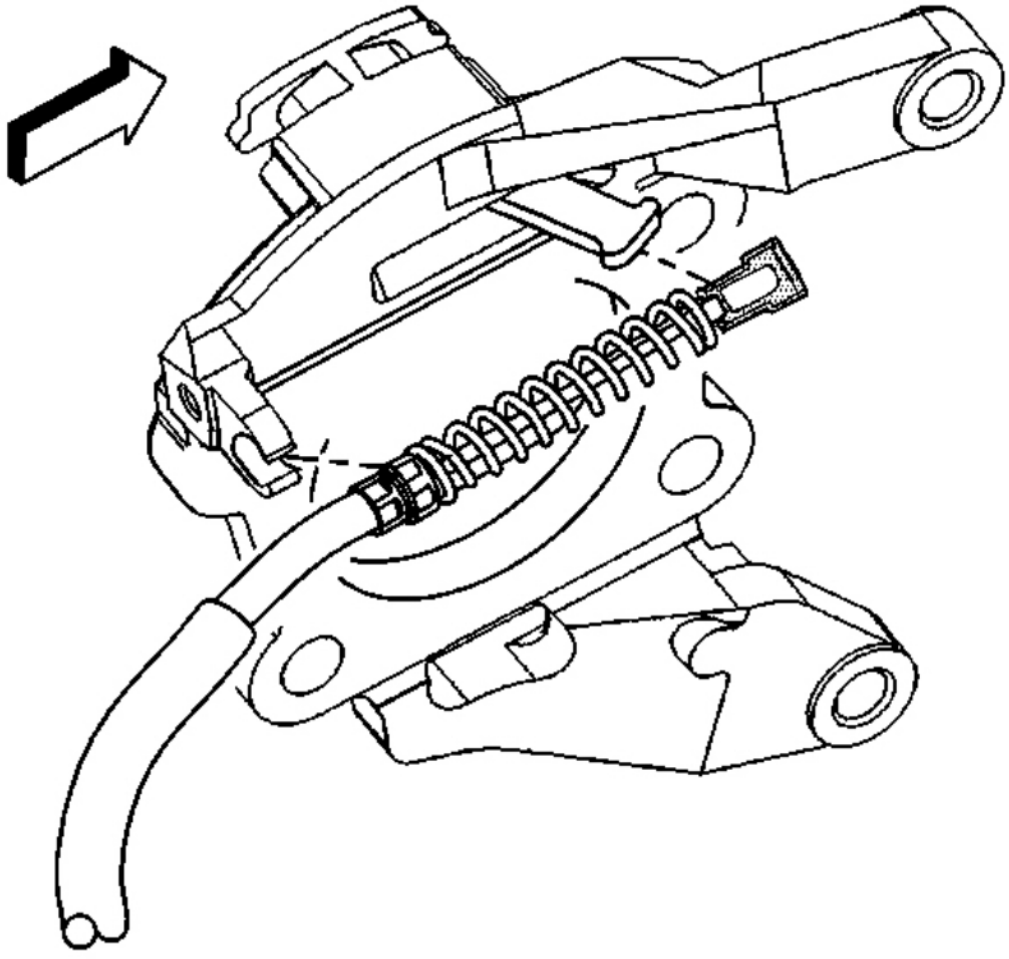


Fig. 69: View Of Park Brake Cable - Rear (W/O RPO NYS - 25 Series)
Courtesy of GENERAL MOTORS CORP.

7. Install the cable to the track bar and secure with the clips. Verify that the clips are installed between the locators on the track bar (15 series).
8. Install the cable to the right and left side guides.

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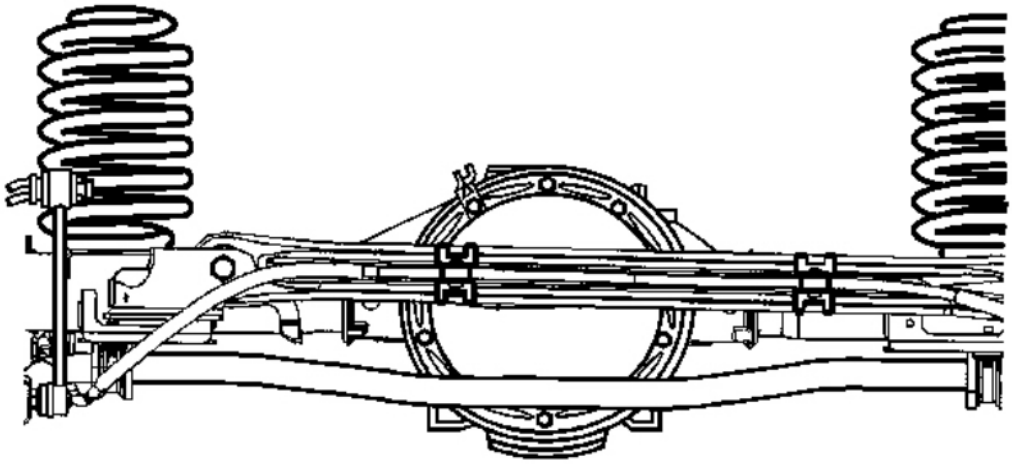
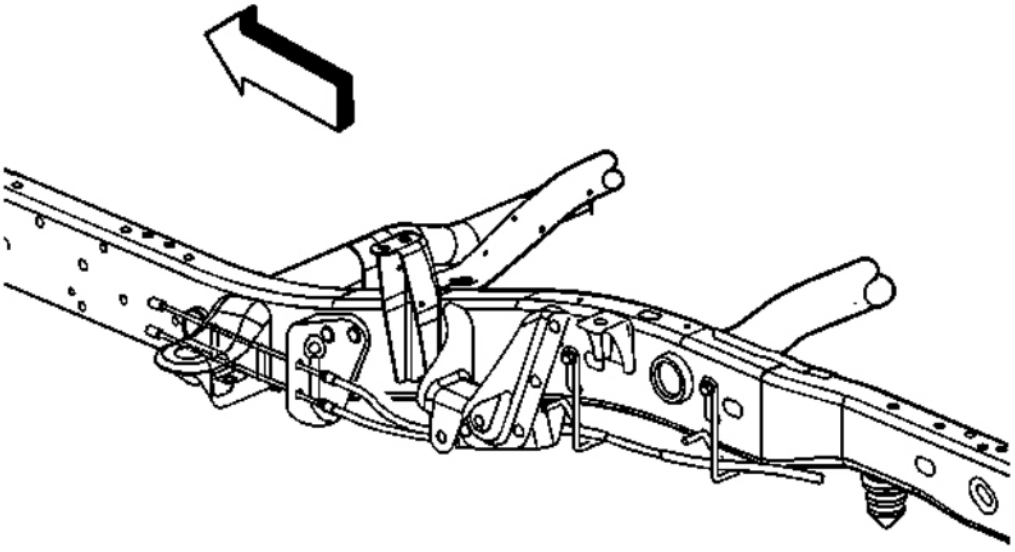


Fig. 70: View Of Park Brake Cable & Clips To Track Bar (W/O RPO NYS - 15 Series)
Courtesy of GENERAL MOTORS CORP.

9. Install the cable to the mounting bracket until the locking tabs snap into place.



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Fig. 71: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

10. Bolt the cable to the differential (clips).

    Tighten: Tighten the bolt to 25 N.m (18 lb ft).

    IMPORTANT: After installing the cable to the rear axle holding clip, verify that clip is securely retaining the cable. If not, crimp the clip by hand taking care not to pinch or kink the cable.

11. Install the cable to the differential clip.

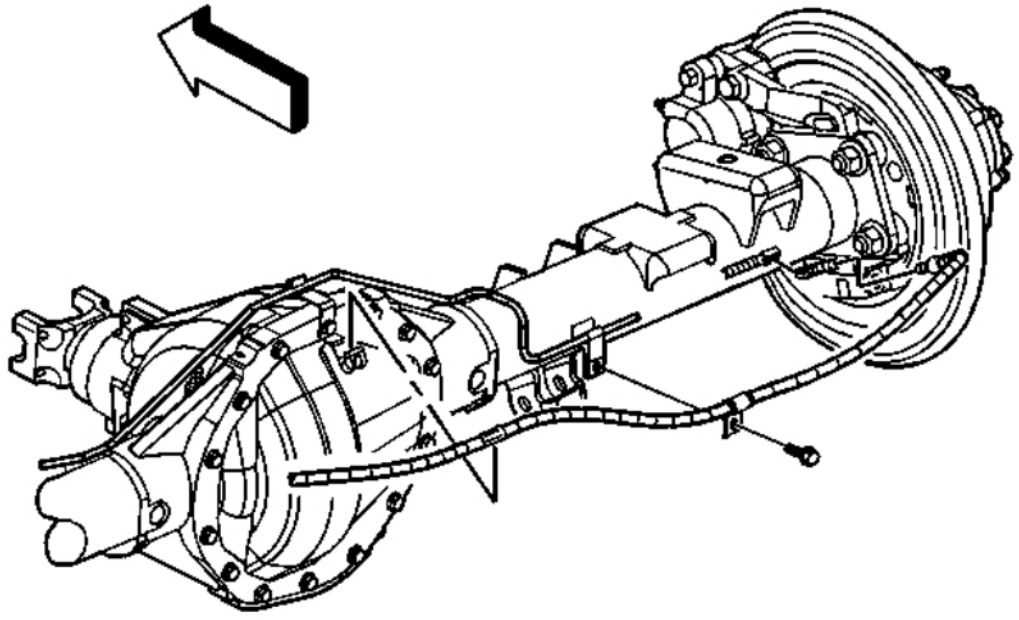


Fig. 72: View Of Park Brake Cable To Differential Clip
Courtesy of GENERAL MOTORS CORP.

12. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and installing the cable to the equalizer bar.

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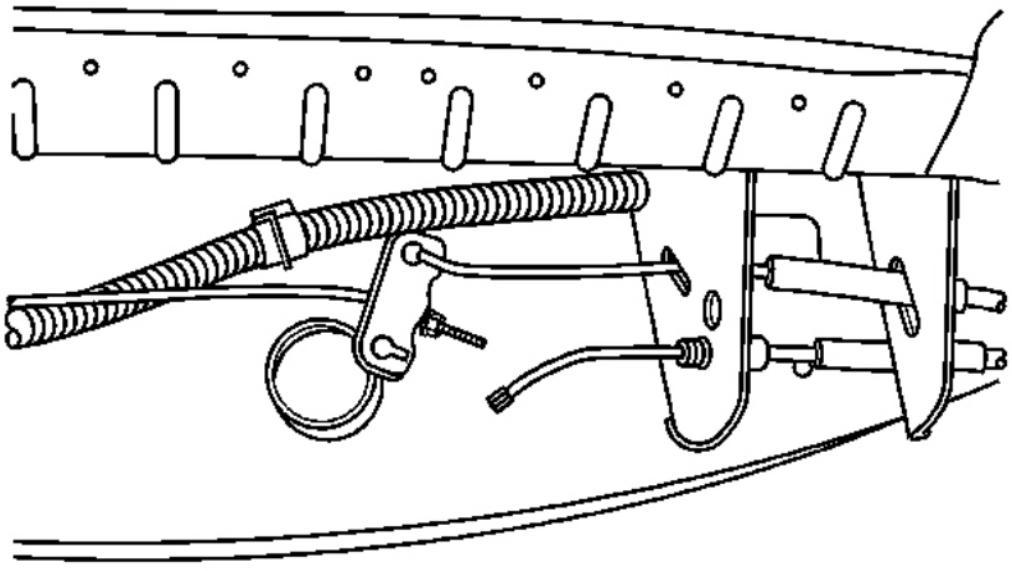


Fig. 73: Equalizer Bar & Park Brake Cable - Rear
Courtesy of GENERAL MOTORS CORP.

