

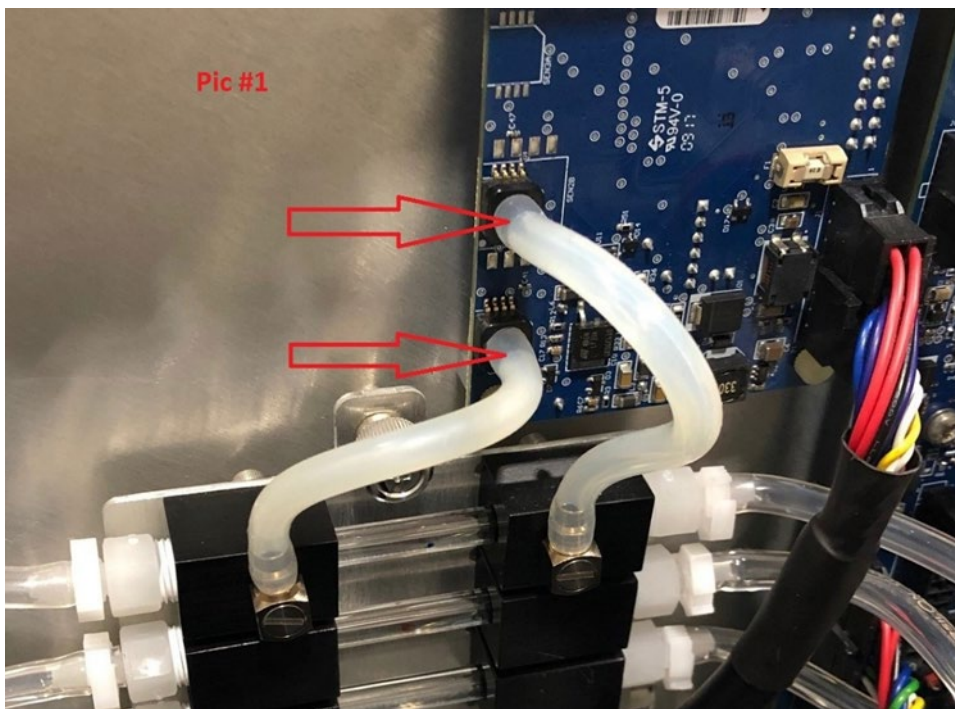
## 49iQPS Plumbing Update

We have received feedback that some Thermo Scientific 49iQPS instruments are exhibiting erroneous ozone concentrations. This appears to be related to long pieces of tubing connected to the vent, resulting in back pressure that impedes flow through the unit.

A solution has been identified and all new units have this modification installed. Units in the field can be retrofitted by installing an upgrade kit (P/N 120331-00). If you are experiencing erroneous ozone readings, please contact us on 866-282-2430 (select #2 (Tech Support), then #1 to reach a Technical Support Representative to arrange for a no charge upgrade kit. You may also request via e-mail on [epm.techsupport@thermofisher.com](mailto:epm.techsupport@thermofisher.com).

A copy of the installation instructions are included after this tech note so you may understand the actions required (a copy also accompanies the upgrade kit). Thank you.

