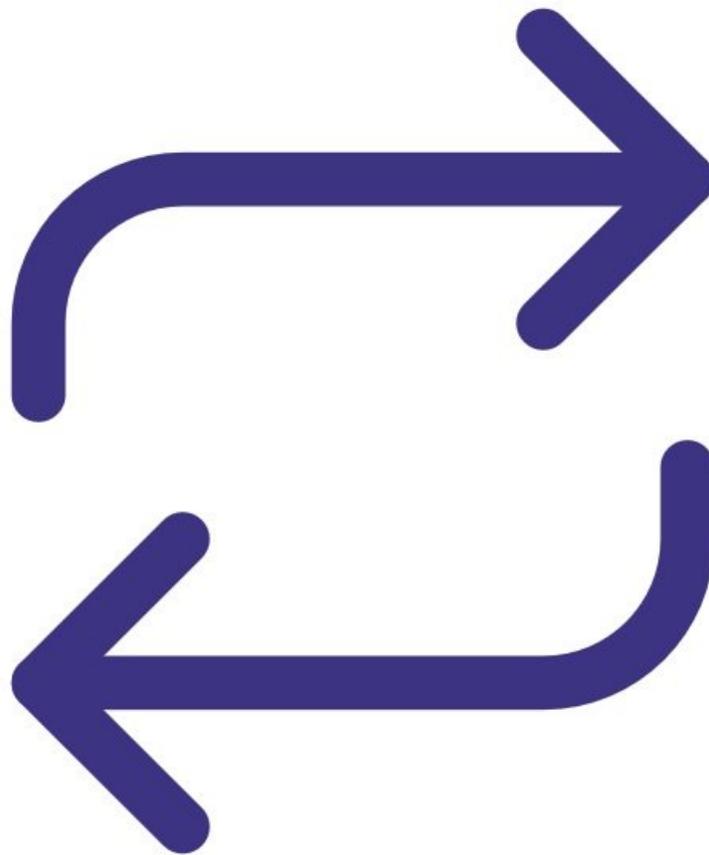




Change filter on gas inlet

Written By: Tanya Taylor



INTRODUCTION

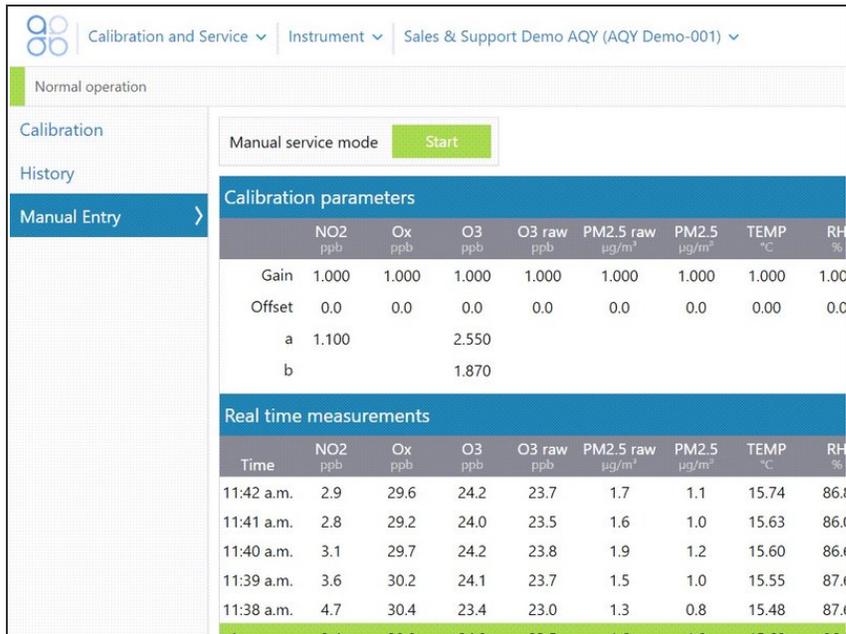
To understand how often you should perform this service activity, [click here.](#)



PARTS:

