BAER® *Your Complete Performance Brake Supplier!*

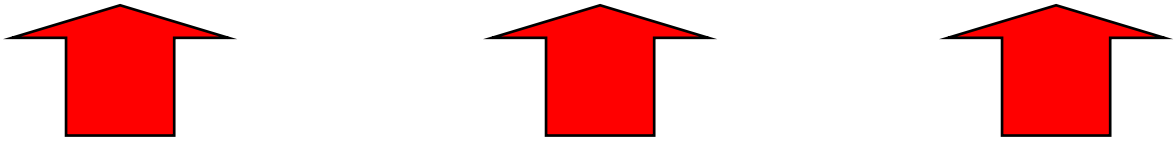
Installation Instructions

Product: Ext+ Front

Instruction Part Number: 6000118
Revision Date: 6 September 2022

Vehicle Make: GM
Model: A / F / X Bodies
Year(s): A: 64-72 / F: 67-69 / X: 68-74

ATTENTION: ***Read this before going further! Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care to prevent cosmetic damage when performing wheel fit check. If a product must be returned, please contact Baer Customer Service for an RMA Number. Always read and follow the notices below before attempting installation***

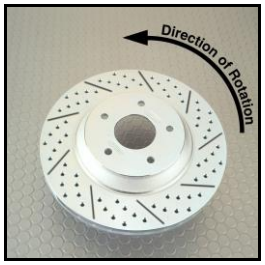


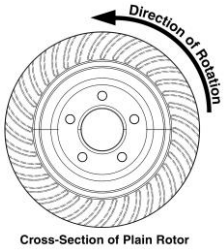
Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

- 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 BEFORE BEGINNING INSTALLATION OF ANY BRAKE SYSTEM OR “UPSIZED” ROTOR UPGRADE! In addition to checking wheel fitment of this system with the wheel fitment template (available online at www.Baer.com), always place the actual corner assembly or a combination of the caliper assembly on the rotor, and into the actual wheel with great care to prevent cosmetic damage. 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 of brake components.** Wheel fitment can also be checked before installation using a wheel fitment template supplied at www.Baer.com.

- 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.
- If anything is unclear or the parts require force to install at any point during the installation, stop immediately and consult directly with Baer Technical Staff. Please have these instructions, as well as the part number of the component (part numbers are machined into the brackets) that is/are 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:

Removal of Factory Brake Components

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 leaking during installation. Remove the hose lock from the tab on the vehicle frame and disengage the hose from the bracket. See, Figure 1, below for reference.

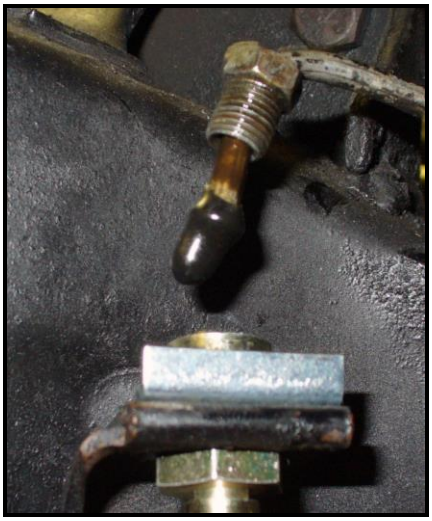


Figure 1: Hose lock location and vinyl cap installed

For Vehicles with Disk Brakes:

2. Remove the Allen bolts retaining the caliper and remove the caliper from the rotor.
3. Remove the dust cap, cotter pin, retainer nut and rotor.
4. Unbolt the caliper bracket from the spindle. Do not remove the spindle.
5. Remove the remaining bolt securing the steering arm to the spindle. This will be replaced with a new bracket retaining bolt supplied with your system.

For Vehicles with Drum Brakes:

6. Remove the dust cap, cotter pin, retainer nut and drum. Unbolt the drum backing plate from the spindle leaving all components intact.
7. Thoroughly clean all attachment points and the spindle pin to ensure proper installation of the new components.

