

Instructions

1979-93 5.0 RESTO '93 COBRA STYLE BRAKE BOOSTER



REMOVAL

1. Support the driver's side of the vehicle on a lift or jack stands until the suspension is unloaded. Chock one of the rear wheels.

2. Reach into the wheel well with a 1/2-inch socket and wrench to loosen and remove the nut that retains the factory proportioning valve to the strut tower. **(Figure A)**

3. Inside the car, remove the lower dash trim. Once removed, insert a long extension and 9/16-inch socket to remove the 4 brake booster to firewall retaining nuts. **(Figure B)**

4. Using a small pry-bar or flat-head screwdriver, remove the cotter pin and spacer. After removal, remove the brake light switch and actuator rod from the pedal. **(Figure C)**

5. Inside the engine bay, disconnect the electrical connection on the master cylinder and feed it through towards the fender. Take this opportunity to disconnect any other electrical connection or component in this general area and position them out of the way as best you can.

6. Carefully remove the check valve from the booster and reposition the hose. **(Figure D)**

7. Locate the 2 master cylinder to brake booster retaining nuts. Loosen and remove both of these nuts with a 9/16-inch wrench. Once loose, work the stud and the locating tab on the factory proportioning valve out of the strut tower.



8. Carefully and methodically remove the master cylinder from the studs on the booster. Reposition the master cylinder towards the front of the car.

(Figure E)

9. Pull the booster away from the firewall. Because of the limited space, rotate and shift the booster as needed to free the studs from the firewall and then remove the booster from the car. Take this time to clean the surrounding area.

INSTALL

1. Before you install your new brake booster, you must verify and adjust the brake booster pushrod length. Jump to the end of this document for proper adjustment instructions before you continue your installation!

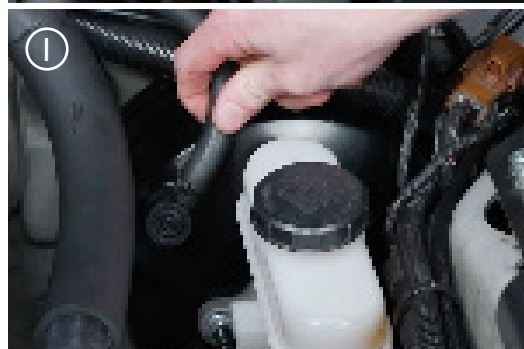
2. Whenever the booster rod is adjusted, you'll need to modify the vehicle to accept the larger booster. This includes elongating the 4 holes in the firewall as well as clearancing the strut tower. We recommend that you start with elongating the holes in the firewall first **(Figure F)** and then test fit the booster before clearancing the strut tower.

3. Position the booster into place. A couple of light taps to the frontward facing studs helped coax the booster into place. **(Figure G)**

4. Install the master cylinder onto the studs in the front of the booster, then reposition the factory proportioning valve into the strut tower and, using the two provided nuts, install them onto the booster using a 9/16-inch wrench. **(Figure H)**

5. Reconnect the vacuum line to the check valve on the new booster. **(Figure I)**

6. Reroute and connect any electrical connection or component that was disconnected or repositioned in this area.



7. From within the fender well, reinstall and tighten the retaining nut for the factory proportioning valve.

(Figure J)

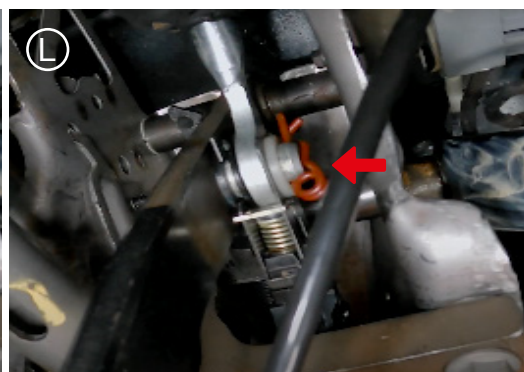
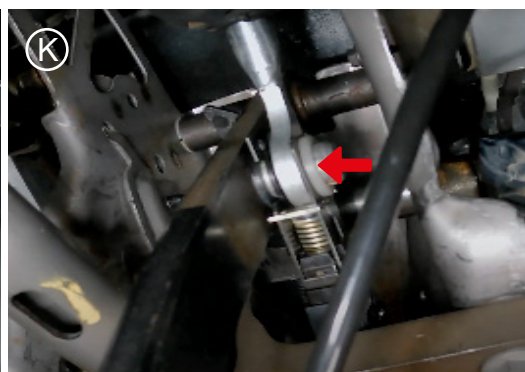
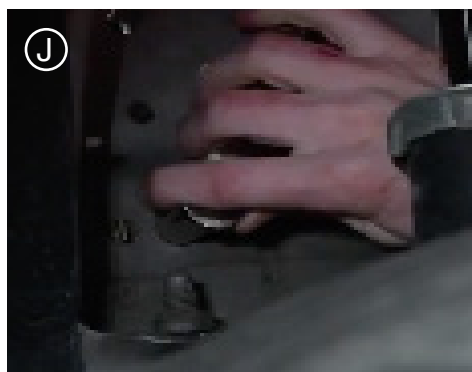
8. Safely lower your vehicle.

