# Wilwood Disc Brake Installation

# Front Installation on a 1953 Packard



You can now have the legendary cutting edge performance and quality of Wilwood Classic Series Brakes Kits for all 1941-1956 Packards. These high quality lightweight conversion brake kits are designed to bolt directly on to the stock spindle without any modifications. Should you desire to do so, you can easily reverse the operation and reinstall your drum brakes at a later date. Kit offers a restored appearance while providing the enhanced stopping ability of disc brakes for driving safety and is compatible with the original equipment master cylinder. Since 1977 **Wilwood Disc Brakes** has had the solution!

Wilwood's new front kit (P/N 140-12724) features Wilwood's Dynalite four-piston lug mount calipers clamping down on 11.75" diameter, .81" thick rotors. The kit comes with hubs, rotors, bearing, seals, mounting brackets, and all hardware for an easy bolt-on installation. BP-10 high performance street pads round out the kit. Kits come standard with black calipers, but red and other Wilwood colors are available by special order.

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 except new hoses. Stainless steel braided flexline hose kit, part number 220-12168 is necessary, but not included with the kit and must be ordered separately.

A standard set of mechanics tools including



Wilwood part number 140-12724 comes complete with Dynalite calipers, caliper mounting brackets, rotors, hubs, BP-10 brake pads and all necessary hardware for an easy bolt-on installation.

torque wrenches will be necessary. Also, a bottle of red *Loctite*® 271, 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 knowledgeable and competent in the function 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 <a href="https://www.wilwood.com">www.wilwood.com</a>.



**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, and then slide off the wheel.



**Sequence 4**: Unscrew the spindle nut and remove the indexed retaining washer.



Sequence 2: Remove the dust cap.



Sequence 5: Lift off the brake drum and set aside.



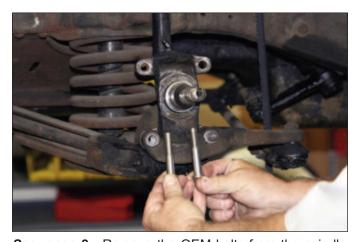
**Sequence 3**: Straighten out the cotter pin and remove.



**Sequence 6**: Straighten and remove the two cotter pins that secure the two bottom bolts holding in place the drum brake assembly and steering arm.



**Sequence 7**: Remove all four nuts that secure the backing plate. Remove the mounting clip and disconnect the OEM rubber brake hose from the hard line. Cap line to keep fluid leakage to a minimum. Completely remove drum assembly. Clean and grease the spindle.



**Sequence 8**: Remove the OEM bolts from the spindle and steering arm. Install the two new 12-point bolts through the spindle and steering arm. The longer bolt with the end of the threads turned down is the steering stop, and is installed in the rear most hole. The new bolts install in the opposite direction of the original bolts, Torque the lock nuts to 47 ft-lbs.



**Sequence 9**: Install the supplied caliper mounting bolts and spacers from the inboard side. Use one spacer on each bolt.



**Sequence 10**: Attach the Wilwood caliper mounting bracket to the OEM mounting ears on the outboard side making sure clinch nuts are facing outward. *NOTE:* The bracket must fit squarely against the mounting ears. Inspect for interference from casting irregularities, burrs, etc. Grind as necessary. Apply red *Loctite*® 271 to the threads and torque the bolts to 60 ft-lbs.



**Sequence 11**: You must assemble the new hub, rotor adapter and rotor. Using the lug pattern that fits your wheels, install the supplied lug bolts into the hub and torque to 77 ft-lbs. Attach the rotor adaptor by applying Red *Loctite*<sup>®</sup> 271 to the bolt threads. Tighten in a crisscross pattern to 55 ft lbs.



**Sequence 12**: Pack the inner and outer hub bearings using a liberal amount of disc brake bearing grease (Available from your local auto parts store).



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



**Sequence 14**: Slide the hub/rotor spindle spacer onto the spindle being sure to have the chamfer edge inward.



**Sequence 15**: Grease the non-threaded portion of the spindle and slide on the Rotor/Hub assembly. Install the indexed spindle washer, and castle nut.



Sequence 16: Install spindle nut. Adjust bearings by tightening the wheel bearing nut to 60 in-lbs. while turning the hub/rotor assembly. Back off the adjusting nut one slot and install a new cotter pin (not supplied). The resulting adjustment should be zero (no pre-load to 0.003 inch end play.



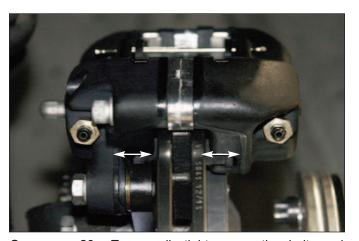
**Sequence 17**: Tap on the dust cover. Install the provided wheel spacer. This spacer provids the best matting surface between the hub and stock steel wheels.



**Sequence 18**: Remove the protective sticker from the caliper fluid inlet. Wrap the inlet fitting with PTFE thread tape and screw into the caliper with the outlet facing rearward parallel with the caliper body.



**Sequence 19**: Initially place two shim washers on each bolt between caliper mounting tab and the mounting ears on the bracket.



**Sequence 20**: Temporarily tighten mounting bolts and 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 bracket and the caliper mounting tabs. Once the caliper alignment is correct, remove the mounting bolts one at a time and apply red *Loctite*® 271 to the threads and torque to 40 ft-lbs.



**Sequence 21**: Insert the brake pads into the caliper with the friction material facing the rotor.



**Sequence 22**: Connect one end of the flexline to the previously installed caliper fitting. Route line along a similar path as the OEM hose.



**Sequence 23**: Connect the other end of the flexline to the fitting at the brake hard line and install new clip. 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 24**: Torque lug nuts to manufacturer's specifications. Rotate the wheel and check for any interference. 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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