ASSEMBLY INSTRUCTIONS

FOR

1976-1979 FORD F250, DANA 44/60 DISC BRAKE AXLE

Part# PRD-BUK-D44F or PRD-BUK-D60F

Our PRD Design exclusive brake upgrade kit gives you modern brake engineering while allowing you to maintain that classic look of a 16-inch steel wheel if desired*.

WHEEL FITMENT STATEMENT

*ONLY GUARANTEED TO FIT WITH 16”X7” FORD STEEL WHEELS. AFTERMARKET REPOP WHEEL FITMENT CAN NOT BE GUARANTEED

TECH SUPPORT CALL. (641)619-5859

THESE BRAKES SHOULD ONLY BE INSTALLED BY SOMEONE EXPERIENCED AND COMPETENT IN THE INSTALLATION AND MAINTENANCE OF DISC BRAKES. READ AND UNDERSTAND ALL WARNINGS PRIOR TO INSTALLATION.

WARNING

IT IS THE RESPONSIBILITY OF THE PERSON INSTALLING ANY BRAKE COMPONENT OR KIT TO DETERMINE THE SUITABILITY OF THE COMPONENT OR KIT FOR THAT PARTICULAR APPLICATION. IF YOU ARE NOT SURE HOW TO SAFELY USE THIS BRAKE COMPONENT OR KIT, YOU SHOULD NOT INSTALL OR USE IT. DO NOT ASSUME ANYTHING. IMPROPERLY INSTALLED OR MAINTAINED BRAKES ARE DANGEROUS. IF YOU ARE NOT SURE, GET HELP OR RETURN THE PRODUCT. YOU MAY OBTAIN ADDITIONAL INFORMATION AND TECHNICAL SUPPORT BY CALLING PRD DESIGN AT (641) 619-5859, USE OF PRD DESIGN TECHNICAL SUPPORT DOES NOT GUARANTEE PROPER INSTALLATION. YOU, OR THE PERSON WHO DOES THE INSTALLATION MUST KNOW HOW TO PROPERLY USE THIS PRODUCT. IT IS NOT POSSIBLE OVER THE PHONE TO UNDERSTAND OR FORESEE ALL THE ISSUES THAT MIGHT ARISE IN YOUR INSTALLATION. THESE BRAKES MUST BE MAINTAINED AND SHOULD BE CHECKED REGULARLY FOR FATIGUE, DAMAGE, AND WEAR.

WARNING

DO NOT OPERATE ANY VEHICLE ON UNTESTED BRAKES!
SEE MINIMUM TEST PROCEDURE WITHIN
ALWAYS UTILIZE SAFETY RESTRAINT SYSTEMS AND ALL OTHER AVAILABLE SAFETY EQUIPMENT WHILE OPERATING THE VEHICLE IMPORTANT • READ THE DISCLAIMER OF WARRANTY INCLUDED IN THE KIT

Important Notice

Read This First Before any tear-down or disassembly begins, review the following information

• Review the Wheel Fitment Statement on page 1 to verify compatibility with the wheels you will be using with the installation. PRD Design does not guarantee fitment and is not responsible for issues with any aftermarket wheels

• It is the responsibility of the purchaser and installer of this kit to verify suitability / fitment of all components and ensure all fasteners and hardware achieve complete and proper engagement. Improper or inadequate engagement can lead to component failure.

Important and highly recommended

Take photos of brake system before disassembly and during the disassembly process. In the event, trouble-shooting photos can be life savers. Many vehicles have undocumented variations, photos will make it much simpler for PRD Design to assist you if you have a problem.

