

Master Power Brakes Rear Disc brake Conversion Kit Mopar 8 ¾" and Dana 60 P/N: DB4320BR



## **Installation Notes:**

- Please read all instructions before attempting the installation.
- Proper operation of your brakes is essential for your safety and the safety of others. Any brake service should be performed by a professional technician experienced in the installation of brake systems.
- 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.
- All installations require proper safety procedures and protective eyewear.
- 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 FITMENT PRIOR TO BEGINNING THE INSTALLATION OF ANY "UPSIZED" BRAKE SYSTEM!! Returns will not be accepted for ANY installed part or assembly. Use great care to prevent cosmetic damage when performing wheel fit check!
- Before starting the installation, verify that all parts are included with the brake kit. If items are missing, notify Master Power Brakes immediately.
- Master Power Brakes recommends the use of a high quality DOT 3 or DOT 4 brake fluid. ALL WARRANTY IS VOID IF DOT 5 FLUID IS USED.

If you have any questions regarding installation, feel free to contact Master Power Brakes at (888) 351-8781 or through our website at <u>www.mpbrakes.com</u>.

Parts List	
Quantity	Description
2	Billet aluminum 4-piston calipers (Pads included)
1	LH 12" Rotor (Cross-drilled, Slotted, & Zinc-washed)
1	RH 12" Rotor (Cross-drilled, Slotted, & Zinc-washed)
1	LH Banksia Park Brake Assembly (w/Caliper Bracket and Axle Housing Adapter Plate)
1	RH Banksia Park Brake Assembly (w/Caliper Bracket and Axle Housing Adapter Plate
2	Braided s/s brake hose (Includes 2-10mm Banjo bolts, 4-Crush washers,
	2-3 AN x 3/8"-24 adapters)
1	Shim Package
4	M12 x 30mm Grade 8 Hex Head Bolts
4	7/16" Flat Washers
2	Brake Hose Axle Bracket
2	Axle Bracket Clamps
1	Syringe bleeder
1	30" Bleed hose
2	Vinyl brake line caps

## Installation:

- 1. With the vehicle properly supported, remove the rear wheels and tires.
- 2. Place a drain pan under the rear differential and drain the fluid from the rear axle.
- 3. Remove the brake drums. **NOTE:** In some instances, the brake drum will be difficult to remove due to rust from the axle. To remove, lightly tap on the outer edge of the brake drum with a hammer to loosen the rust and allow for the brake drum to be removed.
- 4. Remove the axles from housing taking care not to damage the bearings or the seals. Inspect the axles, seals, and the bearings and replace the components as necessary. With the axles removed, disconnect the parking brake cables and remove the brake shoes, hardware and backing plates. NOTE: Pay attention to how the factory cables are routed and attach to the vehicle. The new cables, if purchased, attach to the frame and the existing cables just as the OE cables.
- 5. Before beginning the installation of the new disc brake conversion, it is necessary to verify two items:
  - 1) Measure the diameter of the flange on the axle. This diameter can be no more than 5.900". If the flange is larger than 5.900", it will be necessary to turn the outer flange on a lathe to a diameter of 5.900" to allow the new rotor to seat on the axle properly.
  - 2) Determine if the axle flange has access hole. Most factory axles have the access hole while aftermarket axles may or may not have the hole. If the flange contains an access hole, skip to step 11. If no access hole is present, either have a machine shop add the appropriate hole and skip to step 11 or if adding the hole is not an option, follow the steps below showing an alternative method of installation.
- 6. To proceed with the installation, determine if your axle flange has an access hole. This will appear as an open hole between two wheel studs. Once you have determined that, please refer to the proper section below.

#### INSTALLATION WITHOUT ACCESS HOLE

a. To begin, disassembly of the Banksia park brake assembly as it is shipped is required. Remove the four 3/8"-16 Socket Cap Screws from the backing plate that retain the adapter plate to the backing plate. In addition, remove the park brake shoe and the upper park brake shoe Retainer assembly by removing the Allen Head Cap Screws holding the shoe assembly in place. See Figure 1 for reference.



Figure 1 – Banksia Park Brake Assembly Reference

- b. Slide the adapter plate over the five studs on the rear axle bearing flange. If necessary, install a new gasket between the axle flange and the adapter plate.
- c. Reinstall the axle into the housing by sliding the axle retainer plate over the studs in the housing. Use the original retaining nuts and torque the nuts to 45 ft/lbs using an open end wrench or short socket and ratchet.
- d. From the bottom side of the housing and axle, slide the backing plate over the axle and using the original Allen Head Cap Screws, bolt the backing plate to the adapter plate. Torque the bolts to 35 ft/lbs. With the backing plate installed and torqued, reinstall the Upper Retainer Plate and torque the bolts to 10-12ft/lbs.
- e. Position the park brake shoe over the axle flange and slide the ends of the shoe over of the actuator. NOTE: Be sure the shoe is clipped into the Upper Retainer Plate and make sure that the cable lever is engaged with the actuator buttons when installing the shoe. See Figures 2a and 2b for reference on the proper positioning of the cable lever.





