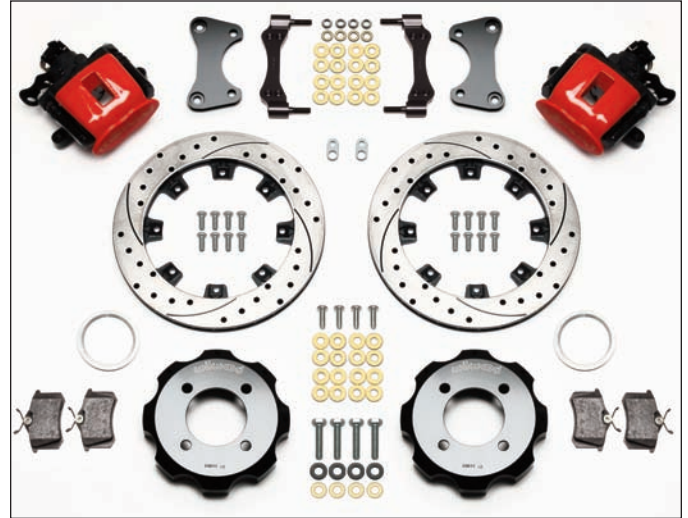


Wilwood Disc Brake Installation

Rear Big Brake Installation w/Parking Brake on a 2011 Ford Fiesta



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

This matching rear kit (P/N 140-11900) features Wilwood's Combination Parking Brake caliper clamping down on large 11.75" diameter, .81" thick rotors. The kit uses our two-piece hat/rotor setup 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 HP plain face 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 220-11909 is a necessary item and must be ordered separately. Furthermore, you will need a new parking brake cable kit, please order Wilwood P/N 330-11936.

A standard set of mechanics tools are all that's required to install the brakes. The only specialty tool required would be a torque wrench. Other items we recommend having handy are a bottle of red *Loctite*® 271, PTFE

Wilwood part number 140-11900 comes complete with CPB calipers, caliper mounting brackets, HP (SRP drilled/slotted optional) rotors/hats, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

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. Also, review the wheel clearance diagram www.wilwood.org/review/140-11900_WCD.pdf to verify that there is adequate clearance with the wheels you will be using with this kit.

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 rear wheels off the ground and support the rear suspension according to the vehicle manufacturer's instructions. Remove the lug nuts and lift off the wheel.



Sequence 4: Using the access holes in the face of the axle hub, remove the nuts holding the axle hub in place.



Sequence 2: Break loose the hat locator screw using an impact screwdriver. Then remove the screw.



Sequence 5: Lift off the axle hub and set aside.



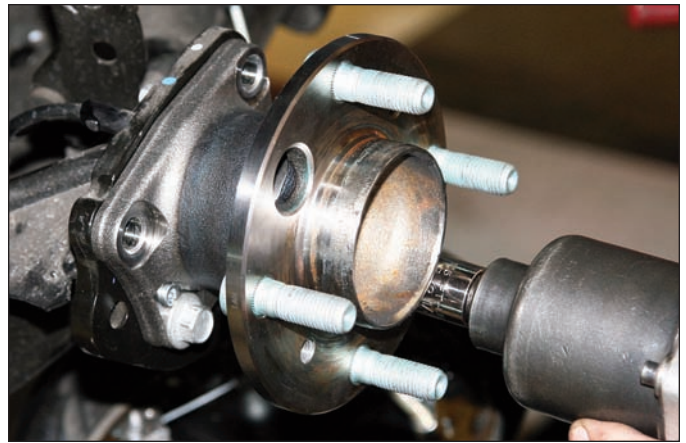
Sequence 3: Slide off the drum from the parking brake assembly.



Sequence 6: Disconnect the parking brake cable from behind the drum assembly.



