

ATO

Air Quality Monitor

Instruction Manual



23-10-V2-502

PROTECT YOUR AIR

This product is a multifunctional air quality detector that detects Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), Particulate Matter <2.5 micron-sized particles (PM2.5/1.0/10), Temperature, and Humidity with clock and record function. As a scientific air quality detection device, it combines multiple air sensors with a built-in fan to allow real-time monitoring of formaldehyde (HCHO), total volatile organic compounds (TVOC), PM2.5/1.0/10, temperature, and humidity on its digital LCD display.



01

HOW TO USE

Step 1: Long press Power Button to turn on the monitor.

Note : If your monitor does not turn on, please plug in and charge it for a while first.

Step 2: When the air quality monitor is turned on, it will proceed through its warm-up sequence for about 3 minutes to allow sensors to preheat and fan to draw in fresh ambient air.

Note : This is necessary for accurate results. The HCHO has 200-second warm-up countdown time, which is shown in the HCHO value display area.

Step 3: The monitor with HCHO (Formaldehyde) alarm function. Its alarm default is OPEN. Its alarm value is 0.1mg/m³. And alarm thresholds can be set. See step-by-step details instructions on the next page.

Note : When you keep the HCHO alarm on, if the set alarm threshold is exceeded, the monitor will alarm with short beeps. And please be aware that the HCHO alarm will also automatically stop beeping when the HCHO value is decreasing while still above the specified threshold.

Step 4: The monitor with auto save modification function.

Note : If you make changes and then turn off and turn on monitor again, the all changes you made before turning off will remain unchanged.

Step 5: Enjoy the added benefits of having a good air quality monitor in your home!

02

SWITCH DISPLAY FORMATS

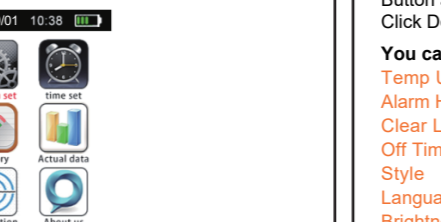
Press Up/Down Button once to switch data display format that shows air quality readings in various formats. (Figure 1-4)



(Figure 1) (Figure 2) (Figure 3) (Figure 4)

MENU INTERFACE

Press Power Button to enter the Menu or Options screen. (Figure 5)



(Figure 5)

SYSTEM SETTINGS

After pressing Up/Down Buttons to select "System Set" icon within the Menu screen (Figure 5), press Power Button to enter "Configure System" screen. (Figure 6)



(Figure 6)

After entering setting interface, the background colour of the first parameter is blue, click Power Button, the parameter content will pop up, click Up/Down Buttons to select the option, then click Power Button again to confirm the setting. Click Down Button to enter the next parameter setting.

You can set the following parameters:

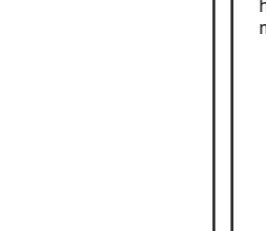
- Temp Unit : °C, °F
- Alarm HTL : 0.100mg/m³, 0.300mg/m³, 0.600mg/m³
- Clear Log : Keep, Clean
- Off Time : Never, 30min, 60min, 90min
- Style : Pink, Blue, Yellow, Red, Purple, Black
- Language : Chinese, English
- Brightness : 80%, 70%, 60%, 50%, 40%, 30%, 20%, 10%
- Buzzer Set : Open, Close

Note: Exit and save settings by pressing ESC Button (slender minus-shaped key) twice.

04

TIME SETTING

After pressing Up/Down Buttons to select "Time Set" icon within the Menu screen (Figure 5), press Power Button to enter "Time Set" screen. (Figure 7)



(Figure 7)

Change the Year, Month, Date, Hour, Minute, and Seconds using Up/Down Buttons and confirm each change by pressing Power Button. When finished, press ESC Button, after which the following will display:

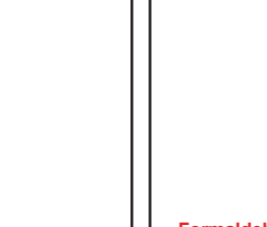


Press Power Button to confirm and save changes. Press ESC Button to cancel any changes.