Base Bracket Installation

NOTE: Be sure to place the base bracket onto the spindle prior to installing the mounting bolts as some **Aftermarket Drop Spindles** may require grinding for bracket clearance. By placing the bracket in its mounting location, you will be able to determine if interference occurs between the bracket and the spindle. See Figures 2 and 3 for reference.

NOTE: Most early model vehicles with two-piece spindles use ½" bolts to secure the steering arm. On vehicles using 7/16" bolts, the bolt holes on the spindle and steering arm must be drilled out to 17/32" or .5312 in to accept ½" hardware.

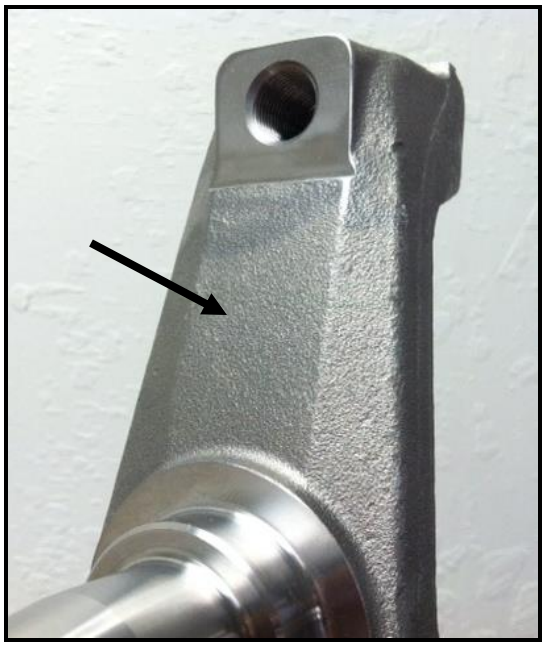


Figure 2: Area that may require grinding for bracket clearance.

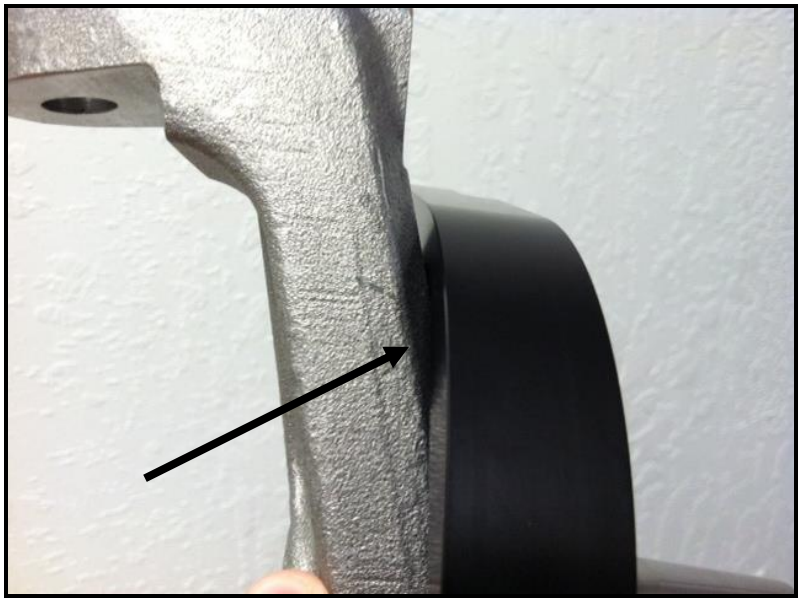


Figure 3: Bracket placed onto spindle-location of interference

8. The caliper position will be behind the spindle pin centerline. Install the base bracket to the spindle using the supplied ½"-20x2.75" and ½"-20x3.0" bolts, washers, and locking nuts. The longer (3") will be inserted in the steering arm hole closest to the tie rod attaching point. Torque both bolts to 105 ft·lbs.

   NOTE: For Aftermarket Drop Spindles, the bolts that retain the steering arm are provided by the manufacturer of the spindle. These will use the lower holes in the spindle. The upper holes closer to the spindle pin will now be used for the Baer bracket only. You will need to provide hardware for this application.

