

Wilwood Disc Brake Installation

Front Big Brake Installation on a 2009 Chevy Truck / SUV 1500 Series



The GM 1500 Series Truck and SUV's lend themselves to many applications, including hauling/towing heavy loads as well as a performance street machine. Even in tame street conditions, the OE brakes are just adequate. However, when pushing these vehicles to the limit in track day or extreme weight situations, it becomes evident that updating the brake system is a must. This is clearly illustrated by the fact that more cars are passed under braking than anywhere else on the track. For over 34 years **Wilwood Disc Brakes** has had the solution! Now Wilwood brings all that racing experience to your full size GM truck or SUV.

Wilwood's front kit (P/N 140-8992) features Wilwood's TC6R six-piston differential bore radial mount calipers clamping down on large 16.00" diameter, 1.38" 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 red or black powder coated calipers, and either GT asymmetrical face slotted rotors, or SRP drilled and slotted rotors.

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, P/N 220-8998 is a necessary item and must be ordered separately. You will be amazed as to how much



Wilwood part number 140-8992 comes complete with TC6R calipers, caliper mounting brackets, GT rotors (SRP optional), aluminum hats, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

better the Wilwood brake kit performs over the original factory brakes.

A standard set of mechanics tools including torque wrenches, a grinding wheel, and impact screw driver will be necessary. Also, a bottle of red *Loctite*® 271, Teflon 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 lift off the wheel.



Sequence 4: Break loose the hat locator screw using an impact screwdriver. Then remove the screw.



Sequence 2: Remove the clip holding the original equipment rubber brake fluid hose. Disconnect the OEM brake fluid hose where it connects to the brake hard line. Temporarily cap (not included) the line to minimize fluid loss.



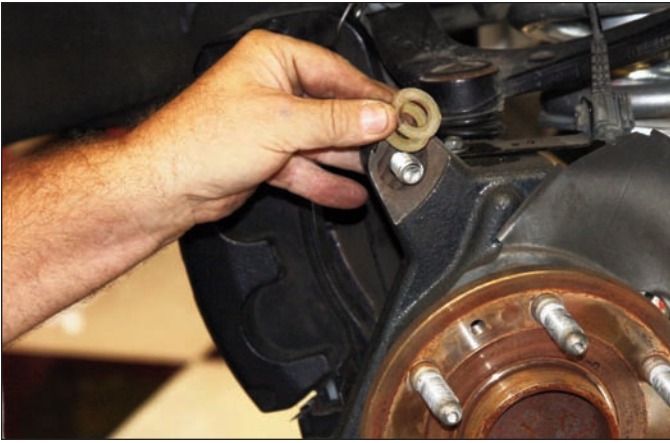
Sequence 5: Slide off the rotor from the hub. If it is stuck, it may be necessary to hit it a few times with a rubber mallet to break loose.



Sequence 3: Using an impact driver or breaker bar and socket, break loose the caliper mounting bolts from the back side of the rotor. Lift off the caliper and keep the fluid line hose in the vertical position to avoid spilling brake fluid that remains in the hose.



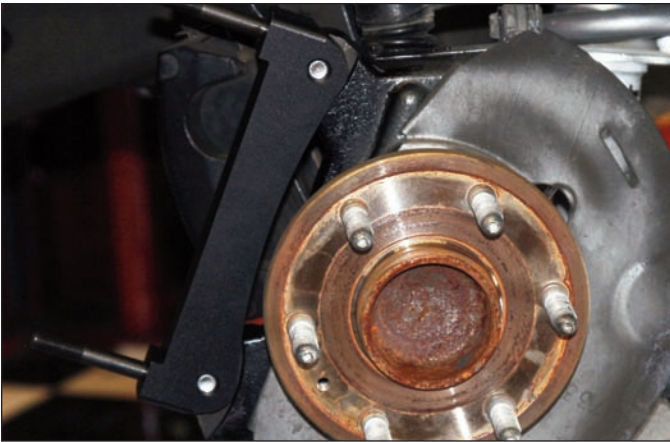
Sequence 6: The caliper mount tabs on some models might have to be ground down for the Wilwood caliper mounting bracket to fit properly. Test fit bracket and grind as necessary. Paint newly exposure areas to prevent corrosion.



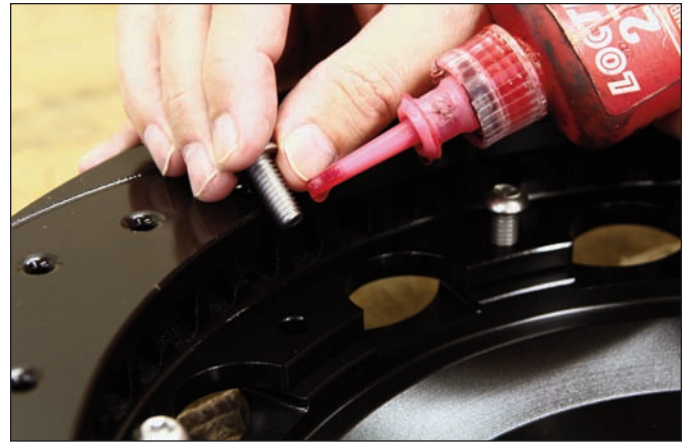
Sequence 7: Slide caliper bracket mounting bolts thru OEM caliper mounting ears from the inboard side. Initially install two shim washers on each bolt between mounting ear and bracket.



