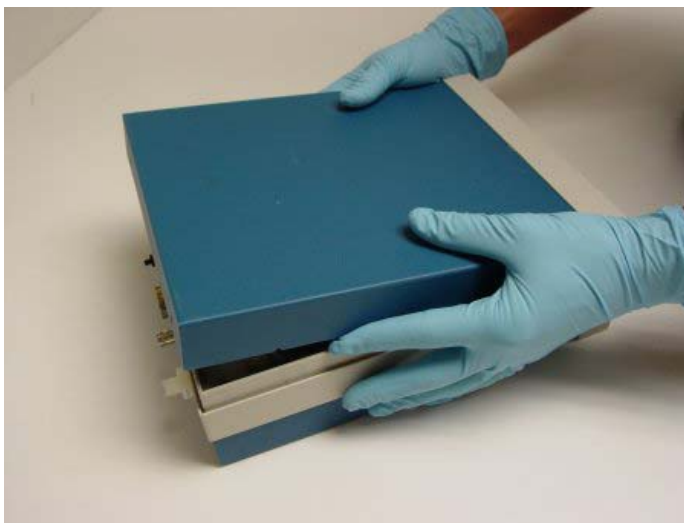
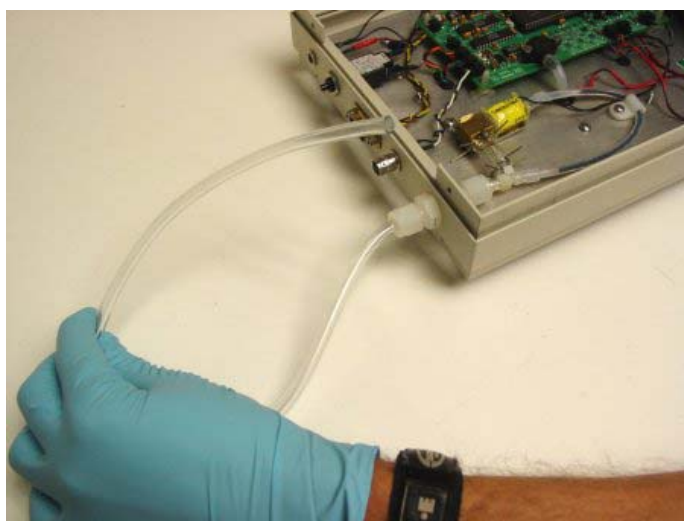


## Ozone Monitor™ Cleaning Procedure

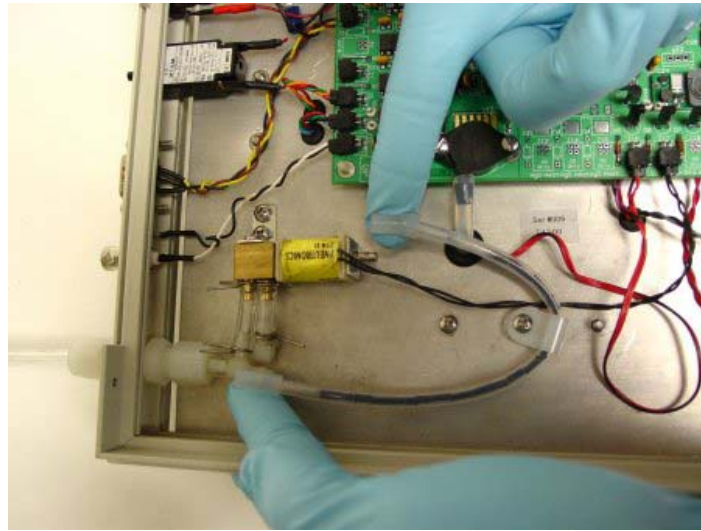
- 1) Put on safety goggles, lab coat and rubber gloves to protect your skin and eyes from exposure to methanol. Carry out this procedure in a hood or other well ventilated area. Bear in mind that methanol is a volatile and flammable solvent.
- 2) Remove the top and bottom covers from the instrument. Each cover is attached by 2 screws at the back of the instrument. To remove the bottom cover, you will also need to loosen the set screw on the right side (as viewed from the front) of the instrument. Once the screws are removed, the covers are removed by lifting the back of the cover away from the instrument and sliding the cover away from the front panel.



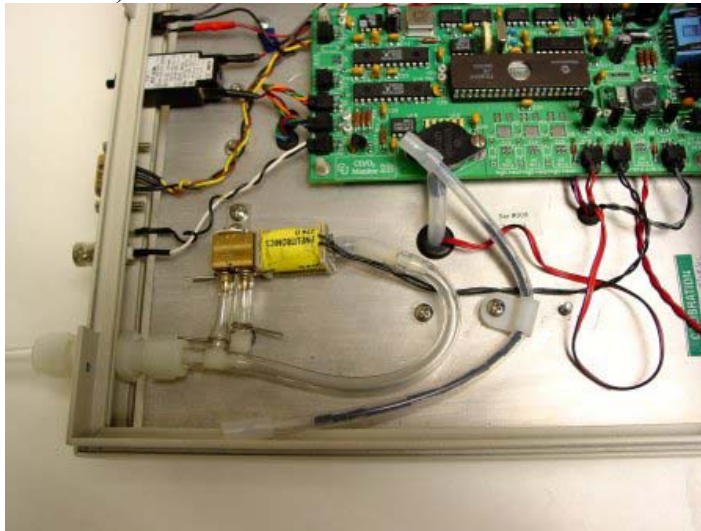
- 3) Connect a Teflon or Teflon-lined tube to the ¼" Swaglok air inlet at the back of the instrument.



