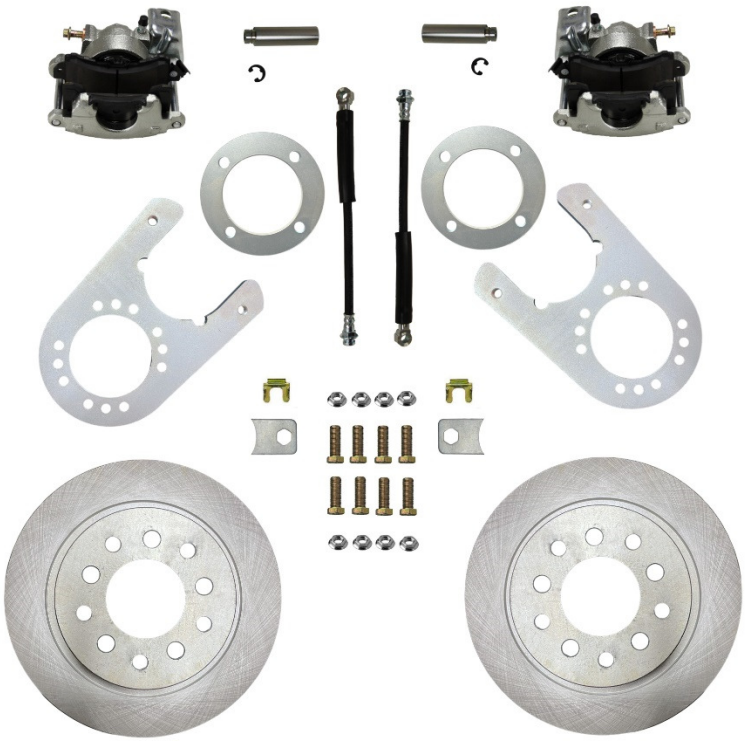
Installation Instructions

Rear Disc Brake Conversion Kit

Item # **RC6004, RC6004X**

Applications: GM Full Size Truck 5 -Lug with 11” Rear Drums



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 6.500". 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 of over the brake shoes.
3. 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.
4. 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.
5. 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 4 nuts and bolts from the end of the axle housing and remove the drum brake backing plate.
6. 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 brackets and spacer plates will be installed on the **outboard** side of the axle housing flange. The spacer plate must be installed between the mounting bracket and the axle housing. Use the 3/8" nuts and bolts supplied to secure the brackets to the axle housing. Be sure the surface is clean and free from any burrs or rust to ensure the brackets will sit flat. Torque to 45-50 Ft/Lbs. **Photo 1 & 2**

2. The brackets are drilled with 3 separate bolt patterns. This allows you to position the calipers straight back, 20 degrees up or 20 degrees down. Depending on the specific vehicle you are installing the kit on and any aftermarket suspension it may be equipped with this will allow you to position the calipers where you need to clear the suspension or wheel wells. **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 & 6**

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 7**
2. The calipers are different for the left and right sides and 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 slider bolts and torque to 25-30 Ft/Lbs. **Photo 8 & 9**
4. 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 10**
5. 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. **Photo 11**

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. Using an adjustable wrench over the lever can be helpful. **Photo 12 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 counterclockwise. 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 ensure the parking brake applies and releases completely. The driver's side cable does not allow for any adjustment from the factory. If the cable spacer sleeve on the driver side caliper is too long to allow the cable to be connected the sleeve can be cut shorter. The minimum length for the sleeve is ¾" from the face of the bracket on the caliper to the end of the sleeve. 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 truck is back on the ground and the suspension is compressed.
4. The factory cable adjuster will only directly adjust the passenger side cable. The drivers side is set by the length of the cable spacer sleeve on the caliper.

