ASSEMBLY OF THE PURGE MANIFOLD ASSEMBLY (PMA)

***For use with 100 cc/min or 200 cc/min flow restrictors only, PMA's will not work with flow controllers (8 hour, 24 hour, 7 day etc)**

EACH PMA SHOULD INCLUDE THE FOLLOWING:

- 2-1' sections of tubing
- 1-1" section of tubing
- 1-four way valve
- 1-two way valve
- 1-unidirectional valve
- 3-male slip adapters
- 1-set of fittings and ferrules
- 1-moisture filter
- 1-60mL syringe (shown in Figure 1)

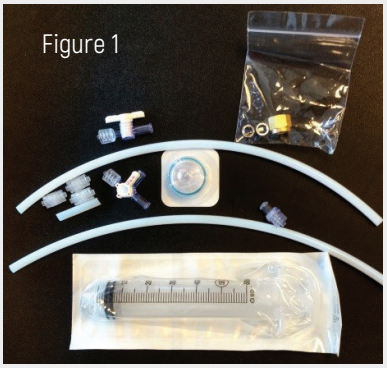
Figure 1

Assemble the manifold in accordance with Figure 2 and Figure 3. Ensure that the orientation of the unidirectional valve matches the figures below or purging the manifold will not be possible.


Figure 2

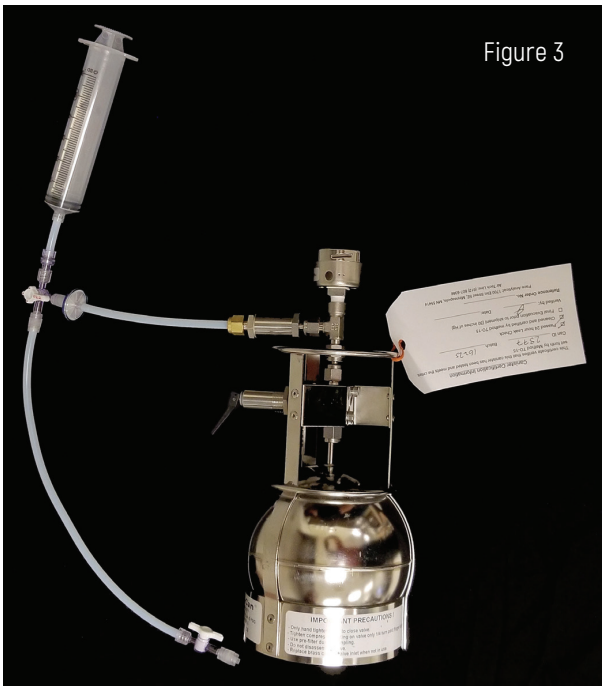
Figure 3

PURGING THE MANIFOLD

(General guidelines, subject to state or client specific guidelines).

1. **DISCLAIMER:** Do not open canister until ready to collect sample.

2. The purge manifold assembly contains four valves, including the canister valve. They are as follows:
   - **a.** Canister valve – attached to the canister. Do not open until ready to collect sample.
   - **b.** 4-way valve – attached to canister assembly via Teflon tubing. This valve has 3 directions "open" at a time with only one closed direction (indicted by the "OFF" tab).
   - **c.** Unidirectional vale – Attached to the male luer fitting on the 4-way valve. This valve will allow volume to exit the assembly, but cannot be pushed back into the assembly in this direction. Once installed, the valve will be active.
   - **d.** 2-way valve – This is the valve closest to the sampling point. It is used to close off the sampling point to allow purging of ambient air in the Teflon lines prior to sampling. It is closed when the white valve is perpendicular to the valve body.

3. After assembly, set the 2-way valve to the closed position. See Figure 1.

4. Turn the 4-way valve OFF tab to the direction on the 4-way valve that will allow flow in all three connected directions (the "OFF" tab should face in the only direction without a connection). See Figure 2.

5. Attach the syringe to the unidirectional valve with a 1" piece of Teflon tubing. Pull aliquots of the syringe out of the unidirectional valve until the gauge on the canister reaches the required vacuum level. See Figure 3 and Figure 4.

6. Allow the canister and Purge Manifold to sit undisturbed for the desired amount of time, and read the canister gauge. If notable drops in pressure occur, inspect the system for potential leaks and retest. If no pressure change is observed, proceed to step 7. The manifold assembly has now been determined to be free of leaks.

7. Open the two way valve to allow air from the sampling point to fill the lines of the Purge Manifold Assembly. The canister pressure should return to 0.

8. (Optional) Using the syringe, purge the line with the desired aliquots of sampling point volume. Multiple purges may be necessary.

9. Open the canister to collect sample.


Figure 1

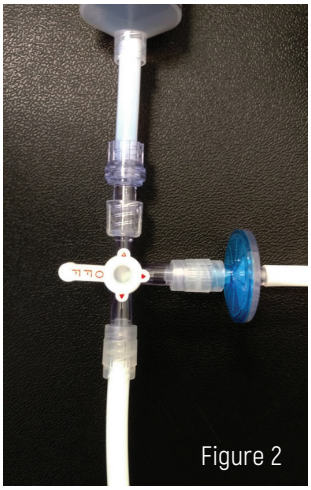
Figure 2

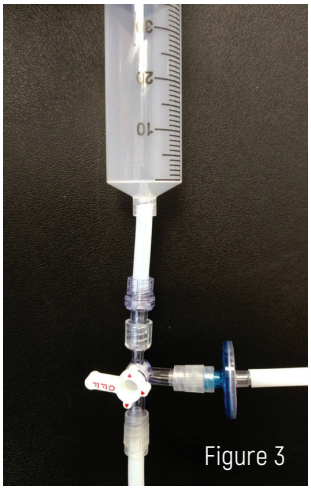
Figure 3


Figure 4