BAER BRAKE SYSTEMS

Installation Manual

Part Number: 6000497 **Product: SS4+ 11" Front**

Vehicle Make: All

Model: All vehicles equipped with Mustang II spindles

Years: All

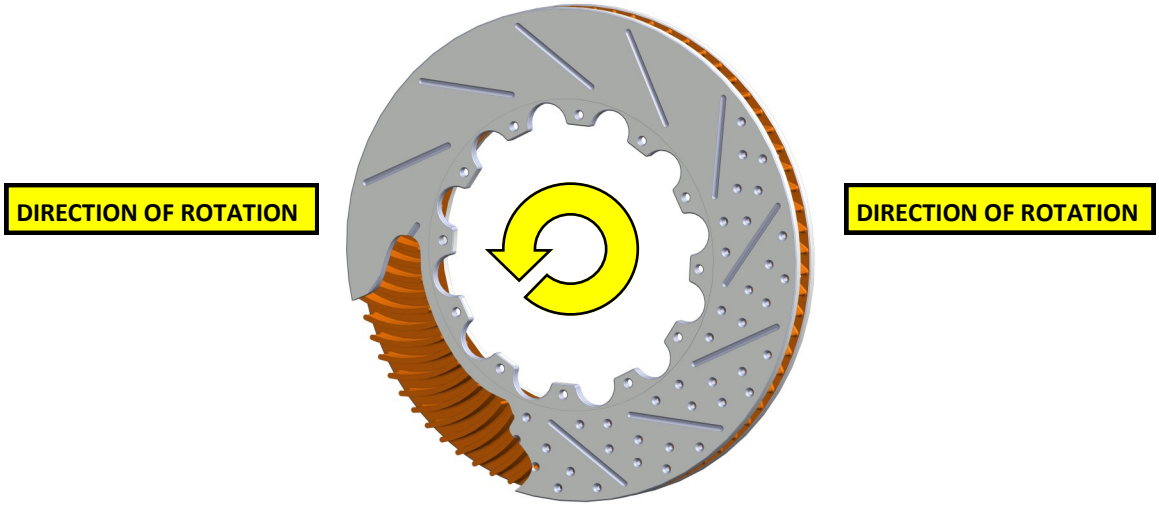
READ THIS BEFORE STARTING

Returns will not be accepted for ANY installed PART or ASSEMBLY. Use great care in preventing cosmetic damage when performing wheel fit check.

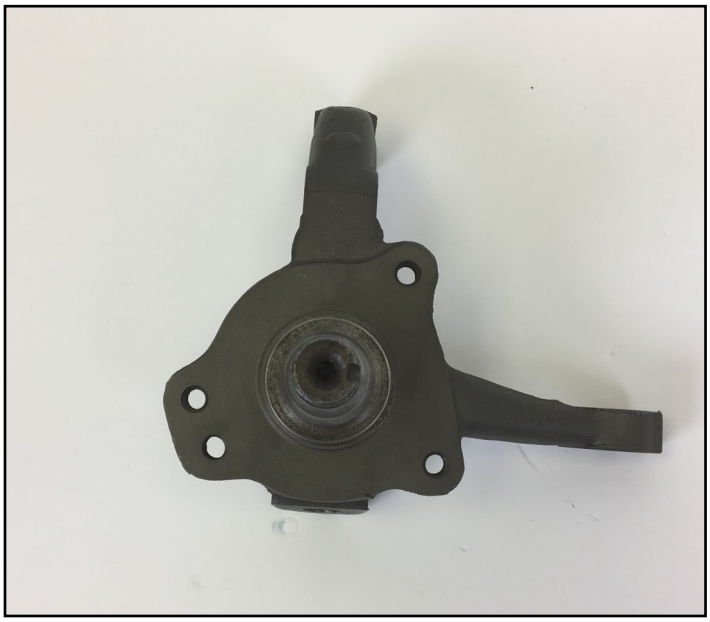
Read and Follow BEFORE ATTEMPTING INSTALLATION

- **All installations require proper safety procedures and protective eyewear.**
- **All installations should be performed by qualified personnel using 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 recommended ratings for jack stands should be 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.**
- **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.**

