



INSTALLATION INSTRUCTIONS

REAR DISC CONVERSION KIT A128-4

1997-2004 JEEP WRANGLER (TJ) WITH DANA 44 AXLES (non-ABS)

Thank you for choosing STAINLESS STEEL BRAKES 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 716-759-8666.

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

These kit uses the following pads:

SSBC#: 1047

FMSI#: D-347

Revision 6 3/22/12

- 1) Raise the car until the wheels and tires clear the floor. Support car on jack stands. Make sure parking brake is in the off position. Remove wheel and tire assembly.
- 2) Remove drum assembly as follows:
 - a) Remove retainer clips and pull brake drum from axle.
 - b) Disconnect parking brake cable from backing plate.
 - c) Disconnect rigid brake line from the back of the wheel cylinders, 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!

- 3) Removing axles and backing plates:
 - a) Remove four nuts that secure the backing plate to the axle housing. Direct access to the nuts is thru a single hole in the axle flange.
 - b) Pull axle shafts from axle tube. Slight tapping with hammer may be required.
 - c) Remove shoes, hardware and backing plate as an assembly and discard.
 - d) If lug studs will be replaced, this is the time to do so. (See # 7) If not, continue to step "e".
 - e) Reinstall axle into axle tube and make sure that oil seal is bottomed in tube counter bore
 - f) Install the brackets onto the housing studs. You should be installing one half marked A2427A and one marked A2427B on each side. The top of the bracket will tip towards the front of the truck.
 - g) Next slide the factory bearing retainer over the studs and install the factory nuts. Torque to 40-45 ft. lbs.
 - h) Install the 7/16"-24 x 2" bolts from the outside into the four bolt holes in each mounting plate.
 - i) Slide one of the 1/2" spacers over each mounting bolt.
 - j) Install the caliper mounting straps on the four mounting bolts. Note that the straps are not the same length. The longer strap will go on the bottom and the shorter one will go on the top. The straps will point towards the rear of the car and the ends will point in towards each other.
 - k) Install the 7/16"-24 elastic stop nuts on the bolts and torque them to 65-70 ft / lbs.
- 4) Rotors:
 - a) Clean the rotors thoroughly with brake cleaner to remove packing material.
 - b) Slide the rotors onto the end of the axle shafts and secure them with at least on lug nut.
- 5) Caliper Mounting:
 - a) The calipers will be mounted with the parking brake levers on top and the bleeder screws pointing down. The bleeder fittings in the flex hose banjo bolts will be used to bleed the calipers.
 - b) Attach the flex hose to caliper using the hollow banjo bolt and copper washers supplied. Orient the hoses so they will point towards the rear end housing and torque the banjo bolts to 20-30 ft / lbs.

- 6) Parking brake cables.
- Run the inner cable through the eyelet in the caliper and hook it into the parking brake lever. This will show you where the end of the outer housing will end up. You can then install the "L" bracket onto the bolt closest to the end of the cable.
 - Next remove the cable from the caliper, run it through the "L" bracket then re-install it into the parking brake lever.



NOTE: THE CABLE SPRING MUST BE PULLED BACK TO ALLOW PROPER ENGAGEMENT TO ARM.

TIP: WE SUGGEST THAT THE CABLE ADJUSTMENT BE LENGTHENED AND/OR THE CABLE SUPPORT BRACKET TEMPORARILY REMOVED.

- 7) Replacing lug studs (optional):
- If the original equipment wheels are to be used, the lug studs provided by the factory are adequate for street use. However, if aftermarket wheels will be used, it is important to assure that after wheel installation there is at least 1 bolt diameter engagement on the lug nuts. For this reason, an extra set of longer studs is provided in the kit.
 - To replace lug studs, press or hammer original studs out of axle flange.
 - Install the new studs supplied with kit by pressing studs into place. If you do not have a press available most local machine shops will be able to perform this operation.



NOTE: BE CAREFUL THAT ALL HYDRAULIC COMPONENTS ARE KEPT CLEAN AND FREE OF DEBRIS INSIDE AND OUT. REMEMBER: DIRT IS THE ENEMY HYDRAULIC SYSTEMS.