05

HISTROY

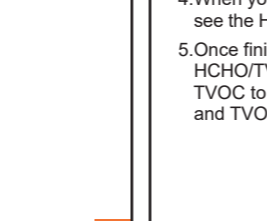
After pressing Up/Down Buttons to select "History" icon within the Menu screen (Figure 5), press Power Button to enter "History" screen. (Figure 8) Graph shows the last 10 data values for HCHO, temperature, humidity, and PM2.5 taken every 10 minutes over the previous 100 minutes.



(Figure 8)

REAL-TIME MEASUREMENT

After pressing Up/Down Buttons to select "Actual Data" icon within the Menu screen (Figure 5), press Power Button to enter "Actual Data" screen.(Figure 9) This screen shows the raw data from the TVOC and HCHO sensors without any averaging over time that reduce variations and signal noise in the air quality readings.



(Figure 9)

06

SENSOR CALIBRATION

After pressing Up/Down Buttons to select "Calibration" icon within the Menu screen (Figure 5), press Power Button to enter "Sensor Calibration" screen. (Figure 10)



(Figure 10)

Formaldehyde Sensor Calibration Method:

- 1.Place the instrument in clean outdoor air for at least 5 minutes.
- 2.Once in the "Sensor Calibration" screen(Figure 10), press Up/Down Buttons to highlight "HCHO Calibration." Press Power Button to select.
- 3.You will then see the query dialog stating, "Select whether to change the data?" Press Power Button to confirm or the slender minus-shaped button to Cancel or ESC.
- 4.When you press Power Button while being outdoors, you will then see the HCHO calibration progress bar proceed from 0% to 100%.
- 5.Once finished, exit by pressing ESC Button. You will notice the HCHO/TVOC sensors have been calibrated by setting HCHO and TVOC to 0.



Press Power Button to confirm and save changes. Press ESC Button to cancel any changes.

07

NUMERICAL COMPENSATION SETTINGS

Compensation is a method used to compensate for errors generated during the measurement process.

Formaldehyde Sensor and Temperature Sensor Manual Adjustment i.e. HCHO / Temp Skewing

This is a special and less frequently used interface primarily used when a control sample of air or air with known air quality values is available. For example, you may know the actual outdoor HCHO level or temperature and see slight deviation on the device. This interface will allow the user to apply a manual correction factor to produce accurate readings.

Once in the "Sensor Calibration" screen (Figure 10), press Up/Down Buttons to highlight "HCHO Skewing." Press Power Button to select the formaldehyde sensor adjustment and again to confirm "whether to change the data." Press Up/Down Buttons to increase or decrease values by +/-0.2 mg/m³. Save & exit by pressing ESC Button. This is an alternative method in addition to the formaldehyde calibration procedure that can correct the formaldehyde values.

For temperature, press Up/Down Buttons to highlight "TEMP Skewing." Press Power Button to select the temperature sensor adjustment and again to confirm "whether to change the data." Press Up/Down Buttons to increase or decrease values by +/-5.0°C. Save & exit by pressing ESC Button. This procedure allows correction of any incorrect temperature values.

08

ABOUT US

After pressing Up/Down Buttons to select "About Us" icon within the Menu screen (Figure 5), press Power Button to enter "About Us" screen to view our company information.

CHARGING

When low battery icon is displayed, the device needs to be charged. Insert the included or another compatible micro USB charging cable into the device. Attach the other end to a USB DC charger (such as a smartphone charger) that outputs DC 5V at >=100mA. Fully charge for at least 2-3 hours before use. Avoid charging with a USB computer port which only outputs 500mA.

PARAMETERS

	Measurement Range	Measurement Method	Resolution	Measurement Accuracy
PM2.5	0-999 ug/m ³	Laser Scattering	1ug/m ³	±10%
HCHO	0.001-1.999mg/m ³	Semiconductor	0.001mg/m ³	±10%
TVOC	0.001-9.999mg/m ³	Semiconductor	0.001mg/m ³	±10%
Temperature	-10°C - 50°C (14°F - 122°F)	Semiconductor	1°C (1.8°F)	±1°C (±1.8°F)
Humidity	20% - 85%	Semiconductor	1%	±4%

09

Tips

Tip 1: Strange Readings? Do This:

1. Turn the device off for some time and then turn it on back on again (effectively allowing the monitor to reset). After continuous use for extended periods, the device may simply need to be reset.
2. Open a window or bring the device outdoors to allow the sensor to exhaust any accumulated fumes and to allow the readings to adjust back down to more normal levels.