Proportioning Valve and Master Cylinder

1. Depending on the year and options these trucks were offered with different combinations of master cylinders, proportioning valves and ABS braking systems. The rear disc conversion will work with the stock master cylinder and proportioning valve and ABS as long as no other significant modifications have been made to the braking system.
2. For customers looking for a firmer pedal feel Leed Brakes offers a master cylinder upgrade kit part# FC6001HK. This kit is designed to provide a firmer pedal feel when used with Leed Brakes rear disc conversion kits. If you have made other modifications to your brake system, please contact our Tech Department to determine if this is still the best master cylinder for your application.
3. If your truck is still equipped with the factory distribution block it can be modified to increase the pressure going to your rear brakes. **Note** on later 4-wheel ABS equipped trucks there is not a separate distribution block. All brake fluid pressure reduction is handled by the ABS system and no modifications are necessary.
4. Start by determining which end of the distribution block is connected to the rear brake circuit. This can be determined by looking for the brake line to goes out to your rear brakes. This nut will normally be pointing back towards the power booster or down towards the ground. **Do** not remove the nut from the end of the block that connects to your front brakes.
5. You will see a large nut with a rubber cap in the center. You will need to remove this nut but be sure to place rags under the block as fluid will drain freely with the nut removed. Unthread the nut carefully as it is under spring tension. **Photo 14**
6. Remove the spring and the aluminum piston from the block and remove the rubber seal from the piston. **Photo 15**
7. Push the end of the piston into the plastic sleeve on the inside of the end nut and thread the nut back into the block and tighten it. You **should not** have reinstalled the spring or the rubber seal. Your distribution block will now send the full pressure from your master cylinder to your rear calipers. **Photo 16**

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.
   Repeat steps 2 thru 4 once more.
5. Install the lid on the master cylinder.
6. Pump the brake pedal until you achieve a firm pedal.
7. Remove lid on master cylinder & check fluid level
8. 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.

In order for your rear calipers to stay in proper adjustment the parking brake must be occasionally actuated. Leed brakes recommends setting and releasing your parking brake at least once a month.

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: GM Full Size Truck Rear Axles