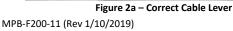




Figure 2b – Incorrect Cable Lever

# Incorrect

### **INSTALLATION WITH ACCESS HOLE**

a. Install the Park Brake Assembly over the 5 studs in the housing. If necessary, install a new gasket between the axle flange and the adapter plate. See Figure 3 below for reference.



Figure 3 – Adapter Plate and Park Brake Assembly Installed on Axle Housing

b. Reinstall the axle into the housing by sliding the axle retainer plate over the studs in the housing. Using the original retaining nuts and a socket and extension, thread the nuts onto the studs using the access hole in the axle flange. Torque the nuts to 45 ft/lbs. Figure 4 below can be used for reference.



Figure 4 – Using the Access Hole

7. Place the correct LH or RH rotor onto the axle flange. Use three lug nuts when installing to hold the rotor tight against the flange which will the rotor from moving to allow for caliper installation and to avoid scratching the rotor. When installing rotors, be sure to follow the direction of rotation indicated on the rotor hat area with either an arrow or with an "L" for driver side or an "R" for passenger side. Figure 5 below shows the direction for reference.

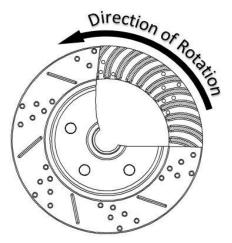


Figure 5 – Direction of Rotor Rotation

- 8. With the pads installed into the caliper, position the caliper over the brake rotor and secure using the supplied M12 x 30mm Hex Head Bolts.
- 9. After installing the caliper, it is necessary to center the caliper over the rotor. A shim kit is supplied with the disc brake kit to accomplish this. Measure the gap from the rotor to caliper body at 4 points (top inside and outside and the bottom inside and outside). With all measurements taken, subtract the top inside measurement from the top outside measurement. Take that difference and divide by two to determine the shim required. For example, the inside measurement is .865" and the outside measurement is .905" leaving a difference of .040". Divide the difference by two leaving the necessary shim at .020". Do this procedure at both the top and bottom to determine appropriate shimming. It is possible for the top and bottom to require different thickness shims. Set the gaps to within .005" of each other. This will keep the possibility of noise to a minimum. Follow the steps below for proper shimming of the calipers once the measurements have been taken:
  - a. Select the required shims from the shim kit provided.
  - b. Remove the caliper.
  - c. Loosen the bolts from between the park brake backing plate and intermediate caliper bracket.
  - d. Install the appropriate shims removing one bolt at a time. Snug bolts at this time.
  - e. Reinstall the caliper and recheck the gap as described above. If necessary, add or remove shims.
  - f. Once proper caliper location has been achieved through shimming, remove the caliper along with the bolts from the intermediate bracket keeping the shims in place. With each bolt removed, replace the bolts for the bolts with the Vibra-Tite finish. Torque the bolts to 80 ft/lbs. Reinstall the caliper and torque the caliper mounting bolts to 80 ft/lbs.

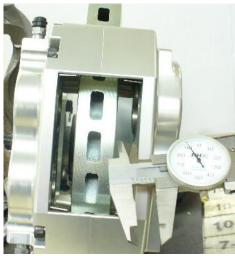
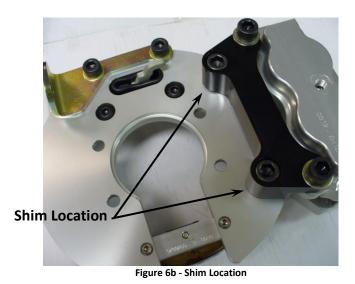


Figure 6a – Measuring the Pad to Rotor Clearance



- 10. Install the stainless steel braided hose using one copper washer on each side of the banjo fitting. 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. Torque the banjo bolt to 15-20 ft/lbs.
- 11. Modifying the hard lines as necessary to attach to the stainless brake hoses or creating new hardlines will be required.
- 12. If park brake cables were purchased with the system, attach them at the park brake first followed by attaching them to the factory primary cables.
- 13. Installation is now complete for the rear disc brake conversion. Following the instructions in a separate document, bleed the brakes accordingly.

If you have any questions or comments, please call Master Power Brakes at (888) 351-8781. MPB-F200-11 (Rev 1/10/2019) Page 5 of 5