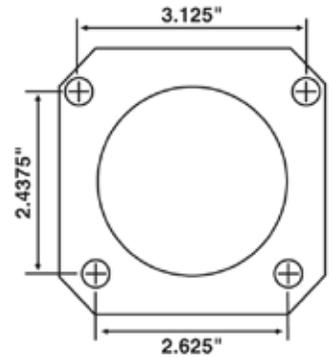
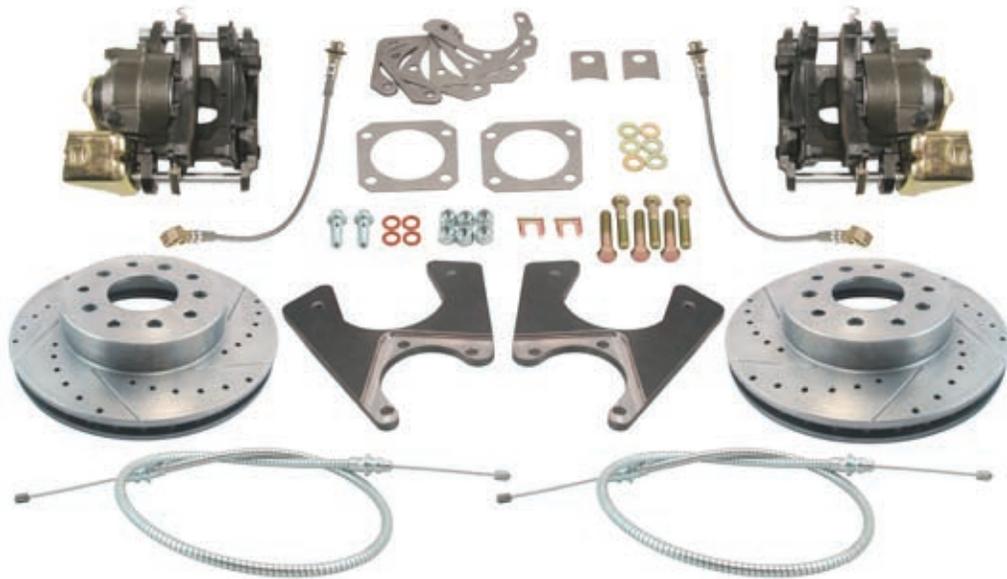


A, F, & X-BODY REAR DISC BRAKE KIT INSTRUCTIONS (DBK1012)

For cars with c-clips axles and non-staggered shocks.

PART # DBK1012



This kit is designed for 3.125" axles only!

* High performance kit shown. Regular kit has plain rotors & hoses.

WARNING

Proper operation of your brakes is essential for your safety and the safety of others. Any brake service should be performed ONLY by persons experienced in the installation and proper operation of brake systems. It is the responsibility of the person installing any brake component or kit to determine the suitability of the component or kit for the particular application. After installation and before operating your vehicle, be sure to test the function of the brakes under controlled conditions. DO NOT DRIVE WITH UNTESTED BRAKES!