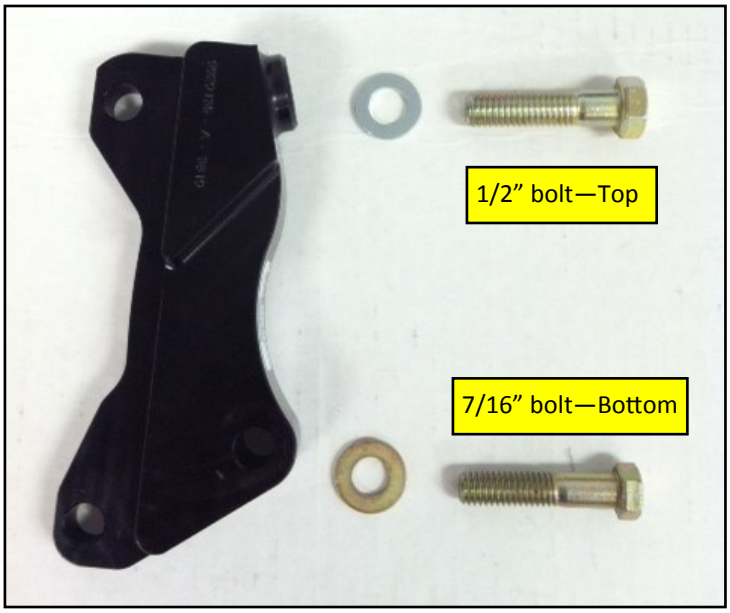
- ALWAYS PERFORM A COMPATABILITY TEST PRIOR TO BEGINNING THE INSTALLATION OF ANY BRAKE SYSTEM OR "UPSIZED" ROTOR UPGRADE .
- In addition to already having checked fit using the Baer Brake Fit Templates available online at www.baer.com, always place the actual corner assembly or a combination of the caliper assembly fit onto the rotor into the actual wheel to confirm proper clearance is available between the caliper and the wheel before proceeding with the actual installation.



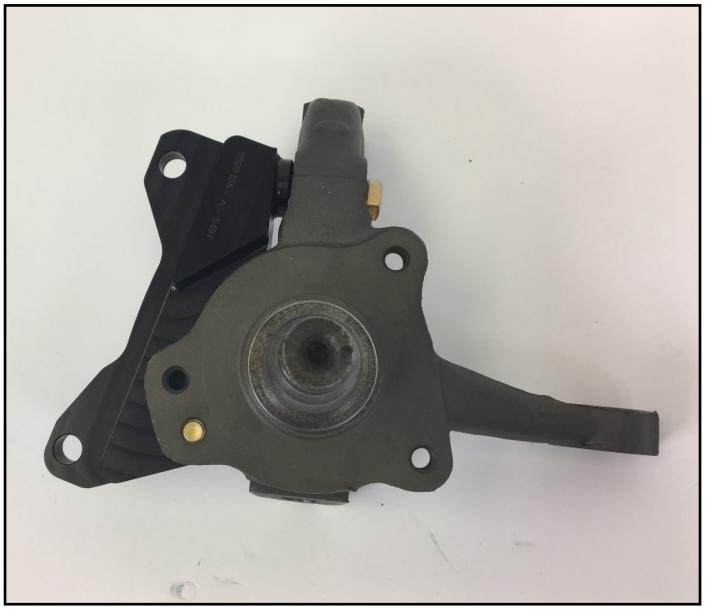
- When installing rotors on any Baer Products be sure to follow the direction of rotation indicated on the rotor hat area with either an arrow, or an "L" for left, or an "R" for right, or both. "L" or left always indicates the driver's side of U.S. spec vehicles. Image above is of a "L" left rotor. NOTE: Slots and drill patterns sweep forward and internal vanes sweep rearward.
- A professional wheel alignment is mandatory following the installation of any system requiring replacement of the front spindles, or tie rod ends. Return the vehicle to factory specifications unless otherwise indicated.
- Stop the installation if seems 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.



