



INSTALLATION INSTRUCTIONS

REAR DISC CONVERSION KIT A128-7

1997-2004 JEEP WRANGLER (TJ) WITH DANA 35 AXLES (non-ABS)

Thank you for choosing SSBC-USA for your braking needs. Please take the time to read and carefully follow these instructions to insure the ease of your installation as well as the proper performance of the complete system.

Before beginning your installation, please verify you have received all the parts indicated on the packing slip. If you believe anything to be missing or incorrect, please call our Customer Service Department at 716-775-6700.

To assure your installation will go safely and smoothly, have the following items on hand to assist you:

JACK & JACK STANDS
LUG WRENCH
TORQUE WRENCH
SOCKET SET
BRAKE CLEANER

WRENCH SET
TUBE WRENCHES
MALLET
BRAKE FLUID

REPLACEMENT PARTS

Part	SSBC-USA #
Pads	1047
Left Rotor	23007AB1A
Right Rotor	23007AB1A
Left Caliper	2424L
Right Caliper	2424R
Hoses	14335-1
Master Cylinder	A0456



BEFORE INSTALLING, PLEASE LAY OUT ALL OF THE CONTENTS OF THIS KIT AND THOROUGHLY READ THROUGH THIS INSTRUCTION MANUAL TO ENSURE THAT YOU HAVE ALL OF THE PARTS NEEDED TO COMPLETE THE INSTALL!

IF YOU FIND YOU ARE MISSING ITEMS, PLEASE CONTACT SSBC-USA IMMEDIATELY, REGARDLESS OF WHAT DEALER YOU PURCHASED THIS KIT FROM.

IF YOU HAVE ANY QUESTIONS REGARDING MISSING ITEMS, WARRANTY CLAIMS, DEFECTIVE ITEMS, OR SIMPLY INSTALLATION ISSUES, PLEASE CONTACT SSBC-USA DIRECTLY.

**PHONE: 716-775-6700
M-F: 8:00AM-5:00PM EST**

**tech@ssbc-usa.com
info@ssbc-usa.com**

- 1) Raise the Jeep until the wheels and tires clear the floor. Support the Jeep on jack stands. Make sure parking brake is in the off position. Remove wheel and tire assembly.
- 2) Remove drum assembly as follows:
 - a) Pull off brake drum from assembly.
 - b) Disconnect parking brake cable from drum assembly.
 - c) Disconnect rigid brake line from the back of the wheel cylinder making sure not to strip the ferrule nut. We strongly recommend the use of a tube wrench.



BE CAREFUL NOT TO GET BRAKE FLUID ON THE PAINT, IT CAN CAUSE SEVERE DAMAGE!!

- d) Remove shoes, hardware and cables from backing plates
- 3) Removing axles and backing plates:
 - a) Remove rear end cover, a drain pan will be necessary.
 - b) Working through the opening in the differential case, remove the side gear pinion shaft lock bolt. ($\frac{5}{16}$ " small bolt). Refer to exploded view.
 - c) Push the side gear pinion shaft (pin) out.
 - d) Push the axle shafts inward and remove "C" locks from inner end of the axle shafts.
 - e) Remove axle shafts.
 - f) Remove drum backing plate assembly from axle flange, and discard bolts.
 - 4) Axle & Lug Studs
 - a) The lug studs in the axles must be replaced with the longer ones supplied in the kit. The studs can either be pressed out or knocked out with a hammer if the axle is carefully supported in a vise.
 - b) The new lug studs will need to be pressed into the axle shafts. If you do not have a press available any local machine shop will be able to perform this
 - 5) Mounting Brackets
 - a) The caliper mounting brackets onto the ends of the axle housing. The stepped end of the bracket should point towards the rear of the truck and the step should go in towards the differential.
 - b) Slide the axle shafts back into the housing and reinstall the c-clips, pin and lock bolt. Tighten the pinion lock bolt and reinstall the differential cover using the proper gasket. Be sure to fill the differential with the proper grade of gear oil to the proper level.
 - 6) Rotors
 - a) Spray the rotor with brake cleaner to remove the protective packing coating.
 - b) Slide the rotors onto the axle shaft and temporarily secure rotor to flange with at least one lug nut.