- 4) Remove the ozone scrubber (top side of mounting plate) by pulling the silicone tubing connectors loose from the nylon tee and solenoid valve.



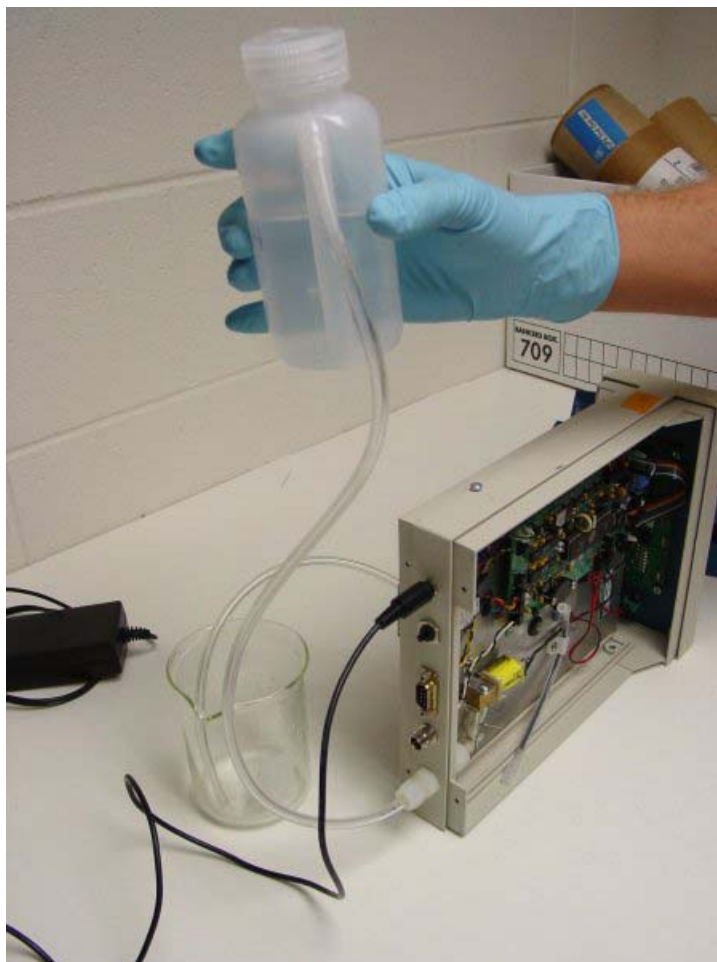
- 5) Replace the ozone scrubber with an empty Teflon or Teflon-lined tube. Make sure that all of the connectors to the printed circuit board remain intact. (It is easy to knock one of these loose.)



- 6) On the bottom side of the mounting plate, a silicone tube connects the cell exit with a nylon tee. Disconnect this tube at the nylon tee and connect and drain tube to the silicone tube.



- 7) Connect the instrument to power and turn the instrument on, being careful not to touch any electrical components.
- 8) Use a squirt bottle to force clean methanol (preferable ACS Reagent grade) through the instrument for a period of approximately 1 minute. The waste should be collected using the outlet tube to prevent wetting other components of the instrument. If methanol is spilled on the instrument, turn the instrument off and blow dry with air or nitrogen. Methanol will not damage the circuit board or other components when the instrument is unpowered. Note that during the cleaning process, the direction of flow through the solenoid valve will switch every 5 seconds. It is important to flow methanol through the system for several cycles in order to clean both sides of the solenoid valve.



- 9) While the instrument is still running, force clean air or nitrogen through the air inlet for a few minutes at a flow rate of 1-2 L/min until the interior of the instrument is dry.
- 10) Turn off the instrument.
- 11) If desired, you may also clean the ozone scrubber with methanol while it is disconnected from the instrument by simply squirting methanol through the scrubber and drying with clean air or nitrogen. It is preferable to clean the catalyst while disconnected from the instrument to prevent transferring any contamination to the absorption cell. Be careful not to force the catalyst material out of the scrubber tube. It may be necessary to replace the glass wool on both ends of the scrubber. Use a small amount of glass wool (note amount in original scrubber) in order to prevent a high pressure drop across the scrubber.
- 12) Reconnect the air pump, replace the scrubber and reattach the covers. The instrument is now ready to use. Turn the instrument on, allow at least 30 minutes for warmup and measure the zero (Z) using an external ozone scrubber. If an ozone standard is available, measure the slope parameter (S) as well. Enter the new calibration parameters into the instrument at the front panel.