



# INSTALLATION INSTRUCTIONS

REAR DISC BRAKE CONVERSION KIT A125-4HD

1971-96 CAPRICE AND IMPALA

FOR BOTH SMALL AND LARGE FLANGE AXLES

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**  
**GEAR OIL**

## REPLACEMENT PARTS

<u>Part</u>	<u>SSBC-USA</u>
Pads	1047
Left Rotor	23031AE1A
Right Rotor	23031AE1A
Left Caliper	2424L
Right Caliper	2424R
Hoses	14335-1



**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.**

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**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**

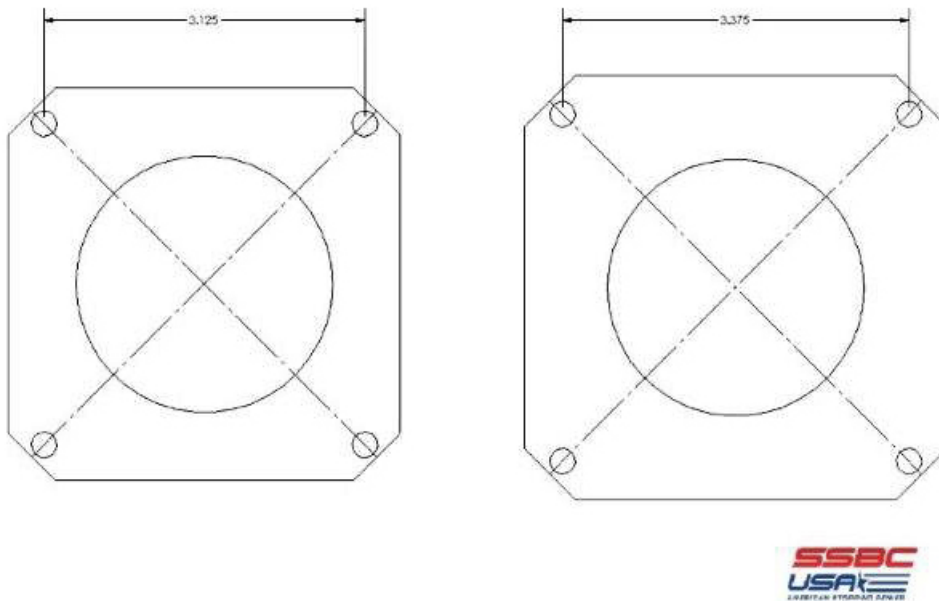
**tech@ssbc-usa.com  
info@ssbc-usa.com**

## READ FIRST - IMPORTANT INSTALLATION INFORMATION

### SSBC-USA REAR DISC CONVERSION KIT A125-4HD

The SSBC-USA rear disc brake conversion kit **A125-4HD** for 1971-1996 GM full size passenger cars including Estate Wagons and Police/Taxi applications are designed to fit 5 X 5 bolt pattern axles/wheels, as well as 5 X 4-3/4 bolt pattern axles/wheels.

**There are two different rear axle flange patterns found on these vehicles.** SSBC-USA kit A125-4HD includes caliper mounting brackets to fit both the **smaller** axle flange and the **larger** flange as shown below:



**Measure the rear axle flange bolt pattern and select the appropriate axle flange brackets for your vehicle.**

The caliper mounting brackets used for the smaller axle flange pattern included in this kit are stamped with Part Number A2418L and measure:

- 3.125" Center to Center across the top bolts
- 2.625" Center to Center across the bottom bolts
- 2.437" Center to Center Up-Down bolts

The caliper mounting brackets used for the larger axle flange pattern included in this kit are stamped with Part Numbers A2427iL Left side and A2427iR Right side and measure:

- 3.75" Center to Center across the top bolts
- 3.00" Center to Center across the bottom bolts
- 2.50" Center to Center Up-Down bolts

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

**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 tire and wheel assemblies from the drums.
- b) Slide the brake drums off the ends of the axles. If the drums 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 and plenty of penetrating oil.



**BE CAREFUL NOT TO GET BRAKE FLUID ON THE PAINT. IT CAN CAUSE SEVERE DAMAGE.**

**2) Drum Backing Plate and Axle Shaft Removal**

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

**3) Installation of Caliper Mounting Brackets**

- a) Select the correct caliper mounting bracket (refer to previous page). When they are mounted to the end of the axle tube, the top edge should tilt towards the front of the car.
- 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) Slide one of the 7/16” bolts supplied into each of the four holes on the outside of the caliper mounting bracket. These bolts should be installed from the outside.
- d) On the backside of the mounting bracket, install one of the .875” tubular spacers over each of the bolts.
- e) Install the caliper mounting straps over the bolts so the straps face the rear of the car and the ends point towards each other.
- f) Install the parking brake cable L-brackets onto the upper front bolts on both sides of the car.
- g) Secure the assembly with the 7/16” elastic stop nuts and torque the bolts to 60-80 ft/lbs.

