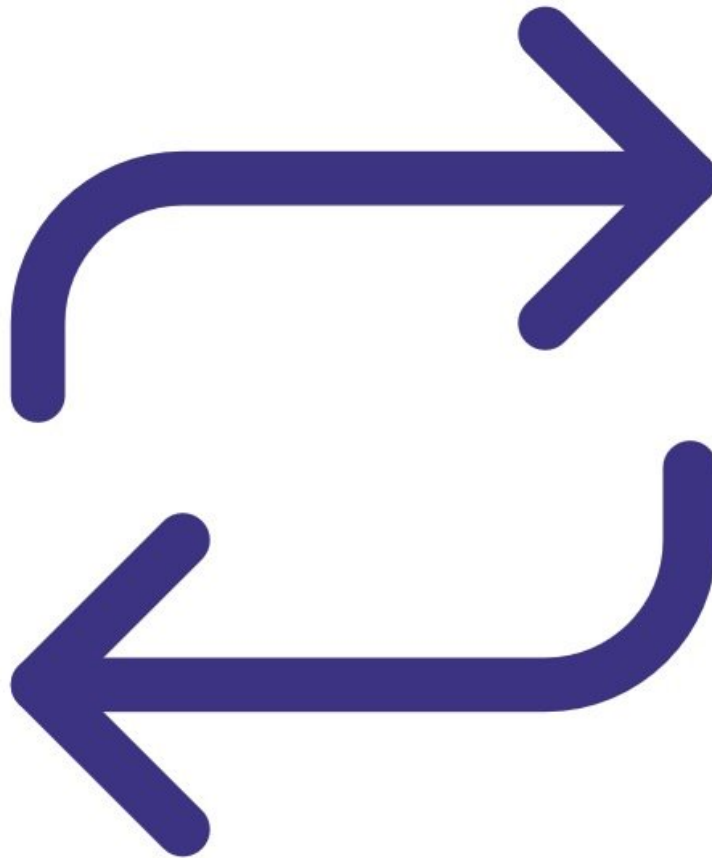




Change filter on gas inlet

Written By: Tanya Taylor



INTRODUCTION

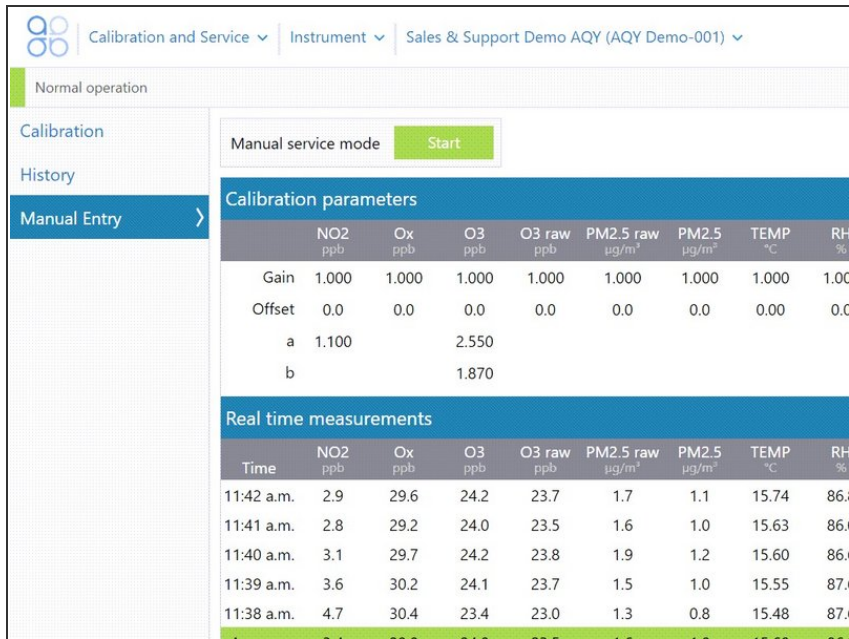
To understand how often you should perform this service activity, [click here.](#)



