

## Master Power Brakes Front Disc Brake Conversion Kit

1955-1968 Full-Size Chevrolet Cars & 1965-1968 Corvette P/N: DB2720B & DB2780B



Thanks for your purchase of our Rallye Series Disc Brake Conversion Kit for the 1955-1968 General Motors Full-Size Chevrolet car applications as well as the 1965-1968 Chevrolet Corvette. This system is a bolt-on application that should be able to be performed with simple hand tools. It is designed to work with your existing drum brake spindle and should not require removing the spindle from the vehicle. **NOTE:** This system requires the use of a 15" wheel for proper 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 appropriate to the weight of the vehicle. In all cases recommended ratings for jack stands should be at least 2-tons.
- 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 "UPSIZED"
  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.

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Parts List	
Quantity	Description
2	Billet aluminum 4-piston calipers (Pads included)
1	LH 11" Rotor (Cross-drilled, Slotted, & Zinc-washed)
1	RH 11" Rotor (Cross-drilled, Slotted, & Zinc-washed)
1	LH Primary Caliper Mounting Bracket (Assembled with
	Intermediate caliper mounting bracket along with ½"-20 x 2"
	Grade 8 Button Head Bolts and Nuts)
1	RH Primary Caliper Mounting Bracket (Assembled with
	Intermediate caliper mounting bracket along with ½"-20 x 2"
	Grade 8 Button Head Bolts and Nuts)
2	A2 Outer Wheel Bearing (Pre-greased and Installed)
2	A6 Inner Wheel Bearing (Pre-greased and Installed)
2	8705 Grease Seals (Installed in rotor)
2	Dust Caps
2	Braided s/s brake hose (Includes 2-10mm Banjo bolts, 4-Crush
	washers, 2-3 AN x 3/8"-24 adapters)
2	½"-20 x 3" Grade 8 Hex Head Bolts
2	½"-20 x 2 ¾" Grade 8 Hex Head Bolts
4	½"-20 Grade 8 Locking Nuts
4	M12-1.75 x 25mm Grade 8 Hex Head Bolts
4	M12 Flat Washers
1	Shim Package
1	Syringe bleeder
1	30" Bleed hose
2	Vinyl Brake Line caps
2	Spindle Castle Nuts
2	Spindle Nut Washers
2	Cotter Pins

## Installation:

- 1. With the vehicle properly supported, remove the front wheels and tires.
- 2. Disconnect the brake hose from the hardline at the frame using a line wrench. Cap the hardline with the supplied rubber caps to avoid fluid dripping. Remove the clip retaining the brake hose and disengage the hose from the bracket. Refer to Figure 1 below for reference.



Figure 1 – Brake hose removal

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- Removing of the factory drum brake assembly is required next. Remove the dust cap, cotter pin, retainer
  nut and drum. Unbolt the drum backing plate. DO NOT remove the spindle from the vehicle. Remove
  the bolts retaining the steer arm to the spindle. The bolts will be replaced in a later step with a new
  bracket.
- 4. Before installing the disc brake kit, inspect the spindles for any excessive wear or damage. If any 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.
- 5. Install the primary caliper mounting bracket as an assembly on the spindle using the provided bolts  $(2 \frac{1}{2} 20^{\circ} \times 3^{\circ})$  and  $2 \frac{1}{2} 20 \times 2^{\circ}$ . Hex Head Bolts) using the lower steer arm mounting holes.

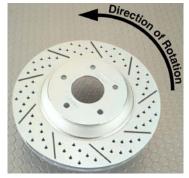
**IMPORTANT:** Some early cars only used 7/16" hardware for attaching the steer arms to the spindle. Our kit uses improved 1/2" hardware for this purpose. Therefore, the spindles and steer arms may require drilling to a larger size. If required, the preferred method is removal of the spindle and steer arms from the vehicle and use a drill press to properly enlarge the holes.

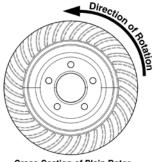
The brackets are right and left specific. The brackets install so that the caliper mounts to the trailing side. Refer to Figure 2 for reference. **NOTE:** Install the longer 3" bolt into the hole closest to the tie rod attaching point. Use the provided 1/2" Flat Washers and the 1/2" Nyloc Nuts and torque to 85 ft/lbs.



