



Installation Instructions

Product: S4 Front Modification & Install

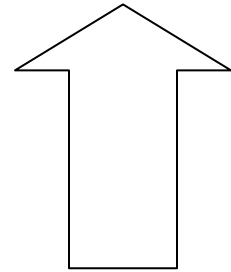
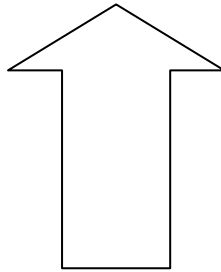
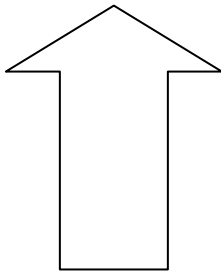
Instruction Part Number: 6000423

Vehicle

Revision Date: 07 August 2013

Make: GM
Model: F body
Year(s): 82-92

***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.***



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 LEFT side of vehicle always refer 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 Baer recommends jack stands rated for at least 2-tons.
- 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, as well as a safety catch can and protective eyewear. Other than these items, if unique or special tools are required they are listed in the section for that step.
- ALWAYS CONFIRM WHEEL FIT PRIOR TO BEGINNING INSTALLATION OF ANY BRAKE SYSTEM OR "UPSIZED" ROTOR UPGRADE! In addition to already having checked fit using the Baer Brake Fit Templates available online at www.baer.com, always place the actual corner assembly or a combination of the caliper assembly fit onto the rotor into the actual wheel to reconfirm proper clearance is available 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 performing wheel fit check to prevent cosmetic damage.**

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- 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 photo below:
2. Remove the hose lock and disengage the hose from the bracket.



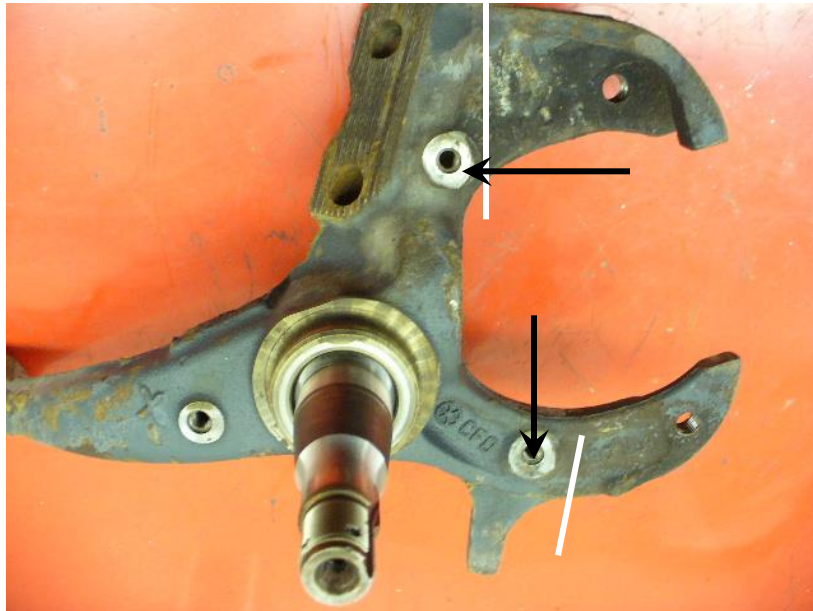
Hose lock location and vinyl cap installed

Disc Brake Removal: Remove the allen bolts retaining the caliper and remove the caliper from the rotor. Remove the dust cap, cotter pin, retainer nut and rotor. Unbolt the caliper bracket from the spindle. Do not remove the spindle. Remove the remaining bolt securing the steer arm to the spindle. This will be replaced with a new bracket retaining bolt supplied with your system.

Drum Removal: Remove the dust cap, cotter pin, retainer nut and drum. Unbolt the drum backing plate from the spindle leaving all components intact.

3. Remove the spindle from the vehicle for modifications. The photo on the next page shows the original spindle along with instruction where to cut the caliper mounts. This easiest way done is on a band saw, but can be done with a reciprocating saw.

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**82-92 Camaro / Firebird
Cut at white lines, drill and tap holes indicated by black arrows.**

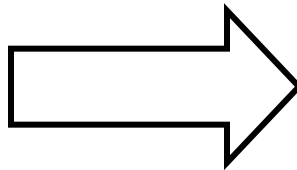
4. Drill the two mounting holes indicated (these are already in the casting, used for debris shields) to .406" (13/32) and tap for 12mm 1.75 thread pitch. Keep the holes as straight as possible to allow the bracket to be properly secured.