Figure 4: Rear Steer spindle shown with base bracket

Wheel Hub Installation

9. Apply a small amount of grease to the hub seal surface and install the new hub. The new bearings are pre-packed with synthetic grease. ***Do not*** add more grease. 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 the nut retainer, cotter pin, and dust cap.

Intermediate Bracket Installation

10. Install the intermediate bracket (pre-installed in the caliper for ease of shipping) to the outboard side of the base bracket using the supplied M12-1.75x35 bolts and washers. The engraved part number will face outboard. Tighten the bolts, do not torque them to spec just yet.

Brake Rotor Installation

11. Install the correct side rotor and secure with three lug nuts and washers to avoid scratching the hat.

Radial Spacer Installation

12. Prior to installing the caliper, spacers must be placed over the radial mount ARP studs (located in the intermediate bracket) so that the caliper can be centered atop the rotor, radially. The thickness of the spacers will depend on the brake system you have purchased. See Table 1 below for reference:

Table 1: Spacer thickness for 14" and 15" brake systems

Rotor diameter (in.)	Spacer thickness (in.)
14	0.250
15	0.750

Brake Caliper Installation

13. With pads removed, install the correct side caliper (bleeder screws point up), washers and retaining nuts (12-point black 12mm). Snug these bolts with a 9/16" or 14mm 12-point socket. Do not torque the bolts to spec as shimming will need to be performed next.

