

631959
CHEVY TRUCK BOOSTER
CONVERSION KIT



1. Remove new booster, bracket assembly and master cylinder from their boxes and inspect the parts.
2. New boosters come with a protective plastic or rubber boot over the front pin area for shipping purposes. **Remove this before the installation.**
3. This kit features a universal booster that has the short pin in the front of the booster. The new cylinder may have a piston adapter to convert it from deep to shallow hole. Install the piston adapter. Use a shallow pocket master cylinder on a power brake booster with the short pin.



Piston Adapter

REMOVING AN OLD MASTER CYLINDER:

4. Perform brake work on a level surface. Chock the wheels, set the emergency brake and put the transmission in Park.
5. Protect painted surfaces from brake fluid and place absorbent materials such as rags under the master cylinder. Since brake fluid is caustic to paint, use a fender cover mat.
6. Spray the master cylinder nuts and fittings with penetrating spray.
7. Mark which lines connect to which port on the master cylinder and which supplies fluid to the front and rear wheels respectively. (If you have the ability to take a digital picture for reference before disassembling the lines from the valve this would be a good time to do so.)
8. Make a note of the brake pedal ride height inside the cab of the vehicle. Use a wooden block to rest the pedal on so you will have a reference when you set it back up. (If you have the ability to take a digital picture for reference before disassembling the lines from the valve this would be a good time to do so.)
9. Use flare wrenches to loosen the master cylinder nuts. On stubborn fittings, sometimes attempting to tighten them before loosening them helps break them free. Be careful with the tube nut hex heads and tubes themselves if you are re-using them.
10. Again, to protect important painted surfaces you might cover the master cylinder with a plastic trash bag and or wrap it with shop rags or towels. Consider removing all of the old brake fluid from master cylinder first.
11. Inside the car, disconnect the master cylinder rod's clevis from the brake pedal swing arm and note which hole it was connected to.