Tip 2: Not Using It? Turn It Off:

For the most consistently accurate readings and longest product life, it is recommended to turn the monitor off while it is not in use. This will preserve the battery, sensor, and fan.

Tip 3: Open a Window:

Often the quickest and most practical way to get readings back into the desired range is to simply open a window to ventilate more clean outdoor air into your home. This obviously does not apply if you are located in a Wildfire area or any other area with compromised outdoor air quality.

Tip 4: Cooking Impacts Air Quality:

Cooking often releases increased amounts of unhealthy pollutants into the air including but not limited to CO₂, PM_{2.5} and 10, and VOCs. Furthermore, how and what you cook determines the types of pollutants which will be released into the air.

10

CONSIDERATIONS & PRECAUTIONS

• Sampling Frequency:

The sampling frequency of the monitor is 1.5 seconds. This means that your monitor is providing you with updated readings every 1-2 seconds. Please note that, in order to provide constantly-updated, real-time readings, it contains a continuously running mini fan which gives off a very slight buzzing sound.

• Upon turning off the monitor, you will see a brief " Power Off " appear on the screen. This is normal. This is not an error message.

• This air monitor is meant to be used indoors and kept dry at all times. It is strongly recommended to store in a cool, dry place.

• DO NOT expose to sunlight or use in an extremely polluted, dusty, or smoky environment for prolonged periods as doing so may damage the sensors over time.

• DO NOT cover the air intake areas during use to avoid inaccurate measurements.

• DO NOT use chemicals or solvents to clean the product as residual fumes will skew air quality readings.

• DO NOT put water or other liquids on or near the product to avoid electrical damage.

• DO NOT allow unauthorized modification or repair of this product.

• DO NOT take apart or disassemble this monitor. Doing so may damage the product and will invalidate the warranty.

11

PRODUCT SPECIFICATIONS

Item	Air Quality Monitor
Product Size	155 x 87 x 35mm
Product Weight	150g (5.29 oz)
Display Method	2.8" LCD Screen
Measure	PM2.5, PM1.0, PM10, HCHO (Formaldehyde), TVOC, Temperature, Humidity, AQI
Detection method for PM	Laser Scattering
Detection method for HCHO/TVOC	Semiconductor sensor
Concentration unit for PMO	ug / m ³
Concentration unit for HCHO and TVOC	mg / m ³
PM measuring range	0-999 ug / m ³
HCHO measuring range	0.001 - 1.999 mg / m ³
TVOC measuring range	0.001 - 9.999 mg / m ³
PM25 Pollution Level	Good-Green(0-75ug/m ³) Slight-Yellow(76-150ug/m ³) Moderate-Red(151-300ug/m ³) Serious-Purple(301-999ug/m ³)
Atmospheric Pressure	12.5 PSI - 15.4 PSI
Sampling Time	1.5 Seconds
Temperature Range	-10°C - 50°C (14°F - 122°F)
Storage Temperature	-10°C - 60°C (14°F - 140°F)
Relative Humidity	20%-85%
Humidity Range	20%-85%
Power Source	1200 mAh Rechargeable Lithium battery, 5V DC Power Charging via Micro USB Port

12

WARNING:

While this product can reduce your risk of harm by increasing your awareness of air quality, it can in no way guarantee your health or safety. Please instead take a comprehensive approach to living healthy and do not depend on this monitor alone to improve your health or save your life.

LEGAL DISCLAIMER:

The use or misuse of this monitor is conditioned upon the user's agreement that in no event shall the manufacturer, importer, reseller, or distributor of this monitor be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use of this monitor.

Product List

Air Quality Monitor	x 1
Micro USB Charging Cable	x 1
Product Manual	x 1

13