

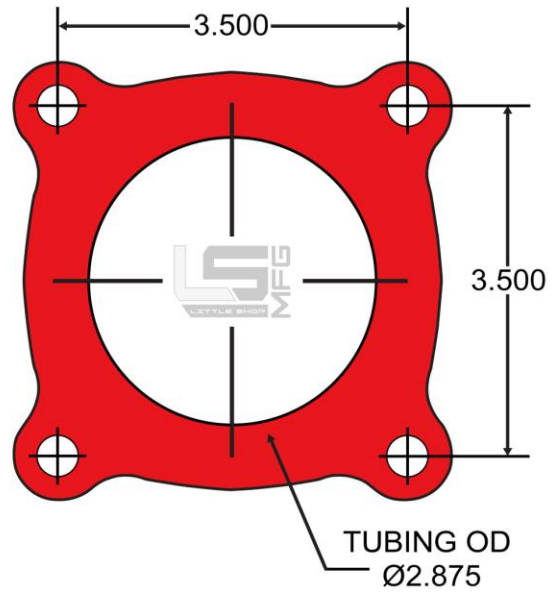


DBC-181113
79-95 Toyota 4wd Rear Disc Brake Conversion

Fitment

- 79-95 Toyota Pickups – 6 Lug 4wd only

TOYOTA PU



Warning

- Disc brakes should only be installed by someone experienced and competent in the installation and maintenance of disc brakes.
- If you are not sure of 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.

Notes

- This kit can be operated using the stock OEM master cylinder. However, to retain a more firm brake pedal feel many users swap to larger bore master cylinders such as the 1" bore variant found in 89-95 4-runners and V6 trucks. It is also optional to add an adjustable proportioning valve such as [Wilwood 260-10922](#) to the rear circuit. As with most suspension and tire modifications (from OEM specifications), changing the brakes may alter the front to rear brake bias. Your specific needs will depend on other modifications to the system.
- Buyers can elect to retain or disable the factory Load Sensing Proportioning Valve
- Refer to **Step 9** prior to installation. If you wish to retain your drum backing plates, a shop press can be used for removing them. (Buyers can also consider the purchase of new wheel bearings if they choose to replace those at the same time.) Alternatively, a cut-off wheel can be used to split the backing plate into two pieces for removal.
- This kit fits most 15 inch diameter wheels and larger. If the caliper contacts the inside of a 15" wheel, in most cases it will be in limited "hot spots." It is acceptable to sand the caliper casting to create clearance in these spots so long as no more than 1/8 inch of material is removed. At the time of installation, prior to any modification, get an estimate of clearance to the wheel. If it cannot be made to work, the kit can be returned to LSMFG so long as it is in completely resalable condition. Shipping costs will not be included in the refund.
- The included rotors measure .315" thickness whereas the factory drum measures ~.125" thick. Technically, the difference moves the wheel outboard by .190, although that amount is typically insignificant and can be compared to differences in tire inflation, swapping brands of tires (even at the same industry size), etc.
- **Replacement Parts:** any component in the kit is normally in stock and ready to ship from LSMFG. Refer to the [Disc Brake Parts](#) category to see most of these. If you'd like OEM fitment info on sourcing calipers, hoses, or pads from a parts store then please [CONTACT US](#). The rotors begin as an off-the-shelf part prior to being machined and zinc plated by LSMFG. This work could be copied by a competent machine shop, although it would not likely be as inexpensive as buying them as part of the kit.

Notes (continued)

- It is the responsibility of the buyer 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.
- For any questions or suggestions, please [CONTACT US](#)

1 & 2



This installation refers to the **passenger side** of the axle. All steps are to be repeated on the driver side. Start by removing the factory drum. It may be necessary use a lubricant around the axle register along with two 5/16-18 bolts threaded into the drum to drive it away from the axle as shown. Once the drum is removed, remove the brake shoe retaining springs (2 places) as shown.

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Remove the 2 other retaining springs above and below the axle as shown.



Remove the parking brake cable where it installs into the brake shoe. Then remove the 2 bolts securing it to the drum backing plate. These bolts will need to be kept and reused.



Remove the factory brake line at the back of the drum backing plate. Then remove the 4 nuts securing the axle to the flange. It may be necessary to use a lubricant on these threads. Remove the axle and drum backing plate from the housing.



Steps 10-13 require the use of a press. Refer to Step 14 for removing the backing plate without removing the axle shaft. Using a pair of snap ring pliers and a small screw driver, open the retaining ring enough to slip it out of the groove and on to the outer diameter of the shaft. Then pull the ring up and off the shaft. Do not attempt to force the ring off of the shaft perpendicularly. It will bend and damage it. Press the axle out of the backing plate as shown, supporting it as close to the center as possible. Not all presses will have the needed height to perform this operation. Other setups can be used for this, or consult a local automotive shop with experience with Toyota Pickup wheel bearing replacement.



