Installation Instructions

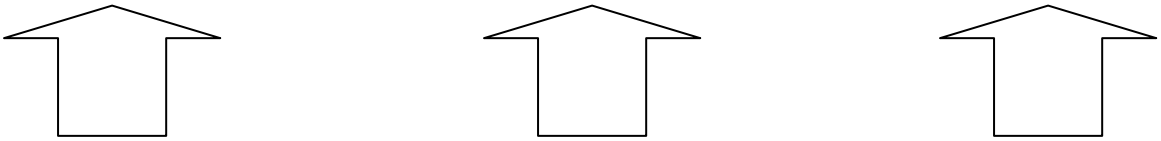
Instruction Part Number: 6000488
Revision Date: 21 December 2016

Product: GT 14" Front

Vehicle

Make: GM
Model: C10 5 lug (no spindle included)
Year(s): 63-98

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.***

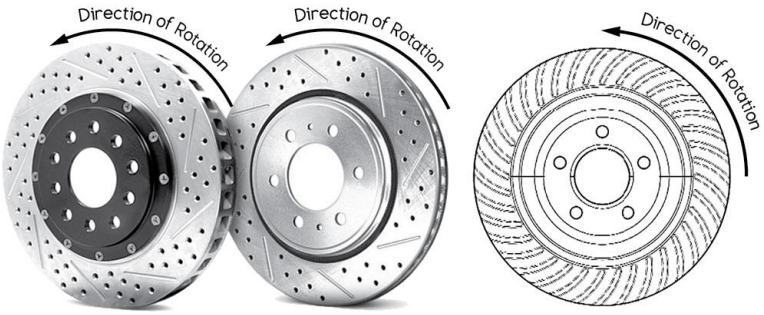


Notices – Read and Follow BEFORE ATTEMPTING INSTALLATION

- 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. Disconnect the brake hose from the hardline at the frame and cap with the supplied vinyl cap. Remove the hose lock retaining the hose.

2. Following factory recommended procedures, remove the caliper and rotor from the spindle. Remove the debris shield and set all components aside. These will not be reused.

3. Remove the cotter pins from the ball joints and tie rod end at the steering arm. Loosen the nuts 3 to 4 turns, do not remove. With a large (4 lb) hammer, strike the spindle at the tie rod end boss to dislodge the tapered pin (see, Figure 1, for reference). ***IMPORTANT: *Do not* use a pickle fork as this will destroy the boots. When the pin is dislodged, remove the nut and swing the tie rod out of the way.

4. Strike the spindle at the ball joint bosses to dislodge the ball joints. See, Figure 2, for reference.

Figure 1: Strike steering arm boss at spot indicated by arrow

Figure 2: Strike tie rod end bosses with large hammer. Arrows show locations

5. When the lower is loose, support the lower control arm with a floor jack, strike the top to dislodge the joint, and remove the nuts. Lift the upper control arm up and out of the way and lift the spindle off of the lower arm. Next, check the ball joints and tie rods. Replace, if necessary.

6. With the spindle removed from the vehicle, it will need to be modified before installing the new brake system. The following photos will indicate areas requiring removal.

