

# Mopar 8 3/4" & 9 3/4" (Dana)

Installation Instructions Rear Disc Conversion



This kit is for either Mopar 8 <sup>3</sup>/<sub>4</sub>" or Mopar 9 <sup>3</sup>/<sub>4</sub>" (Dana). This kit is designed to work with axles with either GM 5 x 4.75 Bolt Pattern and 7/16" wheel studs or Mopar / Ford 5 x 4.5 Bolt Pattern and <sup>1</sup>/<sub>2</sub>" wheel studs. Rotor center measures 2.78".

Attention: This kit requires Green Bearings to be installed on your rear axle. This kit does not support the original adjustable style bearing. Green Bearings can be purchased through most high performance shops. You may also purchase the Green Bearings from the Right Stuff Detailing. The part number is WBK04 and the price is \$75.00.

#### **Rotor Measurements:**

Rotor Center = 2 3/4" - Rotor Hat Section Inside Diameter = 6 3/16" You will need to modify your axles if they will not fit inside the rotor hat and you will need to modify the rotor if the center hole is too small for your axles. This kit will push your wheels out an additional .125" per side. Note: If you are interested in Power Coated Calipers or Drilled and Slotted Rotors we have these upgrades available for exchange of non-installed components and an upgrade fee. If you are interested in Emergency Brake Cables for the front of your car please give us a call. We cannot exchange components that have been previously installed. Shipping charges will apply. Upgrades pictured.



Attention: <u>Before</u> modifying, painting, or powder coating any part of this kit, please trial fit all components and check rim clearance. We recommend you run 15" or larger wheels with this kit. We do not support the use of 14" wheels on this kit.

#### Modified, Painted, and Powder Coated parts are not returnable!

\*Note: The emergency brake cables provided in the kit are generic length cables. They are of a generic length. We have other cables available. If you would like a different length of cable please give us a call and we can try to match up the length you need to the various lengths of cables that we have in stock. We have found that factory rear cables will usually work on a Mopar rear disc conversion. We can upgrade you to the factory rear cables for an additional \$20.00. If you ordered a non-ebrake kit your kit will not contain emergency brake cables.

# **Kit Contents:**

- Pair of Rotors (BR09C for plain rotors, BR09ZDC rotors for drilled and slotted rotors)
- Pair of calipers (BC3839N, if powder coated calipers were selected there will be a letter pertaining to the color of the caliper within the part number as well)

\_\_\_\_Set of caliper brackets (CMB95 for either a non-staggered kit or a staggered kit)

Pair of Flex Hoses (FHK09 for regular, FHK09S for braided stainless)

Pair of Emergency brake cables (EBCRD1/EBCRD1 for non-staggered MDCRD01 or EBCRD1/EBCRD2 for staggered MDCRD05)

\_\_\_\_Set of T-Bolts (ZHK02)

\_\_\_\_Instruction Packet

\* See the back page of the instruction booklet to review the "Pick Ticket" used to pull your order.

# **Disclaimer:**

The Right Stuff values your safety above all things. For this reason, we recommend all brake systems and components be installed by professionals. The installer of the brake parts is responsible for ensuring fitment and suitability of the parts for the vehicle it is being installed on. Brakes should be tested in a controlled open area with success before driving on the road. If you are unsure or uncomfortable with any part of your kit, please call for further instructions from our tech staff before driving.

# **Installation Instructions:**

Before installing this kit on your car please watch the instructional video at <u>www.getdiscbrakes.com</u> under tech stuff.

# 1. Prepare the car

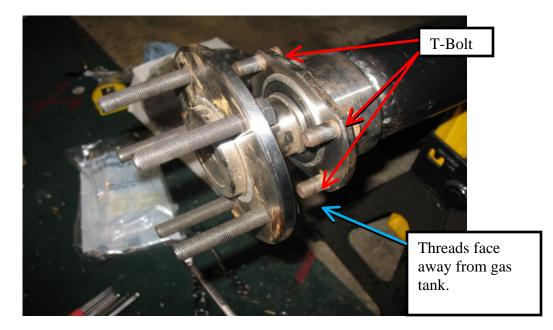
Begin by securely supporting the car on jack stands. Chock the front wheels to be sure vehicle does not roll. Always work on a flat, even surface. Remove the wheels to gain access to the factory drum brakes.

