

Thanks for your purchase of our Legend Series Disc Brake Conversion Kit for the 53-62 Chevrolet Corvette. This system does not require removal of the spindles from the vehicle. This system is a complete bolt-on and should be able to completed without modifications to the vehicle and using simple hand tools. **NOTE:** This kit does require the use of 15" wheels for 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 or a lift appropriate to the weight of the vehicle. In all cases, recommended ratings for jack stands should be at least 2-tons. If using a floor jack, be sure to use the appropriate wheel chocks.
- 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 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 requires the use of a high quality DOT 3 or DOT 4 brake fluid. Synthetic DOT 4 fluids are acceptable. ALL WARRANTY IS VOID IF SILICONE DOT 5 FLUID IS USED.

If you have any questions regarding installation, feel free to contact Master Power Brakes at (888) 351-8781 or through our website at <u>www.mpbrakes.com</u>.

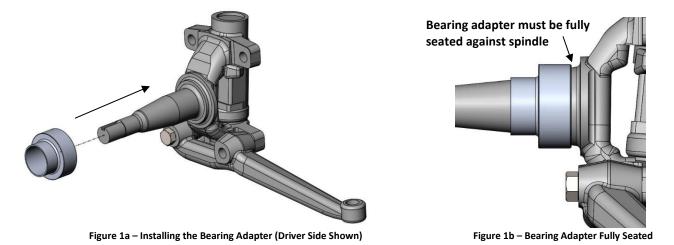
Parts List		
Quantity	Description	
1	Driver Side Caliper (Includes brake pads)	
1	Passenger Side Caliper (Includes brake pads)	
2	Brake Rotors	
2	Primary Caliper Mounting Bracket	
2	Secondary Caliper Mounting Bracket (to spindle)	
4	Caliper Mounting Bracket Spacer	
2	Bearing Adapter	
2	A2 (Outer Wheel Bearing)	
2	A13 (Inner Wheel Bearing)	
2	472319 (Inner Grease Seal)	
1	Hose Kit (18" Hoses w/10mm Banjo Bolt & Hardware)	
2	Spindle Nut Washer	
2	Spindle Nut Spacer	
2	1/8" x 1 1/2" Cotter Pin	
2	Grease Caps	
2	7/16"-20 x 1-3/4" Grade 8 Hex Head Bolts	
4	7/16"-20 x 2-1/4" Grade 8 Hex Head Bolts	
2	7/16"-20 x 3" Grade 8 Hex Head Bolts	
8	7/16"-20 Nyloc Nuts	
16	7/16" SAE Flatwasher	

Replacement Parts		
Front Brake Pads	FMSI No: D52	

## Installation:

- 1. With the vehicle properly supported, remove the front wheels and tires.
- Removal of the factory drum brake assembly is required next. Remove all components from the spindle leaving a bare spindle. It is not necessary to remove the spindle from the vehicle unless other work is required. NOTE: The steer arms can be left attached to the Outer Tie Rod End but will require removal from the spindle.
- 3. Before installing the disc brake kit, inspect the spindles for any excessive wear or damage. If any damage 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.
- 4. A bearing adapter must be installed on the spindle pin. This is required due to the need for a sealing surface for the rotor grease seal and the change from a roller bearing to a tapered bearing. To install the bearing, place the adapter on the spindle as shown in Figure 1a and 1b on the following page. The bearing adapter can be installed using one of the three following methods:
  - a. **Heat** Using an oven, heat the bearing adapter for approximately 15-20 minutes. Once heated, the bearing adapter should slide over the spindle pin without any force. Once installed, let the adapter cool to allow for proper fitment.
  - b. **Hammer** Using a capped pipe, position the pipe over the spindle pin and flat against the bearing adapter. With protection between the pipe and the adapter, drive the adapter on by hitting the capped end of the pipe until the bearing adapter is flush against the spindle surface.
  - c. **Press** If desired, the spindle can be removed from the vehicle and using a hydraulic press and the proper adapters, press the adapter onto the spindle pin.