- c) Be sure the rotor sits squarely on the axle flange and is full seated against the face of the flange.

7) Caliper Mounting

- a) Slide the calipers into position over the rotors. Be sure to install them on the correct sides. The bleeder screws must be pointing up. Secure the calipers to the brackets using the 12MM bolts supplied. Torque to 80 ft/lbs.
- b) Install the block end of the hose onto the calipers using the hollow banjo bolts and copper washers provided with the kit. Orient the hoses so they are pointed toward the axle tube and torque the banjo bolts to 20-30 ft / lbs.
- c) Replace the original hard lines on the rear axle with those supplied in the kit. Make sure the lines take smooth bends and are clear of any suspension or chassis components.



MAKE SURE THE HOSES TAKE A SMOOTH BEND AND DO NOT BECOME “KINKED” WHEN THE FINAL CONNECTION IS MADE

- d) Route the parking brake cables to the calipers. Pass the cable through the boss in the caliper body and connect the inner cable to the lever on the caliper. The outer cable housing will lock into supplied L-brackets. The brackets will be installed on the lower caliper mounting bolt. The orientation of the bracket will depend on the length of your cables. It may be necessary to let out all the slack in the cables to connect the inner cable to the lever. Final adjustments will be made after the caliper is bled.
- e) In certain situations such as with lift kits the stock parking brake cables may be too short. In those cases longer cables will need to be used.

8) Proportioning Valve

- a) The factory fixed proportioning valve is part of the distribution block assembly. To allow full pressure to the rear brakes this valve should be modified as per the instructions on page 5.

9) Master Cylinder

- a) The original master cylinder must be removed from the power brake booster. It may be helpful to disconnect the distribution block from the fender well.
- b) With the master cylinder removed and the brake pedal fully depressed the adjustment nut on the end of the brake booster push rod can be lengthened 1 turn using a 6mm wrench.
- c) A new master cylinder should first be individually bench bled. When bench bleeding always hold master cylinder by the ears, not the body. Bleeding is accomplished by pumping the master cylinder spool with a Phillips screwdriver with temporary outlet tubes routed back to its own reservoir. Repeat pumping until all of the air has been removed.

- d) Install the master cylinder on the booster and reinstall and tighten the nuts. The supplied lines will be used to connect the master to the factory distribution block. Bend the new lines as needed and tighten all connections.

10) Filling and Bleeding System

- a) It is advisable to replace the brake fluid if the color is brown or muddy. This is due to water that has been absorbed by the fluid which will eventually corrode the brake lines and master cylinder. This absorbed moisture can also cause a vapor lock situation under extreme braking conditions. Flush system with clean brake fluid and replace with a good grade of disc brake fluid. DOT 3 or DOT 4 fluids are acceptable.
- b) The simplest and most effective way to bleed your brakes is to use the gravity bleeding approach as follows:
 - 1) With calipers installed, make sure all fittings are tight and master cylinder is topped off.
 - 2) Open one bleeder screw at a time starting at the wheel farthest from the master cylinder and working your way back around the wheel closest to the master. With bleeder screw open, observe bleeder. At first the fluid will begin to escape with intermittent air bubbles. When the air bubbles stop and a steady flow of fluid is observed for several seconds, close the bleeder valve and move on to the next wheel.



MAKE SURE TO KEEP A CLOSE WATCH OVER THE FLUID LEVEL INSIDE THE MASTER CYLINDER DURING THE BLEEDING PROCESS. NEVER LET THE RESERVOIR RUN DRY. ALWAYS KEEP IT AT LEAST 1/3 FULL.

