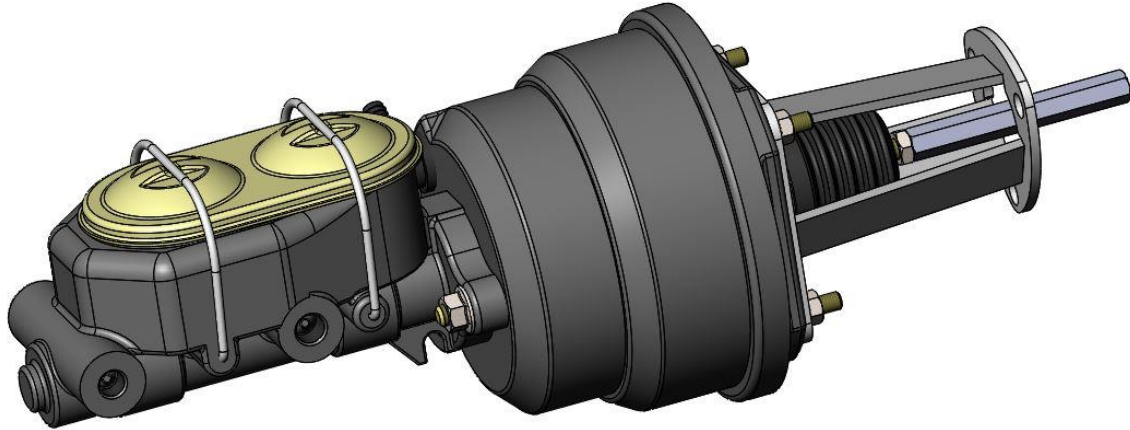




Master Power Brakes Power Brake Booster Conversion Kit 1948-1952 Ford ½ Ton Truck P/N: BM15452-1 or -2



Thank you for your purchase of our Power Brake Booster Conversion Kit for 1948-1952 Ford 1/2 Ton Trucks. This system is designed to replace the stock manual brake master cylinder with a power brake booster assembly.

Installation Notes:

- Please read all instructions before attempting the installation.
- Proper operation of your brakes is essential for your safety and the safety of others. Any brake service should be performed by a professional technician experienced in the installation of brake systems.
- Any installation requiring you to remove a wheel or gain access under the vehicle requires use of jack stands or a lift appropriate to the weight of the vehicle. In all cases, recommended ratings for jack stands should be at least 2-tons. If using a floor jack, be sure to use the appropriate wheel chocks.
- All installations require proper safety procedures and protective eyewear.
- A selection of hand tools sufficient to engage in the installation of these products is assumed and is the responsibility of the installer to have in his/her possession prior to beginning this installation. All installations, which require removal of hydraulic hoses and/or bleeding of the brakes, require appropriate fitting/line wrenches, as well as a safety catch can and protective eyewear. Other than these items, if unique or special tools are required they are listed in the section for that step.
- **ALWAYS CONFIRM WHEEL FITMENT PRIOR TO BEGINNING THE INSTALLATION OF ANY BRAKE SYSTEM!!** Returns will not be accepted for ANY installed part or assembly. Use great care to prevent cosmetic damage when performing wheel fit check!
- Before starting the installation, verify that all parts are included with the brake kit. If items are missing, notify Master Power Brakes immediately.
- Master Power Brakes recommends the use of a high quality DOT 3 or DOT 4 brake fluid. **ALL WARRANTY IS VOID IF DOT 5 FLUID IS USED.**

If you have any questions regarding installation, feel free to contact Master Power Brakes at (888) 351-8781 or through our website at www.mpbrakes.com.

| Parts List | |
|------------|---|
| Quantity | Description |
| 1 | 7" Dual Diaphragm Brake Booster |
| 1 | 1" or 1-1/8" Bore Master Cylinder |
| 1 | 4" Push Rod Extension |
| 2 | 3/8"-24 Jam Nut |
| 3 | 3/8"-16 x 1.000" Grade 5 Hex Head Bolt |
| 3 | 3/8"-16 Serrated Flange Nut |
| 1 | Vacuum Hose Kit (Includes Syringe Bleeder, 3/8"-NPT Fitting and Vacuum Hose) |

1. Remove the existing brake apply system from the vehicle.
 - a. Remove the original master cylinder from the brake pedal.
 - b. Separate the original pushrod from the eye bolt. **NOTE:** The original eye bolt will be reused in a later step.
2. Mount the new brake booster assembly into the original master cylinder mounting location using the supplied 3/8"-16 x 1.000" Grade 5 Hex Head Bolts and the 3/8"-16 Serrated Flange Nuts.
3. Thread the original eye bolt into the 4" push rod included in the kit and re-attach to the OE brake pedal.
4. For proper operation, it is necessary to determine the correct push rod length. Follow the steps below:
 - a. Align the eye bolt with the hole in the brake pedal. The Push Rod Extension may have to be shortened for proper pedal height and to obtain a comfortable driving position. There must be at least 1/2" of thread engagement on both the booster pushrod and the factory eyelet into the 4" Pushrod Extension. **NOTE:** Do not adjust the pedal to a height that it rests against any existing pedal stop and therefore not having any free play.
 - b. Once the proper push rod length is determined tighten both 3/8"-24 Jam Nuts and attach it to the brake pedal.
5. Once the push rod length determined, remove the master cylinder from the vehicle for bench bleeding. There are two methods that can be used for bench bleeding the master cylinder. They are listed below:

