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Wilwood Disc Brake Installation

Front Disc Brake Conversion on a 4-Lug, 6-Cylinder 1965 Ford Mustang

Mid-year 1964, Ford released a new type of sporty compact that would ultimately coin the term “Pony Car”. It was immediately a smash hit and continues to be today. Wilwood has just introduced a disc brake conversion kit for the four lug, six cylinder Mustang (will not fit standard V8, 5 Lug). And, the kit fits nicely inside 14” factory steel wheels. These early Mustang’s just scream out for customization. Upgrading the OE drum to modern disc brakes is a no brainer, for safety and to gain a competitive edge. This is clearly illustrated by the fact that more cars are passed under braking than anywhere else on the track. Since 1977 **Wilwood Disc Brakes** has had the solution! Now Wilwood brings all that racing experience to your first generation Ford Mustang.

Wilwood’s new front kit (P/N 140-12535) features Wilwood’s Forged Dynalite four-piston lug mount calipers clamping down on 10.75” diameter, .81” thick rotors. The kit comes with aluminum hats, mounting brackets, and all hardware for an easy bolt-on installation. BP-10 high performance street pads round out the kit. Other brake pad compounds with higher friction and temperature characteristics designed for on track performance are an option. Kits are available with black anodized or red powder coated calipers.

As you read through the installation procedure you will see that it is basically a bolt-on kit, just as Wilwood advertises. Kit includes everything necessary for an easy and complete installation. However, the stainless steel braided flexline kit is a necessary item and must be ordered separately. Wilwood offers many lengths of flexlines, please see our web site for the line length necessary to complete your installation. You will be amazed as to how much better the Wilwood brake kit performs over the original factory drum brakes.

Wilwood part number 140-12535 comes complete with FDL calipers, caliper mounting brackets, HP rotors, aluminum hats, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

A standard set of mechanics tools including torque wrenches will be necessary. Also, a bottle of red *Loctite*® 271, PTFE thread tape, and Wilwood’s Hi-Temp 570 racing brake fluid (P/N 290-0632) or Wilwood EXP 600 Plus Hi-Temp racing brake fluid (P/N 290-6209) for extreme temperature applications.

Before you begin the installation, read over the instructions carefully to be sure you understand the procedure, and if the job seems a little beyond your capabilities, there’s no shame in calling in a professional. Compare the parts you received with the parts list on the installation document that came with the kit to ensure all necessary components are included.

NOTE: *Disc brakes should only be installed by someone experienced and competent in the installation and maintenance of disc brakes.* If you are not sure, get help or return the product. You may obtain additional information and technical support by calling Wilwood at 805 • 388-1188, e-mail for technical assistance at: support@wilwood.com, or visit our web site at www.wilwood.com.

Sequence 1: Raise the front wheels off the ground and support the front suspension according to the vehicle manufacturer's instructions. Remove the lug nuts and remove the wheel.

Sequence 4: Slide off the drum from the spindle. If it is stuck, it may be necessary to hit it a few times with a rubber mallet to break loose.

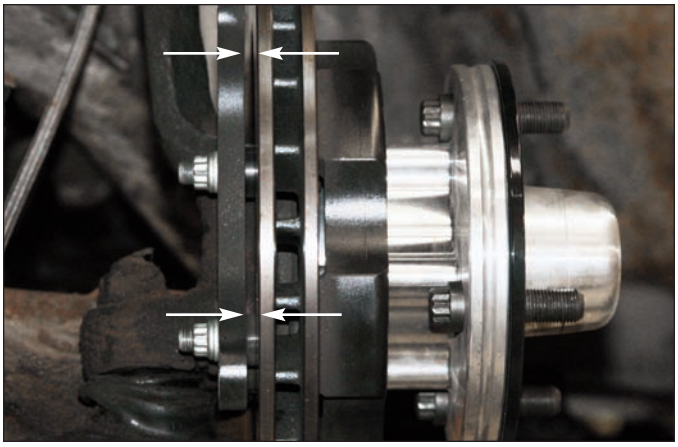
Sequence 2: Remove the dust cap, then the spindle nut retaining cotter pin, and nut lock.