13. Remove the safety stands.
14. Lower the vehicle.
15. Adjust the park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE CABLE REPLACEMENT - RIGHT REAR (WITH RPO NYS)

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the park brake cable from the equalizer by pulling down on the intermediate cable and release the cable from the equalizer bar.

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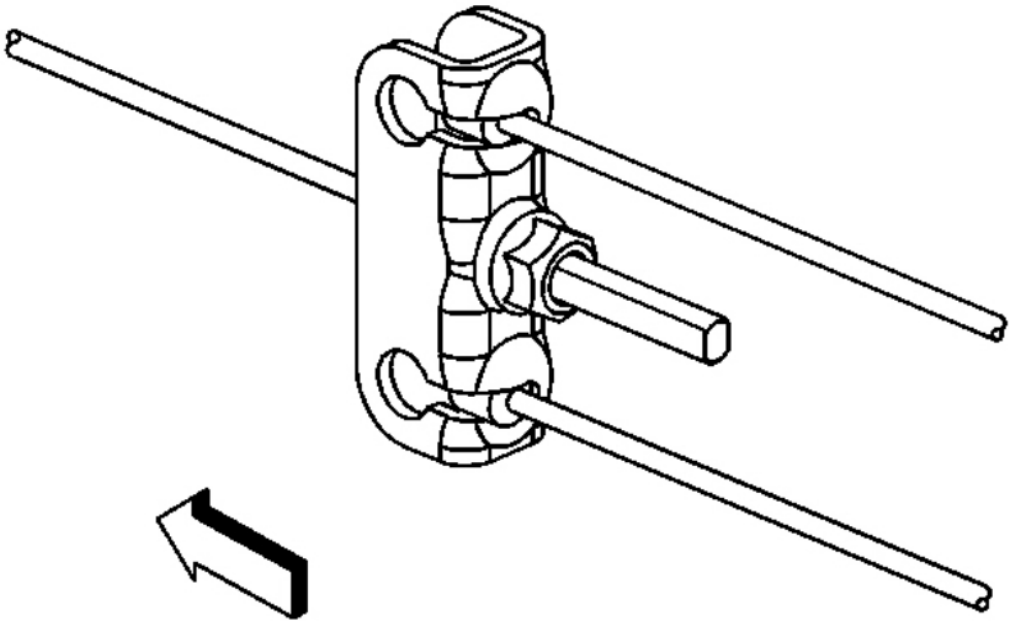


Fig. 74: View Of Park Brake Cable To Equalizer Bar
Courtesy of GENERAL MOTORS CORP.

4. Remove the cable from the mounting bracket by depressing the locking tabs.

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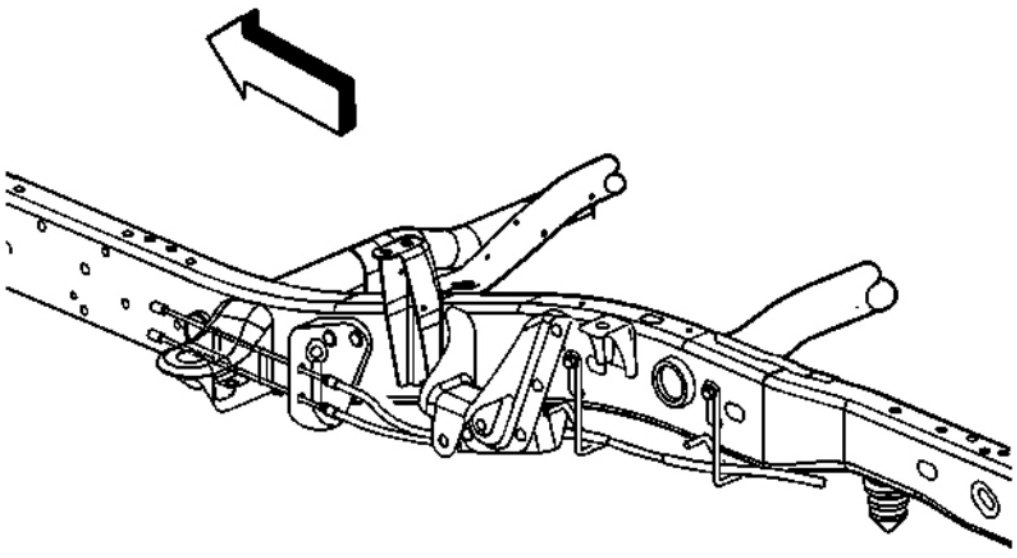


Fig. 75: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

5. Remove the park brake cable from the differential clip.

   Remove the bolt retaining the park brake cable from the rear axle clip.

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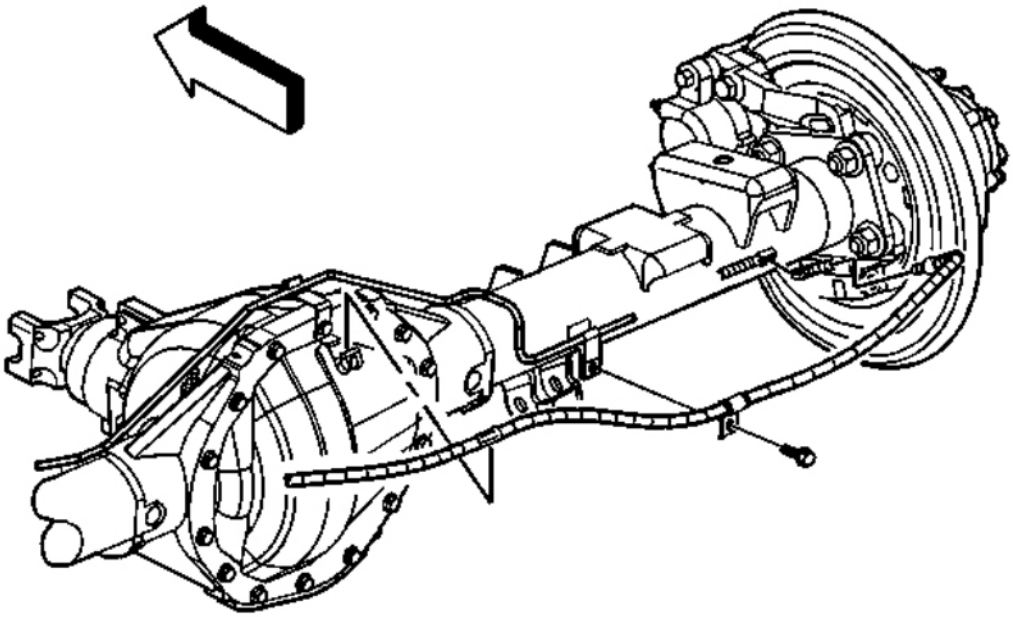


Fig. 76: View Of Park Brake Cable To Differential Clip
Courtesy of GENERAL MOTORS CORP.

6. Remove the rear brake cable mounting bracket bolt.

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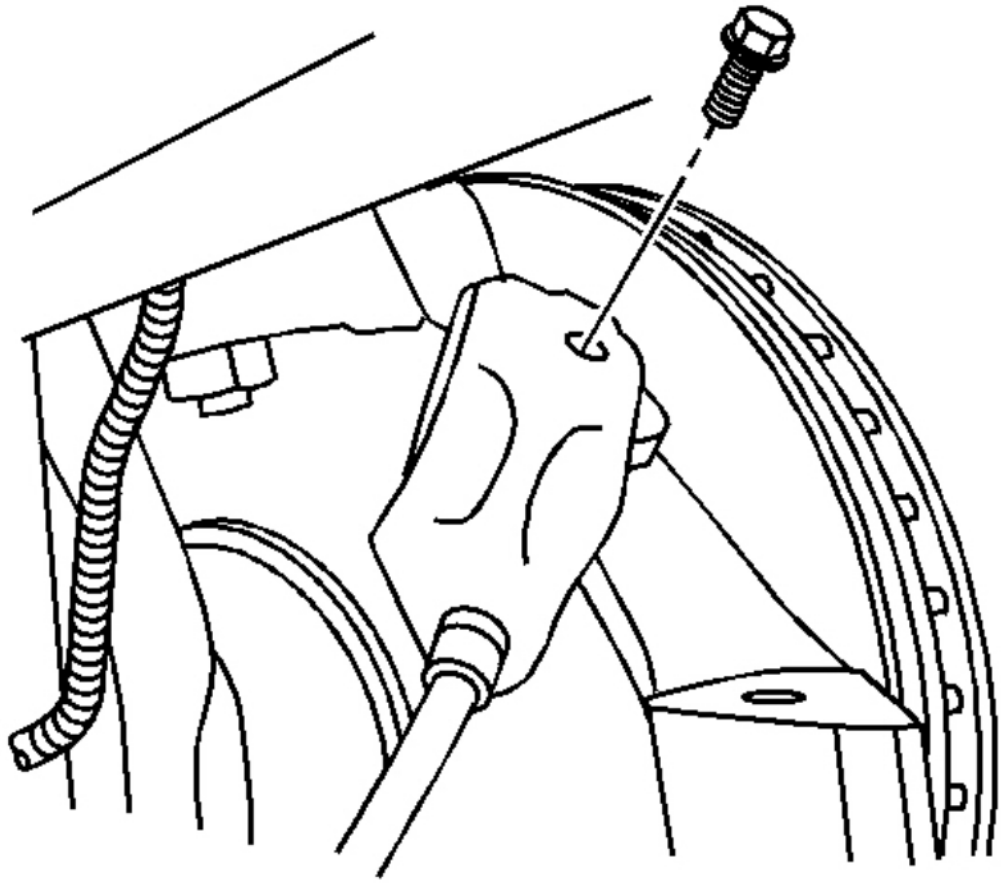


Fig. 77: View Of Rear Brake Cable Mounting Bracket Bolt - Right Rear (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

7. Remove the brake cable from the lever.

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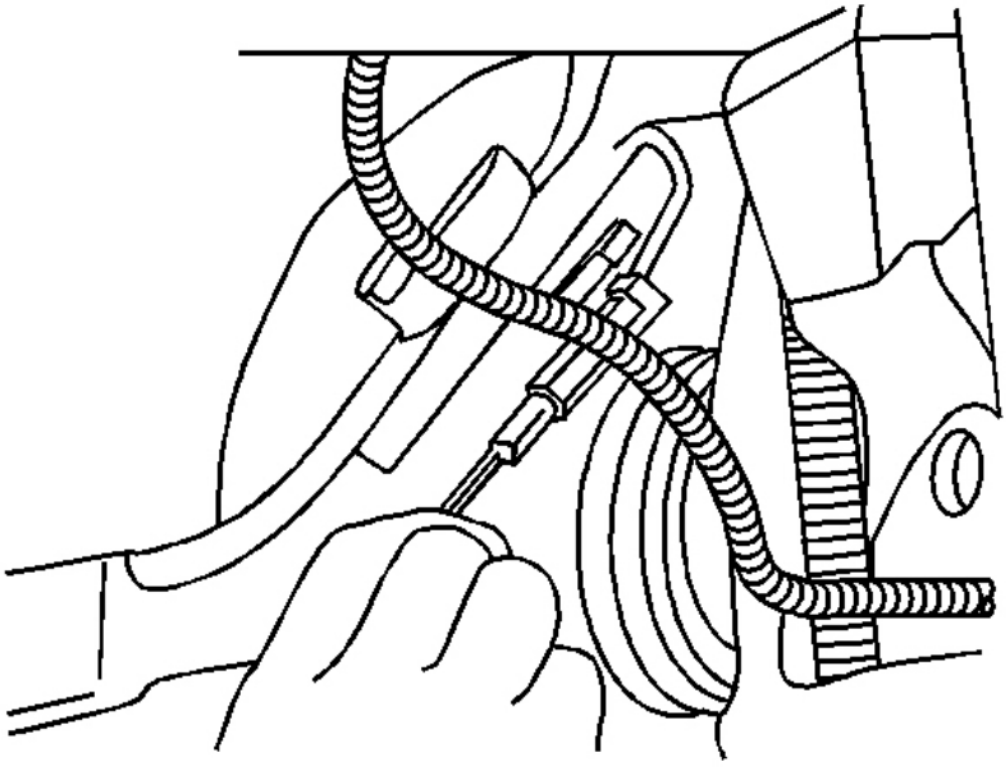


Fig. 78: View Of Park Brake Cable To Park Brake Actuator Lever
Courtesy of GENERAL MOTORS CORP.

