

# CO2 FILL STATION REBUILD PROCEDURE

Your CO2 Fill Station has been designed to provide years of service, and repairs are rarely necessary. It is possible, however, that after extensive service, you may observe minor leakage occurring. This is normally due to the particulate contamination typically found in liquid CO2 abrading the seals. The need for periodic "O" ring and seal changes has been foreseen, and the operation is neither difficult or time consuming.

The original MK1 version of the M10 CO2 Fill Station was replaced by the MK2 version in July of 2000. The two versions differ in the type of bottom plug closure used. The MK2 version is easily identified, as it uses "screw-in" type bottom plugs, while the bottom plugs in the MK1 are retained by cross bolts. This rebuild kit services both versions.

The Rebuild Kit contains the following: two Valve Seats with O rings, two 013 O rings, three 006 urethane O rings, one 6" pipe nipple disassembly tool.

The first step is to remove the Fill Station from the CO2 tank. This service cannot be performed with gas pressure present.

If you have a MK1 version, remove the two bottom cross bolts that retain the two bottom plugs. (these cross bolts also hold on the scale bracket, if your station is so equipped.) Then remove the bottom plugs.

If you have a MK2 version, unscrew the two bottom plugs using a 5/16" Allen wrench.

Once these have been removed, you will be able to remove return springs, and valves. If the valves do not drop out, you can gently push them out from the top. Care should be taken not to scratch or damage the bore that guides the valve stems. You can now change the "O" rings on the valves and bottom plugs.

If it is necessary to replace the valve seats, use the supplied 1/8 NPT pipe nipple as an extraction tool. Simply thread the pipe nipple into the bore of the valve seat, and pull the seat out. Removing the valve seats will normally destroy the sealing surface, so do not do this unless you have the replacement parts on hand. Save the pipe nipple for future use.

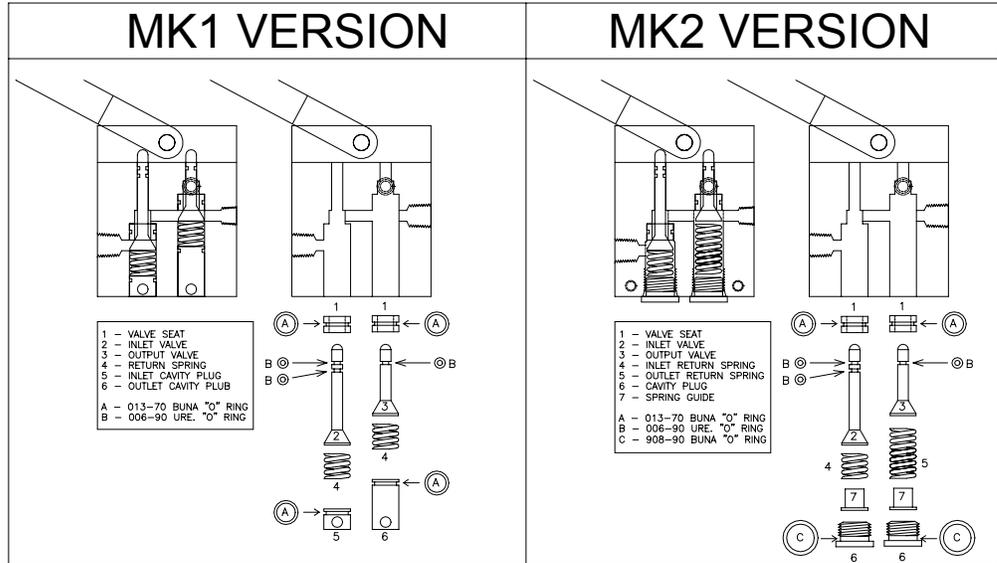
It is rarely necessary to change all the "O" rings and seats. In order to avoid doing unnecessary work, consult the diagnostic chart.

To reassemble, lube all "O" rings with a light grease or "O" ring lubricant, and reinstall the components in the order they were removed. Particular care should be taken with the various "O" rings to ensure they do not snag on any of the internal ports as they are installed.

**NOTE: DO NOT USE THE PIPE NIPPLE FOR ASSEMBLY! IT WILL DAMAGE THE SEALING SURFACE ON THE NEW SEATS!**

On the MK1 version note that the valves and bottom plugs are different lengths, and must go back into the correct cavity.

On the MK2 version, note that while the valves are still two different lengths, the bottom plugs are now the same length, and two different springs are used. Make sure the correct valve and spring go into the correct cavity. Also note that there is a spring guide that must be placed under each spring.



<u>SYMPTOM</u>	<u>RECOMMENDED ACTION</u>
Leaking from Bottom Plug or Cross Bolt hole. (MK1 version)	Replace 013 "O" ring on Bottom Plug.
Leaking from Bottom Plug (MK2 version)	Replace 908-90 Buna "O" ring on Bottom Plug
Leaking from around Valve Stem on top of Fill Station.	Replace 006 "O" ring on Valve Stem.
Leaking from Output Port.	Replace Inlet side Valve Seat.
Leaking from Vent Port.	Replace Outlet side Valve Seat.