Sequence 5: Remove the bolts from the inboard side holding the drum brake assembly.

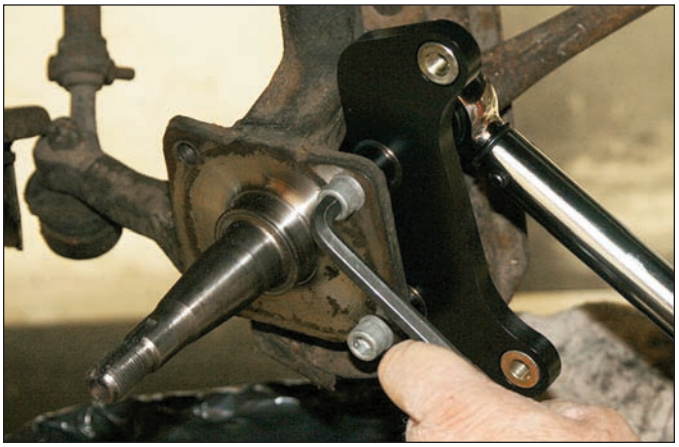
Sequence 3: Remove the spindle nut. Save the spindle nut and nut lock.

Sequence 6: Disconnect the brake hose at the chassis connection point and remove the drum brake assembly.

Sequence 7: Clean the spindle mount face with a wire brush and remove any nicks, burrs, or grease that may interfere with installation of the new brake components.



Sequence 9: Check that the bracket is aligned parallel to the rotor by assembling and installing hub/rotor per steps below. If not, add or substract shims between spacer and bracket. Once the bracket alignment is set, torque the bracket mount bolts and nuts to 30 ft-lb.

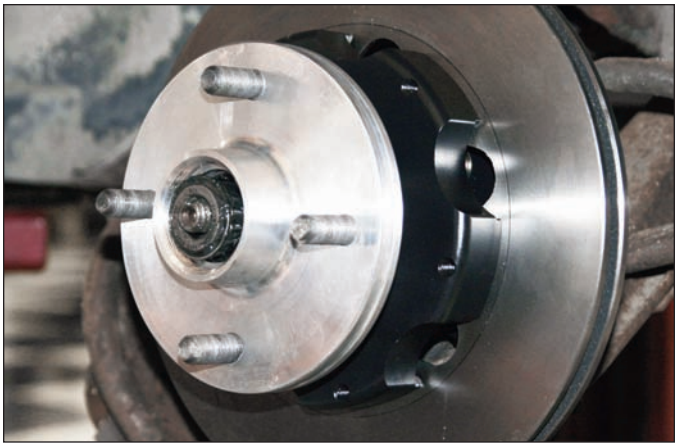


Sequence 8: The caliper mount bracket should initially be installed with clean, dry threads on the mounting bolts. Orient the bracket as shown and install using bolts and washers. Place spacer and one shim between the bracket and upright and secure with nut. Temporarily tighten the mounting nuts. ***NOTE:*** *The bracket must fit squarely against the mounting points on the spindle*. Inspect for interference from casting irregularities, machining ridges, burrs, etc.

Sequence 10: Install wheel studs into the backside of the hub and snug using an impact wrench. Using a torque wrench, torque to 77 ft-lb.

Sequence 11: Pack the large inner bearing cone with high temperature disc brake bearing grease (available from your local auto parts store) and install into the backside of the hub.

Sequence 12: Install the grease seal by pressing into the backside of the hub, flush with the end of the hub.



Sequence 15: Pack the small outer bearing cone with high temperature disc brake bearing grease and install into hub. Slide the hub/rotor/hat assembly onto the spindle. Secure using spindle washer and OEM spindle nut. Adjust bearings per OEM specifications. Install saved OEM nut lock (if any) and a new cotter pin (not supplied).

