



## Installation Instructions

### Rear Disc Brake Conversion Kit

Item # RC1004, RC1004X

**Applications:** Universal 10 & 12-bolt rear axles

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Thank you for choosing Leed Brakes for your automotive product needs. Before you begin your installation please inspect all parts and review the installation instructions. If you have any missing or damaged parts or if you have any questions regarding the fitment of this kit on your specific vehicle please contact our customer service team at (716) 852-2139 before beginning your installation.

### **Tools required for a safe and smooth installation:**

***Proper Jack & Jack Stands, Tube Wrenches, Standard Socket Set, Standard Wrench Set, Torque Wrench, Lug Wrench, Pliers, Mallet, Brake Fluid, Brake Cleaner, Differential Gasket and Proper Gear Oil.***

### **Wheel Size**

**This kit is designed for 15" or larger wheels. We do not recommend attempting to install this kit with 14" wheels and we do not authorize the modification of any of the components of the kit.**

### **Axle Shafts**

**In order for the rotors to slide over the axle shafts the outside diameter of the flange cannot exceed 6.125". Most factory axles will work without modification, but some factory and aftermarket axles may need to be machined down. Some factory axles may have burrs or high spots that can be filed down without requiring full machining.**

### **Drum Brake Removal:**

1. Safely raise the vehicle off the ground until the wheels are clear and spin freely. Support the vehicle using the appropriate Jack Stands and remove the rear wheels.
2. Begin by removing the brake drums from the ends of the axles. If the drums are stuck they can often be freed by tapping the drum face between the studs with a hammer. If the inside of the drums are badly grooved it may also be necessary to back of the self-adjuster to allow the drums to slide off over the brake shoes.

### **C-Clip Axles**

1. Moving to the differential remove the cover bolts and drain the gear oil from the differential. Rotate the differential until the center shaft retaining bolt is visible. Carefully loosen and remove the retaining bolt.
2. Push the center shaft towards the rear of the car and slide it out of the differential. You can now push the axle shafts inward towards the differential and remove the C-clips. With the clips removed the axles can be slid out of the axle housing. Be sure to save the C-clips, center pin, center shaft, retaining bolt and differential cover bolts for reinstallation.
3. Disconnect the parking brake cable from the brake lever and the backing plate. Using a set of hose pinch off pliers or something similar pinch off the center rear flex hose. Using a flare wrench disconnect the brake line from the back of the wheel cylinder. Remove the 4 nuts and bolts from the end of the axle housing and remove the drum brake backing plate.
4. Inspect the condition of your axle bearings and seals and clean the front and back side of the axle housing flanges for installation of the new brackets

### **Bolt In Axles**

1. If your vehicle is equipped with bolt in axles instead of C-clips the axle will have a retainer plate separate from the drum brake backing plate to retain the axle bearing in the housing.
2. Remove the 4 nuts and bolts from the end of the axle housing and slide out the axle shafts.
3. Disconnect the parking brake cable from the brake lever and the backing plate. Using a set of hose pinch off pliers or something similar pinch of the center rear flex hose. Using a flare wrench disconnect the brake line from the back of the wheel cylinder. Remove the drum brake backing plate.
4. Inspect the condition of your axle bearings and seals and clean the front and back side of the axle housing flanges for installation of the new brackets.

### **Bracket Installation:**

1. The new caliper mounting brackets will be installed on the **inboard** side of the axle housing flange. Be sure the surface is clean and free from any burrs or rust to insure the brackets will sit flat.
2. This kit is designed for non-staggered shock cars. The brackets need to be installed so that the calipers are on rear side of the axle tube.

### **C-Clip Axles**

1. Your kit includes brackets and splash shields. The kit will function the same with or without the splash shields. If you wish to install them they must be bolted to the **outboard** face of the axle housing flange and the mounting bracket must be mounted to the **inboard** side of the flange. The lip of the splash shield should point out towards the rotor. **Photo 1**
2. The bracket and shield will be installed with (3) 3/8" x 2.0" bolts and flange nuts provided. If you are installing the splash shields use the 3/8" x 1.5" bolt in the 4th hole that does not pass through the bracket. The heads of the bolts should be on the outboard side. Place the bracket on the **inboard** side of the flange with the pocket in the bracket against the axle housing flange. Snug the bolts, but do not torque them at this time. **Photo 3 & 4**
3. Reinstall the axle shafts, C-clips, center shaft and retaining bolt. Be sure the axle shafts are in the correct sides and tighten the retaining bolt. Make sure everything spins freely and reinstall the differential cover with a new gasket. Be sure to refill the differential with the correct grade of gear oil. **Photo 5**

### **Bolt In Axles**

1. Your kit includes brackets and splash shield. The kit will function the same with or without the splash shield, but if you opt not to install the splash shield you **must** install the 4 bolt spacer plate in its place on the outboard side of the axle housing flange. If you wish to install the shields they must be bolted to the **outboard** face of the axle housing flange and the mounting bracket must be mounted to the **inboard** side of the flange. The lip of the splash shield should point out towards the rotor. **Photo 1 & 2**
2. The bracket and shield will be installed with (3) 3/8"x 2.0" bolts and flange nuts provided. Use the 3/8" x 1.5" bolt in the 4th hole that does not pass through the bracket. The heads of the bolts should be on the outboard side. Slide the axle shaft into the housing sandwiching the splash shield **or** the 4 bolt spacer plate between the bearing retainer and the axle housing flange. **Photo 3 & 4**
3. Place the bracket on the **inboard** side of the flange with the pocket in the bracket against the axle housing flange. Snug the bolts, but do not torque them at this time. **Photo 5**