- 8) Distribution Block:
- Unscrew plug from front side of distribution block. BE CAREFUL...it is spring loaded. Inside the unit is a spring and piston with a seal. Pull out piston and spring and discard the spring and rubber seal on the piston.
 - Reassemble, using only the bare piston. Screw plug back into the block. See page 6 for step by step instructions.



THE MASTER CYLINDER MUST BE BENCH BLEED PRIOR TO INSTALLATION.

- 9) Master Cylinder:
- 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.
 - Fully remove master cylinder from booster (it may be necessary to disconnect distribution block lines and other components mounted on the fender well, in order to get necessary clearance as the master cylinder push rod protrudes into the booster by several inches).

- c) From inside the vehicle, fully depress brake pedal so the booster output rod nut is accessible (an assistant is a valuable help here).
- d) While securely holding the knurled portion of the rod, lengthen the rod by 1 to 1-1/4 turns (6mm wrench).
- e) Mount the new master cylinder and any other removed components.

10) Bleeding the 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) Final Inspection:

- a) Before driving, screw at least two lug nuts on lug studs to hold rotor firmly to axle flange.
- b) Spin rotor to check operation.
- d) Check for fluid leaks at every junction while an assistant is applying brake pressure.

- 12) Final Assembly:
- a) Take lug nuts off studs.
 - b) Mount wheel, torque lug nuts to proper specifications.
 - c) Spin wheel to assure that there are no interferences.
 - d) Test drive and apply brakes firmly several times to wear in pads.

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

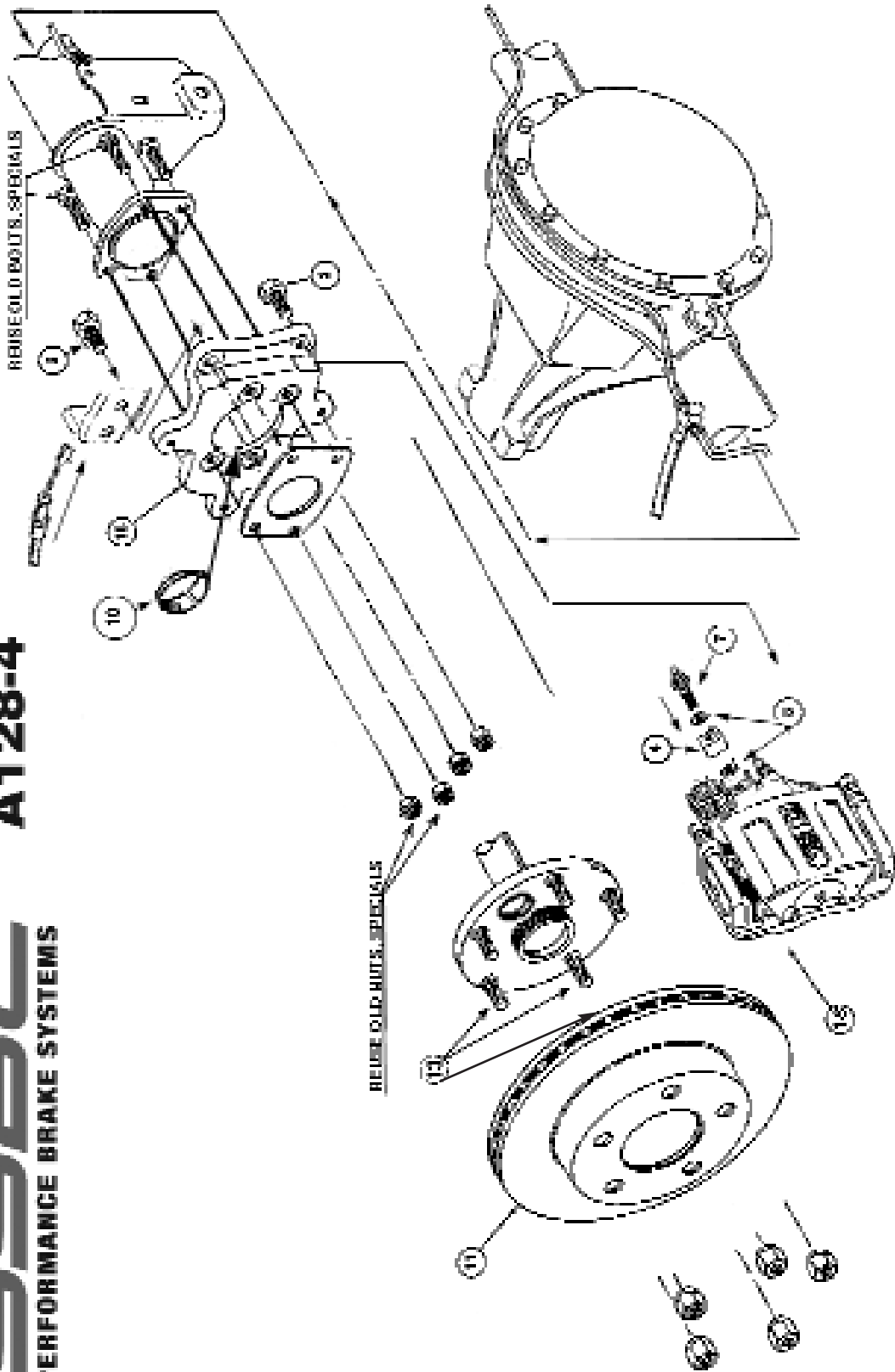
DRIVE IN TRAFFIC UNTIL THE BRAKES SAFELY STOP THE CAR A SAFE DISTANCE WITHOUT A SPONGY PEDAL FEEL!

