

## Multi-function Air Quality Monitor User manual



Please keep the manual handy for quick reference and troubleshooting.

### Chapter One Product Introduction

This product is a multifunctional air quality monitor that detects Carbon dioxide (CO<sub>2</sub>), Particulate Matter <2.5 micron-sized particles (PM<sub>2.5</sub>/1.0/10), Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), 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 Carbon dioxide (CO<sub>2</sub>), PM<sub>2.5</sub>/1.0/10, formaldehyde (HCHO), total volatile organic compounds (TVOC), temperature, and humidity on its digital LCD display.

### Chapter Two Function Description

Display method: 4.3" LCD screen display, 320 x 240 pixels  
Atmospheric pressure: 86Kpa - 106Kpa  
Sensor for CO<sub>2</sub>: Infrared (NDIR)  
Detection method for PM: Laser Scattering  
Sampling time: 1.5 seconds  
Product Size: 131\*78\*67.5 mm  
Detection temperature: -10°C to 50°C;  
Relative humidity: 20% - 85%  
Storage temperature: -10°C to 60°C;  
Concentration unit for CO<sub>2</sub>: PPM  
Concentration unit for PM: ug/m<sup>3</sup>  
Concentration unit for HCHO and TVOC: mg/m<sup>3</sup>  
Power source: Lithium battery with 3000 mAh capacity;  
5V DC power charging via micro USB port  
Product weight: 345g

### Chapter Three Usage

1- Initial use: The instrument is factory-calibrated by professional equipment. The first time when you use the instrument, the data on the screen may be higher at first, which is normal. Please take the instrument to the outdoor ventilation for 30 minutes, then it works normally.

### 2- Operating Instructions

1) Start Up  
When you long-press the center power button, the air quality monitor will boot up. Detector will proceed through its warm-up sequence for about 3 minutes to allow sensors to preheat and fan to draw in fresh ambient air. This is necessary for accurate results.

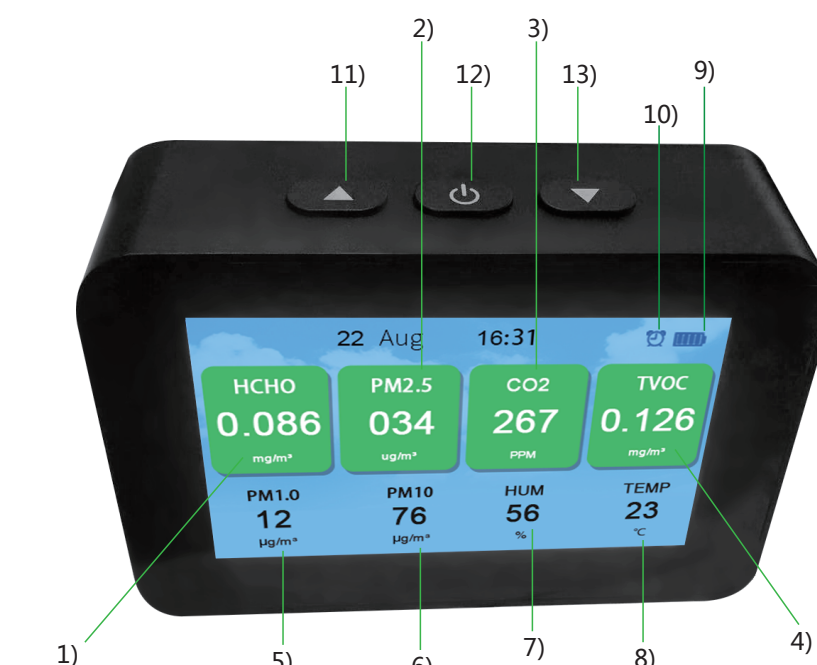
2) Turn Off  
Long Press and hold the power button to turn off the power automatically.

3) About 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 >=1000mA. Fully charge for at least 2-4 hours before use. Avoid charging with a USB computer port which only outputs 500mA.

