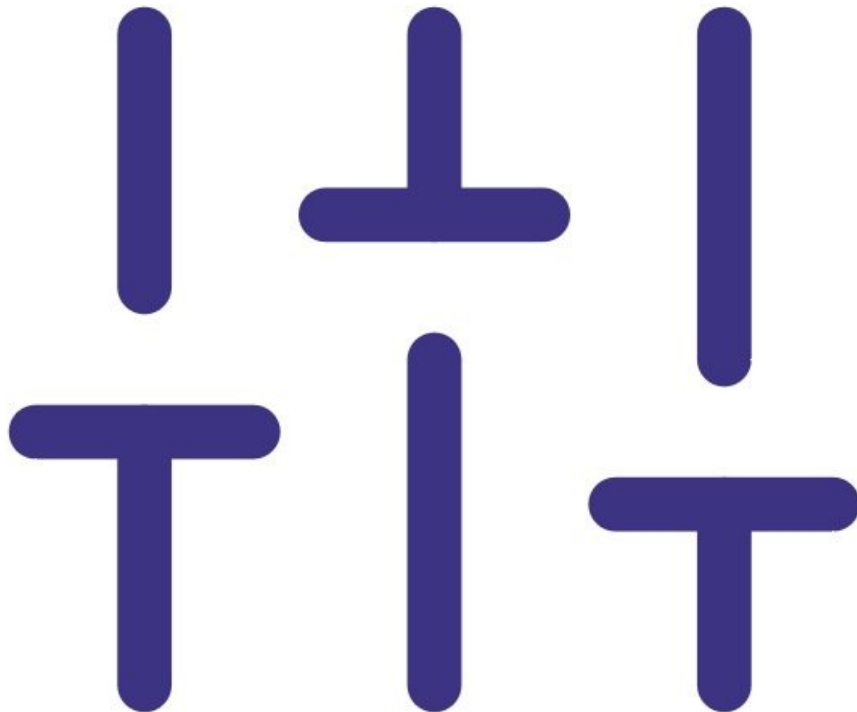




Change internal temperature (AQM65 Only)

Written By: Tanya Taylor



INTRODUCTION

An internal temperature of 30 °C is suitable for most environments. For AQM 65s installed in extreme cold or extreme heat, the set point can be changed to reduce the power demand placed upon the thermal management system.

In climates which experience very cold winters and very hot summers, the AQM 65 can be operated in “summer mode temperature” (eg. +35 oC) and “winter mode temperature” (eg. +10 oC).

Changing the internal temperature significantly affects the accuracy of the sensor module readings and can lead to damage of the internal components. It is therefore important to contact Aeroqual technical support (support@aeroqual.com) before making a change. The internal temperature should be changed as few times as possible.

Note: If you change the internal temperature, you also need to perform a full gas calibration.

Step 1 — Get technical advice



⚠ Contact [Technical Support](#) before changing the internal temperature set point on your monitor.

Step 2 — Enter service mode



Calibration and Service ▾

Instrument ▾

Sales & Support Demo AQY (AQY Demo-001) ▾

Normal operation

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

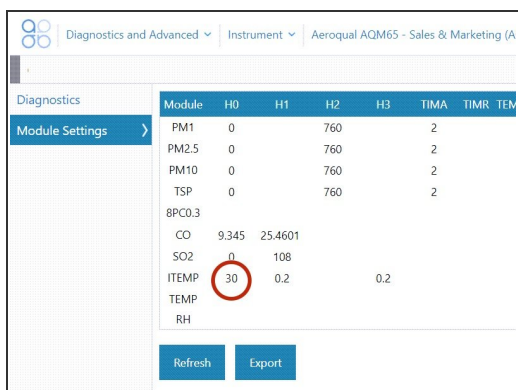
- [Enter service mode](#) so any fluctuations in the data caused from this activity can be excluded from air quality reports.

Step 3 — Enter Diagnostics and Advanced

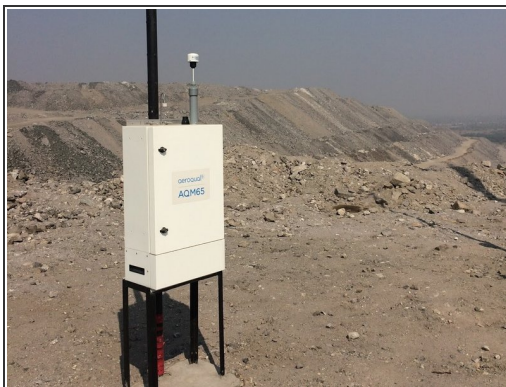


- From the Aeroqual Connect or Aeroqual Cloud home screen, click **Diagnostics and Advanced**.