IMPORTANT

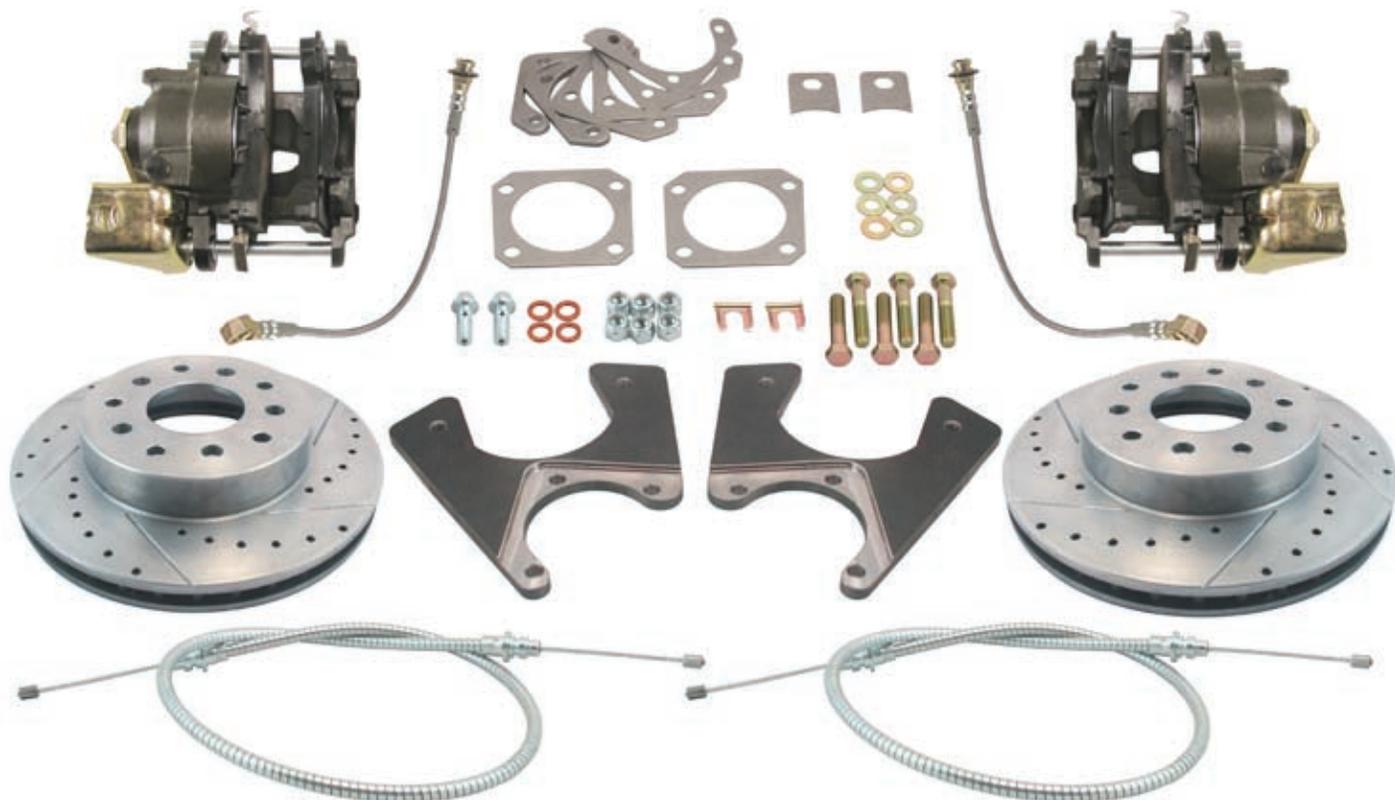
Check the provided list of parts against what you received to ensure all parts are present. Check the fit before painting and plating any parts. Painted, plated, or modified parts are not acceptable for return. Read all warranty disclaimers and return policies included in this kit prior to installation.

The installation of disc brakes will require the use of 15" wheels. Any attempt to install disc brake with a 14" wheel will be the customer's responsibility.

REQUIRED

Converting to four wheel disc requires a disc/disc proportioning valve and a 1 1/8" bore master cylinder.

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QTY.	PART #	DESCRIPTION
1	NR172	Loaded left caliper
1	NR173	Loaded right caliper
1	GM618	E-Brake cable 37.25"
1	GM619	E-Brake cable 40.75"
2	5560-10	Hubless 10 hole rotor
2	HSDBK-10mm	10mm brake hoses
2	BB-10M	10mm banjo bolt
4	BB-10W	Copper washer for banjo bolt
6	3/8-24 X 50	Bolts (3 bolts are included. Please re-use 1 of the original bolts to hold down flange)
6	3/8-24	Lock nuts
6	20 x 10.5 x 2	Washers
2	Clip	Brake hose clips
1	BP1012PL	Caliper bracket
1	BP1012PR	Caliper bracket
6	CB1012	Shims
2	CB1012	Brake Hose mounting tabs (packed with shims) If needed these will be welded to the axle.
2	BP1012SQ	Square backing plates / axle flange

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PREPARING YOUR PARTS

1. Mate up each threaded nut with its' designated bolt or threaded surface.
2. Group your kit parts to speed up the installation.
3. Check your quantity of components versus the items list.

