

INSTALLATION AND BLEEDING INSTRUCTIONS

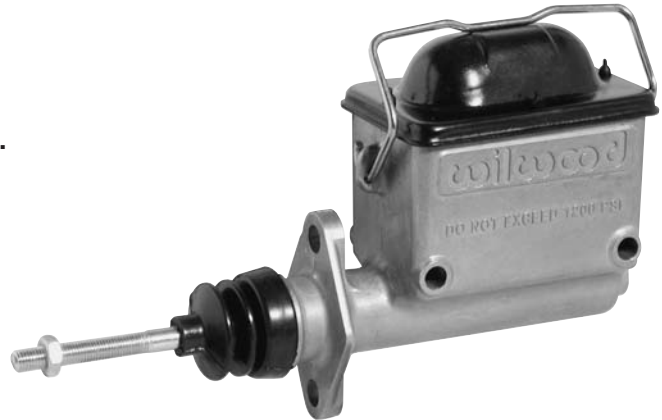
WILWOOD HIGH VOLUME ALUMINUM MASTER CYLINDERS

Part numbers applicable to this procedure:

Description	Part No.	Rebuild Kit Part No.
1 inch bore	260-6766	260-6900
7/8 inch bore	260-6765	260-6899
3/4 inch bore	260-6764	260-6898

Replacement Pushrod:

230-13730, Master Cylinder Pushrod,
5/16-24 x 3.82 long



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.

Before installation of the Wilwood High Volume Aluminum Master Cylinder, read these instructions carefully to familiarize yourself with the procedure before you begin. Also, for your reference (on the reverse side of this sheet) is an exploded view of the High Volume Aluminum Master Cylinder. **NOTE:** *Wilwood High Volume Aluminum Master Cylinders should be bench bled before installation in the chassis.*

PROCEDURE:

- Install an appropriate pipe thread to flare adapter fitting (not supplied) in the 1/8 inch NPT master cylinder outlet hole using PTFE thread tape sealant.
- **Bench bleeding:** Bolt the cylinder to a pedal bracket or gently hold it in a vise. Remove the reservoir cap. Fill the reservoir approximately 2/3 full with Wilwood Hi-Temp[®] 570 brake fluid (P/N 290-0632), or for severe braking or sustained high heat operation, use Wilwood EXP 600 Plus Racing Brake Fluid (P/N 290-6209). **WARNING: DOT 5 silicone brake fluid is NOT recommended for racing or performance driving, use only DOT 3, DOT 4 or DOT 5.1 brake fluid.** Firmly push the cylinder rod all the way down and place a finger over the outlet fitting. Let the rod return all the way before removing the finger from the outlet hole. Repeat the process until all the fluid coming from the outlet is bubble free. Be sure to watch the fluid level in the reservoir. If the reservoir is less than 1/3 full, add fluid before further bleeding. Temporarily plug the outlet fitting and install the reservoir cap.
- **Alternative bench bleeding method:** Temporarily install a pipe thread to tubing fitting and clear plastic return line (not supplied) back to the reservoir. Slowly pump and return master cylinder piston throughout its full stroke until no bubbles return to the reservoir. Disconnect tubing and fitting while temporarily plugging the outlet fitting, then install reservoir cap.
- Install the master cylinder in the chassis. Connect the brake line being careful not to let air into the outlet fitting. Thread the push rod into the pedal clevis. Remove the reservoir cap and bleed the brake system as normal. Be sure to refill the reservoir if the fluid level falls below 1/3 full. If a power bleeder is used, follow the manufacturer's instructions.