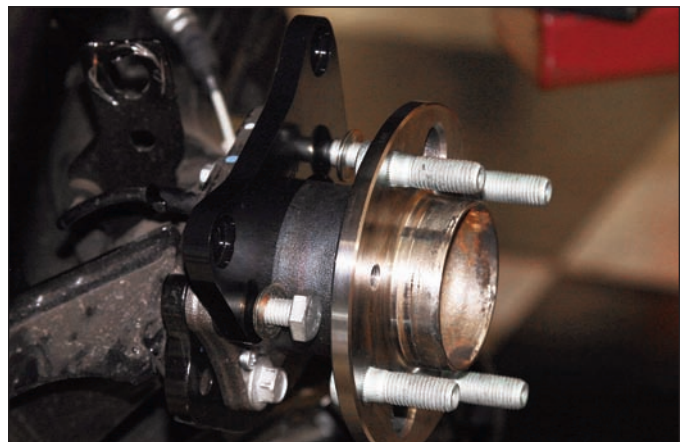
Sequence 7: Disconnect the OEM brake fluid hose where it connects to the brake hard line. Temporarily cap (not included) the line to minimize fluid loss..



Sequence 10: Apply red *Loctite*® 271 to the two bottom OE axle hub bolts and reinstall hub using the backing plate align pins. Torque bolts to manufacturer's specifications.



Sequence 8: Remove clip securing the other end of the brake line near the drum brake assembly and lift off drum assembly.



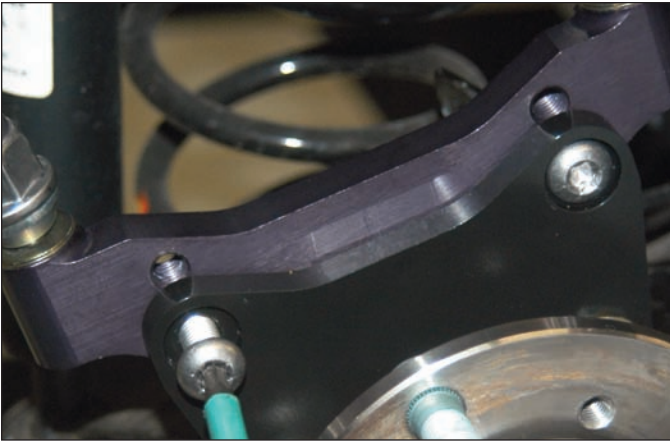
Sequence 11: Install flat housing mount caliper bracket onto the axle hub base using bolts, washers, and spacers with the countersunk holes in bracket facing outboard. **NOTE:** *The bracket must fit squarely against the axle hub base.* Inspect for interference from casting irregularities, burrs, etc. Grind as necessary. Apply red *Loctite*® 271 to the bolts and torque to 45 ft-lb.



Sequence 9: From the backside of the drum brake assembly backing plate, remove the brake anti-lock sensor and place a shim between sensor and backing plate and reinstall.



Sequence 12: 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 13: Attach the caliper mounting bracket to the backside of the flat bracket. Temporarily tighten the mounting bolts. Do not Loctite at this time.



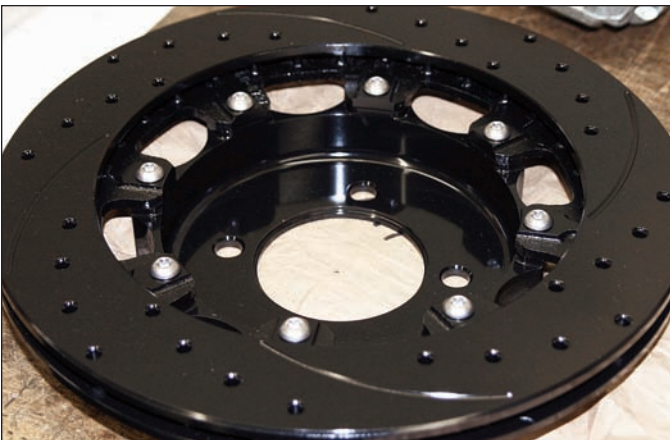
Sequence 16: Using an alternating sequence, torque rotor bolts to 25 ft-lb.



