

ALUMINUM TANDEM MASTER CYLINDER SPECIFICATION SHEET • INSTRUCTIONS

Master Cylinder Part Numbers

260-12900 / -BK / -P

260-14157 / -BK / -P



Bright Finish Shown

Component

Piston / Bore Diameter
Piston Stroke / Push Rod Travel
Volume Output Ratio (A/B)
Pressure Output Ratio (A/B)
Reservoir Capacity: Primary (A)
Secondary (B)

Specifications

7/8 • 15/16 inches
1.10 inches
2:1
50 / 50
13.93 Cubic inches
8.43 Cubic inches

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. 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.

Installation Notes and Precautions

• WARNING:

The master cylinder push rod must bottom out in the bore before the pedal stops against the floorboard. The inherent safety feature of tandem master cylinders is the ability to still build pressure in one circuit if the other fails. In the event of a circuit failure, the push rod (and pedal) may travel 50% - 80% of the total stroke before starting to build pressure in the other circuit, allowing emergency braking to stop the vehicle.

To take advantage of this safety feature, before adding brake fluid to the system, assure that the push rod will travel its full stroke (1.10") before the pedal stops against the floorboard or any other stop point. If not, adjustments need to be made to the pushrod, pedal, and/or pedal mount to allow full push rod travel.

This master cylinder may not work in all applications and it is the installer's responsibility to determine suitability and assure full push rod travel.

• NOTE: When replacing the stock master cylinder, additional brake line plumbing may be required.

- When the pedal is released, the piston assembly must fully return to the snap-ring retainer at the end of the cylinder bore. Adjust the length of the push rod and available pedal travel as necessary. Return springs and pedal stops are always recommended.
- Always mount the master cylinder to a secure, reinforced element of the chassis. There should be no movement or deflection at the mount point when brake pedal pressure is applied.
- Prior to attaching the fluid lines, fill the reservoirs with Wilwood fluid from a new, sealed container and purge any air from the master cylinder. Be sure the cylinder is level during the bleeding operation. If the cylinder is not level when mounted in the vehicle, you can perform this operation prior to attaching the master cylinder to its mount. The diagram illustrates one method of recycling the fluid into the reservoir until all air has been eliminated. Exercise care to not spill or spray brake fluid. Take all proper safety precautions including eye and skin protection and do not position your face directly above the reservoir. This process will assure a quick and effective full system bleed later.

WARNING

THIS COMPONENT IS DESIGNED FOR USE IN CUSTOM BRAKE SYSTEMS ON PERFORMANCE, RACING, AND OTHER SPECIAL PURPOSE BUILT OFF-ROAD VEHICLES. IT IS NOT INTENDED AS A DIRECT REPLACEMENT FOR ANY OEM APPLICATION.

REBUILD NOTE:

WILWOOD TANDEM MASTER CYLINDERS ARE NOT USER SERVICEABLE DUE TO THE NECESSITY OF SPECIAL TOOLS FOR DISASSEMBLY. IN THE EVENT REBUILDING SERVICE IS REQUIRED, PLEASE CONTACT WILWOOD TECHNICAL DEPARTMENT AT (805) 388-1188 TO ARRANGE FOR RETURNING MASTER CYLINDER FOR FACTORY REBUILD AND/OR REPAIR AT A NOMINAL COST.

CALCULATING EFFECTIVE PISTON BORE AREA TO DETERMINE PLUMBING

To determine the effective piston bore area of any caliper, you must first calculate the area for each piston bore found on one side of the caliper. Use the formula "Area = (bore x bore) x .785" for each piston bore size. Then, add the areas of all pistons on that one side of the caliper to determine the total effective piston bore area. Compare the difference between the front and rear calipers and attach the line from the primary outlet "A" to the calipers at the end of the vehicle with the greater total effective piston bore area.

Tandem Master Cylinders

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
260-12900	7/8" Bore M/C - Standard Finish	260-14157	15/16" Bore M/C - Standard Finish
260-12900-P	7/8" Bore M/C - Bright Finish	260-14157-P	15/16" Bore M/C - Bright Finish
260-12900-BK	7/8" Bore M/C - Black Finish	260-14157-BK	15/16" Bore M/C - Black Finish

Components and Accessories

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
260-13706	2 PSI Residual Pressure Valve	260-11179	Knob Style Combination Proportioning Valve
260-13707	10 PSI Residual Pressure Valve	290-0632	Wilwood Hi-Temp ^o 570 DOT 3 Fluid
260-8419	Knob Adjustable Proportioning Valve	290-6209	Wilwood EXP 600 Plus Super Hi-Temp Fluid
260-8420	Lever Adjustable Proportioning Valve		

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.