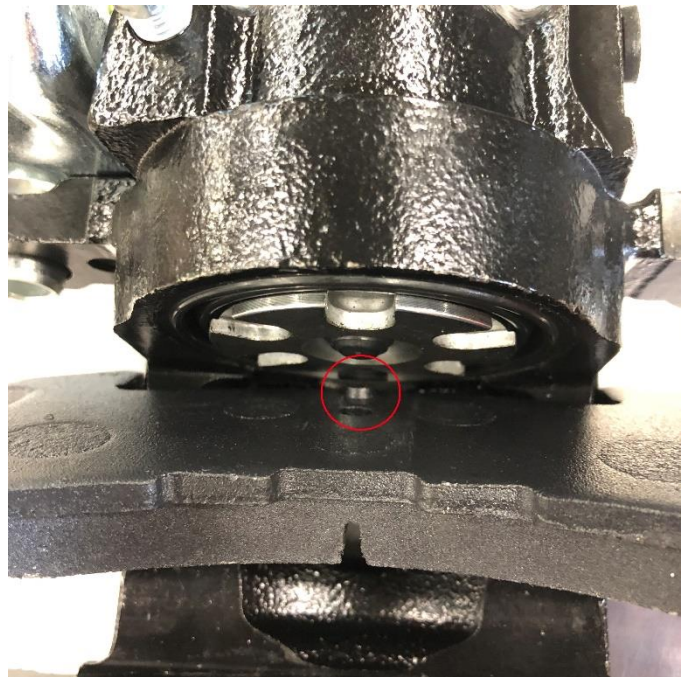
After removing the axle, thread the 4 flange nuts back on flush with the tops of the studs, and remove the studs by driving out with a hammer. This will allow the backing plate to be removed and discarded. Optionally, a new wheel bearing can be installed at this time. The axle can now be reinstalled into the bearing on a press by supporting the bearing as close to the center as possible.



Reinstall the retaining ring, and then install the axle into the housing. **Alternatively to pressing off the bearing:** the user can choose to remove the studs, slip the backing plate down on the axle, then cut a pie shape out as shown using a reciprocating saw or cut-off wheel. When this is done, it is possible to remove the backing plate without removing the bearing from the axle shaft.



For kits with non-parking brake calipers, bolt on the brackets using the supplied hardware as shown and torque to **20ft-lbs**. Your caliper should be mounted to the **REAR** (back) of the axle. **For kits with parking brake calipers**, temporarily leave these bolts loose until the caliper can be bled in the position shown under Parking Brake Caliper Setup.



Install the rotor using 2 lug nuts to retain it. **NOTE:** Verify that the rotors are sitting flat against the axle shaft. **Kits with parking brake calipers** should be checked to confirm the pad is seated flat against the piston face, with the boss of the brake pad lining up with the notch in the piston face.