Photo 1

Photo 2

←Front of Truck

Photo 3

Photo 4

Photo 5

Photo 6

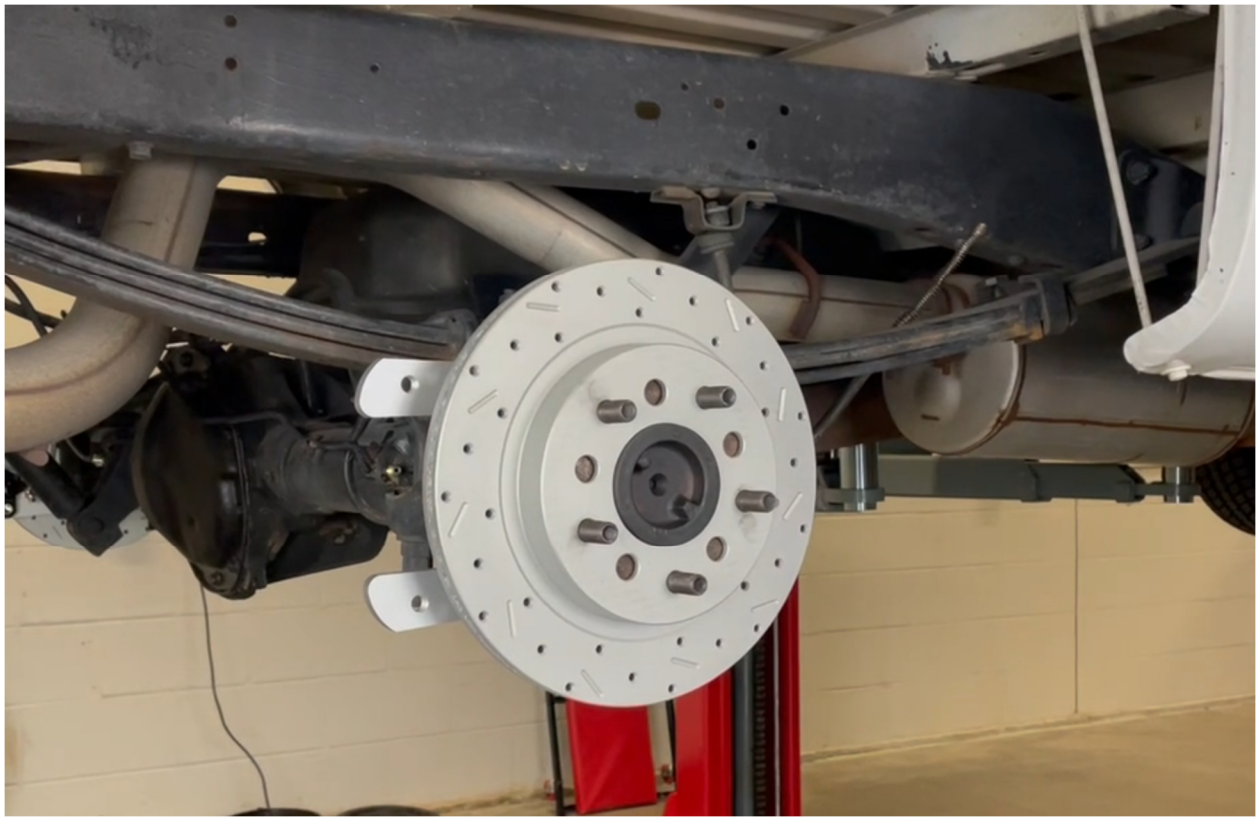


Photo 7

