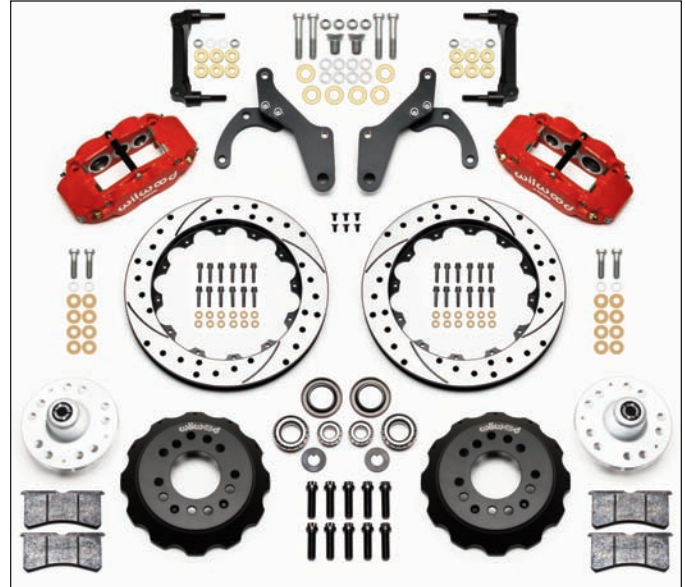


## Wilwood Disc Brake Installation

### Front Big Brake Installation on a 1962 Chevrolet Impala Station Wagon



General Motors introduced the Impala in 1958 and became the best selling car in the U.S. through the 1965 model year. These older cars are very popular with car buff's and when restoring you must not forget about upgrading the brakes. Stepping up to disc brakes is a necessity if you plan on engaging in any type of street performance or road racing events. This becomes evident when one realizes 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 classic Chevrolet Impala.

Wilwood is offering performance braking solutions for the Impala (our test fit vehicle was a 1962 model year). The base kit (P/N 140-12460) features Wilwood's Superlite 6 piston differential bore **radial mount calipers** clamping down on oversized 12.88" diameter **GT slot pattern vented 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 for off-road applications are an available option. Optional items include **SRP drilled and slotted rotors**, and/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. See the installation instructions for ordering information. You will be amazed as to how much better the

Wilwood part number **140-12460** comes complete with Superlite 6R calipers, caliper mounting brackets, GT rotors, aluminum hats, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

Wilwood disc brake kit performs over the original factory drum brakes.

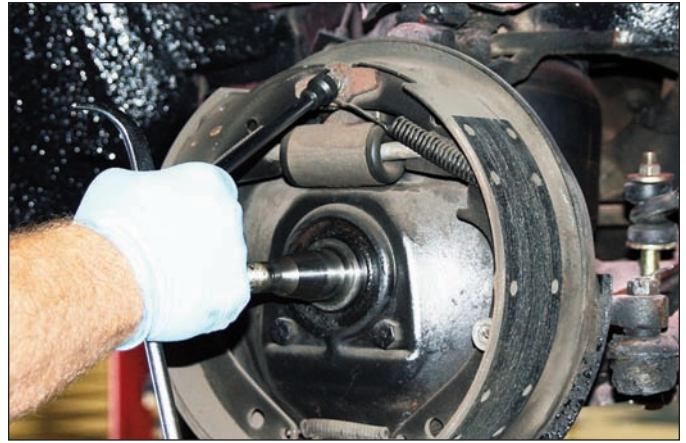
A standard set of mechanics tools including torque wrenches will be necessary. Also, a bottle of red **Loctite® 271**, PTFE thread tape, and Wilwood's Hi-Temp 570 **racing brake fluid** (P/N 290-0632) or Wilwood EXP 600 Plus Hi-Temp **racing brake fluid** (P/N 290-6209) for extreme temperature applications.

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](mailto:support@wilwood.com), or visit our web site at [www.wilwood.com](http://www.wilwood.com).*



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



**Sequence 4:** Disconnect the top brake shoe return spring.



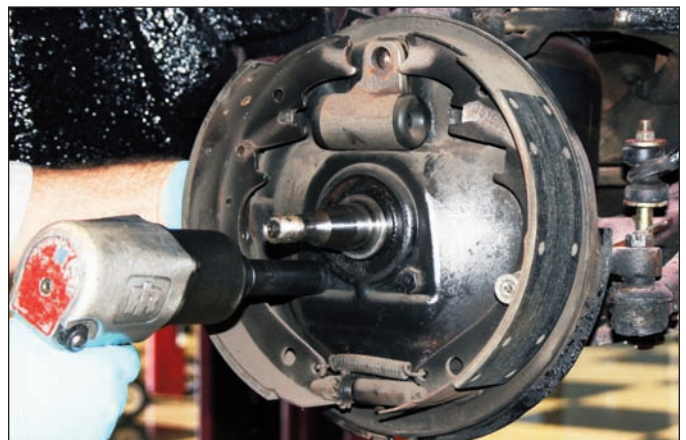
**Sequence 2:** Remove the dust cap and spindle nut retaining cotter pin. Remove the spindle nut.