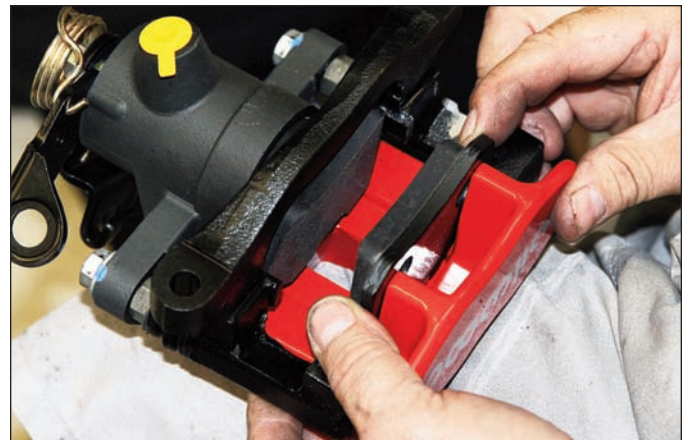
Sequence 14: Install the rotor registration adapter over the axle register against the hub face with the larger O.D. facing inward toward the hub face.



Sequence 17: 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. Secure the hat/rotor with three lug nuts (finger tight) to keep the hat/rotor in place while continuing with the installation.



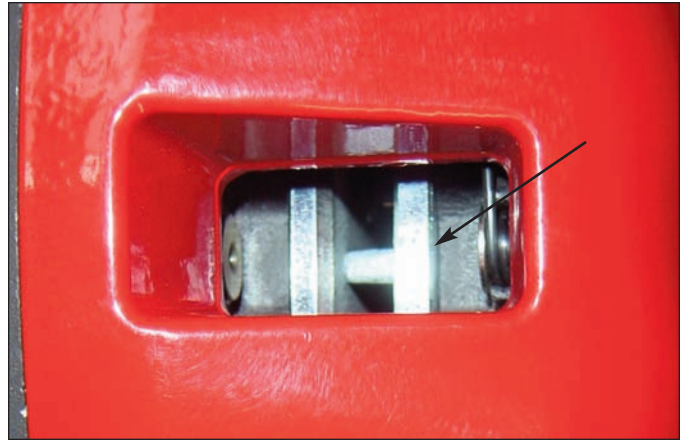
Sequence 15: The hat needs to be bolted to the rotor. Orient the rotor over the hat in the configuration shown above. Apply red *Loctite*® 271 to the mounting bolts and thread into the hat.



Sequence 18: 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 19: Lubricate the caliper mounting studs with lightweight oil. Initially place two shim washers on each stud between the caliper mounting bracket and caliper.



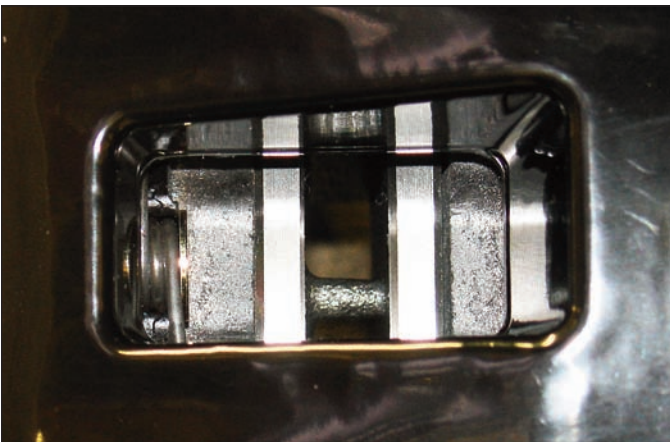
Sequence 22: Check that the top of the brake pad is flush with the outside diameter of the rotor (arrow). If not, adjust by adding or subtracting shims between the bracket and the caliper. After bleeding (sequence 23), reinstall caliper and torque caliper nuts to 30 ft-lb.