COMPONENTS TO INSPECT, REPLACE OR UPGRADE PRIOR TO AND DURING INSTALLATION OF DISC CONVERSION KITS

Steel brake lines	Proportioning valves	Shocks and hardware
1 1/8" bore master cylinder	Sway bar bushings	Trailing arm bushings
Pinion bearings & seal	Differential seal	Axle bearings and seals
U-joints	Exhaust interference	Torsion bars

SUGGESTIONS:

- » Take the time to identify any suspect parts that are not included in this kit.
- » Consider making upgrades such as converting to polyurethane bushings, performance shocks, trailing arms, etc.
- » Plan any installation(s) of replacement parts during the various stages of the drum to disc conversion process.

INSTALLATION OF THE DISC BRAKE KIT WILL REQUIRE THE USE OF THE FOLLOWING TOOLS & CHEMICALS:

Wheel bearing seal driver	Brake spring pliers	Jack stands	Wheel chocks
3/8" ratchet drive set	3/8" Allen wrench or socket	Flare wrench set	Hand cleaner
Box end wrench set	Brake bleeder wrench	Drum brake tool	Disc brake quiet
Pliers	Screwdriver	Snips	Brake bleeder kit
Ball pein hammer	Line bending tool	Wheel bearing grease	Brake Fluid
Brake cleaner	Caliper slide grease		

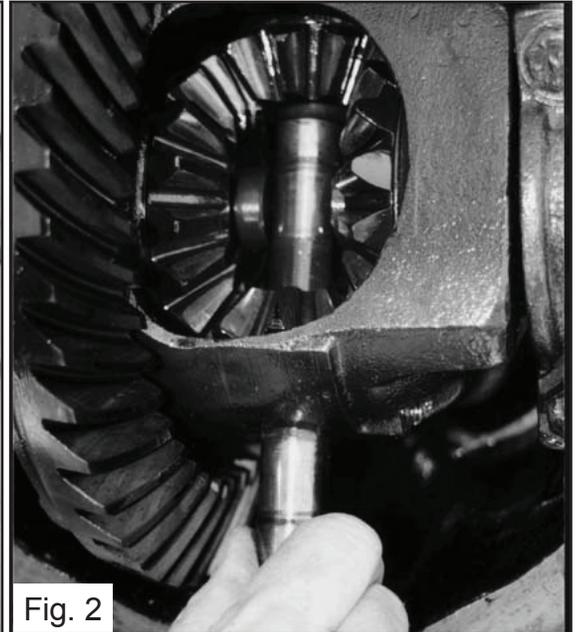
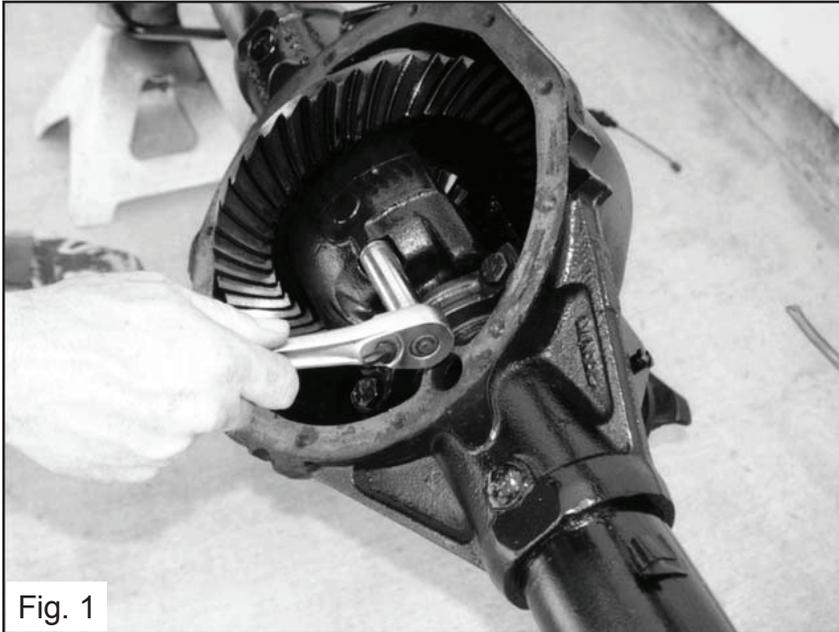
PREPARING YOUR VEHICLE

1. Rack the vehicle.
2. If you don't have a rack, then you must take extra safety precautions.
3. Choose a firmly packed and level ground to jack up the vehicle.
4. Chock the front wheels.
5. Jack the vehicle up and support it with jack stands and secure the pins.
6. Do not engage the emergency brake.