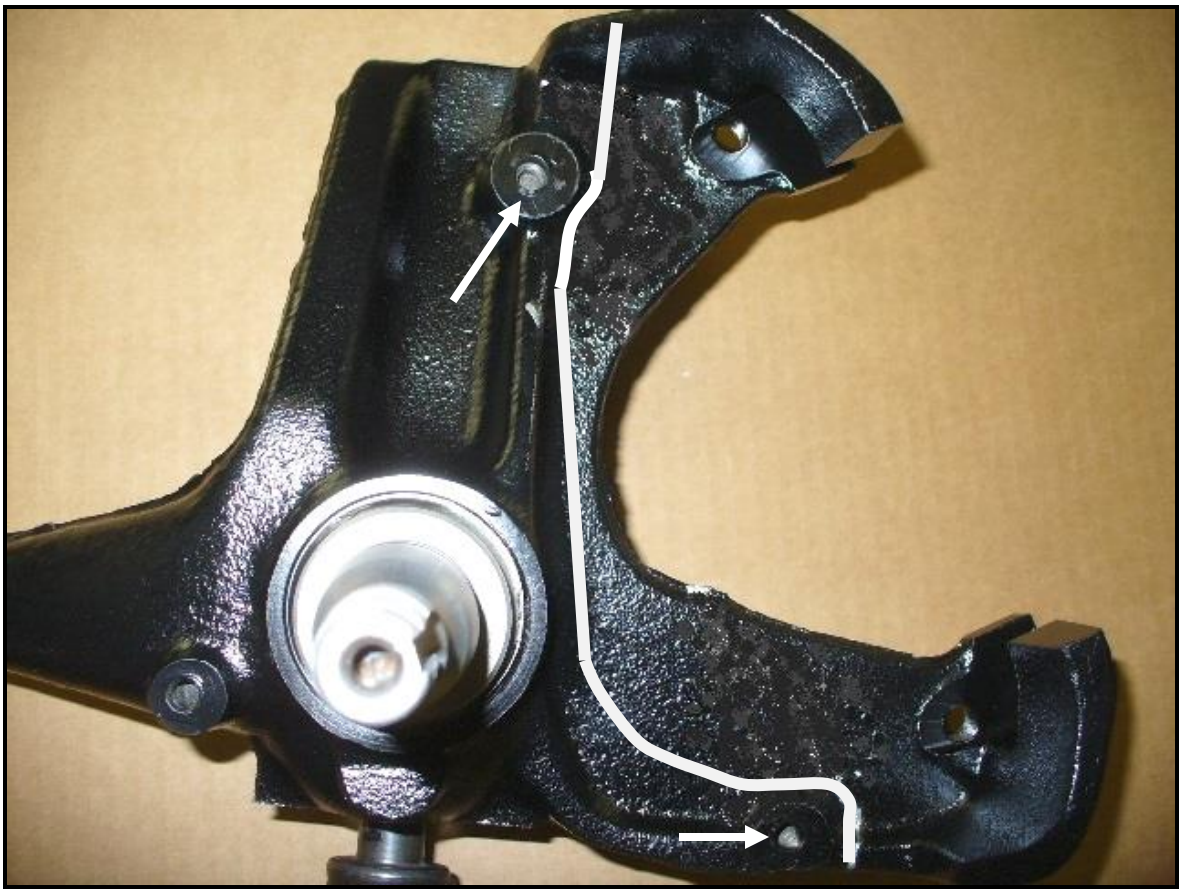


Figure 3: Arrows indicate debris shield mounting points that require drilling and tapping.

7. The “ears” that mount the factory caliper must be removed to allow installation of the caliper bracket. Using a band saw, *carefully* cut the material from the spindle, avoiding the mounting points for the original debris shield. See, Figure 3, for reference.

8. The mounting points must be drilled and tapped for fasteners strong enough to support the caliper bracket and caliper. The drill bit required will be 0.368” diameter. The tap required will be 7/16”-14 threads per inch. Drill and tap the upper mount to a depth of at least 1.250”. Drill and tap the lower mount all the way through. ***IMPORTANT:** Be cautious not to modify the surface of the mounts as these will determine the location of the new caliper bracket.

9. Install the caliper bracket using the supplied 7/16-14x1.0” bolts, washers, and spacers.

   NOTE: Model years 63-87 use 0.100” spacer
   Model years 88-98 use 0.150” spacer

   The spacers will reside between the bracket and spindle and may or may not need to be removed (this will be determined once shimming occurs). The spacers act as a base starting point to centering the caliper. See, Figure 4, for installation reference.