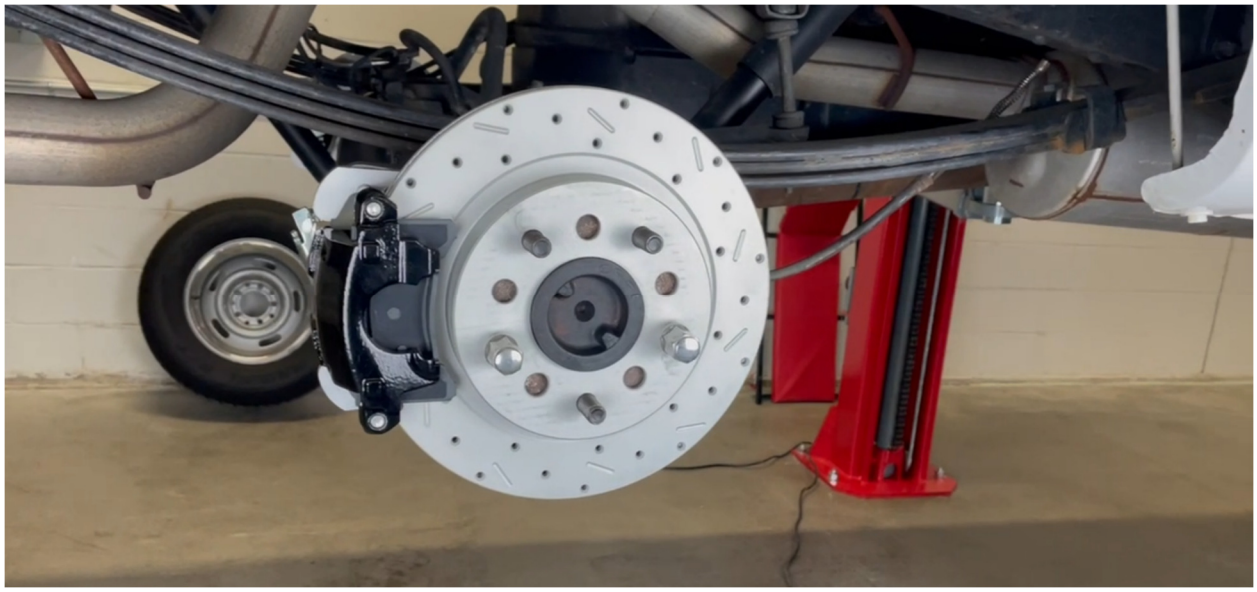


Photo 8

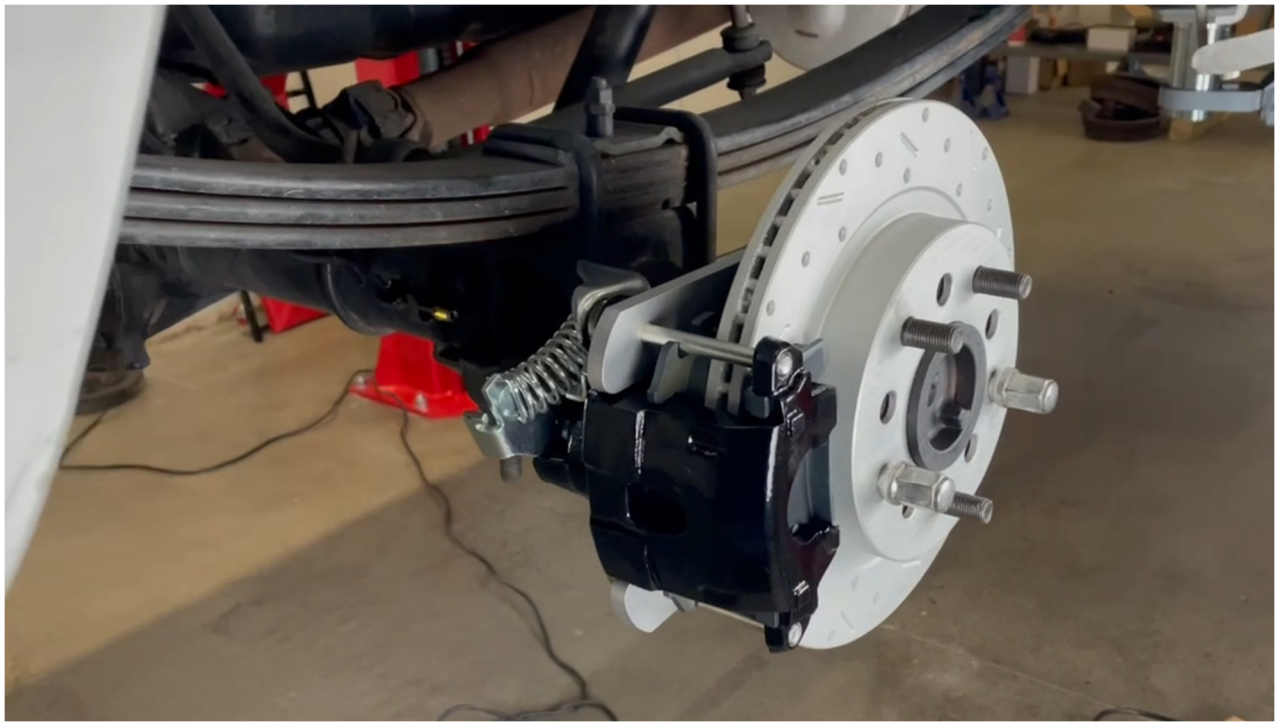
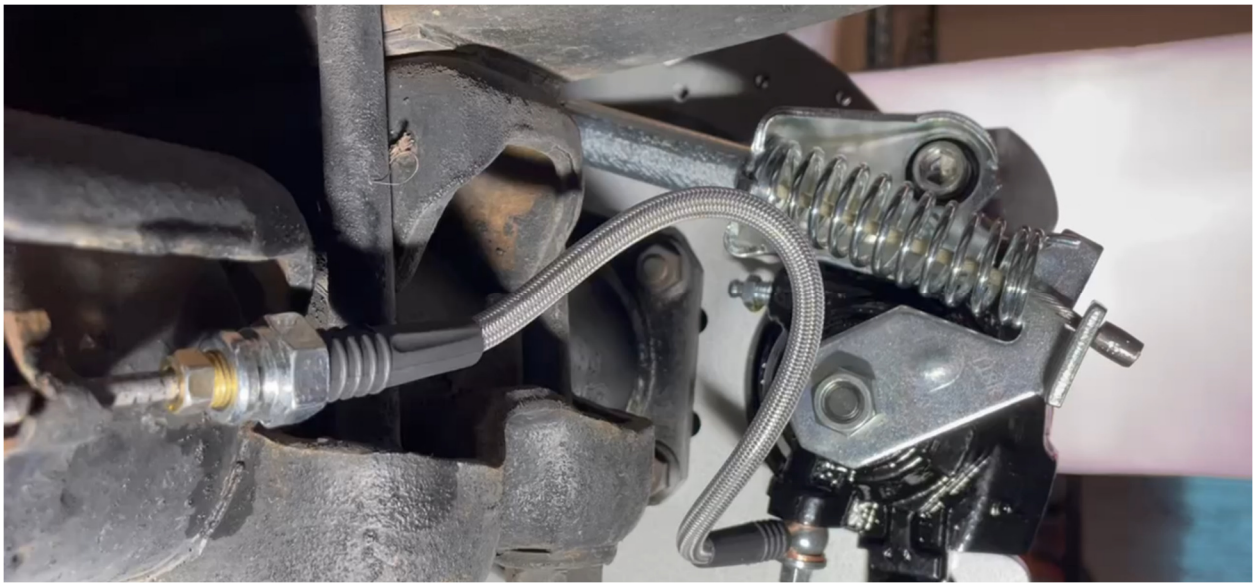