**4) Installation of Axles Shafts and Rotors**

- a) Slide the axle shafts carefully back into the rearend housing. Reinstall the C-clips,

pinion lock shaft and pinion lock bolt in the reverse of removal.



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

- b) Clean the rotor thoroughly with brake cleaner to remove the packing material.
- c) Slide the rotors into position on the ends of the axle shafts and secure them with at least one lug nut.

#### **5) Caliper Mounting**

- a) Install the hollow block end of the flex hoses onto the caliper using the hollow banjo bolts with bleeder screws and copper washers provided with the kit. Orient the hoses so they will point towards the axle tube and torque the banjo bolts to 20-30 ft / lbs.
- b) Place calipers over the rotors with the parking brake levers on top. Note that the bleeder screws in the banjo bolts will be used for bleeding the calipers not the bleeders in the caliper castings. Secure the calipers to the mounting straps using the 12mm bolts supplied. Torque the bolts to 80-100 ft / lbs.

#### **6) Brake Lines**

- a) Remove the original steel lines from the original rear flex hose. Be sure to use a tube wrench and plenty of penetrating oil.
- b) Connect the new steel lines supplied with the kit and bend them so they can be connected to the flex hoses at the caliper.
- c) Secure the new lines to the axles with the original line clips that are welded to the axle.



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

#### **7) Parking Brake Cable**

- a) Pass the parking brake cable over the rear axle and through the L-bracket and lock the outer cable housing into the L-bracket.
- b) Slide the inner cable through the caliper casting and compress the cable spring and slide the end of the cable into the parking brake lever on the caliper.



**NOTE: IT MAY BE HELPFUL TO LET ALL THE SLACK OUT OF THE PARKING BRAKE CABLE ADJUSTER UNDER THE CAR TO COMPLETE THE CABLE INSTALLATION.**

#### **8) 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 fluid is recommended.

- 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.

#### 9) Parking Brake Adjustment

- a) Advance pistons of calipers so that clearance between pads and rotors is 1/32-1/16". Piston should be advanced using hydraulic system instead of parking brake levers. About 40 pumps of the pedal are required to extend the pistons to the correct clearance.



**IF PISTON HAS BEEN EXTENDED TOO FAR, TURN PISTON BACK INTO CALIPER. USE A PAIR OF NEEDLE NOSE PLIERS OR A BRAKE CALIPER 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 when the parking brake handle is in the released position.
- 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 on the calipers returns all the way when the parking brake handle 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 is no interference 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.

**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!**

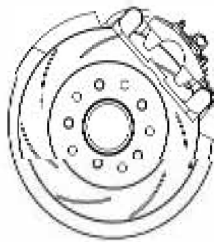
**BRAKING TESTS SHOULD ALWAYS BE DONE IN A SAFE OPEN AREA!**

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

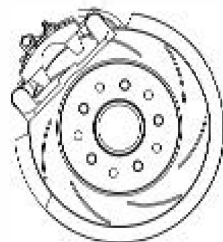
**NOW ENJOY TRUE PERFORMANCE BRAKING!!**