8. Remove the cable (2) from the rear brake cable mounting bracket (3) by depressing the locking tabs (1) on the brake cable.

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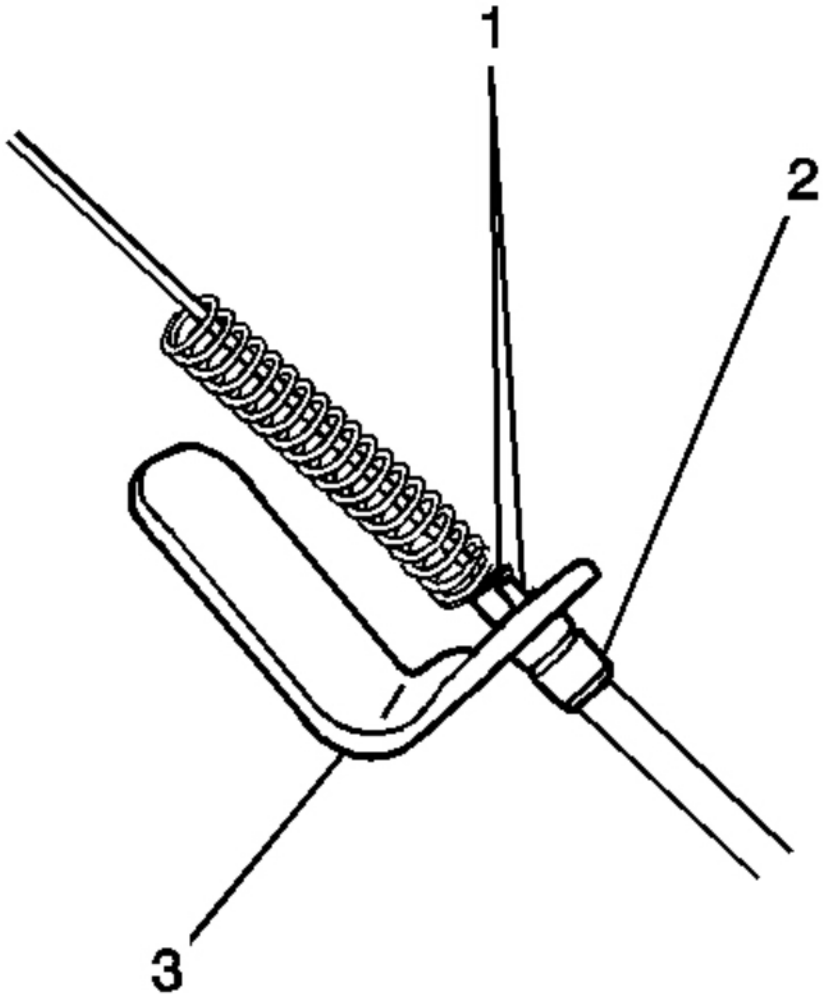


Fig. 79: Identifying Park Brake Cable & Rear Brake Cable Mounting Bracket (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

9. Remove the brake cable from the guides and the body mounts.

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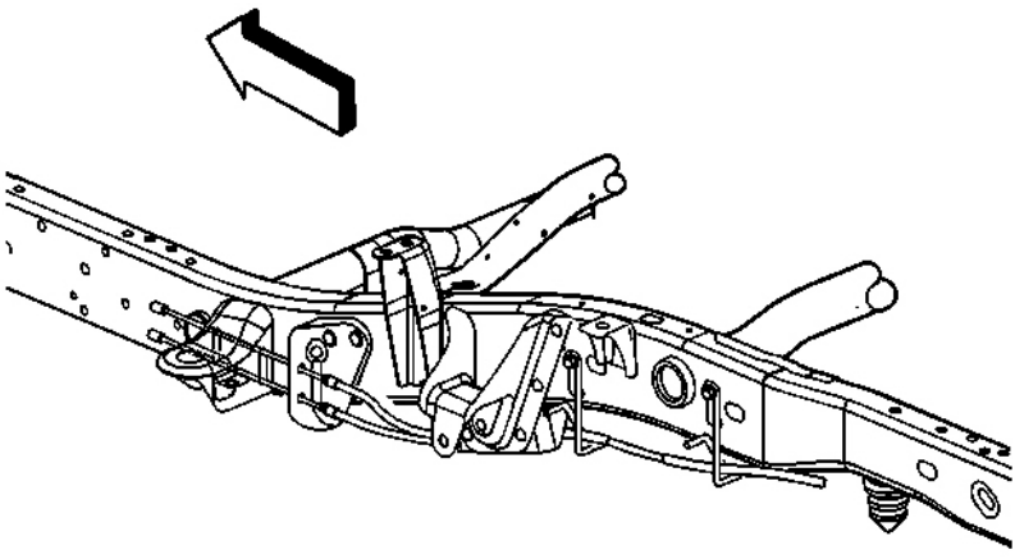


Fig. 80: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the new brake cable (2) into the rear brake cable mounting bracket (3) by pushing the cable into place until the locking tabs (1) snap into place.

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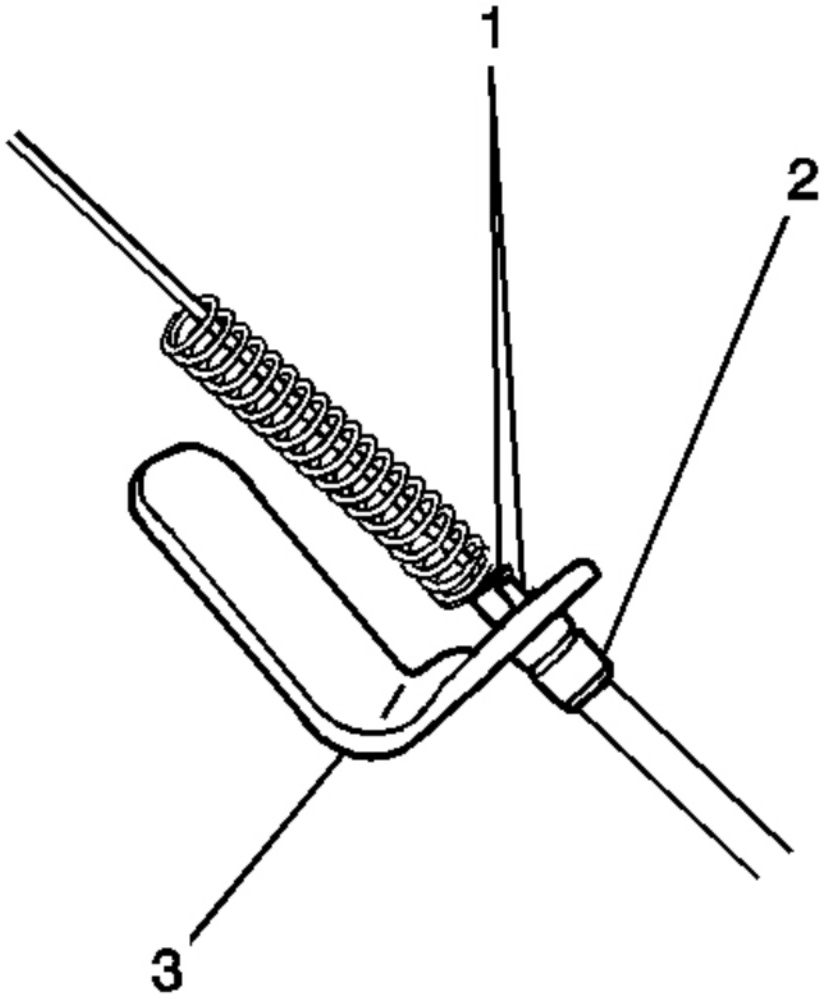


Fig. 81: Identifying Park Brake Cable & Rear Brake Cable Mounting Bracket (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

2. Install the park brake cable to the lever.

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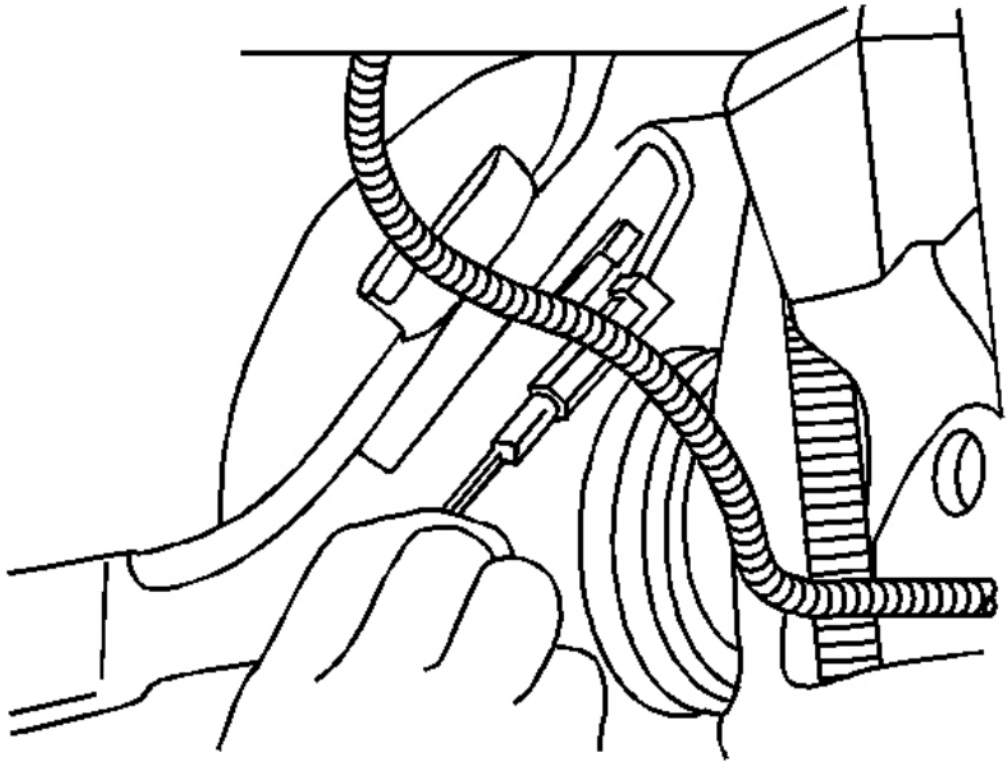


Fig. 82: View Of Park Brake Cable To Park Brake Actuator Lever
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the rear park brake cable bracket bolt.

Tighten: Tighten the rear park brake cable bracket bolt to 61 N.m (45 lb ft).

