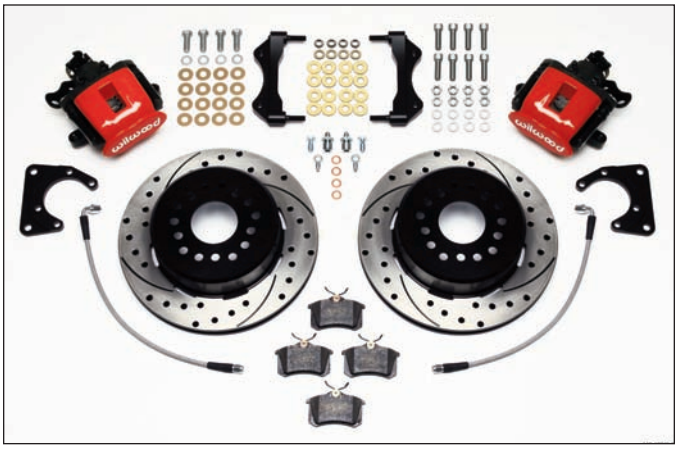
Wilwood Disc Brake Installation

Rear Big Brake Installation w/Parking Brake on a Factory Five Cobra



Wilwood part number 140-12049 comes complete with CPB calipers, caliper mounting brackets, ULHP rotors/hats, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

Wilwood has the perfect rear kit to compliment our front big brake kit. The CPB caliper coupled with our oversized ULHP plain face vented rotor provides improved stopping while adding a parking brake feature.

This matching rear kit (P/N 140-12049) features Wilwood's Combination Parking Brake caliper clamping down on oversized 12.19" diameter, .810 thick rotors. The kit uses a one-piece hat/rotor, and comes with mounting brackets, pads, 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 slotted only or SRP drilled and slotted rotors. These kits were designed to fit under the Factory Five 17" Vintage Halibrand Replica wheel.

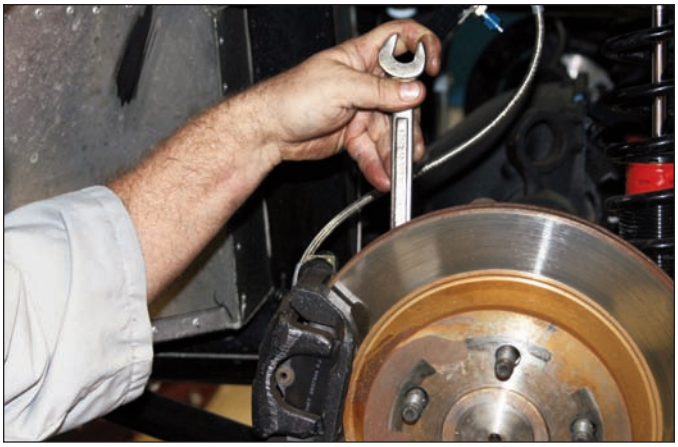
As you read through the installation procedure you will see that it is basically a bolt-on kit, just as Wilwood advertises. Only exception is the removal of the rear axles to facilitate the removal of the OE caliper mounting bracket. Kit includes everything necessary for an easy and complete installation including the stainless steel braided flexline kit, P/N 220-12093.

A standard set of mechanics tools are all that's required to install the brakes. If you built your own Roadster it's likely this brake kit won't be a problem. The only specialty tool required would be a torque wrench. Other items we recommend having handy are a bottle of red *Loctite*® 271, Teflon tape, and Wilwood's Hi-Temp 570 racing brake fluid or Wilwood EXP 600 Plus Hi-Temp racing brake fluid 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.

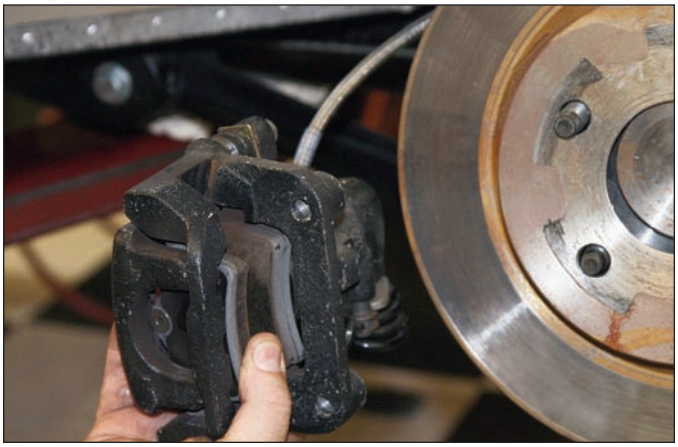
NOTE: *Disc brakes should only be installed by someone knowledgeable and competent in the functioning and maintenance of disc brakes.* If you are not sure, get help or return the product. You may obtain additional information and technical support by calling Wilwood at 805 • 388-1188, e-mail for technical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

Sequence 1: Raise the rear wheels off the ground and support the rear suspension according to the vehicle's manufacturer's instructions. Loosen the set screw behind the replica knock-off and lift off knock-off.

