



# INSTALLATION INSTRUCTIONS

REAR DISC BRAKE CONVERSION KIT A125-3

1965-72 GM A-BODY 10 & 12 BOLT AXLES

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Thank you for choosing [STAINLESS STEEL BRAKES](#) CORPORATION 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

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**  
**MALLET**  
**TUBE WRENCHES**  
**BRAKE FLUID**  
**GEAR OIL**

**These kits use the following pads:**

**SSBC#: 1047**  
**FMSI#: D-347**

**TIP: BEFORE BEGINNING INSTALLATION, SPRAY ALL FITTINGS & FASTENERS WITH PENETRATING OIL.**



**MOST EARLY CARS (1955-64) WERE EQUIPPED WITH NON “C” CLIP AXLES WHILE MOST LATER CARS (1965-72) WERE EQUIPPED WITH “C” AXLE RETAINERS. DEPENDING ON WHICH TYPE OF AXLE YOU ARE INSTALLING THE KIT ONTO, SOME OF THE INSTALLATION STEPS WILL BE DIFFERENT. PLEASE READ ALL THE INSTALLATION STEPS CAREFULLY TO BE SURE YOU ARE FOLLOWING ALL THE STEPS THAT APPLY TO YOUR AXLE.**

### **1) Drum Brake Removal**

- a) Raise the car until the tires and wheels clear the floor and support the car on jack stands. Remove the tires and wheel assemblies from the drum.
- b) Pull the brake drums off the axle shafts. If the brake drum will not come off easily, retract the shoes by inserting a narrow screwdriver through the adjusting slot in the backing plate and back off the adjusting screw.
- c) Remove the brake shoes and all the hardware.
- d) Disconnect parking brake cable from the actuator and pull through the backing plate after compressing the retaining clip.
- e) Disconnect the rigid brake line from the back of the wheel cylinder. Always use a tube wrench on brake lines so not to strip the tube nut.

### **2) Removal of the Axles & Backing Plates**

#### **“C” Clip Axles**

- a) Remove differential cover and drain all fluid into a drain pan.
- b) Remove pinion shaft lock bolt (7mm) and slide the pinion lock shaft out of the rearend housing.
- c) Push the axle shafts inward and remove the “C” locks from the ends of the axle shafts.
- d) Carefully pull the axle shafts out of the rearend being careful not to damage the axle bearings or seals.
- e) Remove the four nuts and bolts from the drum backing plates and remove the backing plates.

#### **Non “C” Clip Axles**

- a) Remove the four bolts that secure the backing plate to the rearend.
- b) Carefully slide the axle shafts out of the rearend being careful not to damage the axle bearings or seals.
- c) Remove the backing plates and discard.

### **3) Lower Shock Mount**

- a) Unbolt the shock absorbers from the lower shock stud. Then remove the stud from the rear axle.
- b) Install the offset lower shock mount on the axle using the 12mm loctite coated bolt and flat washer supplied. Torque to 65-70 ft/lbs.
- c) Install the lower shock stud into the offset mount and reinstall the shock on to the stud. Torque to 65-70 ft/lbs.

#### 4) Installation of Caliper Mounting Brackets

##### “C” Clip Axles

- a) The caliper mounting brackets are identical. When they are mounted to the end of the axle tube, the top edge should tilt towards the front of the vehicle.
- b) Secure the brackets to the ends of the axle using the 3/8” bolts and elastic stop nuts supplied with the kit. Torque the bolts to 40 ft/lbs.
- c) Carefully slide the axle shafts back into the housing and reinstall the C-clips, pinion lock shaft and pinion lock bolt in the reverse of removed.



**BE SURE TO INSTALL A NEW DIFFERENTIAL GASKET AND REFILL THE REAREND WITH THE PROPER GEAR OIL TO THE PROPER LEVEL.**

##### Non “C” Clip Axles

- a) The caliper mounting brackets are identical. When they are mounted to the end of the axle tube, the top edge should tilt towards the front of the vehicle.
- b) Carefully slide the axle shafts back into the rearend housing until the bearing slides into the mounting bracket. Install two of the split shims into the center hole of the caliper mounting bracket. These shims will take up the extra thickness of the mounting bracket to keep the end play within specifications.
- c) Slide the axle the rest of the way into the rearend housing thereby sandwiching the caliper mounting bracket between the end of the axle housing and the bearing retainer plate.
- d) Secure the assembly using the 3/8”-24 bolts and elastic stop nuts supplied. Torque the bolts to 40 ft / lbs.