Remember: NEVER rely on jacks to support a vehicle! Always test the steadiness of your stands that are supporting the vehicle before attempting to work on a raised vehicle!

DISASSEMBLY

1. With the vehicle safely supported, remove the wheels.
2. Remove differential cover and drain fluid. Keep bolts for future use and clean gasket cover and differential of old gasket material and sealers.
3. Locate the center shaft retaining bolt and carefully loosen its' securing bolt.
4. Rotate the gear assembly towards the rear cavity area of the housing to allow enough space to remove the securing bolt (figure 1).
5. Next remove the center shaft (figure 2).



6. Push the axle flange inward in order to relax the pressure on the “C” clips which secure each axle located inside the differential (figure 3).
7. Once the “C” clips are removed, remove the axle shafts. Note which side they are from.
8. Now remove the emergency brake cables by compressing the compression springs and removing them from the emergency brake levers in the drum brake setup.
9. Feed each cable out of the drum backing plates.
10. Next using a brake flare wrench, not pliers, disconnect the brake lines from the wheel cylinders. Gently pull the brake lines away from the drum backing plate area to avoid damaging them when removing the drum brake setup.

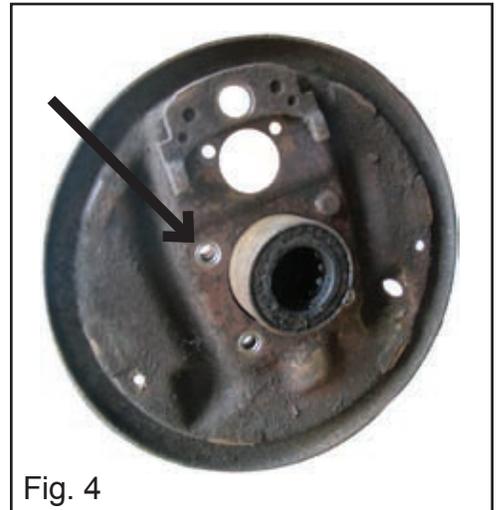


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11. Remove the drum backing plate assemblies by removing the four mounting bolts (figure 4).
12. Inspect all axle seals and bearings and replace as needed.