### Chapter Four Product Schematic diagram

- 1) HCHO display area, showing the current Formaldehyde level.
- 2) PM2.5 display area, showing the current PM2.5 level.
- 3) CO2 display area, showing the current CO2 (Carbon dioxide) level.
- 4) TVOC display area, showing the current Total Volatile Organic Compound level.
- 5) PM1.0 display area, showing the current PM1.0 level.
- 6) PM10 display area, showing the current PM10 level.
- 7) Humidity display area, showing the current humidity level.
- 8) Temperature display area, showing the current temperature in Celsius.
- 9) Battery symbol, showing the battery or charging indicator.
- 10) Alarm Clock
- 11) Switch / Increase Button, used to scroll between interfaces.

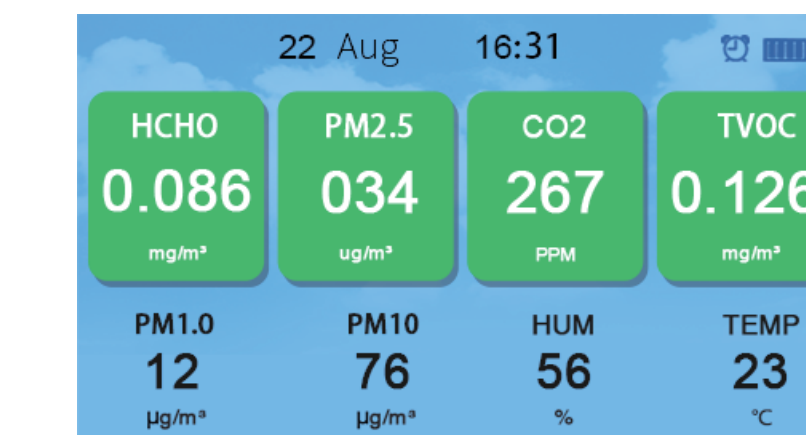
- 12) Power / OK / Menu Button, used to confirm highlighted options or to turn device on/off by pressing for 3 seconds, navigate within menus
- 13) Switch / Decrease Button.



HCHO (formaldehyde) ideal range: <=0.100 mg/m<sup>3</sup> (0.08 ppm/m<sup>3</sup>)  
TVOC ideal range: <= 0.600 mg/m<sup>3</sup> (0.45 ppm/m<sup>3</sup>)

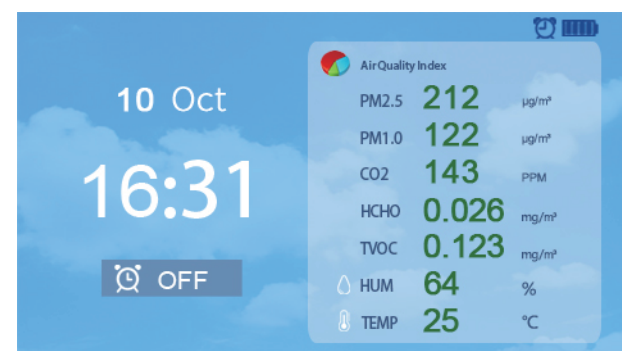
### Chapter Five Mode of Operation

#### Interface 1



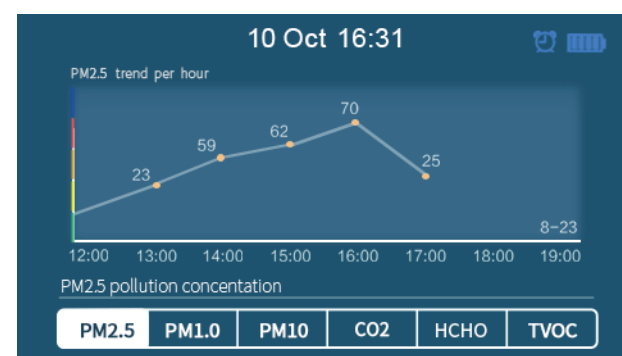
This is the main interface, the different background colors reflect different test levels.

#### Interface 2



This interface display test levels of PM2.5 PM1.0 CO2 HCHO TVOC, etc. .