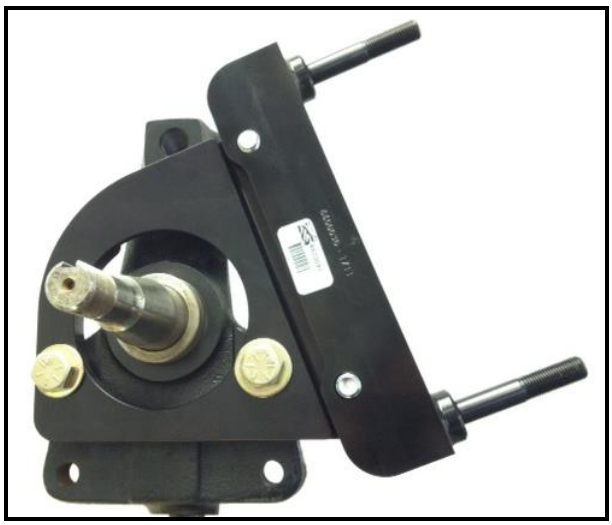


Figure 10: Front view- bracket installation

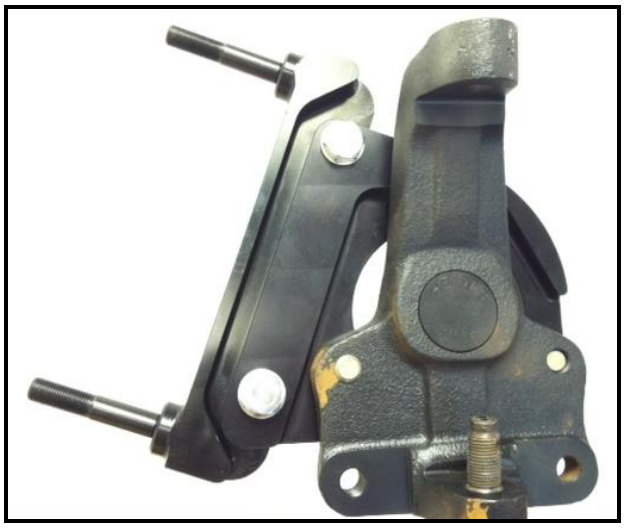


Figure 11: Rear view- bracket installation

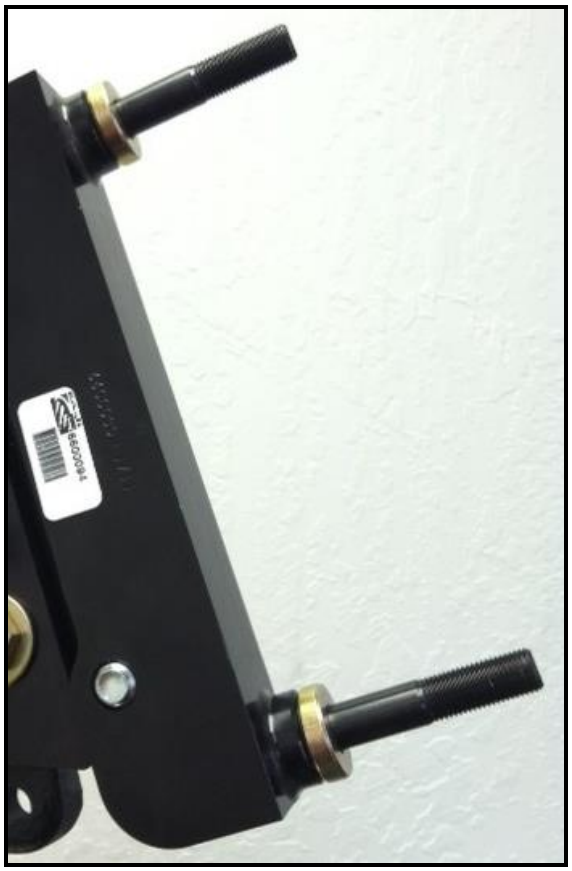


Figure 12: Spacers installed over radial mount studs

Note: Figures 10-12 are shown with a Heidt's drop spindle. The fastener requirement for the base bracket and steering arm is described at the bottom of page 3.

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 .905", outside of .865" 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 due to production tolerances in spindle manufacturing processes. The shims allow the caliper to be properly centered over the rotor

Procedure

1. Select the required shims from the kit provided
2. Remove the caliper
3. Loosen the bolts connecting the base bracket to the intermediate bracket

4. Install the appropriate shims (between both brackets), removing one bolt at a time, and snug the same bolts for fit check

5. Reinstall the caliper and recheck gap measurements

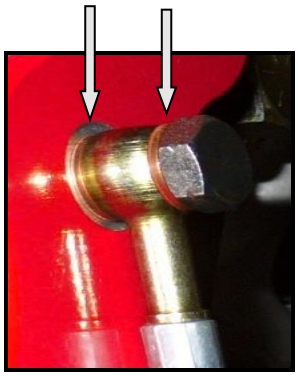
6. Re-shim if necessary. When proper shimming has been achieved, remove the caliper, and install the brake pads. Torque the intermediate bracket bolts to 85 ft·lbs. Install the caliper and torque the caliper bolts to 75 ft·lbs.

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 13: Measuring distance from rotor to caliper body

Brake Hose / Hardline Installation

14. Connect the new supplied stainless steel braided hose to the caliper with the supplied banjo bolt and new copper crush washers. Install one copper crush washer to each side of the banjo fitting on the caliper (2 per caliper), refer to Figure 14. ***IMPORTANT:** **Position the hose to avoid interference with the wheel and suspension components through their entire range of motion.** Tighten banjo bolts to **15-20 ft·lbs.** **taking care not to strip the inlet threads on the caliper.** Uncap the hardline at the frame, connect the opposite end of the hose to the hardline and reinstall the hose lock.



Install the supplied copper crush washers here. Torque the banjo bolt to 15-20 ft-lbs. careful not to strip the inlet threads of the brake caliper.

Figure 14: Stainless steel braided brake hose installed to the caliper

15. Repeat steps 1-14 for the other side of the vehicle. Check all attachment points and fluid connections. **ENSURE ALL FASTENERS HAVE BEEN TORQUED TO THEIR SPECIFIED VALUES PRIOR TO OPERATING THE VEHICLE.**

Baer recommends using "**Baer Street/Race DOT4 Brake Fluid"** for all Baer brake systems. The link to order the recommended brake fluid is below.

Refer to Bleeding, Pad Bedding and 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 at 602-233-1411, or visit: https://baer.com/System-Parts-Tools/.