



Installation Instructions

Product: SS4+ 11", Front OE Spindle

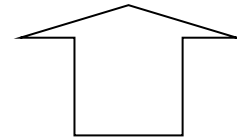
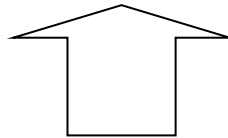
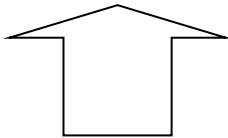
Instruction Part Number: 6000475

Vehicle

Revision Date: 13 January 2014

Make: GM
Model: Full Size (BelAir, Impala, Biscayne, etc.)
Year(s): 69-70

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.



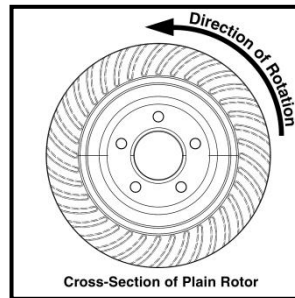
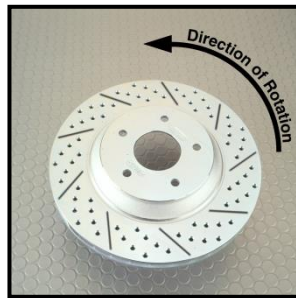
Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

- 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.

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- 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. Disconnect the fluid hose at the frame and cap with the supplied vinyl caps. Using pliers or channel locks, remove the hose lock and slip the hose end out of the frame bracket. See, Figures 1 and 2 below:

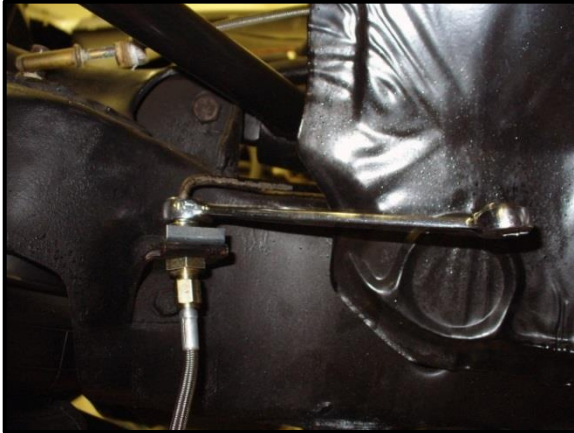


Figure 1: Line wrench on hardline

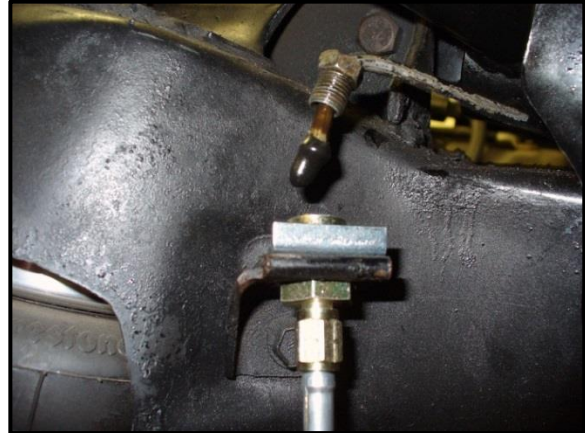


Figure 2: Vinyl cap

2. Remove the tie rod end from the steering arm as the arm may need modification (holes must allow for 1/2" bolts).
3. Remove the brake drum from the spindle. Unbolt and remove the brake backing plate, and all other brake components.
4. The bolt holes in the steering arm and the corresponding spindle holes may need to be enlarged for the supplied 1/2" bolts. Drill to 0.500" for these new bolts.
5. Thoroughly clean the spindle pin and mounting surfaces to allow the new components to seat properly.
6. Install the base bracket to the spindle using the supplied 1/2 x 2.75" bolt for forward hole, 1/2 x 3.00" for rear location. Use the supplied locking nuts contained in the bag with these bolts. Torque to 90 ft-lbs. See, Figure 3 for reference.

