

ASSEMBLY INSTRUCTIONS

FOR

**WILWOOD INTERNAL PARKING BRAKE CABLE KIT FOR USE
WITH WILWOOD BRAKE KITS 140-9221, 140-9228, 140-10950**

2005 - 2010 MUSTANG

PART NUMBER GROUP

330-11221

**DISC BRAKES SHOULD ONLY BE INSTALLED BY SOMEONE
EXPERIENCED AND COMPETENT IN THE INSTALLATION AND
MAINTENANCE OF DISC BRAKES
READ ALL WARNINGS**

WARNING

IT IS THE RESPONSIBILITY OF THE PERSON INSTALLING ANY BRAKE COMPONENT OR KIT TO DETERMINE THE SUITABILITY OF THE COMPONENT OR KIT FOR THAT PARTICULAR APPLICATION. IF YOU ARE NOT SURE HOW TO SAFELY USE THIS BRAKE COMPONENT OR KIT, YOU SHOULD NOT INSTALL OR USE IT. DO NOT ASSUME ANYTHING. IMPROPERLY INSTALLED OR MAINTAINED BRAKES ARE DANGEROUS. 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, OR VISIT OUR WEB SITE AT WWW.WILWOOD.COM. USE OF WILWOOD TECHNICAL SUPPORT DOES NOT GUARANTEE PROPER INSTALLATION. **YOU**, OR THE PERSON WHO DOES THE INSTALLATION MUST KNOW HOW TO PROPERLY USE THIS PRODUCT. IT IS NOT POSSIBLE OVER THE PHONE TO UNDERSTAND OR FORESEE ALL THE ISSUES THAT MIGHT ARISE IN YOUR INSTALLATION.

RACING EQUIPMENT AND BRAKES MUST BE MAINTAINED AND SHOULD BE CHECKED REGULARLY FOR FATIGUE, DAMAGE, AND WEAR.



Need Additional Information?
Use Your SmartPhone and
Jump to Our Technical Tips
Section on Our Web Site.

wilwood
DISC BRAKES

WARNING

**DO NOT OPERATE ANY VEHICLE ON UNTESTED BRAKES!
SEE MINIMUM TEST PROCEDURE WITHIN**

ALWAYS UTILIZE SAFETY RESTRAINT SYSTEMS AND ALL OTHER AVAILABLE SAFETY EQUIPMENT WHILE OPERATING THE VEHICLE

IMPORTANT • READ THE DISCLAIMER OF WARRANTY INCLUDED IN THE KIT

NOTE: Some cleaners may stain or remove the finish on brake system components. Test the cleaner on a hidden portion of the component before general use.

Important Notice - Read This First

Before any tear-down or disassembly begins, review the following information:

- Due to OEM production differences and other variations from vehicle to vehicle, the fastener hardware and other components in this kit may not be suitable for a specific application or vehicle.
- It is the responsibility of the purchaser and installer of this kit to verify suitability / fitment of all components and ensure all fasteners and hardware achieve complete and proper engagement. Improper or inadequate engagement can lead to component failure.
- We recommend using an anti-seize lubricant on all aluminum nuts before tightening.

Photographic Tip

We suggest you take digital photos of the brake system setup before and during the disassembly procedure. This will aid in the event that something is not compatible with the new brake components and be a valuable tool to assist in the trouble-shooting process.

Parts List

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	330-11225	Parking Brake Cable - Passenger Side	1
2	330-11226	Parking Brake Cable - Driver Side	1

General Information

- Installation of this kit should only be performed by individuals experienced in the installation and proper operation of disc brake systems. Prior to any attempt to install this kit, please check the following to ensure a trouble free installation.
- Inspect the contents of this kit against the parts list to ensure that all components and hardware are included.
- If you have any questions, please call our customer service department at (805) 388-1188.

Disassembly Instructions

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.

