



DB1731 SERIES

1962-1967 NOVA

IT S MORE THAN BRAKES...IT S CONFIDENCE!

INSTALLATION INSTRUCTIONS

MASTER POWER BRAKES

110 CROSSLAKE PARK RD MOORESVILLE N.C. 28117

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REVISED 102803

INSTALLATION INSTRUCTIONS

INCLUDED COMPONENTS

Your power brake conversion kit will contain the following components:

1. 9" power booster with vacuum hose and intake manifold fitting.
2. Master cylinder
3. Combination valve kit
4. Disc brake spindles
5. Caliper brackets
6. Calipers with pads
7. Rotors
8. Splash shields
9. Bearings, seals and dust caps
10. Caliper hoses



INSTALLATION

Installation of the disc brake kit will require the use of the following tools:

3/8" ratchet drive set
Box end wrench set
Pliers
Line flaring tool

Mallet
Ball joint fork
Screwdriver
Line bending tool

Flare wrench set
Drum brake tool
Snips

Always refer to the vehicle owners manual for the correct torque specifications when installing this kit

1. If you are performing the installation with a jack, be sure that the parking brake is set and that the rear wheels are chocked. Support the front of the vehicle with jack stands. Never work on sloping ground.
2. If you are using a lift, raise the vehicle to a comfortable working height.
3. Remove the front wheels.
4. At this point, be sure to place the proper support under the lower control arm. Failure to do so will allow the coil spring to blow out when the spindle is removed which could result in serious injury and damage to the vehicle.
5. Utilizing a mallet and screwdriver, remove the brake hose clip at the frame bracket by tapping it loose. Disconnect the brake hose from the hard line using the appropriate flare wrenches.
6. Locate the ball joint at the tie rod end and the steering arm. Remove the cotter pin and loosen the ball joint nut approximately 1/2 off. This allows for a controlled , separation of the tie rod end and the steering arm. Place the ball joint fork between the steering arm and the ball joint. Strike the fork with a mallet until the steering are and ball joint separate. Remove the ball joint nut.
7. Repeat the process described in step 6 for the lower and upper ball joint at the spindle. Place the ball joint fork between the spindle and the ball joint.
8. Slowly lower the support and remove the drum brake assembly as a unit.
9. Inspect the ball joints for signs of excessive wear and check to see if the rubber boot is torn. If the ball joint wobbles excessively or is worn, now is the time for replacement. Clean the ball joints with a rag.
10. Take the drum brake assembly to a bench to disassemble it. Remove the dust cover by twisting a screwdriver between the dust cover and the hub. Remove the cotter pin and take off the spindle nut. Save the spindle nut and the keyed washer to use on the disc spindle. Remove the bolts that hold the steering are to the spindle and retain the arm and the bolts to use on the disc spindle. (This requires removing the brake shoes which is easier with a drum brake tool.)
11. Place the disc brake spindle onto the lower ball joint. Torque the nut to the specification in the owners manual. Insert the cotter pin and bend it.
12. Raise the control arm support and repeat step 11 for the upper ball joint. Remember to use the torque specification in the owners manual.
13. The caliper bracket attaches to the spindle so that the caliper will be located toward the rear of the vehicle. This is accomplished by mounting the bracket with the ears toward the rear and the "tangs" pointing toward the out side (see Figure 1). Using the 5/8" bolt supplied, attach the bracket to the spindle. Attach the steering arm with the bolts from the drum assembly, using one of the bolts to attach the bracket to the spindle. Torque all three bolts to the specifications in the owners manual.