- 3) After bleeding both wheels and topping of the master cylinder make 20-30 applications of the brake pedal. If a hard pedal is experienced, no further bleeding is required. If pedal is spongy, repeat bleeding process until a hard pedal is achieved.
- 4) With all bleeding complete, there should be approximately 3/4" to 1" of end play.
- 5) Power brake cars will experience a "drop off" of the pedal when the engine is started. This is a normal condition that signifies the booster is working.

11) Parking Brake Adjustment

- a) The caliper pistons adjust hydraulically by pumping the pedal. Do not attempt to fully adjust the pistons by using the parking brake lever.



NOTE: IF THE PISTONS BECOME EXTENDED TOO FAR, THE INNER BRAKE PAD CAN BE REMOVED AND THE PISTON CAN BE SCREWED BACK INTO THE CALIPER USING NEEDLE NOSE PLIERS OR A CALIPER ADJUSTING TOOL AVAILABLE AT MOST PARTS STORES.

- b) Make sure the parking brake lever is in the full released position.
- c) Take up the slack in the parking brake cables by adjusting the nut on the threaded rod under the car. Cables should be adjusted until they are taught but not enough to move the parking brake levers on the calipers.
- d) Move the parking brake handle through its full travel several times. The parking brake should hold the car from rolling but create no brake resistance when in the full released position. Make sure the brake lever is returned all the way when the parking brake is released.

FINAL INSPECTION

- a) Once a hard pedal is achieved, all fittings and connections must be inspected to make sure there are no leaks. Also check the level in both reservoirs of the master cylinder and top off, if needed.
- b) Put wheels back on the car and turn wheel by hand to insure that the wheel spins freely and does not interfere with any brake components. If any interferences are detected, **DO NOT** drive vehicle until problem can be identified and corrected.
- c) When you are sure there are no interferences and the pedal is firm, torque the lug nuts and lower the car back onto the ground. Test drive the car and apply the brakes frequently to seat the pads.
- d) Check for fluid leaks at every junction while and assistant is applying brake pressure.



NOTE: DO NOT USE ANTI-SQUEAK ADHESIVE ON BACKS OF PADS. THIS WILL DEGRADE THE PERFORMANCE OF THE CALIPER!

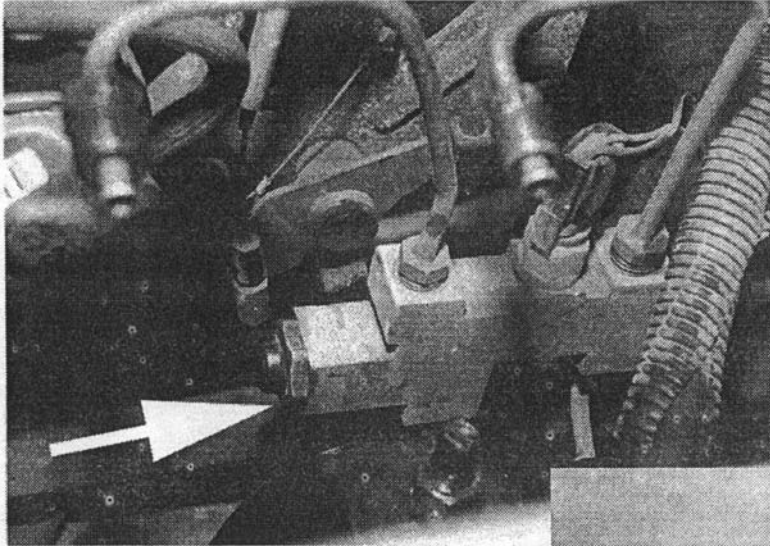
DO NOT DRIVE IN TRAFFIC UNTIL THE BRAKES SAFELY STOP THE CAR A SAFE DISTANCE WITHOUT A SPONGY PEDAL FEEL!

BRAKING TESTS SHOULD ALWAYS BE DONE IN A SAFE OPEN AREA!

