



## Installation Instructions

FC0009HK Power Kit Assembly

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Thank you for choosing Leed Brakes for your automotive product needs. Before you begin your installation please inspect all parts immediately and contact our customer service team at 716-852-2139 if you have any missing or damaged or incorrect parts.

Please take the time to review these installation instructions prior to disassembly of your current brake system to insure a smooth installation. If you have any questions regarding your installation please call our customer service team at 716-852-2139

## 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 disconnect the pushrod and brake light switch from the pedal assembly.
4. If your car had factory power brakes the pedal and support bracket will be used as is. If the car had factory manual brakes the brake pedal must be modified as explained in a later step. Remove the pedal from the factory support bracket.
5. Disconnect the brake lines from your master cylinder. ***Be very careful not spill any brake fluid on any painted surfaces as it will damage your paint.*** Remove the retaining hardware and remove the master cylinder and or power booster from the firewall. This assembly will also include the pushrod that was previously disconnected from the pedal.

## Brake Pedal Modification

1. If your car had factory manual brakes you will need to drill a ½" hole in the factory brake pedal 2" below the factory pin. This is necessary to achieve the proper pedal ratio for power brakes and to insure the pedal will travel freely without binding. **Photo 1**
2. With the hole drilled install the supplied pedal pin. The threaded end will go through the hole you drilled and point towards the passenger side. The shoulder of the pin will be against the pedal arm. Secure the pin with the ½" nyloc nut supplied. Torque to 45-50 Ft/Lbs.
3. The pedal can now be reinstalled in the factory bracket. Be sure the pivot bolt is snug, but that the pedal can still swing freely without binding.

## Power Booster Installation

1. Remove the steel brake lines going from the original master cylinder to the factory distribution block. Disconnect the line going out to the rear brakes from the factory distribution block.
2. Install brass fittings into the **Adjustable Proportioning Valve** and tighten.
3. Install the **Adjustable Proportioning Valve** to the rear brake line, the "out" port of the adjustable valve will be used here.
4. Install the **straight brake line supplied with (1) 7/16-20 fitting and (1) 3/8-24 fitting** into the "IN" port of the adjustable valve. The other end of this line will go to the rear brake port of the factory distribution block.
5. If your car had factory power brakes the new power booster can be installed directly in place of the factory booster. If your car was a manual brake car you will need to remove the cover plate

from the firewall. This is done by removing the (2) master cylinder studs and the (2) hex head screws below the master cylinder studs. The plate can then be removed.

6. With the plate removed you will now need to drill the (4) mounting holes out with a 7/16" drill bit. Note that as you drill through the firewall you will also be drilling through the mounting holes in the pedal support bracket.
7. Align the supplied power booster with the holes on the firewall and secure it with the hardware provided. The nuts may be difficult to tighten with the limited space available.
8. From under the dash connect the booster pushrod and the brake light switch to the new 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.
9. Use a **vacuum hose** to connect the power booster to a direct source of engine manifold vacuum or aftermarket vacuum pump.

### **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. ***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 longer **pre bent brake line** with the ½" fitting to the port for the rear brakes on the master cylinder (port furthest from the firewall) and connect the other end to the **top rear port** of the factory distribution block.

4. Install the **pre bent brake line** with (2) 3/8-24 fittings between the master cylinder port for the front brakes (port closest to the firewall) and the **top front port of the factory distribution block**.
5. 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 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.

That completes the installation of your hydraulic. If you purchased a kit containing other disc brake components, please refer to the separate instructions provided with those components.

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.

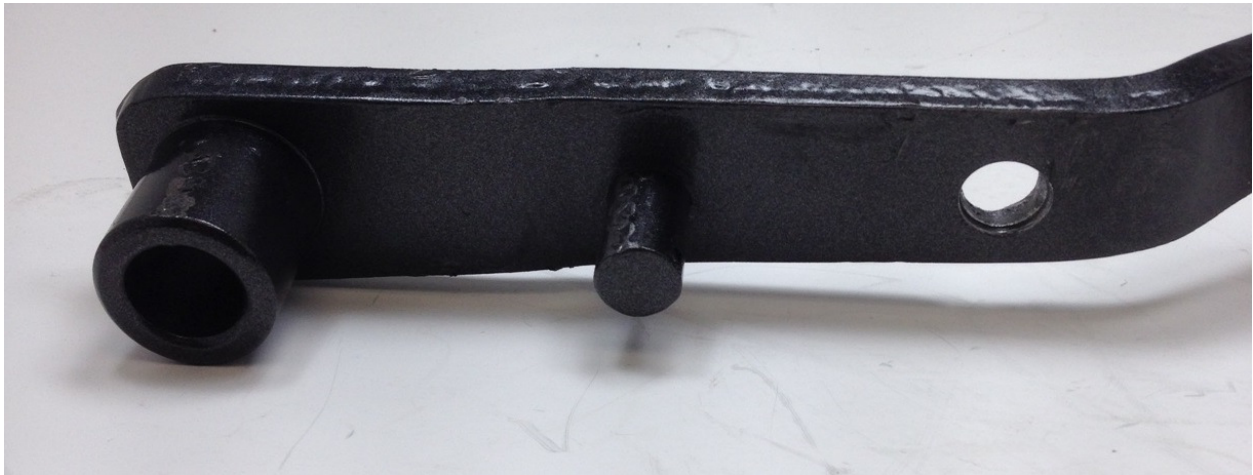


Photo 1