Parts List

Item	Part #	Description	Quantity
1	PRD-SB-D44	PRD Design - Spindle Bracket	2
2	PRD-CB-D44-D60	PRD Design - Caliper Bracket	2
3	PRD-CB-3816BOLT	Caliper Braket Bolts – socket head 3/8”-16 x 1 ½”	8
4	240-10190	Washer, .391” I.D. x .625” O.D. x .063” Thick	8
5	240-1159	Shim, 0.035” Thick	32
6	240-10306	Shim, 0.016” Thick	8
7	PRD-Rotor	Stock Spec Dana 44-60 Brake Rotor	2
8	120-14550/51	Caliper, Forged Narrow Superlite 6R (one each, right and left) GRAY	2
8A	120-14550/51-BK	Caliper, Forged Narrow Superlite 6R (one each, right and left) BLACK	
8B	120-14550/51-RD	Caliper, Forged Narrow Superlite 6R (one each, right and left) RED	
9	PRD-SMSW-38	Washer, .375” I.D. x .625” O.D. x .090” Thick	4
10	PRD-CM-12PNUT	PRD-Caliper Mounting 12-Point Flange Nut 3/8”-24	4
11	PRD-HSSTR-3824-3	Stud, 3/8”-24 x 3” long (pre installed in bracket PRD-CB-D44-D60)	4
12	150-8855K-PRD	Pad, BP-10 Compound, Axle Set	1
13	220-12834-PRD	Stainless Steel Braided Flexline Hose Kit	1

General Information

•Installation of this kit should ONLY be performed by persons experienced in the installation and proper operation of disc brake systems. Before assembling this PRD Design disc brake upgrade kit, double check the following to ensure a trouble free installation.

•Inspect the contents of this kit against the parts list to ensure that all components and hardware are included.

•Make sure this is the correct kit to fit the exact make and model year of your vehicle. This kit is designed for direct bolt-on installation to 1976 - 1979 model year Ford F250 Dana 44 disc brake axles.

PRD Design Brake Upgrade Kit Install Procedure.

FIGURE 1

Step 1 - Disassemble the original front brakes: Raise the front wheels off the ground and support the front suspension according to the manufacturer's instructions. Remove the front wheels and completely disassemble the stock brake system to the bare knuckle. The wheel studs will need to be pressed out of the OEM hub. Now is the time to inspect and replace any worn axle shaft components, ball joints, bearings, and spindle mounting studs. At this time, clean and de-grease the spindle and knuckle mounting surfaces.

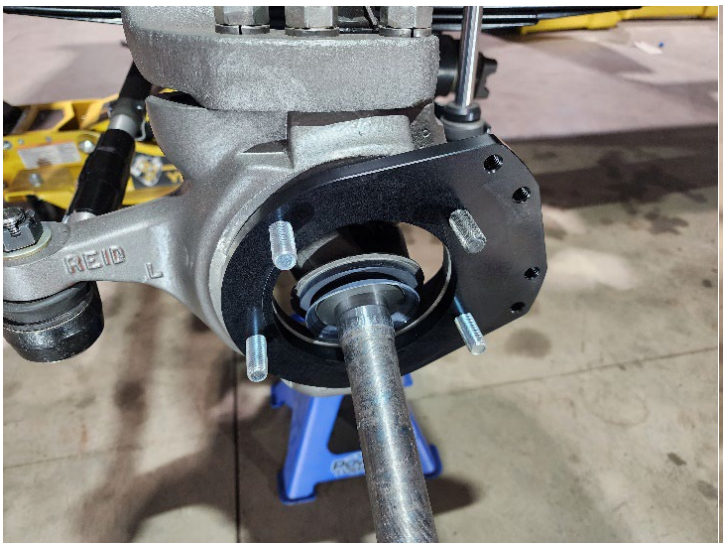

FIGURE 2

FIGURE 3

Step 2 - Install the PRD Design flat mount bracket (item 1) as shown (figure 2), install the OEM spindle over the bracket, and secure it temporarily with OEM nuts (figure 3) Inspect that the bracket fits squarely against the mounting surface of the knuckle and is free from interference from casting irregularities, machining ridges, burrs, etc. Remove the nuts one at a time, apply red Loctite® 271 to the bolt threads, and torque nuts to OEM specification.

FIGURE 4

Step 3 – Install the new brake rotor (Item 7) onto the OEM hub according to the OEM specifications (*New wheel studs are recommended*). Install the hub and rotor assembly onto the spindle following OEM specifications and torque specs. (figure 4) Now is also a great time to install new wheel bearings and seals.

