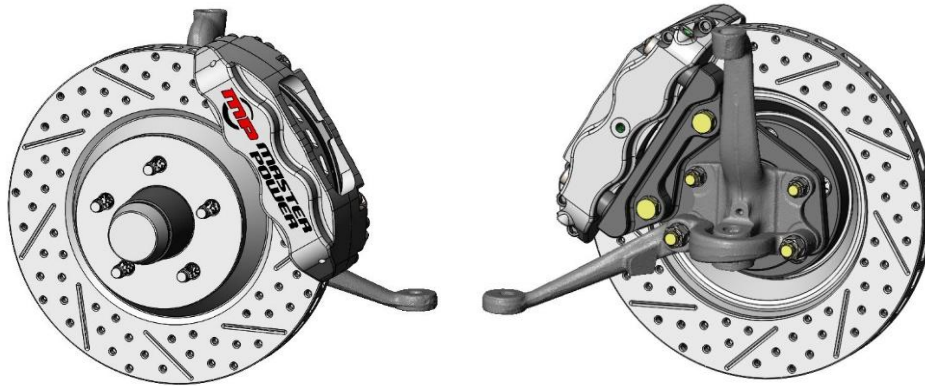




# MASTER POWER BRAKES



## 13" Pro Driver Front Disc Brake Conversion Kit 1956 & 1957 Continental Mark II P/N: DB4556K



DB4556K Shown Above

Thanks for purchasing our Pro Driver Front Disc Brake Conversion Kit for the 1956 & 1957 Continental Mark II. This system does not require removal of the spindles from the vehicle. This system is a complete bolt-on and should be able to be completed without modifications to the vehicle and installed using simple hand tools.

### **\*\*\*IMPORTANT\*\*\***

**\*\*This kit requires the use of at least 17" wheels for clearance\*\***

**\*\*This kit has a 5 x 4.500" bolt pattern, NOT the OEM Continental Bolt Pattern\*\***

### **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.**

Parts List	
Quantity	Description
1	Left Primary Caliper Mounting Bracket <i>(BRCA4556L)</i>
1	Right Primary Caliper Mounting Bracket <i>(BRCA4556R)</i>
2	Secondary Caliper Mounting Bracket <i>(BRCA-4004P-1)</i>
2	Aluminum Hub w/ Press In Studs
2	13" Directionally Vented Brake Rotor
1	Driver Side Caliper (w/brake pads)
1	Passenger Side Caliper (w/brake pads)
2	12580 - 12520 Outer Wheel Bearing
2	14130 - 14276 Inner Wheel Bearing
2	473450 Inner Grease Seal
1	Hose Kit (18" Hoses w/10mm Banjo Bolt & Hardware)
2	1/8" x 1 1/2" Cotter Pin
2	Aluminum Grease Caps
4	1/2"-20 x 3.00" Grade 8 Hex Head Bolt
4	1/2"-20 x 1.75" Grade 8 Hex Head Bolt
12	1/2" AN Flat Washer
4	1/2"-20 Grade 8 Nyloc Lock Nut
4	7/16"-20 x 1.75" Grade 8 Hex Head Bolt
8	7/16" AN Flat Washer
4	7/16"-20 Grade 8 Nyloc Lock Nut
4	M12-1.75 x 45mm Socket Head Cap Screws

Replacement Brake Pads	
FMSI Number	D749
MPB Part Number	PD0749

## Installation:

1. With the vehicle properly supported, remove the front wheels and tires.
2. Removal of the factory drum assembly is required next. Figure 1 below shows an example of the starting point. 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 unbolting from the spindle.**

