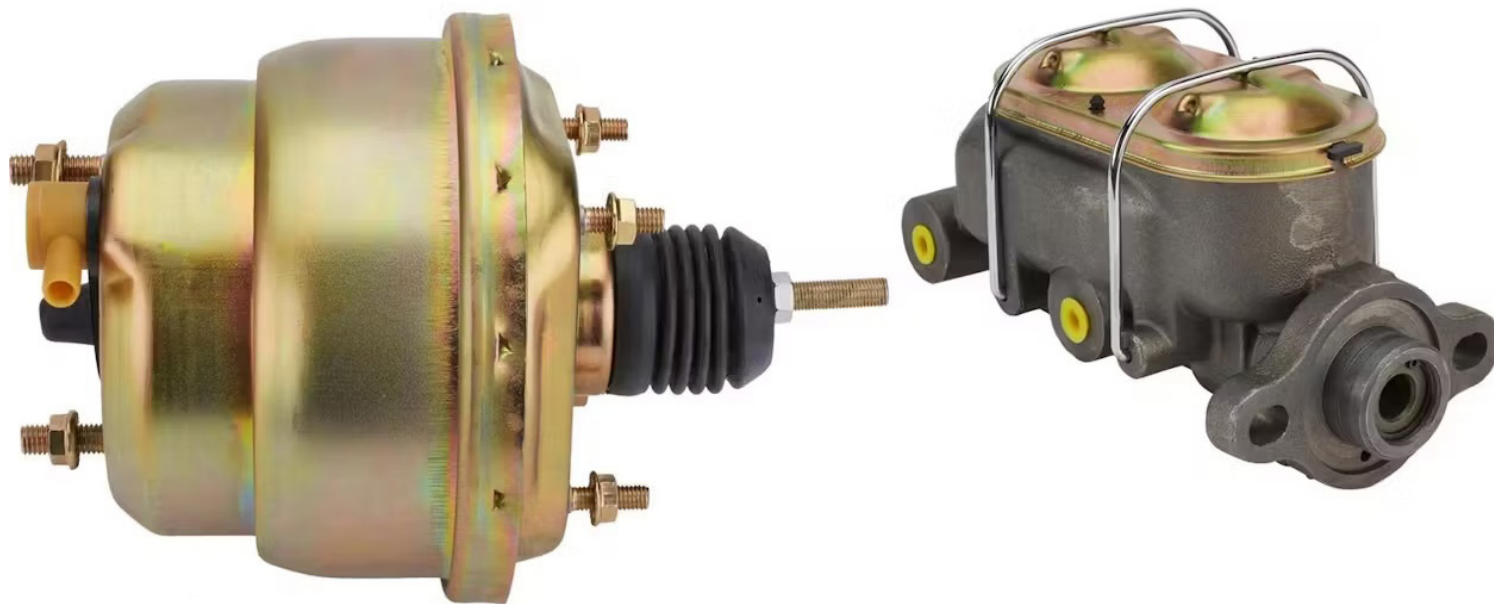


INSTRUCTIONS

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916-04105 - Brake Booster Installation Instructions



WARNING: Proper operation of your brakes is essential for your safety and the safety of others. Any brake service should be performed **ONLY** by persons experienced in the installation and proper operation of brake systems. It is the responsibility of the person installing any brake component or kit to determine the suitability of the component or kit for the particular application. After installation and before operating your vehicle, be sure to test the function of the brakes under controlled conditions. **DO NOT DRIVE WITH UNTESTED BRAKES!**

IMPORTANT: Take time to read all the literature that came with this kit. Check the provided list of parts against what you received to ensure all parts are present. This kit was designed to make the process of changing brake parts as simple as possible but **NOTE: WITH SOME KITS IT MAY BE NECESSARY TO MAKE MINOR CHANGES TO YOUR CAR! READ ALL WARRANTY DISCLAIMERS AND RETURN POLICIES INCLUDED IN THIS KIT PRIOR TO INSTALLATION.**

NOTE: Before operating the vehicle after installation, test the function of the brakes under controlled conditions. Make several stops in a safe area from low speed and gradually work up to normal speeds. **DO NOT DRIVE WITH UNTESTED BRAKES!** Always utilize safety restraints when operating the vehicle.

