



**® Your Complete Performance Brake Supplier!**



## Installation Instructions

Product: SS4 Front Drum 13"

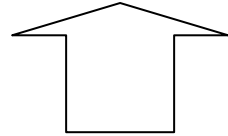
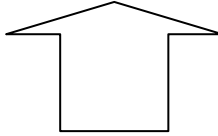
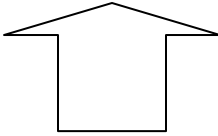
Instruction Part Number: 6000478

Vehicle

Revision Date: 03 January 2014

Make: Ford  
Model: Mustang  
Year(s): 65-73 w/ OE Drum Brakes

**ATTENTION: Read this before going any farther! Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care to prevent cosmetic damage when performing wheel fit check. In the event that a product must be returned, please contact Baer Customer Service for a RMA Number.**



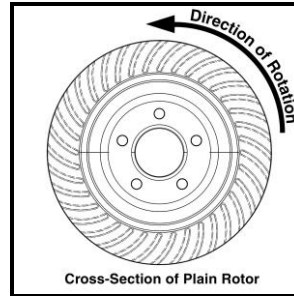
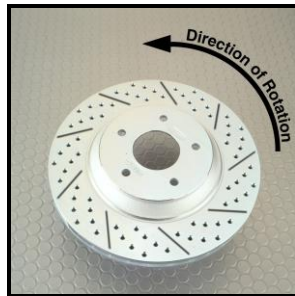
### Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

- All installations require proper safety procedures and protective eyewear.
- All installations assume basic mechanical skill and a factory service manual for the vehicle on which the installation is to be performed.
- All references to the “left” side of the vehicle correlate to the driver’s side of the vehicle.
- Any installation requiring you to remove a wheel or gain access under the vehicle requires use of jack stands appropriate to the weight of the vehicle. In all cases, jack stands rated for a minimum of 2-tons is recommended.
- A selection of hand tools sufficient to engage in the installation of these products is assumed, and is the responsibility of the installer to have in his/her possession prior to beginning this installation. All installations, which require removal of hydraulic hoses and/or bleeding of the brakes, require appropriate fitting/line wrenches, safety catch can, and protective eyewear. Other than these items, if unique or special tools are required they will be stated appropriately in the installation step.
- ALWAYS CONFIRM WHEEL FIT PRIOR TO BEGINNING INSTALLATION OF ANY BRAKE SYSTEM OR “UPSIZED” ROTOR UPGRADE! In addition to checking wheel fitment (available online at [www.baer.com](http://www.baer.com)), always place the actual corner assembly or a combination of the caliper assembly onto the rotor, and into the actual wheel. This procedure will reconfirm proper clearance between the caliper and the wheel before proceeding with the actual installation.
- Returns will **not** be accepted for systems that have been partially or completely installed. Use extreme care when checking wheel fitment to prevent any cosmetic damage.

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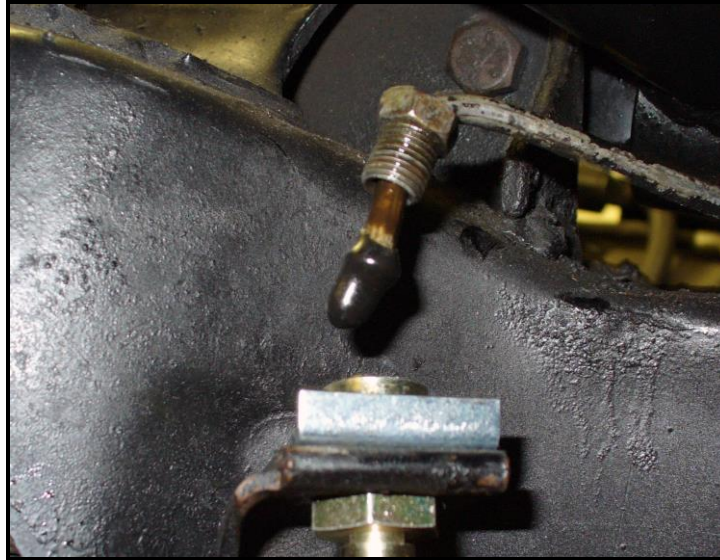
- When installing rotors on any Baer Products be sure to follow the direction of rotation indicated on the rotor hat area with either an arrow, or an “L” for left, or an “R” for right, or both. “L” or left always indicates the driver’s side of US spec vehicles. Images shown are “L” left rotors:



- A proper professional wheel alignment is required for any system requiring replacement of the front spindles, or tie rod ends. Follow factory prescribed procedures and specifications unless otherwise indicated.
- At all times stop the installation if anything is unclear, or the parts require force to install. Consult directly with Baer Technical Staff in such instances to confirm details. Please have these instructions, as well as the part number machined on the component that is proving difficult to install, as well as the make, model, and year (date of vehicle production is preferred) of your vehicle available when you call. Baer’s Tech Staff is available from 8:30-am to 5-pm Mountain Standard Time (Arizona does not observe Daylight Savings Time) at 602 233-1411 Monday through Friday.