Step 4 — Change set point



Module	H0	H1	H2	H3	TIMA	TIMR	TEMP
PM1	0		760		2		
PM2.5	0		760		2		
PM10	0		760		2		
TSP	0		760		2		
BPCO3							
CO	9.345	25.4601					
SO2	0	108					
ITEMP	30			0.2			
TEMP							
RH							



i The internal temperature set point is controlled by the ITEMP H0 parameter.

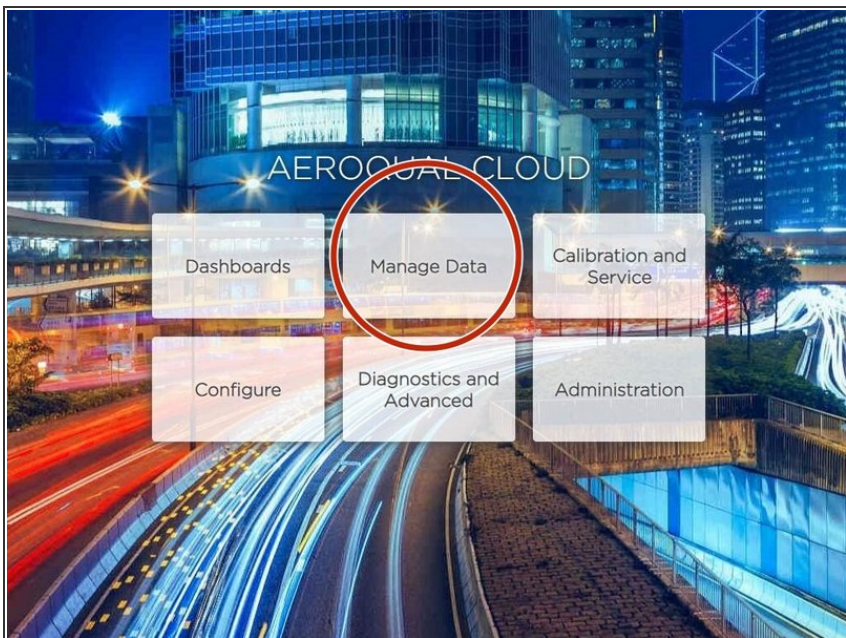
- Select **Module Settings** from the side menu.
- Click the ITEMP H0 parameter and type over the existing value with the internal temperature you want to set.
- i** Set it above the maximum ambient dew point. For example, if the maximum dew point is 30 degrees, set the internal temperature between 35 to 40 oC to avoid water condensing in the sample lines.
- When the confirmation message displays, click **Save**.

Step 5 — Calibrate gas module



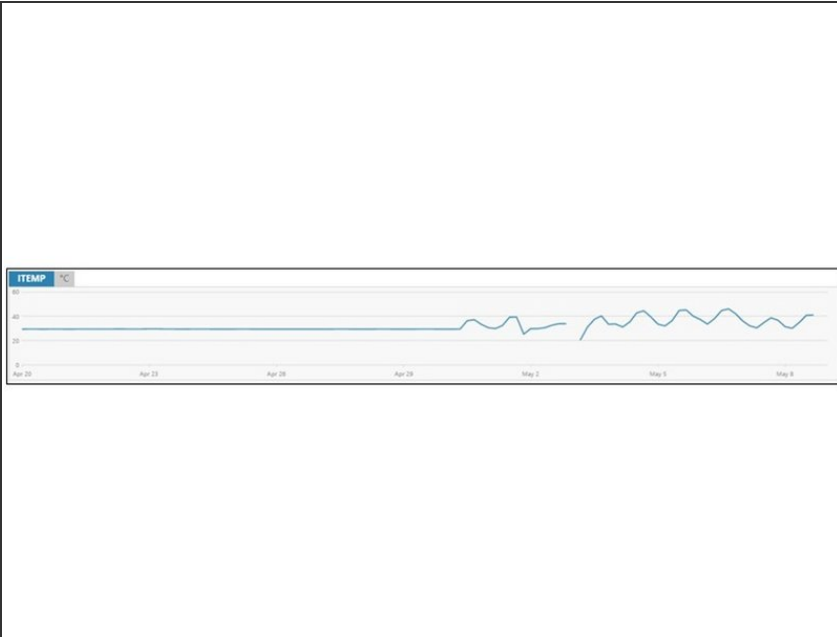
- Changing the internal temperature significantly affects the accuracy of the sensor module readings so you must [perform a full gas calibration](#).

Step 6 — Enter Manage Data



- To make sure the internal temperature is operating as expected, enter **Manage Data**.

Step 7 — Check temperature



- Select **Charts** from the side menu.
- View the **ITEMP** chart to see if there is any instability in the thermal management system.

Step 8 — Thermal loss response



- If you notice instability in the thermal management system, [see this page to troubleshoot](#).
- If the issue continues, contact [Technical Support](#) for advice.

Step 9 — 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 Aeroqual)		
8 Pack up. Next scheduled calibration 3 months from now. June 2017.			

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

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