



Installation Instructions

Product: S4 Rear

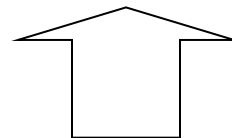
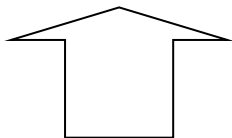
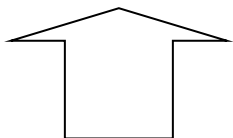
Instruction Part Number: 6000480

Vehicle

Revision Date: 9 September 2024

Make: Jeep
Model: Wrangler JK, JL
Year(s): 2007-2019

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

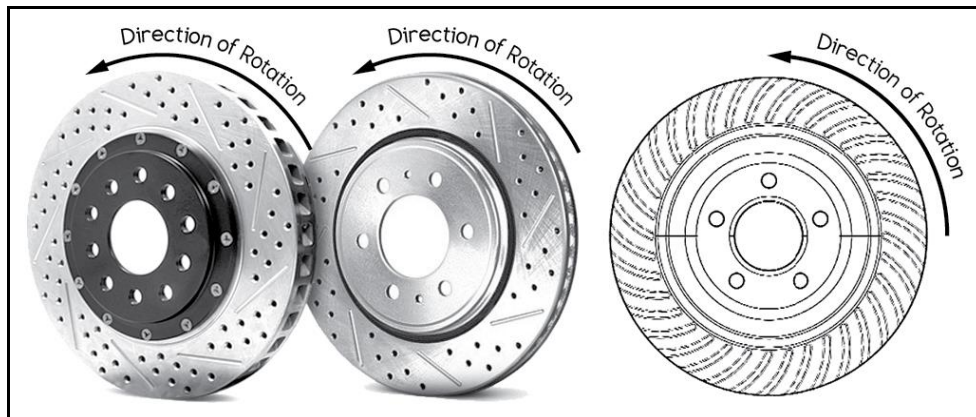
- All installations require proper safety procedures and protective eyewear.
- All installations assume basic mechanical skill and a factory service manual for the vehicle on which the installation is to be performed.
- All references to the “left” side of the vehicle correlate to the driver’s side of 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.

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- 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 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 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 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. To prevent brake fluid dripping from the hose during system installation, a pair of hose crimpers can be applied. Do not use vise grip pliers as these may damage the brake hose. See Figure 1 for reference. Carefully remove the banjo bolt and copper crush washers from the OE brake hose that is attached to the caliper. Discard the copper crush washers as they are one-time use items.



Figure 1: Hose crimpers applied to brake hose

2. Remove the bolts retaining the factory caliper. These are tight which may require the use of a long wrench or a breaker bar to allow for easier removal. Once the bolts are removed, slide the caliper off the rotor.
3. Remove the rotor and thoroughly clean the axle and caliper mounting surfaces to ensure proper seating of the new components.
4. With the caliper and rotor out of the way, the dust shield will need to be either trimmed or removed altogether. **Trimming can be accomplished by first installing the bracket to the inboard side of the axle flange** using the supplied M12-1.50 x 45 bolts (flat face of bracket faces inboard). Simply tighten the bolts lightly since the bracket will need to be removed during the trimming process. **Next, indicate the location of where the shield will need to be trimmed.** Once it has been determined where to trim the shield, **remove the bracket and trim away enough material from the shield so that the caliper does not come into contact with it.** See Figures 2 and 3 for reference.

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Figure 2: Outboard view of dust shield before trimming.



Figure 3: ¾ view of the dust shield after trimming for caliper clearance

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5. Install the new bracket onto the inboard side of the flange housing (flat face of bracket faces inboard) using the supplied M12-1.50 x 45 Allen head bolts with washers. Place the washers under the head of the Allen head bolts before installing them. Tighten the bolts snugly for now as the bracket will be removed for caliper adjustment shims. See Figures 4 and 5 for reference.