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1. Be sure to check that your kit has all the necessary parts needed to complete this project!
2. Remove the following components from your car:

Tech Tip: Prior to disassembly, spray the nuts and bolts that you will be removing with a penetrant. (Also disconnect the battery to eliminate the risk of draining the battery or an electrical short.)

- A. Remove the old master cylinder from your car by first disconnecting the brake lines to the master cylinder. Next, remove the push rod from the brake pedal by removing the bolt located at the top of the pedal.
 - B. Now, locate the two bolts directly below the master's mounting studs. They go through the firewall and mount to the pedal assembly inside the car. These bolts must be removed as well. Eventually, they are going to mount the lower half of the booster bracket to the firewall.
3. Things to prepare before assembly of the new booster and master kit.

- A. Remove the new master cylinder from the booster assembly.
- B. Bench bleed the new master cylinder to remove all the air. If all the air is removed from the master, then it will be difficult to push the piston in.

How to bench bleed:

1. Remove the master from the booster and place in a vise. (Be sure to clamp onto the mounting ear and not the cylinder.)
 2. Install the proper size plugs in the outlet ports of the master.
 3. Fill the master cylinder to the full line with brake fluid.
 4. Use a rounded end rod or a phillips head screw driver and push the piston in repeatedly until no bubbles are visible. **NOTE:** This may take a minute or two of continuous pumping!
 - C. Mount the push rod and clevis to the back of the booster. (Typically the customer will re-use the original clevis and pushrod from the OEM brakes.)
4. Installation of booster and master components:
 - A. At this point, you are going to temporarily fit the booster to the firewall to set the correct pedal rod adjustment. First mount the new power booster with bracket to the firewall using the two master mounting studs, where the old master was originally located. Then, only snug the original nut and lock washers. Make sure, as you mount the booster, the clevis does not go over the pedal. It must be sitting to the side of the pedal. **(For 1970 & up GM A, F, & X Body, see page 3).**

If the vehicle was originally power brakes then you will attach the clevis to the pedal in the same location. If the vehicle was a manual brake system you will need to drill a hole 1" lower than the original hole on the pedal.

Figure 1

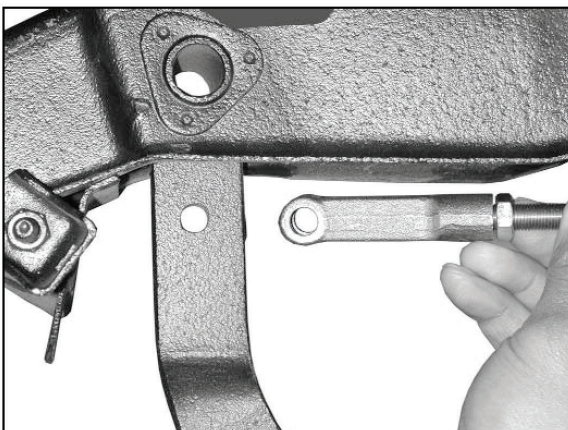
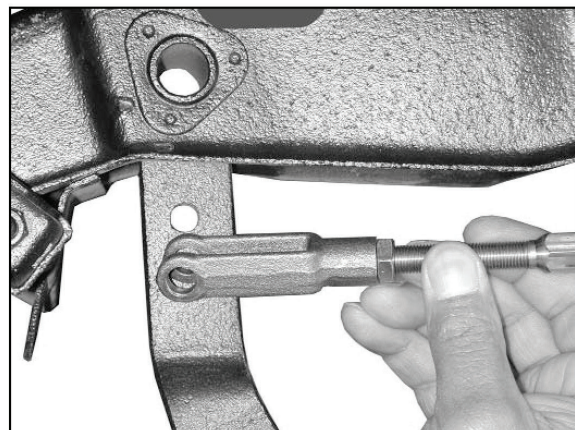


