Randy Irwin - Technical Writer

Randy has been involved in the Chevy parts business for over 25 years. He is a wizard at creating, making and modifying custom parts for Chevys.

We all know the world is perfect and that car parts will just fall right into place without any effort, right? Well, not always. When installing later model parts on your early model car, things don’t always just fall into place; more often than not a little tweaking is necessary to make the parts work as they should. So if things don’t fall into place right out of the box, don’t panic, this is the nature of car restoration and customizing!

In this article, we will install a dual master cylinder, GM style proportioning valve, proportioning valve bracket and pre-bent brake lines between the master cylinder and proportioning valve on our classic. While all of these parts are made to fit each other, differences in master cylinder castings can throw things off a bit.

A common mistake when installing any parts on a classic (sheet metal, brackets, lines and grilles) is to install the item and immediately begin tightening the fasteners. However, many items require some adjustments prior to tightening with a wrench, socket or screwdriver. Leaving hardware loose as you go will help many types of installations and prevent undue frustration.

Tools Needed:
- 7/16" Wrench
- 1/2” Wrench
- 9/16” Wrench

Time Frame:
- 2 Hours

Photo #1a & 1b: The original master cylinder is held to the firewall with four 3/8" studs and nuts. The studs are mounted to the front of the brake pedal swing arm assembly and protrude through the four holes in the firewall.

Photo #2a & 2b: When installing a non-power brake master cylinder, the upper two studs on the firewall are used to hold the GM style proportioning valve bracket. The lower two studs are used to hold the brake master cylinder in place.

Photo #3: A non-power brake master cylinder for drum or disc brakes will have a deep hole in the rear of the piston for the brake pedal push rod. A power brake master cylinder will have a shallow dimple in the piston for the brake booster push rod.

Parts Needed:
- 20-153 Non-Power Drum Brake Master Cylinder
- 20-116 Non-Power Disc Brake Master Cylinder
- 20-33 Non-Power Proportioning Valve Bracket
- 20-32 GM Style Proportioning Valve
- 20-32C Chrome GM Style Proportioning Valve
- 20-147 Pre-Bent Brake Lines, Non-Power Dual Master
- 20-148 Dual Master Cyl. Kit, Non Power Drum Brakes
- 20-149 Dual Master Cyl. Kit, Non-Power Disc Brakes

To order parts call 1-800-456-1957 or visit ClassicChevy.com
Photo #4a & 4b: Eckler’s Classic Chevy kits include pre-bent brake lines with the correct fittings to connect the master cylinder to the proportioning valve. When working with long brake lines, it is a piece of cake to make them fit. When working with short, small brake lines it gets pretty tough to make them look professional if you try bending them yourself. The pre-bent lines in our kits are a nice addition. Attach the lines to the master cylinder first, leaving the nuts loose at this time.

Photo #5: Next, attach the brake lines to the proportioning valve inlet ports leaving the nuts loose at this time. The lines will hold the valve in place for now.

Photo #6: Due to the variations in master cylinders, firewalls and proportioning valve brackets, once the two lines are installed, the holes in the valve may not line up exactly with the holes in the valve mounting bracket.

Photo #7: With the lines still loose, push on the proportioning valve flexing the brake lines until the holes in the valve line up with the holes in the mounting bracket and there is no load on the lines. Now, mount the valve to the valve bracket. Good luck.