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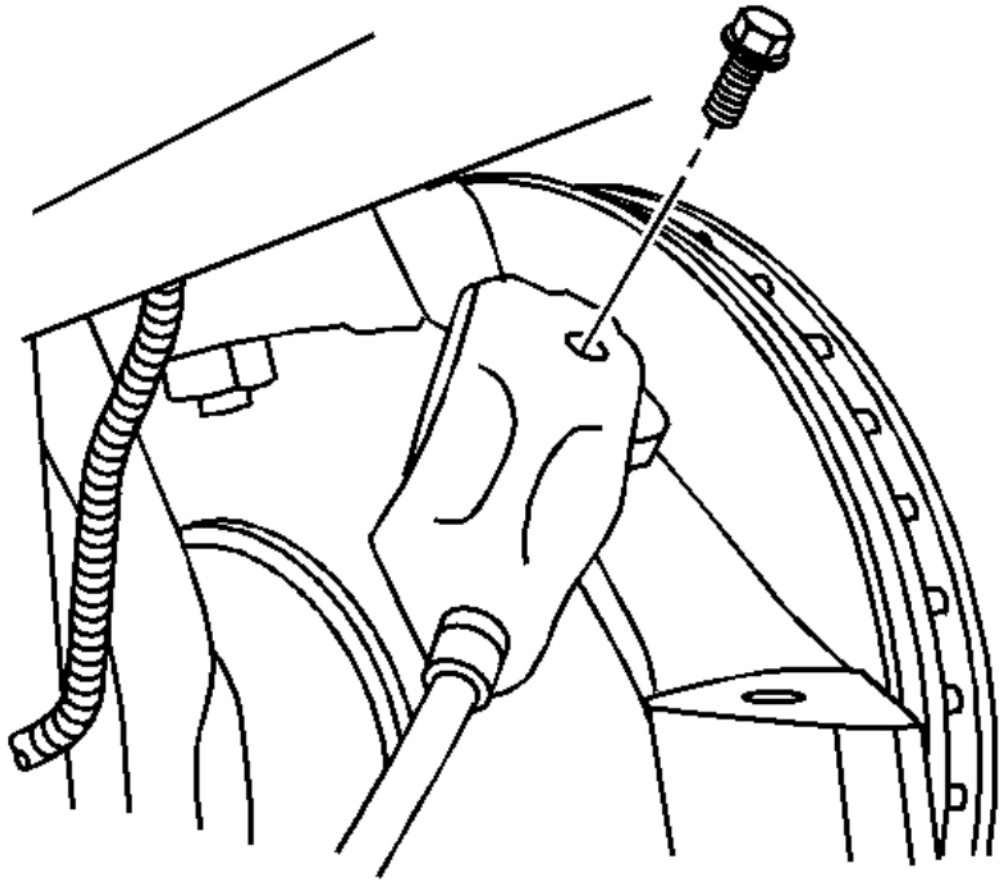


Fig. 83: View Of Rear Brake Cable Mounting Bracket Bolt - Right Rear (RPO NYS)
Courtesy of GENERAL MOTORS CORP.

4. Install the park brake cable to the differential clip.
5. Install the park brake cable bolt to the rear axle clip.

Tighten: Tighten the park brake cable bolt to 25 N.m (18 lb ft).

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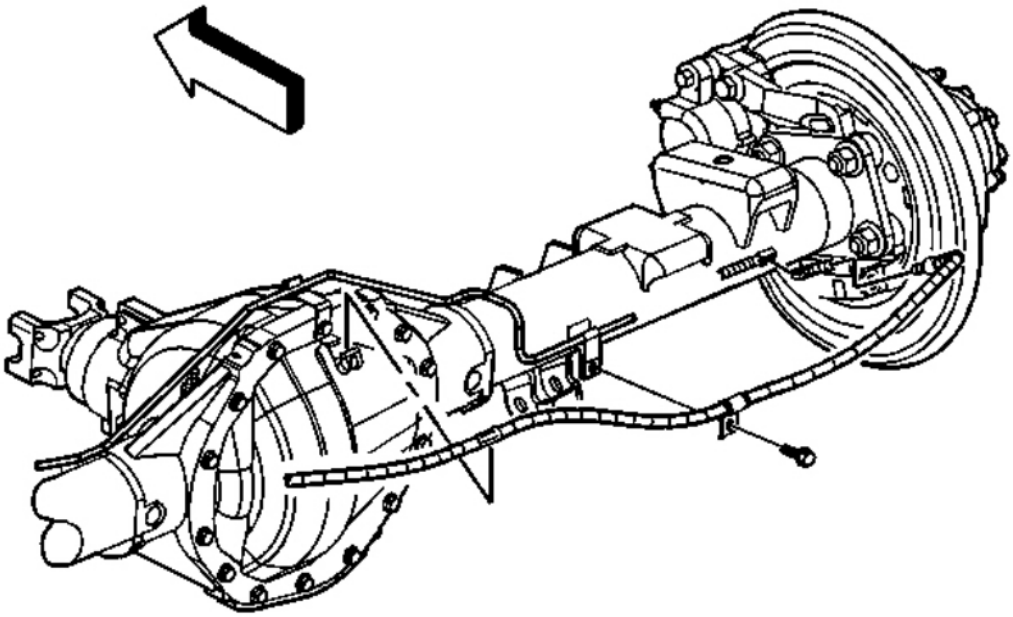


Fig. 84: View Of Park Brake Cable To Differential Clip
Courtesy of GENERAL MOTORS CORP.

6. Install the park brake cable taking care to correctly route the cable though the guides and the body mounts.
7. Install the park brake cable into the mounting bracket until the locking tabs snap into place.

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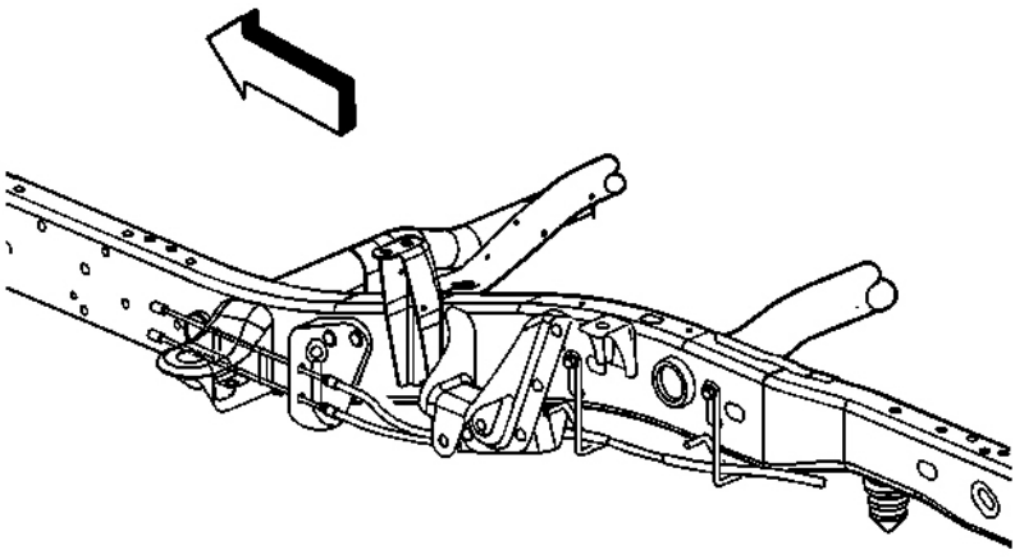


Fig. 85: View of Park Brake Cable & Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

8. Install the park brake cable to the equalizer bar.

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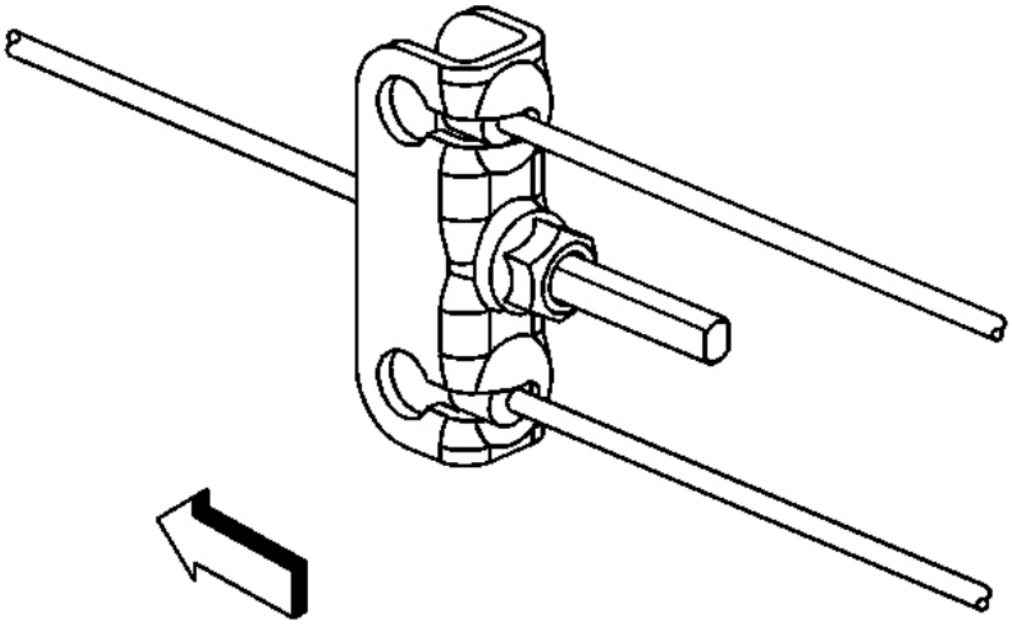


Fig. 86: View Of Park Brake Cable To Equalizer Bar
Courtesy of GENERAL MOTORS CORP.

9. Remove the safety stands.
10. Lower the vehicle.

PARK BRAKE CABLE EQUALIZER REPLACEMENT

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the nut from the threaded end of the intermediate cable.
4. Disconnect the equalizer from the rear park brake cables.

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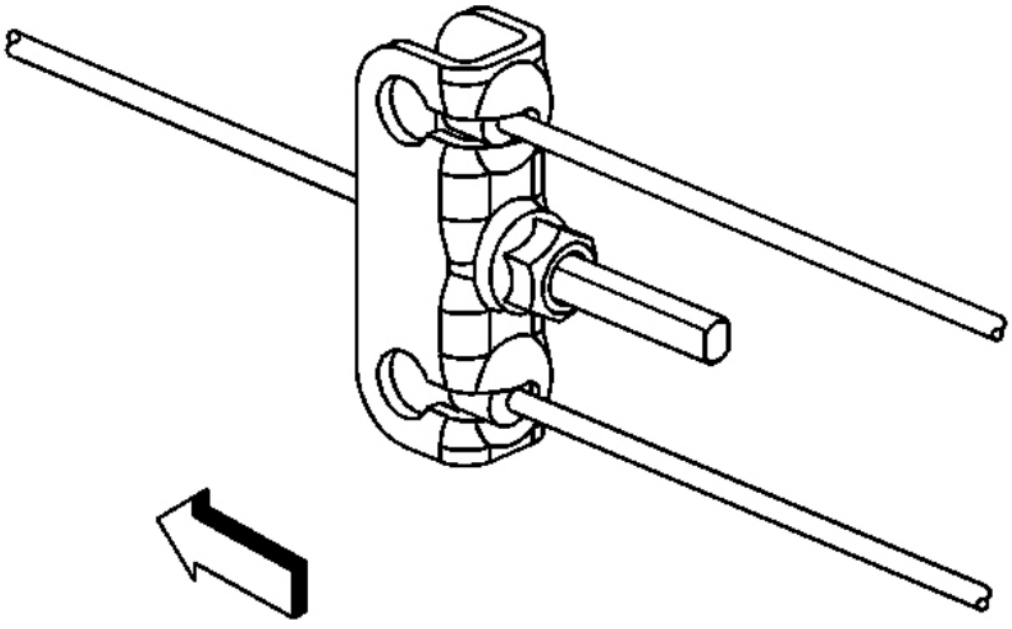


Fig. 87: View Of Park Brake Cable To Equalizer Bar
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Connect the equalizer to the rear park brake cables.

   NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the nut to the threaded end of the intermediate cable.

   Tighten: Tighten the nut to 3.5 N.m (31 lb in).

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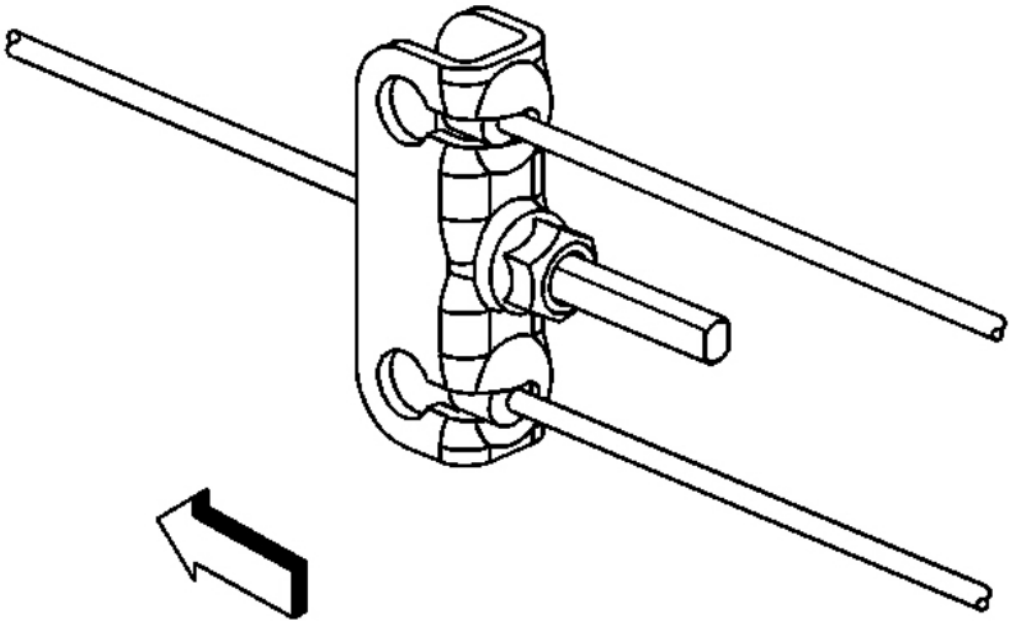


Fig. 88: View Of Park Brake Cable To Equalizer Bar
Courtesy of GENERAL MOTORS CORP.

3. Remove the safety stands.
4. Lower the vehicle.
5. Adjust the park brake system. Refer to **Park Brake Adjustment**.

PARK BRAKE CABLE MOUNTING BRACKET REPLACEMENT

Removal Procedure

1. Release the parking brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Release the tension on the cables by loosening the nut at the equalizer.
4. Disconnect the rear cables from the equalizer.
5. Remove the rear cables from the mounting bracket by depressing the retaining tabs and pulling rearward.

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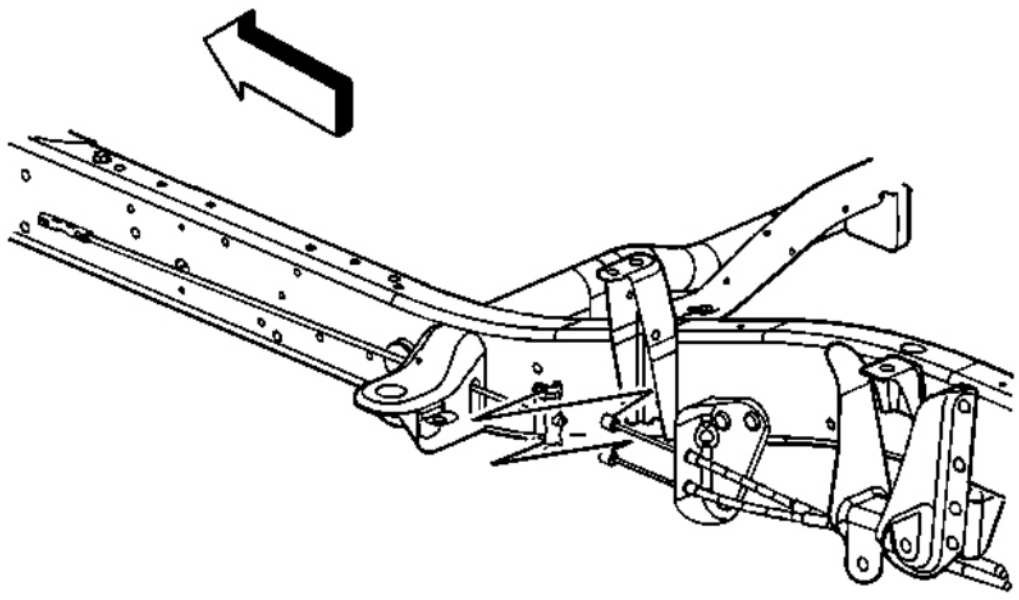


Fig. 89: Locating Rear Park Brake Cable At Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

6. Remove the cable support bracket nuts.
7. Remove the cable support bracket.

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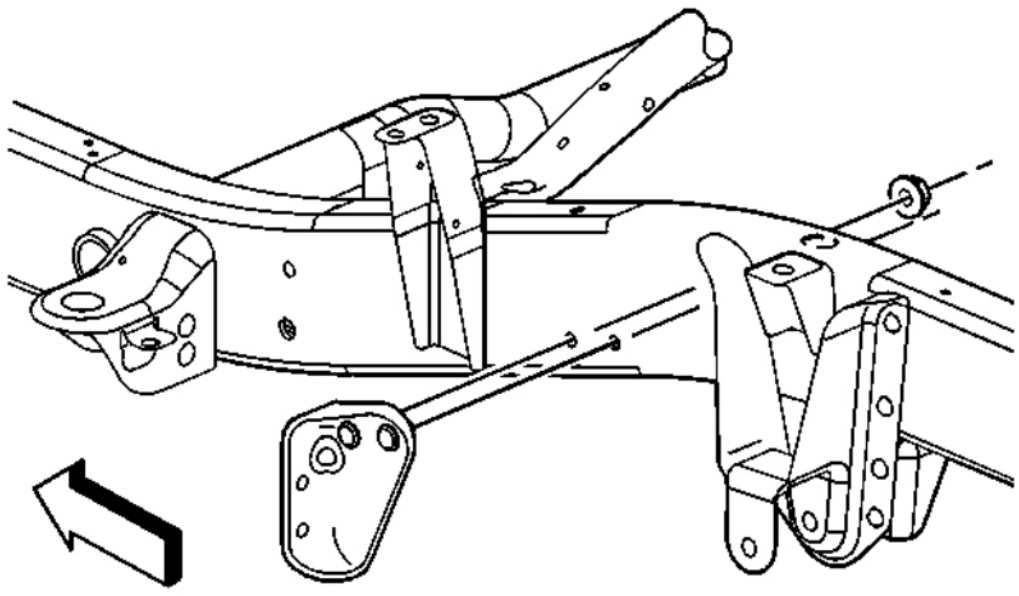


Fig. 90: View Of Cable Support Bracket & Nuts
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the cable support bracket.

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

2. Install the cable support bracket nuts.

Tighten: Tighten the support bracket nuts to 85 N.m (64 lb ft).

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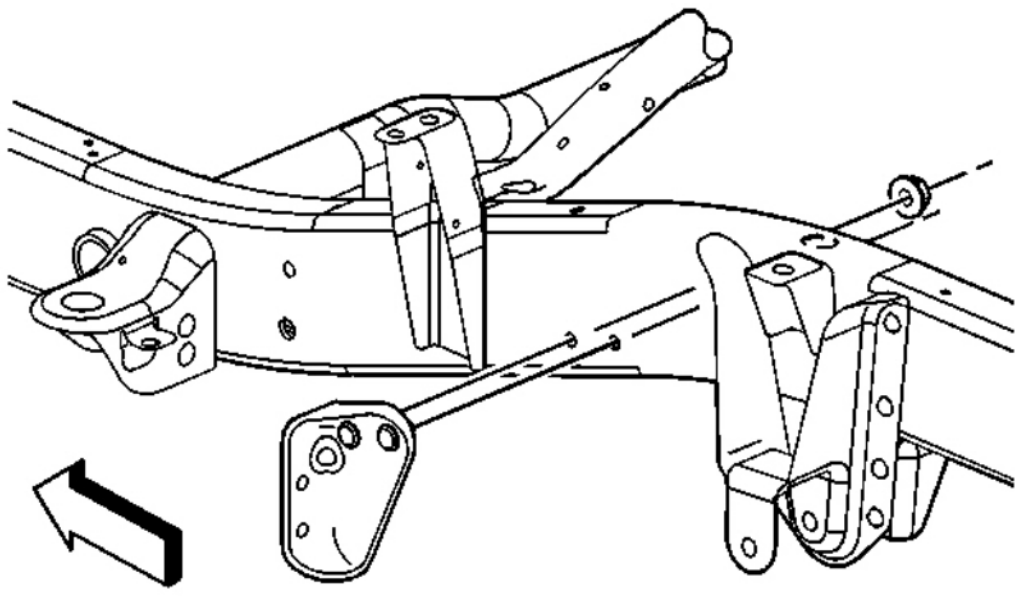


Fig. 91: View Of Cable Support Bracket & Nuts
Courtesy of GENERAL MOTORS CORP.

3. Install the rear cables to the mounting bracket by inserting the cable till all the retaining tabs snap into place.
4. Connect the rear cables to the equalizer.
5. Tighten the nut to the intermediate cable at the equalizer.

Tighten: Tighten the nut to 3.5 N.m (31 lb in).

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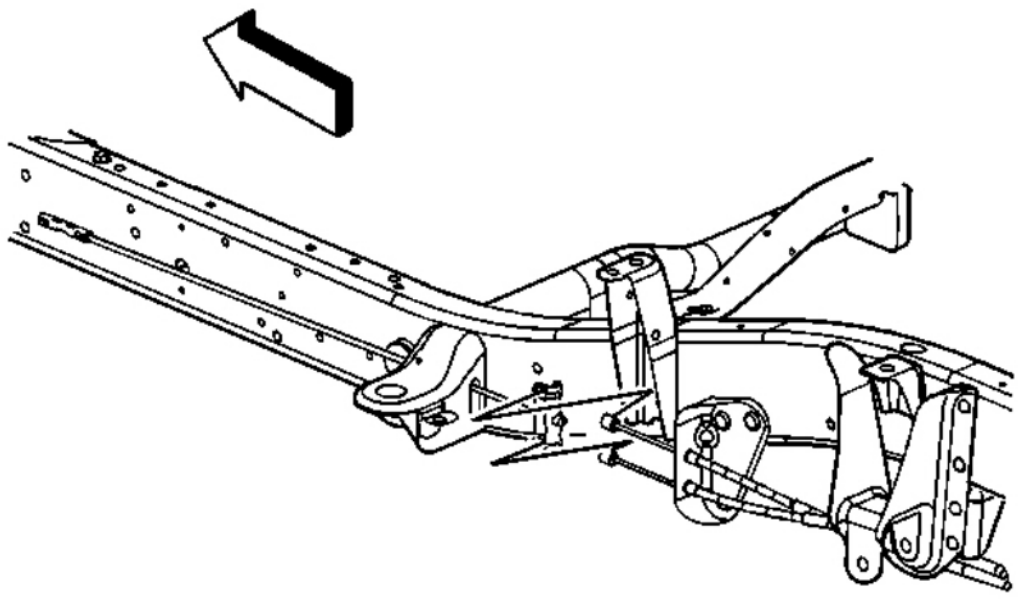


Fig. 92: Locating Rear Park Brake Cable At Mounting Bracket
Courtesy of GENERAL MOTORS CORP.