Original Firewall Pattern

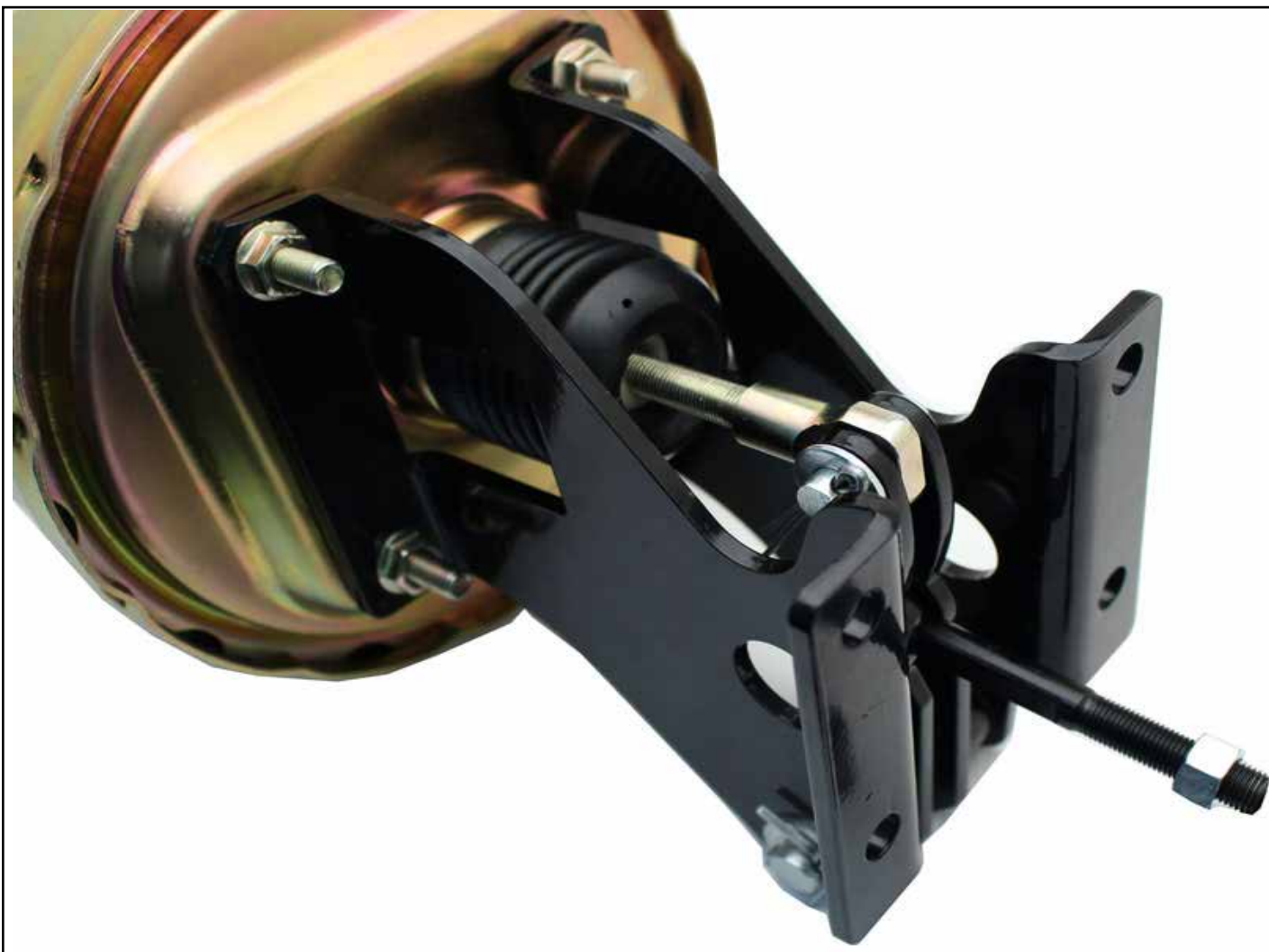
MOUNTING A POWER BOOSTER BRACKET ASSEMBLY TO A MANUAL BRAKE FIREWALL

12. Without the booster attached, mount bracket assembly on the firewall over the two studs that the manual master cylinder was mounted on.
13. If there were already bolt holes in the location, then use those. If needed, mark the location of the two new holes in order to drill new holes.
14. Remove the assembly from the firewall and drill the two new through holes.
15. Mount bracket back onto the firewall & hand tighten the four nuts.



16. Remove the gold swivel from the pedal, set the dowel, washer and cotter pin aside. Install the gold swivel on the threaded rod on the booster.
17. Connect the pedal to the brake pedal swing arm inside the vehicle.
18. Check the brake pedal ride height versus the original manual setup. Use a wood block to set the brake pedal at the position you prefer.
19. Verify the pedal travels freely without binding.
20. Install booster.
21. You may notice the swivel makes contact with the firewall. **If contact occurs, you need to cut the threaded rod on the rear of the booster to allow clearance.**

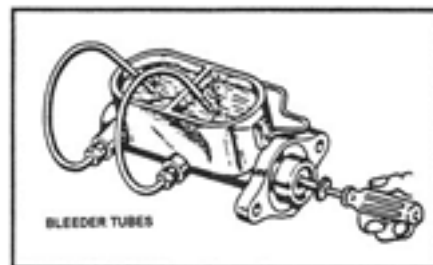




22. Remove booster, cut rod down, re-install and test the pedal travel range and for adequate firewall clearance.
23. Some booster rear rods and front pins are adjustable. Adjust as needed.
24. Attach the booster to the brake pedal assembly & attach the threaded rod to the clevis.
25. Tighten the booster nuts 20-25 ft. lbs.
26. Tighten the bracket nuts 15 ft. lbs.
27. Put the vacuum hose onto check valve.
28. Check the brake light function. You may need to adjust the position of the brake light switch on the pedal arm.
29. Master cylinder bleeding & installation
30. Remove master cylinder lid & set aside the port plugs and the piston adapter.
31. Use compressed air to blow out the reservoirs to avoid contamination.
32. Mount the master cylinder into a vice on a level surface.
33. Add a small amount of fresh brake fluid & when it begins to weep, connect the port plugs on the unused side of the master cylinder on 4 port versions.
34. Install the bleeder hose kit.
35. Fill the master cylinder 1/4" from the top with fresh DOT 3 or 4 brake fluid.