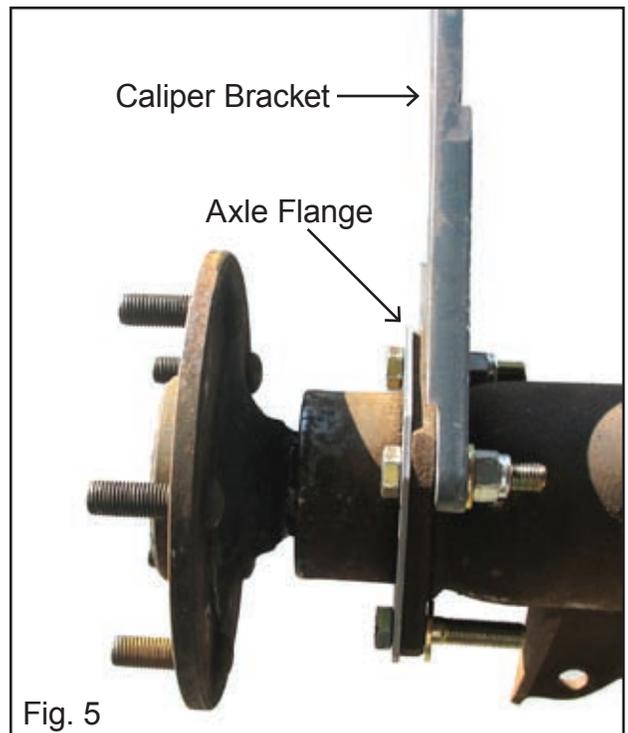
REASSEMBLY OF THE AXLE HOUSING

13. Install the square axle flange. There are 6 bolts / 8 holes . Remember you will need to re-use one of the hold bolts to hold the flange (figure 5).
14. Re-insert the left and right axle shaft into their corresponding axle tubes and secure each with the "C" clips.
15. Insert the center shaft and position it into position thereby securing the spider gears and shims.
16. Tighten the center shaft retaining bolt into the spider centering shaft.
17. Check the "free spin" of the axle shafts by rotating each in both directions.
18. Install the new differential cover gasket and tighten all of the housing cover bolts.
Add the appropriate amount of differential fluid. Check for fluid leaks.



CALIPER BRACKET MOUNT AND TEST FIT.

19. Mount the caliper bracket provided in the kit on the inboard side of the axle flanges with the pocketed side facing the axle. Feed the mounting bolts through the holes and hand tighten the nuts. Make sure to have the bolt head closest to the wheels.
20. Install the rotors and secure them with 2-3 nuts to keep them in position for further assembly. Be sure to mount directional rotors as intended if your kit has the directional type. (Note: Make sure rotors are seated flat on the axle. If necessary grind flange to remove burrs.
21. Install the caliper on the brackets with the bleeder screws towards the top.
22. Now check the relationship of rotor positioning in between the brake pads. The kit is provided with an assortment of shims to move the caliper bracket inward to center the caliper over the rotor. Use shims as needed to achieve centering (In our case we didn't need to use shims).



INSTALLING THE REAR CALIPER

23. The installation of the rear caliper has three steps:

- A. Physically installing the caliper.
- B. Physically setting up the emergency brake.
- C. Emergency brake adjustment.

24. With the rotor and caliper bracket installed, locate the two metal slider sleeves that the mounting bolts go through (Fig. 6).

25. With your thumbs, press the slider sleeves flush against their tabs to allow the caliper to be installed into the caliper bracket smoothly (Fig. 7). Prior to inserting the caliper into the bracket, you need to make sure that the pads are installed correctly.



Fig. 6

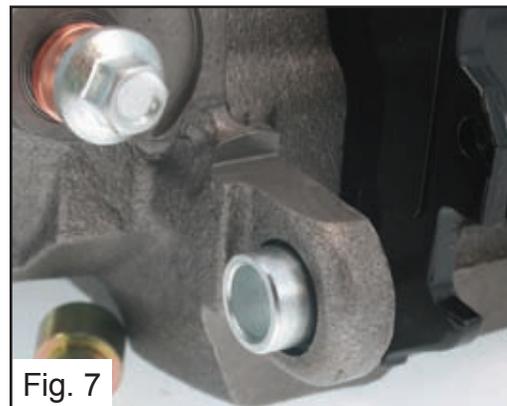


Fig. 7

26. The inboard pad has a special clip (Fig. 8) that snaps over the caliper piston and rests in a groove on the piston. The pad has notches into which the tabs of the clips fit (Fig. 9).



Fig. 8



Fig. 9

27. Now insert the caliper, with the pads installed, into the caliper bracket. The bleeder screws and springs should be at the top with the caliper on the rear of the axle.