**Sequence 5:** Remove the lock clip over the bolt holding the brake assembly to the spindle.



**Sequence 3:** 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 6:** Remove the bolts holding the brake backing plate assembly to the spindle.



**Sequence 7:** Remove backing plate assembly while disconnecting the brake fluid hose.



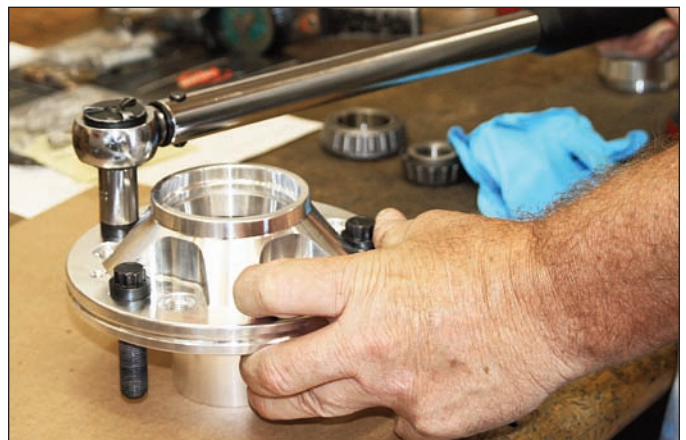
**Sequence 10:** The spindle bracket should initially be installed with clean, dry threads on the mounting bolts. Orient the bracket as shown and install using bolts, washers, and nuts. Place two shims between the bracket and upright on the top mounting bolt. Temporarily tighten the mounting nuts and bolt. **NOTE:** The bracket must fit squarely against the mounting points on the spindle. Inspect for interference from casting irregularities, machining ridges, burrs, etc. Grind spindle surface areas as necessary. Check that the bracket is aligned parallel to the rotor after sequence 18. If not, adjust by adding or subtracting shims between the spindle and bracket on the top bolt. Once the bracket alignment is correct, torque the lower bolt nuts to 47 ft-lb. Remove the upper bolt, apply red *Loctite*® 271 to threads, and torque to 140 ft-lb. Remove, one at a time, the bolts that secure the bracket assembly to each other, apply red *Loctite*® 271 to the threads and torque to 40 ft-lb.



**Sequence 8:** Clean the spindle mount face and upright with a wire brush and remove any nicks, burrs, or grease that may interfere with installation of the new brake components.



**Sequence 9:** Loosen the two bolts that secure the new caliper mounting brackets together so that the bolts are hand tight only.



**Sequence 11:** Install wheel studs into the backside of the hub. Torque to 77 ft-lb. **NOTE:** There are two five lug patterns in the hub (5 x 4.50 and 5 x 4.75). Ensure the correct hub stud pattern is being used to fit the wheel application.



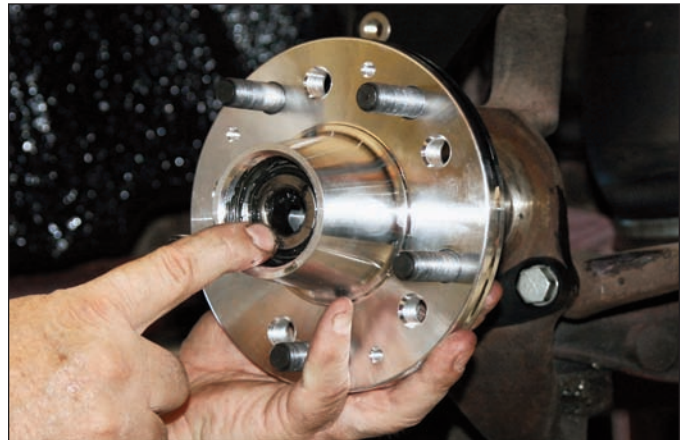
**Sequence 12:** Pack the large inner bearing cone with high temperature disc brake bearing grease (available from your local auto parts store) and install into the backside of the hub.



**Sequence 15:** Place one flat washer over each hole on the rotor mounting tabs. Coat the mounting bolts with red *Loctite*® 271 and slide through the washer and thread into the hat. Using an alternating sequence, torque bolts to 155 in-lbs.



**Sequence 13:** Install the grease seal by pressing into the backside of the hub, flush with the end of the hub.



**Sequence 16:** Pack the small outer bearing cone with high temperature disc brake bearing grease and install into hub. Slide the hub 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 14:** The hat needs to be bolted to the rotor. Orient the rotor over the hat in the configuration shown above.



