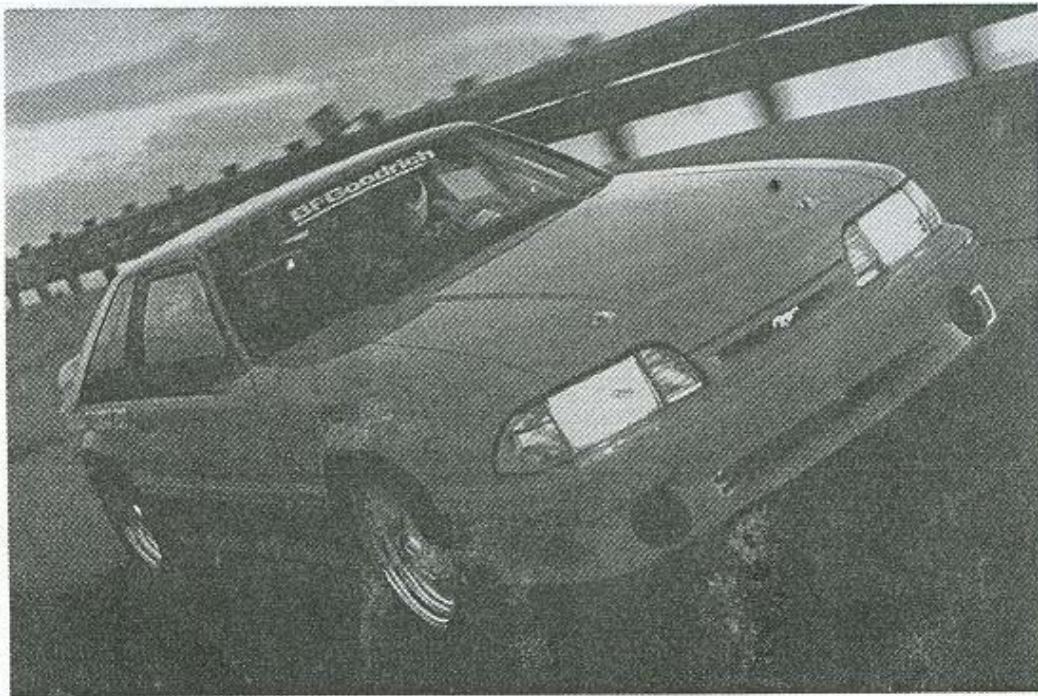


Installation Instructions



1979-93 Mustang and other 7.5" & 8.8" equipped vehicles **Rear Brake Installation**



3108 W. Thomas Rd. • Suite 1201
Phoenix, AZ 85017
602.233.1411 • Fax: 602.352.8445



Installation Instructions PBR Front Sport and Track System 96> SN95 Mustang

Preparation

- Jack up the car and secure with sturdy jack stands (Baer Racing recommends stands rated for at least 3 tons each)
 - Remove the wheel
 - Using a line wrench, loosen the brake lines at the frame rails, being careful not to round the corners of the bolts.
1. Remove the stock left front brake components.
 - Disconnect front brake hose from hardline and cap the hardline with rubber cap provided. Remove retainer clip (save for reinstallation).
 - Unbolt and lift original caliper off rotor complete with rubber hose and place in drain pan.
 - Remove the original rotor.
 - Option: Baer Racing strongly suggests that you remove the factory debris shield. This promotes increased air flow. For track use it is mandatory to duct additional air to the eye of the rotor (center hub).
 2. Place new rotor on hub, snug 1 lug nut down by hand to hold rotor in place
 3. Place new Baer/PBR caliper on rotor making sure that you are utilizing the correct unit for the left side, (bleeder pointed up). *** SPORT systems employ a modified caliper anchor bracket with two sets of holes, you will be utilizing the upper holes (closest to the caliper body). SPORT systems also employ a shim which will be installed between the anchor and the spindle *** Bolt to the spindle using factory original Ford hardware. Torque to 85 ft-lb. Attach the new Teflon® lined braided stainless steel brake hose to the caliper with the banjo bolt and crush washers provided (1 crush washer on each side of the banjo fitting.) Finger tighten the banjo bolt.
 4. Connect the hose with adapter fitting to the steel hard line (Note: There are different fittings used on each side of the SN95.) Connect the braided stainless hose to the fitting. Using line wrenches, tighten each connection (fitting to hard line, and banjo bolt at caliper), to a torque of 20ft-lb. Reinstall clip that secures hose to bracket on inner fender.
 5. Go to right side (passenger side) and repeat instructions 1-5.
 6. Read and follow Baer Racing's Bleeding and Bedding procedure provided on separate instruction pages.