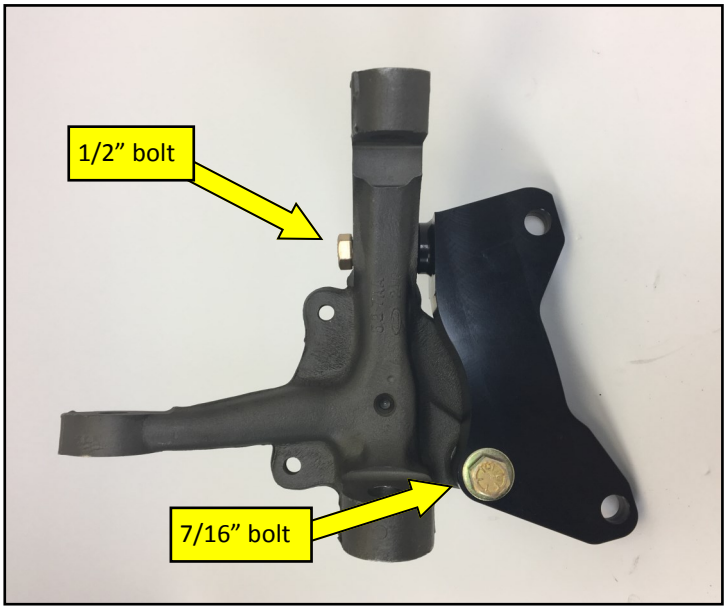
1. This installation begins at the point at which the OEM brake components have been removed, the hard lines have been capped to prevent leak down and the Spindle has been installed on the vehicle.



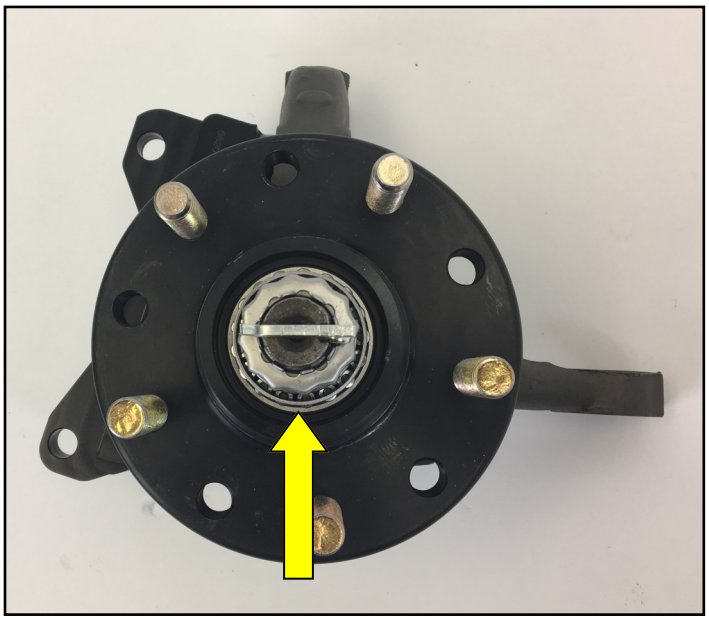
2. The bracket mounts using a 7/16” & a 1/2” hex bolt and washers. The top bolt goes through the side of the upright of the spindle. The bottom bolt goes through spindle flange’s lower hole.