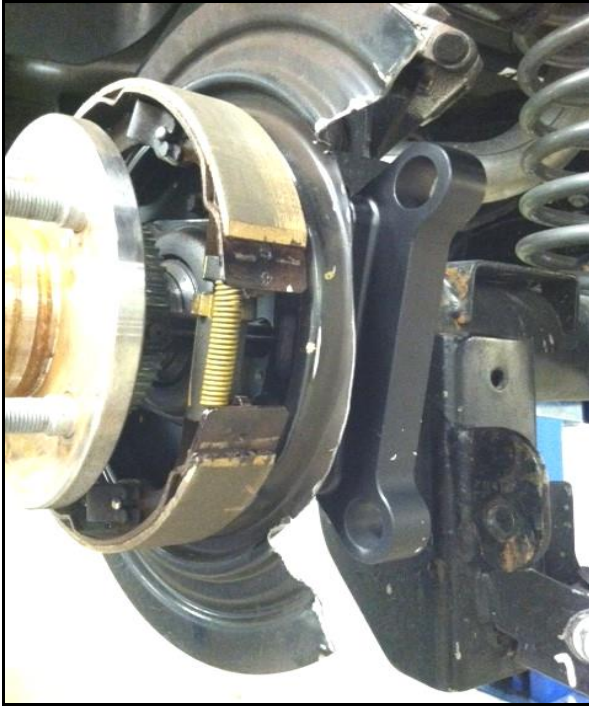


Figure 4: ¾ view

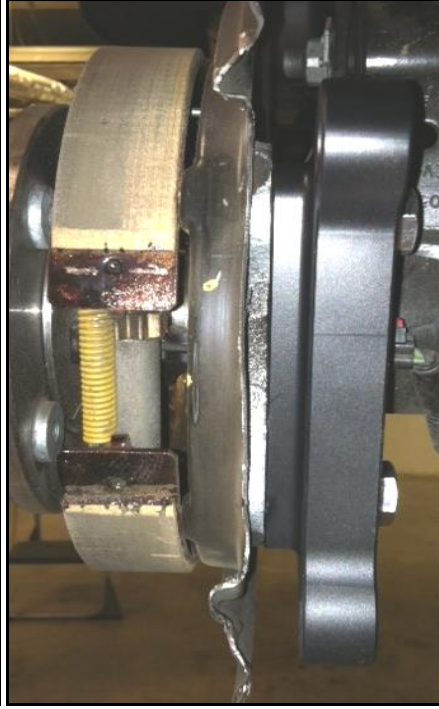


Figure 5: Side view

6. Install the correct side rotor and secure with three lug nuts and a washers to prevent scratching the rotor hat.
7. With pads removed, install the caliper (calipers are same for both sides) using the supplied M12-1.75 x 50 bolts, washers, and slider pins. Tighten the bolts snugly for possible removal later. See Figure 6 below, for reference of hardware installation. ****IMPORTANT: This rear axle is similar to a C-clip style in that it allows inboard and outboard movement of the axle. The caliper may need to be adjusted for this movement. Refer to the Shimming Procedure on the last page.**



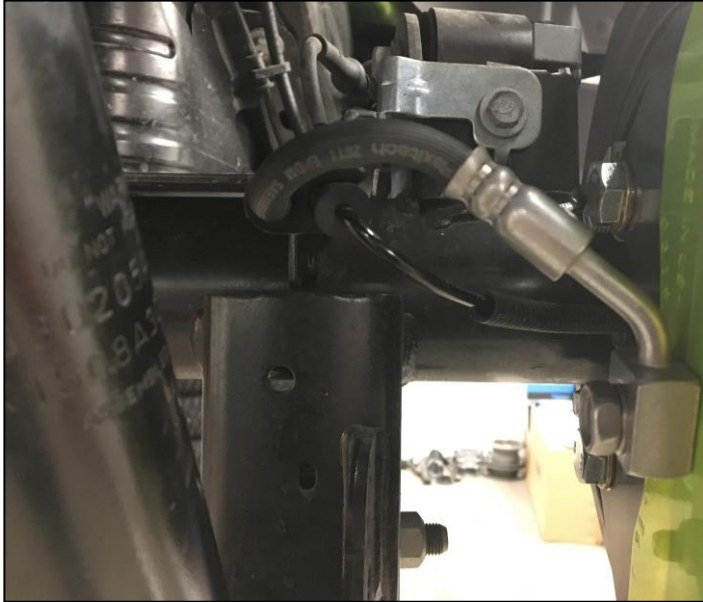
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Figure 6: Correct installation of bolts, washers, and slider pins

7. The system will reuse the original brake fluid hose. New copper crush washers are provided however, as they are one-time use items. 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.

****IMPORTANT:** Ensure that the routing of the brake hose is away from suspension and wheels to avoid any interference through full articulation of suspension system. Torque both banjo bolts between 10-15 ft-lbs.

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



Rear hose orientation



Figure 8: Completed install

Figure 8: Completed brake system.

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.

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Shimming Procedure

Rear axle designs like C-clip style allow the axle to move inboard and outboard from .005" to .030". The design of the slide pins on the Baer caliper bracket allow the caliper to follow this movement but must be adjusted to prevent the caliper body from contacting the rotor surface.

Procedure:

1. Check the clearance on the inboard side of the rotor. Push the axle inboard until it stops (this may not move much) and slide the caliper and bracket outboard, against the stop. Using a feeler gauge measure the gap between the inboard side of the rotor and the caliper body.
2. Check the clearance on the outboard side of the rotor. Pull the rotor outboard until it stops and slide the caliper inboard, against the stop. Using a feeler gauge measure the gap between the outboard side of the rotor and the caliper body.

If there is a big difference between the inboard and outboard measurements (i.e. - .050" outboard with .010" inboard), shims can be used to equalize this. Using that example, a .020" shim between the caliper bracket and axle housing end, would increase the inboard measurement to .030" and decrease the outboard measurement to .030". The main goal is to get the gap measurements as close as possible between the caliper body and rotor on both sides.

3. Loosen the bolts connecting the caliper bracket.
4. Install the appropriate shims (between the caliper bracket and axle housing end), removing one bolt at a time, and snug the same bolts for fit check. See Figure 7 for reference. Install the caliper again for clearance check.
5. Re-shim if necessary. When proper shimming has been achieved torque the caliper bracket bolts (M12-1.50 x 45 hex bolts) to 85 ft-lbs.
6. Remove the caliper, install the pads then re-install the caliper. Torque the caliper bolts to 75 ft-lbs.



Figure 7: Shim placement between the caliper bracket and axle housing end

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