Service Notes:

Replacement brake pads may be ordered directly from Baer. If for some reason you do not wish to order replacement parts from Baer, the pads for this system are original equipment on 94 and later SN95 Cobras, as well as 1988 to 1996 Corvettes. The rotors are common to 1994-1998 SN95 Cobras.

Prepare Car & Check Wheel Fit

Jack up the car and secure with sturdy jack stands (Baer Racing recommends stands rated for at least 3 tons each).

Remove the wheel.

Check brake assembly with wheel to ensure there is proper clearance (see fig. 1).

Place the assembly into the wheel, making sure the top of the brake pad is even with the top of the rotor.

Carefully rotate the assembly to ensure proper clearance throughout.

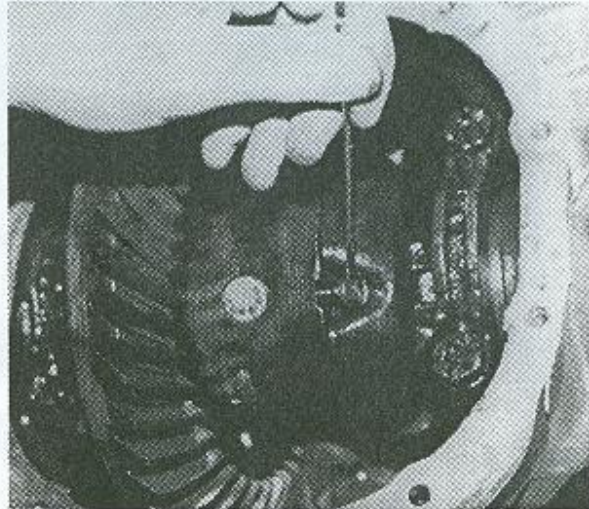
Remove brake drums.



Place brake assembly in wheel and rotate to ensure proper clearance.

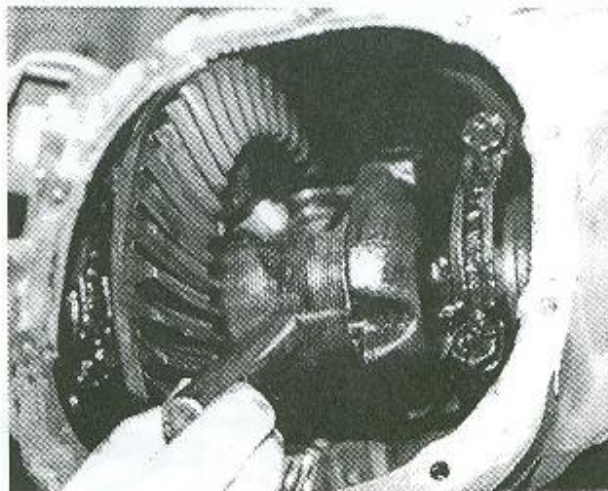
Remove rear end cover.

Remove bolt which secures differential pin.



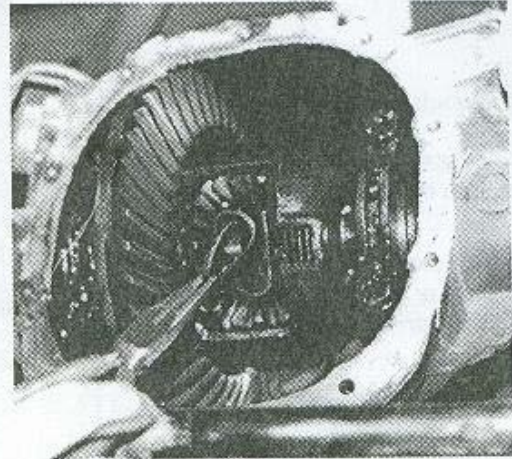
Remove bolt securing pin

Remove differential pin.