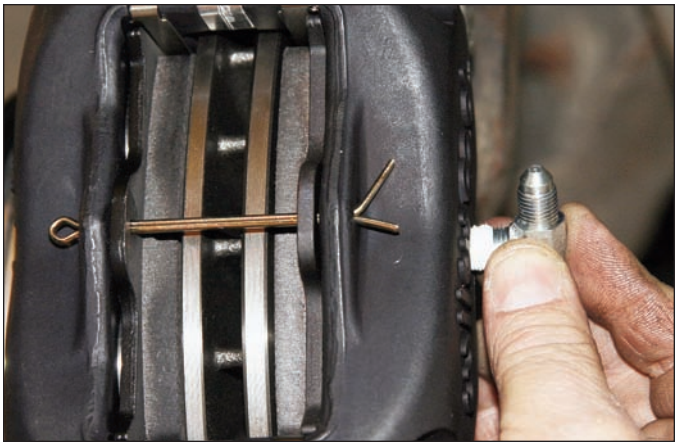
Sequence 13: Mount the hat to the hub using bolts as shown above. Using an alternating sequence, apply red *Loctite*® 271 to the threads, and torque to 55 ft-lb.

Sequence 16: Install dust cap into hub. Friction created by the o-ring on the dust cap keeps it from unscrewing. ***NOTE:*** *The O.D. of the existing OEM spindle washer may be larger than the I.D. of the dust cap not allowing it to seat against the hub face. Therefore, use the spindle washer supplied with the kit instead of the OEM washer.*

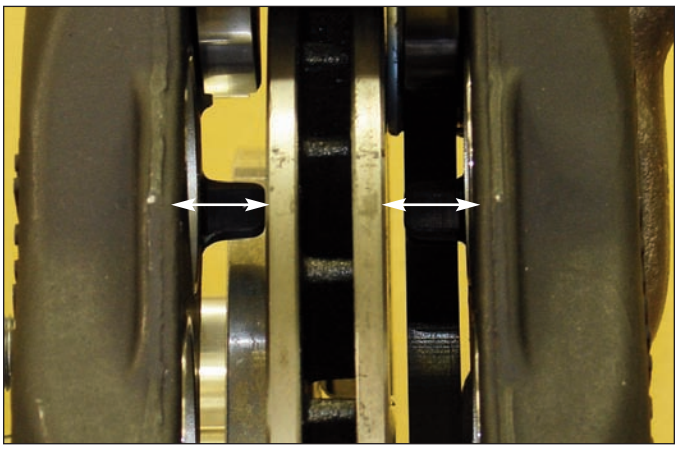
Sequence 14: Orient the rotor and the hat/hub assembly as shown above. Attach the rotor to the hat using supplied bolts. Using an alternating sequence, apply red *Loctite*® 271 to the threads, and torque to 25 ft-lb.

Sequence 17: Initially place two .035" thick shims on each bolt between the caliper and the bracket.

Sequence 18: Mount the caliper onto the caliper mounting bracket using bolts and washers. Temporarily tighten the mounting bolts.

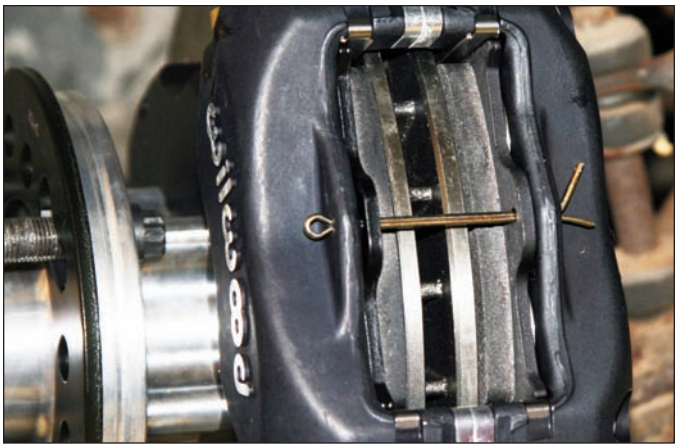


Sequence 21: Remove the protective sticker from the caliper fluid inlet. Wrap the inlet fitting with PTFE thread tape and screw into the caliper. Connect one end of the Wilwood flexline hose kit to the fitting.