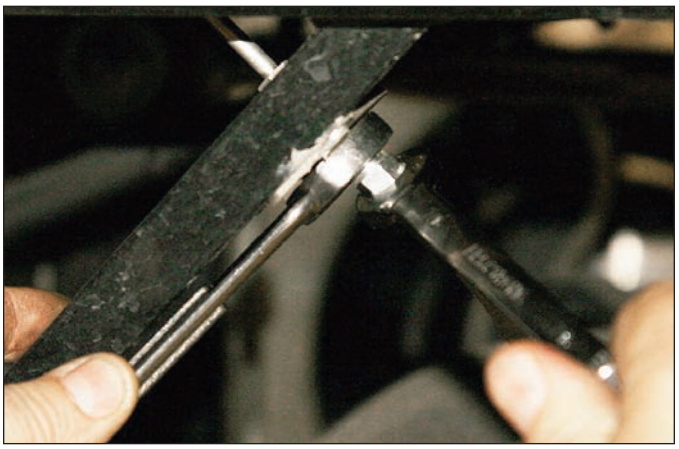


Sequence 4: Using a wrench, break loose the caliper mounting bolts from the back side of the rotor.

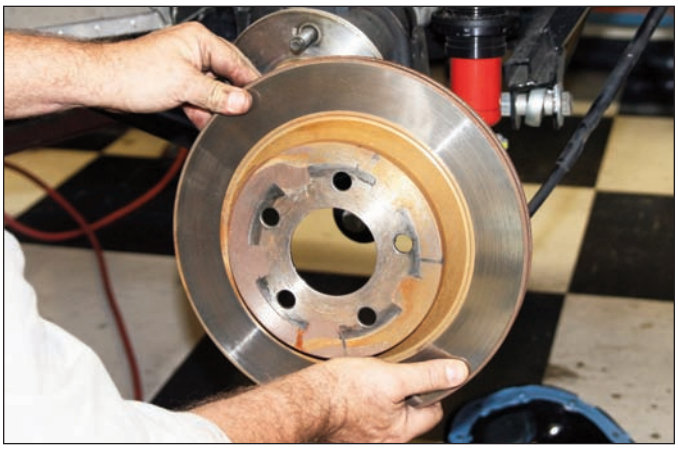
Sequence 2: Hiding behind the knock-off is the lug nuts, remove those and lift off the wheel.



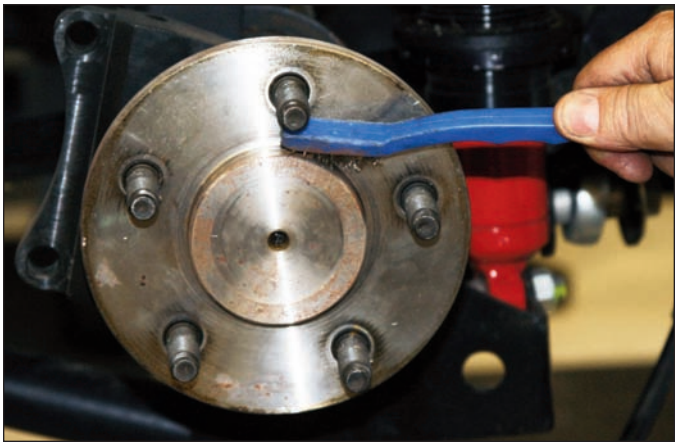
Sequence 5: Disconnect the parking brake cable. Lift off the caliper and keep the OEM brake line hose in the vertical position to avoid spilling brake fluid that remains in the hose.



Sequence 3: Disconnect the OEM brake fluid hose where it connects to the brake hard line. Temporarily cap (not included) the line to minimize fluid loss.