- [Gas inlet filters](#) (1)
-

Step 1 — Enter service mode



Normal operation

Calibration and Service ▾ Instrument ▾ Sales & Support Demo AQY (AQY Demo-001) ▾

Calibration

History

Manual Entry >

Manual service mode

Calibration parameters

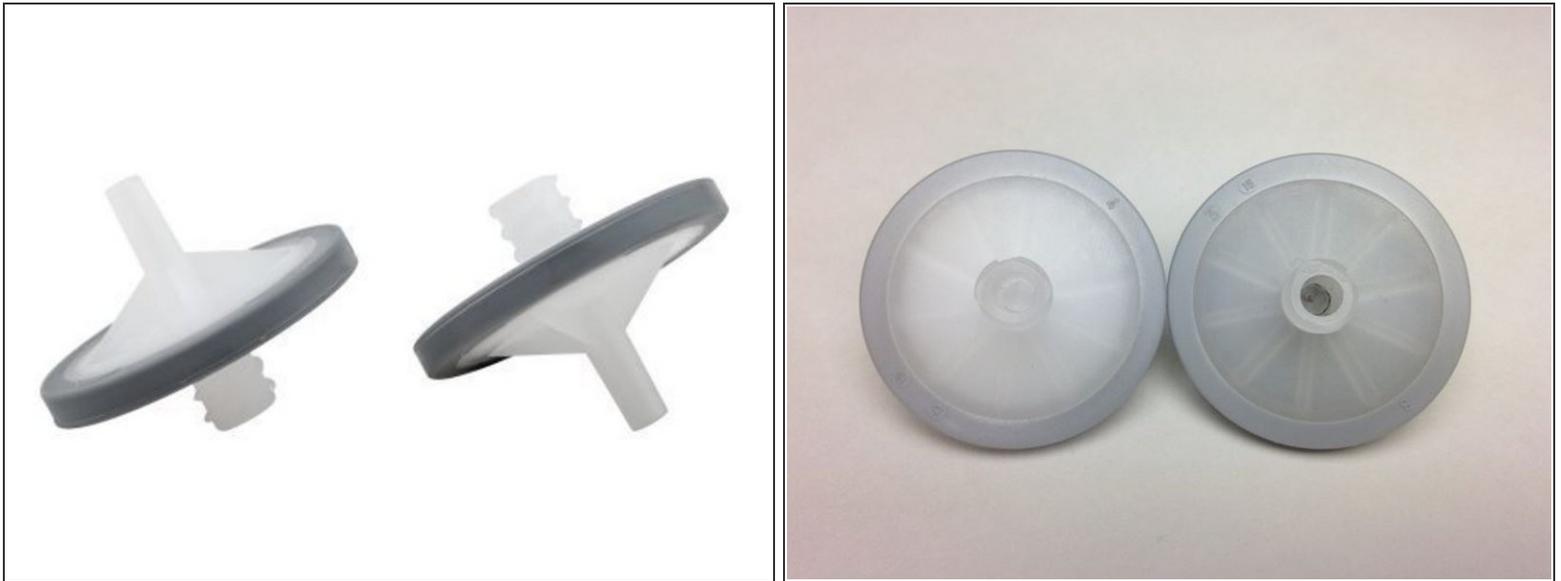
	NO2 ppb	Ox ppb	O3 ppb	O3 raw ppb	PM2.5 raw µg/m ³	PM2.5 µg/m ³	TEMP °C	RH %
Gain	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.00
Offset	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0
a	1.100		2.550					
b			1.870					

Real time measurements

Time	NO2 ppb	Ox ppb	O3 ppb	O3 raw ppb	PM2.5 raw µg/m ³	PM2.5 µg/m ³	TEMP °C	RH %
11:42 a.m.	2.9	29.6	24.2	23.7	1.7	1.1	15.74	86.0
11:41 a.m.	2.8	29.2	24.0	23.5	1.6	1.0	15.63	86.0
11:40 a.m.	3.1	29.7	24.2	23.8	1.9	1.2	15.60	86.0
11:39 a.m.	3.6	30.2	24.1	23.7	1.5	1.0	15.55	87.0
11:38 a.m.	4.7	30.4	23.4	23.0	1.3	0.8	15.48	87.0

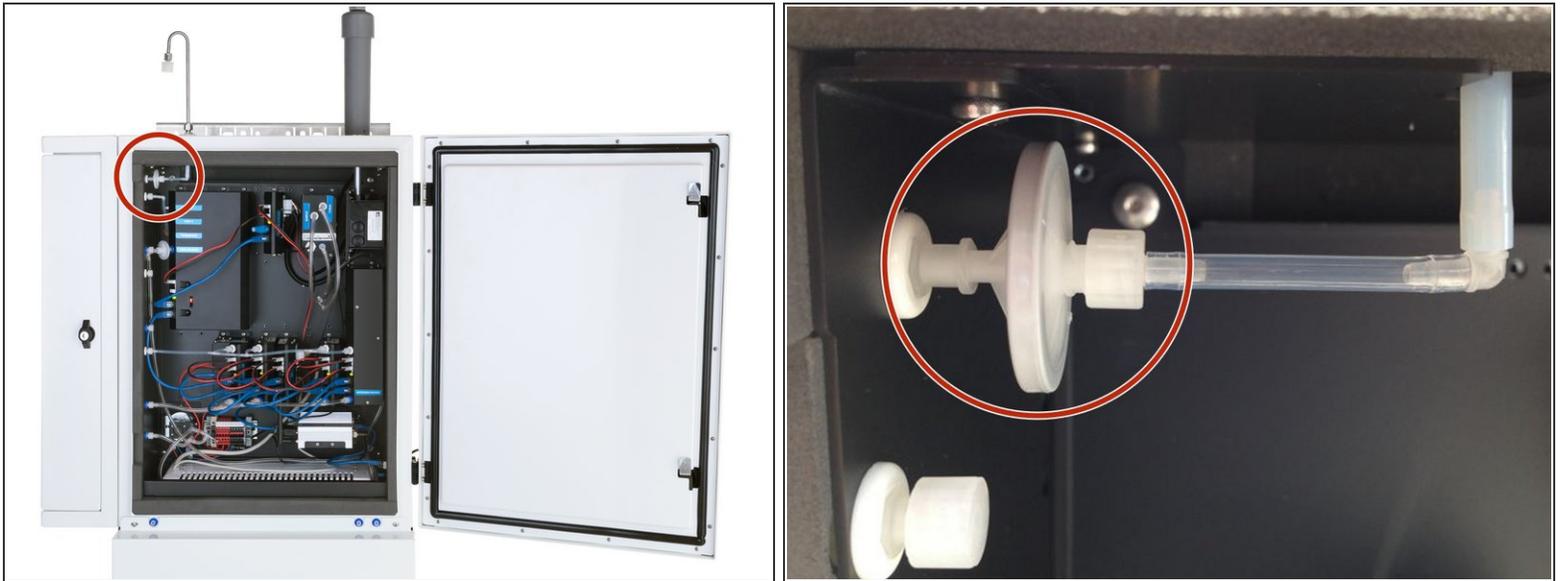
- [Enter service mode](#) so any fluctuations in the data caused from this activity can be excluded from air quality reports.