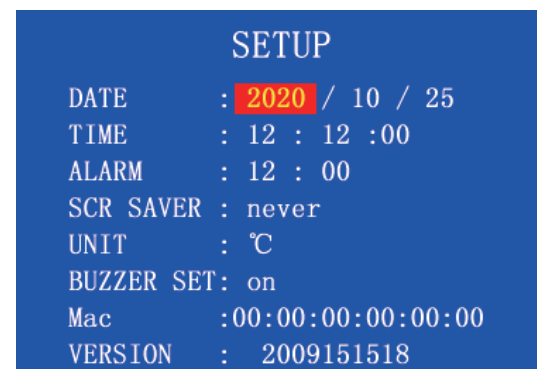
#### Interface 3



This interface display Hourly Air Quality Trends  
Graph shows the last 8 data levels for PM2.5, PM1.0, PM10, CO2, HCHO, TVOC, taken every 1 hour over the previous 8 hours .

### Settings:

Double-press the power button to enter the system settings interface: after each setting, the device saves settings automatically. Pressing the power button to navigate within menus.



DATE: Change the date by using the up and down button.  
TIME: Change the time by using the up and down button.  
ALARM: Change alarm on/off and time by using the up and down button.  
Screen Saver: never, 10 minutes, 30 minutes, 60 minutes.  
UNIT: Change the temperature unit between Celsius (°C) or Fahrenheit (°F).  
Buzzer : use up and down button to select whether to turn the alarm buzzer on or off.

Default factory value alarm threshold levels for Formaldehyde(HCHO): 0.100mg/m<sup>3</sup>

**If the alarm sounds noisy , you can turn Buzzer off.**

HCHO air quality grade range			PM2.5 air quality grade range		
Air quality level	HCHO average standard value (mg/m <sup>3</sup> )	Color	Air quality level	PM2.5 average standard value (ug/m <sup>3</sup> )	Color
Excellent	0.000-0.100	Green	Excellent	0- 60	Green
Good	0.101 – 0.500	Yellow	Good	61 - 120	Yellow
Poor	0.501 – 1.999	Red	Poor	121 - 999	Red

CO2 air quality grade range			TVOC air quality grade range		
Air quality level	CO2 average standard value(PPM)	Color	Air quality level	TVOC average standard value (mg/m <sup>3</sup> )	Color
Excellent	≤1000	Green	Excellent	0.000 - 0.500	Green
Good	1001 - 3000	Yellow	Good	0.501 - 1.500	Yellow
Poor	>3001	Red	Poor	1.501 - 9.999	Red

### Chapter Six Precautions

Considerations  
Please read the instructions carefully before using this device.  
Please calibrate the device outdoors before use for most accurate results.  
Please keep the manual handy for quick reference and troubleshooting.

Precautions  
Avoid covering the air intake areas during use to avoid inaccurate measurements.  
Avoid use of solvents to clean the product as residual fumes will skew air quality readings.  
Avoid water or other liquids near the product to avoid electrical damage.  
Do not allow unauthorized modification or repair of this product.

### Chapter Seven technical indicators

#### PM2.5, PM1.0, PM10 technical indicators

Measuring range: 0-999mg/m<sup>3</sup>  
Resolution: 1ug/m<sup>3</sup>  
Measuring principle: Laser light Scattering

#### CO2 technical indicators

Measuring range: 400-5000PPM  
Resolution: 1 PPM  
Sensor for CO<sub>2</sub>: Infrared (NDIR)

#### HCHO technical indicators

Measuring range: 0.000-1.999mg/m<sup>3</sup>  
Resolution: 0.001mg/m<sup>3</sup>  
Measuring principle: Electrochemistry

#### TVOC technical indicators

Measuring range: 0.000-9.999mg/m<sup>3</sup>  
Resolution: 0.001mg/m<sup>3</sup>  
Measuring principle: Electrochemistry

#### Temperature and humidity technical indicators

Measuring range: -10-50 ° C  
Humidity range: 20%-85% RH  
Measurement accuracy: ±1 °C  
Measurement accuracy: ±4% RH

### Chapter Eight packing list

Main device \* 1  
Charging cable \*1  
Package Box \* 1  
User manual \*1