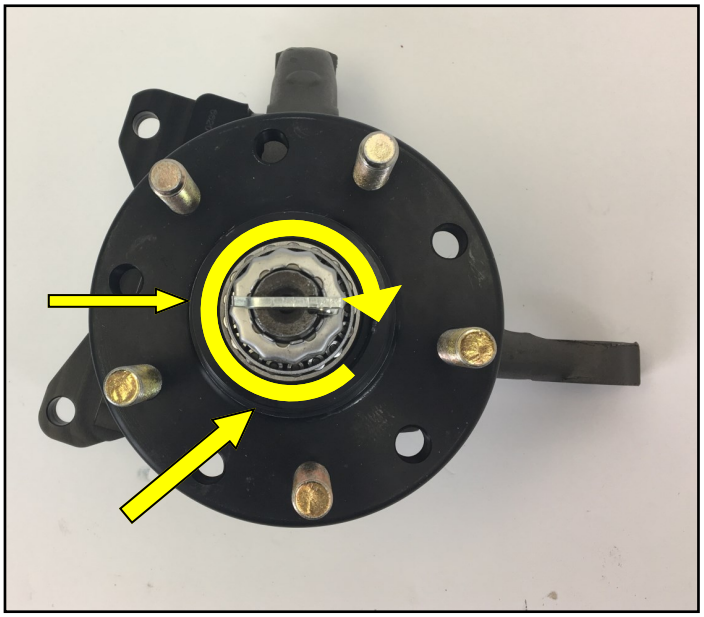
3. Install the Bracket onto the inboard side of the Spindle, opposing the steering arm as shown, using the 7/16” & 1/2” Hex Head Bolts and Washers. Start both bolts and then tighten snug. Do not torque as shimming this bracket may be necessary.



4. Inboard view of bracket installed. <u>Once correct shimming is achieved</u> torque the 7/16” bolts to 70ft lbs, and the 1/2” bolts to 90ft lbs.



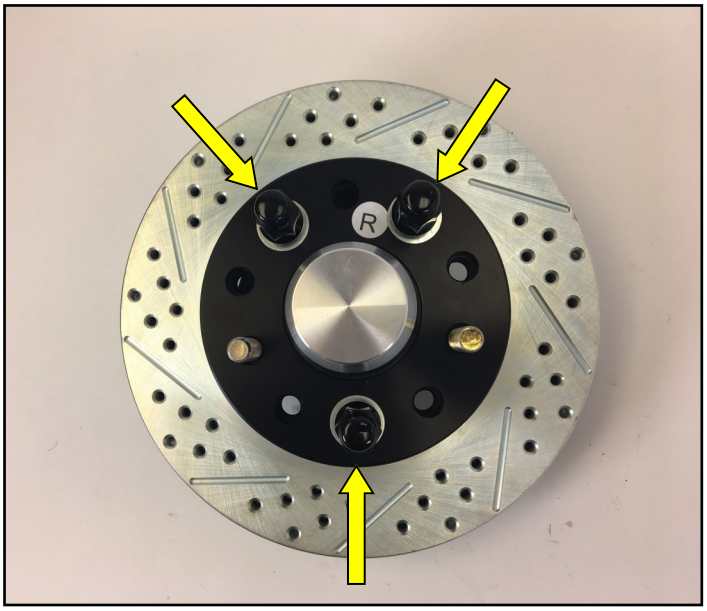
5. Install the hub by applying a small amount of grease onto the Hub Seal and Slide the Hub Assembly onto the spindle. The Bearings are pre-packed with synthetic grease. No additional grease is required. Tighten the Spindle Nut to 5-10 ft.lbs.



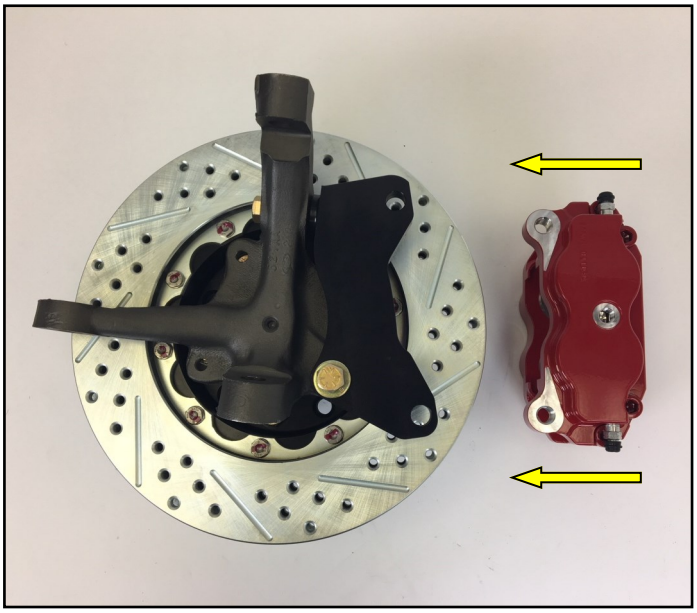
6. Rotate the Hub to seat the Bearings. Loosen and re-tighten the Nut while spinning the Hub several times. Tighten the Nut again, to remove any play, approximately 1/16th turn to give a small amount of pre-load. Install the Cotter pin as shown.