Remove differential pin

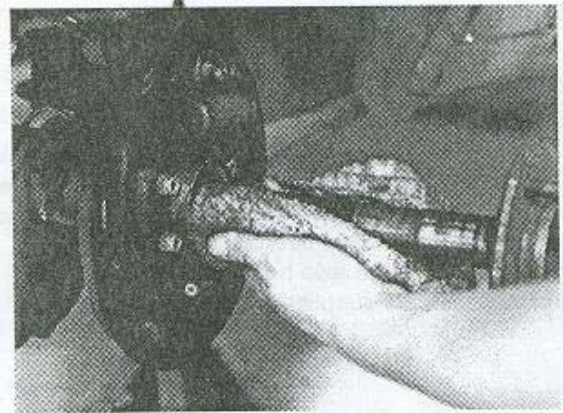
Slide axles inward and remove C-clips.



Remove C-clips

Pull axles from axle housing taking care not to damage the seals.

This is a good time to check the bearings, seals, and bearing surface and repair or replace as necessary.



Carefully remove the axles from the housing.

Remove drum brake components

Disconnect the brake line at the backing plate and use one of the supplied vacuum caps to keep brake fluid contained.

Release the parking brake cable from the equalizer junction located under the car (directly below the parking brake pull mechanism).

Pull the end through the roller guide and then slide a box wrench over the cable.

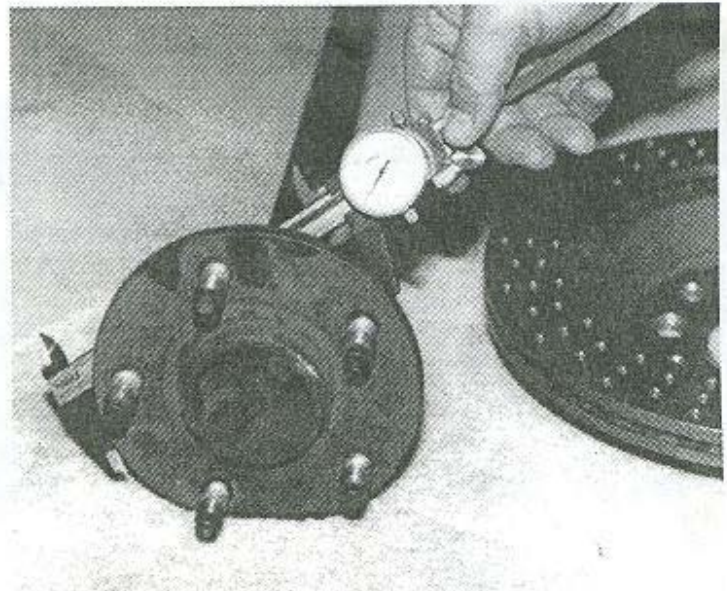
Slide the wrench over the spring retainer to release the cable from the body and pull free from the opposite side of the body mount.

Unbolt and remove the park cable retainer at the location near the forward mount from the lower control arm.

Measure the outside diameter of the axle flange.

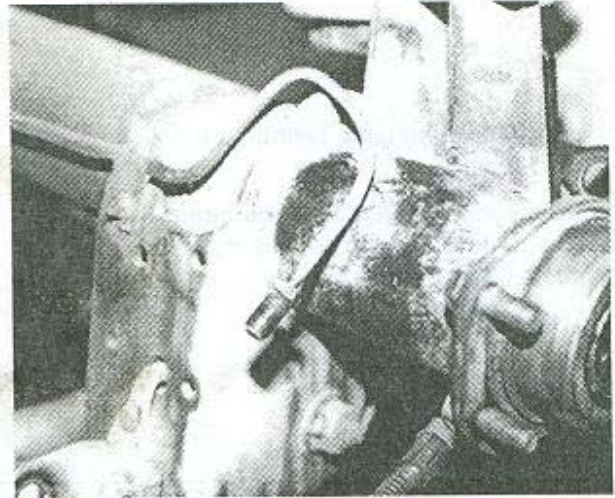
The diameter can be no more than 5.9" or damage to the rotors will result during operation.

If the diameter is larger than 5.9", any local parts store or machine shop should be able to turn the flanges down for a nominal fee.