FIGURE 5

Step 4 – Install the PRD Design caliper mount bracket (Item 2)(figure 5) with clean, dry threads on the mounting bolts initially. Orient the bracket as shown on page 5 (Figures 6 and 7) and install using the socket head mounting bolts (Item 3) and 3/8" washers (Item 4). Place two .035" thick shims (Item 5) between the flat and caliper brackets on each bolt. Align and temporarily tighten the mounting bolts. Later, after the caliper alignment has been checked, the mount bolts will be secured using red Loctite® 271.

FIGURE 6

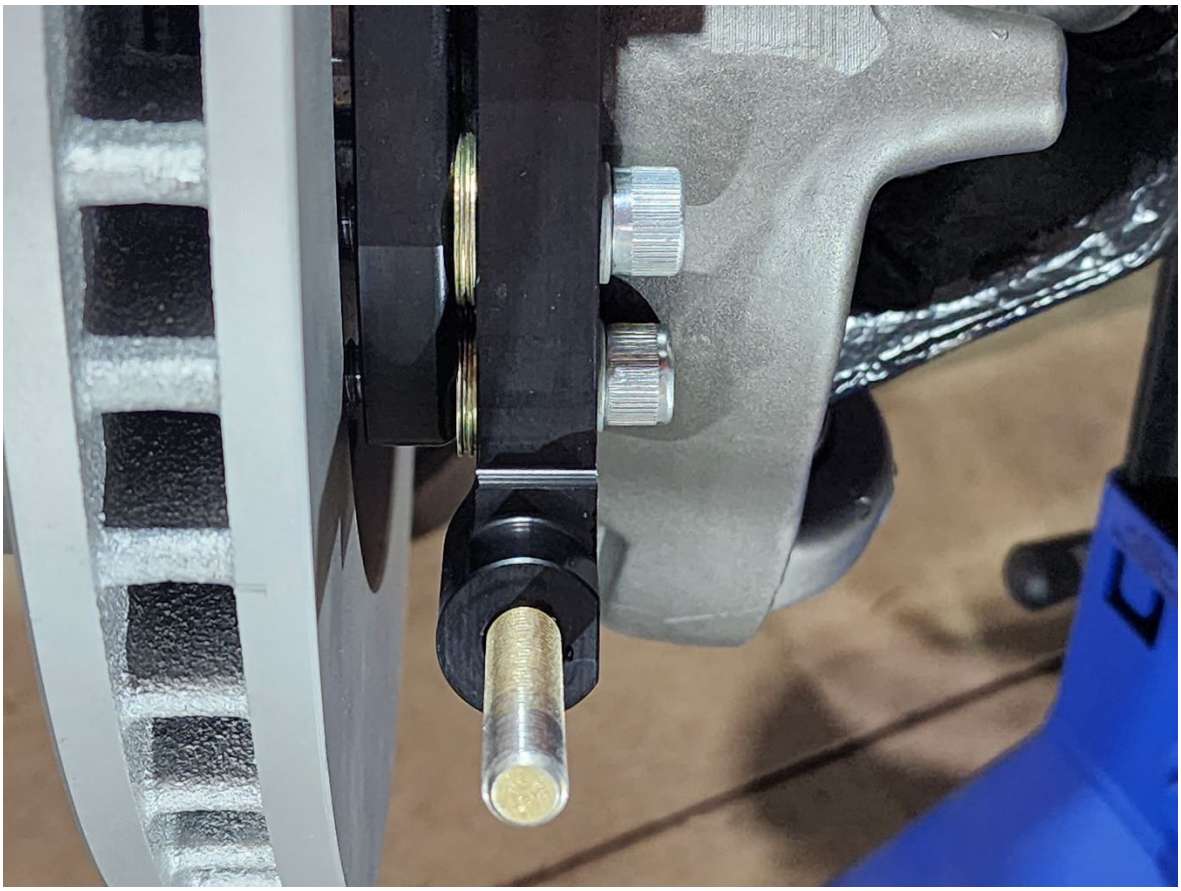

FIGURE 7

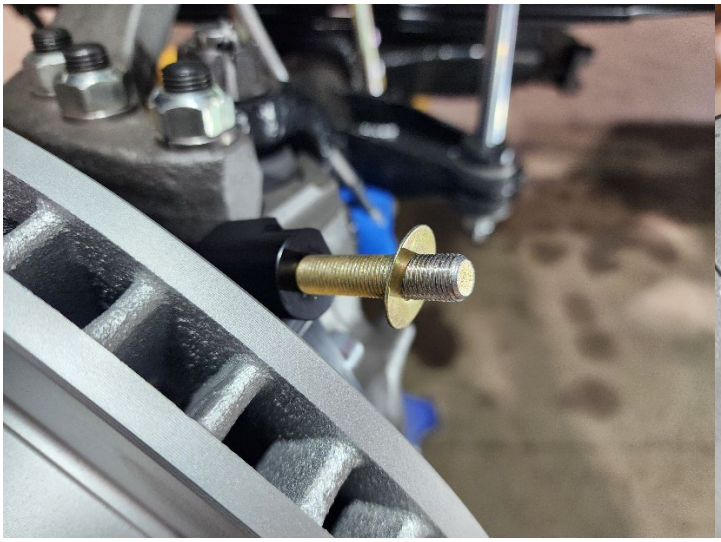

FIGURE 8

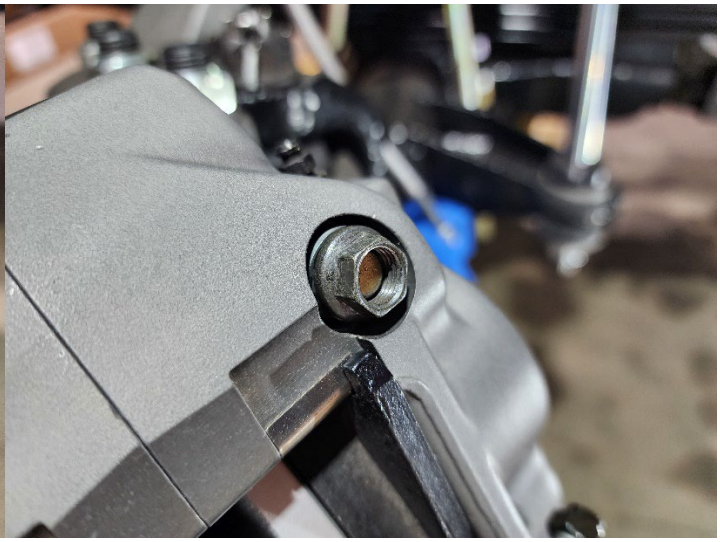

FIGURE 9

Step 5 – This kit contains distinct right and left-hand calipers that must be mounted in the specific direction to the front of the truck, as noted by the arrows machined into the outside of the caliper. Place one .035" thick shim (Item 5) on each stud, as shown (Figure 8). Mount the caliper onto the bracket using the 12-point nuts (Item 10) and washers (Item 9). Temporarily tighten the 12-point nuts (Figure 9). Ensure that the caliper is mounted so the largest pistons are at the rotor exit end of the caliper in relation to the direction of the rotor. View the rotor through the top opening of the caliper. The rotor should be centered in the caliper (Figure 10). If not, adjust by adding or subtracting shims, .016" or .035", between the spindle bracket and caliper bracket. Always use the same amount of shims on each of the four mounting bolts. Once the caliper alignment is correct, remove the bracket mounting bolts one at a time, apply red Loctite® 271 to the threads, and torque to 35 ft-lb. Install the brake pads into the caliper by removing the caliper center bridge pad retainer bolt, nut, and tube. Insert the brake pads into the caliper, with the friction material facing the rotor. Check that the top of the brake pad is flush with the outside diameter of the rotor. If not, adjust by adding or subtracting shims between the caliper and the bracket. After setting the caliper pad height, torque the 12-point nuts (Item 10) to 30 ft-lb. Secure the brake pads in place with the center bridge pad retainer tube, bolt, and locknut (Figure 11). The locknut should be snug without play in the bolt or tube. Be cautious not to over-tighten.