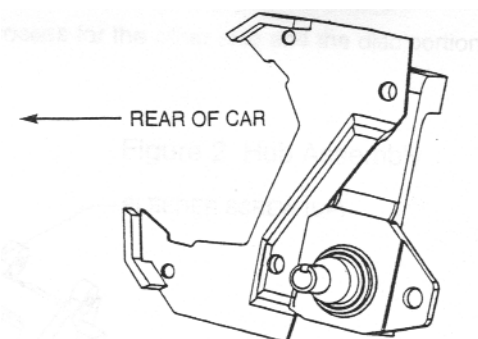


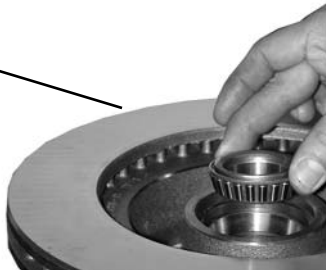
FIGURE 1



FIGURE 2

14. Attach the steering arm to the tie rod. Torque the nut to the recommended specification. Install the cotter pin and bend it. Place the .322" thick spacer onto the stud with the thinner hole on the steering arm.
15. Check the fit of the inner and outer bearing on the spindle. If the fit is too tight, lightly sand the spindle with emery cloth until the bearings slide on easily.
16. Grease the inner and outer bearing by "packing" grease between the rollers and coating the inside and outside diameters. Be sure to use a good high temperature bearing grease.
17. Grease the inner and outer race on the inside of the rotor. Install the inner bearing into the rotor. Lightly tap the grease seal into place with a mallet until it is seated. **(Clean the rotor before installation with brake cleaner followed by soap and water.)**

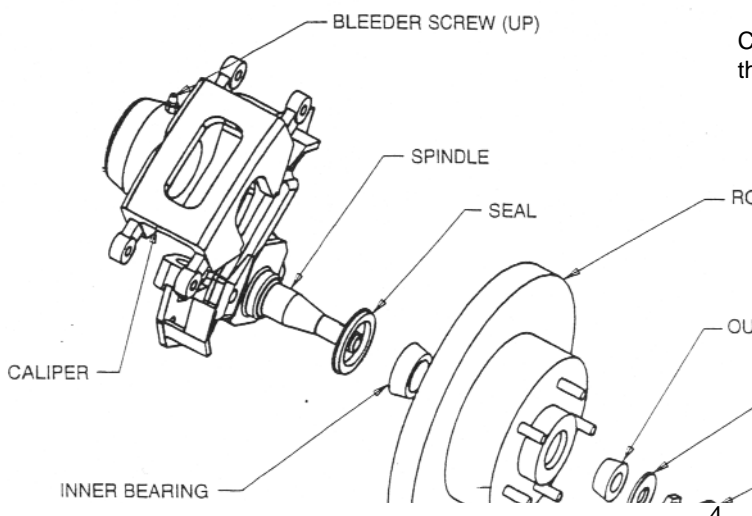
Install the greased inner bearing into the rotor.



Install the grease seal into the rotor.



18. Grease the spindle where the bearings fit. Install the rotor onto the spindle followed by the outer bearing, the keyed washer, a new-spindle nut. Tighten the spindle nut to the specified torque and insert the cotter pin. Bend the cotter pin, snip off the excess, and install the dust cap, by tapping a socket that fits on the cap edge, or by tapping a screwdriver on the edge of the cap. Spin the rotor and check to be sure that it rotates smoothly and there is no wobble. Clean the rotor.
19. Install the loaded caliper onto the mounting bracket with the bleeder screw facing up (Notice the diagram). Insert the caliper mounting bolts and torque to the recommended specifications. Spin the rotor to be sure that it rotates smoothly.
20. Install the hose onto the caliper. Be sure that the brass end of the hose is sandwiched between the two copper washers. The sequence must be: bolt - washer - hose fitting - washer - caliper. Tighten the bolt to the recommended specifications.
21. Using the flare wrenches, attach the other end of the hose to the hard line at the chassis. Tap the hose clip back into place with a mallet. Turn the steering assembly full right and left to be sure that the hose does not bind or twist.
22. Repeat this process for the other side and the disc portion of the conversion is complete.



Notice bleeder screw is up.



Caliper bolts thread into bracket.