Photo 9

Photo 10



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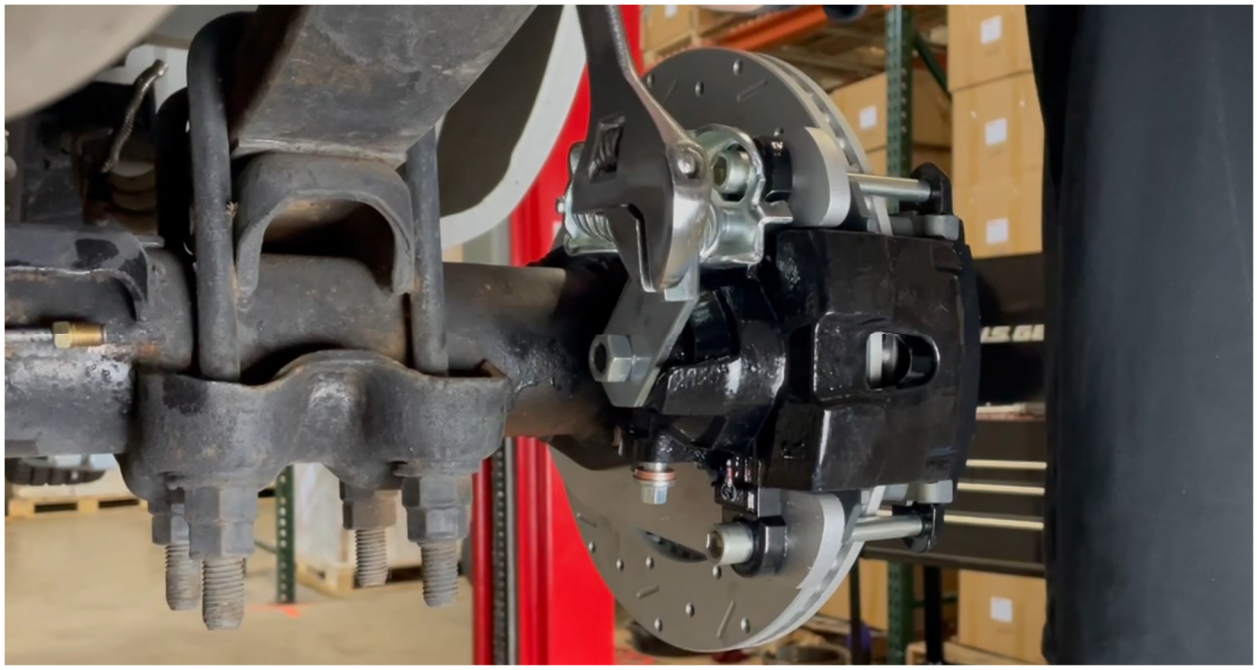