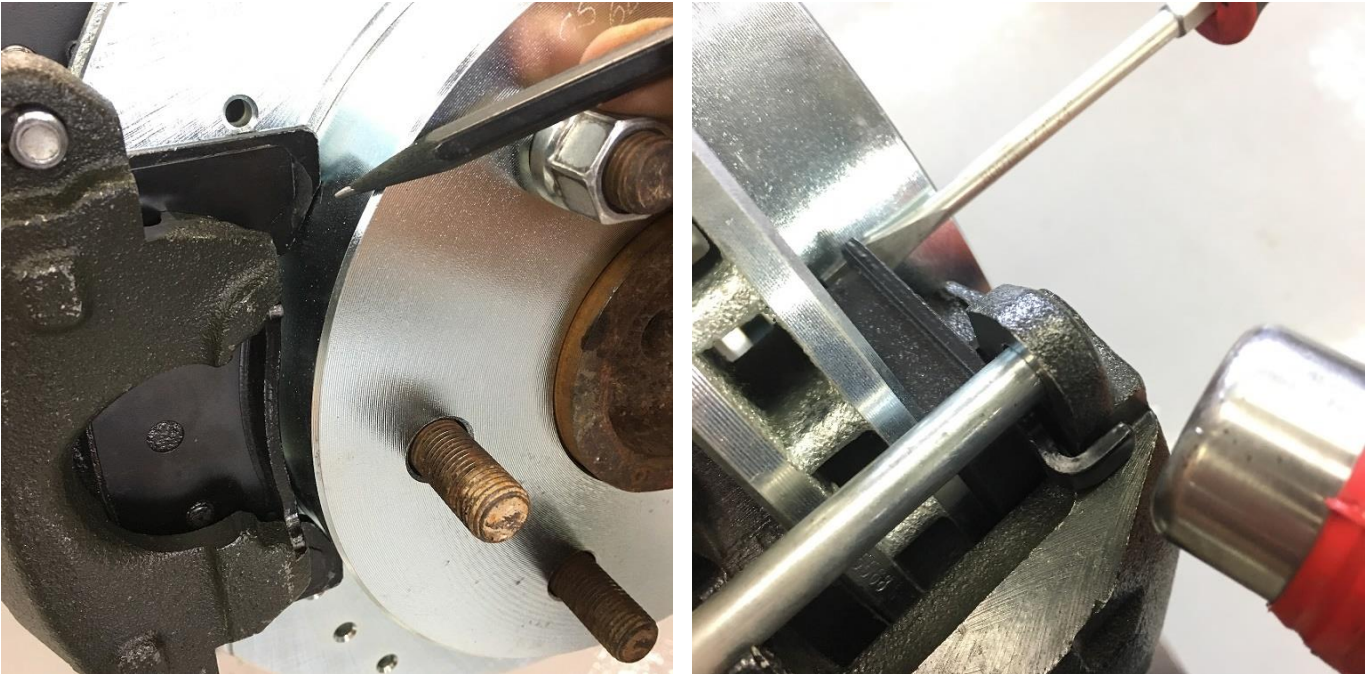


The calipers can now be installed using medium strength threadlocker (such as Loctite 243) on the threads of the two 7/16-20 caliper bolts and torque to **30 ft-lbs**. **For parking brake calipers, refer to the instructions below for Parking Brake Caliper Setup.**

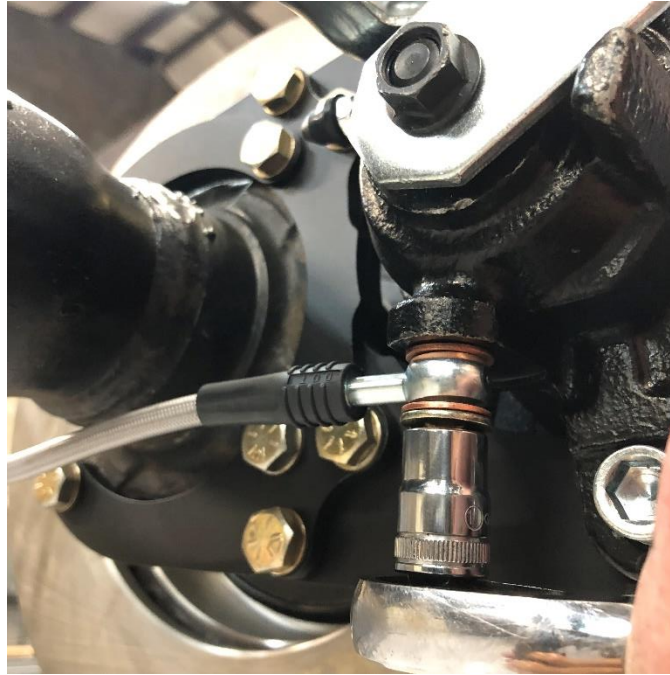
NOTE: A basic compound pad is included with the calipers in our kit (except for Wilwood calipers). Semi-metallic and ceramic pads are an option for customers who wish to minimize brake dust over time. Use the vehicle fitment info below for replacements which can be sourced at any local parts store:

Non-parking brake calipers – 1982 Monte Carlo Front

Parking brake calipers – 1982 Cadillac Eldorado Rear



With the caliper bolted into place, check the corners of the pads against the rotor. If there is contact in this spot, you can wedge a flat head screwdriver under the corner and use a hammer to lightly tap the ear of the pad and hold tension away from the rotor. If the pad still contacts the rotor, it may be necessary to lightly sand the corner of the pad until there is adequate clearance. If you installed Wilwood calipers, check this area as well as the body of the caliper to the rotor bell.



Install the banjo bolt and crush washers into the hose as shown. If your hose has an offset, place the offset side of the fitting **away** from the caliper, then install the hose onto the caliper as shown. (If it is straight, either side can be used). Install the retaining clip being careful not to bend the hose bracket.

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Install the retaining clip as shown, being careful not to bend the hose bracket. The factory brake line can then be repositioned into the top side of the brake line bracket and hose. **Use caution as to not kink the hardline during repositioning.** Next, tighten the brake line nut into your hose. It is best to use a wrench to support the rubber hose from spinning in the key of the hose bracket. **For kits without parking brake calipers, skip to Additional Information and Recommendations.**

For Kits Optioned with Parking Brake Calipers

IMPORTANT: If you selected the parking brake caliper option, you will be required to fabricate a connection from your original parking brake cables, to the new calipers. We suggest using our [Universal Parking Brake Cable Kit](#) to help you get started on this detail.