Bend over cotter pin.



MASTER CYLINDER / POWER BOOSTER INSTALLATION

1. Disconnect the old master cylinder lines (Remember, if operating around painted surfaces, avoid brake fluid to paint contact). Remove any valves that are installed in the system. If the vehicle has a pressure differential switch, it must also be removed. Remove the old master cylinder.
2. Remove the existing master cylinder studs on the firewall by bending them up and down with vise grips until the weld breaks. Dimple the firewall at 6 o'clock and drill a 3/8" hole for the third mounting hole (see Figure 2). If you are installing a manual master cylinder, use the two studs on the firewall to mount the master cylinder. Use the same manual brake push rod.
3. When changing from a manual brake system to a power system, the clevis assembly that attaches the push rod to the brake pedal must be removed and lowered one inch. Remove the clip and pin that attaches the clevis to the brake pedal and retain them. If the lower hole does not already exist, one must be drilled. Screw the clevis assembly onto the new push rod on the booster about 1/2".
4. Install the booster on the firewall by aligning the three existing holes with the studs on the booster. Tighten the nuts securely. Place the clevis assembly at the lower hole in the pedal and install the pin and clip .

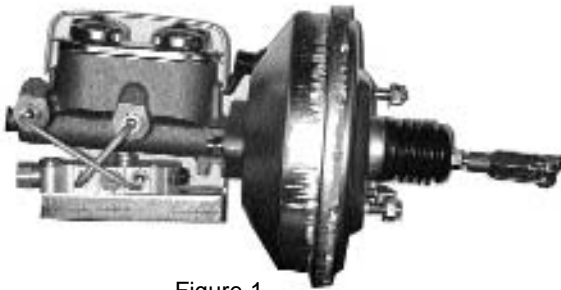


Figure 1

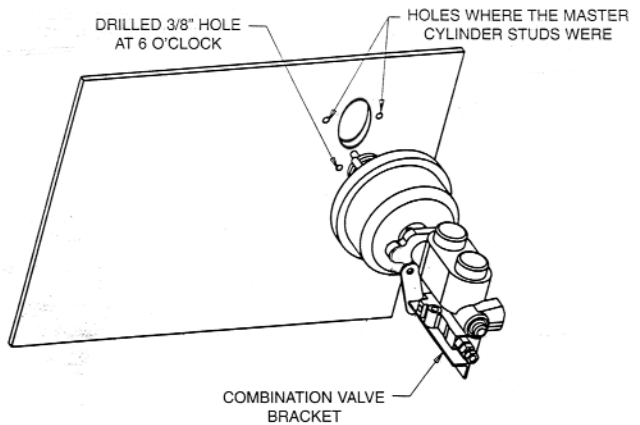


Figure 2

5. Install the proper fitting into the intake manifold for vacuum. Connect the vacuum hose from the engine to the power booster.
6. Bench bleed the master cylinder with the supplied bleeder kit.
7. Install the master cylinder onto the booster.
8. Mount the combination valve to supplied bracket and attach the bracket and lines as shown below.
9. You will now need to run two lines from the supplied combination valve to the frame. Tie the lines into the existing front and rear lines with brake line couplers.

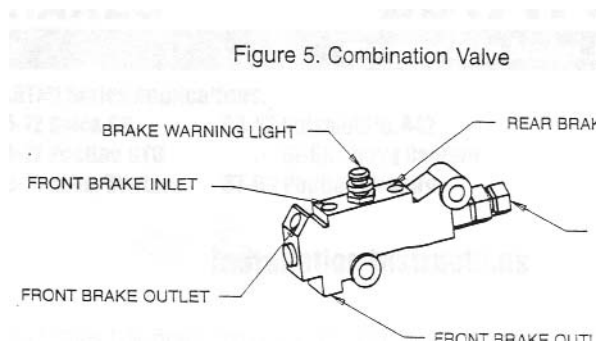


Figure 5. Combination Valve