Sequence 10: The hat needs to be bolted to the rotor. Orient the rotor over the hat in the configuration shown above.



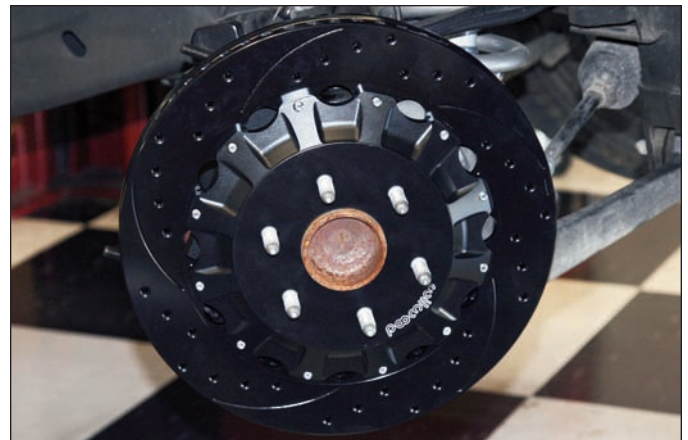
Sequence 8: Attach the Wilwood caliper mounting bracket to the OEM mounting ears on the outboard side. Temporarily tighten the mounting bolts. **NOTE:** The bracket must fit squarely against the mounting ears. Inspect for interference from casting irregularities, burrs, etc. Grind as necessary. Do not Loctite at this time.



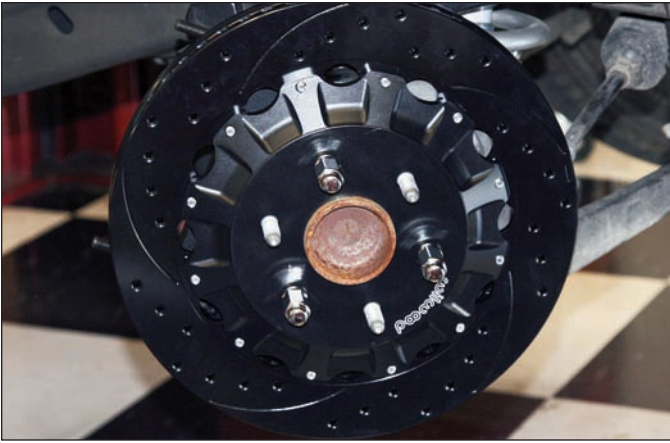
Sequence 11: Apply red Loctite® 271 to the mounting bolts and thread into the hat. Using an alternating sequence, torque rotor bolts to 25 ft-lbs.



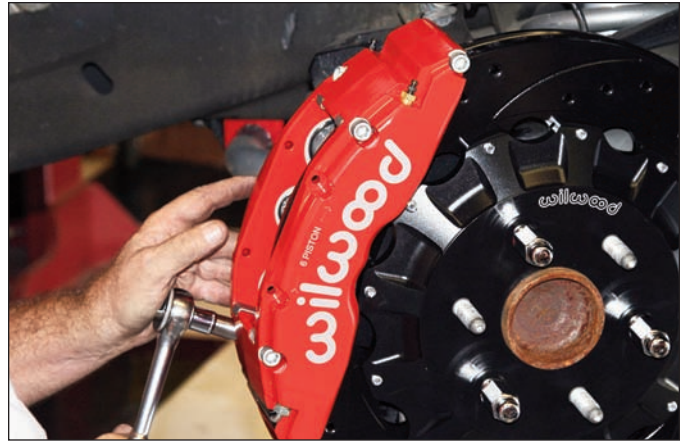
Sequence 9: The bottom section of the dust shield needs to be cut away to allow clearance for the new hat and rotor.



Sequence 12: Install the hat/rotor assembly over the hub assembly. **NOTE:** The hat/rotor must fit flush against the axle hub flange or excessive rotor run out may result.



