®*Your Complete Performance Brake Supplier!*

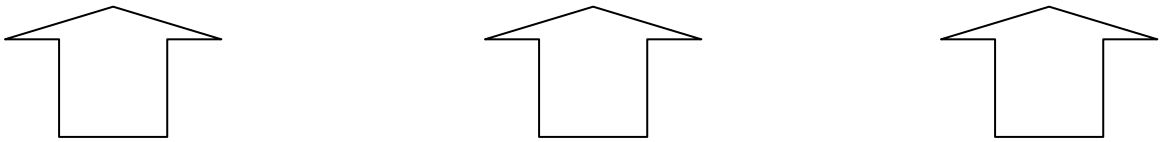
Installation Instructions

Product: SS4+ 11" Front Disc Spindle **Instruction Part Number: 6000491**

Vehicle **Revised: 02 October 2014**

Make: Chrysler
Model: Barracuda / Challenger
Year(s): 70-74 E-body

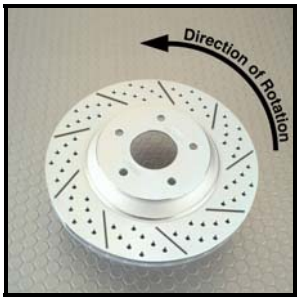
***ATTENTION:* Read this before going any farther! Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care to prevent cosmetic damage when performing wheel fit check. In the event that a product must be returned, please contact Baer Customer Service for a RMA Number.**

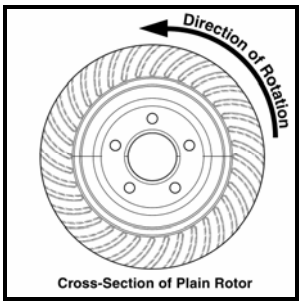


Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

- 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), 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.

- When installing new Baer rotors, 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:



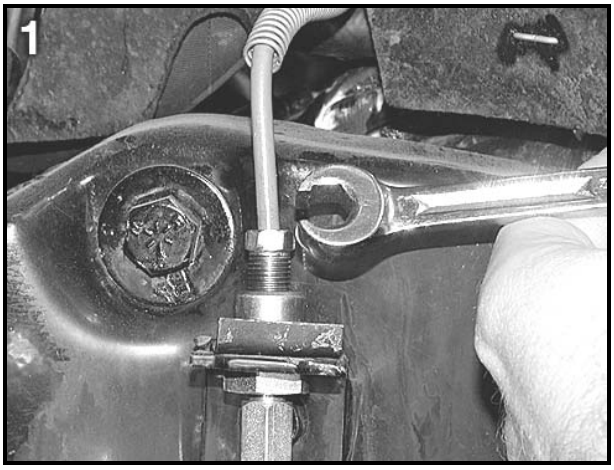


- A proper professional wheel alignment is required for any system requiring replacement of the front spindles, or tie rod ends. Follow factory prescribed procedures and specifications unless otherwise indicated.

- At any point, 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 of the component (part numbers are machined into the brackets) 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 Technical Staff is available from 8:30a.m. - 5:00p.m. Mountain Standard Time (Arizona does not observe Daylight Savings Time) by phone: (602)-233-1411 Monday through Friday.

INSTALLATION:

1. Using a 3/8” line wrench, loosen the brake lines at the frame rails; be careful not to round the corners of the flair nut as shown in Figure 1, below. Use Liquid Wrench or penetrating oil if necessary. Cap hard line with supplied vinyl cap.



2. Remove the clip holding the brake hose to the bracket with a pair of pliers.

3. Remove the bolts from the caliper and slide the caliper with the hose attached, off the rotor.

4. Remove the rotor, clean and inspect the spindle pin for wear and damage.

5. Clean the caliper bracket mount holes located on the spindle, and remove the debris shield. The debris shield will restrict air flow and prevent the rotor from cooling. See Figure 2 for location of the caliper bracket mount holes.