Parking Brake Caliper Setup and Bleeding Procedures - PLEASE READ COMPLETELY

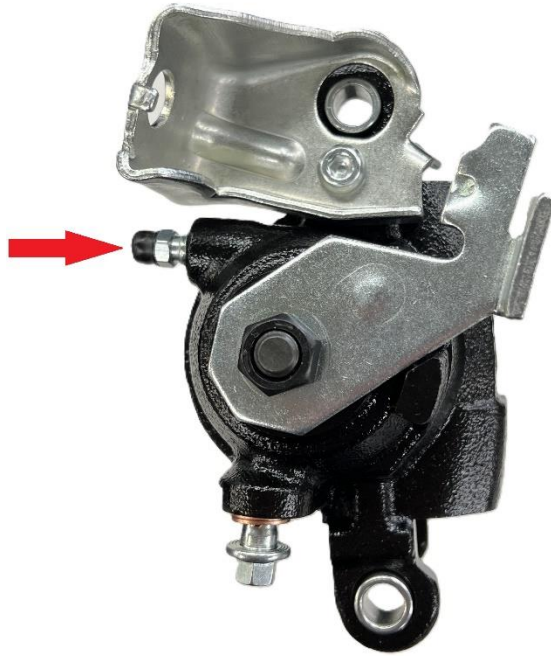
Parking brake calipers are preadjusted so that it's not necessary to adjust them on initial installation. After the caliper is mounted the pads should be very close (within .020") to the rotor surfaces. If there is a large gap between the pads and rotor surfaces, this can cause a soft brake pedal feeling as well as poor brake performance. If the caliper does not slip over the rotor or if re-adjustment becomes necessary for another reason, refer to our [Parking Brake Adjustment Procedure](#). (This is **only** in cases where it becomes necessary and not part of a typical installation.)

We've found that traditional slow pumping of the pedal works best to bleed brake systems instead of vacuum or power bleeding, which can cause cavitation. We recommend leaving the master cylinder cap off during bleeding for that same reason.

Parking brake calipers are self-adjusting. Each time you use the parking brake, they adjust themselves for pad wear by clicking to the next stop on an internal ratchet. If you do not use your parking brake during normal operation of the vehicle, over time the pads will wear and there will be insufficient contact between the pads and the rotor. When this happens, the parking brake will never engage. Failure to adjust the parking brake can result in no parking brake, brakes dragging, overheating, premature brake wear, or ineffective rear brakes causing excessive front wear and overheating.

There are two styles of parking brake calipers, OEM bleeder type and Modified bleeder type. Identify which caliper you have and use the instructions below accordingly.

Parking Brake Caliper Bleeding for OEM Bleeder Type



When bleeding this type of parking brake caliper, it is best to temporarily position the caliper, so the screw is **horizontal to the ground**. If it is not, then it will be necessary to reposition the vehicle, the axle, or the caliper. **If the bleeder screw is not parallel to the ground while bleeding, then you can bleed gallons of fluid through it without eliminating all of the air.**

Parking Brake Caliper Bleeding for Modified Bleeder Type



When bleeding this type of parking brake caliper, it is best to temporarily position the caliper so the screw is **vertical to the ground**. If it is not, then it will be necessary to reposition the vehicle, the axle, or the caliper. **If the bleeder screw is not vertical to the ground while bleeding, then you can bleed gallons of fluid through it without eliminating all of the air.**



An easy way to accomplish this is to unbolt the main caliper bracket from the axle (leaving the caliper bolted to it) and rotate the caliper around the rotor until the bleeder screw is vertical, then perform the bleeding procedure. Keep the caliper and pads on the rotor during bleeding so that the piston doesn't over-extend outside of its bore.

Additional Information and Recommendations

- As with most suspension and tire modifications (from OEM specifications), changing the brakes may alter the front to rear brake bias. Rear brakes should not lock up before the front. Brake system evaluation and tests should be performed by persons experienced in the installation and proper operation of brake systems. Evaluation and tests should be performed under controlled conditions. Start by making several stops from low speeds then gradually work up to higher speeds. Always utilize safety restraint systems while operating the vehicle.
- To properly bleed the brake system, begin with the caliper farthest from the master cylinder. 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 leaks. Correct the leaks (if applicable) and then bleed the system again. If the brake pedal goes to the floor and continued bleeding of the system does not correct the problem, either air may be trapped in the system, or a master cylinder with increased capacity (larger bore diameter) may be required. In the case of 79-95 Toyota Pickups the 1" bore variant found in 89-85 4-runners and V6 trucks master cylinders can be swapped for added bore diameter.

Brake Testing

- Make sure the 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 the vehicle if the pedal does not stay firm or can be pushed to the floor with normal pressure.
- At a very low speed (2-5 mph), apply the 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 the vehicle at a 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.

Pad and Rotor Bedding

- Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for the bedding of the pads and rotors. These procedures should only be performed on a racetrack, or other 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.
- 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: 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.

For any questions or suggestions please [CONTACT US](#)