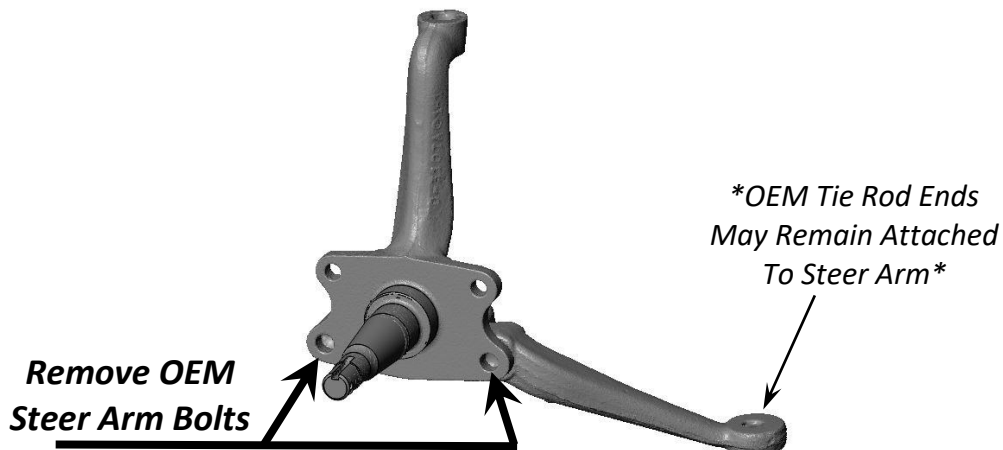


Figure 1 – Spindle w/All Components Removed & Ready for Disc Brake Assembly (LH Side Shown)

3. With all the OEM braking components removed, position the Primary Caliper Mounting Bracket against the spindle. Assemble using the 1/2"-20 x 3.00" and the 7/16"-20 x 1.75 Grade 8 Hex Head Bolts. AN Flat Washers and Nyloc Lock Nuts are provided for each bolt. **NOTE: The part numbers of these brackets end in either "L" or "R" to indicate which side they install on.** All the 1/2" hardware may be torqued to 85 ft/lbs and the 7/16" hardware to 55ft/lbs at this time. Figures 1 below shows the proper assembly.

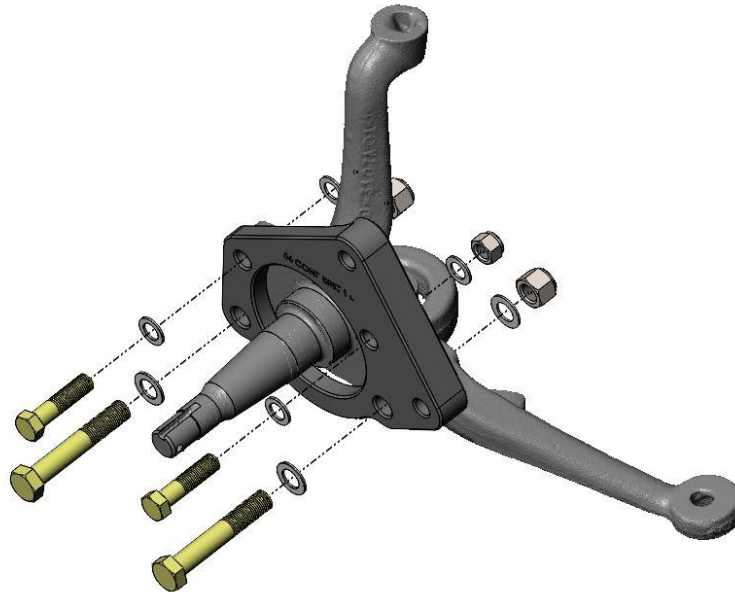


Figure 1 – Primary Caliper Bracket Installation (LH Side Shown)

4. The wheel bearings can now be packed and installed. We recommend the use of Lucas Oil "Red-N-Tacky" Grease (**Available At Master Power Brakes P/N: ACNLG12**) or other high quality NLGI rated wheel bearing grease. Once the inner bearing is installed, tap the inner seal in at this point. Figures 2 below shows the bearing and seal being installed.

