

## BRAKE PROPORTIONING KIT 14-76240



Thanks for purchasing our brake proportioning valve kit. If you have any questions during installation or suggestions for improvement to the product or the instructions - please don't hesitate to call or email.

**WARNING: Not everyone can perform every installation. It is critical that you be honest with yourself in regards to your ability. We're more than happy to help, but there are only so many things we can do from the other end of a phone / computer. If in doubt, discuss the install with us before you dive in. Improper installation could cause injury and / or death!**

#### Required tools:

- Basic metric tool kit
- 10mm line wrench
- Thread paste (hydraulic fluid safe)
- Brake fluid

#### Torque specs (given in lb-in, NOT lb-ft!)

- Brass metric flare adapters: 24-36 lb-in
- Brake line fittings: 113-190 lb-in

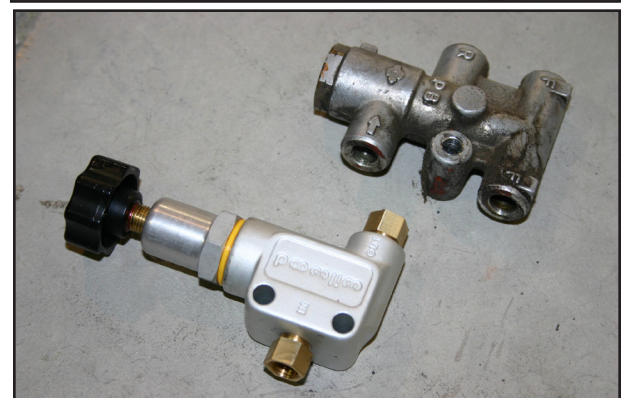
Your brake proportioning kit can be installed in a number of different ways, depending on how you want the valve located. The following instructions detail the easiest and fully reversible option.

We apologize for the very ugly car used for the model. It was stripped, and gave a more clear view of the brake lines. Hopefully yours does not look this nasty.

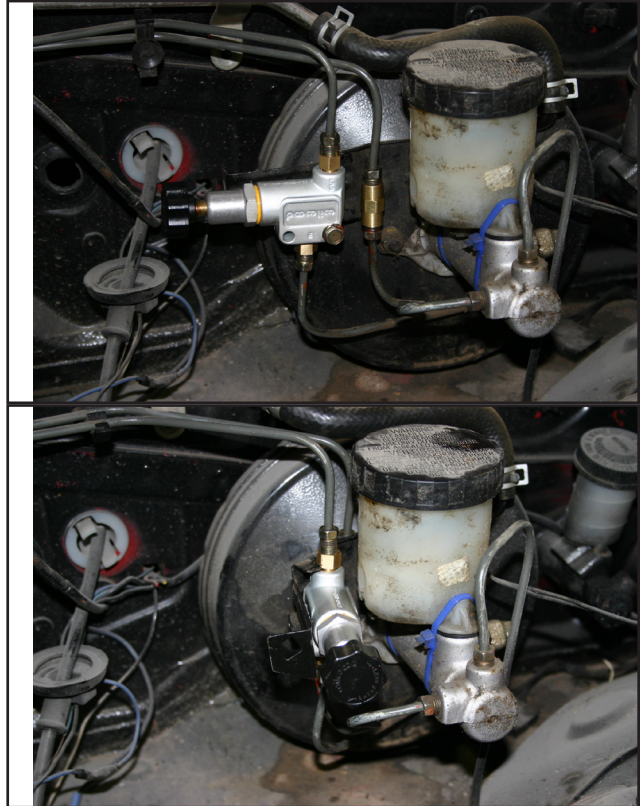
You are going to spill brake fluid during this installation, so it's a good idea to have a number of rags available to soak it up. It won't damage paint immediately (usually), but it doesn't do any good in the long term.

1. Install the NPT to flare adapters into the proportioning valve. You have two sets - some SAE ones that came packaged with the valve and have a small hole on the non-flare side, and the new metric ones from FM with a larger hole. Use the new ones. Smear some hydraulic fluid-safe thread sealant on the male threads of the adapter (NOT the female threads). Brake fluid is very corrosive, so be sure your thread sealant is hydraulic fluid-safe. Be sure to use a closed-end wrench, open-end wrenches can deform the fitting.

**Caution:** over-tightening the brass fittings can damage them. Tighten them to around 24 - 36 lb-in (**NOT** lb-ft!), which is generally hand tight plus 1.5 - 3 turns.



2. Remove the brake lines leading to the stock proportioning valve. Use a 10mm wrench - a flare wrench will lower the chances of rounding off the nuts. Take care when doing this, a rounded flare nut is not your friend. Fluid will be leaking at this point. Pay attention to which line is for the front and which is the rear - the stock valve is labeled F and R.
3. Use a 10mm wrench to remove bolt securing the stock proportioning valve to its bracket.
4. Use the union to connect the two front lines together. Do not use Teflon tape on the threads! Sealant is not necessary here, as the flares seal the lines.
5. Install the proportioning valve. The side labeled "in" should be attached to the lower line running to the master cylinder. The side labeled "out" goes to the line that runs across the top of the firewall. Place a wrench on the adapter while you're tightening the stock fitting, to ensure that nothing is damaged. Torque the brake line fittings to 113-190 lb-in (**NOT** lb-ft!). Again, no Teflon tape.
6. You can use the factory mounting bolt to hold the valve in place. If you want, you can bend the bracket 90° so the knob faces forward. This gives more clearance for turbos and makes it easier to reach the knob.
7. Bleed the brake system. This will be easiest if you turn the knob as far away from LESS BRAKE as it will go - ie, screw it in all the way.



Once your new valve is installed, set it to use as little rear brake as possible. That means turning the knob towards "LESS BRAKE". Find a deserted area where you can test safely, and start dialing in more rear brake until the rears start locking earlier than the fronts. Now go back so the fronts lock first. Remember, the ideal bias will change depending on the road surface, tire selection and even the weather, so be prepared to change it if you're right on the edge.

If you want to mount the valve in the cockpit, you can accomplish this by using lengths of brake line with flared ends available from your local auto parts store. The basic plumbing is the same, you'll just have to run the lines differently to and from your chosen location. Be sure to support your new brake lines properly, an unsupported brake line can vibrate and crack, leading to a loss of brake pressure and then all sorts of resulting bad things.