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 Start

Calibration parameters

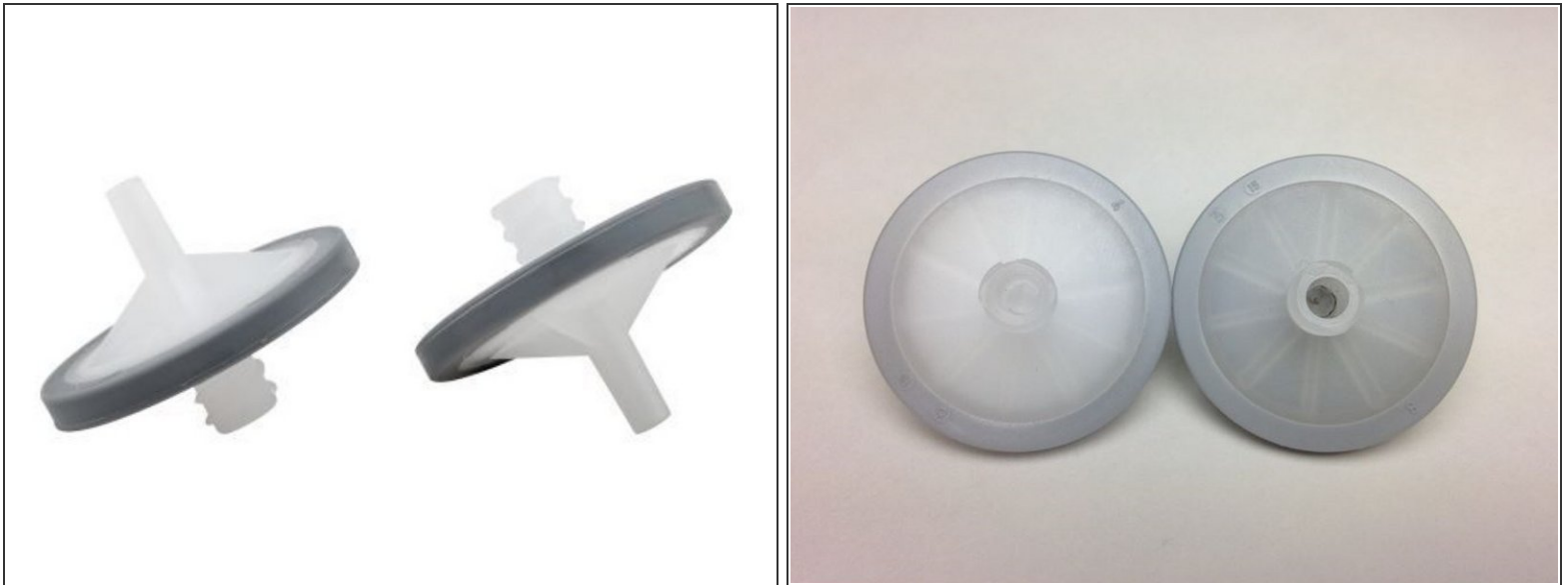
	NO2 ppb	Ox ppb	O3 ppb	O3 raw ppb	PM2.5 raw µg/m³	PM2.5 µg/m³	TEMP °C	RH %
Gain	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Offset	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0
a	1.100		2.550					
b			1.870					

Real time measurements

Time	NO2 ppb	Ox ppb	O3 ppb	O3 raw ppb	PM2.5 raw µg/m³	PM2.5 µg/m³	TEMP °C	RH %
11:42 a.m.	2.9	29.6	24.2	23.7	1.7	1.1	15.74	86.1
11:41 a.m.	2.8	29.2	24.0	23.5	1.6	1.0	15.63	86.1
11:40 a.m.	3.1	29.7	24.2	23.8	1.9	1.2	15.60	86.1
11:39 a.m.	3.6	30.2	24.1	23.7	1.5	1.0	15.55	87.1
11:38 a.m.	4.7	30.4	23.4	23.0	1.3	0.8	15.48	87.1