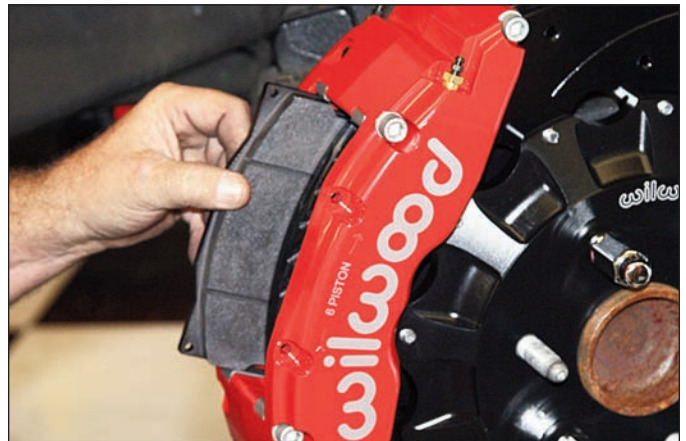
Sequence 13: Secure the hat/rotor with three lug nuts (finger tight) to keep the hat/rotor assembly in place while continuing with the installation.



Sequence 16: This kit includes distinct right and left hand calipers. With the bleed screws pointing up, 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. 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 bracket and the mounting ears. 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 70 ft-lb.



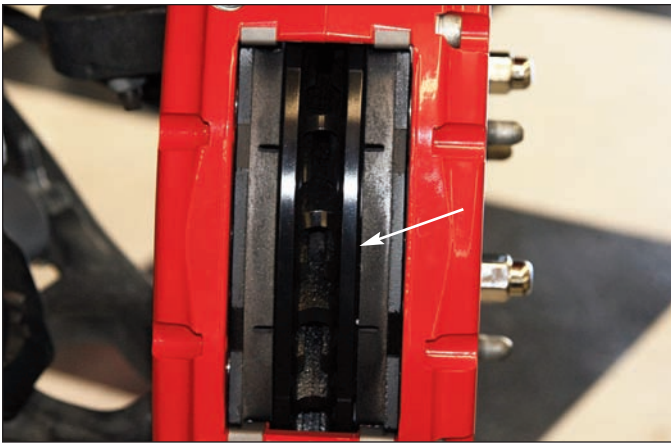
Sequence 14: Lubricate the caliper mounting studs with lightweight oil. Place two spacers on each stud between the bracket and the caliper.



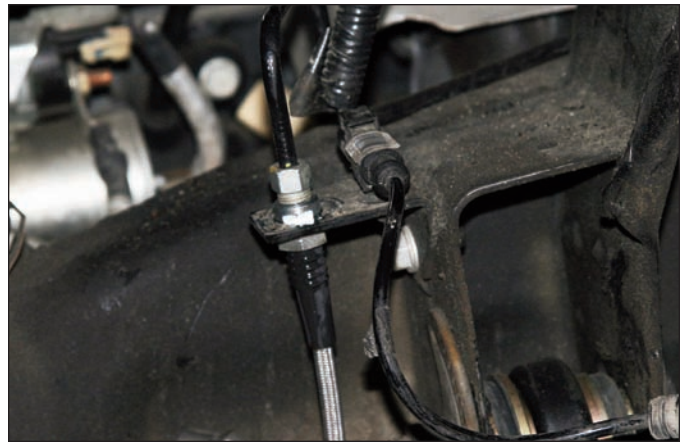
Sequence 17: Insert the brake pads into the caliper with the friction material facing the rotor.



Sequence 15: Initially place two shim washers on each stud between the bracket and caliper.



Sequence 18: 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.



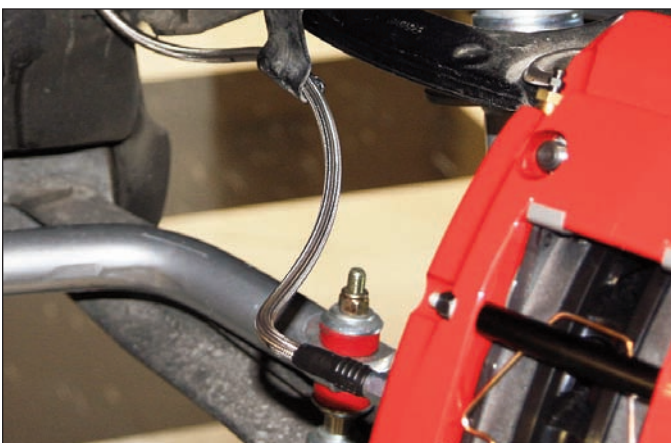
Sequence 21: Connect the other end of the flexline to the fitting at the brake hard line. Secure line as necessary to prevent contact with moving suspension, brake, or wheel components. Bleed the system referring to the additional information in the data sheet as necessary for proper bleeding instructions.



Sequence 19: After the pad height is set, install both center bridge pad retainer tubes, bolts, and lock nuts using an Allen wrench and open-end wrench or socket. 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 47 ft-lb.



Sequence 22: 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 20: Remove the protective sticker from the caliper fluid inlet. Coat the inlet fitting with Teflon tape and screw into the caliper. Connect one end of the Wilwood flexline hose kit, P/N 220-8998 to the fitting. Route flexline along the same path as the OEM hose.

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.

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