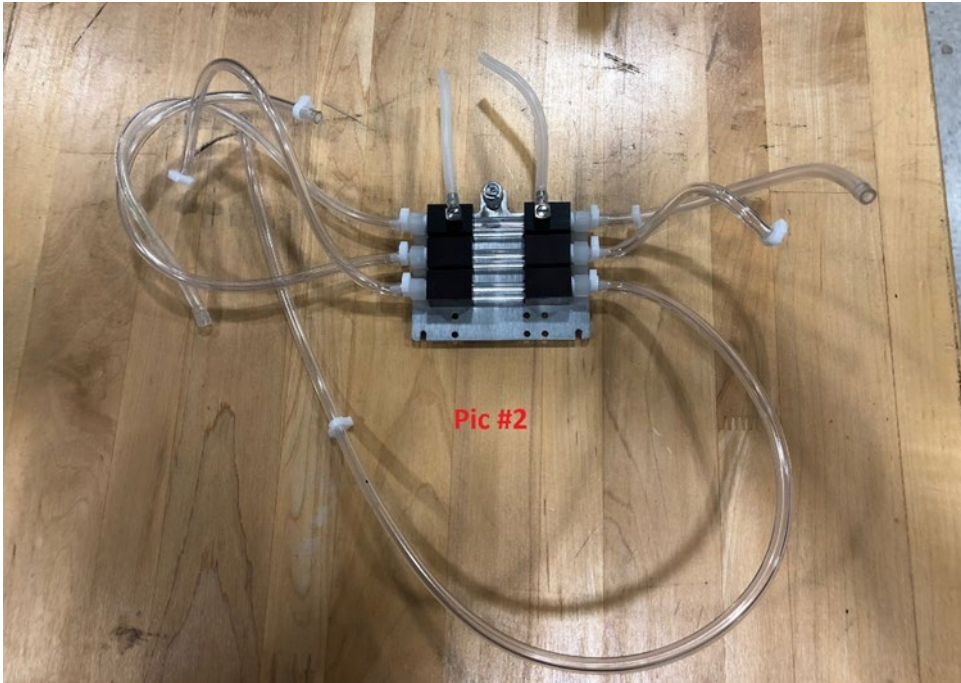
1. Remove the capillary plate:
  - a. Disconnect the two short pieces of tubing connected to the Flow/Pressure board (see pic #1 below)



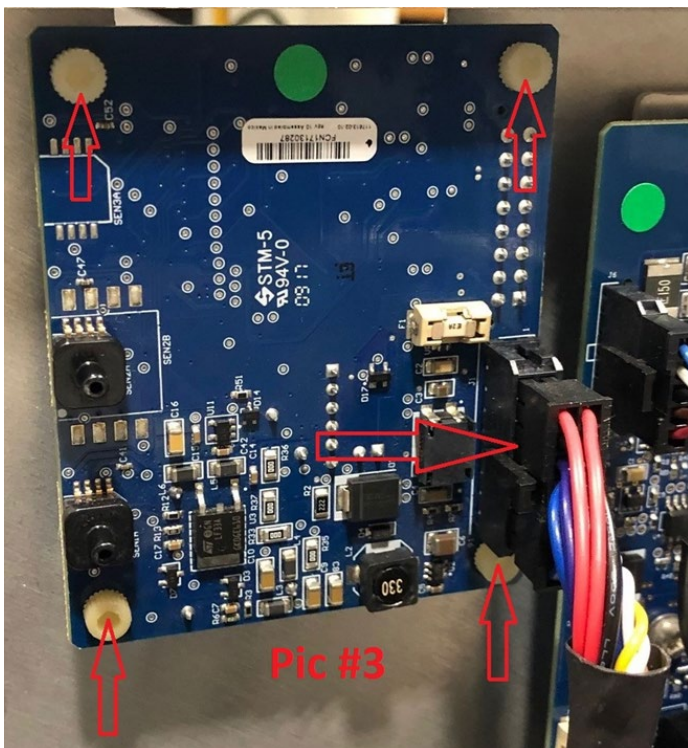
b. Follow each piece of tubing from the capillary plate & disconnect at the opposite end (new tubing is provided so cutting the tubing would be easiest)