# 2. Remove the old drum brakes

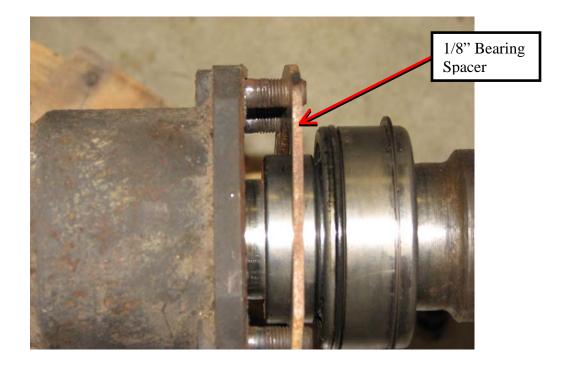
Remove the original axles from the vehicle. After the axles are out, you can unbolt the drum brakes and remove them as a complete assembly. There is no need to remove the drum shoes and hardware before removing the backing plate. Dress the front and back of the axle flange with some steel wool or a wire brush to prepare it for the new caliper brackets.

# 3. Install the new axle flange bolts

Take four of the T-bolts and place them in the holes of the axle tube flange (shown below). The threads of the T-bolts should be facing towards the outside of the car away from the gas tank (shown below).



#### 4. Re-Install the axles with spacers

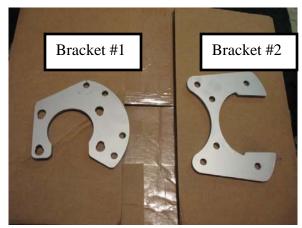


\*NOTE: When pressing your bearings onto the axle. Make certain you put the Green Bearing Retainer Plate (supplied with your green bearings) on before the bearings are pressed on. You may not be able to get the retainer plate on the axles after the bearings are pressed on. You can normally remove the snap ring (if you have this type of bearing) to install the plate, but if you cannot you will not be able to install the retainer plate. If you have the type of bearing that has the retainer plate on the bearing permanently, disregard this note and proceed to the instructions below.

Reinstall the axles into the rear end housing. Before re-installing the axles, slide the provided 1/8" spacer on the axle to fill the space your drum brake backing plate was filling. See photo above. Re-install the axles after you have installed the 1/8" spacer. Next install the supplied gasket, it will rest up against the 1/8" spacer. After you have installed the axles and the gasket, place the green bearing retainer plate (supplied with your green bearings) on the outside of the snap ring, on some green bearings this plate is already installed on the bearing. You are now ready to move onto the next step and install the new caliper mounting brackets.

# 5. Install the new axle flange brackets

Separate the 4 brackets that are in the kit (shown below).

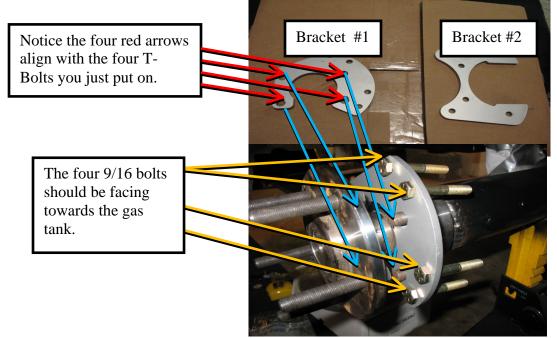


Take bracket #1 (shown below) and align it with the T-bolts you just installed. The curved part of the bracket #1 can point towards the front or rear of the car. This will determine if you caliper is going to be front mounted or rear mounted. As a general rule of thumb, you mount the caliper on the opposite side of the axle than the shock is on. Caliper clearance is the issue here. If your caliper will clear the shock it is ok to mount

the calipers on the same side of the axle. Take the four bolts supplied and put them through the other four holes in bracket #1 and have them facing towards the gas tank.

