

Thanks for your purchase of our Rallye Series Disc Brake Conversion Kit for the 1965-1972 Ford Bronco applications. This system is a bolt-on application that should be able to be performed with simple hand tools. **NOTE:** This system requires the use of at least a 15" wheel for proper clearance.

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.*

Parts List	
Quantity	Description
2	Rallye Series 4-piston Aluminum Calipers
1	LH Primary Caliper Mounting Bracket
1	RH Primary Caliper Mounting Bracket
1	LH Secondary Caliper Mounting Bracket
1	RH Secondary Caliper Mounting Bracket
1	LH Rotor Assembly
1	RH Rotor Assembly
1	D52 Hawk HPS Performance Brake Pad Set
10	Wheel Studs
1	Braided Stainless Hose Kit
8	3/8"-24 x 1-1/2" Grade 8 Hex Head Bolt
8	3/8" SAE Flatwasher
12	3/8"-24 x 1-1/4" Grade 8 Hex Head Bolt
12	3/8" AN Flatwasher
24	1/4"-20 x 3/4" Grade 8 Hex Head Bolt
24	1/4" AN Flatwasher
4	M12-1.75 x 35mm Grade 10.9 Hex Head Bolt
4	7/16" SAE Flatwasher

Installation:

- 1. With the vehicle properly supported, remove the front wheels and tires.
- 2. Disconnect the brake hose from the hardline at the frame using a line wrench. The lines may be capped with rubber caps to avoid fluid dripping. Remove the clip retaining the brake hose and disengage the hose from the bracket.
- 3. Removal of the factory drum brake assembly is required next along with the hub assembly. Do not discard any of the wheel bearings or parts as some items may be re-used later in the installation.
- 4. The wheel studs must be removed from the factory hub assembly which will be re-used at a later step. When Ford assembled the hubs to begin with, they used a staking process to retain the stud into the hub. If the studs are removed by driving them out, damage will occur to the hub. Therefore, we recommend cutting the stud below the threads and then grinding the stud to be flush with the hub. **NOTE:** After removing the studs, ensure that the backside of the hub is completely flat and free of any burrs. This can be accomplished with a flat file.
- 5. Place the hub downward and center the rotor on the backside of the hub. Install the provided wheel studs through the aluminum center hat and the factory hub. Once positioned, press each wheel stud into place. Be sure and support the hub when pressing the studs into place. Figure 1 on the next page shows the components being assembled.



Figure 1 – Center Hat Installation

6. With the center hat installed on the OE hub, place the outer rotor ring on the hat lining up the outer bolt holes. Using the provided 1/4"-20 x 3/4" Grade 8 Hex Head Bolts and 1/4" AN Flatwashers, thread the bolts into the hat and torque to 35 ft/lbs. Medium Strength Blue Loctite is recommended for each bolt. Refer to Figure 2 below for assembly.



Figure 2 – Rotor Ring Installation

- 7. Before installing the disc brake kit, inspect the spindles for any excessive wear or damage. If any is present, replace the spindle(s) as necessary. If spindles are good, clean all attachment points along with the spindle pin to insure proper installation of the new components.
- 8. Remove the six bolts that attach the cast steering knuckle to the spindle. Once removed, clean the mounting surface for the installation of the new primary caliper mounting bracket.
- 9. Install the primary caliper mounting bracket onto the factory knuckle using the provided 3/8"-24 x 1-1/4" bolts and 3/8" AN Flatwashers. The bracket installs with the caliper to the rear of the vehicle and the counter bores are facing towards the outside of the vehicle. Torque these bolts to 65 ft/lbs. Figure 3 on the following page shows the bracket being installed.



Figure 3 – Installing the Primary Bracket to Spindle

10. Position the secondary caliper mounting against the primary bracket and bolt together using the 3/8"-24 x 1-1/2" Grade 8 Hex Head Bolts and the 3/8" SAE Flatwashers. When assembling together, make sure the machined reliefs in the bracket is in the proper position to clear the casting of the knuckle. Only lightly tighten these bolts at this time as they will possibly be removed later when shimming the calipers. Figure 4 below shows the bracket being installed.



Figure 4 – Installing the Secondary Caliper Mounting Bracket

11. Install the OE hub with the new rotor onto the factory knuckle. The installation will not be considered final at this point as the rotor will be removed again to position and properly locate the caliper over the rotor. **NOTE:** Refer to the diagram below in Figure 5a for assembly and Figure 5b for proper rotor orientation.



Figure 5b – Direction of Rotor Rotation

- 12. Position the caliper over the rotor and attach to the caliper mounting bracket using the M12-1.75 x 35mm Grade 10.9 Hex Head Bolts along with the M12 Flatwashers. Simply snug the bolts at this time as the caliper will be removed at a later step. **NOTE:** It is not necessary to install the brake pads at this time.
- 13. 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. Remove the hub and rotor assembly.
- d. Loosen the bolts from between the primary and intermediate brackets.
- e. Install the appropriate shims removing one bolt at a time. Snug bolts at this time.
- f. Reinstall the caliper and recheck the gap as described above. If necessary, add or remove shims.

NOTE: Shimming of the caliper is required due to variations in spindle manufacturing and wear at the bearing seat area of the inner bearing. Refer to Figure 6a for measuring reference and Figure 6b on the location of the shims.



- 14. With the shims properly located, torque the bolts between the primary and secondary brackets to 65 ft/lbs.
- 15. Re-install the brake rotor and hub assembly for the final time. Seat the bearings as necessary.

- 16. Place the caliper over the rotor with the pads installed and torque the bolts to 85 ft/lbs.
- 17. 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.
- 18. Repeat these steps for the other side and recheck all attachment points and fittings.
- 19. Installation is now complete. Install the master cylinder or a booster/master cylinder combination and bleed the brakes accordingly following the instructions included in a separate document.