c. Loosen the captive screw that secures the plate to the divider panel

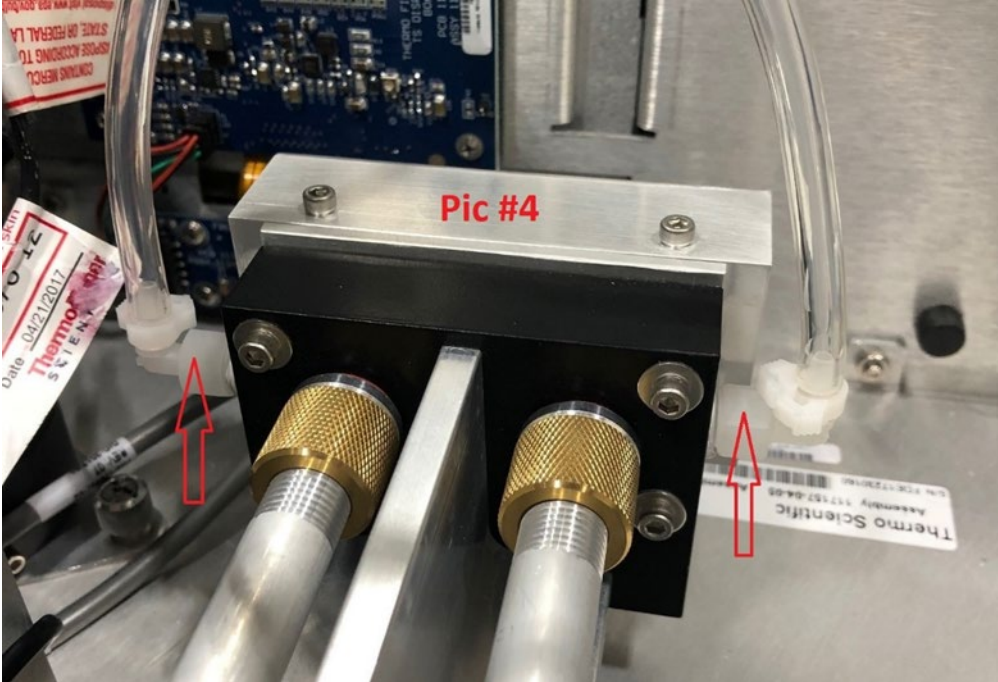
\*The entire capillary plate with attached tubing can now be removed. See following picture (pic #2)



2. Remove the Flow/Pressure board by disconnecting the DMC cable and loosening the (4) hex screws (see pic #3 below)

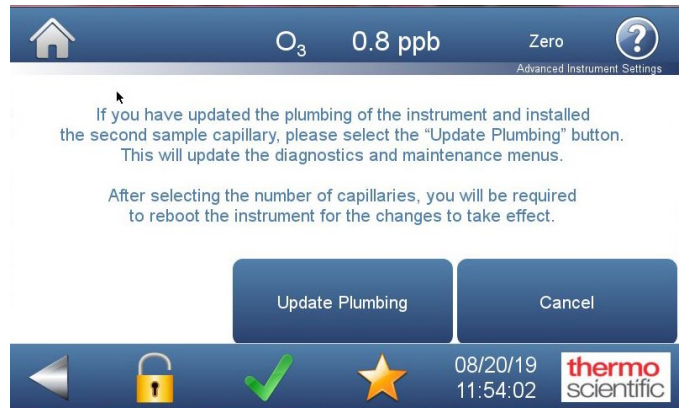


3. Install the new Flow/Pressure board found in the kit. Plug DMC cable back in
4. Replace both fittings on the detector end of the Photometer with new elbow fittings found in the kit (both fittings should face upwards) (see pic #4 below)



5. Install the new capillary plate assembly found in the kit.
  - a. Place plate on the two standoffs & tighten the captive screw
  - b. Connect the tubing from the capillary plate to the correct components (see chart)
6. Load the latest 49iQPS firmware
7. After the firmware upgrade is complete, you must enable this feature (see instructions below).





49iQPS Plumbing Chart		
From	To	To
Pump Intake	Divider Panel, Top Clip	"Y" fitting to top two capillaries
Top capillary, left SS elbow fitting	Flow/Pressure board, bottom port	
Top capillary, right SS elbow fitting	Flow/Pressure board, middle port	
Top capillary, left fitting	"Y" fitting from pump intake	
Top capillary, right fitting	Photometer, detector side, right elbow	
2nd capillary, right SS elbow	Flow/Pressure board, top port	
2nd capillary, left fitting	"Y" fitting from pump intake	
2nd capillary, right fitting	Photometer, detector side, left elbow	
3rd capillary, left fitting	Regulator "Y" fitting	
3rd capillary, right fitting	Ozonator Intake (middle fitting)	
Bottom capillary, left fitting	Regulator "Y" fitting	
Bottom capillary, right fitting	Reference Solenoid "Y" fitting	

After firmware update, follow these instructions:

Home Screen>Settings>Instrument Settings>Advanced Instrument Settings

Choosing the 'Update Plumbing' option will take the user to a screen where they can choose the plumbing configuration of their instrument.

From this menu, choose "Two Sample Capillaries". After selecting the number of capillaries, the user will be required to reboot the instrument for the changes to the user interface to take effect. The plumbing upgrade is now complete.



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