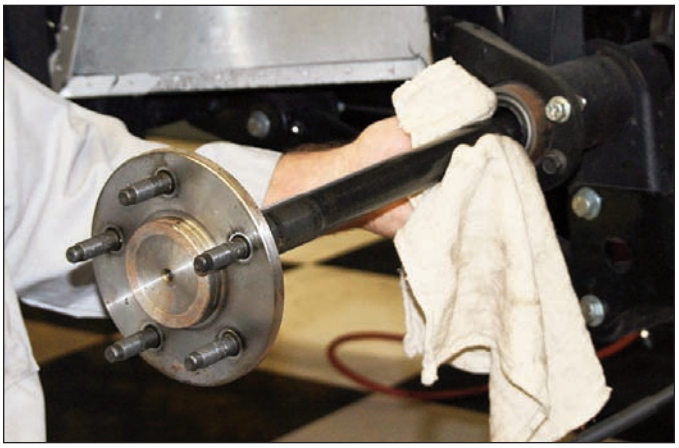


Sequence 6: Slide off the rotor from the hub. If it is stuck, it may be necessary to hit it a few times with a rubber mallet to break loose.

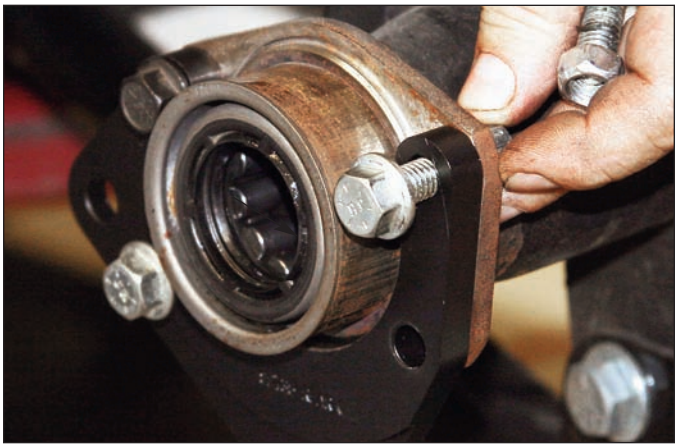


Sequence 7: Clean the hub assembly with a wire brush and remove any nicks, burrs, or grease that may interfere with installation of the new brake components.

Sequence 10: Clean the axle hub with a wire brush and remove any nicks, burrs, or grease that may interfere with the installation of the new flat caliper mounting bracket.

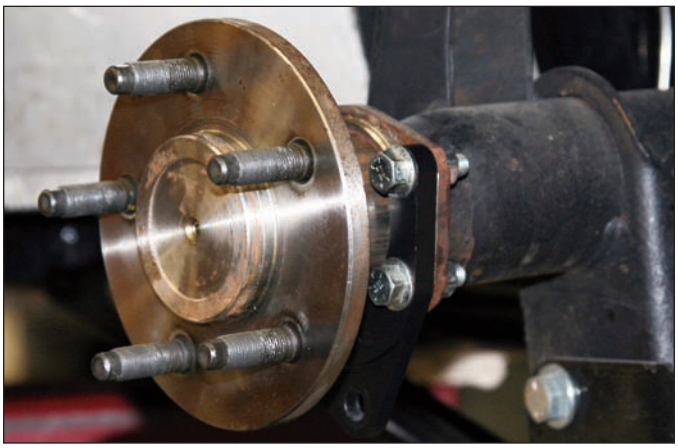


Sequence 8: Drain the rear end differential and disconnect the C-Clip per OEM specifications. Slide out the axle.



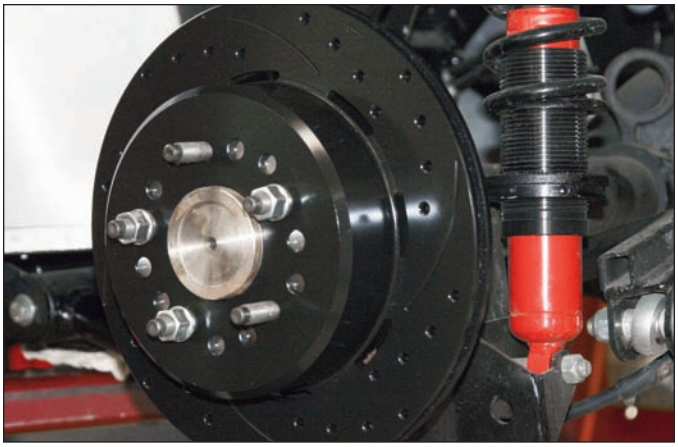
Sequence 11: Install the flat housing mount caliper bracket onto the axle hub using bolts, washers, and nuts with the "U" opening in the up position and the mounting ears facing toward the front of the vehicle. ***NOTE:*** *The bracket must fit squarely against the housing flange.* Inspect for interference from casting irregularities, burrs, etc. Grind as necessary.

Sequence 9: Remove the OEM caliper mounting bracket from the axle hub.