### **Rotor And Caliper Installation**

1. Inspect the axle shaft flanges to insure they are free from rust and burrs. For proper function it's important that the rotors sit flat on the axle flanges. Slide the rotors into place on the ends of the axle shafts and secure with 2 lug nuts. **Photo 6**
2. Since this kit is for non-staggered shock applications the calipers are different for the left and right sides. The calipers will be installed so that the parking brake levers are above the axle tube.
3. Slide the caliper into position over the rotor and align the caliper with the mounting holes in the bracket. Install the caliper slider bolts and check relationship of the caliper to the rotor. If the caliper is centered over the rotors no shimming is required. If the caliper is not centered or would not slip easily into place you will need to add one of the supplied shims between the bracket and the axle housing flange. Repeat the process as necessary until the caliper is centered and the rotor can be turned freely by hand. **Photo 7 & 8**
4. When the shimming is complete the 3/8" nuts and flange washers can be torqued to 35-40 Ft/Lbs. The rotor and caliper can then be reinstalled and the slider bolts can be lubricated with silicone grease and torqued to 25-30 Ft/Lbs.
5. Attach the flexible brake lines to the caliper using the banjo bolt and copper washers provided in the kit. Place one copper washer on the banjo bolt and then slide the banjo bolt into the flex hose. Install a second copper washer onto the end of the bolt and then install the bolt into the caliper. Tighten the banjo bolts to 25 Ft/Lbs. Additional torque may be required if any leaks are noted after bleeding the brakes. **Photo 9**
6. Carefully bend the original hard lines so they can be connected to the flexible lines. Make sure both the hard lines and flex lines make smooth bends and do not contact any moving parts. If the hard lines cannot be secured to the axle housing using the original mounting tabs then the brackets supplied can be welded to the axle housing to support the lines. Now remove the pinch off pliers from the center rear flex line.

## **Parking Brake Cables and Adjustment**

1. This kit has been designed to work with many stock parking brake cables. The cables will now run above the axle and connect to the levers on the calipers. In certain cases such as with some aftermarket suspension kits the stock cables may not work. In those situations the best solution is a universal cable kit such as those supplied by Lokar.
2. Work the parking brake levers on each caliper by hand until the rotor cannot be spun by hand with the lever engaged. **This step must be completed to achieve a firm brake pedal.** It will take many applications of the lever to completely adjust the calipers. If you are unable to properly adjust the calipers in this manner the pistons can also be adjusted by turning them out a ¼ turn at a time by removing the inner brake pad and turning the piston counter clockwise. The best tool for this job is a caliper adjusting tool, but a large flat head screwdriver can also be used. This process will also be used to turn the pistons back in when you replace worn out brake pads in the future. **In order for your new calipers to stay in adjustment and provide a solid pedal feel the parking brake must be used on a regular basis.**
3. Connect the cables to the calipers and make final adjustments as necessary to insure the parking brake applies and releases completely. If the car is supported under the frame rails and the rear suspension is fully extended it may be necessary to make your final adjustments when the car is back on the ground and the suspension is compressed.

## **Bleeding and Final Adjustments**

**We recommend that the brake system is bled using a gravity bleed method. While there are many ways to bleed a system this way is less likely to introduce air in the system causing a spongy pedal. Whenever bleeding your system you must keep an eye on your fluid level. If your master runs dry you will have to bench bleed the master again.**

1. Remove the cap from the master cylinder.
2. Starting at the right rear wheel caliper attach a clear hose to the bleeder with the other end in a clear container.
3. Open the bleeder and observe the fluid flow. It may take a couple of minutes for the fluid to flow with a new system. Once the fluid begins to flow let it drip until you do not see any air bubbles.
4. Move to the left rear wheel, repeat step 3.
5. Repeat steps 2 thru 4 once more.
6. Install the lid on the master cylinder.
7. Pump the brake pedal until you achieve a firm pedal.
8. Remove lid on master cylinder & check fluid level
9. Repeat steps 2 thru 6 to insure all air has been removed.

Once you feel you have successfully removed all air from your brake system check all fittings and lines for leaks and verify all fasteners are tight. Install your wheels, and spin them to insure they still spin freely making sure the caliper doesn't interfere with the wheel and your brakes are not dragging or locked up.

You may now take your vehicle for a test drive in a safe area. We recommend that you drive the vehicle with light to medium application of the brakes for the first 150-200 miles. This will allow your brake pads to properly seat to your rotors to insure optimal braking performance.