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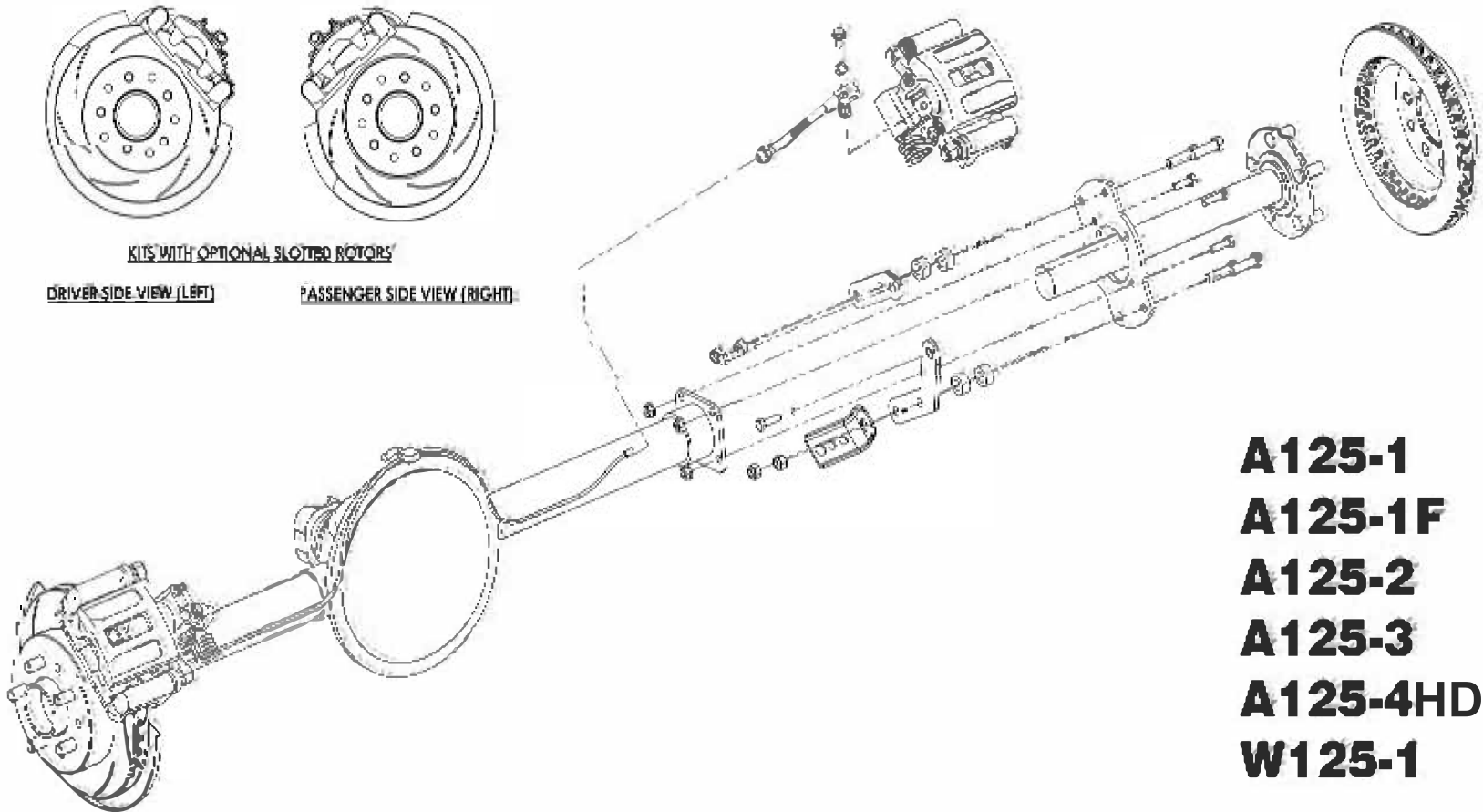


DRIVER-SIDE VIEW (LEFT)



PASSENGER-SIDE VIEW (RIGHT)