Sequence 19: View the rotor through the top opening of the caliper. The rotor should be centered in the caliper. If not, adjust by adding or substracting shims between the bracket and the caliper mounting tabs. Once the caliper alignment is correct, remove the mounting bolts one at a time and apply red *Loctite*® 271 to the threads and torque to 40 ft-lbs.

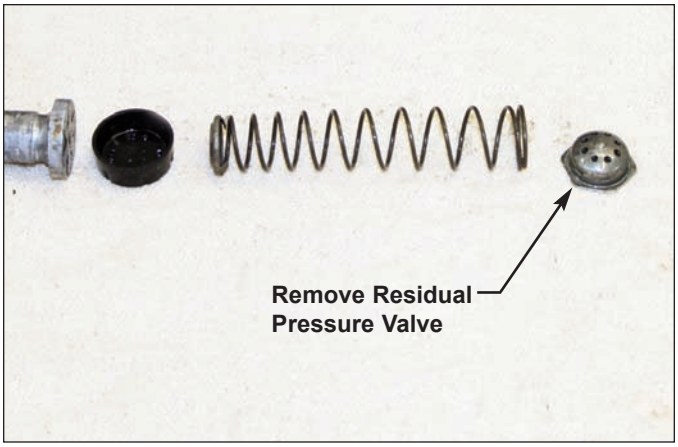
Sequence 22: Connect the other end of the flexline to the fitting at the brake hard line. Route and secure line as necessary to prevent contact with moving suspension, brake, or wheel components. Bleed the system referring to the additional information in the data sheet as necessary for proper bleeding instructions.



Sequence 20: Install the disc brake pads into the caliper, with the friction material facing the rotor, and secure in place using cotter pin.

Sequence 23: Install wheel spacer. Temporarily install wheel and torque lug nuts to manufacturer's specification. Ensure that the wheel rotates freely without any interference. ***NOTE:*** *Wheel spacer MUST be used if any wheel contact surfaces overhang the outside diameter of the hub face, or with steel wheels.*

Sequence 24: Install the wheel and torque the lug nuts to manufacturer's specification. Rotate the wheel and check for any interference. Bed in the brake pads and rotor in a safe location before general use driving.



Sequence 25: This brake kit may be used with the OEM single circuit master cylinder. However, the residual pressure valve must be removed from inside the master cylinder to prevent unwanted front brake drag. ***NOTE**: Care must be taken not to damage the master cylinder seals when reinstalling the piston assembly.* It is highly recommended that a Wilwood proportioning valve (P/N 260-8419) be plumbed into the line that feeds both rear wheels. When installed and adjusted properly, it can reduce the chances of potentially dangerous rear-wheel lock up during hard braking.

Brake Testing

WARNING • DO NOT DRIVE ON UNTESTED BRAKES
BRAKES MUST BE TESTED AFTER INSTALLATION OR MAINTENANCE
MINIMUM TEST PROCEDURE

- Make sure pedal is firm: Hold firm pressure on pedal for several minutes, it should remain in position without sinking. If pedal sinks toward floor, check system for fluid leaks. DO NOT drive vehicle if pedal does not stay firm or can be pushed to the floor with normal pressure.
- At very low speed (2-5 mph) apply brakes hard several times while turning steering from full left to full right, repeat several times. Remove the wheels and check that components are not touching, rubbing, or leaking.
- Carefully examine all brake components, brake lines, and fittings for leaks and interference.
- Make sure there is no interference with wheels or suspension components.
- Drive vehicle at low speed (15-20 mph) making moderate and hard stops. Brakes should feel normal and positive. Again check for leaks and interference.
- Always test vehicle in a safe place where there is no danger to (or from) other people or vehicles.
- Always wear seat belts and make use of all safety equipment.

Wilwood Disc Brakes
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