Photo 12

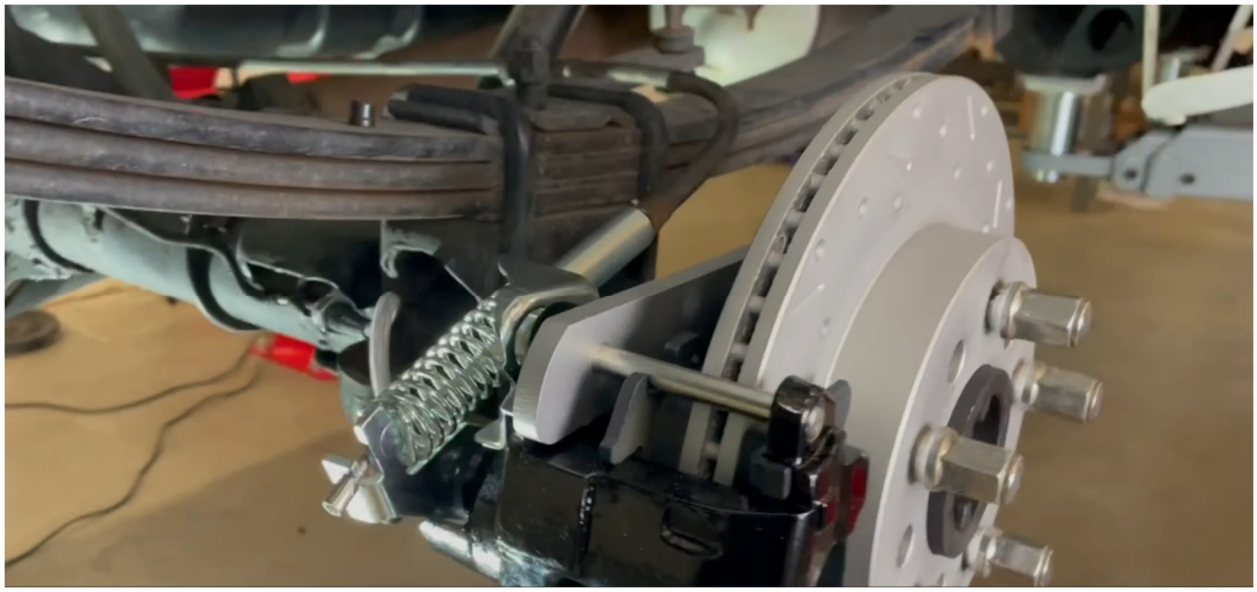

Photo 13

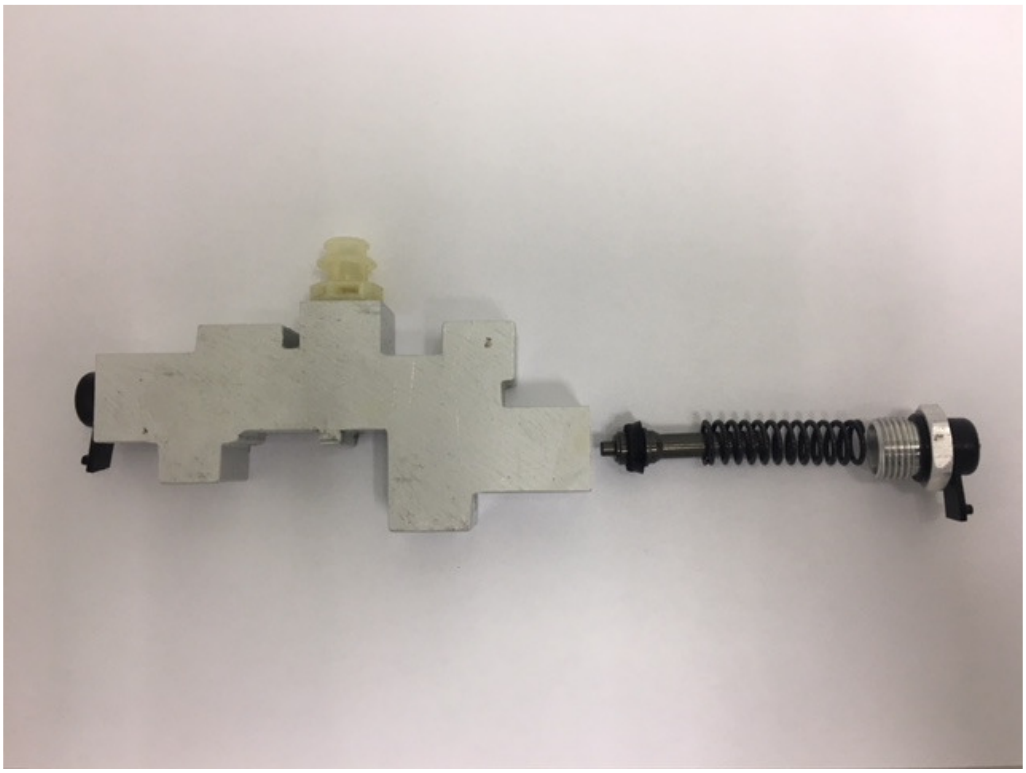