## **INSTALLATION:**

1. Disconnect the brake hose from the hardline at the frame using a line wrench. Cap the hardline with the supplied vinyl cap to avoid brake fluid dripping. See, Figure 1 below:



**Figure 1:** Hose lock location and vinyl cap installed

2. Remove the hose lock and disengage the hose from the bracket.

**\*\*Disc Brake Removal:** Remove the bolts retaining the caliper and remove the caliper from the rotor. Remove the dust cap, cotter pin, retainer nut and rotor. **Do not** remove the spindle.

3. Thoroughly clean all attachment points and the spindle pin to insure proper installation of the new components.
4. The caliper position will be behind the spindle pin centerline. Install the base bracket to the spindle using the supplied bolt bag. The brackets are left and right specific. The left, or driver's side carries a part number engraved beginning with the numbers 661, and the right side will begin with the numbers 662. The part number will face outboard. Torque bolts to 45 ft-lbs.

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**Figure 2:** Base bracket mounted to spindle



**Figure 3:** Intermediate bracket bolted to base bracket

5. The intermediate bracket will bolt to the base bracket as shown in the above figures. Install the bracket using the supplied M12-1.75x30 bolts and washers. Just snug these bolts as shimming will need to occur at the latter portion of the installation process.
6. Install the new billet aluminum hub. The new bearings are pre-packed with synthetic grease. Do not add more grease. Apply a small amount of grease to the hub seal surface and install the hub. Tighten the nut to 5-10 ft-lbs and spin the hub to seat the bearings. Loosen and re-tighten the nut while spinning the hub several times. Loosen the nut, tighten to remove all play, tighten approximately 1/16<sup>th</sup> turn or more to align cotter pin holes, to give a small amount of pre-load. Install nut retainer, cotter pin and dust cap.
7. Install the correct side rotor and secure with three lug nuts and washers to avoid scratching the rotor hat. **\*\*Note:** Ensure that the rotor sits flat on the hub register (center of hub).
8. Install the correct side caliper (bleeder screw pointed up) and secure with the supplied M12-1.75x35 bolts and washers. It is recommended to install the caliper without pads to make the shimming process easier.

**Note:** All S4 Calipers are made with dual bleeders for orientation depending on the brake setup.

## Shimming Procedure

Measure the gap from the rotor to caliper body at 4 points, top inside and outside, bottom inside and outside. Write down all measurements. Subtract the top inside measurement from top outside. This will require a shim at the top bracket bolt equal to half of this difference to center the caliper. For instance, inside measurement of .865", outside of .905" has a difference of .040 which would require a .020" shim installed to center. Do the same with the bottom measurements to center this also. Getting these gaps as close as possible within .005" will keep the possibility of excessive noise to a minimum. This may require different thickness shims top and bottom.

**Note:** The purpose of shimming is because there are variations in spindle manufacturing and wear at the bearing seat area of the inner bearing.

### **Procedure**

1. Select the required shims from the kit provided
2. Remove the caliper
3. Loosen the bolts from the intermediate bracket that is connected to the base bracket
4. Install the appropriate shims, removing one bolt at a time, and snug the same bolts for fit check
5. Reinstall the caliper and recheck gap measurements
6. Re-shim if necessary. When proper shimming has been achieved, torque the intermediate bracket bolts to 83 ft-lbs. Finally torque the caliper bolts to 75 ft-lbs.

If you do not have access to a dial caliper, these measurements can be made with pads installed using a feeler gauge between the rotor and pad. Take measurements from top inside and outside, then bottom inside and outside. Minimum clearance is .010" between pad and rotor, but gaps as close to equal as possible at all four locations is best.



**Figure 4:** Location of shims

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9. Lastly, install the steel braid hose with one copper washer on each side of the banjo fitting. Finger tighten the banjo bolt. Connect the hose to the hardline and install the hose lock. **\*\*\*IMPORTANT: Position the hose to avoid interference with the wheel and suspension components through the entire range of motion.** Tighten fitting and banjo bolt to 15-20 ft-lbs.
10. Repeat these steps for the other side and recheck all attachment points and fittings.

For these systems, the use of a 15/16" master cylinder bore is recommended

Refer to Bleeding, and Pad Bedding & Rotor Seasoning Procedures contained on a separate sheet, or on [www.baer.com](http://www.baer.com)

For service components and replacement parts contact your Baer Brake Systems Tech Representative.