Measuring axle flange diameter.

Carefully bend the brake line down about 4" from the flange on the axle housing as shown and secure with the supplied L-bracket.



Install rear caliper brackets.

Bolt the caliper mounting bracket to the axle housing such that it is clocked behind, and above, the axle centerline.

Use the bolts that originally secured the backing plate.

Torque the bolts to 40 ft.-lb.

Re-install axles, C-clips, pin, and retainer bolt in the rear end.

Torque differential bolt to 15 ft.-lb.

Place rotor centering ring onto the axle stub.

Note: aftermarket axle from such companies as Moser do not require the use of a centering ring if they have a stub diameter of 2.778."



Place centering ring over axle stub.

Re-assemble rear end.

Seal the differential cover with black silicone and re-install

Fill differential with proper rear end fluid.

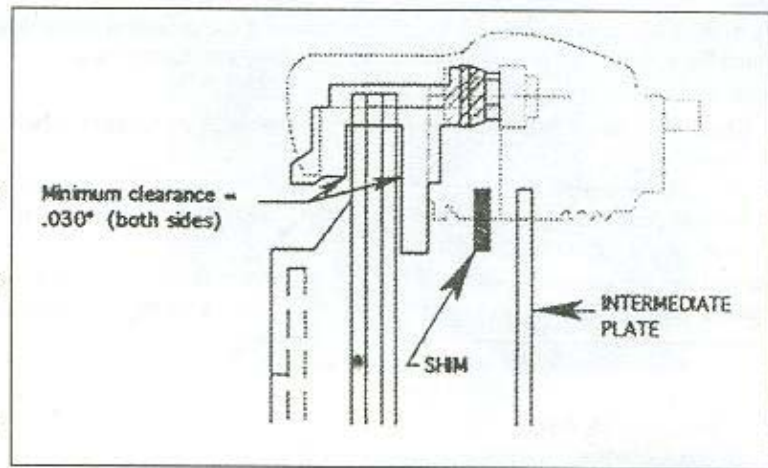
Install a rotor on the axle flange and cinch down 2 lug nuts to hold it in place.

Install the anchor on the intermediate bracket and measure the anchor-to-rotor distance to ensure proper alignment.

This is necessary as, in many cases, the axle tube ends were welded crooked at the factory.

With feeler gauges, measure the clearance between the caliper anchor plate and the rotor on both sides of the rotor. Take measurements at both the front and rear of the anchor plate.

A minimum of 0.030" clearance is needed between the caliper anchor plate and the rotor. The maximum distance should be no more than 0.090".



If necessary, install shims between the intermediate bracket and the anchor plate to bring the clearance in to the desired range. The goal is to shim the anchor so both outside measurements are similar (see figure).

When the anchor is shimmed properly, torque the bolts to 85 ft.-lb.

If you are performing this installation on a Thunderbird, Lincoln, or Saleen with longer axles, you will need to install steel stand-off spacers. These were provided to you if you indicated you were using such pieces when you ordered your system. These spacers should be installed between the anchor plate and the intermediate bracket.

Connect the supplied brake hoses to the calipers with the supplied banjo bolts and crush washers (one crush washer on either side of the banjo fitting).

Install the supplied L-brackets on either side of the axle and connect supplied adapter.

Carefully bend the factory hard line so it's away from the backing plate and pointing down (approximately 90°).

Feed end of hose clamp through opening in the supplied L-clip.

Tighten hose clamp around the rear axle so clip is oriented away from anything that might cause chaffing.

Insert hard line/brake hose adapter into L-clip and insert hard line into adapter and tighten.

Install hose lock to secure adapter to L-clip.

Route the hose in such a way it will not interfere with any suspension pieces during the full suspension travel.

Once the hoses are properly routed, torque all fittings to 20 ft.-lb.

Install parking brake cables.

Connect supplied cable to caliper using eye-end (cables are same length).

Route cable between rear axle housing and sway bar, then back around to the retainer bolted to the body (this is the retainer that was removed earlier on page 2).

Feed the cable and housing back into the body (from where the factory cable and housing was removed) and back around the guide.

Hook other end to the equalizer.

Repeat other side.

Proceed to *Bleeding the System*, *Seasoning the Rotors*, and *Bedding the Pads* (in that order).