6. Remove the safety stands.
7. Lower the vehicle.

PARK BRAKE CABLE GUIDE REPLACEMENT

Removal Procedure

1. Release the parking brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. For cutaway vehicles, remove the park brake cable guide bolt from the frame.

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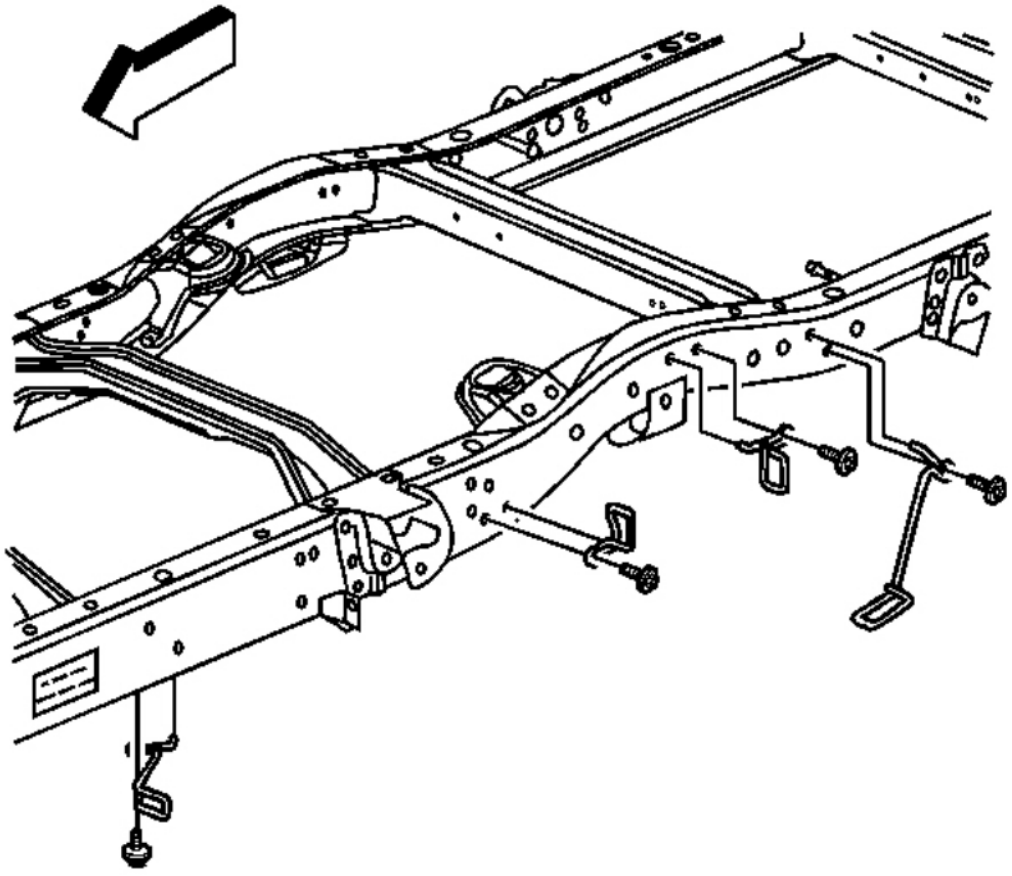


Fig. 93: View Of Park Brake Cable Guide Bolt (Cutaway Vehicle)
Courtesy of GENERAL MOTORS CORP.

4. For cargo and passenger vehicles, remove the park brake cable guide bolt from the frame.

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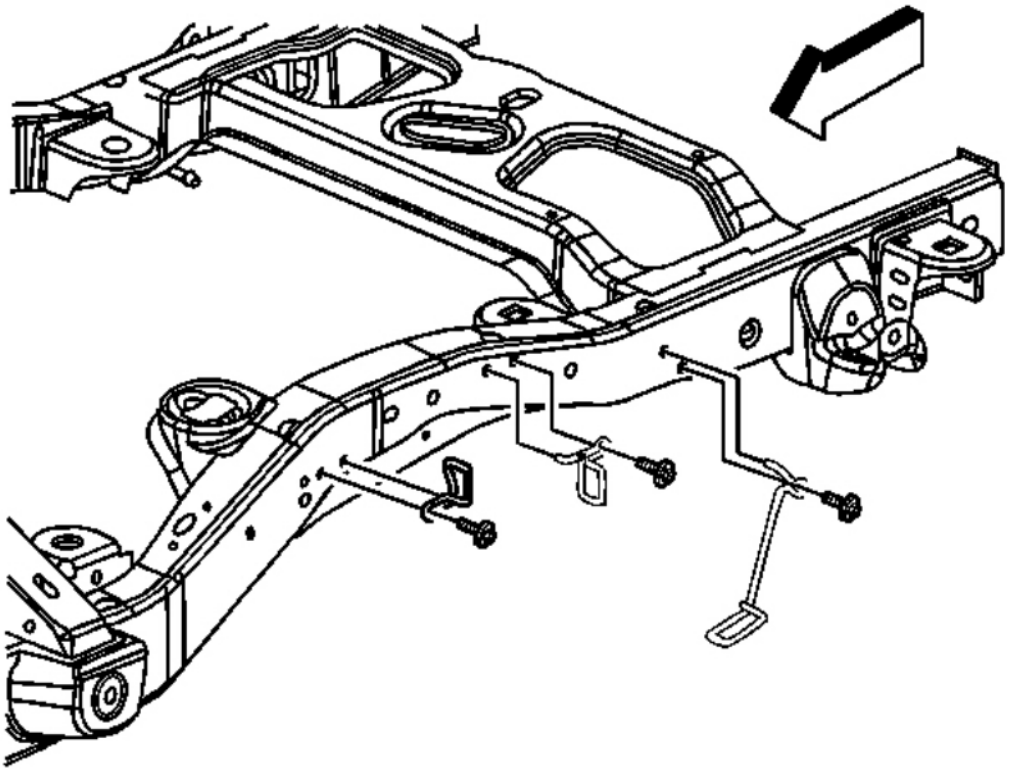


Fig. 94: View Of Park Brake Cable Guide Bolt (Cargo & Passenger Vehicles)
Courtesy of GENERAL MOTORS CORP.

5. Remove the park brake cable guide.
6. Remove the park brake guide from the park brake cable.

Installation Procedure

1. Install the park brake cable guide to the park brake cable.
2. Install the park brake cable guide.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. For cutaway vehicles, install the park brake cable guide bolt to the frame.

Tighten: Tighten the bolt to 18 N.m (13 lb ft).

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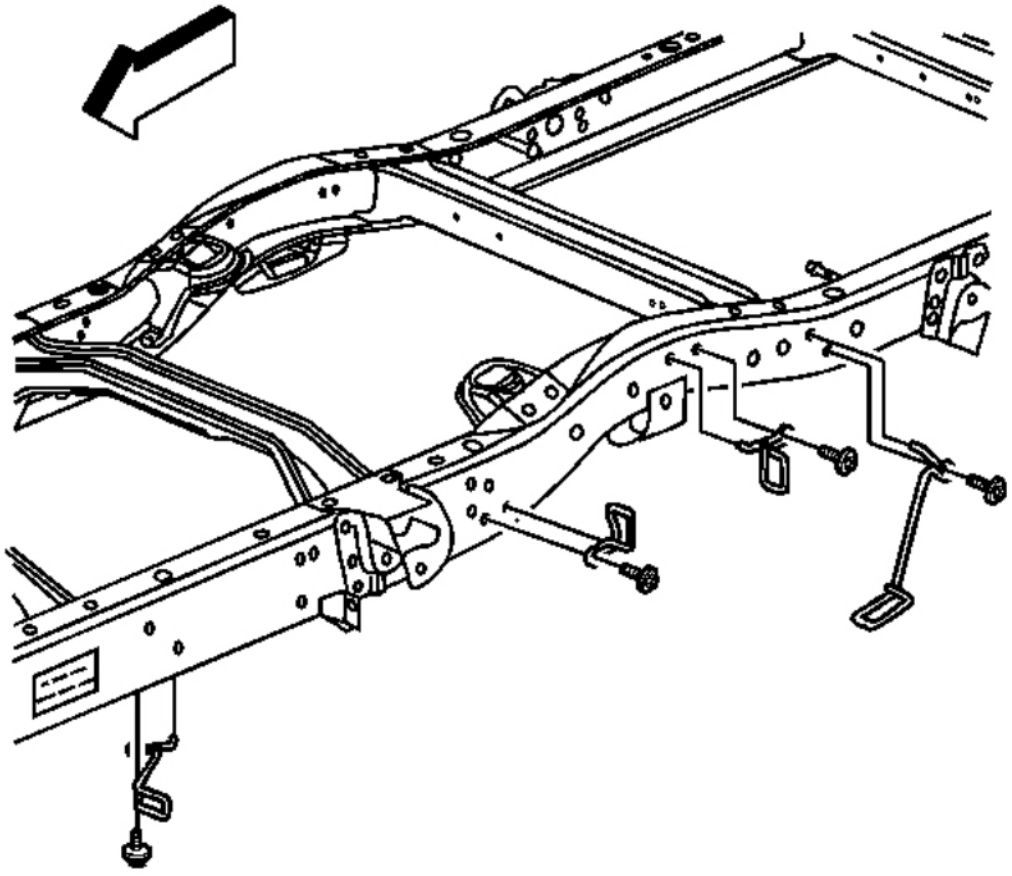


Fig. 95: View Of Park Brake Cable Guide Bolt (Cutaway Vehicle)
Courtesy of GENERAL MOTORS CORP.

4. For cargo and passenger vehicles, install the park brake cable guide bolt to the frame.

   Tighten: Tighten the bolt to 13 N.m (115 lb in).

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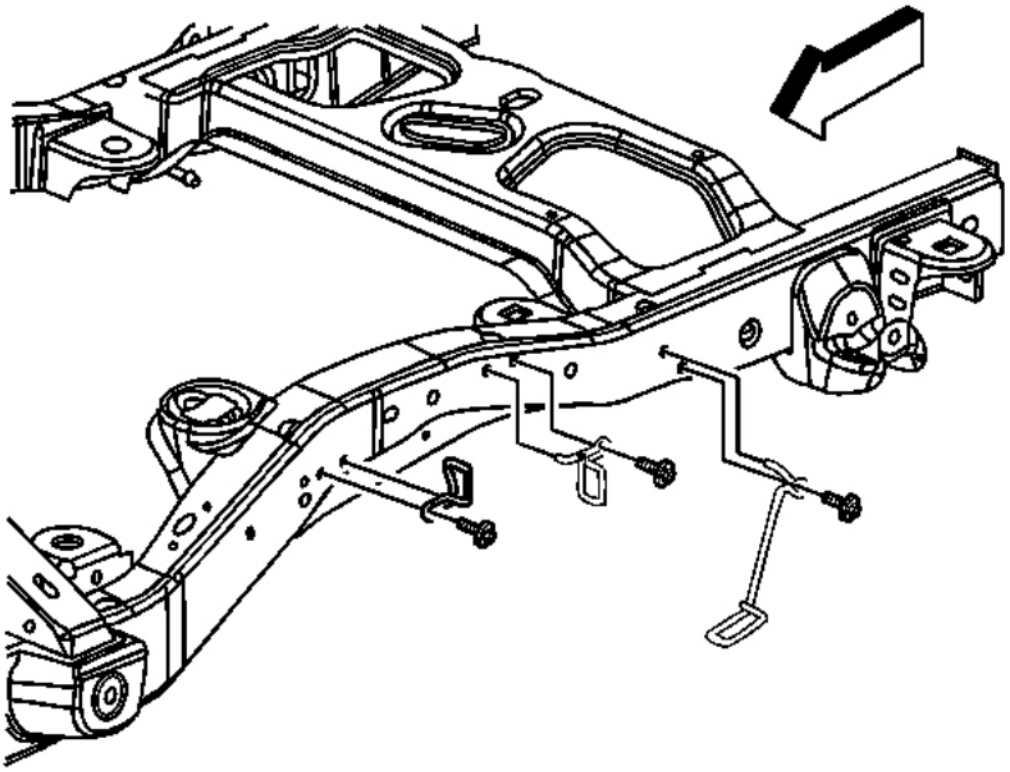


Fig. 96: View Of Park Brake Cable Guide Bolt (Cargo & Passenger Vehicles)
Courtesy of GENERAL MOTORS CORP.