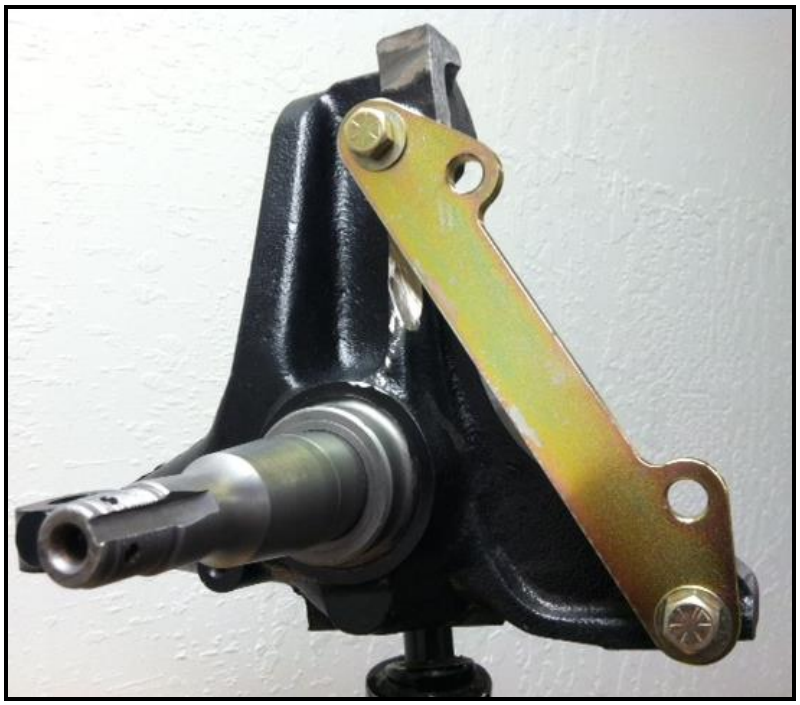


Figure 4: Caliper bracket installed onto spindle

10. Figure 5 shows the clearance required for the bolts used to attach the caliper. Using a hand grinder, remove enough material for the 19mm bolt head and washer as indicated by the arrows.

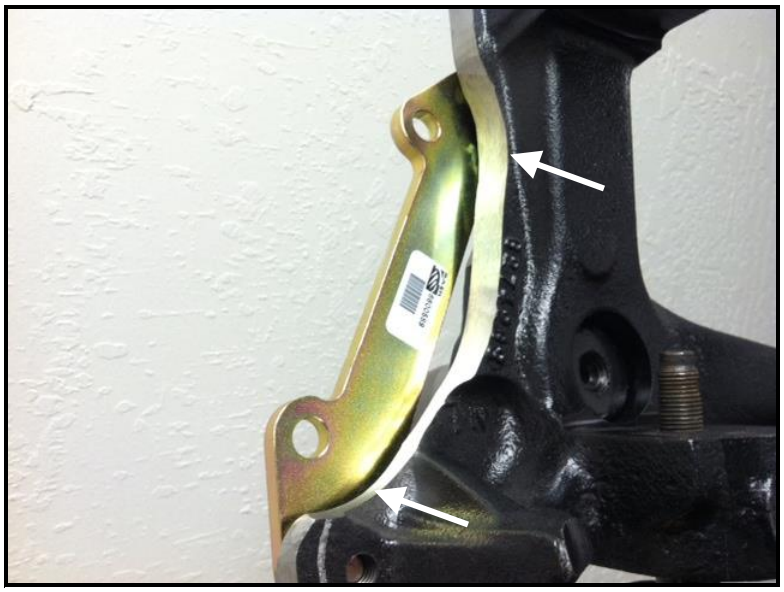


Figure 5: Grind away material so that the spindle does not interfere with caliper bolts

11. Figure 6, shown below, indicates a rib in the spindle casting that will interfere with the mounting of the bracket. Using a hand held grinder, trim the rib to allow the bracket to sit flat against both mount points that were drilled and tapped. Remove only enough material to allow the bracket to seat properly.

Figure 6: Material has been removed to allow for the bracket to seat properly

12. Once the spindle modification is complete, the spindle can be reinstalled on the vehicle. Place the modified spindle onto the lower ball joint then lower the upper into place and install the nuts. Torque the top to 60 ft·lbs and the lower to 80 ft·lbs. Tighten the nut as needed to install the supplied new cotter pins

13. Next, Install the tie rod end into the steering arm and torque the nut to 35 ft·lbs. Tighten to install the cotter pin.

14. Install the new billet aluminum hub. The new bearings are pre-packed with Red Line 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 to give a small amount of pre-load. Install cotter pin and dust cap.

15. An Aluminum centering ring is provided with the new brake system. This is used to properly center the rotor or hat on the custom hubs that are made by Baer for the 63-87 GM ½ ton 2wd pickups. This will be placed over the new hub prior to installing the rotor. See Figure 7 on the next page, for reference of installation.