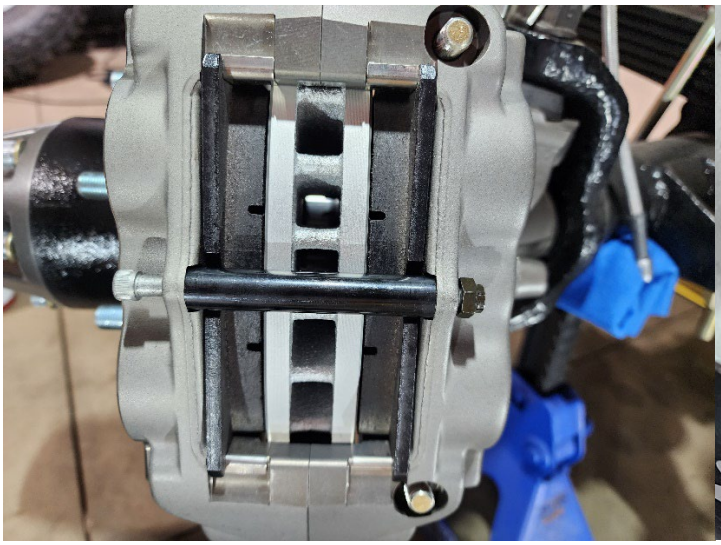

FIGURE 10

FIGURE 11

Step 6 - OEM rubber brake hoses cannot be adapted to the calipers. The caliper inlet fitting is a 1/8-27 NPT. Use PTFE tape on pipe threads to seal the caliper properly. Install the stainless steel braided flex line hose kit (Figures 12 and 13). Be cautious not to over tighten! The installer is responsible for proper routing and ensuring adequate clearance and retention for brake hose components.

FIGURE 12

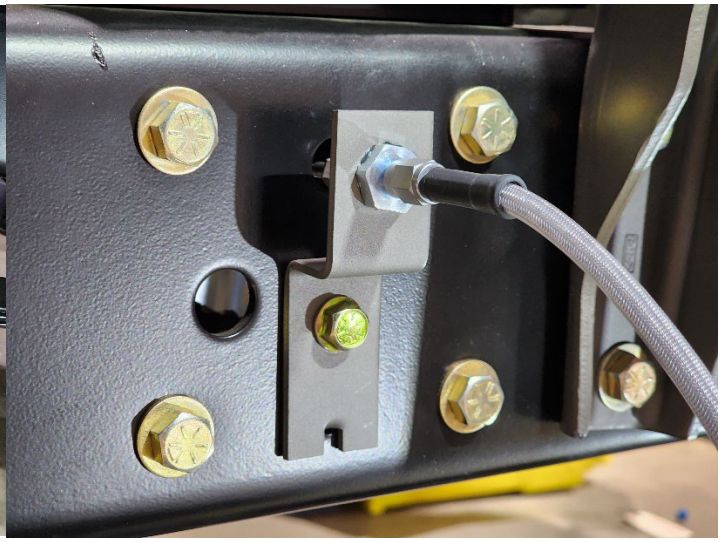

FIGURE 13

Important Notice

•Temporarily install the wheel and torque the lug nuts to the manufacturer's specification. Ensure that the wheel rotates freely without any interference

•In absence of specific instructions for brake line routing, the installer must use his best professional judgment on correct routing and retention of lines to ensure safe operation. Test vehicle brake system per the 'minimum test' procedure stated on page 8. After road testing, inspect for leaks and interference. Initially after install and testing, perform frequent checks of the vehicle brake system and lines before driving, to confirm that there is no undue wear or interference not apparent from the initial test. Afterwards, perform periodic inspections for function, leaks and wear in a interval relative to the usage of vehicle.

•Bleed the brake system, referring to the additional information and recommendations on page 8 for proper bleeding instructions. Check system for leaks after bleeding.