**If you have any questions please call our tech line at (716) 852-2139**

**Thank you for purchasing from Leed Brakes we hope you have had an enjoyable experience.**



## **Installation Photos**

### **Rear Disc Brake Conversion Kit**

**Applications:** Universal 10 & 12-bolt Rear Axles



**Photo 1**





**Photo 2**



**Photo 3**

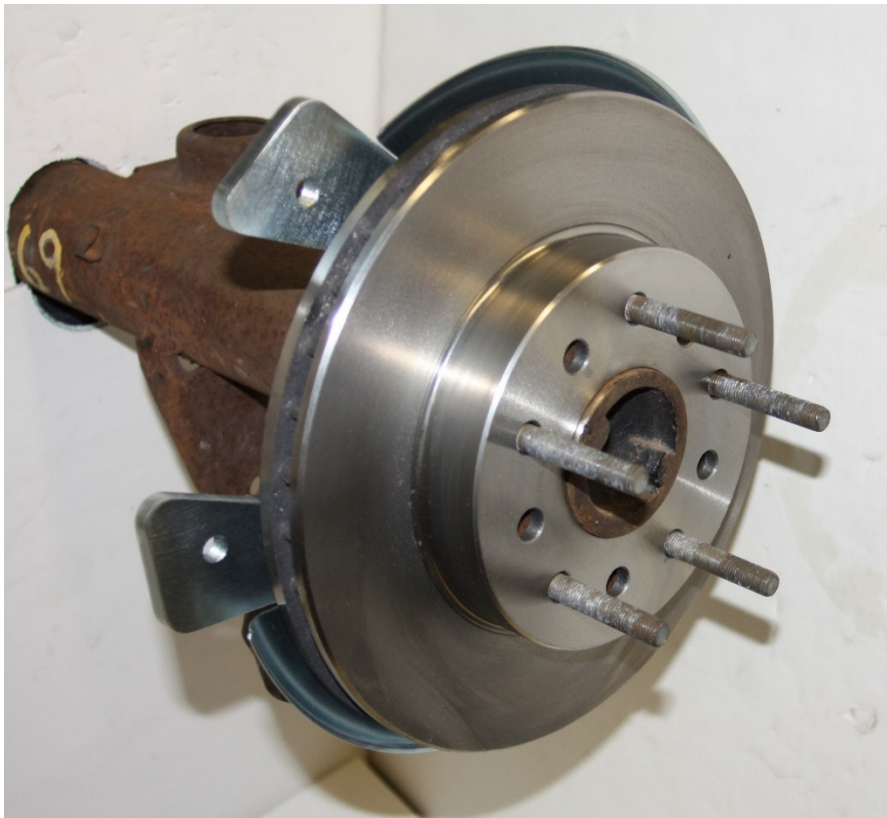




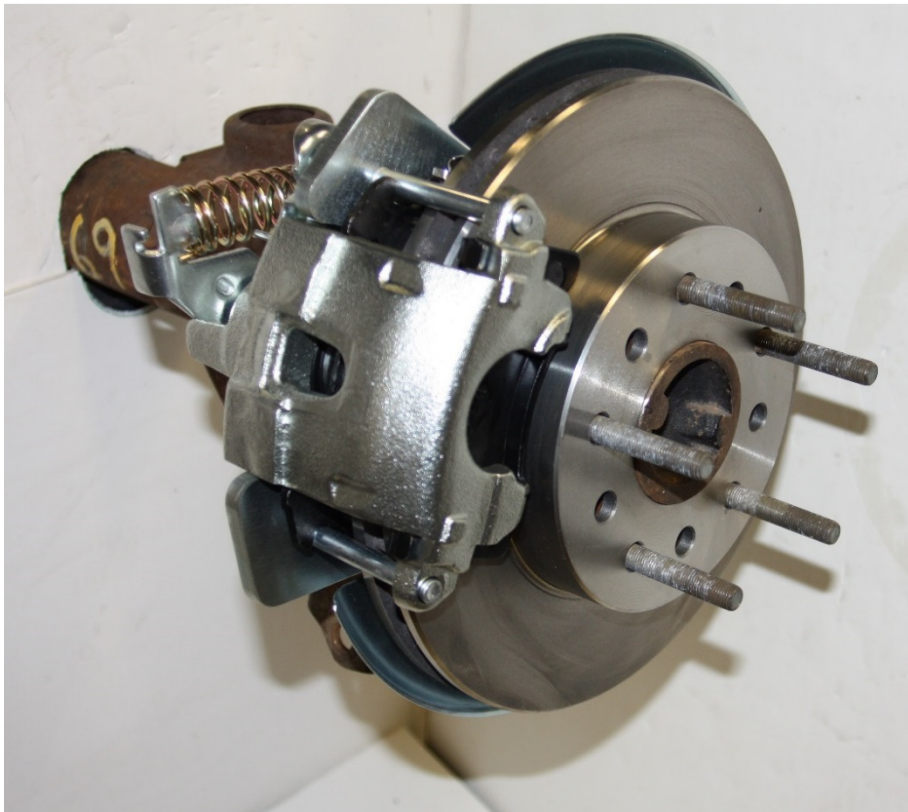
**Photo 4**



**Photo 5**



**Photo 6**



**Photo 7**





**Photo 8**



**Photo 9**