#### 5) Caliper Strap Brackets

- a) Install the 7/16”-24 x 2” bolts from the outside into the four bolt holes in each mounting plate.
- b) On the backside of the plate, slide one of the 1/2” tubular spacers over each of the bolts.
- c) 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.
- d) Install the 7/16”-24 elastic stop nuts on the bolts and torque them to 65-70 ft / lbs.

#### 6) 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.

#### 7) 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 rearend housing and torque the banjo bolts to 20-30 ft / lbs.



**NOTE: The parking brake cable L-brackets will be installed on the upper caliper mounting bolts.**

## 8) Brake Lines

- a) Remove the original steel lines from the rear flex hose. Always use a tube wrench on brake lines.
- b) Install the new steel lines supplied with the kit and bend them so they can be connected to the flex hoses on the calipers. Secure the steel lines to the housing using the steel clips which held the original lines.



**MAKE SURE THE FLEX HOSES TAKE A SMOOTH BEND AND DO NOT BECOME KINKED OR TWISTED.**

## 9) Master Cylinder and Proportioning Valve

- a) The car must be equipped with a dual bowl master cylinder. If for any reason the car is still equipped with a single bowl master cylinder, contact SSBC or your distributor for the availability of a dual bowl master cylinder.
- b) Install the brass adapters into the (optional) adjustable proportioning valve. The valve can be installed anywhere in the brake line going to the rear brakes as long as it's before the rear flex hose and after the brass distribution block, if one is being used (P/N A0707).

## 10) Parking Brake Cables

- a) Slide the parking brake cables through the cable L-brackets and lock the outer housing into the bracket.
- b) Slide the inner cable through the caliper casting. Compress the cable spring and lock the end of the cable into the parking brake lever of the caliper.



**NOTE: It may be necessary to let all the slack out of the cables to complete this step.**

***IF YOUR STOCK PARKING BRAKE CABLES ARE NOT COMPATIBLE, IT MAY BE NECESSARY TO PURCHASE OTHER CABLES OR HAVE CUSTOM CABLES MADE. THESE PARTS ARE NOT AVAILABLE FROM SSBC.***

## 11) 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.
- 6) Pedal end play can be adjusted under the dash on non power cars and between the booster and master on power brake cars.

## 12) Parking Brake Adjustment

- a) The caliper pistons adjust hydraulically by pumping the pedal. When a hard pedal is achieved, there should be a clearance between the pads and rotors is 1/32-1/16".



**IF PISTON HAS BEEN EXTENDED TOO FAR, TURN PISTON BACK INTO CALIPER. IF DESIRED, USE SPECIAL TOOL KD-2545 AVAILABLE AT MOST PARTS STORES. A PAIR OF NEEDLE NOSE PLIERS WILL ALSO WORK.**

- 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.
- 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) The rear brake pressure can be adjusted by turning the knob on the adjustable proportioning valve. It should be adjusted so the rear brakes do not lock up before the fronts.