•Install the wheel and torque lug bolts to manufacturer's specifications.

•Bed-in the brake pads per the procedure on page 8.

WARNING • DO NOT DRIVE ON UNTESTED BRAKES

BRAKES MUST BE TESTED AFTER INSTALLATION OR MAINTENANCE

MINIMUM TEST PROCEDURE

• Make sure pedal is firm: Hold firm pressure on pedal for several minutes, it should remain in position without sinking. If pedal sinks toward floor, check system for fluid leaks. DO NOT drive vehicle if pedal does not stay firm or can be pushed to the floor with normal pressure.

• At very low speed (2-5 mph) apply brakes hard several times while turning steering from full left to full right, repeat several times. Remove the wheels and check that components are not touching, rubbing, or leaking.

• Carefully examine all brake components, brake lines, and fittings for leaks and interference.

• Make sure there is no interference with wheels or suspension components.

• Drive vehicle at low speed (15-20 mph) making moderate and hard stops. Brakes should feel normal and positive. Again check for leaks and interference.

• Always test vehicle in a safe place where there is no danger to (or from) other people or vehicles.

• Always wear seat belts and make use of all safety equipment.

BRAKE BLEEDING

•To properly bleed the brake system, begin with the caliper farthest from the master cylinder. Bleed the outboard bleed screw first, then the inboard. Repeat the procedure until all calipers in the system are bled, ending with the caliper closest to the master cylinder. NOTE: When using a new master cylinder, it is important to bench bleed the master cylinder first.

•Test the brake pedal. It should be firm, not spongy and stop at least 1 inch from the floor under heavy load.

If the brake pedal is spongy, bleed the system again.

If the brake pedal is initially firm, but then sinks to the floor, check the system for fluid leaks. Correct the leaks (if applicable) and then bleed the system again.

NOTE: NEVER allow the contact surfaces of the pads or rotors to be contaminated with brake fluid. Always use a catch bottle with a hose to prevent fluid spill during all brake bleeding procedures.

PAD AND ROTOR BEDDING:

BEDDING STEPS FOR NEW PADS AND ROTORS – ALL COMPOUNDS

Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for the bedding of all new pad materials and rotors. These procedures should only be performed in safe location where you can safely and legally obtain speeds up to 65 MPH, while also being able to rapidly decelerate.

•Begin with a series of light decelerations to gradually build some heat in the brakes. Use an on-and-off the pedal technique by applying the brakes for 3-5 seconds, and then allow them to fully release for a period roughly twice as long as the deceleration cycle. If you use a 5 count during the deceleration interval, use a 10 count during the release to allow the heat to sink into the pads and rotors. (CONTINUED ON PAGE 9)

•After several cycles of light stops to begin warming the brakes, proceed with a series of medium to firm deceleration stops to continue raising the temperature level in the brakes.

•Finish the bedding cycle with a series of 8-10 hard decelerations from 55-65 MPH down to 25 MPH while allowing a proportionate release and heat-sinking interval between each stop. The pads should now be providing positive and consistent response.

•If any amount of brake fade is observed during the bed-in cycle, immediately begin the cool down cycle.

•Drive at a moderate cruising speed, with the least amount of brake contact possible, until most of the heat has dissipated from the brakes. Avoid sitting stopped with the brake pedal depressed to hold the car in place during this time. Park the vehicle and allow the brakes to cool to ambient air temperature.

POST-BEDDING INSPECTION – ALL VEHICLES

•After the bedding cycle, the rotors should exhibit a uniformly burnished finish across the entire contact face. Any surface irregularities that appear as smearing or splotching on the rotor faces can be an indication that the brakes were brought up to temperature too quickly during the bedding cycle. If the smear doesn't blend away after the next run-in cycle, or if chatter under braking results, sanding or resurfacing the rotors will be required to restore a uniform surface for pad contact.

THANKS FOR PURCHASING YOUR NEW BRAKES!

TECH SUPPORT CALL PRD DESIGN 641.619.5859

PRD DESIGN

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