NOTE: The bearing adapter should be tight on the spindle. However, wear can cause the adapter to be loose. If it is loose, we recommend staking the spindle pin using a center punch. This will cause an interference fit.



- 5. Due to the unique length of the front bolt into the steer arm, we recommend re-using the original bolt in the front location only. Insert it through the spindle and the steer arm at this point with the nut installed but do not tighten.
- 6. Position the Secondary Caliper Mounting Bracket against the spindle. Using a 7/16"-20 x 1-3/4" Grade 8 Hex Head Bolt in the upper hole and the 7/16"-20 x 3" Grade 8 Hex Head Bolt in the lower hole (which is also the steer arm mounting location). When installing the bolts, use a 7/16" Flatwasher on both sides along with a 7/16"-20 Nyloc Nut on each bolt. With the nuts installed, torque these bolts along with the OE bolt used in the forward steer arm to 55 ft/lbs. This can be seen in Figure 2 below.

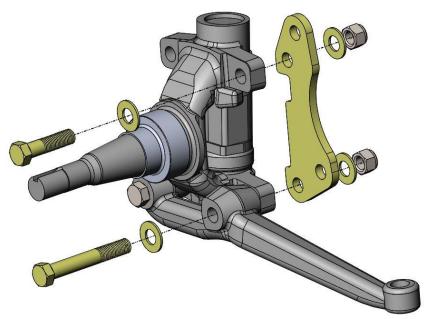


Figure 2 – Secondary Caliper Bracket Installation (Driver Side Shown)

7. Using two Spacer Bushings, place them against the Secondary Bracket followed by the Primary Caliper Mounting Bracket. The brackets install on the outside of the Secondary Mounting Bracket. Insert a 7/16"-20 x 2-1/2" Grade 8 Hex Head Bolt and Flatwasher through the brackets and bushings. Use a 7/16"-20 Nyloc nut and torque the bolts to 55 ft/lbs. Figure 3 on the next page shows this bracket installation.

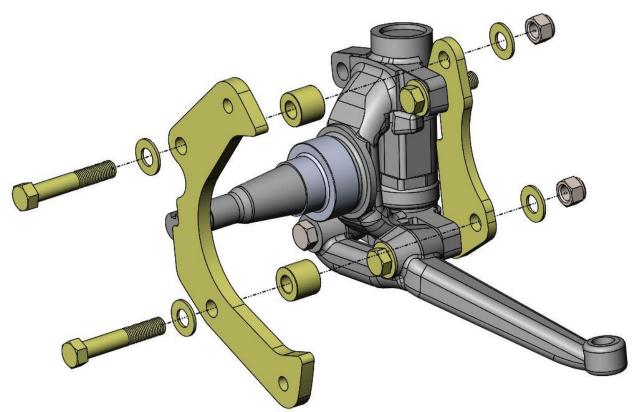


Figure 3 – Primary Caliper Mounting Bracket Installed (Driver Side Shown)

8. The wheel bearings can now be packed with a high quality wheel bearing grease available at your local parts store and the bearings can be installed in the rotors at this time. Once the inner bearing is installed, tap the inner seal in at this point. Figures 4 shows the bearing and seal being installed.

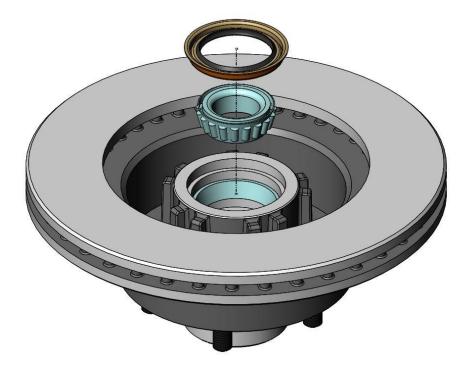


Figure 4 – Inner Wheel Bearing and Grease Seal Installation

9. Slide the rotor onto the spindle. The inner wheel bearing and grease seal should be installed at this point. Use Figure 5 below to determine the proper Driver or Passenger side rotor placement.