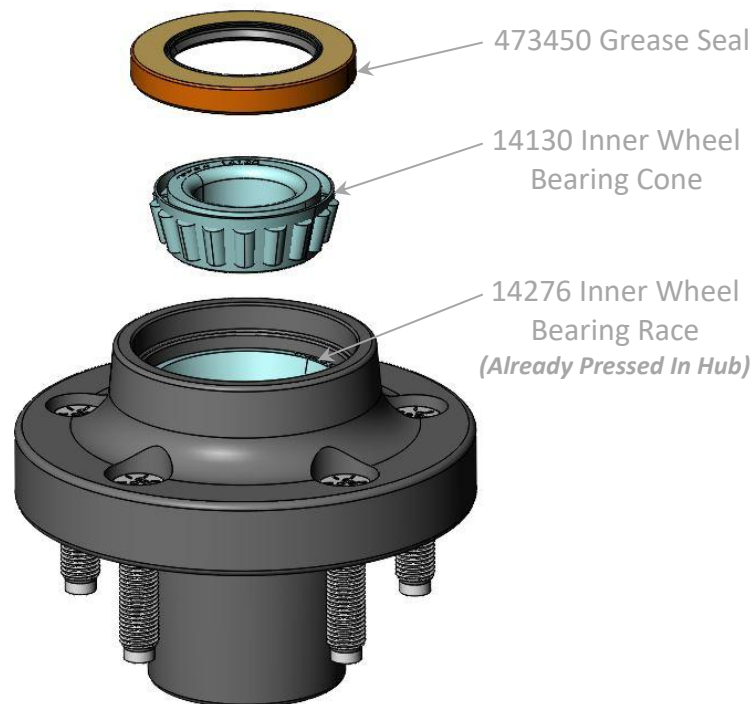


Figure 2 – Inner Wheel Bearing Installation

- Slide the hub onto the spindle. The inner wheel bearing and grease seal should be installed at this point. With the hub fully pushed onto the spindle, install the outer wheel bearing followed by the keyed washer and re-use the original 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 hub 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. Figure 3 shows the proper location of each component.

