ASSEMBLY INSTRUCTIONS
FOR
FORGED SUPERLITE RADIAL INBOARD SPRINT KIT
WITH 12.19” DIAMETER VENTED ROTOR*

*For additional vehicle compatibility, visit www.wilwood.com

BASE PART NUMBER
140-15815

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.

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:
• This brake kit does not include flex lines. OEM brake lines will not adapt to Wilwood calipers. Check the assembly instructions, or associated components section for brake line recommendations before assembly. In addition, Wilwood offers an extensive listing of brake lines and fittings on our web site: www.wilwood.com.
• 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.

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.

Exploded Assembly Diagram

*ROTOR ADAPTER MAY BE FIX MOUNTED TO ROTOR (INSTEAD OF FLOATING MOUNT) USING CUSTOMER SUPPLIED HARDWARE

Figure 1. Typical Installation Configuration
紧固。安装所有T型螺母后，使用交叉图案用220 in-lbs 的扭矩紧固螺栓。请参阅Wilwood的数据单 DS-669（可在www.wilwood.com/Pdf/DataSheets/ds669.pdf中找到）获取完整T型螺母套件安装说明。

注：旋转器适配器可能被固定安装到转子（而不是浮式安装）使用客户提供的硬件。

安装此套件应仅由熟悉安装和正确操作盘式制动系统的人员进行。在尝试安装此套件之前，请检查以下内容以确保安装过程顺利:

- 检查套件中的内容是否与零件列表一致，确保所有组件和硬件都包含在内。
- 确保这是适用于您的轴的正确套件。此套件设计用于直接安装到标准内进式喷气车侧边节，轴直径为3.50英寸，中心距为3.00 x 46弧度。
- 将现有后制动器拆解。提高后轮并用适用的赛车指南支撑后悬挂系统。
- 清洁和除油轴和/或壳体，同时去除任何倒棱或毛刺。

注：(1) 表中括号内的数字是指零件列表和第1页的图1。安全线的安装

图2。安全线图

下图所示的安全线图

- 将线的直径为0.032英寸。将线穿过两个间隔相隔180度的孔。
- 将另一根线绕过螺栓，将其拧在一起形成一个 poultry。
- 详细信息请参阅DS-386。

General Information

- 安装此套件应仅由熟悉安装和正确操作盘式制动系统的人员进行。优先于任何安装此套件之前，请检查以下内容以确保安装过程顺利。
- 检查此套件的内容和零件列表，确保所有组件和硬件都包含在内。
- 确保这是适用于您的轴的正确套件。此套件设计用于直接安装到标准内进式喷气车侧边节，轴直径为3.50英寸，中心距为3.00 x 46弧度。

- 将现有后制动器拆解。提高后轮并用适用的赛车指南支撑后悬挂系统。
- 清洁和除油轴和/或壳体，同时去除任何倒棱或毛刺。

Assembly Instructions

注意：括号内的数字是指零件列表和第1页的图1。紧固所有螺栓。使用交叉图案的扭矩将所有T型螺母紧固到220 in-lbs。请参阅Wilwood的数据单 DS-669（可在www.wilwood.com/Pdf/DataSheets/ds669.pdf中找到）获取完整T型螺母套件安装说明。

注意：旋转器适配器可能被固定安装到转子（而不是浮式安装）使用客户提供的硬件。
Assembly Instructions (Continued)

• Safety wire bolts (6) using standard 0.032 inch diameter stainless steel safety wire as shown in Figure 2. Please refer to Wilwood’s data sheet DS-386 (available at www.wilwood.com/Pdf/DataSheets/ds386.pdf) for complete safety wire installation instructions.

• Orient the axle clamp assembly (9) as shown in Figure 1 and install onto the rotor adapter (4) using bolts (10), washers (11), and lock nuts (12). Tighten lock nuts part way while still allowing clamp-to-rotor movement. The lock nuts will be final tightened later, after aligning the rotor. NOTE: The axle clamp should be positioned inside of the rotor as shown in Figure 1, not offset, or outside of the rotor adapter.

• Slide the rotor/adapter assembly onto the axle and into approximate position near the caliper bracket.

• Initially place one .035” thick shim (15) on each stud (14) as shown in Figure 1. Mount the caliper (16) onto the bracket (1) using washers (17) and lock nuts (18), Figure 1. Temporarily tighten the lock nuts (18) and view the rotor through the top opening of the caliper. The rotor should be centered in the caliper. If not, slide the rotor/adapter assembly on the axle until the rotor is centered in the caliper. Tighten the clamp lock nuts (13) first, Figure 1, locking the clamp to the axle. Torque rotor adapter lock nuts (12) to value shown in Figure 1.

• Remove the caliper brake pad retainer bolt, tube, and locknut from the caliper. Insert the brake pads (19) into the caliper, with the friction material facing the rotor. Check that the top of the brake pad is flush with the outside diameter of the rotor. If not, adjust by adding or subtracting shims (15) between the caliper and the bracket. After the caliper pad height is set, torque the caliper locknuts (18) to 30 ft-lb. Secure the brake pads in place with the brake pad retainer tube, bolt, and locknut, Figure 1. The locknut should be snug without play in the bolt or tube. Be cautious not to over tighten.

