

INSTALLATION INSTRUCTIONS

FOR

GS COMPACT REMOTE RESERVOIR* MASTER CYLINDER

*Remote Reservoirs not included

PART NUMBER(S)

**260-15088, 260-15089, 260-15090,
260-15091, 260-15092**

AND

GS COMPACT INTEGRAL RESERVOIR MASTER CYLINDER

PART NUMBER(S)

260-15096, 260-15097, 260-15098

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.



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.

General Information and Installation Instructions

*Installation of this kit should **ONLY** be performed by persons experienced in the installation and proper operation of disc brake systems.* Before installing the Wilwood GS Compact master cylinder, read the following instructions carefully and refer to Wilwood's web site at www.wilwood.com for physical dimensional characteristics of the master cylinders as needed to ensure a trouble-free installation.

Mounting Location:

Master cylinders should be firmly mounted to appropriate pedal assemblies and kept away from heat sources. Use tie straps, or small hose clamps to secure hose when connecting to the remote reservoir. Check to verify that the full stroke of pushrod is unimpeded when depressing brake pedal and that pushrod is allowed to fully retract when brake pedal is released.

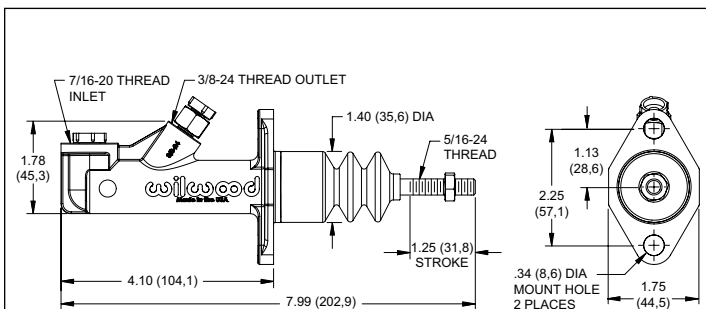


Figure 1. GS Compact Remote Master Cylinder, Physical Characteristics

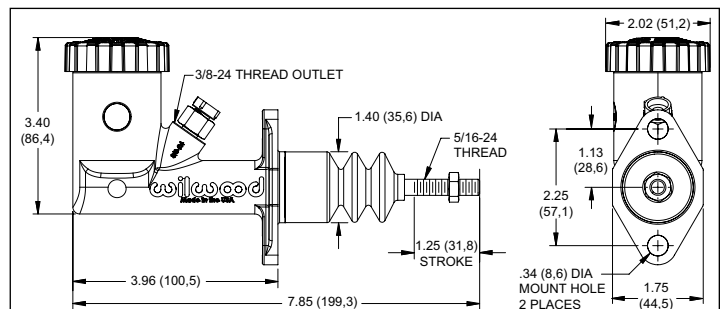


Figure 2. GS Compact Integral Master Cylinder, Physical Characteristics

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.

General Information and Installation Instructions (Continued)

Residual Pressure Valves:

Use of an external residual pressure valve should be utilized when the master cylinder is mounted below the horizontal plane of the brake calipers (or drum wheel cylinders). See associated components on the last page for ordering information.

Bench Bleeding Instructions:

- 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: Do not use DOT 5 silicone brake fluid 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:

- **Alternative bench bleeding method:** Temporarily install a plastic male 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 master cylinder 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 the max line 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:

Master cylinder rebuild kits are available for all bore sizes (see ordering information below) and should be rebuilt periodically. Always inspect master cylinders before and after every race for damage or leakage. When rebuilding master cylinders, take care not to damage piston seals. Test master cylinder before usage. Use Wilwood Hi-Temp° 570 or EXP 600 Plus brake fluid as a lubricant when assembling.

Ordering Information, Remote Reservoir Master Cylinder:

.50" Bore Remote GS Compact Master Cylinder	260-15088
.62" Bore Remote GS Compact Master Cylinder	260-15089
.70" Bore Remote GS Compact Master Cylinder	260-15090
.75" Bore Remote GS Compact Master Cylinder	260-15091
.81" Bore Remote GS Compact Master Cylinder	260-15092

Rebuild Kit:

.50" Bore Rebuild Kit	260-14116
.62" Bore Rebuild Kit	260-14117
.70" Bore Rebuild Kit	260-14118
.75" Bore Rebuild Kit	260-14119
.81" Bore Rebuild Kit	260-14120

Ordering Information, Integral Reservoir Master Cylinder:

.62" Bore Integral GS Compact Master Cylinder	260-15096
.70" Bore Integral GS Compact Master Cylinder	260-15097
.75" Bore Integral GS Compact Master Cylinder	260-15098

Rebuild Kit:

.62" Bore Rebuild Kit	260-14117
.70" Bore Rebuild Kit	260-14118
.75" Bore Rebuild Kit	260-14119

Associated Components for GS Master Cylinders:

<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Description</u>
220-14204	Fitting, Inlet -3 to 7/16-20, Steel w/Washer	260-7577	4 oz Remote Reservoir Kit, with Fittings and Hose
220-7537	Fitting, Inlet -6 to 7/16-20, Aluminum	260-8742	10.7 oz Remote Reservoir Kit, with Fittings and Hose
240-7538	Washer, Crush 7/16 OD, Aluminum	260-12697	4 oz Remote Mount Aluminum Reservoir Kit
330-15080	Cap, M/C, Wilwood, Nylon, w/Diaphragm	330-15081	Cap, M/C, Wilwood, Nylon, w/Baffle

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