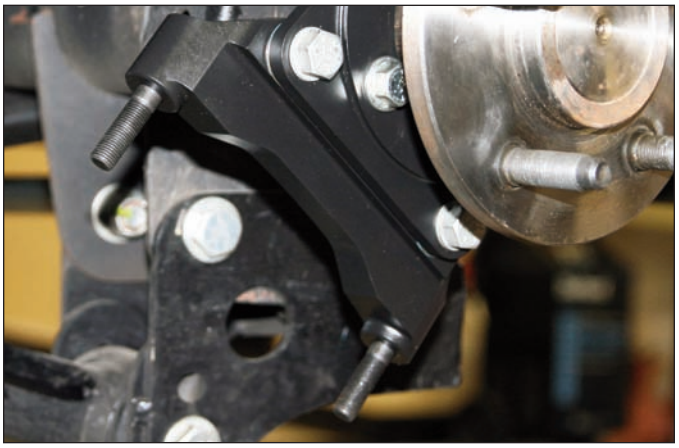


Sequence 12: Slide the axle into the rear end housing and connect at the differential per OEM specifications. Refill the differential with OEM specified lubricant.

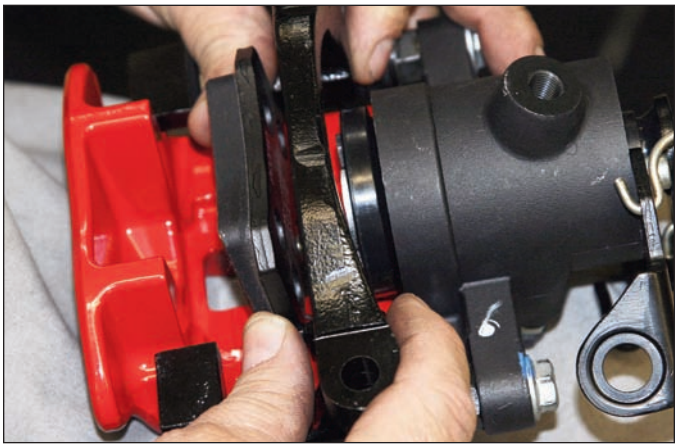
Sequence 13: Slide the caliper bracket mounting bolts thru the ears of the flat bracket from the outboard side. Initially place two shim washers between flat bracket and the caliper mounting bracket.



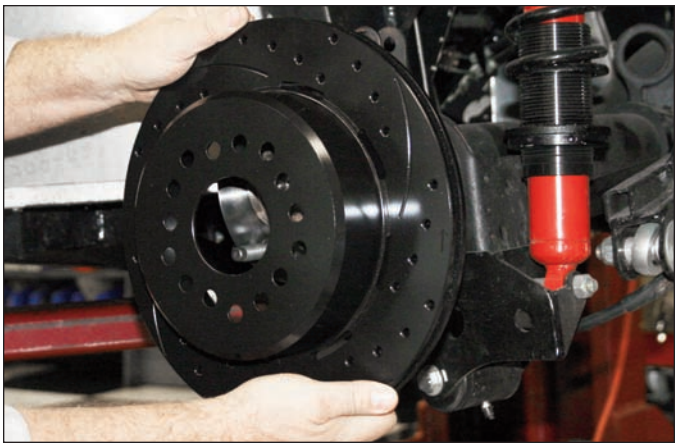
Sequence 16: Secure the hat/rotor with three lug nuts (finger tight) to keep the hat/rotor in place while continuing with the installation.



Sequence 14: Attach the caliper mounting bracket to the backside of the flat bracket. Temporarily tighten the mounting bolts. Do not Loctite at this time.

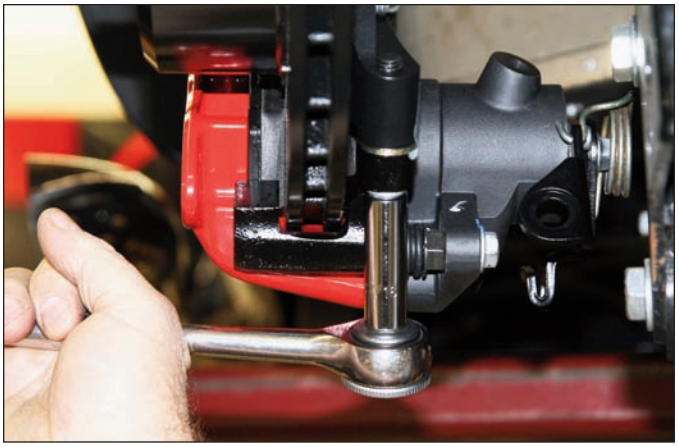


Sequence 17: Slide the brake pads up into the caliper from the bottom with the friction material facing the rotor until the “V” spring clip snaps into place against the anvil.

