

## 5/8" TM1 TANDEM MASTER CYLINDER PART NUMBER: 260-11097



### 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](http://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.

**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.

### 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 (1.31") 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.*

### 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**

Installation of this component should **ONLY** be performed by persons experienced in the installation and proper operation of disc brake systems. Before installation of the Wilwood TM1 remote tandem master cylinder, read this document carefully to familiarize yourself with the procedure before beginning. Also, for your reference (on the following pages) is a master cylinder dimensional and remote setup diagram.

### **Reservoir Selection:**

The reservoirs cannot be mounted directly onto the master cylinder body. The reservoirs must mount in a remote location using the remote mounting brackets (connected by the hoses included with P/N 260-11098). Always use the clamps provided with the reservoirs and remote inlet adapters. Do not over tighten.

### **Mounting Location:**

Master cylinder should be firmly mounted to appropriate pedal assembly and kept away from heat sources. Use small hose clamps to secure hose when remote reservoirs are used. 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.

### **Bleeding Instructions:**

Master cylinder should be bled while mounted to the brake pedal assembly. Pedal must allow full travel (stroke) of master cylinder pistons for complete bleeding. Connect all brake lines after the master cylinder is installed, but prior to bleeding. Review the following steps:

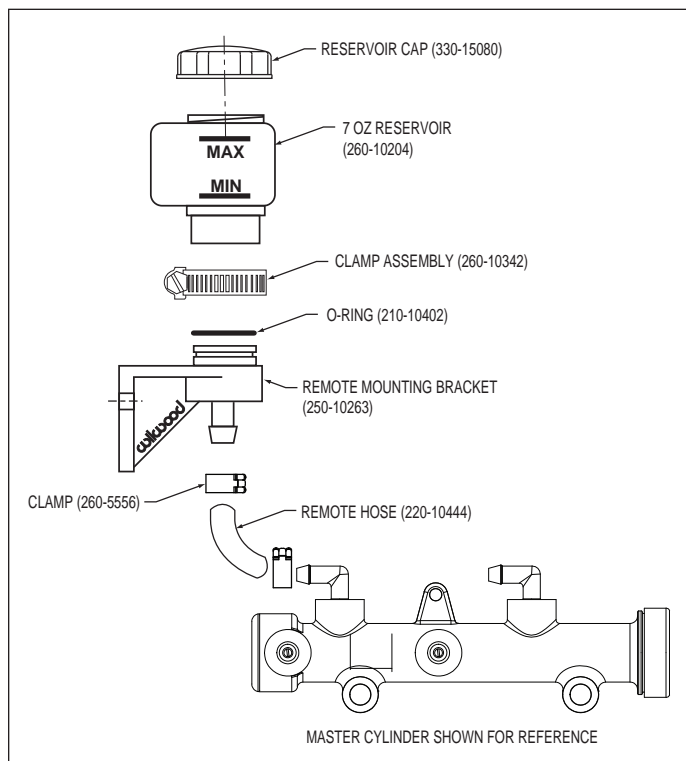
- Connect pair of short hoses from bench bleeding kit to each master cylinder outlet port and place each free end of hose inside reservoir(s).
- Wilwood Hi-Temp<sup>®</sup> 570 Racing Brake Fluid, or EXP 600 Plus for extreme performance conditions (or alternate high temperature DOT 3, DOT 4 or DOT 5.1 brake fluid) is highly recommended for race cars and high performance vehicles where brake temperatures exceed normal operating conditions. **NOTE: Silicone DOT 5 brake fluid is NOT recommended for racing or performance driving.**
- Fill reservoir(s) with brake fluid.
- Gently depress brake pedal.
- Gently release brake pedal.
- Repeat the above steps until fluid from master cylinder is free of air and bubbles have subsided.
- Repeat steps after topping off reservoir.
- 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. **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 fluid leaks. Correct the leaks (if applicable) and then bleed the system again.

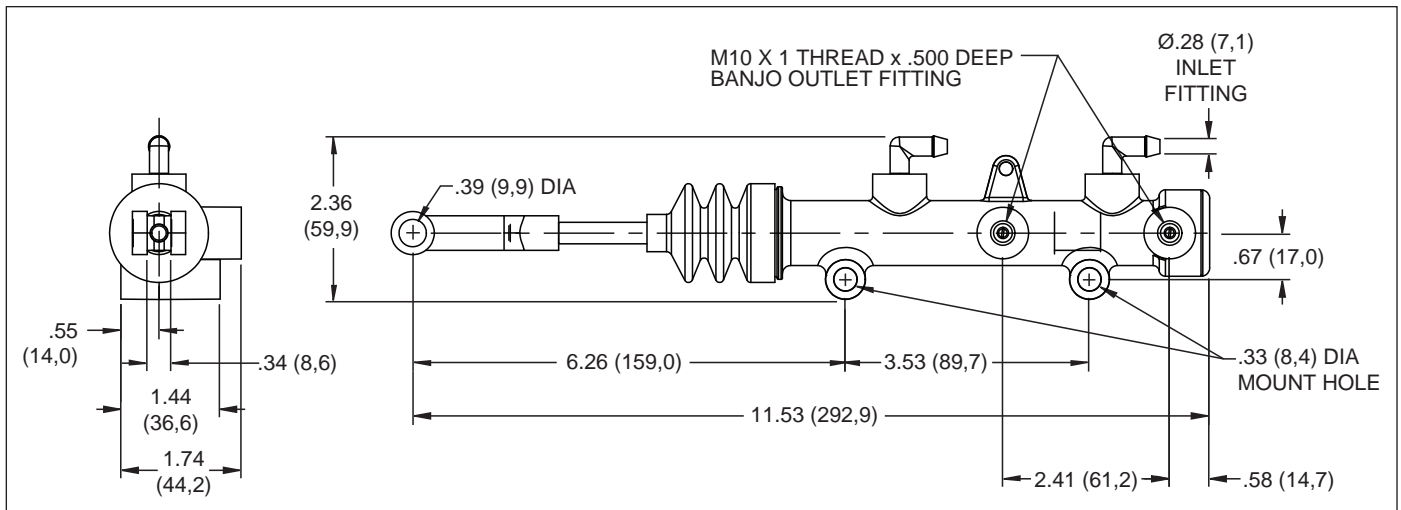
If the brake pedal goes to the floor and continued bleeding of the system does not correct the problem, a master cylinder with increased capacity (larger bore diameter) may be required.

### **Maintenance:**

Master cylinders should be rebuilt, or replaced periodically. Inspect master cylinders regularly for damage or leakage. When rebuilding master cylinders, take care not to damage piston seals. Test master cylinder before usage. Use Wilwood Hi-Temp<sup>®</sup> 570 brake fluid as a lubricant when assembling.



**Figure 1. Reservoir Remote Setup (2 Required)**



**Figure 2. Wilwood 5/8" TM1 Tandem Master Cylinder, Mounting Dimensions**

**Ordering Information:**

5/8" TM1 Tandem Master Cylinder

260-11097

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 item was purchased for further assistance. Additionally, you can visit our web site at [www.wilwood.com](http://www.wilwood.com), call our customer service department at (805) 388-1188, or e-mail technical assistance at: [support@wilwood.com](mailto:support@wilwood.com)

**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.