**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!**

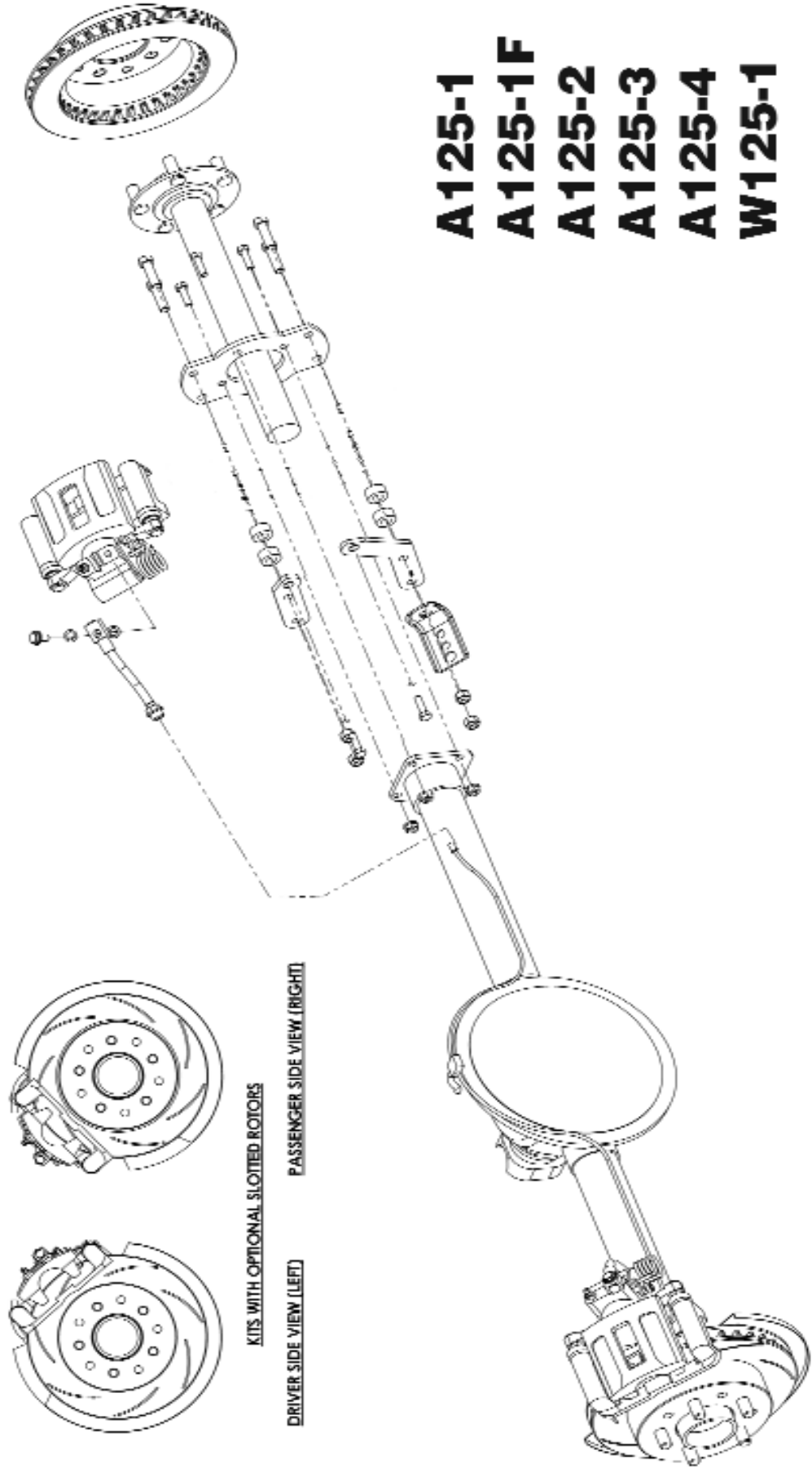
**NOW ENJOY TRUE PERFORMANCE BRAKING!!**