KITS WITH OPTIONAL SLOTTED ROTORS

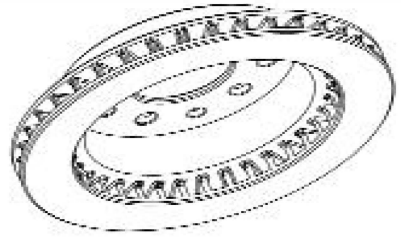


- A125-1**
- A125-1F**
- A125-2**
- A125-3**
- A125-4HD**
- W125-1**

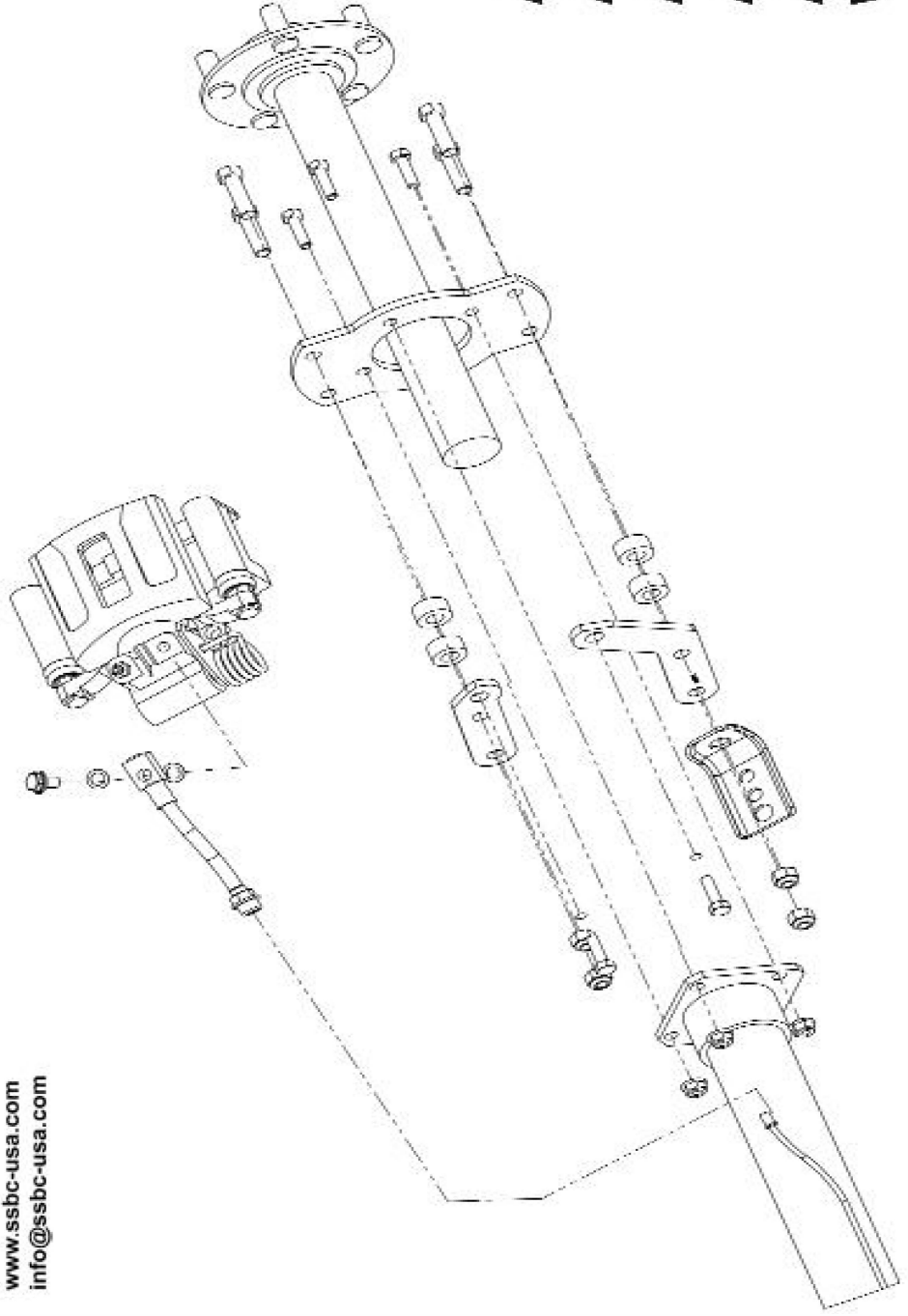


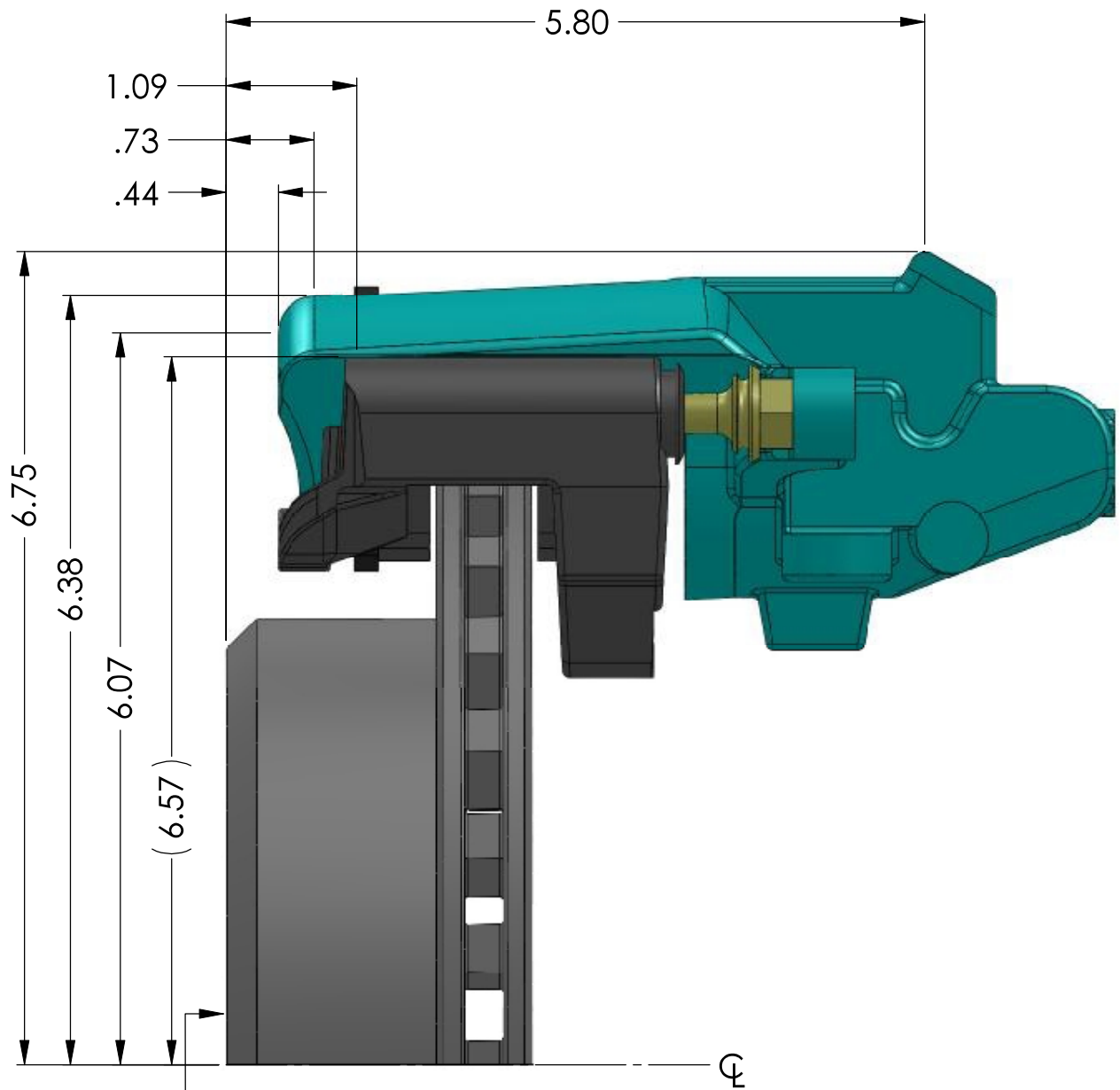


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- A125-1**
- A125-1F**
- A125-2**
- A125-3**
- A125-4**
- W125-1**





WHEEL MOUNTING SURFACE

DIMENSIONS ARE IN INCHES		
TEMPLATE NO. T-042	DO NOT SCALE DRAWING	REV -
 <p>AMERICAN STOPPING POWER ELMA, NEW YORK 14009 (716) 725-0700 WWW.SSBC-USA.COM</p>		



## **SSBC-USA TECHNICAL SERVICE BULLETIN**

### **SSBC-USA REAR DISC BRAKE CONVERSION KITS:**

A125-4  
A125-4R  
A125-4BK

### **APPLICATIONS/DETAILS:**

SSBC-USA REAR DISC BRAKE CONVERSION KITS FOR 1971-1996 GM FULL SIZE PASSENGER CARS WITH - 5 X 5 BOLT PATTERN WHEEL STUDS. THERE ARE TWO DIFFERENT REAR AXLE FLANGE PATTERNS FOUND ON THESE VEHICLES. SSBC-USA OFFERS CALIPER MOUNTING BRACKETS TO FIT BOTH AXLE