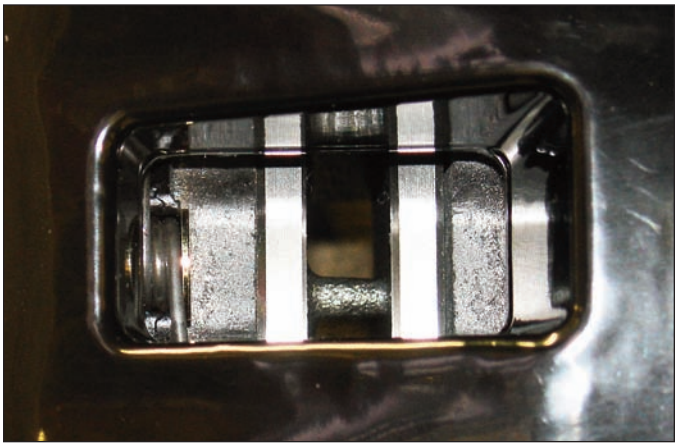


Sequence 15: Install the hat/rotor over the axle hub assembly. ***NOTE:*** *The hat/rotor must fit flush against the axle hub flange or excessive rotor run out may result.*

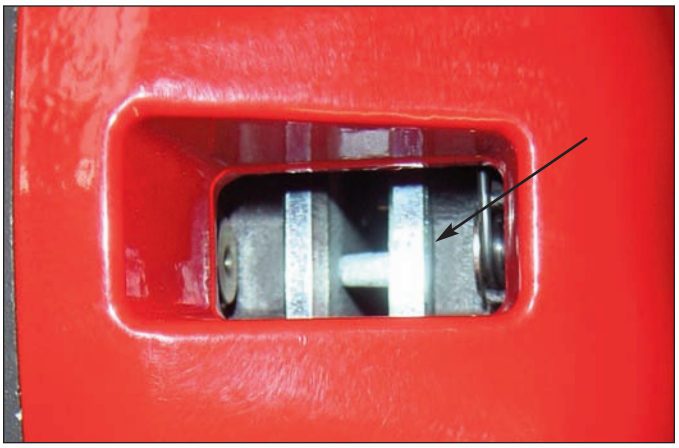
Sequence 18: Lubricate the caliper mounting studs with lightweight oil. Initially place two shim washers on each stud between the caliper mounting bracket and caliper.



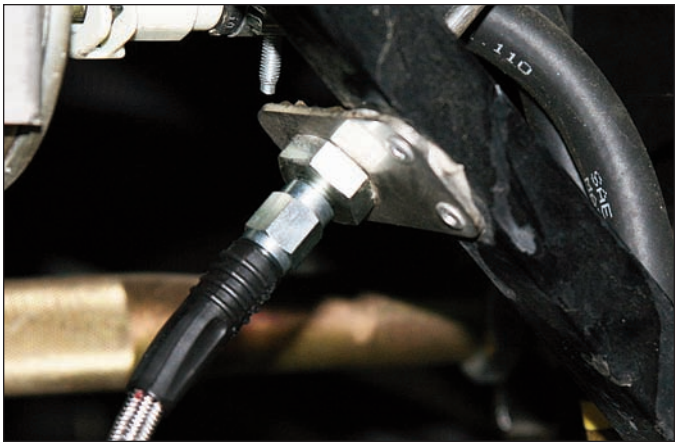
Sequence 19: Secure the caliper with washer and locknut, temporarily tighten the locknut.



Sequence 20: 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 caliper mounting bracket and the flat 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 22 ft-lb.



Sequence 21: Check that the top of the brake pad is flush with the outside diameter of the rotor (arrow). If not, adjust by adding or substracting shims between the bracket and the caliper. After bleeding (sequence 22), reinstall caliper and torque caliper nuts to 35 ft-lb.



Sequence 22: Connect one end of the flexline to the caliper fitting. Route line along the same path as the OEM hose and 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. Unbolt the caliper and rotate up to a 9:00, or 3:00 position to bleed while keeping over the rotor. Bleed the system referring to the additional information in the data sheet as necessary for proper bleeding instructions. Reinstall caliper.

Sequence 23: Install the wheel and torque the lug nuts to manufacturer's specification. Rotate the wheel and check for any interference. Reinstall the replica knock-off's. 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.

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