

Tools required for a safe and smooth installation:

Proper Jack & Jack Stands, Tube Wrenches, Standard Socket Set, Standard Wrench Set, Torque Wrench, Lug Wrench, Brake Fluid, Brake Cleaner,

Power Booster Installation

1. Align the supplied power booster with the holes on the firewall and slide the pushrod through the hole in the firewall. Secure the assembly to the firewall using your original hardware.
2. From under the dash connect the booster pushrod to the brake pedal and secure with the original hardware. Make sure the pedal moves freely without binding and that the brake lights turn on and off as the pedal is applied and released.
3. Use a **vacuum hose** to connect the power booster to a direct source of engine manifold vacuum or an aftermarket vacuum pump.
4. Temporarily install the master cylinder on the power booster studs. This will allow you to route the new brake lines, **but the master cylinder must be removed for bench bleeding.**
5. If your car had a factory single bowl master cylinder proceed to step 8. If your car already had a factory style dual bowl master cylinder installed originally remove the brake line that feeds the front brakes. Using the line supplied with the **green fitting** connect the front brake port (rear port) of the new master cylinder to the open port of the factory brass block.
6. Remove the brake line that feeds the rear brakes and using the other line supplied connect the rear brake port (front port) of the new master cylinder to the open port of the factory brass block.
7. Disconnect the rear brake line from the brass block. Connect the line to the **“out” port** of the adjustable proportioning valve supplied. Then using the short brake line supplied connect the **“in” port** of the valve to the rear port of the brass block. Proceed to step 11.
8. If your car had a single bowl master cylinder installed originally remove the line that ran from the master cylinder to the brass block. Using the supplied line with the green fitting connect the front brake port (rear port) of the new master cylinder to the top port of the brass block.
9. Disconnect the rear brake line from the brass block and plug that port with the **3/8-24 plug** provided.
10. Connect the line to the **“out” port** of the adjustable proportioning valve supplied.
11. Using the other brake line supplied connect the rear brake port (front port) of the new master cylinder supplied to the **“in” port** of the adjustable proportioning valve
12. With the lines now properly routed remove the master cylinder and follow the bench bleeding instructions.

Master Cylinder Bench Bleeding

1. Before you re-install your master cylinder you must **bench bleed** it in a vice off of the vehicle using the **bench bleeder kit** provided.
2. To Bench Bleed
 - a. Place your master cylinder in a **vice** by the mounting ears.
 - b. Attach a clear plastic hose to the short end of each of the plastic nozzles provided.
 - c. Clip the plastic bridge onto the partition wall of the master cylinder and insert each plastic tube into the holes insuring the end of the tube will be fully submerged in the brake fluid.
 - d. Press the tapered end of the nozzles firmly into the master cylinder ports with a twisting motion.
 - e. Fill the reservoir with new clean brake fluid (DOT 3 or DOT 4 Recommended).
 - f. Using a large Phillips head screwdriver push the piston in, then release using full strokes. This **MUST** be done until ALL air has disappeared from the clear plastic hoses.

CAUTION- MASTER CYLINDER WILL NOT BLEED PROPERLY IF HOSES ARE NOT FULLY SUBMERGED IN BRAKE FLUID UNTIL THE BLEEDING PROCESS IS COMPLETE

Master Cylinder Install:

1. Remove the master cylinder from the vice and install on the power booster, secure with the supplied hardware.
Be very careful not spill any brake fluid on any painted surfaces as it will damage your paint.
2. Carefully remove the bleeder kit nozzles and install the brake lines in the appropriate ports.
3. Install the brake lines you routed previously into the correct ports of the master cylinder
4. Tighten all brake lines with a tube wrench and check for leaks.

Bleeding the vehicles braking system:

We recommend that the brake system is bled using a gravity bleed method. While there are many ways to bleed a system this way is less likely to introduce air in the system causing a spongy pedal. Whenever bleeding your system you must keep an eye on your fluid level. If your master runs dry you will have to bench bleed the master again.

1. Remove the cap from the master cylinder.
2. Starting at the right rear wheel cylinder or caliper attach a clear hose to the bleeder with the other end in a clear container.
3. Open the bleeder and observe the fluid flow. It may take a couple of minutes for the fluid to flow with a new system. Once the fluid begins to flow let it drip until you do not see any air.
4. Move to the left rear wheel, repeat step 3.
5. Move to the right front wheel, repeat step 3.
6. Move to the left front wheel, repeat step 3.
7. Repeat steps 2 thru 6 once more.
8. Install the lid on the master cylinder.
9. Pump the brake pedal until you achieve a firm pedal.
10. Remove lid on master cylinder & check fluid level
11. Repeat steps 2 thru 6 to insure all air has been removed.

Adjustable Proportioning Valve Adjustment

1. The adjustable proportioning valve is meant to control rear brake lockup by limiting the pressure to the rear brakes. If the rear brakes lockup prematurely the car can be difficult to control during a hard stop.
2. The valve provides a maximum of a 55% reduction in rear brake pressure. Meaning that even when adjusted to the full decrease position it will not shut off the rear brakes. Count the turns from the full decrease position to the full increase position. Turn the knob back in the full decrease direction half that number of turns. This will give you a good starting point for most vehicles.
3. Once you are confident that the brakes are fully bleed, working properly and broken in you can make several stops in a safe open area to determine your ideal setting. The goal is to provide as much pressure as possible to the rear brakes without locking them up prior to the front brakes.

Once you feel you have successfully removed all air from your brake system check all fittings and lines for leaks and verify all fasteners are tight. Install your wheels, and spin them to insure they still spin freely making sure the caliper doesn't interfere with the wheel and your brakes are not dragging or locked up.

You may now take your vehicle for a test drive in a safe area. We recommend that you drive the vehicle with light to medium application of the brakes for the first 150-200 miles. This will allow your brake pads to properly seat to your rotors to insure optimal braking performance.

If you have any questions please call our tech line at (716) 852-2139

Thank you for purchasing from Leed Brakes we hope you have had an enjoyable experience.