• Attach brake line to caliper. NOTE: Rubber brake hoses are not recommended for competition use and generally cannot be adapted to Wilwood calipers. The caliper inlet fitting is a 1/8-27 NPT. The preferred method is to use steel adapter fittings at the caliper, either straight, 45 or 90 degree (use PTFE tape on pipe threads of adapter fitting for proper sealing to caliper) and enough steel braided line to allow for full suspension travel. Ensure hoses are routed to prevent contact with moving suspension, brake or wheel components. Wilwood offers universal brake flex line hose kits (sold separately).

• It is also the installer’s responsibility to ensure that all fittings and hoses are the correct size and length, to ensure proper sealing and that they will not be subject to crimping, strain and abrasion from vibration or interference with suspension components, brake rotor, or wheel.

• In absence of specific instructions for brake line routing, the installer must use his best professional judgment on correct routing and retention of lines to ensure safe operation. Test vehicle brake system per the ‘Minimum Test Procedure’ stated within this document before driving. After road testing, inspect for leaks and interference. Initially after install and testing, perform frequent checks of the vehicle brake system and lines before driving, to confirm that there is no undue wear or interference not apparent from the initial test. Afterwards, perform periodic inspections for function, leaks and wear in a interval relative to the usage of vehicle.

• Bleed the brake system. Reference the ’Additional Information and Recommendations’ below for proper bleeding instructions. Check system for leaks after bleeding.

• Bed-in the brake pads per the procedure on page 5.

Additional Information and Recommendations

• For optimum performance, fill and bleed the new system with Wilwood Hi-Temp® 570 grade fluid, EXP 600 Plus, or XR Race-Only brake fluid. For severe braking or sustained high heat operation, use Wilwood EXP 600 Plus Racing Brake Fluid. For extreme braking temperatures of endurance racing, use Wilwood XR Race-Only Brake Fluid (not DOT approved, off-highway use only). Used fluid must be completely flushed from the system to prevent contamination. NOTE: Silicone DOT 5 brake fluid is NOT recommended for racing or performance driving.

• To properly bleed the brake system, begin with the caliper farthest from the master cylinder. Bleed the outboard bleed screw first, then the inboard. Repeat the procedure until all calipers in the system are bled, ending with the caliper closest to the master cylinder. If the caliper is fitted with bleed screws on four corners, make sure the bottom bleed screws are tight. Only bleed from the top bleed screws. NOTE: When using a new master cylinder, it is important to bench bleed the master cylinder first.

• Test the brake pedal. It should be firm, not spongy, and stop at least 1 inch from the floor under heavy load.

   If the brake pedal is spongy, bleed the system again.

   If the brake pedal is initially firm, but then sinks to the floor, check the system for leaks. Correct the leaks (if applicable) and then bleed the system again.

   If the brake pedal goes to the floor and continued bleeding of the system does not correct the problem, either air may be trapped in the system, or a master cylinder with increased capacity (larger bore diameter) may be required. Wilwood offers various lightweight master cylinders with large fluid displacement capacities (custom fabricated mounting may be required).
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 vehicle 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.

- 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.

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.

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**WARNING • DO NOT DRIVE ON UNTESTESTED 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.
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.

Associated Components

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>260-13706</td>
<td>Wilwood Residual Pressure Valve (2 lb for disc brakes)</td>
</tr>
<tr>
<td>260-13707</td>
<td>Wilwood Residual Pressure Valve (10 lb for drum brakes)</td>
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<tr>
<td>260-8419</td>
<td>Wilwood Proportioning Valve, Knob Style</td>
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<tr>
<td>260-8420</td>
<td>Wilwood Proportioning Valve, Lever Style</td>
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<tr>
<td>290-0632</td>
<td>Wilwood Racing Brake Fluid (Hi-Temp° 570) (12 oz)</td>
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<tr>
<td>290-6209</td>
<td>Wilwood Racing Brake Fluid (EXP 600 Plus) (16.9 oz)</td>
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<tr>
<td>340-13831</td>
<td>Wilwood Floor Mount Brake Pedal (with balance bar)</td>
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<tr>
<td>340-13832</td>
<td>Wilwood Swing Mount Brake Pedal (with balance bar)</td>
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<tr>
<td>260-6764</td>
<td>Wilwood 3/4 inch High Volume Aluminum Master Cylinder</td>
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<tr>
<td>260-6765</td>
<td>Wilwood 7/8 inch High Volume Aluminum Master Cylinder</td>
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<tr>
<td>260-6766</td>
<td>Wilwood 1 inch High Volume Aluminum Master Cylinder</td>
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<tr>
<td>260-4893</td>
<td>1-1/16 inch Tandem Master Cylinder (aluminum housing)</td>
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<tr>
<td>260-8555</td>
<td>Wilwood 1 inch Aluminum Tandem Chamber Master Cylinder</td>
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<tr>
<td>260-8556</td>
<td>Wilwood 1-1/8 inch Aluminum Tandem Chamber Master Cylinder</td>
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