BLEED THE SYSTEM:

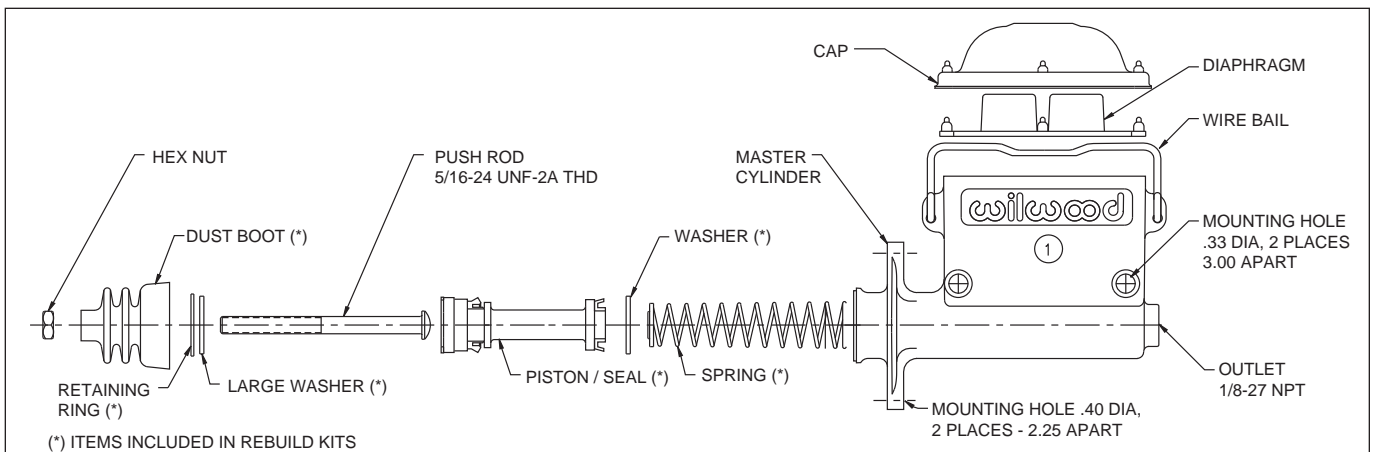
- To properly bleed the brake system, begin with the caliper farthest from the master cylinder. Bleed the outboard bleed screw first, then the inboard. Repeat the procedure until all calipers in the system are bled, ending with the caliper closest to the master cylinder.

- A dual master cylinder application will require three people for bleeding, one pushing the brake pedal and one each on the front and rear of the car. Be sure to bench bleed and fill both master cylinders with fluid, then install on the chassis. Elevate the right side of the car and bleed both front wheel and rear wheel outboard bleed screws simultaneously. Repeat the procedure for the inboard bleed screws. Lower the right side and elevate the left side of the car. Simultaneously bleed the left side front and rear outboard screws first, then the inboard. If the brake pedal does not feel firm when applying pressure, repeat this procedure starting with the right side of the car.
- If the master cylinder is mounted lower than the disc brake calipers, some fluid flowback to the master cylinder reservoir may occur, thus creating a vacuum effect that retracts the caliper pistons into the housing. This will cause the pedal to go to the floor on the first stroke until it has "pumped up" and has moved all the pistons out against the pad again. A Wilwood in-line two pound residual pressure valve, installed near the master cylinder will stop the fluid flowback and keep the pedal firm and responsive.
- After the system is bled, fill the reservoir to within 1/4 inch of the top and replace the cap. Adjust the push rod for proper pedal position and tighten the jam nut against the pedal clevis. Make sure that the pedal allows the push rod to return completely.
- Inspect for leaks at all pressure connections. Use a Wilwood Pressure Gauge (P/N 260-0966) to verify line pressure at each caliper and to pre-adjust the balance bar, if used.

MAINTENANCE:

- Flush and bleed the system with fresh Wilwood Hi-Temp 570° racing brake fluid before every race. This eliminates accumulated moisture in the system and maintains the high boiling point of the brake fluid. Rebuild master cylinders every season to ensure peak performance and reliability.

If after following the instructions, you still have difficulty installing or bleeding your master cylinder, consult your local chassis builder, or retailer where the unit was purchased for further assistance.



Wilwood High Volume Aluminum Master Cylinder Exploded Diagram

**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.