**Sequence 17:** Place o-ring on dust cap and screw 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.



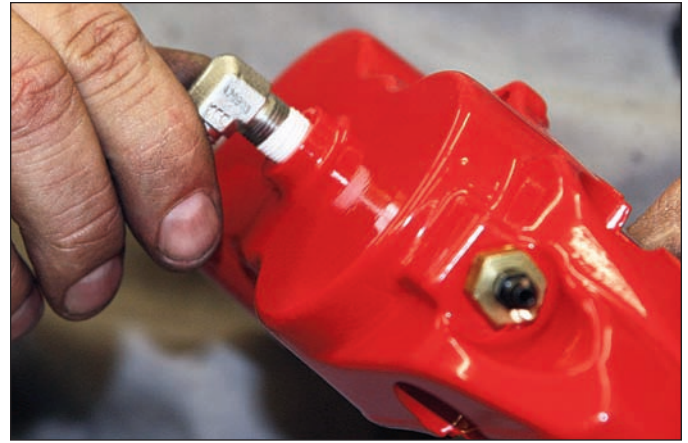
**Sequence 18:** Install the hat/rotor assembly over the studs on the hub assembly taking care to align the small countersunk holes in the hat with the small threaded holes in the hub. **NOTE:** The hat/rotor must fit flush against the axle hub flange or excessive rotor run out may result.



**Sequence 19:** 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. Initially place two shims on each bolt between the caliper bracket and the spindle bracket. Temporarily tighten the mounting bolts.



**Sequence 20:** Lubricate the caliper mounting studs with lightweight oil. Initially place two shim washers on each stud between the bracket and caliper.



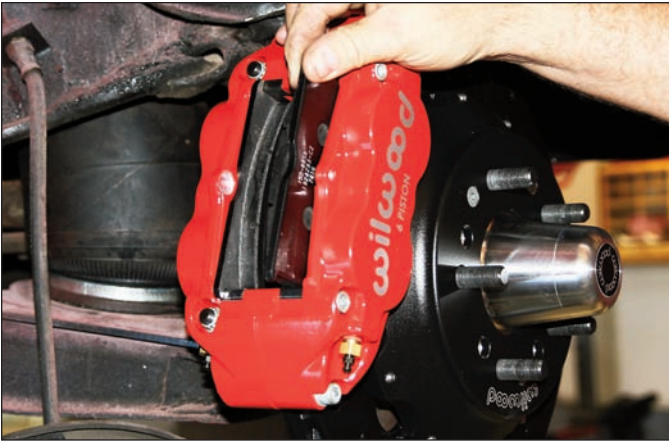
**Sequence 21:** Remove the protective sticker from the caliper fluid inlet. Apply PTFE thread tape to the inlet fitting threads and screw into the caliper with the 90° angle downward.



**Sequence 22:** This kit includes distinct right and left hand calipers. Mount the caliper onto the bracket so that the largest pistons are at the rotor exit end of the caliper, in relation to the direction of rotor rotation. Right hand installation shown.



**Sequence 23:** Secure the caliper with washer and locknut, temporarily tighten. View the rotor through the top opening of the caliper. The rotor should be centered in the caliper. If not, adjust by adding or subtracting shims between the caliper bracket and the spindle bracket. Once the caliper alignment is correct, remove the bracket bolts one at a time and apply red *Loctite*® 271 to the threads and torque to 40 ft-lb.



**Sequence 24:** Having already removed the caliper center bridge pad retainer bolt, nut, and tube from the caliper, insert the brake pads into the caliper with the friction material facing the rotor.



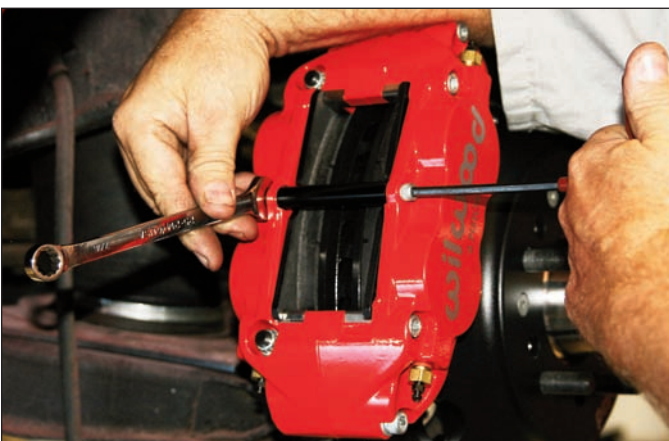
**Sequence 27:** Connect one end of the Wilwood flexline to the hard line. Install into the OE bracket clip in the original position.



**Sequence 25:** Check that the top of the brake pad is flush with the outside diameter of the rotor (arrow). If not, adjust by adding or subtracting shims between the bracket and the caliper.



**Sequence 28:** Connect the other end of the flexline to the fitting installed in the caliper. 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 26:** After the pad height is set, install the center bridge pad retainer tub, bolt, and lock nut using an Allen wrench and open-end wrench. The lock nut should be snug without play in the bolt or tube. Be cautious not to over tighten. Then finalize the caliper mounting by torquing the caliper mounting lock nuts to 30 ft-lb.



**Sequence 29:** Install the wheel and torque the lug nuts to manufacturer's specification. Bed in the brake pads and rotor in a safe location before general use driving.

## 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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