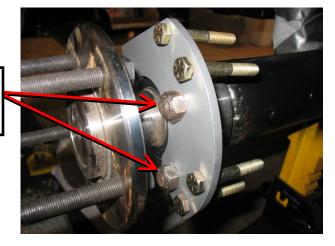
## \*Attention Staggered Shock Owners:

Staggered shock rear ends require you to mount the driver's side caliper towards the front of the car. The passenger's side caliper still mounts towards the rear of the car. Make sure you have the correct kit for staggered shocks (MDCRD05)



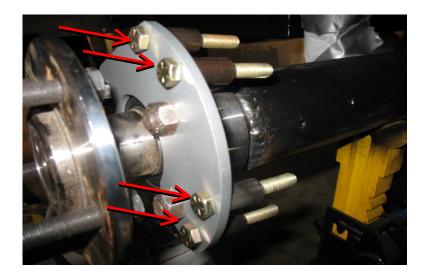
Attach the four new T-bolts and lock washers and tighten them in a star pattern using a <sup>3</sup>/<sub>4</sub>" wrench or socket. Torque the axle flange brackets to 55 ft/lb.

Tighten down the 4 T-bolts with the four nuts and lock washers (not pictured).



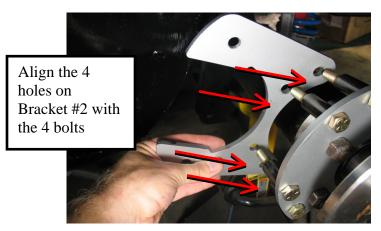
# 6. Install the caliper bracket spacers

We have supplied spacers for each side of the rear end to be used on your application. Place the spacers on the four bolts you just put on. (Shown below).

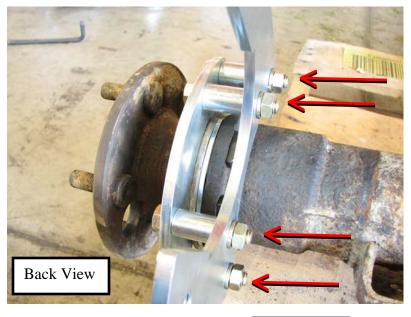


# 7. Install the caliper mounting brackets

Take bracket #2 and align it so the four holes on bracket #2 match the bolts that are in bracket #1. (Shown Below)

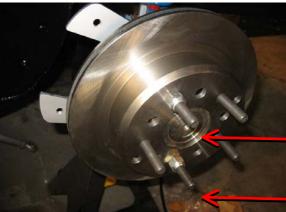


Take four of the eight nuts and lock washers and tighten down bracket #2 to bracket #1.





Slide the rotor onto the studs. The rotors are drilled for both Mopar / Ford and Chevy bolt patterns. Hand thread two lug nuts to seat the rotor in place for test fitting. If the center hole in the rotor that measures 2.78" is too small you will need to machine the rotor to fit. If the recess area of the rotor is too small to go over your axle hub you will need to machine the axle to fit the  $6 \ 3/16$ " rotor hat. These are the only rotors available for this kit.



Take out the caliper and notice how Bracket #2 and the contour of this caliper shown below fit.





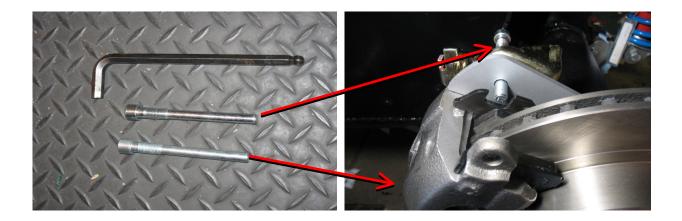
Slide the caliper into position, have the brake pads go on each side of the rotor and the two mounting holes on the caliper will match up with the two holes in Bracket #2.

You can see the two mounting holes on the caliper and the mounting holes Bracket #2.



The zinc plated bracket with spring attached to it needs to face upwards.

With the caliper on the rotor and in Bracket #2 you can use the two caliper bolts to secure the caliper in place using a 3/8" allen wrench and torque to factory specs.



## 8. Attach the flex hoses

Remove the banjo bolt and copper washers from the caliper. Place a copper washer on top of the flex hose and insert the banjo bolt. Place the second copper washer over the banjo bolt on the bottom of the flex hose and bolt the hose onto the caliper with the specifications provided in the assembly manual.