Sequence 20: Mount the caliper onto the caliper mounting bracket using washer and locknut, temporarily tighten the locknut.



Sequence 23: 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. Bleed the system referring to the additional information in the data sheet as necessary for proper bleeding instructions.



Sequence 21: 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 mounting bracket and the flat bracket. Once the caliper alignment is correct, remove the bracket-to-bracket bolts one at a time and apply red *Loctite*® 271 to the threads and torque to 45 ft-lb.



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.

INSTALLATION OF PARKING BRAKE CABLE

Remove the Original Equipment Manufacturer's (OEM) parking brake cables:

- Raise the rear wheels off the ground and support the rear suspension according to the vehicle manufacturer's instructions.

FROM INSIDE THE VEHICLE:

- Be sure parking brake lever is released (off) inside the vehicle.

FROM UNDERNEATH THE VEHICLE:

- **NOTE:** Make note of the existing cable routing. The Wilwood cables will be installed along the same path.
- The OEM cables should of already been detached from the rear drums when installing the parking brake kit, if not, detach now.
- At the balance bar, detach the OEM cables from the bulkhead and balance bar (in the tunnel).
- Remove and save the brackets holding the original cables to the chassis. They will be reused on the new cables.
- You must uncrimp the bracket holding the OEM cable near the exhaust. Do not remove bracket from chassis.
- Remove both left and right side cables (do not remove the balance bar, it will be reused with the Wilwood cable kit).

IMPORTANT:

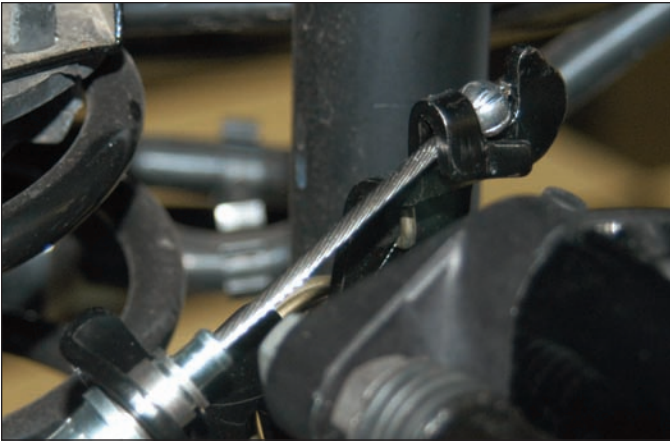
- To ensure maximum performance from your parking brake system, the cables must be routed as straight as possible. Bends in the cable can significantly reduce efficiency and thus reduce pull force at the brake. Tight bends must be avoided with a minimum recommended bend radius of 6" to 8".
- Cables should be properly restrained to prevent "straightening" of bends when tension is applied. Restrain movement of cable by affixing the cable sheath to body or chassis by fitting cable clamps at various points over the length of cable or by using original equipment cable attachments points. The clamping method chosen will require that cable sheath be held tightly without movement, crushing or causing interference to the internal cable.
- Cables must be initially pre-stretched by multiple applications of the brake handle, then re-adjusted to correct tension.



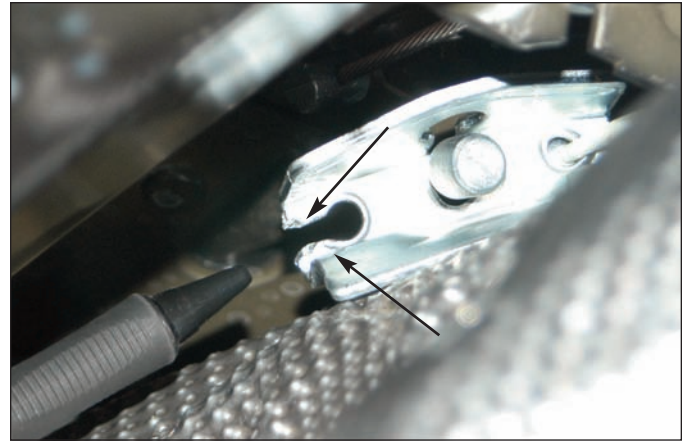
Sequence 1: Install the OEM brackets over the Wilwood cable in the same position that they were removed from the original cables.



