

Wilwood Disc Brake Installation

Front Big Brake Installation on a 2007 Jeep JK



In 2007 the Jeep Wrangler was totally redesigned and the TJ platform was replaced by the new JK platform. Virtually every function is computer controlled to some extent, even the brakes. The stock brakes are good, but if you want superior performance and reliability in off-road situations, you need to upgrade. Wilwood has been the leader in high performance off-road braking solutions for decades. For over 34 years **Wilwood Disc Brakes** has had the solution! Now Wilwood brings years of experience to your Jeep JK.

Wilwood is offering performance braking solutions for the Jeep JK (our test fit vehicle was a 2007 model year). The base kit (P/N 140-12440) features Wilwood's **Superlite 4** piston radial mount calipers clamping down on large 14.00" 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. Kits includes everything necessary for an easy and complete installation. However, the stainless steel braided flexline kit, P/N 220-11237 is a necessary item and must be ordered separately. You will be amazed as to how much better the Wilwood brake kit performs over the original factory brakes.

Wilwood part number 140-12440 comes complete with Superlite 4R calipers, caliper mounting brackets, GT 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 make note of any additional steps that may have to be performed by a qualified machine shop. Compare the parts 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 knowledgeable and competent in the functioning 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's manufacturer's instructions. Remove the lug nuts, then slide off the wheel.



Sequence 4: 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 2: Using a impact gun, or breaker bar and socket, break loose the caliper mounting bolts from the back side.



Sequence 5: Place one flat washer over each hole on the rotor mounting tabs. Apply red *Loctite*® 271 to the mounting bolts and slide through the washer and thread into the hat.



Sequence 3: Lift off and remove the caliper and hang off to the side using a piece of wire.



Sequence 6: Using an alternating sequence, torque rotor bolts to 155 in-lbs.



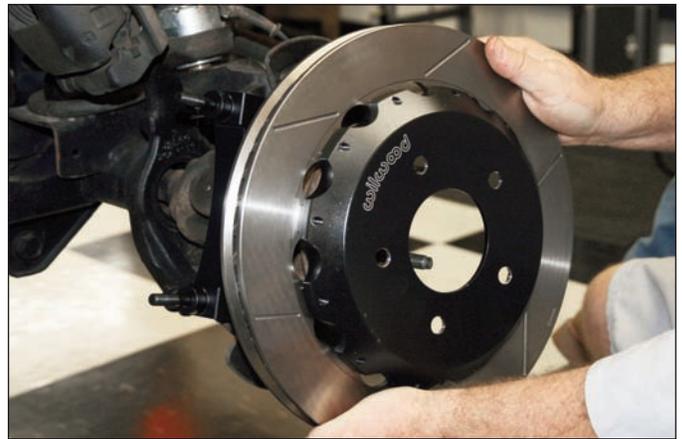
Sequence 7: Install the rotor registration adapter over the hub against the hub face with the larger O.D. facing inward toward the hub face.



Sequence 10: The dust shield needs to be bent backwards slightly for the Wilwood hat/rotor assembly to fit properly. Test fit hat/rotor and bend as necessary to allow a minimum of .12" clearance.



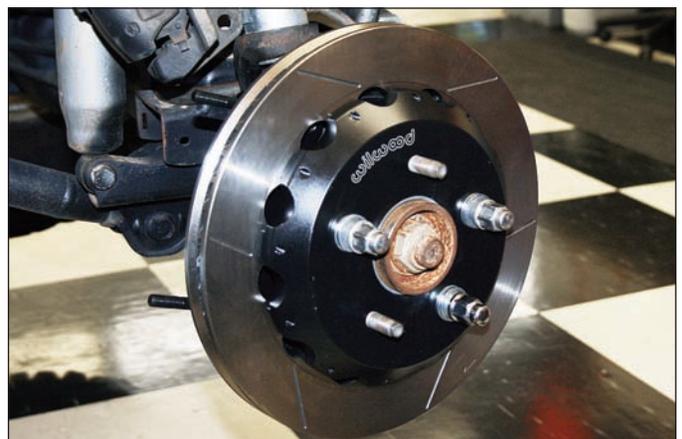
Sequence 8: Slide two caliper mounting bracket bolts through the OEM caliper mounting ears from the inboard side and initially install two shim washers on each bolt.



Sequence 11: Install the hat/rotor assembly over the studs on the hub assembly. **NOTE:** The hat/rotor must fit flush against the axle hub flange or excessive rotor run out may result.



Sequence 9: 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 12: Secure the hat/rotor with three lug nut (finger tight) to keep the hat/rotor assembly in place while continuing with the installation.