28. It may be necessary to retract the caliper piston to allow the brake pads to clear the rotor.

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29. To retract the piston, remove the spring on the emergency brake. Be sure to note the position of the spring. Next remove the nut and its' lever. Be sure to note the position of the lever.
30. Move the piston in or out as needed by turning the shaft with the wrench positioned on the integrated hex nut. You may also use the lever to adjust piston depth.
31. Reinstall the bracket, spring, and pads. Install the caliper into the caliper bracket, and press the slider sleeves up against the caliper bracket and tighten down the 2 mounting bolts using an Allen wrench. If needed, install the bracket shims between the axle and the caliper bracket in order to center the caliper over the rotor.
32. Test spin the rotor, and once it is centered, tighten down the bracket.
33. Proceed to setting the emergency brake.
34. If you have not already done so, remove the original drum brake cables from the vehicle.
35. You will be using the front and middle sections of the original drum cable setup.
36. Next feed the end of the new cable though the spring and locate, but do not install the cable into the notch on the lever yet (Fig. 10).
37. Now take the clip provided with the kit and stake it over the emergency brake cable to steady the cable against the caliper. Save the old emergency brake clip so you can check the new brake clips for the proper size.
38. With the system physically assembled, proceed to the adjustment of the e brake setup.
39. Adjust the emergency brake by working the lever until you can no longer spin the rotor with the lever engaged. It is a self activating mechanism.
40. Now connect the cable to the lever on both sides.
41. Now take the brake flex hoses and sandwich each banjo bolt end in between 2 copper crush washers and tighten onto the caliper. Attach the female end of the flex hoses to the original hard drum lines on the axle. Be sure to secure them to the axle, but allow for axle travel up and down when in use on real road conditions. If the factory tabs are unable to fasten down the flex hoses then weld the included brake hose mounting tabs to the axle and use them to secure the hose.
42. Bleed the brakes and inspect for leaks, then test the master cylinder pressure and adjustment. The point is to make sure that you are not pre-loading the master cylinder and activating the rear brakes unintentionally. You are testing for basic caliper function.
43. You may install the wheels if you like.
44. Connect the new emergency brake cables to the pre-existing drum cable system.
45. Test the e brake by setting it from inside the car. Try to spin the wheel/rotor.
46. Re-adjust as necessary. The wheel must not spin.

NOTE: You must consistently use the emergency brake to activate the self-adjusting mechanism.

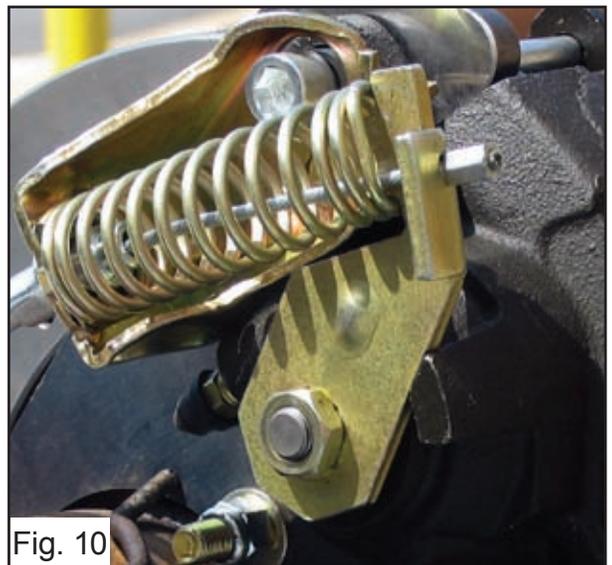
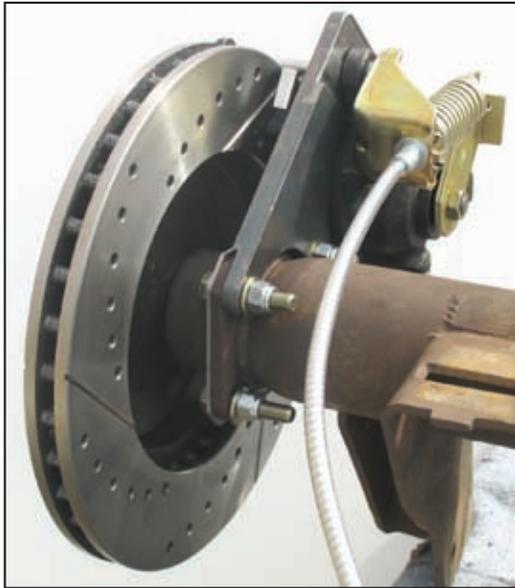


Fig. 10

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This completes the installation process. Be sure to test the brakes, re-adjust, and re-bleed prior to getting on the road.

Test brakes in slow, safe conditions. Be sure to conduct an actual “E” brake test on a reasonable incline to assure that you have it set properly. Test drive cautiously, since you may need to bleed or adjust the system again. Before operating the vehicle after installation, test the function of the brakes under controlled conditions. Make several stops in a safe area. Start with low speeds and gradually work up to normal speeds. **DO NOT DRIVE WITH UNTESTED BRAKES!** Always utilize safely restraints when operating the vehicle.