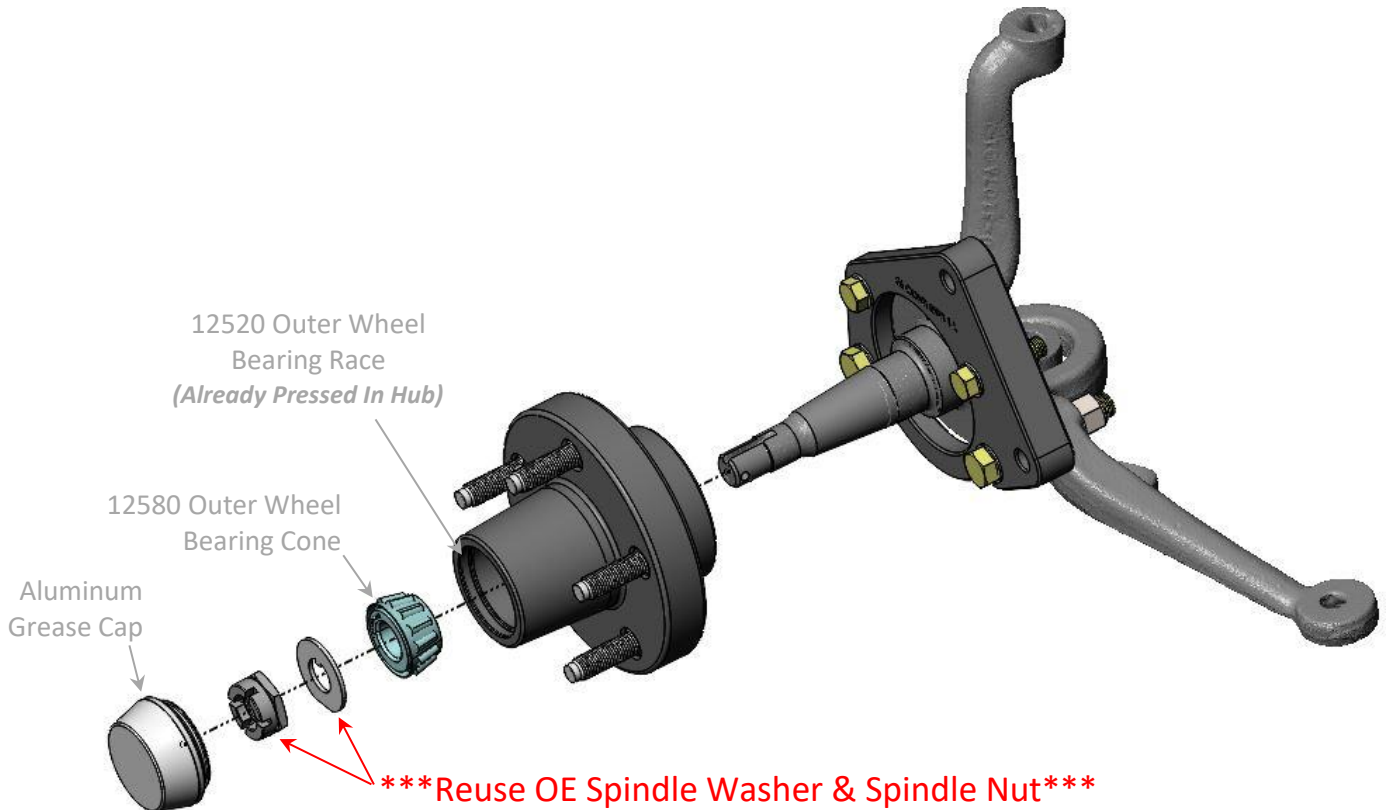


Figure 3 – Component Location (LH Side Shown)

- Mount the Secondary Caliper Mounting Bracket to the previously installed primary bracket using the supplied 1/2"-20 x 1.75" Grade 8 Hex Head Bolts and AN Flat Washers. **NOTE: Only snug these bolts at this time because during the caliper shimming process in a later step this will be the location where shims will be installed.** See Figure 4a and 4b below for reference.

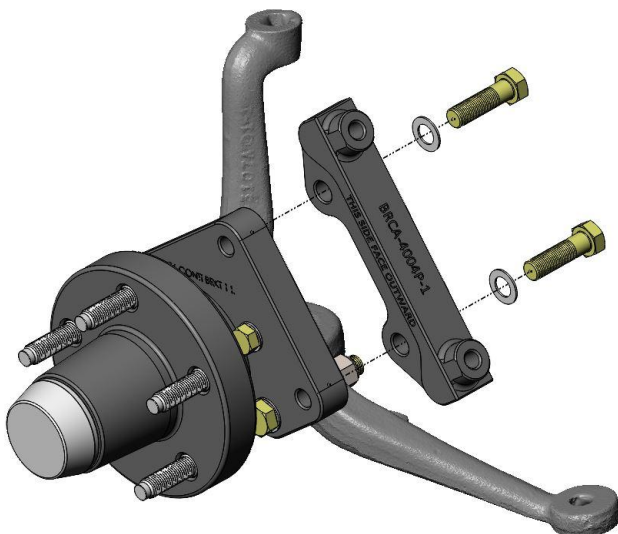


Figure 4a – Secondary Caliper Bracket Installation (LH Side Shown)

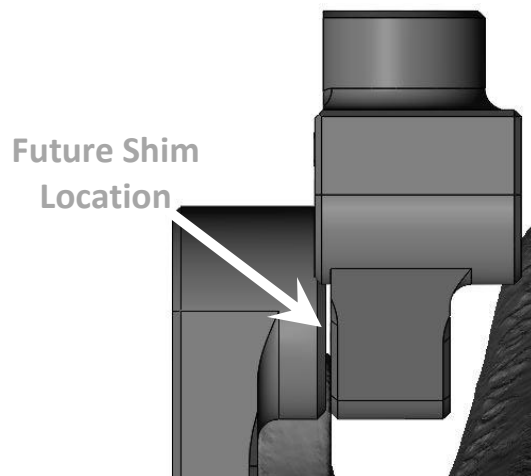


Figure 4b – Shim Location (Use For Future Caliper Shimming Process)