Because the point where the bearing stops on the face of the spindle can wear, it may require the face of the mounting holes to be machined or ground back for proper fitment. Please call Baer if you have any questions regarding this part of the procedure.

5. Repeat these steps for the other side.

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

Installation of the brake system



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INSTALLATION

1. Install the base bracket onto the spindle using the supplied buttonhead cap screw bolts, and washers. The M12-1.75x45 buttonhead VT (red thread coating) bolt will be bolted into the top hole, while the M12-1.75x35 buttonhead VT bolt will be bolted into the bottom hole. Torque both bolts to 83 ft-lbs. See photos below for reference:



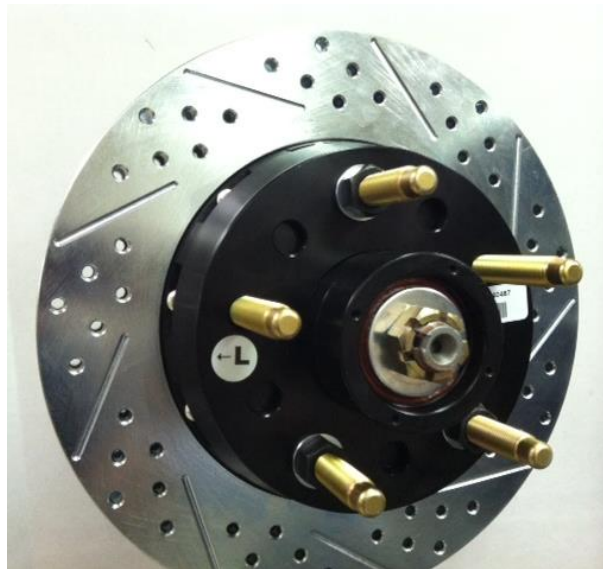
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2. Next, carefully install the hub onto the spindle.

Note: 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.



3. Install the correct side rotor onto the hub and secure with three lug nuts and washers. This will prevent the hat from being scratched.



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4. Install the caliper onto the base bracket using the supplied M12-1.75x30 hex bolts, and washers. Tighten the bolts for now as shimming will need to be completed in the next step.

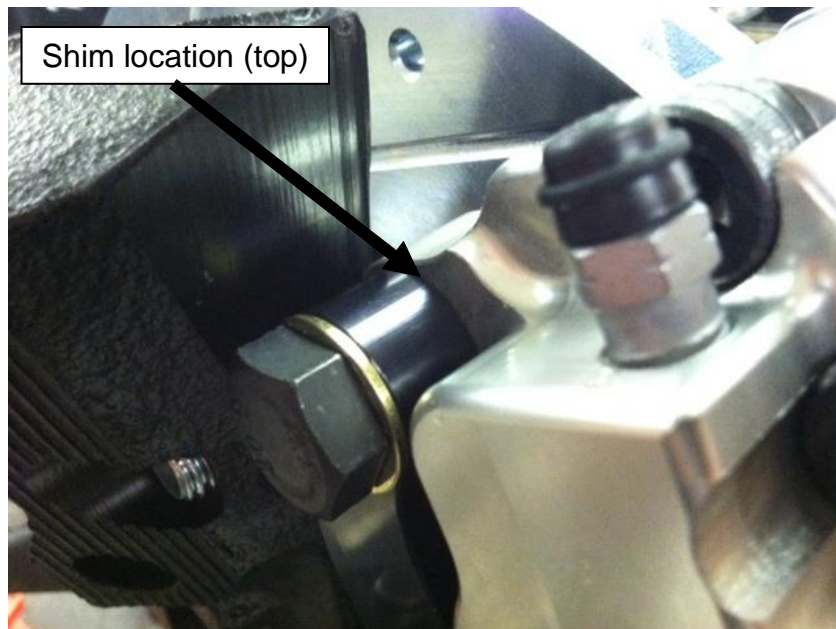
Shimming Procedure

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.

Procedure

1. Select the required shims from the kit provided
2. Remove the caliper
3. Install the appropriate shims between the caliper and the base bracket (top and bottom), and snug the same bolts for fit check
4. Reinstall the caliper and recheck gap measurements

Re-shim if necessary. When proper shimming has been achieved, remove the caliper and take the bolts from the base bracket keeping the shims in place, one at a time, and replace them with the M12-1.75x30 VT (red thread coat) bolts. Torque these bolts to 75 ft-lbs.



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****Note:** 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.

5. 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.

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

Refer to Bleeding 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