Double check the entire installation to ensure all fittings have been properly tightened and to verify there are no leaks in the system.

Once the installation is complete, check for proper pedal feel and carefully drive the car for a couple of miles, then re-inspect the installation for leaks or loose fittings.

Notes

This system will sometimes groan during break-in. If the groaning noise does not subside after 200-300 miles of driving, contact Baer Racing to purchase the optional anti-groan dampeners.

If rotor makes contact with the caliper anchor plate

Check the axle. It is possible the axle(s) in the car may be bent, which will cause a rubbing to occur based on the axle rotation.

Remove the caliper and rotor and measure the standoff. This is the distance from the inside of the Baer intermediate bracket (inboard side) to the outside of the axle flange. This measurement should be 2.50 ± 0.010 ". If this is not the case, contact Baer Racing for suggestions.

Although we hope you will purchase pads directly from Baer Racing, if you should need to source pads locally, you should purchase pads for a 1988-95 Corvette, which use the same backing plate and pad thickness.

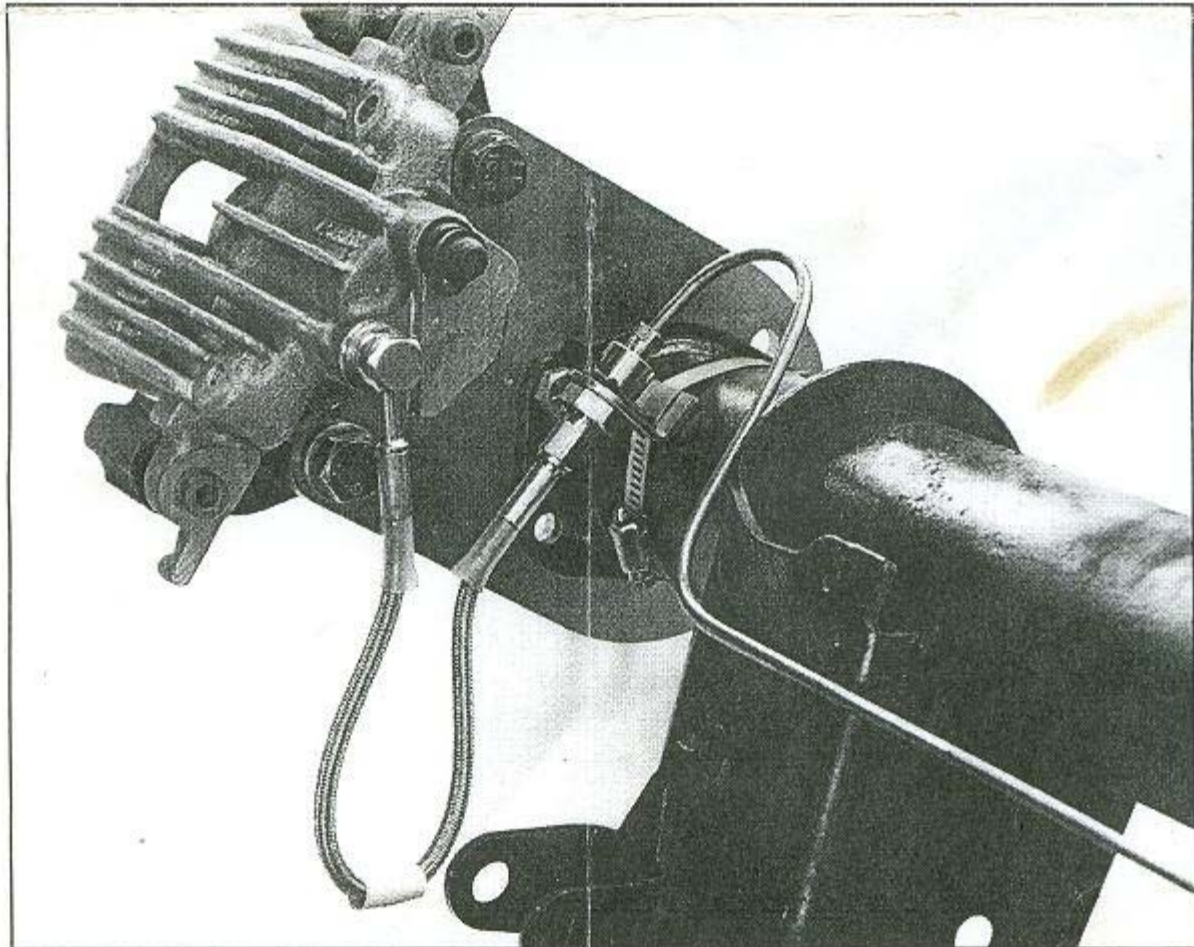


Supplemental Instructions

To better secure the rear hard line and to protect the line from damage while driving, you **must** secure the hard line to the rear axle.