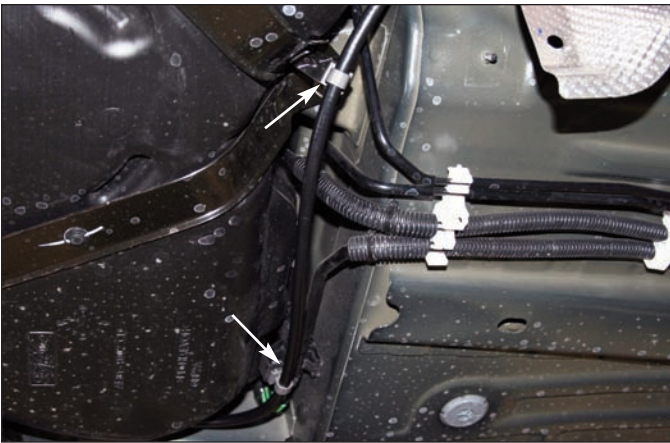
Sequence 2: Attach E-clip end of the Wilwood cable to the parking brake caliper.



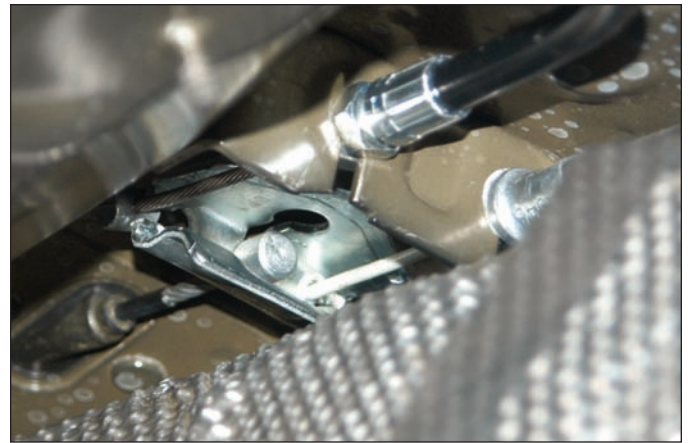
Sequence 3: Ensure that the E-clip is fully engaged into its groove.



Sequence 6: Pry open the balance bar connector slots/holes (arrows) to accommodate the larger diameter Wilwood cables.



Sequence 4: Route new cable in the same location as the OEM cable, from caliper to balance bar and secure using OEM brackets in their original mounting holes (arrows). **Carefully route cable to prevent contact with exhaust or moving suspension, brake or wheel components.** *NOTE: it's the installer's responsibility to properly route and ensure adequate clearance and retention for parking brake components.*



Sequence 7: Install the cables to the balance bar.



Sequence 5: Secure the cable using the same metal bracket near the exhaust (arrow).



Sequence 8: Final installation of cables to balance bar. Adjust the cable in the bulkhead so it is approximately centered in its adjustment range.

SETTING THE PARKING BRAKES:

- The CPB caliper is a self-adjusting unit, it will require the installer to do the initial adjustment as outlined below.

FROM INSIDE THE VEHICLE:

- Apply light to moderate pressure on the brake pedal and hold.
- Cycle the parking brake lever on and off until the caliper adjusts to the rotor until it no longer gets tighter.
- After bleeding and bedding the brakes per the brake kit installation instructions, carefully test the holding power of the parking brakes. Test parking brake in a safe area, first on a flat surface by pushing on the vehicle, then on a slight incline by applying and releasing handle multiple times.
- For the best results always put pressure on the brake pedal as you set the parking brake.

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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