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Figure 3: Base bracket installed onto spindle

7. Install the intermediate bracket to the base bracket using the supplied 9/16"-12 x 1 3/4" bolts, washers, and 0.100" spacers. Each 0.100" spacer will reside between both brackets which will relieve the amount of shims that will be placed between the brackets. The bolts need to be tightened, not torqued, due to the shimming procedure in the latter portion of installation. See, Figures 4 and 5 for reference:

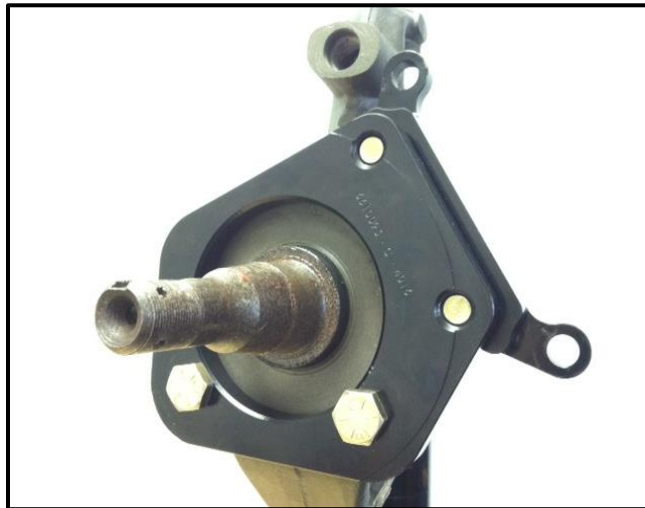


Figure 4: Intermediate bracket installed onto base bracket

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Figure 5: Location of 0.100" spacers

8. Install the new hub. The 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. Place the bearing washer and castle nut supplied with your system on the pin. 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 to give a small amount of pre-load. Install cotter pin and dust cap.

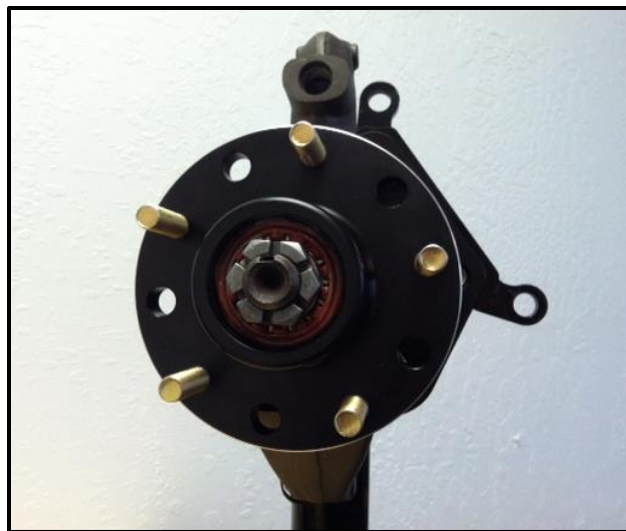


Figure 6: Hub installed onto spindle

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9. Install the correct side rotor using three lug nuts and washers. This will seat the rotor properly onto the hub and will prevent scratching of the rotor hat.

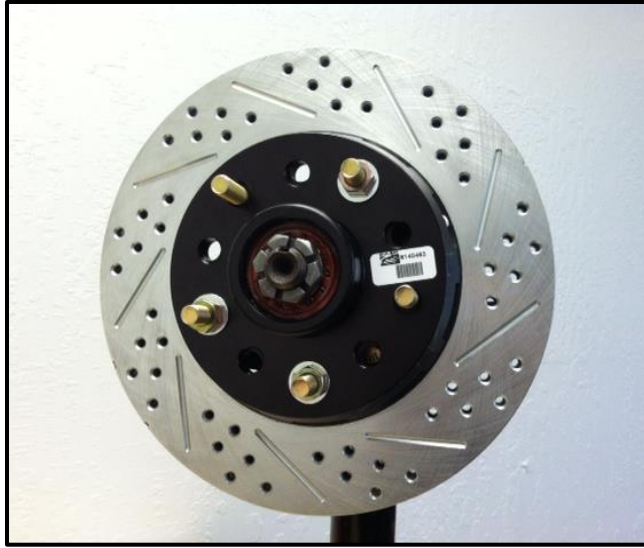


Figure 7: Rotor installed onto hub

10. With pads removed, install the correct side caliper using the supplied M12-1.75x30 bolts and washers. Simply tighten the bolts for now as shimming will occur next.

Note: All SS4 Calipers are built with dual bleeders for orientation, depending on vehicle 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 are 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 9/16"-12 x 1 3/4" bolts to 150 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.

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Figure 8: Location of shims

11. 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.



Figure 9: Crush washers and banjo bolt



Figure 10: Completed install

12. Repeat these steps for the other side and recheck all attachment points and fittings.

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