5. Remove the safety stands.
6. Lower the vehicle.

PARK BRAKE ACTUATOR REPLACEMENT (15 SERIES)

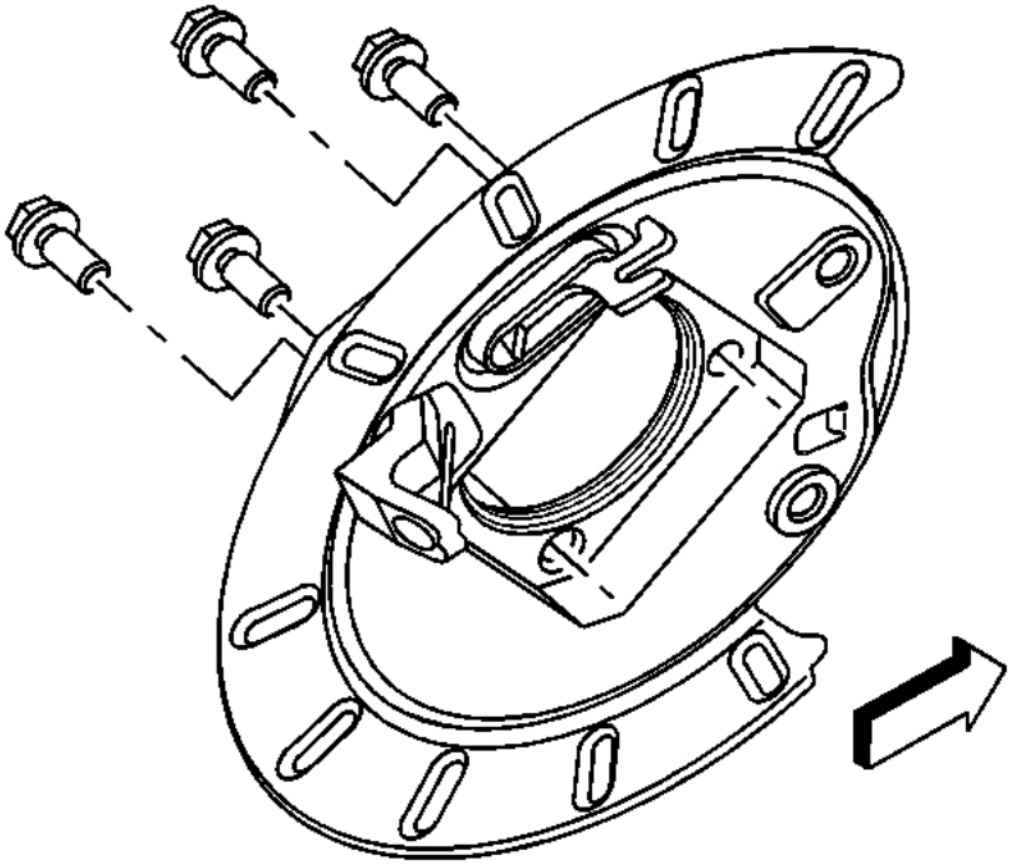
Removal Procedure

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

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.

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4. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.
5. Remove the park brake cable from the mounting bracket by depressing the locking tabs.
6. Remove the rear park brake cable from the park brake actuator lever.
7. Remove the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
8. Remove the axle shaft. Refer to **Rear Axle Shaft Replacement (8.6 Inch Axle W/O JL4, 9.5 Inch Axle)** or **Rear Axle Shaft Replacement (8.6 Inch Axle W/JL4)** or **Rear Axle Shaft Replacement (9.75 Inch Axle)** in Rear Drive Axle.
9. Remove the park brake shoe. Refer to **Park Brake Shoe Replacement (Except RPO NYS, 25 Series)** or **Park Brake Shoe Replacement (RPO NYS)** or **Park Brake Shoe Replacement (25 Series)**.
10. Remove the backing plate bolts.
11. Remove the park brake actuator lever housing from the backing plate.



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Fig. 97: Identifying Backing Plate Bolts
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the park brake actuator lever housing to the backing plate.
2. Perform the following procedure before installing the backing plate bolts.
    1. Remove all traces of the original adhesive patch.
    2. Clean the threads of the bolt with brake parts cleaner or the equivalent and allow to dry.
    3. Apply Threadlocker GM P/N 12345493 (Canadian P/N 10953488) to the threads of the bolt.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the backing plate bolts.

Tighten: Tighten the backing plate bolts to 135 N.m (100 lb ft).

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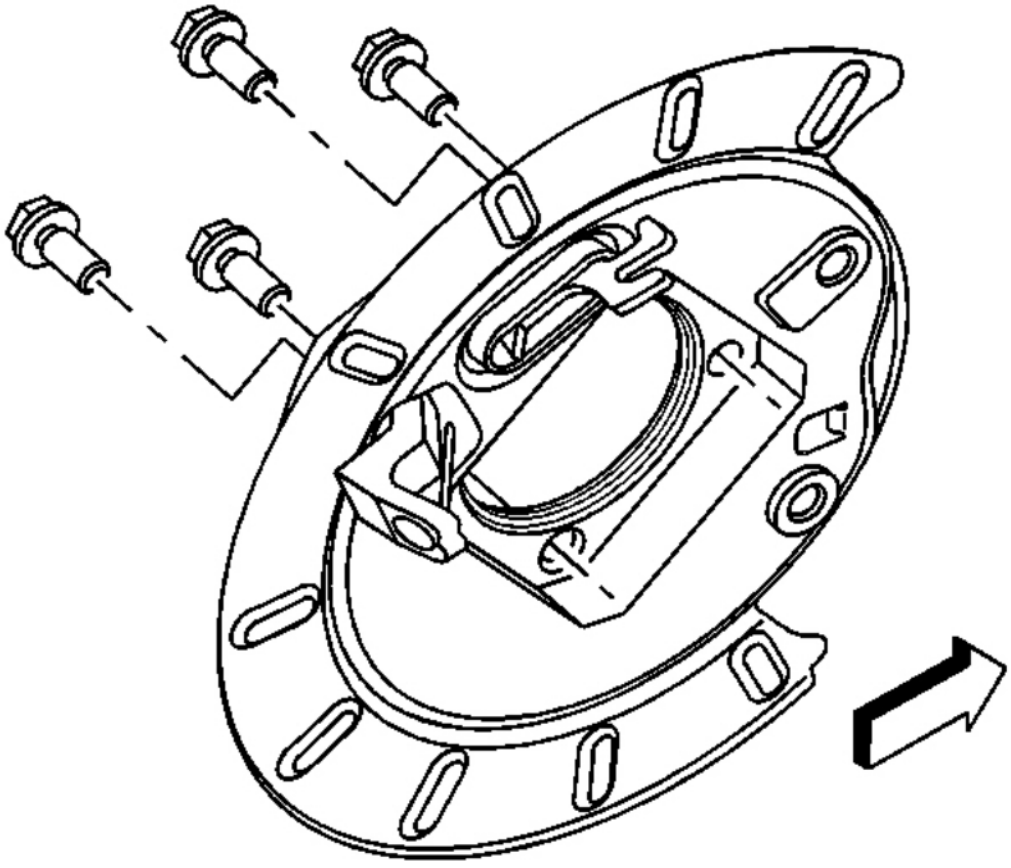


Fig. 98: Identifying Backing Plate Bolts
Courtesy of GENERAL MOTORS CORP.

4. Install the park brake shoe. Refer to **Park Brake Shoe Replacement (Except RPO NYS, 25 Series)** or **Park Brake Shoe Replacement (RPO NYS)** or **Park Brake Shoe Replacement (25 Series)**.
5. Install the axle shaft. Refer to **Rear Axle Shaft Replacement (8.6 Inch Axle W/O JL4, 9.5 Inch Axle)** or **Rear Axle Shaft Replacement (8.6 Inch Axle W/JL4)** or **Rear Axle Shaft Replacement (9.75 Inch Axle)** in Rear Drive Axle.
6. Adjust the park brake shoe. Refer to **Park Brake Adjustment**.
7. Install the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
8. Install the rear park brake cable to the park brake actuator lever.
9. Install the park brake cable to the mounting bracket until the locking tabs snap into place.
10. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and

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installing the cable to the equalizer bar.

11. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
12. Remove the safety stands.
13. Lower vehicle.
14. Adjust park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE ACTUATOR REPLACEMENT (25 SERIES)

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

Removal Procedure

1. Release the park brake.
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
3. Remove the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
4. Relieve the tension from the park brake cable by pulling down on the cable in front of the equalizer and removing the cable from the equalizer bar.

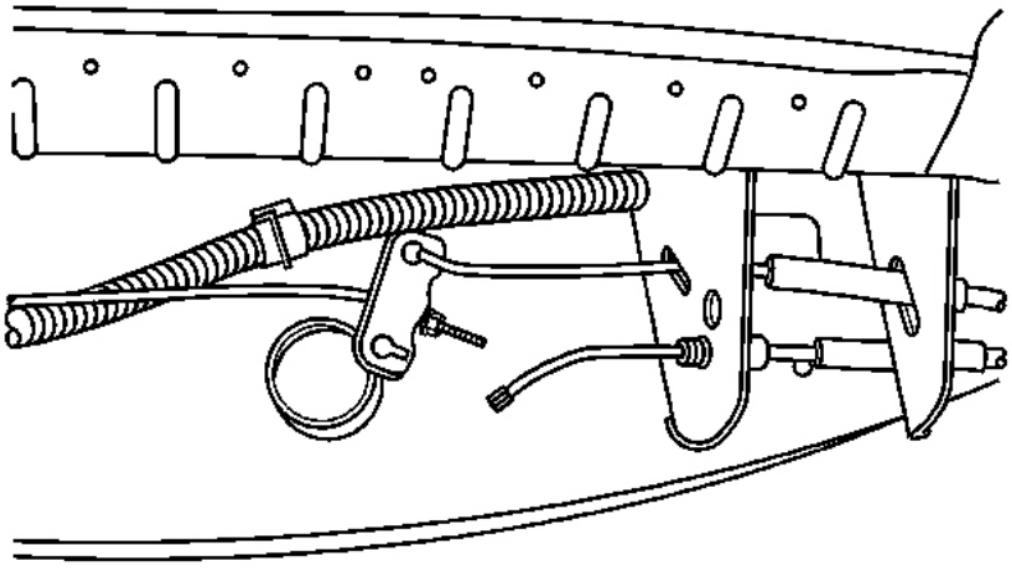


Fig. 99: Equalizer Bar & Park Brake Cable - Rear

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Courtesy of GENERAL MOTORS CORP.

5. Remove the rear park brake cable from the park brake actuator lever.
6. Remove the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
7. Remove the park brake shoe. Refer to **Park Brake Shoe Replacement (Except RPO NYS, 25 Series)** or **Park Brake Shoe Replacement (RPO NYS)** or **Park Brake Shoe Replacement (25 Series)**.
8. Remove the actuator lever from the backing plate.