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

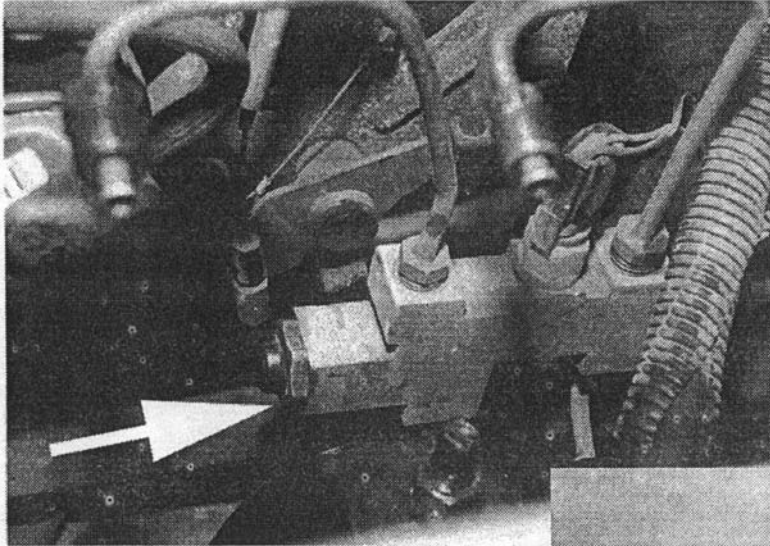
NOTE: For frequently asked questions and technical reference information please visit the tech section of our website at www.ssbrakes.com.

TECH LINE -- If technical help is required, please call 716-759-8666.

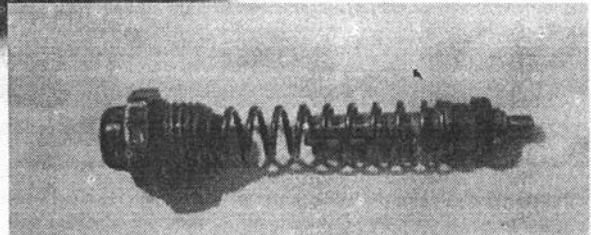
NOW ENJOY TRUE PERFORMANCE BRAKING!!



Proportioning Valve Removal For Full Rear Brake Line Pressure



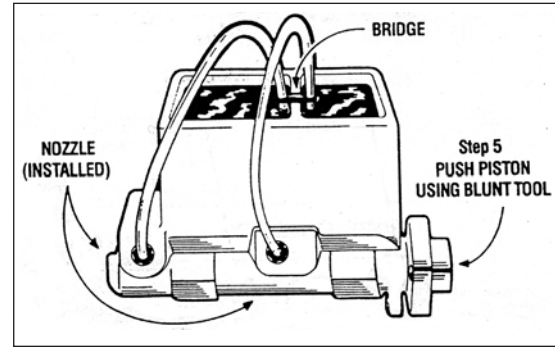
ARROW INDICATES WHICH
PLUG TO REMOVE



- 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.