7. Install the correct LH or RH rotor onto the hub at this time, using 3 lug nuts to hold the rotor tight to the hub for the future shimming process. **NOTE: The rotors are directionally vented, please refer to Figure 5a below for proper rotor placement.** Next, remove the brake pads and place the brake caliper onto the radial mount bosses of the Secondary Caliper Mounting bracket, securing it with the supplied M12-1.75 x 45mm Socket Head Cap Screws. Make sure the bleeder screw is pointed upwards. Only snug the bolts for now because of future caliper shimming process. Refer to Figure 5b for reference.

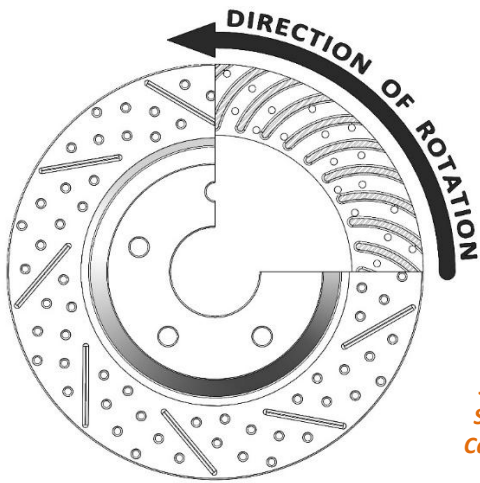


Figure 5a – Rotor Placement (LH Side Shown)

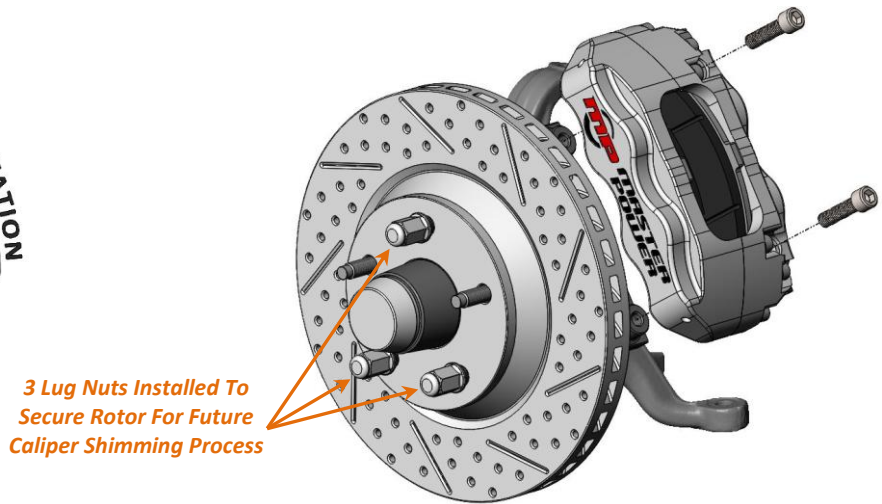


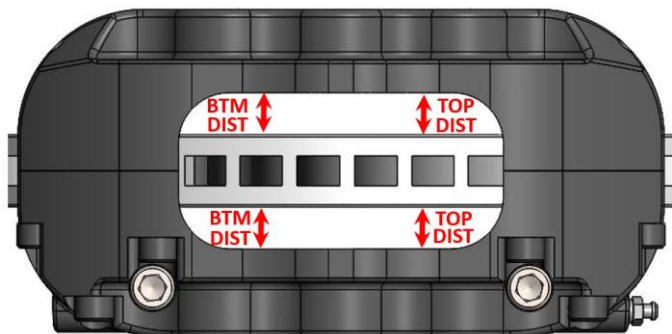
Figure 5b – Caliper Installation (LH Side Shown)