7. Install the dust cap by applying a small amount of assembly lubricant to the dust caps o-ring (Vaseline works well).

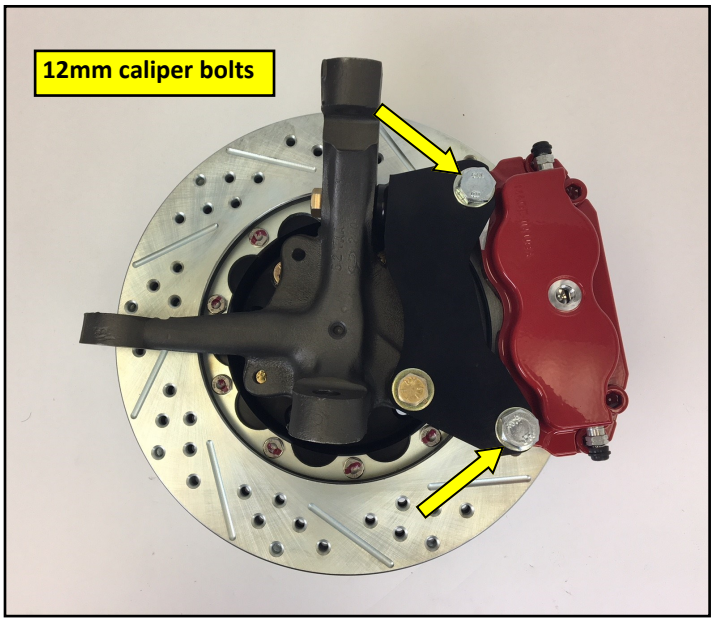
8. The dust cap presses into the hub. This is a snug fit so you may need to use a rubber mallet. Put a towel or rag onto the dust cap to protect it and gently use the rubber mallet to tap the dust cap into the hub. You should be able to spin the dust cap once the o-ring is seated into the hub groove.



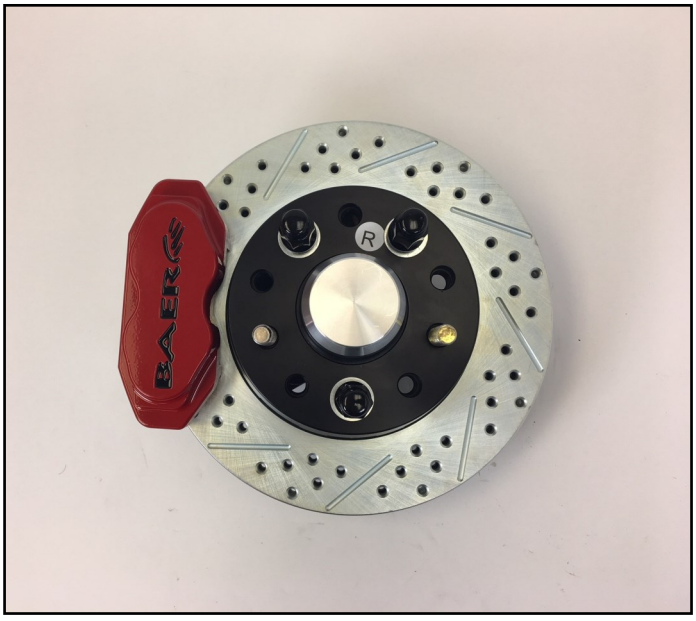
5. Install the correct side rotor onto the hub and secure with 3 lug nuts and washers to avoid scratching the hat.



6. Install the caliper onto the rotor using the supplied 12mm bolts and washers. Tighten these snug as you may need to remove for the shimming process. Check to make sure the caliper does not come in contact with the rotor once secured.