# **9. Install the emergency brake cables and adjust the calipers**

You rear disc conversion comes with new rear emergency brake cables. You'll use the existing intermediate and front cables on your car. Run the cable up thru the center of the spring and insert the metal bung on the end of the cable securely into the notch on the emergency brake lever. Attach the other end to your existing intermediate cable using the included hardware. Some rare instances require shortening of the intermediate cable.

After the cables are installed, you need to adjust the system. Engage and release the emergency brake lever several times to activate the self-adjustment mechanism built into the calipers. You'll know you've got it when emergency brake is fully engaged and the rear wheels will no longer turn by hand. If your rear caliper pistons do not ratchet out by use of the e-brake arm on the caliper follow this procedure to get the piston to extend the brake pads to the rotor surface. Remove the spring and the e-brake arm from the caliper. Turn the threaded bolt extending from the body of the caliper by hand or with the aid of a wrench. Continue to turn the bolt until the brake pads come in contact with the rotor. After the desired adjustment is achieved reattach the e-brake arm and the spring onto the caliper. Continue with the bleeding procedure. A support video is available on our web site under tech support to guide you through the process.

**Note:** It is important that you regularly use the emergency brake to keep them properly adjusted.

## \*Attention Staggered Shock Owners:

Staggered shock rear ends require two different length brake cables. The short cable is used on the passenger's side. The longer cable comes out of the driver's side caliper towards the back of the car and loops back around to the front. Make sure you have the correct kit for staggered shocks (MDCRD05).

# **10. Install the flex house mounting tabs**

Install the flex hose mounting tabs pictured below that are included in your kit. Before installing these tabs you either need to shorten your existing rear axle lines or purchase a pre-shortened rear axle line set. The shortening of the rear axle line is necessary to compensate for the flex hose coming off of the caliper. As a general rule of thumb your lines will be about 6" - 8" shorter than the factory lines. Mount these tabs where your hard lines end. They will need to be tack welded to your rear axle housing. It is ok to tack weld the tabs after your rear end has been assembled. After they have been welded to your axle housing, insert your flex hose into the bracket and secure with the flex hose clip provided. After you have secured your hose into the bracket, screw your axle line into the end of the flex hose and tighten it with a wrench.





## 11. Bleed the system

# Before bleeding your brakes please watch the instructional video at <u>www.getdiscbrakes.com</u> under tech stuff.

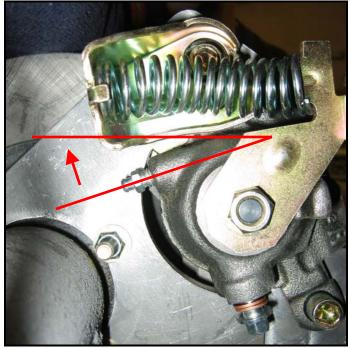
If you are concerned with the damaging effects of DOT 3 brake fluid, The Right Stuff suggests synthetic DOT 5. The Right Stuff is not liable for damage caused by system fluids.

Make sure the emergency brakes have been adjusted properly as discussed in step eight before bleeding the brakes. Working your way forward from the wheel farthest from the master cylinder will help insure a good bleed and a firm pedal. It is important to bleed the system in the following order:

#### 1. Right Rear 2. Left Rear 3. Right Front 4. Left Front

#### Attention:

The bleeder screws must be positioned horizontally. If the bleeders are pointed down, the calipers will trap air and the system will not bleed properly. You can remove the caliper mounting pins and rotate the caliper to re-position the bleeder. Remember to keep the pads over the rotor when rotating the caliper. This is to ensure the pads do not close too much to be able to get them back over the rotors once the bleeding process is finished. The picture below shows how you need to re-position the bleeder to get all the air out of the system.



#### **Technical Support**

We want your conversion project to go smoothly. Double check that you have followed these instructions correctly and those included with any upgrade components you may have purchased. If you need additional help getting your new disc brakes to function properly, we're here for you. You can visit our website at <u>www.GetDiscBrakes.com</u> for Tech Tips, Tricks & Videos. If you are having trouble getting a good pedal please take a moment to watch the rear disc installation support video. If you cannot find the assistance you need from that source feel free to send us an email from the Tech support section of the website for priority service. If you are still unable to get the help you need, please feel free to give us a call at (800) 405-2000.

#### Thank You for Your Business!



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## **Pick Ticket:**

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