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Installation Instructions - Part # PB-5 POWER BRAKE RETROFIT For 64-1/2 – 66 MUSTANG

Fits Cars Equipped With Automatic Transmission or MustangSteve Cable Clutch

PB-5 Power Brake Kit Contents

- Custom Pedal Support with Firewall Plate
- Custom Brake Pedal with Revised Ratio
- Ballbearing Pivot Shaft
- Power Booster
- Attaching hardware
- Instruction Manual



Also Req'd (Not Incl. in PB-5 Kit)

- 24" of 3/8" I.D. Rubber Vacuum Hose
- 3/8" Hose Fitting for Intake Manifold
- 3/16" Steel Tubing for new brake lines
- Rubber Foot Contact Plate Pad (can use original pad)
- Master Cylinder (use original or later model) Available at MustangSteve's
- Brake light switch from a power brake equipped 67-70 Mustang. Lighter pedal pressure may not activate original switch.



Booster Shown In a 65 Mustang With MustangSteve Part # PB-6.1 Master Cylinder & MustangSteve Part # PV-70 Disc/Drum Proportioning Valve (MC & PV not included in PB-5 kit)

READ ENTIRE INSTRUCTIONS BEFORE BEGINNING ANY MODIFICATIONS

1. **DISCONNECT BATTERY**
2. **REMOVE THE BRAKE LIGHT WIRING PLUG** from the brake light switch on the brake pedal. (Some earlier cars may not have this as the switch is mounted to the master cylinder).
3. **REMOVE THE MASTER CYLINDER PUSHROD RETAINING CLIP** from the pedal pin. Retain for reuse.
4. **REMOVE THE BRAKE LIGHT SWITCH** from the pedal. Retain all plastic bushings and the nylon washers for reuse.
5. **REMOVE THE MASTER CYLINDER PUSHROD** from brake pedal. Leave rod in master cylinder for now.
6. **REMOVE BRAKE PEDAL** from hanger assembly by removing spring clip and sliding out the large shaft that the pedal pivots on.

7. **REMOVE MASTER CYLINDER** by removing two bolts on engine side of firewall. Remove the rod from the master cylinder if master cylinder is to be reused. Rod will NOT be used.
8. **REMOVE THE PEDAL SUPPORT ASSEMBLY** from under the dash.
Removal of the instrument cluster will make removal and reinstallation of the support assembly MUCH EASIER, but is not required. Make a written note of the width of the gap between the steering wheel and column tube so that dimension can be reproduced upon reassembly. Remove two bolts from the engine side of the firewall (just above the two master cylinder bolts you just removed) and two small sheet metal screws that attach the front part of the assembly to the firewall from under the dash. Remove the two nuts that support the u-shaped support under the steering column. There will be a plastic clip on the side of the support assembly that clips the speedometer cable to the assembly. Remove it from the speedometer cable. Convertible cars have an additional brace mounted from under the glove box area to the front part of the hanger assembly. If so equipped, remove the brace bolt. In order to reinstall the brace, a hole must be drilled in the new support prior to installation. Pull the steering column downward a bit and remove the pedal support assembly out from under the dash or remove through the instrument cluster hole.
9. **REMOVE THE HOOD HINGE SPRING** from the driver's side of the car to provide access. (Not req'd on 6-cylinder cars). TIP: Use a distributor wrench. Hook the 1/2" hex end of the wrench over the end of the spring while standing in front of the headlight and pull straight towards the front of the car. The spring is easily stretched in this manner and can be removed and reinstalled later in an orderly fashion. A fan belt also works well to remove the spring Prop hood open with a suitable rod.
10. **DRILL THE FIREWALL HOLES** Cut the actual size template from [Page 6](#) and cut out all the five holes from the paper template. This will be used to mark the firewall where the new holes for the booster will bolt through. The template is marked to show which holes go at the TOP, and the correct position of the hole that is out of square with the other three 1/2" holes. Tape the template to the firewall from the engine side so that the template's top two holes align with the two upper bolt holes in the firewall. The template's big center hole aligns with the old master cylinder center hole in the firewall. You will need to elongate the firewall's two holes to match the size of the holes in the new bracket. A die grinder with a 1/4" burr bit works great for this. It is OK if the holes become slightly oversized. Mark the two bottom 1/2" hole locations and scribe the hole outline for the large center hole, which will need to be enlarged just slightly in the firewall – I suggest you measure your booster and not enlarge the hole any more than necessary. THE BOOSTER BELLOWS MUST NOT BE ABLE TO TOUCH THE EDGES OF THE LARGE HOLE OR BOOSTER FUNCTION WILL BE IMPEDED. Drill bottom two 1/2" holes per template.
11. **TRIAL FIT THE BOOSTER** studs through the holes you just drilled. Once it fits in place easily, then proceed. A good, easy fit makes the actual installation much easier later. The top and sides of the booster may touch the firewall, which is a normal condition with some boosters. Set booster aside for now.
12. **INSTALL THE PEDAL SUPPORT ASSEMBLY** under the dashboard. Position the assembly in location. Loosely install the two nuts on the studs at the steering column support. Be sure to index the steering column to the clamp – a tab on the clamp sticks into the hole on the steering column. Do not tighten nuts. Leave nuts loose until step 15.
13. **INSTALL THE POWER BOOSTER** in the engine compartment and push it into the holes of the new bracket, sandwiching the firewall between the booster and the new bracket assembly. Apply some RTV or other sealer around all the mounting points to keep out dust, water, drafts, etc. before pushing the booster all the way into place. Cars that had manual transmissions at one time may have a 1" hole where one of the lower booster studs goes through the firewall. This will not matter as the booster and the adapter plate will cover the hole.
14. **BOLT IN THE PEDAL SUPPORT / STEERING COLUMN MOUNTS.** Under the dashboard, install four lock washers/nuts on the horizontal booster mounting studs and begin tightening the booster to the bracket. As the booster is pulled closer to the firewall, be sure to watch the steel brake line that crosses just below the new booster. There is a chance it could be crushed between the booster and firewall as you tighten the four mounting