- Detach OEM cables from the OEM rear calipers.
- At the balance bar, detach the OEM cables from the bulkhead (in the driveshaft tunnel). Install a small hose clamp so that it surrounds the spring clip at the bulkhead. Using a long screwdriver, tighten the hose clamp around the spring clip and pull on the cable from the rear until it comes free of the bulkhead and remove. Perform the same technique on the second cable and remove.
- Unbolt and save the brackets holding the OEM cables to the chassis.
- Remove both left and right side cables (do not remove the balance bar, it will be reused with the Wilwood cable kit).

Assembly Instructions

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.

NOTE: The driver and passenger side cables differ in length and must be installed on the correct side of the vehicle. The driver's side cable is shorter.

FROM UNDERNEATH THE VEHICLE:

- Install Wilwood disc/drum parking brake kit per its instructions.

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

- Slide slot in clevis, Photo 1 over the parking brake lever, Photo 2. Slide cable end fitting into the slot on the cable stop bracket, Photo 3. Snap in place with pliers the c-clip retainer to secure the cable, Photos 4 and 5. **NOTE:** It is recommended that you use anti-seize lubricant on all aluminum nuts.

- Route new cable in the same location as the OEM cable, from balance bar to the parking brake. **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 cable components.

- Attach the other end of the new cable to the balance bar assembly, as shown in Photo 6. Adjust the cable in the bulkhead so it is approximately centered in its adjustment range.

- Repeat the above steps from the beginning on the other side of the vehicle. Continue with the installation after you have both cables routed forward.

- Attach OEM brackets, that were slipped over the new cable, in their original mounting holes.

- Tighten all bracket bolts and hardware.



Photo 1



Photo 2

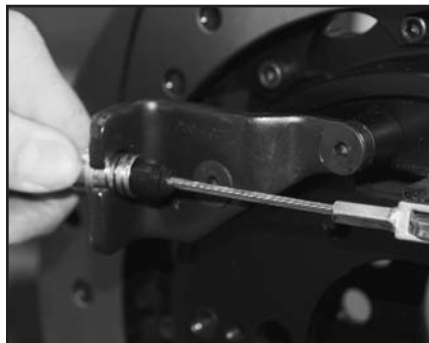


Photo 3



Photo 4



Photo 5

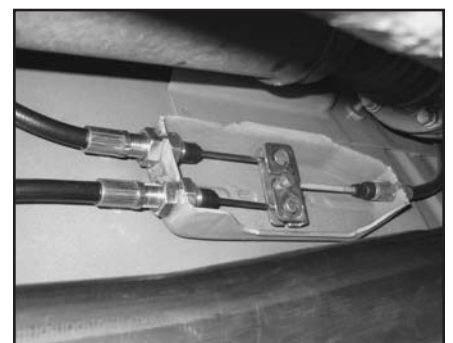


Photo 6

Installation Instructions (Continued)

SETTING THE PARKING BRAKES:

- Adjust the internal parking brake shoes by removing the dust cover from the inboard side of the backing plate, Photo 7.
- Using a brake shoe adjustment tool (available from any auto parts store), or straight screwdriver, adjust the “star” wheel while spinning the rotor until a slight drag is felt, Photo 8.
- Test parking brake in a safe area, on a slight incline then on a steeper incline. If further adjustments are necessary, please repeat the above referenced procedure and test again.