## **REPLACEMENT PARTS & SPECIFICATIONS**

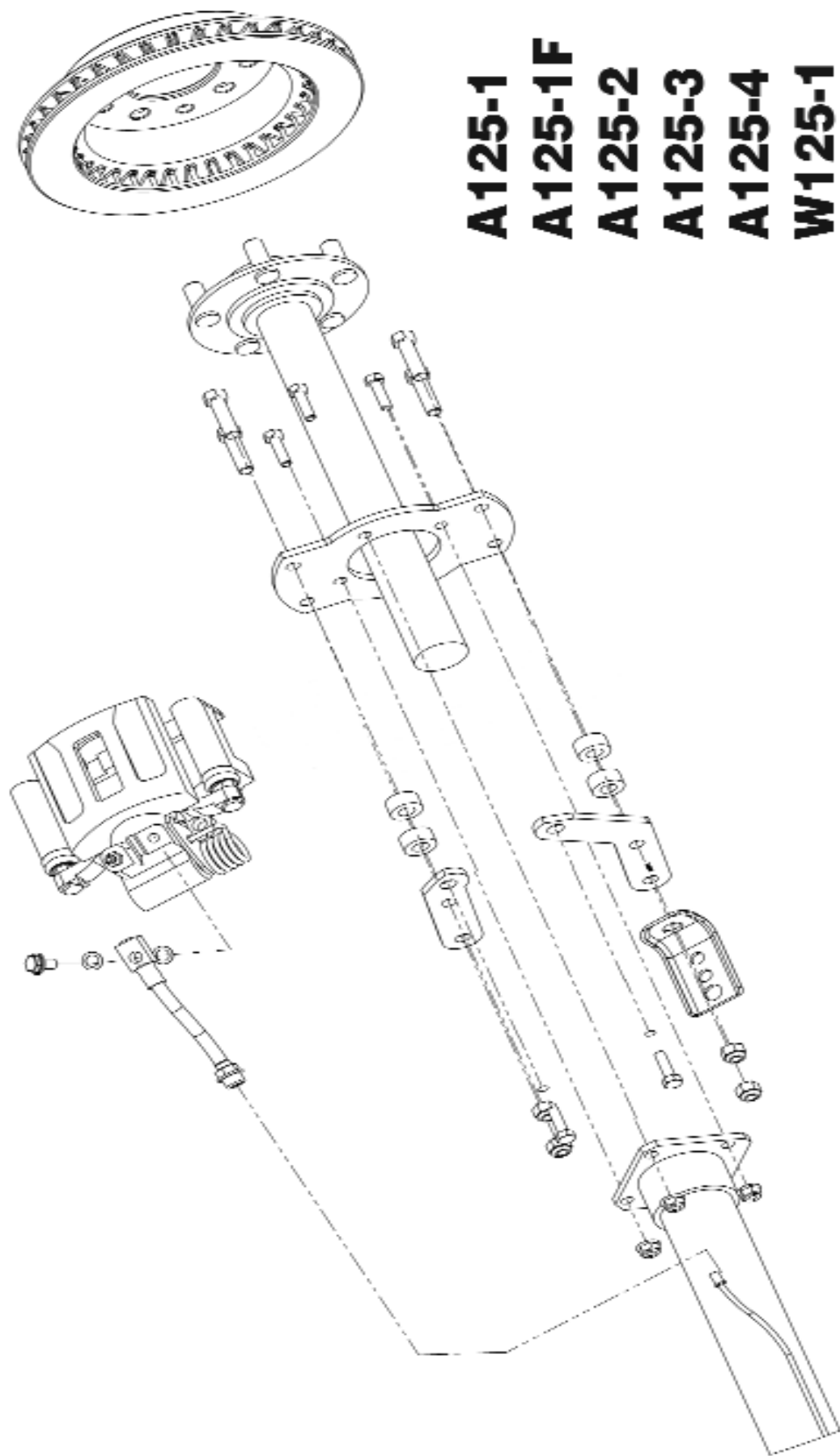
The calipers and brake pads used in this conversion kit are the same as those used from the factory on 1987-88 Ford Thunderbird Turbo Coupe. If you have a problem locating replacement pads, have your parts store reference the F.M.S.I. #D347. If you should need replacement rotors, they are only available from your distributor or **STAINLESS STEEL BRAKES CORPORATION** directly.

If you are using or ever plan on using aftermarket axle shafts, the following rotor dimensions will be important to keep in mind.

ROTOR HAT INNER DIAMETER	-	6.330"
ROTOR HAT THICKNESS	-	.240"
PILOT HOLE INNER DIAMETER	-	2.840"