studs. Relocate the steel line if necessary. Under the dash, tighten the four booster mounting studs/nuts securely, making sure the booster is level so the master cylinder does not appear to be tilted to one side or the other once installed.

15. **TIGHTEN THE TWO VERTICAL STUDS/NUTS** that clamp the steering column to the dashboard. Make sure the steering column tube has not slipped up or down. Check the distance between the steering wheel and the steering column. There should be about 0.080" clearance, or roughly the same amount noted in Step 8. If this is not maintained, improper horn and turn signal operation will result. This is because the steering column can slide up and down the steering shaft while you are manipulating the column out of the way. Position the column so the horn contacts are touching the steering wheel plate with the springs slightly depressed but not completely compressed.
 16. **INSTALL THE BRAKE PEDAL** into the pedal support assembly, correctly inserting the two plastic bushings in the pedal and the two bearings in the pedal support. Install the washers and spring clip or cotter pin to retain the pedal. **BE SURE THE CLIP IS TIGHT AND CAN NOT COME OUT.**
 17. **REINSTALL HOOD HINGE SPRING** Just hook the spring on the back part of the hinge and stretch it just as it was removed. It will go right back in place.
 18. **CONNECT THE POWER BOOSTER SHAFT** to the brake pedal pin, utilizing all bushings, washers, clips, and the brake light switch that were removed earlier, but use the new flanged bushing supplied with kit. The end of the booster shaft has a bend in it, which POINTS DOWN. You may find it necessary to slightly bend the metal connections on the brake light switch for better alignment of the plug with the new pedal configuration. Sometimes a small dent may need to be placed in the steering column tube for clearance if the brake switch hits the column. If required, loosen the two nuts holding the steering column to the dash, rotate the tube 180 degrees and place the dent for switch clearance where needed and then rotate back into place and tighten the nuts.
 19. **INSTALL THE MASTER CYLINDER** after bench bleeding it. Be sure booster output shaft has about 0.001" - 0.010" clearance before bottoming in the MC. You don't want the MC partially applied when you tighten the bolts holding it to the booster. If there is TOO MUCH clearance, the brake pedal will have excess travel. Adjust for bare minimum clearance so MC is not prematurely actuated. Too little clearance will result in dragging brakes. All MustangSteve boosters are preset before shipping and should not need further adjustment.
 20. **CONNECT THE VACUUM HOSE** between the booster and the intake vacuum port. Do not use rubber fuel line for this purpose. It will suck flat under vacuum. The best is 3/8" I.D. a/c hose, with the second best being power steering hose of the same size. Both work better than the "vacuum hose" most places sell, although more expensive. If you have a radical camshaft in your engine, you may have to add a vacuum can for the booster to get enough vacuum for full booster actuation.
 21. **FABRICATE NEW STEEL BRAKE LINES** to go to your repositioned master cylinder from their previous connections. Be sure to use SAE inverted flare or metric ISO bubble flare tools as appropriate for the fittings on your car. If installing a new master cylinder, verify the type of fittings it uses. This is your opportunity to either make a spaghetti mess or get artistic like a pro, and run neat brake lines. The tubing is dirt cheap and it can be easily bent over a piece of 1" pipe or other round object. Use a length of coat hanger wire as a template to fit from point A to point B and bend the tubing to match. Flare the ends with the appropriate size fittings on them and you will have a very professional looking job.
 22. **BLEED THE BRAKES** and then reconnect the battery.
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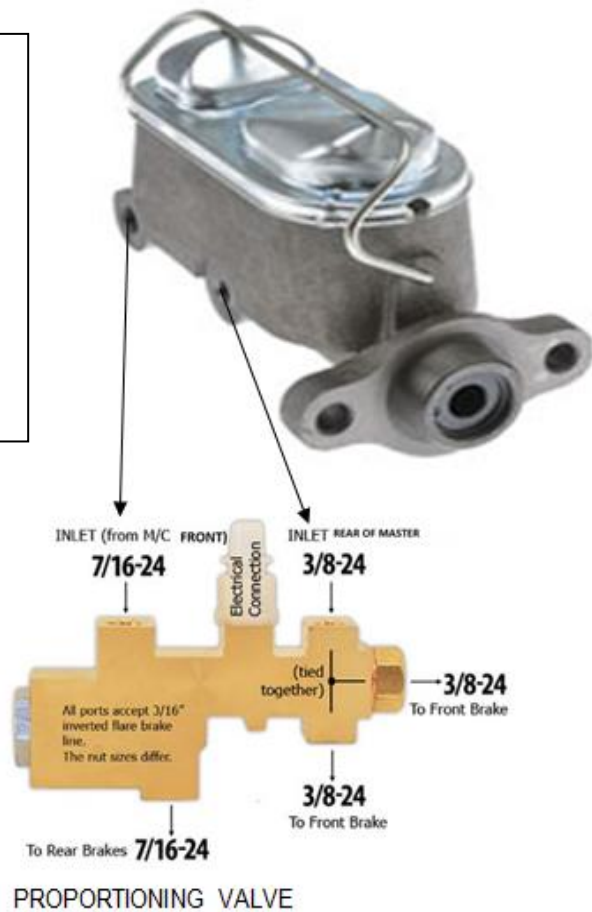
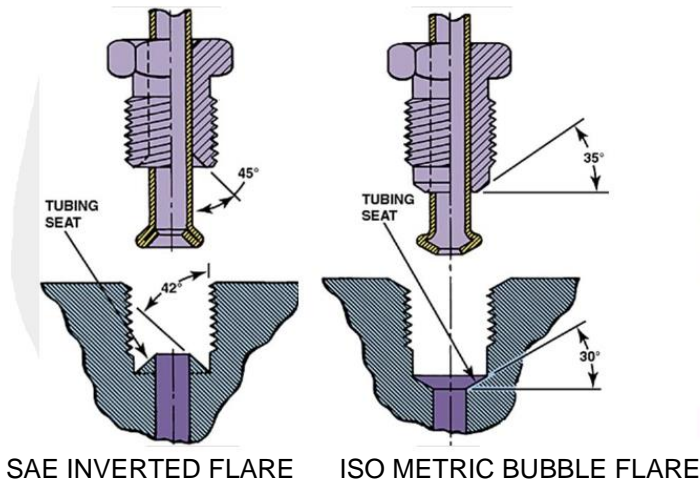
REFERENCE INFORMATION

