

# Air Quality Monitor Instruction Manual



24-03-V3-72B

## Product Specifications

Display method: 4.3" LCD screen display, 480X270 pixels  
 Atmospheric pressure: 86Kpa - 106Kpa  
 Detection method for CO2: Infrared ( NDIR )  
 Detection method for PM: Laser Scattering  
 Sampling time: 1.5 seconds  
 Product Size: 145 x 78 x 97.2mm  
 Detection temperature: -10°C to 50°C;  
 Relative humidity: 20% - 85%  
 Storage temperature: -10°C to 60°C;  
 Concentration unit for CO2: 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: 235g

## Product Description

This product is a multifunctional air quality monitor that detects Carbon dioxide (CO2), Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), Particulate Matter <2.5 micron-sized particles (PM2.5/1.0/10), Temperature, and Humidity with clock .record.  
 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 (CO2), formalde-hyde (HCHO), total volatile organic compounds (TVOC), PM2.5/1.0/10, temperature, and humidity on its digital LCD display.

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## Considerations

Please read the instructions carefully before using this device.  
 Please let the device work short mins 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.

## Features:

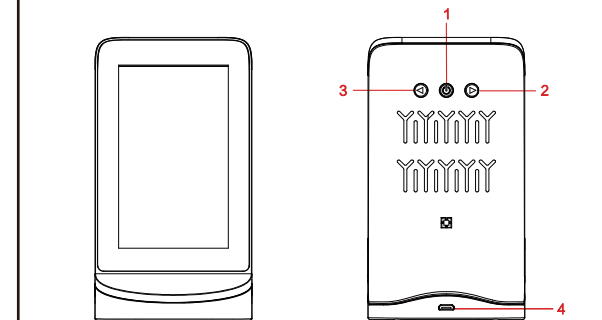
- 4.3" color liquid crystal display (LCD), 480X270 pixels
- Test variables: Carbon dioxide (CO2), PM2.5/1.0/10, formaldehyde, TVOC, temperature, humidity
- Large 3000mAh capacity Lithium battery
- On-board fan to draw in ambient air for more accurate real-time results
- 5V Micro USB charging
- Low battery warning

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## 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



- 1) Power ( I/O ) / OK / Menu Button, used to confirm highlighted options or to turn device on/off by pressing for 3 seconds.
- 2) Down / Switch / Decrease Button, used to scroll between interfaces
- 3) Up / Switch / Increase Button, used to scroll between interfaces
- 4) Micro USB charging Port

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### 2. Switching Among Data Display Formats ( Figure 1-5 )

Press the up or down buttons to switch among data display formats (figures 1-5) that displays air quality readings in various formats:

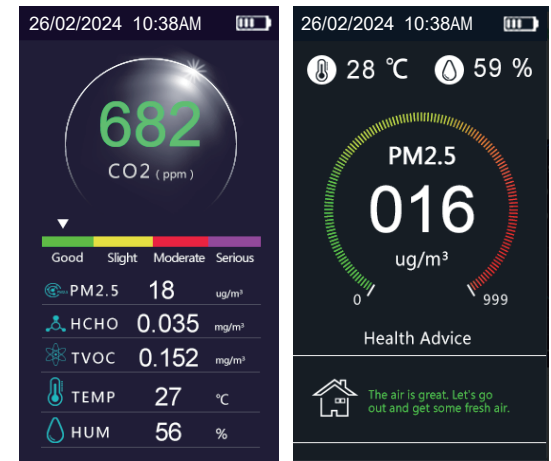


Figure 1

Figure 2

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### 3.Setting (Figure 6)

Double Press center I/O button to enter the Time Setting screen.

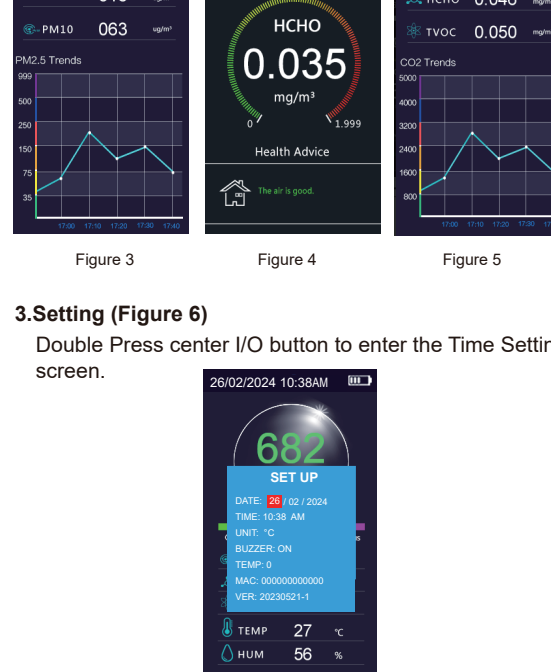


Figure 3

Figure 4

Figure 5

Figure 6

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### 4. 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 smart phone charger) that outputs DC 5V at >=1000mA. Fully charge for at least 2-3 hours before use. Avoid charging with a USB computer port which only outputs 500mA.

DATE: Change the date by using the up and down button. Confirm each setting with one press on the on/off button.

TIME: Change the time by using the up and down button and by confirming with the on/off button.

UNIT: Change the temperature unit between Celcius (°C) or Fahrenheit (°F) .  
 Buzzer: can turn on/off alarm sound. (If Buzzer is on, and CO2 value more than 1200 ppm and keep rising, would beep alarm sound.)

Temperature Numerical Compensation Settings  
 Temperature compensation is used to compensate for errors in the measurement process.  
 You can set it to: -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5.

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### 5. History ( Figure 3,Figure 5 )

Graph shows the last 5 data values for PM2.5, CO2 and taken every 10 minutes over the previous 50 minutes.



Figure 3

Figure 5

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### 6.Alarm Threshold

Default factory value alarm threshold levels for CO2: 1200ppm. When reach 1200ppm, device alarm sounds.

Air Quality Standard	PM2.5 Air Quality Rating Range	
	Air Quality Level	PM2.5(ug/m <sup>3</sup> ) Average Standard Value
Formaldehyde Less than 0.100:safety range 0.101-0.200:Slight pollution 0.201-0.300:Moderate pollution 0.301 or more:heavy pollution	Excellent	0~35
	Good	36~75
	Moderate pollution	76~115
TVOC Less than 0.600: safety range Achieve 0.601 or more: Exceeding the standard can cause respiratory system Abnormal, inflamed, cancerous, etc.	Heavy pollution	116~150
	Serious pollution	151~250
		more than 250

### 7.CO2 Range ( PPM ) :

- Green Color ( Good ) : 400-799
- Yellow Color ( Slight ) : 800-1199
- Red Color ( Moderate ) : 1200-1999
- Purple Color ( Serious ) : 2000-5000



- Air Quality monitor x 1
- Micro USB charging cable x 1
- Product Manual x 1

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### 8.Parameters :

CO2 Specifications:  
 Measuring range: 400-5000PPM  
 Sensor for CO2 : Infrared ( NDIR )  
 Resolution: 1 PPM

PM2.5,PM10,PM1.0 Specifications:  
 Measuring principle: Laser Scattering  
 Measuring range: 0-999ug/m<sup>3</sup>  
 Resolution: 1ug/m<sup>3</sup>

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

TVOC Specifications:  
 Measuring principle: Semiconductor  
 Measurement range: 0.000-9.999mg/m<sup>3</sup>  
 Resolution: 0.001mg/m<sup>3</sup>

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

## Product List

- Air Quality monitor x 1
- Micro USB charging cable x 1
- Product Manual x 1

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