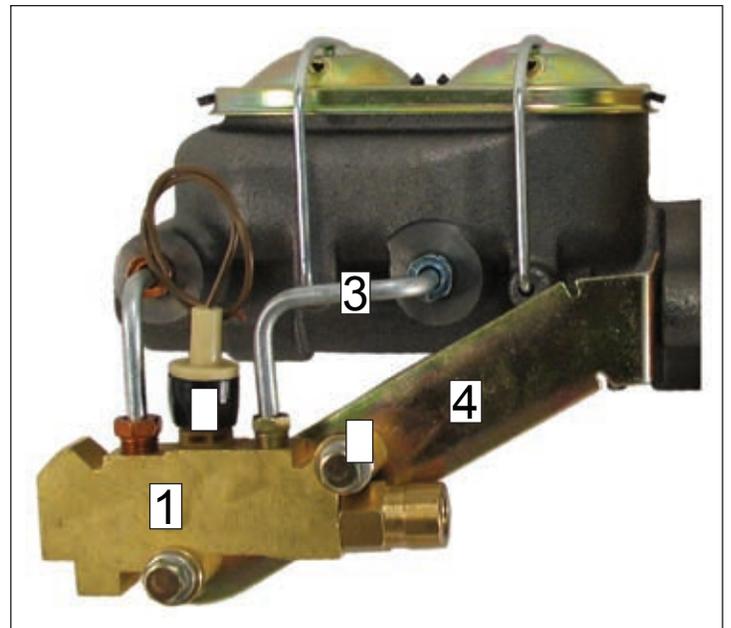


ADDITIONAL INFORMATION

The most common proportioning valve plumbing is shown below. An alternative plumbing method is to plug off the top front line and have the bottom front line go to a “T” fitting. From the “T” fitting, the front lines are then split off to the left and right calipers.

Common Plumbing Components:

1. Proportioning Valve
2. Brake Warning Light
3. Proportioning Valve Lines (2)
4. Proportioning Valve Bracket
5. Proportioning Valve Hardware



UNIVERSAL FRONT DISC BRAKE CHECKLIST

- 1. Spindle properly secured to ball joints and tie rods with castle nut and cotter pin.
- 2. All mounting bolts properly tightened.
- 3. Wheel bearings properly packed with grease.
- 4. Inner bearing must be installed before grease seal.
- 5. Rotor I bearings slide onto spindle with ease.
- 6. Washer, castle nut properly torqued and cotter pin installed.
- 7. Calipers installed and properly torqued.
- 8. Spin rotor and check for any interference. (If any interference is found, resolve problem before driving vehicle.)
- 9. Flex lines are properly installed with no interference.
- 10. Power booster (if applicable) installed properly.
- 11. Master cylinder bench bled according to the instructions.
- 12. All brake lines are properly tightened and free of leaks.
- 13. Turn wheels lock to lock and check for any interference.
- 14. Place wheel onto vehicle and spin the wheel to make sure there is no interference between the brakes and wheel.

UNIVERSAL REAR DISC BRAKE CHECKLIST

- 1. All bolts on base bracket properly tightened.
- 2. All caliper mounting bolts properly tightened.
- 3. Rotor slides onto axle with ease.
- 4. No interference with rotor and any other parts (splash shield, brackets, etc.).
- 5. Caliper is centered over the rotor (because of difference in axle lengths, you may have to shim caliper bracket in or out).
- 6. No interference with caliper and rotor.
- 7. All brake lines are tight with no leaks and secured to the axle.
- 8. Parking brake is properly adjusted and not dragging, with vehicle on ground.
- 9. Adjustable proportioning valve installed (if applicable).
- 10. Distribution block modification made (if applicable).
- 11. Brake system properly bled.

WITH EVERY NEW SET OF ROTORS AND PADS, YOU SHOULD GIVE YOUR VEHICLE 200 - 250 MILES OF EASY DRIVING TO PROPERLY SEAT THE PADS TO THE ROTORS. DO NOT TAKE THE VEHICLE UP TO 60 MPH AND JAM ON THE BRAKES BEFORE THE FIRST 200 - 250 MILE BREAK IN PERIOD IS OVER, OR YOU WILL GLAZE THE PADS AND ROTORS.