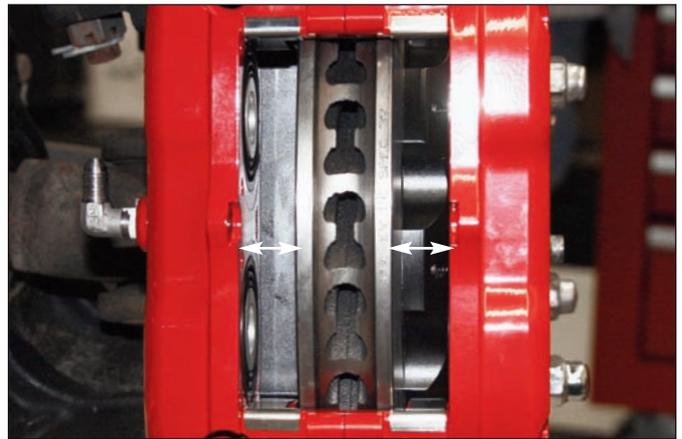
Sequence 13: Lubricate the caliper mounting studs with lightweight oil. Initially place two shim washers on each stud between the bracket and caliper.



Sequence 16: Mount the caliper onto the bracket with the bleed screws in the up position.



Sequence 14: Slide the caliper spacer over the mounting studs.



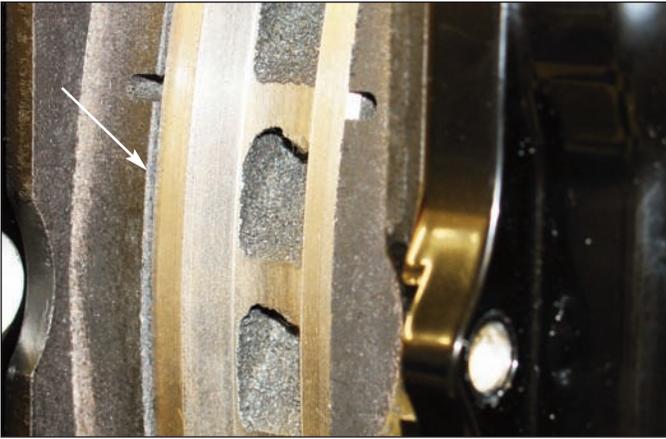
Sequence 17: Secure the caliper with washer and locknut, temporarily tighten. View the rotor through the top opening of the caliper. The rotor should be centered in the caliper. If not, adjust by adding or subtracting shims between the bracket and the mounting ears. Once the caliper alignment is correct, remove the bracket bolts one at a time and apply red *Loctite*® 271 to the threads and torque to 75 ft-lbs..



Sequence 15: Remove the protective sticker from the caliper fluid inlet. Coat the inlet fitting with PTFE thread tape and screw into the caliper with the 90° angle perpendicular to the length of the caliper toward the bleed screws.



Sequence 18: 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 19: 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.



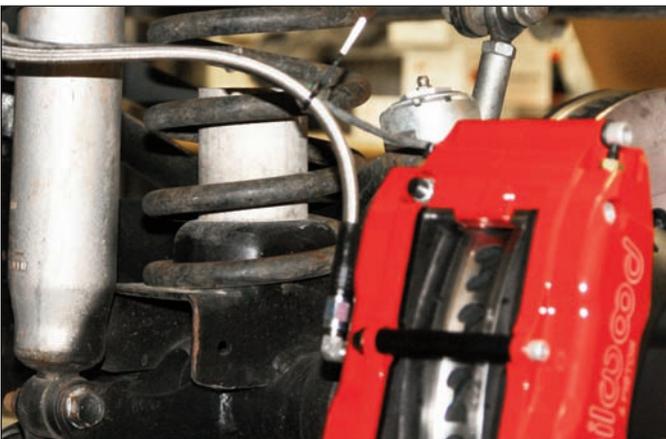
Sequence 22: Connect the other end of the flexline to the fitting at the brake hard line. Secure line as necessary to prevent contact with moving suspension, brake, or wheel components. Bleed the system referring to the additional information in the data sheet as necessary for proper bleeding instructions.



Sequence 20: 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 23: Install the wheel and torque the lug nuts to manufacturer's specification. Ensure the wheel rotates freely without any interference. Bed in the brake pads and rotor in a safe location before general use driving.



Sequence 21: Connect one end of the Wilwood flexline hose kit, P/N 220-11237 to the fitting that was previously installed into the caliper. Route the line along the same path as the old rubber OEM line.

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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