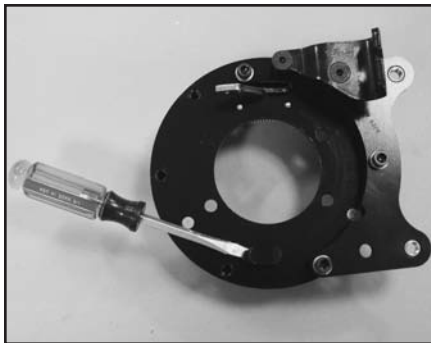


Photo 7

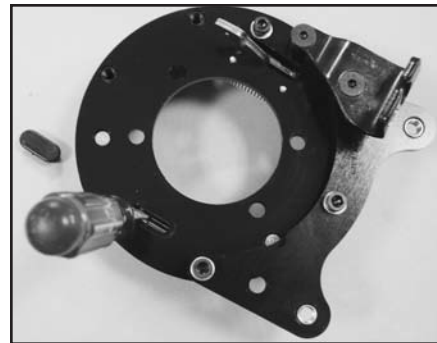


Photo 8

- If you still are having problems with the installation, contact your Wilwood retailer where the product was purchased. Additional technical support is available by calling Wilwood Sales and Technical department at (805) 388-1188 or for e-mail technical assistance at: support@wilwood.com.

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.

Pad and Rotor Bedding

BEDDING STEPS FOR NEW PADS AND ROTORS – ALL COMPOUNDS

Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for the bedding of all new pad materials and rotors. These procedures should only be performed on a race track, or other safe location where you can safely and legally obtain speeds up to 65 MPH, while also being able to rapidly decelerate.

- Begin with a series of light decelerations to gradually build some heat in the brakes. Use an on-and-off the pedal technique by applying the brakes for 3-5 seconds, and then allow them to fully release for a period roughly twice as long as the deceleration cycle. If you use a 5 count during the deceleration interval, use a 10 count during the release to allow the heat to sink into the pads and rotors.
- After several cycles of light stops to begin warming the brakes, proceed with a series of medium to firm deceleration stops to continue raising the temperature level in the brakes.
- Finish the bedding cycle with a series of 8-10 hard decelerations from 55-65 MPH down to 25 MPH while allowing a proportionate release and heat-sinking interval between each stop. The pads should now be providing positive and consistent response.
- If any amount of brake fade is observed during the bed-in cycle, immediately begin the cool down cycle.
- Drive at a moderate cruising speed, with the least amount of brake contact possible, until most of the heat has dissipated from the brakes. Avoid sitting stopped with the brake pedal depressed to hold the car in place during this time. Park the vehicle and allow the brakes to cool to ambient air temperature.

COMPETITION VEHICLES

- If your race car is equipped with brake cooling ducts, blocking them will allow the pads and rotors to warm up quicker and speed up the bedding process.
- Temperature indicating paint on the rotor and pad edges can provide valuable data regarding observed temperatures during the bedding process and subsequent on-track sessions. This information can be highly beneficial when evaluating pad compounds and cooling efficiencies.

POST-BEDDING INSPECTION – ALL VEHICLES

- After the bedding cycle, the rotors should exhibit a uniformly burnished finish across the entire contact face. Any surface irregularities that appear as smearing or splotching on the rotor faces can be an indication that the brakes were brought up to temperature too quickly during the bedding cycle. If the smear doesn't blend away after the next run-in cycle, or if chatter under braking results, sanding or resurfacing the rotors will be required to restore a uniform surface for pad contact.

PRE-RACE WARM UP

- Always make every effort to get heat into the brakes prior to each event. Use an on-and-off the pedal practice to warm the brakes during the trip to the staging zone, during parade laps before the flag drops, and every other opportunity in an effort to build heat in the pads and rotors. This will help to ensure best consistency, performance, and durability from your brakes.

DYNO BEDDED COMPETITION PADS AND ROTORS

- Getting track time for a proper pad and rotor bedding session can be difficult. Wilwood offers factory dyno-bedded pads and rotors on many of our popular competition pads and **Spec 37** GT series rotors. Dyno-bedded parts are ready to race on their first warm up cycle. This can save valuable time and effort when on-track time is either too valuable or not available at all, Dyno-bedding assures that your pads and rotors have been properly run-in and are ready to go. Contact your dealer or the factory for more information on Wilwood Dyno-Bedding services.

NOTE:

NEVER allow the contact surfaces of the pads or rotors to be contaminated with brake fluid. Always use a catch bottle with a hose to prevent fluid spill during all brake bleeding procedures.

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