The front centering ring is red in color. If you also have a rear system the rear centering ring is bronze in color. **Do not mix these as they are different sizes.**

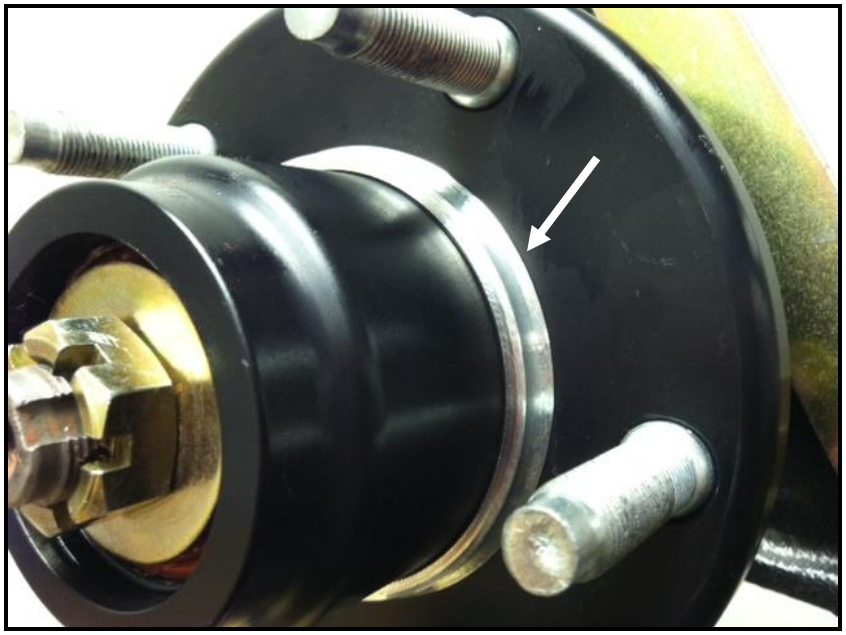


Figure 7: Arrow indicates location and installation of centering ring

16. With the centering ring in place, install the correct side rotor, being sure to seat it over the centering ring, and secure with three lug nuts and washers to avoid scarring the plating.

17. Install the caliper assembly to the bracket using the supplied M12-1.75x30 bolts and washers. Simply, snug the bolts for now as shimming will need to occur next. Figure 8 shows the clearance that is required for the caliper. ¾" is sufficient for caliper access.

Figure 8: Caliper and bleeder clearance

18. Perform the Shimming Procedure which is located on the last page. When the procedure has been completed continue with the Step 19.

19. Finger tighten the steel braid banjo hose end with one copper washer on each side of the banjo fitting into the rear 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.

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

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.

Shimming Procedure

Measure the gap between the caliper anchor (silver colored iron saddle attached to the caliper) and the rotor

**Note: The purpose for shimming is due to the machining processes that were once performed in the past. Dimensioning tolerances weren't as necessary as today's standards, which caused variances in spindles.

Procedure

1. Select the required shims from the kit provided
2. Remove the caliper and rotor
3. Loosen the bolts from the bracket
4. Install the appropriate shims (between the spindle and bracket), removing one bolt at a time, and snug the same bolts for fit check (the 0.100" spacers may need to be removed in order to completely center the caliper).
5. Reinstall the caliper and rotor, and recheck gap measurements
6. Re-shim if necessary. When proper shimming has been achieved, torque the bracket bolts (7/16-14x1.0") to 70 ft·lbs. Finally, torque the caliper bolts to 75 ft·lbs.

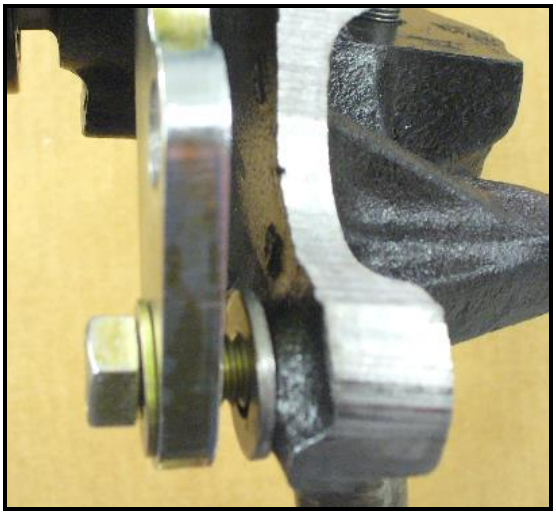


Figure 9: Shim placed between bracket and spindle

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