8. After installing the caliper, it is necessary to center the caliper over the rotor using the supplied shim kit. Measure the gap from the rotor to caliper body with feeler gauges. With all measurements taken, **SUBTRACT THE SMALLER DISTANCE FROM THE LARGER DISTANCE.** Take that difference and divide it by two to determine the proper shim thickness required. For example, the outside measurement is .690" and the inside measurement is .630" leaving a difference of .060". Divide the difference by two leaving the necessary shim at .030". **Do this procedure at both the top and bottom of the caliper to determine appropriate shim thickness for each caliper mounting ear. It is possible for each caliper mounting ear to require different thickness shims.** Set the gaps to within .005-.010" of each other. An example of the shim thickness calculation is shown below in Figure 6. 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. Loosen the bolts that hold the caliper on.
  - c. Install the appropriate shims between the Primary Caliper Mounting Bracket and Secondary Caliper Mounting Bracket removing only one bolt at a time. Snug both bolts after both shim locations are installed.
  - d. Recheck the gap as described above. If necessary, add or remove shims.

**NOTE: Shimming of the caliper is required due to variations in OEM component manufacturing, machining tolerances of the new braking components.**

## Shimming Process Example

\*\*SAE UNITS SHOWN\*\*



$$\frac{\left( \begin{array}{c} \text{TOP} \\ \text{LARGER} \\ \text{DISTANCE} \end{array} - \begin{array}{c} \text{TOP} \\ \text{SMALLER} \\ \text{DISTANCE} \end{array} \right)}{2} = \text{TOP SHIM THICKNESS NEEDED}$$

$$\frac{.690'' - .630''}{2} = .030'' \text{ TOP SHIM THICKNESS NEEDED}$$

Figure 6 – Caliper Shimming Reference

9. With the shimming complete, remove the caliper and tighten the 1/2-20 x 1.75" Grade 8 Hex Head Bolts holding the Secondary Caliper Mounting Bracket to 80 ft/lbs
10. Re-install the caliper with the pads installed. Torque the M12-1.75 x 45mm Socket Head Cap Screws to 85 ft/lbs.
11. Install the Stainless Steel braided hose using one copper crush 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. See Figure 7 below for reference.

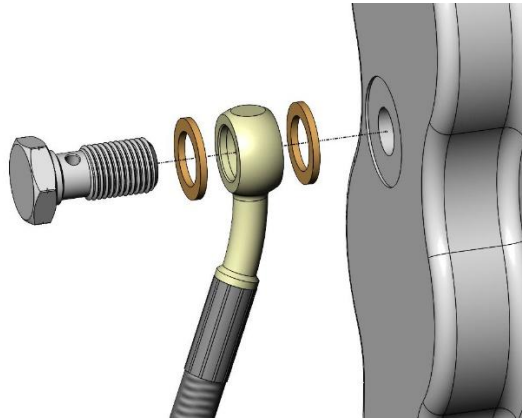


Figure 7 – Hose Installation

12. Repeat these steps for the other side and recheck all attachment points and fittings.
13. If the master cylinder has been removed or replaced, make sure it is properly bench bled and then installed on the vehicle. Then 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. We Recommend the use of Pentosin Super Dot 4 fluid as seen below in Figure 8 (**Available at Master Power Brakes P/N: ACJ1703**).

**\*\*\* ANY WARRANTY IS VOID IF DOT 5 FLUID IS USED\*\*\***

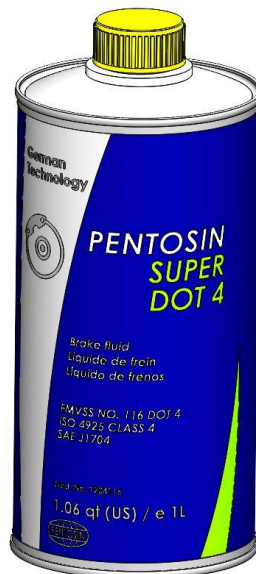


Figure 8 – Pentosin Super DOT 4

14. The installation is now complete.

**\*\*\* CONTACT INFORMATION ON NEXT PAGE \*\*\***

If you have any questions regarding installation, feel free to contact us!

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