9. Install the provided bushing into the actuator rod on the new booster. Position the actuator rod onto the brake pedal. Reinstall the brake light switch, spacer, and cotter pin.

(Figure K & Figure L)

10. Reinstall the 4, previously removed brake booster to firewall retaining bolts and tighten them down. If you removed any interior components, go ahead and reinstall these pieces. **(Figure M)**

11. At this point, check everything and go ahead and start the car. Move it forward under its own power and make sure the brakes function as they should.



Adjusting Your Brake Booster

1. First, measure the pushrod bore depth of the master cylinder. This measurement will be from the bottom of the radius in the pushrod bore to the back face of the mounting flange on the master cylinder. Insert a tool that will fit inside of the bore and is small enough to reach the lowest point in the bore. **(Figure A)**

2. Next, use a small straight edge and position it across the mounting flange of the master cylinder. Using a marker, place a mark where the straight edge intersects with the depth checking tool. Remove the depth checking tool and measure the distance using a digital or dial caliper. **(Figure B)**

3. You'll use the lower jaw section on the caliper for this. Write down this number and call it something you can reference. For example, we will call this "**M1**" for measurement one. **(Figure C)**

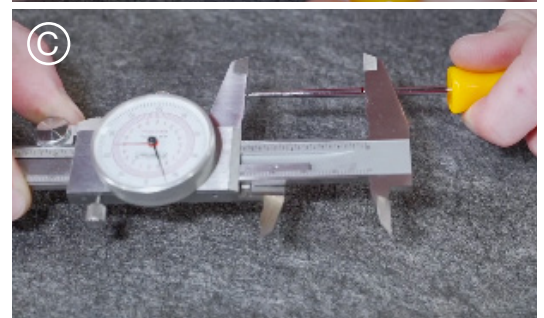
4. Measure the distance from the back of the master cylinder to the back face of the mounting flange. Use the depth rod section of the caliper to obtain this measurement. Write down this number. We called this "**M2**" for measurement two. **(Figure D)**

5. Subtract your second measurement (**M2**) from your first measurement (**M1**) and write this down as a third measurement. We will call this one "**M3**".

$$\mathbf{M1 - M2 = M3}$$

6. In order to prevent accidental pre-load of the master cylinder, subtract another 5 to 10 thousandths from your third measurement (**M3**). This will be the final number.

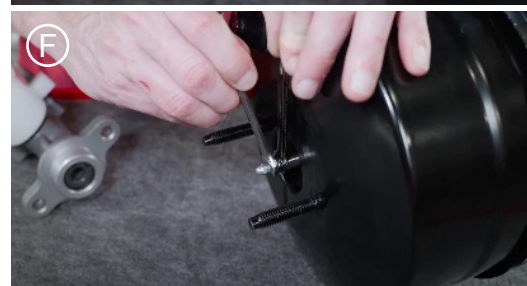
$$\mathbf{M3 - .01 = FINAL\ NUMBER}$$



7. Measure the distance that the pushrod protrudes from the master cylinder mating surface on the brake booster to the tip of the pushrod. Use the upper jaw section on the caliper to measure this distance. **(Figure E)**



8. Depending on the components and how the pushrod is set from the factory will dictate whether or not you have lengthen or shorten the pushrod. Your **FINAL NUMBER** measurement is the required length the pushrod needs to be sticking out of the booster. Whatever is required, hold the flats on the shaft with a suitable midget wrench. **(Figure F)**



9. Loosen the jam nut using the correct size wrench and then turn the pushrod adjusting screw in or out to the desired length (**FINAL NUMBER**). Whenever this is good, mark the tip for reference just in case you accidentally rotate it a little; you know where the orientation was.

(Figure G)



10. Run the jam nut down against the shaft and then snug it down. This doesn't have to be crazy tight.

(Figure H) Once that is complete, you can continue with the rest of the installation of the brake booster!



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