

BRAKE BASICS

PEDAL RATIO

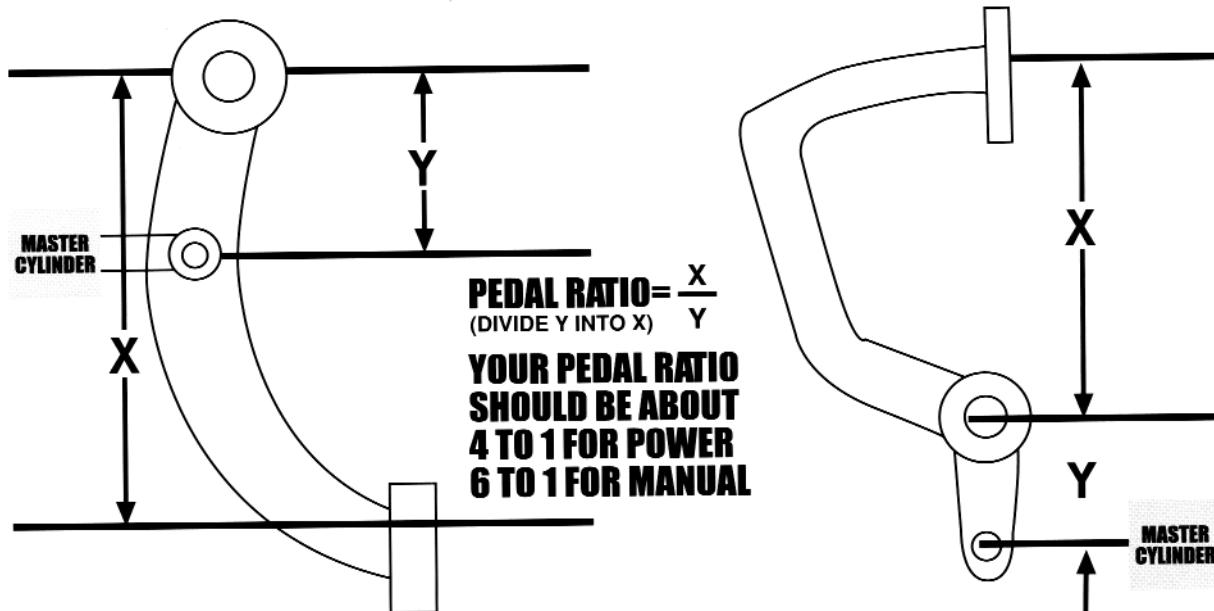
Your pedal ratio is important for either power or manual brake systems. With a power brake system if your pedal ratio is too high you will have sensitive brakes and if it's too low your braking will be poor. With a manual brake system the same will apply although too high a pedal ratio is rarely a problem.

As a general rule of thumb your pedal ratio should not exceed:

6:1 for manual brakes with a 1" bore master cylinder

4:1 for power brakes with a 1 1/8" bore master cylinder

HOW TO CALCULATE YOUR PEDAL RATIO



MODIFYING YOUR BRAKE SYSTEM

Your vehicles brake system is really very simple, yet you can get into a lot of trouble very easily when you start modifying it or try to correct a problem by switching parts. You usually can't just change one component without affecting the way the whole system operates. Pedal ratio and the ratio between the bore sizes of the master cylinder, caliper pistons and wheel cylinders are all very critical to maintaining the correct system pressure, and safe braking performance.

Most people get into trouble doing a disc brake conversion and not changing the drum brake master cylinder to the correct disc brake master. Usually disc brake masters are sized differently to compensate for the increased capacity and surface area of a disc brake caliper piston. Disc brake master cylinders also don't have built in residual pressure valves like drum brake masters. When you change rear axles and have drum brakes, you also have to be careful of wheel cylinder size. It is easy to wind up with either too much or not enough rear brakes if the rear wheel cylinders are not sized to the master cylinder you are using.

Above all, if you are doing a disc brake conversion on a 40s, 50s or 60s car, **DON'T USE THE ORIGINAL SINGLE RESERVOIR MASTER CYLINDER!** There is a good reason that Detroit switched to dual brake systems in the sixties-if you loose a brake line on a dual system you still have half of the brakes- on a single system you will have none! Unless you are doing a 100 point restoration and are going to trailer your car around, switch to a dual master cylinder, even if you are restoring the original drum brake system.

Just remember, whether you buy the parts from us or the junk yard, treat your brakes as a complete system. All components must be compatible to give you safe, high performance braking. If you have any questions, call us and we can help you design your brake system and usually have all the parts in stock to do it right the first time!