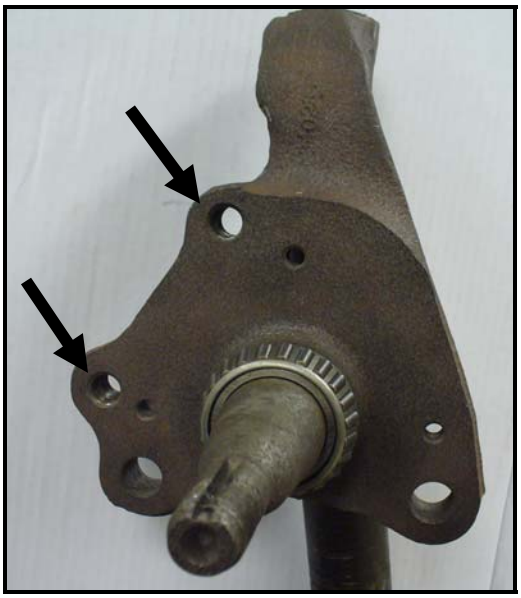


Figure 2: Location of mounting holes

Installation Note: Mopar bodies come with calipers mounted as "leading" (ahead of the axle centerline or pin). If your car is like this, remove the spindles and swap their positions (put the left side on the right and the right side on the left leaving the steering arms in their original side). This now places the caliper behind the spindle, but will not alter the geometry of the suspension. Reattach the steering arm to the spindle with original bolts and nuts. Torque bolts to 160 ft·lbs.

6. Install the intermediate bracket to the spindle using the supplied ½ - 20 X 1.50" Hex bolts and ½" washers. The bracket will mount with the part number facing inboard. Ensure there is enough clearance around the bolt bosses on the spindle to allow the bolt installation. If interference occurs, grind away the material on the spindle until the bracket holes line up with spindle holes. Snug the bolts for now as shimming will be performed towards the latter part of installation. The small amount removed does not affect the strength of the spindle. See Figure 3 for installation reference.

7. 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 1/16th turn or more to align cotter pin holes, to give a small amount of pre-load. Install nut retainer, cotter pin and dust cap. Torque each of the 6-32" Socket Head bolts (used to assemble the dust cap) to 2 ft·lbs. See Figure 4 for reference.

Figure 3: Bracket installed onto passenger side (right) spindle

Figure 4: Hub installed onto the spindle

8. Install the correct side rotor onto the hub and secure with three lug nuts and washers to prevent scratching the rotor hat.

9. With the pads removed, install the caliper (left and right are identical) with the supplied M12-1.75x35mm bolts and washers. Simply tighten the bolts snugly for now. See Figures 5 and 6 for reference.

   Note: All SS4 Calipers are made with dual bleeders to allow installation on either side.

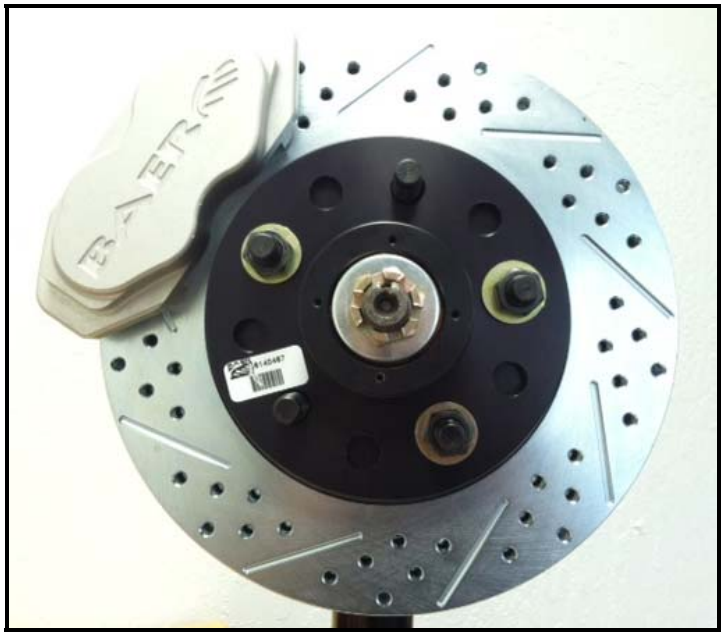


Figure 5: Caliper and rotor installed

Figure 6: Rear view of the caliper and bracket

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 the caliper. 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 to account for 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 intermediate bracket bolts.
4. Install the appropriate shims (between the bracket and spindle), removing one bolt at a time, and snug the same bolts for fit check. See Figure 7 for reference.
5. Reinstall the caliper and recheck gap measurements
6. Re-shim if necessary. When proper shimming has been achieved, torque the ½-20x1.50" bracket bolts to 95 ft·lbs. and the caliper bolts to 85 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 7: Location of shims

10. Finger tighten the steel braid banjo hose end with one copper washer on each side of the banjo fitting into the inside of the caliper. Connect the hose to the hardline at the frame 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. See Figure 8 for reference.

11. Repeat these steps for the other side of the vehicle and be sure to recheck all attachment points and fittings.

Figure 8: Installation of brake hose and washers

Refer to Bleeding and Pad Bedding & Rotor Seasoning Procedures contained on a separate sheet, or on www.baer.com

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