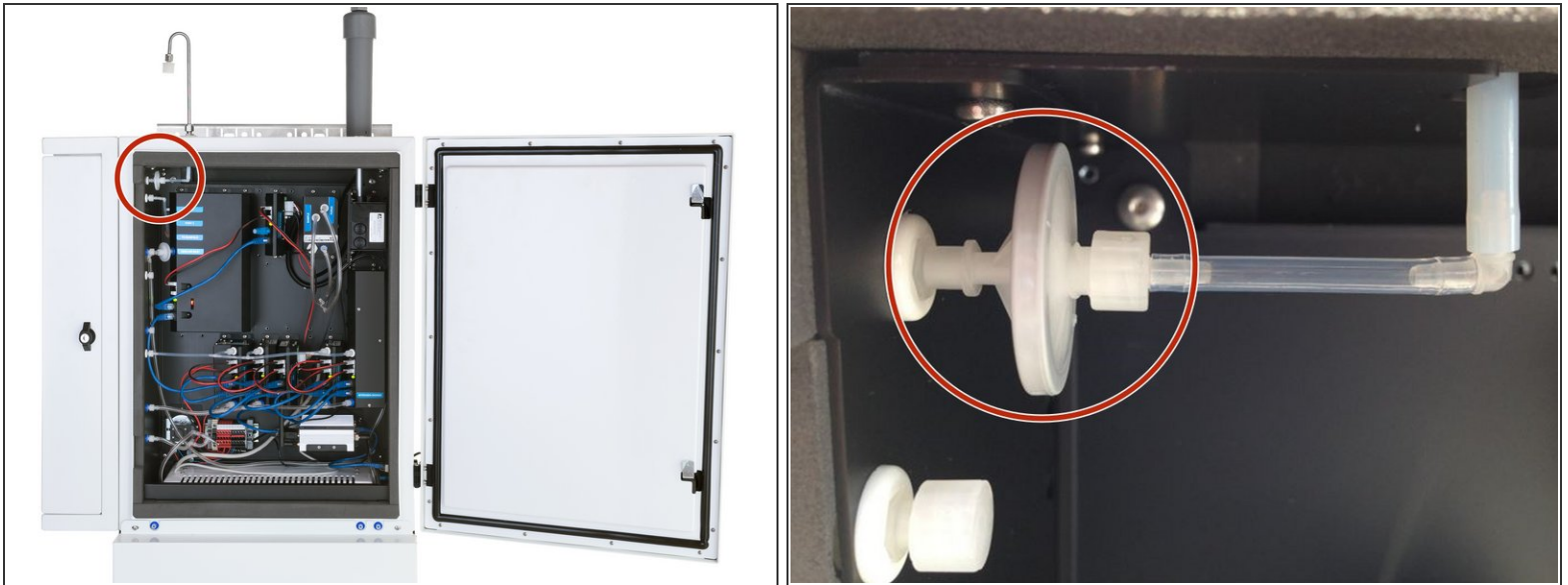
- [Enter service mode](#) so any fluctuations in the data caused from this activity can be excluded from air quality reports.


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



-  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

1. Site Inspection:	No new local emission sources Instrument in good condition No obstructions to monitoring equipment	2. Instrument inspection: Cooling fan operational PM and gas inlet secure Instrument has been running at stable
3. Equipment:	Aeroqual Gas dilution calibrator: Aircal 1000 Aeroqual Ozone calibrator: AQM O3Cal Aeroqual Flow meter: AQM R7	4 Gas cylinders: CO 1000 ppm in Air (expiry March) SO2 20 ppm in Air (expiry December) NO2 20 ppm in Air (expiry November)
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.	5. Open door and change gas inlet filter
6. Zero calibration	All modules passed zero calibration, all modules were stable and all offsets were within acceptable limits.	
7. Span Calibration	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	
8 Pack up. Next scheduled calibration 3 months from now. June 2017.		

- [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](#).