Syringe Bleeding (Tools provided in system)

1. Position the master cylinder in a vise clamped by a mounting ear.
2. Pour brake fluid into each chamber of the master cylinder to between ¼ and ½ full.
3. Using the syringe with the rubber tip attached, fill the syringe using the fluid in the master cylinder chamber. Fill the syringe to about half full.
4. Press the rubber tip to the port on the master cylinder. Holding the syringe firm against the master cylinder, inject the fluid into the master cylinder. The fluid as it flows into the master cylinder will turn from bubbles in the chamber to a steady stream of fluid.
5. When pulling the syringe away from the master cylinder, fluid will drip from the port so have a damp towel handy to wipe off the master cylinder especially if you have painted it.
6. Plug the port with the provided plastic plugs from the Vacuum Hose Kit included with the system.
7. Once a steady stream has been detected, empty the syringe of fluid and then repeat steps 3 through 6 from above for the remaining port.

Hose Bleeding (Tools not provided in system)

1. Position the master cylinder in a vise clamped by a mounting ear.
2. Pour brake fluid into each chamber of the master cylinder to between $\frac{1}{4}$ and $\frac{1}{2}$ full.
3. Thread the plastic fittings into each port on the master cylinder and attach the hoses to the fittings. Route the hoses into the chambers on the master cylinder and secure. Make sure the hoses are submerged into the fluid.
4. Using a large Phillips screwdriver inserted into the end of the master cylinder piston, press the piston slowly into the master cylinder and release. Repeat until there is no air coming from the hoses.
5. Remove the hoses and fittings from the master cylinder. When removing the fittings from the master cylinder, fluid will drip from the port so have a damp towel handy to wipe off the master cylinder especially if you have painted it.
6. Plug each port with the provided plugs from the Vacuum Hose Kit included with the system.
6. Reinstall the master cylinder back onto the brake booster. Using the provided Flanged Hex Nuts and tighten the hardware.
7. Using the provided fittings, install the vacuum tee in the engine. The best source for obtaining vacuum from the engine is to install the fitting in an intake runner in the intake manifold. **NOTE:** The provided fitting is a $\frac{3}{8}$ "-NPT fitting. For proper operation, find a location that does not require adapting to a smaller fitting and thread size if possible. Connect the provided hose from the fitting to the check valve on the booster.

IMPORTANT: For proper operation of the brake booster, the engine must produce 18" of vacuum. Anything under 18" vacuum will produce a firm pedal.

8. Route the brake lines from the master cylinder to whatever valve is being used in the system. Refer to Figure 1 below for proper orientation of the brake lines to the master cylinder. If installing with a Master Power Brakes Combination Valve and bracket, refer to those instructions on proper plumbing of the valve.

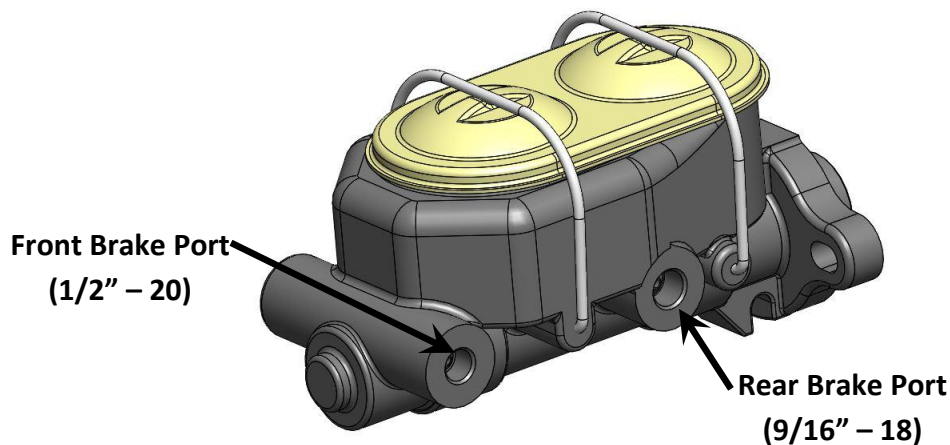


Figure 1 - Brake Line Orientation

9. Bleed the remaining portion of the brakes system. **REMEMBER:** Use only DOT 3 or DOT 4 fluid in your brakes system. Anything else will void the warranty of the master cylinder.
10. The installation of the Power Brake Booster Conversion Kit is now complete.

If you have any questions or comments, please call Master Power at (888) 351-8781.