**A125-1**  
**A125-1F**  
**A125-2**  
**A125-3**  
**A125-4**  
**W125-1**

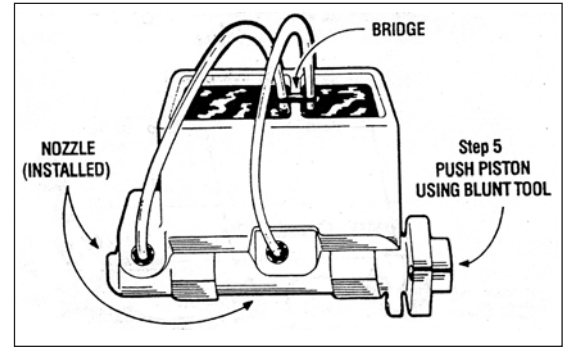




# How and why do I bench bleed a master cylinder?

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.)**



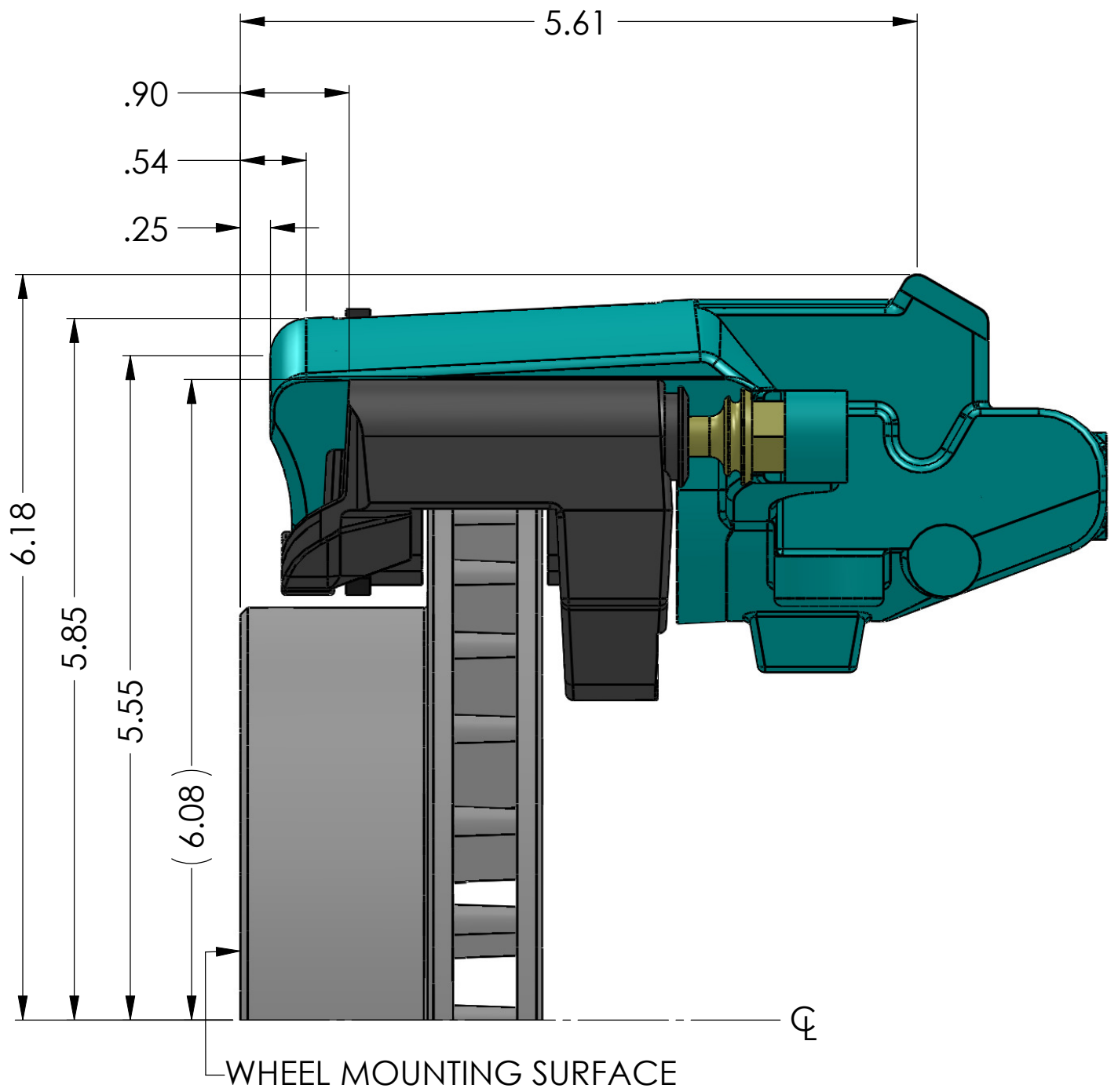
Now mount master cylinder and avoid brake fluid leaking out of front and rear ports during installation.

## 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 master 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  
-

**SSBC**  
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