

ASSEMBLY INSTRUCTIONS

FOR

WILWOOD INTERNAL PARKING BRAKE CABLE KIT FOR USE WITH WILWOOD BRAKE KIT 140-10885

2002 - PRESENT BMW MINI COOPER AND MINI COOPER "S"

PART NUMBER GROUP

330-10915

**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.

The logo for Wilwood Disc Brakes. The word "wilwood" is written in a bold, lowercase, sans-serif font. The letter "i" is stylized with a red brushstroke that extends upwards and to the right, crossing over the "l" and "o". Below "wilwood" is the phrase "DISC BRAKES" in a bold, uppercase, italicized sans-serif font.

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

Important and highly recommended: Take photos of brake system before disassembly and during the disassembly process. In the event, trouble-shooting photos can be life savers. Many vehicles have undocumented variations, photos will make it much simpler for Wilwood to assist you if you have a problem.

Parts List

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	330-10916	Parking Brake Cable	2

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

Disassembly:

- Remove the nuts and washers holding the second from the rear heat shield and remove, figure 1.
- Remove the bolts holding the cable brackets on the rear suspension arms, figures 2 and 3. Retain these, as you will need to modify them for the new cable.



Figure 1



Figure 2

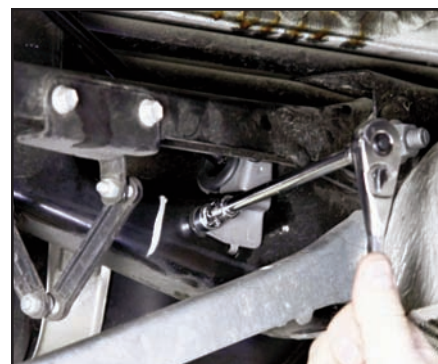


Figure 3

- Remove inside console, this will allow you access to the cable equalizer and the hand brake lever adjuster. Please refer to your shop manual for this procedure.
- With the console removed, you will see the hand brake cable equalizer with two cables going towards the rear, figure 4. Disconnect the two cables from the equalizer and push the cable ends rearward as far as possible.

Disassembly Instructions (Continued)

- This next step will require a deep socket or a piece of metal tubing several inches long with an I.D. of 0.50". The OEM cable end clips are hidden at the very rear of the tunnel (uncovered by removing the console) and hidden under the rearward brace. **NOTE:** You will be working blind. You will need to forcefully push either the deep socket or the piece of tubing onto each clip and have someone twist and pull each cable out of the holes from underneath.



Figure 4



Figure 5

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.

Assembly:

- Drill out two (2) holes, figure 5 to .530". Slide the cable ends into the enlarged holes and press into place.
- The brackets that were retained need to be modified. They will require a slot large enough to insert the cable and grommet, figures 6 and 7.
- Snap hand brake cables into OEM cable holders. Re-install modified brackets and bolt into place, figure 8.
- Slide cable ends into top arm of caliper and install c-clip to hold in place. Hook ball ends on hand brake actuators, figure 9.



Figure 6



Figure 7

- Carefully route lines to prevent contact with exhaust or moving suspension, brake or wheel components. Wilwood cable kits are designed for many different vehicle applications and it's the installer's responsibility to properly route and ensure adequate clearance and retention for parking brake cable components. Use plastic or metal line clamps (not supplied)



Figure 8

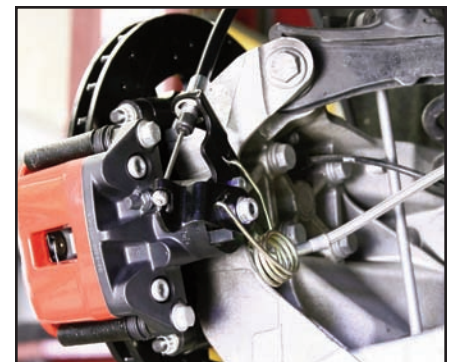


Figure 9

Assembly Instructions (Continued)

with kit) to secure cable to vehicle chassis or frame. For extra hand brake cable protection, slice a length of hose lengthwise, place around cables and tie-wrap into place as shown in figure 10.

- Reinstall wheels and torque wheel bolts to manufacturer's specifications, figure 11.

Setting the Parking Brake:

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

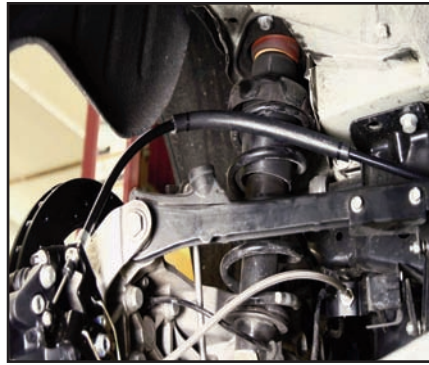


Figure 10



Figure 11

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. Please reference the minimum test procedure below.
- 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.

Parking Brake

WARNING • PARKING BRAKE

- Parking brake must be properly adjusted before use and must be manually readjusted for wear if parking brake handle or foot lever travel becomes excessive.
- The holding ability of the brake should be tested by stopping on a sloping surface and applying the parking brake while holding car with the hydraulic foot brake. This should be accomplished both facing up and down hill.
- Do not rely exclusively on the parking brake to hold the car; Curb wheels as recommended by the applicable diagram and put gear selector in park, or shift into first gear or reverse with a manual transmission.

- Diagram A - When parking facing downhill, turn front wheels towards the curb or right shoulder. This will keep from rolling into traffic if the brakes become disengaged.
- Diagram B - Turn the steering wheel to the left so the wheels are turned towards the road if you are facing uphill with a curb. The tires will catch the curb if the car rolls backward.
- Diagram C - When facing uphill without a curb, turn the wheels sharply to the right. If the vehicle rolls, it will go off the road rather than into traffic.
- When parking on a hill, always set the parking brake and move the gear selector into park, or shift into first or reverse gear if your vehicle has a manual transmission.

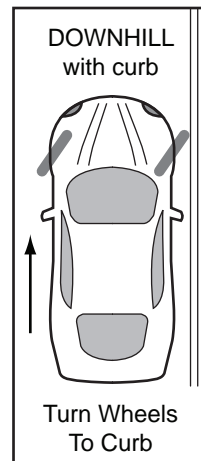


Diagram A

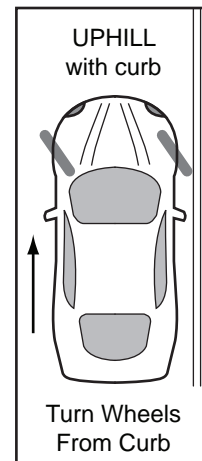


Diagram B

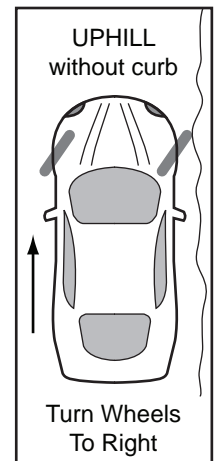


Diagram C

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