

# **Installation Instructions**

## **Power Brake Conversion Kit**

Item # FC0033HK, FC0049HK, FC0050HK

Applications: 1957-68 Edsel, Ford & Mercury Full Size Cars



Thank you for choosing Leed Brakes for your automotive product needs. Before you begin your installation please inspect all parts and review the installation instructions. If you have any missing or damaged parts or if you have any questions regarding the fitment of this kit on your specific vehicle please contact our customer service team at (716) 852-2139 before beginning your installation

#### Tools required for a safe and smooth installation:

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

#### Vehicle Prep :

- 1. Safely raise the vehicle off the ground until the wheels are clear and spin freely. Support the vehicle using the appropriate Jack Stands and remove the front wheels.
- 2. Remove wheels for easy access to the bleeders on your calipers & wheel cylinders.
- 3. From under the dash remove the pushrod from the pedal assembly.
- 4. Disconnect the brake line(s) from your master cylinder. <u>Be very careful not spill any brake fluid on any painted</u> <u>surfaces as it will damage your paint.</u>
- 5. Remove all hardware retaining your current master cylinder or power booster to the firewall and remove from vehicle.

#### Power Booster Installation

- 1. Align the supplied power booster with the holes on the firewall and secure it with the original hardware.
- From under the dash connect the booster pushrod and the brake light switch to the brake pedal pin and secure with a cotter pin. Make sure the pedal moves freely without binding and that the brake lights turn on and off as the pedal is applied and released. In some cases it may be necessary to purchase a brake light switch for power brakes.
- 3. Use a **vacuum hose** to connect the power booster to a direct source of engine manifold vacuum or aftermarket vacuum pump.
- 4. For cars with a **single reservoir master cylinder** remove the steel brake line going from the original master cylinder to the factory distribution block.
- 5. Disconnect the line that goes to the rear brakes from the distribution block and plug that port with the 3/8-24 plug provided.
- 6. Temporarily install the master cylinder and combination block assembly on the booster. Keep in mind the master cylinder must be removed and bench bleed prior to completing the installation.
- 7. Using one of the lines provided connect the Front Out port of the combination block to the open port on your factory distribution block,
- 8. Using the other brake line and the union supplied connect the Rear Out port of the combination block to your original rear brake line.
- 9. Use the other plug provided to plug the other Front Out port of the combination block.
- 10. If your car was already equipped with a **dual reservoir master cylinder** you either need to bend and or shorten the lines supplied to connect the combination block to your original distribution block or you can cut your original lines and flare the fittings supplied onto them. In either case be sure to connect the Front Out and Rear Out ports of the combination block to the correct ports of your original distribution block. Also be sure to install the supplied plug into the remaining port of the combination block.

- 11. If your car has a hydraulic brake light switch to operate the tail lights you will need to utilize the new switch and pigtail supplied in the combination block. If your brake light switch is located on the brake pedal you can skip this step.
- 12. You can now remove the master cylinder for bench bleeding.

#### **Master Cylinder Bench Bleeding**

- 1. Before you 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 firewall, secure with factory hardware. <u>Be very</u> 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. Secure all brake lines 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 torque the lug nuts. You may now take your vehicle for a test drive in a safe area

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.