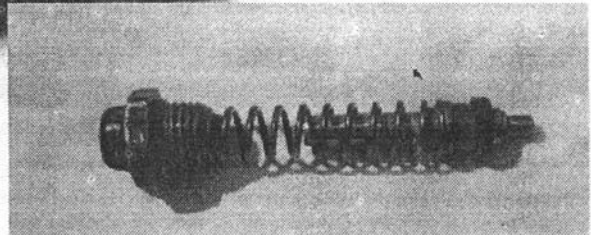
If technical help is required, please call 716-775-6700

. NOW ENJOY TRUE PERFORMANCE BRAKING!!

Proportioning Valve Removal For Full Rear Brake Line Pressure



ARROW INDICATES WHICH
PLUG TO REMOVE

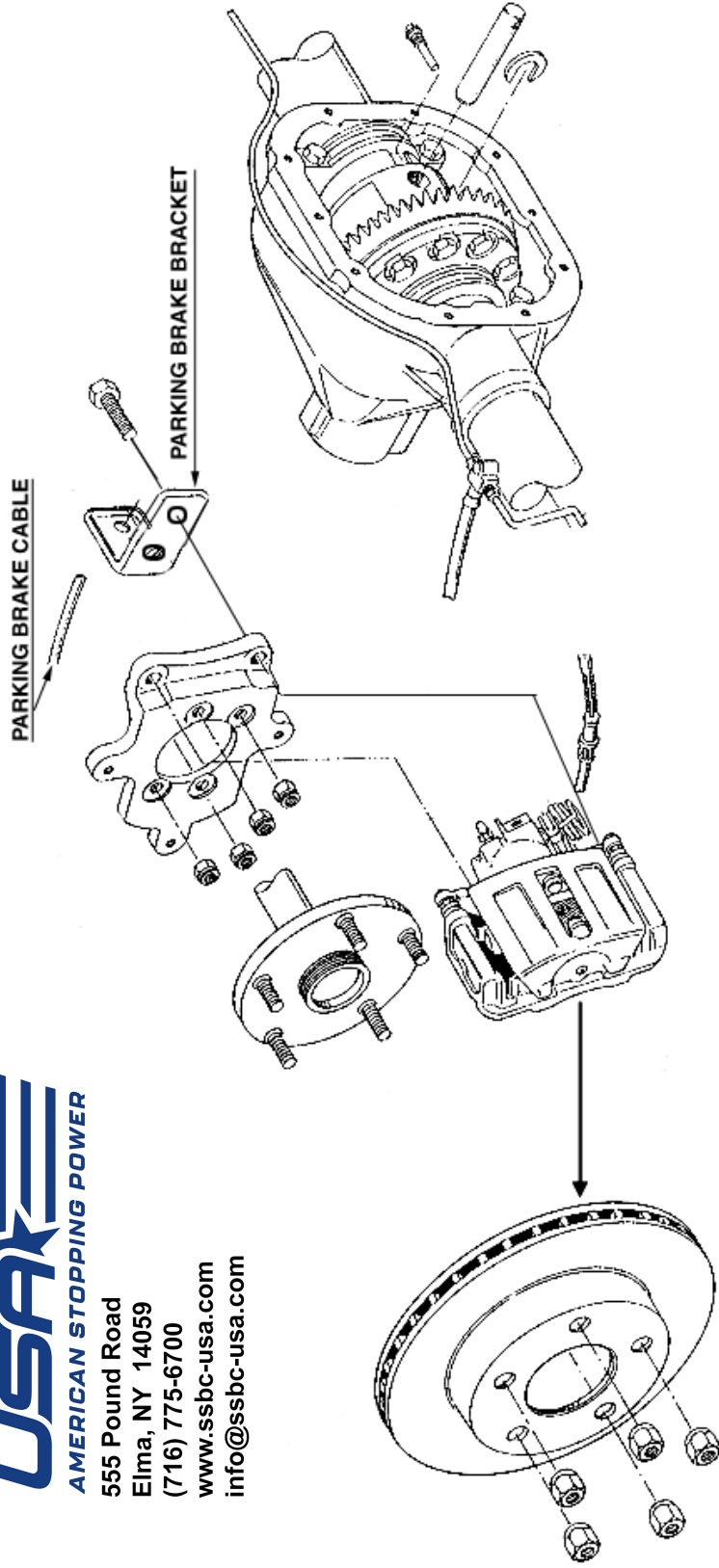


- 1) Remove Nut / Plug (with a rubber dome). **Note: It is spring loaded!**
- 2) Remove piston and all loose parts from the housing, take the seal off the piston and install the tapered side of piston into the plug. It should push in. There is an O-ring in the nut which will seal off the brake fluid.
- 3) Reinstall piston and nut assembly into block without the spring and seal.
- 4) Tighten plug snugly.
- 5) Rebleed the system and check for leaks. There will be a fair amount of air in the rear system. Refer to instructions for bleeding procedures. You should now get 1000-1200 PSI brake line pressure.

A128-7 (for 1997-04 models only)

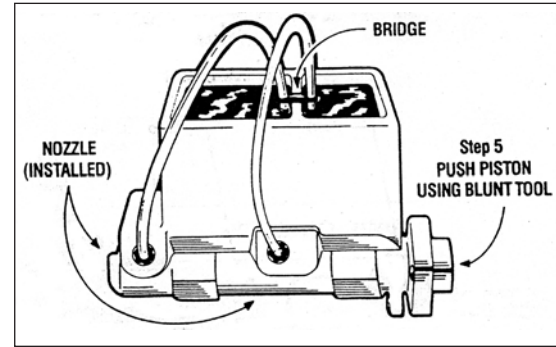
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How and why do I bench bleed a master cylinder?

When installing or replacing a master cylinder, it is critical that all air is removed from the master cylinder. This can easily be done by bench bleeding the master cylinder prior to installation. Using the SSBC-USA master cylinder bleeder kit (#0460):



- 1) Place your master cylinder in a vise by the ears (not body). Make sure it is level.
- 2) Attach a piece of clear plastic hose to the short end of one of the plastic nozzles. Do the same to the other hose and nozzle.
- 3) Clip the plastic bridge to the wall and push the ends of the hose through the holes so they are SUBMERGED in the reservoir on either side of the wall.
- 4) Press the tapered end of the nozzle FIRMLY into the cylinder port hole with a twisting motion. Repeat this procedure on the other port hole.
- 5) Fill the reservoir with CLEAN brake fluid recommended by the manufacturer.
- 6) Using full strokes, push the piston in, then release. Do this until ALL the air bubbles have disappeared from the clear plastic hose. **(CAUTION-MASTER CYLINDER WILL NOT BLEED PROPERLY UNLESS HOSES ARE SUBMERGED IN BRAKE FLUID UNTIL THE BLEEDING PROCESS IS COMPLETED.)**