Step 2 — Purpose of filter



- The gas sample inlet has a disposable 5 μm PTFE filter, which protects the gas sample tubing and sensor modules from excessive contamination.
- A clogged filter restricts flow through the gas sampling system. To ensure accurate readings, you need to replace the filter when it gets dirty.
- The second image shows a dirty filter (right) and a new filter (left).

Step 3 — Replace filter



i Keep your monitor on. You don't need to turn it off for this procedure.

- Locate the gas inlet filter inside the enclosure at the top left.
- Unscrew the filter from the sample tubing and screw in the new one.
- Throw away the dirty disposable filter.
- [Check the inlet flow rate](#) after changing the filter to ensure there are no leaks.

Step 4 — Record in journal

Instrument: Air Quality Monitor (AQM65 04082015-437)

All journal types

User entry | Cloud user - John Wagner

<p>1. Site Inspection:</p> <p>No new local emission sources Instrument in good condition No obstructions to monitoring equipment</p> <p>3. Equipment:</p> <p>Aeroqual Gas dilution calibrator: Aircal 1000 Aeroqual Ozone calibrator: AQM O3Cal Aeroqual Flow meter: AQM R7</p> <p>4. Flow rate check: Expected flow rate = 0.450 ml per min, Measured flow rate = 0.452 ml per min Main inlet flow rate OK, individual module flow rates were not measured.</p> <p>6. Zero calibration All modules passed zero calibration, all modules were stable and all offsets were within acceptable limits.</p> <p>7. Span Calibration</p> <table border="0"> <tr> <td>CO @ 10.00 ppm</td> <td>Module response was 8.95 ppm gain adjustment to 1.15</td> <td>pass</td> </tr> <tr> <td>SO2 @ 0.2 ppm</td> <td>Module response was 0.210 ppm gain adjustment to 0.92</td> <td>pass</td> </tr> <tr> <td>NO2 @ 0.2 ppm</td> <td>Module response was 0.090 ppm gain adjustment to 2.10</td> <td>pass (module may need replacing soon contact A</td> </tr> </table> <p>8 Pack up. Next scheduled calibration 3 months from now. June 2017.</p>	CO @ 10.00 ppm	Module response was 8.95 ppm gain adjustment to 1.15	pass	SO2 @ 0.2 ppm	Module response was 0.210 ppm gain adjustment to 0.92	pass	NO2 @ 0.2 ppm	Module response was 0.090 ppm gain adjustment to 2.10	pass (module may need replacing soon contact A	<p>2. Instrument inspection:</p> <p>Cooling fan operational PM and gas inlet secure Instrument has been running at stable</p> <p>4 Gas cylinders:</p> <table border="0"> <tr> <td>CO 1000 ppm in Air</td> <td>(expiry March)</td> </tr> <tr> <td>SO2 20 ppm in Air</td> <td>(expiry December)</td> </tr> <tr> <td>NO2 20 ppm in Air</td> <td>(expiry November)</td> </tr> </table> <p>5. Open door and change gas inlet filter</p>	CO 1000 ppm in Air	(expiry March)	SO2 20 ppm in Air	(expiry December)	NO2 20 ppm in Air	(expiry November)
CO @ 10.00 ppm	Module response was 8.95 ppm gain adjustment to 1.15	pass														
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NO2 20 ppm in Air	(expiry November)															

- [Record this service activity in the monitor's journal.](#)
- [Exit service mode.](#)

Step 5 — Video of steps



- For extra help, watch our video.

For further support, contact [Technical Support](#).