

1955-72 ADJUSTABLE BRAKE PROPORTIONING VALVE



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.

When a dual brake master cylinder is installed with disc or drum brakes, a proportioning valve must be installed. The brake bias (pressure) must be set properly so the car brakes evenly and stops safely. With a dual brake master cylinder and drum brakes or standard size disc brakes with 10" or 11" rotors, a GM-style five port proportioning valve like our P/N 20-32 works fine. If a disc brake kit is installed that uses large diameter rotors (12" or 13") the rear brake pressure may need to be reduced so that the rear brakes do not lock up before the front brakes. The only way to reduce brake pressure is to install an adjustable proportioning valve inline on the brake line that feeds the rear brakes. The adjustable valve is used by itself and not in conjunction with the GM-style valve. CCI offers a brake line kit P/N 20-138 that includes the correct fittings and lines to connect a dual brake master cylinder to an adjustable proportioning valve and from the valve to the rear brakes as well as the brake lines from the master cylinder to the left and right front brakes. A complete power booster/dual master cylinder/adjustable valve and line kit for use with disc or drum brakes is also available as P/N 20-135.



Photo #1: A dual master cylinder has two outlet ports. If an adjustable proportioning valve is going to be used, the front port of the master cylinder will be used for the front brakes and the rear port will be used for the rear brakes.

49-200



20-35



20-87



20-135



Parts Needed:

- 20-35 Adjustable Proportioning Valve Mounting Bracket
- 34-400 Adjustable Proportioning Valve Bolt Kit
- 20-87 Adjustable Proportioning Valve
- 20-138 Brake Line Set For Adjustable Proportioning Valve
- 49-38 Brake Line Tubing Bender
- 49-200 Brake Pressure Gauge Kit
- 20-135 1955-64 Complete Power Booster/Dual Master Cylinder/Adjustable Valve & Line Kit

To order parts call 1-800-456-1957 or visit ClassicChevy.com

Tools Needed:

- 1/2" Wrench
- 7/16" Wrench
- 9/16" Wrench

Time Frame:

3-Hours



Photo #2a & 2b: The adjustable proportioning valve bracket **P/N 20-35** can be used with power brakes or manual brakes. The proportioning valve bracket is held in place with the two master cylinder mounting studs.

Photo #3: The adjustable proportioning valve **P/N 20-87** has two ports; one marked "in" and one marked "out." The 90-degree fitting installs in the port marked "in" facing the adjusting knob. The straight fitting installs in the port marked "out".



Photo #4: The proportioning valve is held to the valve bracket with two 1/4" X 1-1/4" bolts, nuts and lock washers **P/N 34-400**. Mount the valve with the adjusting knob facing upward and the inlet facing to the front of the master cylinder.

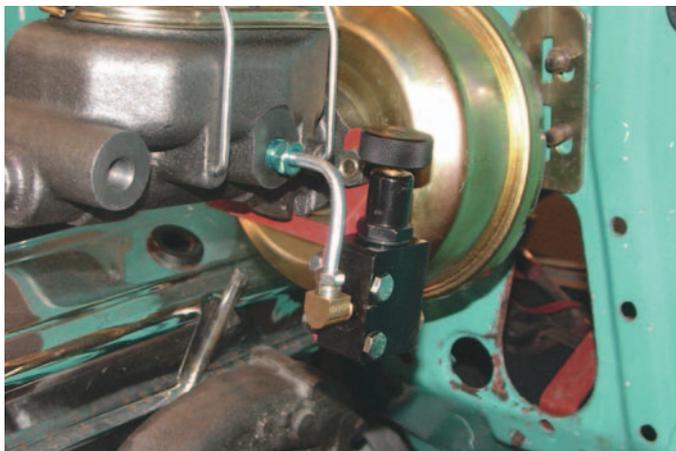
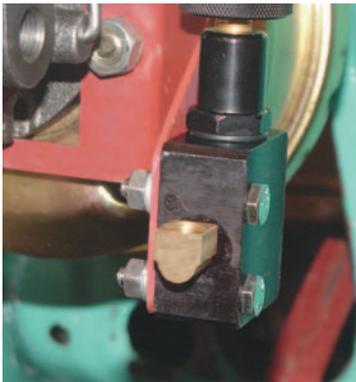


Photo #5: The brake line set **P/N 20-138** includes a short 90-degree 1/4" brake line that connects the rear port of the master cylinder to the inlet side of the proportioning valve.

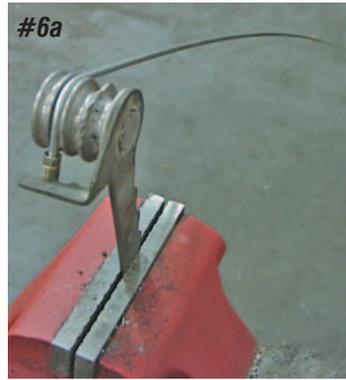


Photo #6a & 6b & 6c: The brake lines are supplied straight to allow the brake line kit to fit various applications. A 3/16" X 60" line with a 3/16" inverted flare union is supplied to connect the outlet port on the proportioning valve to the factory brake line on the passenger side of the car. Using a tubing bender like **P/N 49-38**, bend the brake line so that it is routed across the front engine crossmember and connects to the factory rear brake line near the base of the firewall on the passenger side.



Photo #7a & 7b & 7c: A 3/16" X 24" brake line is supplied with a large fitting on one end and a small fitting on the other. This line is for the front brakes. The larger fitting screws into the front port of the master cylinder for the front brakes. The line is routed down to just behind the left upper control arm.

Photo #8: A 3/16" inverted flare tee is supplied to use as a junction block to feed the left and right front wheels. Install the tee on the end of the 24" brake line.



Photo #9: A 3/16" X 5" brake line is supplied to connect the 3/16" tee to the left front wheel.

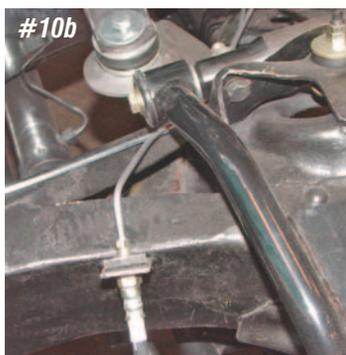
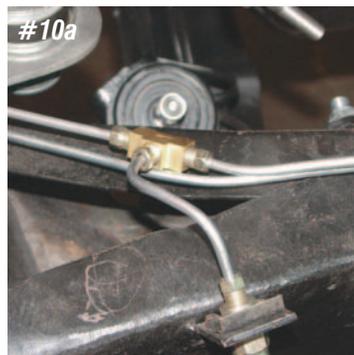


Photo #10a & 10b: A 3/16" X 50" brake line is supplied to connect the 3/16" tee to the right front wheel. The line can be routed across the front engine crossmember along with the other 3/16" line from the master cylinder.

With everything installed, turn the adjusting knob on the portioning valve all the way counterclockwise. This will open the valve all the way. Bleed the brakes and test drive the car carefully applying the brakes making sure the rear brakes do not lock up before the front brakes. If rear brake lock up occurs, some fine tuning of the valve is needed. Turning the adjusting knob clockwise will decrease the brake pressure to the rear brakes. Adjust the knob until you are satisfied that the front and rear brakes are operating evenly. If you wish, a pressure gauge **P/N 49-200** can be used to check to check the brake pressure at the rear. In most cases less brake pressure is required at the rear of the car for good even braking.

Good Luck! ✓