If installing brand new brake pads or shoes, DO NOT immediately go out and do a panic stop to see how well they work!!!

This will destroy new pad and shoe material.

New brake pads must be broken in and used in normal driving for 200 or so miles before a super panic stop.

Increasingly hotter brake applications as you are driving will help to bed the new pads. Do not come to a complete stop when doing hot deceleration so the pads do not transfer material to the rotors. Keep driving to let the parts cool down between decelerations.



You may call, email or post questions on my Q&A Forum <http://fyi.boardhost.com>

Email info@mustangsteve.com

RECOMMENDED PROPORTIONING VALVES

MustangSteve Part # PV100 Matte chrome finish



Disc/Drum or Disc/Disc

Adjustable valve with distribution block and electric brake light switch.

Light switch port can also be used for pressure gauge port to use in diagnostics



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I will buy your old pedal support and pedals! Use this form when returning parts for core refund.

Parts that are heavily rusted are not acceptable. If in question, email a picture to info@mustangsteve.com

The following parts are being returned as cores:

- Pedal assembly from car with automatic trans \$40.00 qty _____ \$ _____
Includes pedal support and brake pedal for 64 ½ to 68 Mustang/Cougar
- Pedal assembly from car with manual trans \$75.00 qty _____ \$ _____
Includes pedal support, clutch pedal, pedal stop and brake pedal from 64 ½ - 70 Mustang/Cougar.
If pedal support has had previous work to the bushings, deduct \$25.00

TOTAL REFUND \$ _____

Refund Payment should be made to:

- Check, mailed to NAME _____ STREET _____
CITY _____ STATE _____ ZIP _____

or

- Paypal to EMAIL _____ DATE OF ORIGINAL TRANSACTION, IF KNOWN _____

Refund will be sent within one week of receipt of the old parts.

Thank you for shopping at MustangSteve's

Ship the parts, postage paid to:

**MustangSteve
1123 Bales St.
Cleburne TX 76033**