Installation Procedure

1. Install the actuator lever to the backing plate.
2. Install the park brake shoe. Refer to **Park Brake Shoe Replacement (Except RPO NYS, 25 Series)** or **Park Brake Shoe Replacement (RPO NYS)** or **Park Brake Shoe Replacement (25 Series)**.
3. Adjust the park brake shoe. Refer to **Park Brake Adjustment**.
4. Install the rotor. Refer to **Brake Rotor Replacement - Rear (W/NYS)** or **Brake Rotor Replacement - Rear (W/O NYS)** in Disc Brakes.
5. Install the rear park brake cable to the park brake actuator lever.
6. Install the park brake cable to the equalizer bar by pulling down on the cable in front of the equalizer and installing the cable to the equalizer bar.

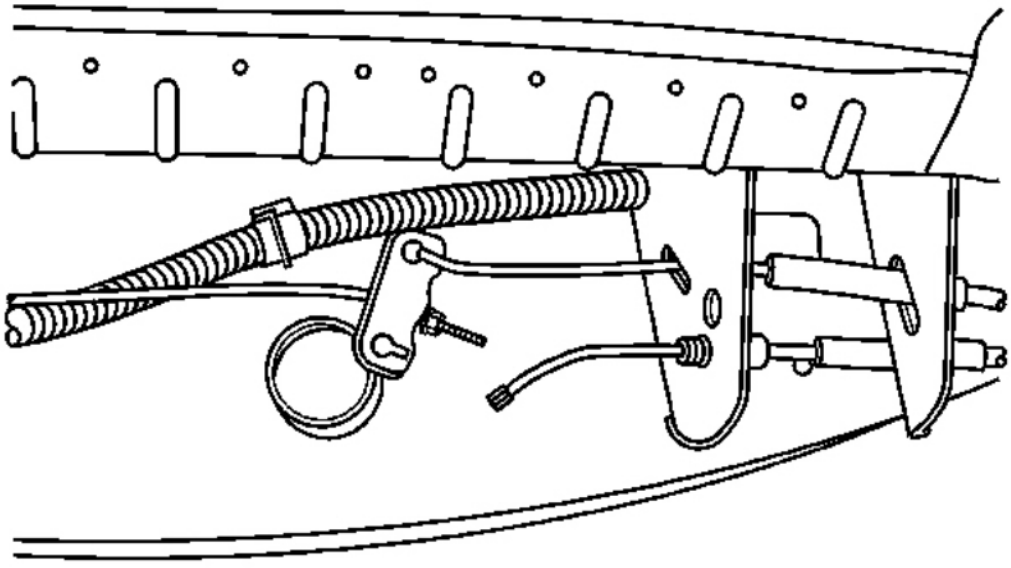


Fig. 100: Equalizer Bar & Park Brake Cable - Rear

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Courtesy of GENERAL MOTORS CORP.

7. Install the tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
8. Remove the safety stands.
9. Lower vehicle.
10. Adjust park brake cable. Refer to **Park Brake Adjustment**.

PARK BRAKE ADJUSTMENT

Park Brake Shoe Adjustment

Tools Required

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

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

IMPORTANT: The park brake shoes must be adjusted before the park brake pedal is adjusted.

1. Set the **J 21177-A** so that it contacts the inside diameter of the rotor.

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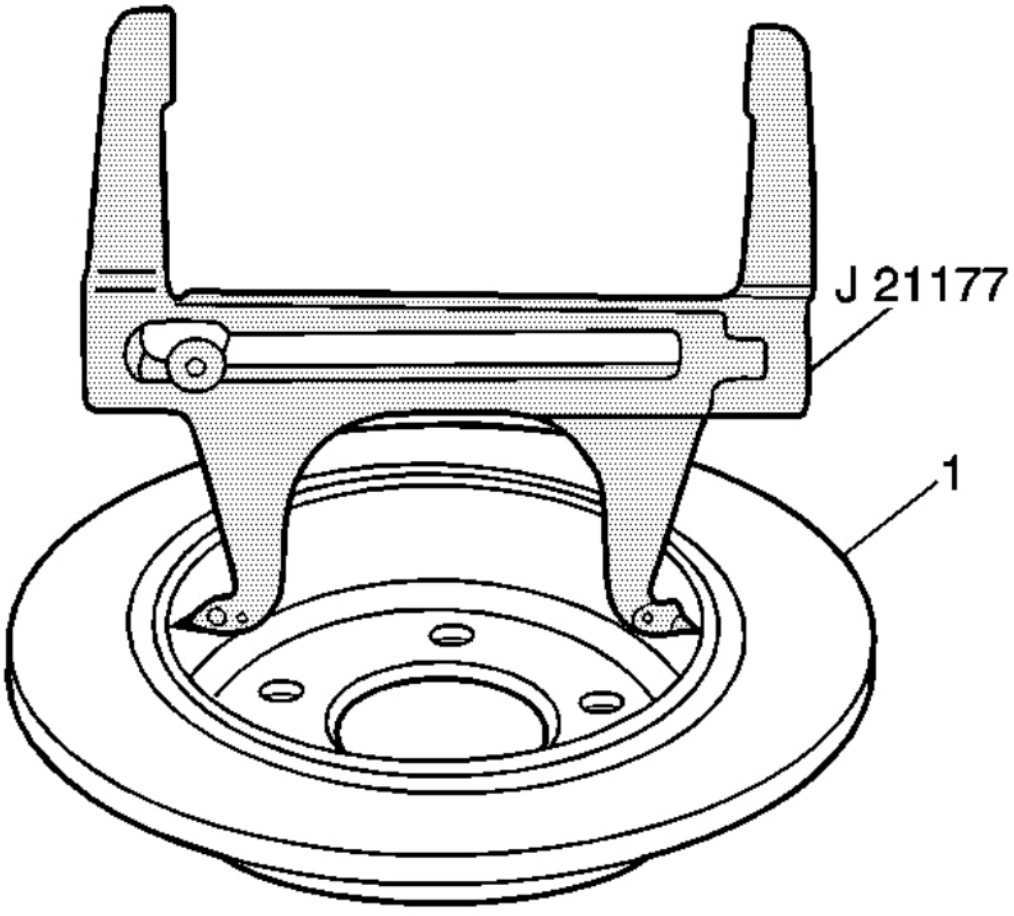


Fig. 101: Measuring Inside Of Rotor
Courtesy of GENERAL MOTORS CORP.

2. Position the **J 21177-A** over the shoe and the lining at the widest point.
3. Turn the adjuster nut until the lining just contacts the **J 21177-A** .

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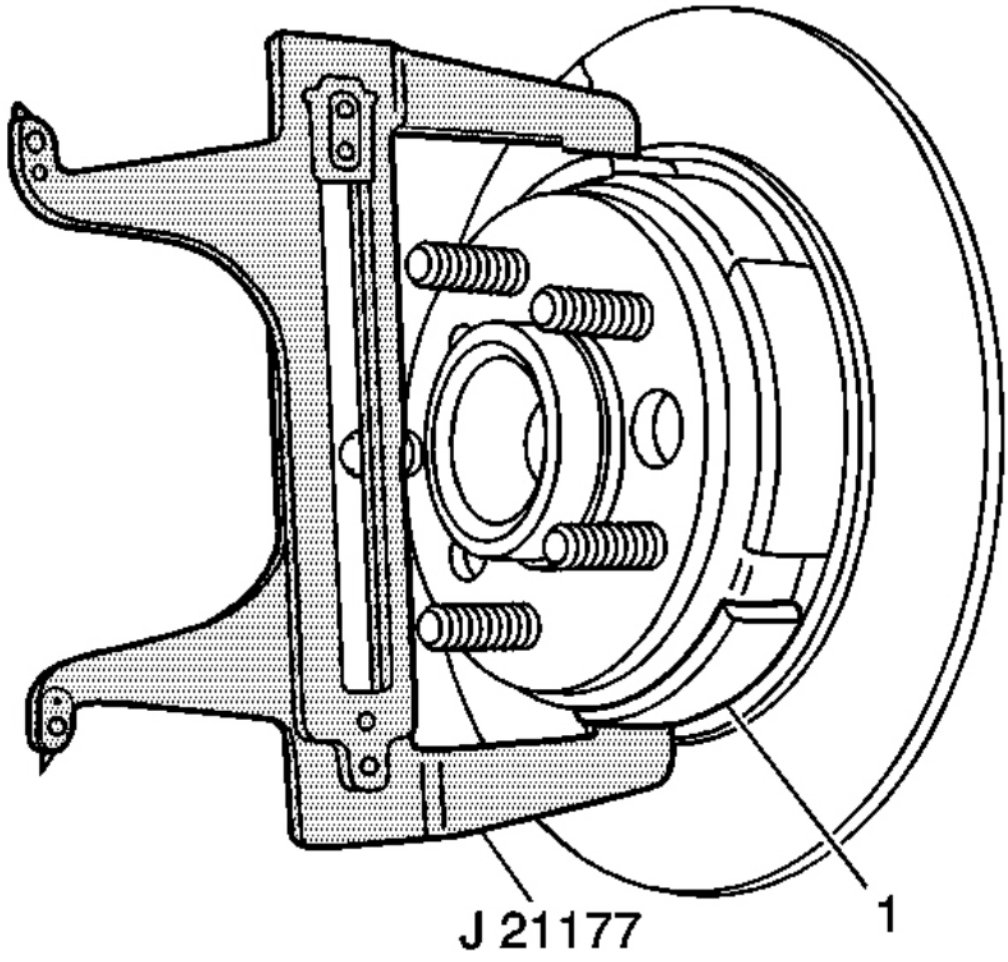


Fig. 102: Adjusting Parking Brake Shoes Using Special Tool
Courtesy of GENERAL MOTORS CORP.

4. Repeat steps 1-3 for the opposite side.
5. The clearance between the park brake shoe and the rotor is 0.6604 mm (0.026 in).

Park Brake Pedal Adjustment

IMPORTANT: Before you adjust the park brake, verify that the park brake shoes are adjusted to provide a clearance of 0.6604 mm (0.026 in).

1. Verify that the equalizer nut is tightened to 3.5 N.m (31 lb in).

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2. Fully apply and release the park brake pedal 3 times.

DESCRIPTION AND OPERATION

PARK BRAKE SYSTEM DESCRIPTION AND OPERATION

System Component Description

The park brake system consists of the following:

Park Brake Pedal Assembly

Receives and transfers park brake system apply input force from driver to park brake cable system.

Park Brake Release Handle Assembly

Releases applied park brake system when pulled.

Park Brake Cables

Transfers input force received from park brake pedal, 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. Threaded park brake cable equalizers are also used to remove slack in park brake cables.

Park Brake Apply Lever

Multiplies and transfers input force to park brake actuator.

Park Brake Actuator/Adjuster

Uses multiplied input force from apply lever to expand park brake shoe toward the friction surface of the drum-in-hat portion of the rear brake rotor. Threaded park brake actuators 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

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

System Operation

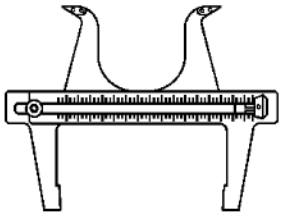
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Park brake apply input force is received by the park brake pedal assembly being depressed, transferred and evenly distributed, through the park brake cables and the park brake cable equalizer, to the left and right park brake apply levers. The park brake apply levers multiply and transfer the apply input force to the park brake actuators 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 release handle assembly releases an applied park brake system when it is pulled rearward.

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

Special Tools

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

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