Figure 2 - Primary Caliper Mounting Bracket

6. Locate the proper LH or RH rotor depending on which side you are working on and install the rotor onto the spindle. It is not necessary at this point to final seat the bearings as the rotor will be removed in a later step to provide proper shimming of the caliper. Refer to Figure 3 below to help determine the proper rotor for LH and RH side.





**Cross-Section of Plain Rotor** 

Figure 3 – Direction of Rotor Rotation

- 7. With the pads installed in the caliper, position the caliper over the brake rotor and secure using the supplied M12 x 35mm Hex Head Bolts. Snug the bolts only at this time as they may need to be removed at a later step for shimming.
- 8. After installing the caliper, it is necessary to center the caliper over the rotor. A shim kit is supplied with the disc brake kit to accomplish this. Measure the gap from the rotor to caliper body at 4 points (top inside and outside and the bottom inside and outside). With all measurements taken, subtract the top inside measurement from the top outside measurement. Take that difference and divide by two to determine the shim required. For example, the inside measurement is .865" and the outside measurement is .905" leaving a difference of .040". Divide the difference by two leaving the necessary shim at .020". Do this procedure at both the top and bottom to determine appropriate shimming. It is possible for the top and bottom to require different thickness shims. Set the gaps to within .005" of each other. This will keep the possibility of noise to a minimum. Follow the steps below for proper shimming of the calipers once the measurements have been taken:
  - a. Select the required shims from the shim kit provided.
  - b. Remove the caliper followed by the rotor.
  - c. Loosen the bolts from between the primary and intermediate brackets and remove the secondary bracket leaving the spacers and bolts in place.
  - d. Install the appropriate shims and replace the brackets followed by reinstalling the nuts and lightly tighten at this time.
  - e. Reinstall the rotor followed by the caliper and recheck the gap as described above. If necessary, repeat Steps b-d from above. It may take several attempts to get the caliper properly centered.

**NOTE:** Shimming of the caliper is required due to variations in spindle manufacturing and wear at the bearing seat area of the inner bearing. Refer to Figure 4a for measuring reference and Figure 4b on the location of the shims.



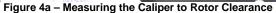




Figure 4b - Shim Location

9. With the calipers properly shimmed and centered on the rotor, remove the caliper and rotor for a final time and torque the bolts between the primary and secondary mounting brackets to 85 ft/lbs.

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- 10. Install the brake rotor for the final time by sliding the rotor onto the spindle. The inner wheel bearing and grease seal should be installed at this point. With the rotor fully pushed onto the spindle, install the outer wheel bearing followed by the keyed washer and the spindle nut. 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 move 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 spindle nut retainer and the cotter pin to secure followed by the grease cap.
- 11. Position the caliper over the brake rotor and once in position, replace the bolts into the Intermediate Caliper mounting brackets and torque the bolts to 85 ft/lbs.
- 12. Install the stainless steel braided hose using one copper washer on each side of the banjo fitting. Connect the hose to the hardline and install the hose lock. **IMPORTANT:** Position the hose to avoid interference with the wheel and suspension components through the entire range of motion. Torque the banjo bolt to 15-20 ft/lbs. Figure 5 below shows recommended positioning.

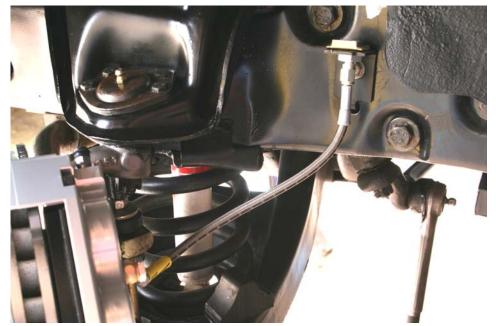


Figure 5 - Brake Hose Routing

- 13. Repeat these steps for the other side and recheck all attachment points and fittings.
- 14. Installation is now complete. Install the master cylinder or a booster/master cylinder combination and bleed the brakes accordingly following the instructions included in a separate document.