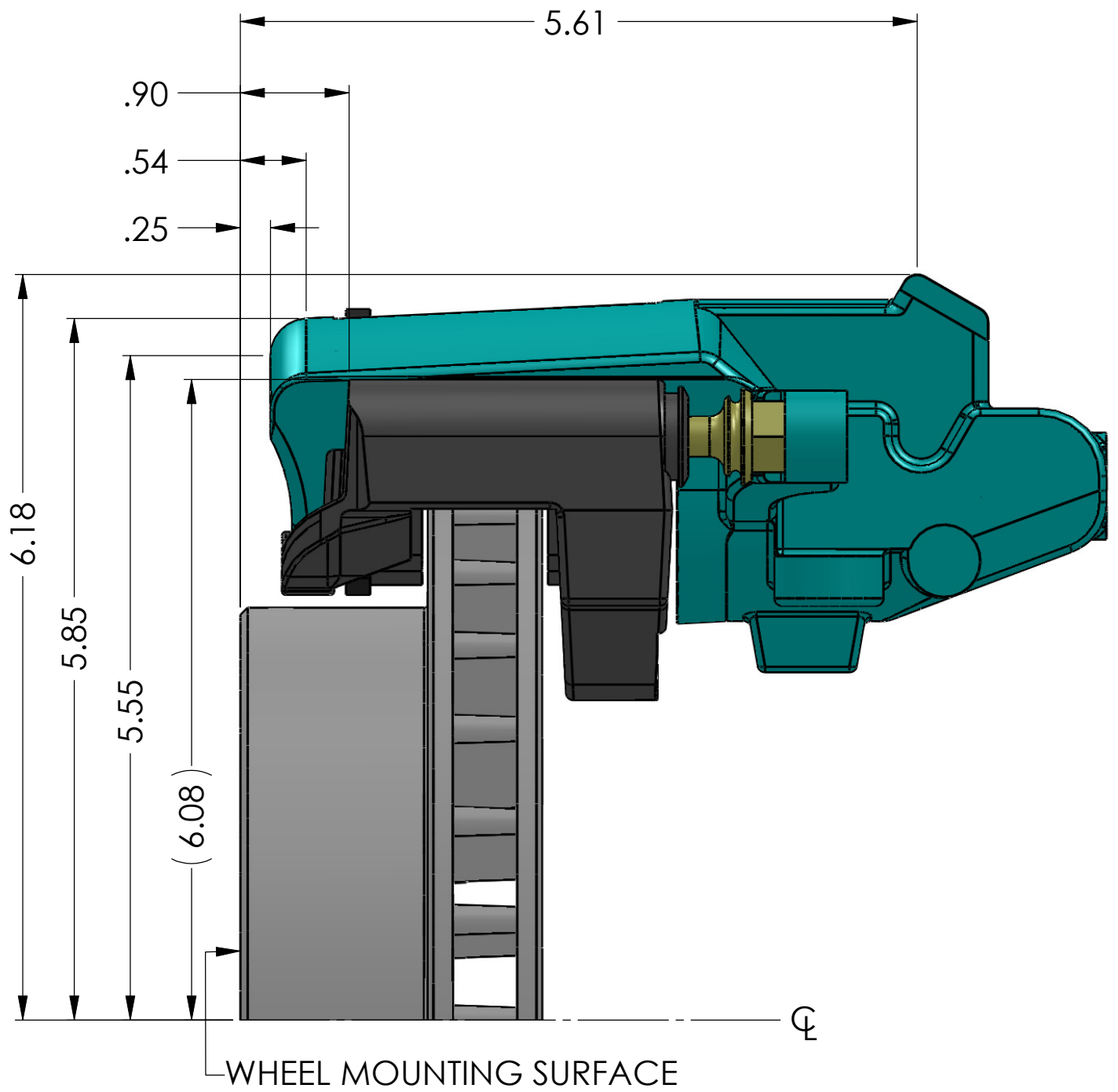
Now mount master cylinder and avoid brake fluid leaking out of front and rear ports during installation.

Bleeding steps for Dual Port Master Cylinder

If you have a master cylinder with dual port holes (4 port holes - 2 on each side), it is necessary to bleed both port sides of the master cylinder. If both sides of the master cylinder are not bled, there will be air trapped in the master cylinder and your brakes will not function properly.

To bleed dual port master cylinders:

- 1) Follow steps 1 - 6 above on the side you will be hooking the brake lines to. Plug the other side.
- 2) Once the air bubbles are no longer visible in the plastic hose, open the bleeder screws in the supplied plugs and allow the mater cylinder to gravity bleed. **DO NOT** push the master cylinder piston in while the plugs are gravity bleeding.
- 3) When clear, steady streams of fluid are coming out of both bleeders, close and tighten the bleeders. Give the master cylinder piston several strokes, making sure there are still no bubbles present in the clear plastic tubes.
- 4) Remove the tubes and plastic fittings and mount the master cylinder on the vehicle being careful not to spill brake fluid on any painted surfaces.



DIMENSIONS ARE IN INCHES

TEMPLATE NO.
T-038

DO NOT SCALE
DRAWING

REV
-

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