NEVER USE OLD BRAKE FLUID!

36. Use the plastic clip to secure the hoses that return into the reservoir so that the hose ends are below the fluid line. **The hose tips must be submerged under the fluid level.**
37. Using a blunt tool or punch, push the pistons $\frac{3}{4}$ "-1" in with a series of steady strokes to expel air bubbles. This may take several cycles to expel all of the bubbles. Do this until it cannot be compressed more than $\frac{1}{8}$ ", & no air bubbles are visible.
38. Remove the bleeder kit. Install the lid.
39. Wipe off any excess brake fluid
40. Position & place clean shop rags or towels in the engine compartment of the car to protect painted surfaces.
41. If mounting the master on a power brake unit with a short pin, install the piston adapter to make the shallow hole. If using a long pin, no adapter.
42. If you have yet to do so, remove the protective cover from the front of the booster to expose the front pin.
43. Mount the master cylinder on to the booster. Don't drop the adapter.
44. Torque the hex nuts to 20-25ft. lbs.



INSTALL THE PROPORTIONING VALVE AND BRACKET

Verify that you have the following: 1 valve, 2 lines, 1 bracket, 1 harness connector, 1 bag that contains 2 bolts, 4 washers.

45. Place the valve on your work bench and position the valve as shown with the large hex nut end towards your right.
46. Position the bracket behind the valve and line up the bolt holes.
47. Locate the bolts and washers.
48. Pick up both bolts and place a lock washer and then a flat washer onto each.
49. Insert the bolt through the valve into the bracket. Hand tighten it.
50. Install and hand tighten the second bolt with its' washers into the valve and bracket.
51. Next hand tighten the brake lines as shown.
52. The next step can be done with the master cylinder either on or off of the brake booster or firewall.
53. As a unit position the valve and bracket assembly up to the ports of the master cylinder.
54. Hand tighten each line (Do Not Use Teflon tape) as you place the brackets on to their mounting studs which are in front of the master cylinder mounting ears.
55. Use a flare nut or box end wrench to tighten the tube nuts on the brake lines.
56. Place the mounting nut onto the studs which the proportioning valve mounts. Tighten it down.
57. Connect brake light connector to the factory harness.



ADJUSTABLE PROPORTIONING VALVE 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. **DO NOT DRIVE WITH UNTESTED BRAKES!**

Markings on the block are:

FI= Front IN

FO=Front OUT

RI=Rear IN

RO=Rear OUT

FITTINGS

The 3/8-24 supplied tube nuts are intended to be flared onto 3/16" brake line. If you have 1/4" rear brake lines, use the adapter included in the kit. One front outlet can be plugged if needed.

ADJUSTING PRESSURE BETWEEN THE FRONT AND REAR BRAKES

1. After installing valve you will need to bleed your brake system.
2. If the master cylinder is new or was dry at any time, please refer to the instructions that came with the master cylinder and bench bleed the unit.
3. Bleed the system by bleeding the caliper or drum cylinder at each wheel until you see no air bubbles. Start with the wheel furthest from the master cylinder and work your way to the front of the car.
4. Once complete, you should have consistent pedal pressure.
5. Double check your fittings for leaks.

ADJUSTING PRESSURE BETWEEN THE FRONT AND REAR BRAKES

1. Start with the valve in full open position by turning the knob counter clockwise as far as it will go.
2. Make several stops from 30 M.P.H. If the rear brakes lock up before the front decrease the rear pressure by turning it counter-clockwise one full rotation at a time.
3. Retest by making several stops at 30 M.P.H. and repeat step 2 until you reach the correct balance between the front and rear brakes.
4. Test again at 50 M.P.H. and make any more adjustments as necessary.