Figure 2



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- B.** Align the holes in the clevis to the hole in the pedal. (The clevis should be at the side of the pedal as shown in Figure 2). You must approximate the distance as close as possible. You are trying to adjust the pedal height so it is comfortable for you, but not so high that the pedal touches the stop and starts to engage the master.
- C.** Now you must loosen the two nuts holding the booster to the firewall and back the booster off so you can attach the clevis in the correct position. (Figure 3)
- D.** After clevis is attached, tighten the booster to the firewall. Now reinstall the two original bolts that go below the mounting studs and tighten the bottom part of the booster bracket.
- E.** Mount the master cylinder to the booster. (Make sure that the master was properly bled.) (Figure 4)
- F.** Now attach the vacuum hose to the bottom rear of the carburetor or directly to the intake manifold. You will need at least 18" of vacuum.

Figure 3

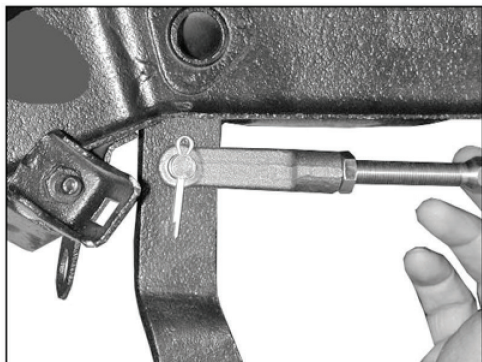


Figure 4

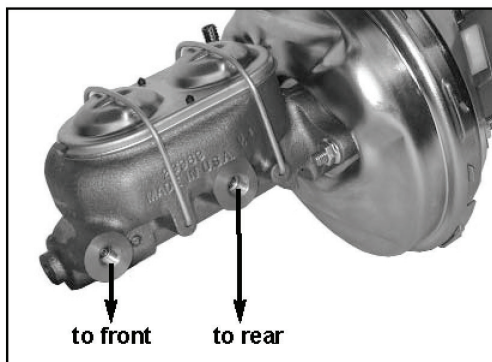
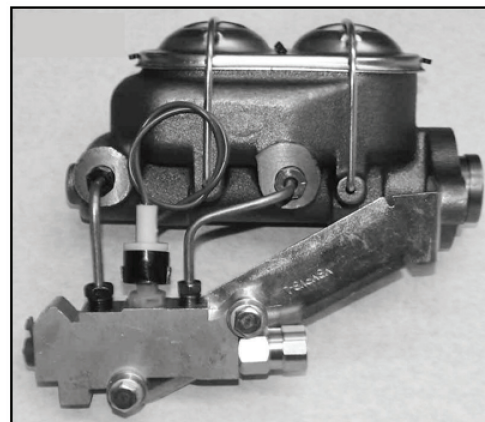


Figure 5



- G.** Attach the brake lines to the master. If your brake kit came with a combination valve then it is important that you remove any factory installed valves from the system. Failure to do this could result in a nonfunctional brake system. Then install the combination valve. (Figure 5)
- H.** On vehicles which had a single outlet master cylinder you will need to install a new hard line from the proportioning valve outlet to a T-fitting and then on to the rear wheels. There are two outlets for the front wheel on the combination valve. You have the option of running a line from each wheel to each outlet or running both lines to a T-fitting and then into one of the front outlets. (In this scenario, you will have to plug the unused outlet.) Either way is acceptable and neither routing has improved braking performance over the other. (Be sure to keep all lines away from exhaust, steering or other things that could harm them.)
- I.** When the valve is plumbed correctly and all hard lines are attached, bleed the entire system.
- J.** If you are not using a combination valve, or you have four wheel drum brakes, you will need to run one line from the master cylinder to the front and one to the rear. The outlet furthest from the booster will feed the front brakes. We recommend that you use a 10 lb. residual valve on both the front and rear drum brakes to provide a firmer pedal feel. Review the instructions for "Typical Brake System Configurations" to ensure appropriate system design for your vehicle.
- K.** Reconnect the battery and start the engine. Test the brakes. If the pedal goes to the floor or is very spongy, bleed the system once again.
- L.** Test drive the car in a safe location before driving.