7. Inboard view of caliper installed. Once correct shimming is achieved, torque the 12mm caliper bolts to 85ft lbs.



8. Outboard view of caliper installed. Now refer to the shimming portion of these instructions.

VERY IMPORTANT: Caliper Positioning with Shims

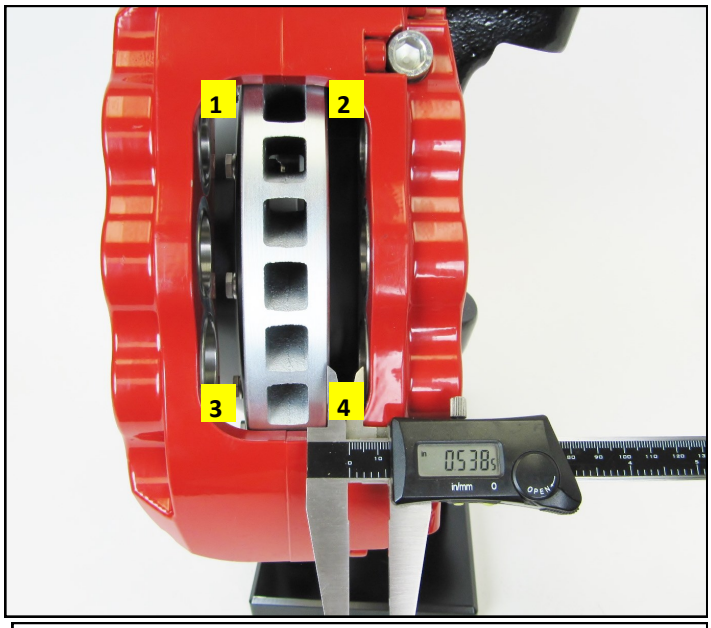
A. **Measure the gap from the rotor to caliper body at 4 points, top inside and outside, bottom inside and outside. Write down all measurements. Subtract the top inside measurement from top outside. This will require a shim at the top bracket bolt equal to half of this difference to center the caliper. For example, 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.**

B. **Select the required shims from the kit provided. Remove the caliper, rotor and hub. Loosen the bolts from the Bracket. Install the appropriate shims, removing one bolt at a time, and snug the bolts for a fit check. Reference the photos below.**

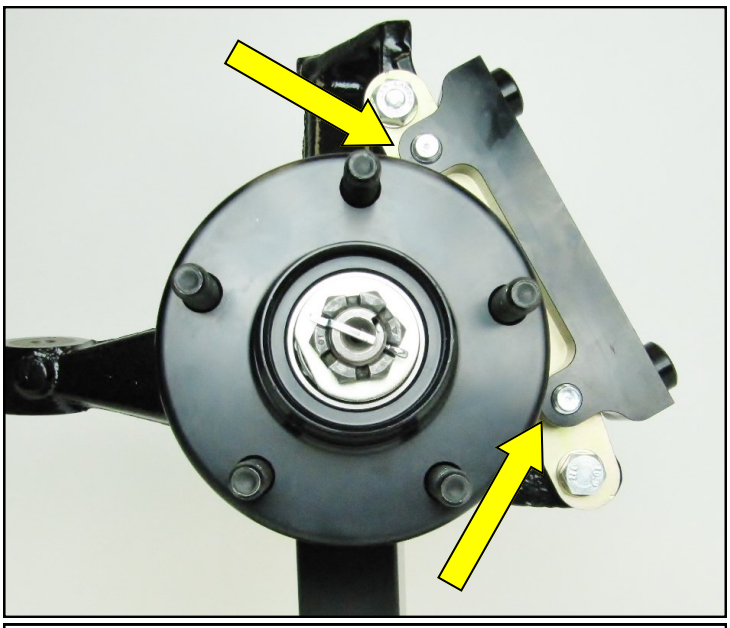
C. **Reinstall the caliper and recheck gap measurements. Re-shim if necessary. When proper shimming has been achieved, remove caliper and Torque the Bracket Bolts to the torque spec referenced in these instructions. (Installation portion of these instructions)**