Photo 14

Photo 15

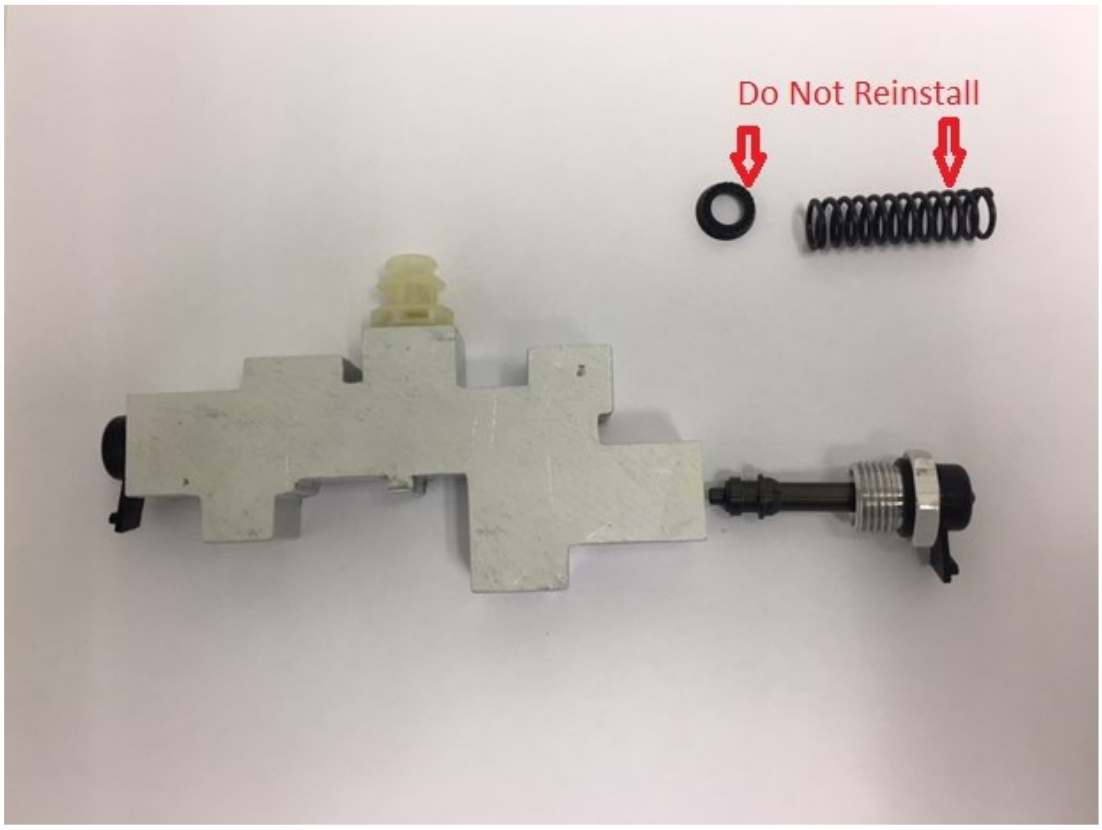

Photo 16