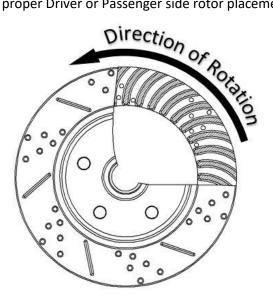


Figure 5 – Proper Rotor Direction

10. With the rotor fully pushed onto the spindle, install the outer wheel bearing followed by the keyed washer and re-use the original spindle nut. Due to the use of tapered roller bearings instead of the OEM straight roller bearings a Castle Nut Spacer must be used to align the cotter pin hole in the spindle to the castle nut. We have also seen inconsistencies with how far the key way is machined into the spindle. If your spindle has a long machined key way in the spindle allowing the Spindle Washer to set flat against the bearing, refer to Figure 6 below for the proper sequence of installing the Castle Nut Spacer. If your keyway is machined so short that it will not allow the Spindle Washer to set flat against bearing refer to Figure 7 below.

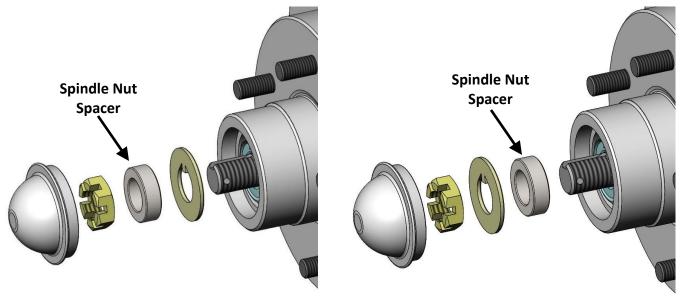


Figure 6 – Castle Nut Spacer w/ Long Machined Keyway

Figure 7 – Castle Nut Spacer w/ Short Machined Keyway

11. When tightening the spindle nut, tighten to 5-10 ft/lbs. Loosen the nut and tighten again using the same 5-10 ft/lbs. Do this a couple of times spinning the rotor to fully seat the wheel bearings onto the spindle. Loosen the nut a final time and re-tighten to remove all play. Tighten approximately an additional 1/16<sup>th</sup> of a turn to give the appropriate pre-load and line up the cotter pin hole. Install the cotter pin to secure the nut followed by the grease cap.

12. Mount the caliper to the caliper mounting bracket. With the pads installed in the caliper, slide the caliper over the rotor and line up the mounting ears of the caliper with the holes in the caliper mounting bracket. Tighten and torque the bolts to 45 ft/lbs. **NOTE:** When installing the calipers, make sure the brake bleeders are pointing upward. See Figure 8 below for reference.

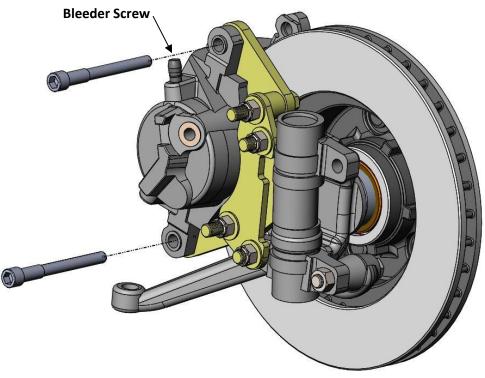


Figure 8 – Caliper Bolt Installation (Driver Side Shown)

- 13. Install the brake hoses onto the caliper and attach to the original plumbing on the vehicle. **NOTE:** Be sure the copper crush washer has been installed on the brake hose to prevent leaks before installing.
- 14. Once the master cylinder has been properly bench bled and then installed on the vehicle, the remaining brake system can be bled to remove all of the air from the system. **REMEMBER:** Master Power Brakes requires the use of either DOT 3 or DOT 4 brake fluid and recommends the use of Pentosin Super Dot 4 fluid as seen below in Figure 9. Any warranty is void if DOT 5 fluid is used.



Figure 9 – Pentosin Super DOT 4

15. The installation is now complete.

If you have any questions or comments, please call Master Power Brakes at (888) 351-8781.