- Carefully bend the factory hard line so it's away from the backing plate and pointing down (approximately 90°).
- Feed end of hose clamp through opening in the supplied L-clip.
- The below photo illustrates a typical installation. For photo clarification, the park brake assembly has been removed from this caliper. Some vehicles will need the hose run under the axle since the hard line may better fit to the front. Once again make sure that the hose and hard line do not contact moving parts through the full range of suspension movement.
- Install hose lock to secure adapter to L-clip.

If there are any questions with regards to any of the installation instructions, please contact Baer Racing at (602) 233-1411.

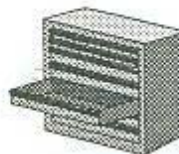


Installation Instructions .9375" (15/16) Master Cylinder Upgrade for Baer Claw & 87-93 Mustangs (except Cobra)

APPLICATION NOTES: For use with Baer Claw or stock rear brakes on 87-93 Mustangs

Tools required for installation.

- Open end wrenches, 1/2", 3/4"
- Line wrenches, 3/8", 7/16", 12mm, 14mm



Supplies required.

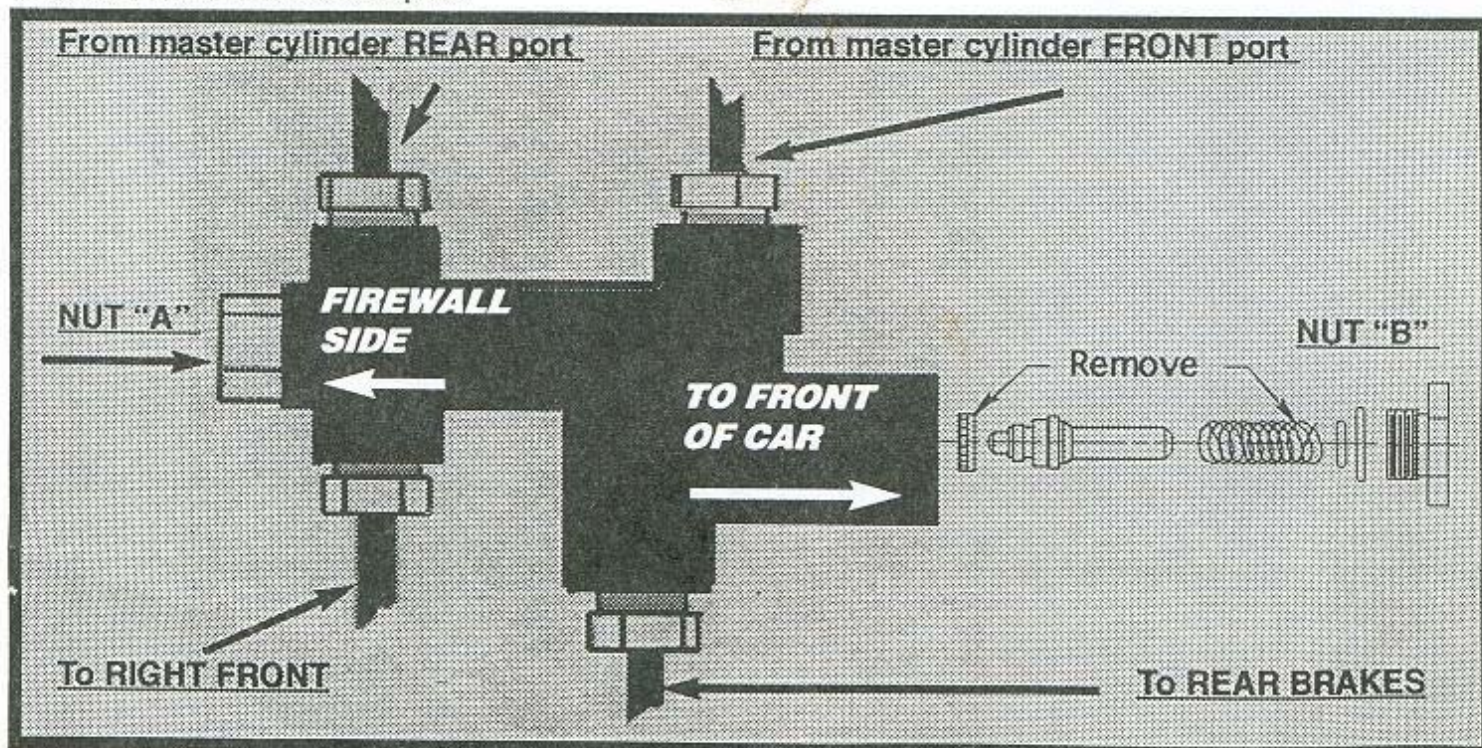
- 2 pints brake fluid. Baer recommends Ford Heavy Duty # C6AZ-19542-AA or Castrol SRF only.
- Rags