FLANGE PATTERNS. THIS CAN SOLVE THE ISSUE OF RECEIVING AN SSBC-USA REAR DISC BRAKE CONVERSION KIT AND FINDING THE CALIPER MOUNTING BRACKET DOES NOT FIT THE CARS AXLE FLANGE.

THE CALIPER MOUNTING BRACKETS NORMALLY INCLUDED IN THESE KITS FROM SSBC-USA ARE STAMPED WITH PART # **A2418L** AND MEASURE:

3.125" CENTER TO CENTER ACROSS TOP BOLTS  
2.625" CENTER TO CENTER ACROSS BOTTOM BOLTS  
2.437" CENTER TO CENTER UP-DOWN BOLTS

CERTAIN GM FULL SIZE CARS 1971 to 1976 WITH 5 X 5 BOLT PATTERN WHEEL STUDS MIGHT REQUIRE A DIFFERENT AXLE FLANGE BRACKET.

THE ALTERNATE CALIPER MOUNTING BRACKETS ARE SSBC-USA # **A2427iL Left side and A2427iR Right side** AND MEASURE:

3.75 " CENTER TO CENTER ACROSS TOP BOLTS  
3.00 " CENTER TO CENTER ACROSS BOTTOM BOLTS  
2.50 " CENTER TO CENTER UP-DOWN BOLTS

IF YOU REQUIRE ASSISTANCE, PLEASE CONTACT SSBC-USA'S CUSTOMER SERVICE DEPARTMENT TO RECEIVE THE CORRECT CALIPER MOUNTING BRACKETS FOR YOUR VEHICLE.  
1-716-775-6700