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 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.)**

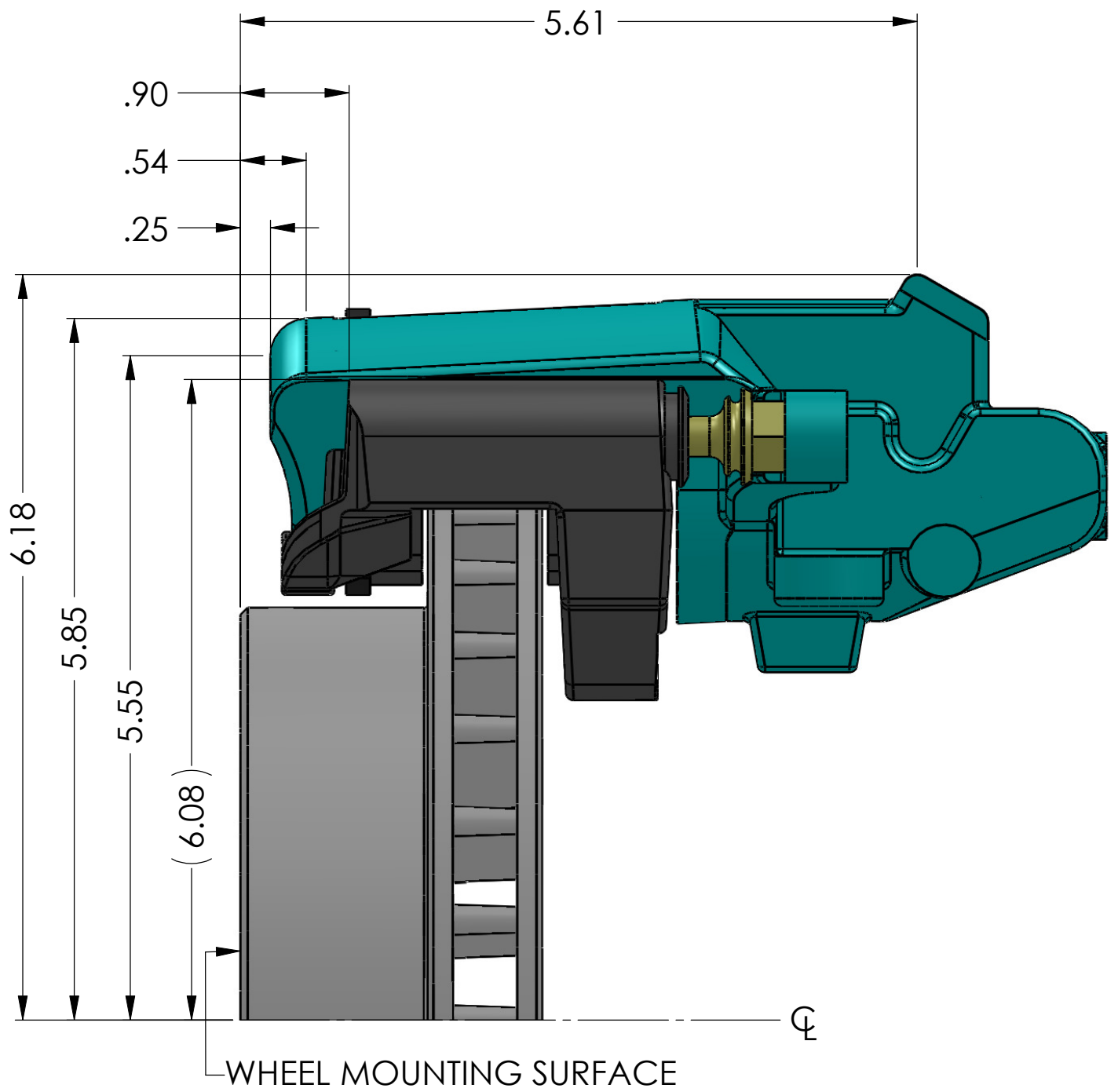
Now mount master cylinder and avoid brake fluid leaking out of front and rear ports during installation.

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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SSBC

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