- 1) Remove the hard line from master cylinder to left front brake. NOTE: Be careful not to spill fluid on any painted surfaces. Brake fluid removes paint very well.
- 2) Disconnect the hard lines from the combination valve at the master cylinder.
- 3) Remove original master cylinder.
- 4) Locate the factory combination valve (directly below area vacated by the master cylinder).
 - A) Remove both lines which formerly went to the master cylinder.
 - B) Remove fitting at the rear of the combination valve (nut "A").
 - C) Replace nut "A" with the adapter fitting provided in the master cylinder kit without removing or disturbing the spring or other components located behind nut "A".
 - D) Install the new hard line, the longer of the hard lines, from the new fitting to the left front brake. Torque the tube nuts to 12-15 lb-ft.
- 5) Install the two (2) short hard lines from the combination valve to the master cylinder. The tube nuts are color coded for fit. Torque the tube nuts to 12-15 lb-ft.

Optional:

If you are installing an adjustable proportioning valve, refer to PROPORTIONING VALVE INSTALLATION instructions, provided on a separate page.

To complete the installation, proceed to the BLEEDING PROCEDURE, located on a separate instruction sheet. Do not attempt to drive the car until all details are complete.



Congratulations on your purchase of Baer Racing's Adjustable Proportioning Valve!

This valve allows you to adjust the front/rear bias of your braking system to allow for changes in weather, track conditions, vehicle loading, or when converting a system from drums to discs.

79-93 Fox Chassis Mustangs

- On the firewall on the passenger side of the car is a brake junction located just below the hood hinge. Locate this junction and remove using properly-sized line wrenches.
- Insert the fittings into the ports on the adjustable proportioning valve with the port marked *In* going to the master cylinder and the port marked *Out* going to the rear brakes.
- Tighten fittings firmly.

See *Adjusting the Valve* (below).

All Other Cars

- Determine where the valve is to be installed and cut the brake hard line at that point.
- Slide the tube nuts onto the hard line on either side of the cut.
- Flare the ends of the hard line using the appropriate flare tool.
- Insert the tube nuts into the fittings on the proportioning valve with the port marked *In* going to the master cylinder and the port marked *Out* going to the rear brakes.
- Tighten all fittings and mount the valve securely.

Adjusting the Valve

Note: All driving done during this phase should be done in a large open area away from other people and while keeping the vehicle under control at all times

- The valve has approximately nine (9) turns lock-to-lock. Turning the valve all the way counter-clockwise will make the outlet pressure approximately 57% of the inlet pressure. With the valve in the full clockwise position, the outlet pressure will be approximately 90% of the inlet pressure.
- Starting with the valve set about 4½ turns, test the brakes. When set properly, the rear brakes should lock up just **AFTER** the front brakes. If the system is not set properly, adjust the valve and test the vehicle again. Continue adjusting and testing until you are satisfied the valve is set for the proper front/rear bias for your application.

If there are any questions with the installation or operation of this item, please call us at (602) 233-1411 for assistance.