D. **Reinstall the Rotor and Brake Caliper , with Pads and torque the Caliper bolts to the torque spec referenced in these instructions. (Installation portion of these instructions)**

NOTE: **If you do not have access to a dial caliper, these measurements can be made with pads installed using feeler gauges 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.**

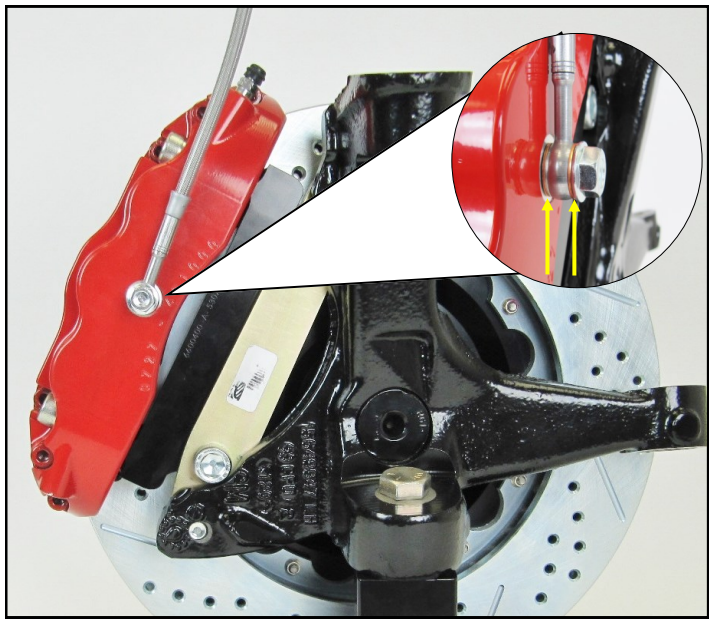


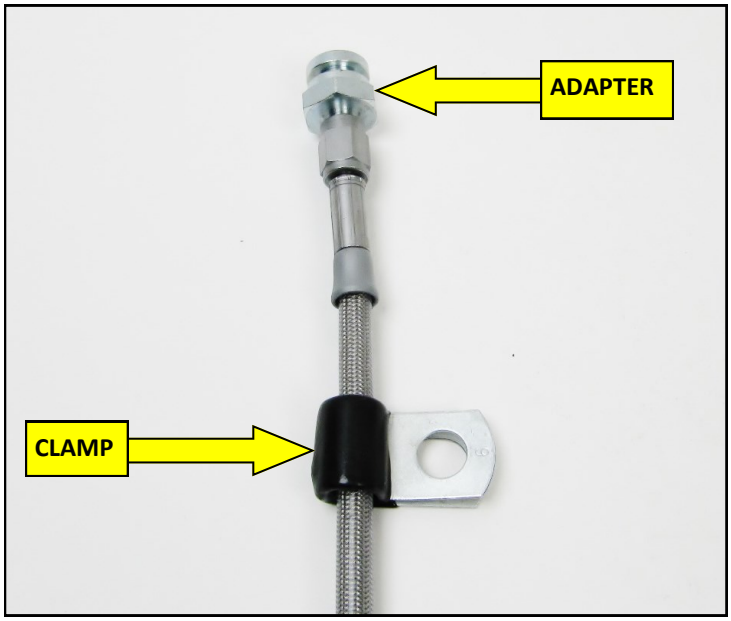
Measuring Points



Shim Locations

Note: If your system has 1 bracket the shims get installed between the bracket and spindle to achieve proper caliper centering. If your system comes with 2 brackets the shims get installed between the base bracket and the intermediate bracket.





9. If equipped, Install the new Brake Hose onto the Caliper with one Copper Washer on each side of the banjo fitting. Finger tighten the Banjo Bolt. IMPORTANT: Position the hose to avoid interference with the wheel and suspension components. Tighten fitting and banjo bolt to 15-20 ft.lbs.

10. Install Hose Adapter onto the Brake Hose. Connect the Hose to the hardline and install the hose lock. Use the supplied Adel Clamp to secure the Hose to the upper control arm.

Refer to the Bleeding and Rotor Seasoning procedures outlined on a separate sheet.

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