Air Quality Monitor Instruction Manual

25-01-V1-72M

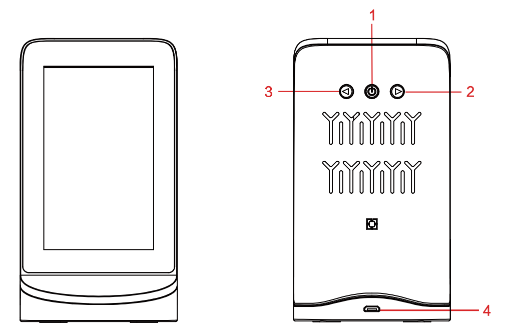
Product Description

This product is a multifunctional air quality monitor that combines various high-quality air sensors with a built-in fan to provide real time monitoring of Carbon Dioxide (CO2), Particulate Matte(PM2.5, 1,10),Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), Temperature ,Humidity and time on its digital LCD display. It supports datas storage,export and download to computers for people to further study the patterns of air quality changes, thus taking effective measures.

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

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:

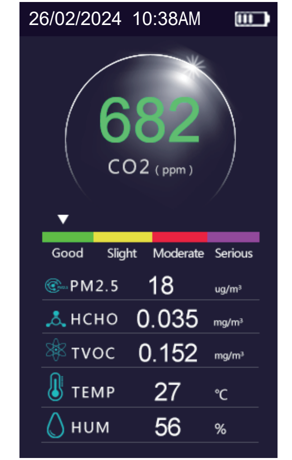


Figure 1

Figure 2

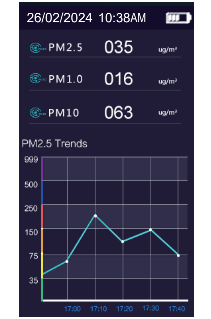


Figure 3

Figure 4

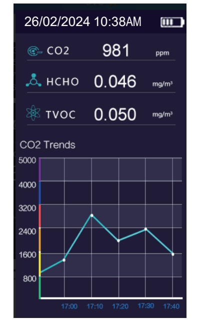
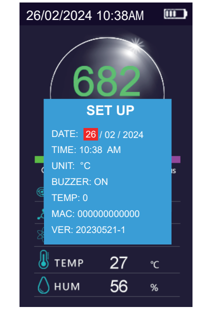


Figure 5

3.Setting (Figure 6)

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



SET UP
DATE: 26 / 02 / 2024
TIME: 10:38 AM
UNIT: °C
BUZZER: ON
TEMP: 0
MAC: 000000000000
VER: 20230521-1

Figure 6

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.

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.

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

Air Quality Standard

CO2 Standard Reference Table :

	Air Quality Level	CO2 Average Standard Value (ppm)
CO2	Good-Green	400-799
	Slight-Yellow	800-1199
	Moderate-Red	1200-1999
	Serious-Purple	2000-5000

Note1: The default alarm threshold for CO2 is 1200ppm. When it reaches 1200ppm, the device will alarm sounds.

Note2: The AQI Level is taken as the maximum value of CO2.

PM2.5 Standard Reference Table :

	Air Quality Level	PM2.5 Average Standard Value (ug/m^3)
PM2.5	Excellent	0-35
	Good	36-75
	Light Pollution	76-115
	Moderate Pollution	116-150
	Heavy Pollution	151-250
	Serious Pollution	>251

HCHO(Formaldehyde) Standard Reference Table :

	Air Quality Level	HCHO Average Standard Value (ug/m^3)
HCHO (Formaldehyde)	Safety	<0.100
	Slight Pollution	0.101-0.200
	Moderate Pollution	0.201-0.300
	Heavy Pollution	>0.301

TVOC Standard Reference Table :

	Air Quality Level	TVOC Average Standard Value (ug/m^3)
TVOC	Safety	< 0.600
	Exceeding the standard can cause respiratory system abnormal, inflamed, cancerous, etc	> 0.601

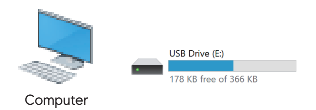
How to export data to a Computer

1.Connect the device to computer by the coming USB date cable (see below)

Note: the product is in the powered on state.

2. Same time press and hold the Left and Right buttons simultaneously to enter data export mode.

3. Go to check computer, open (My Computer) - USB flash drive, you will find a file of MT-DATA, it is the historical data and records from the detector.



See below :

DATE	TIME	Temp (°C)	Hum (%)	PM2.5 (ug/m ^{3})	CO_2 (ppm)	HCHO (mg/m^3)	TVOC (mg/m^3)	PM10 (ug/m^3)	PM1.0 (ug/m^3)
2024/6/6	4:14	31.4	61.7	46	571	0.234	0.003	61	30
2024/6/6	4:14	31.1	61.2	52	571	0.162	0.075	69	33
2024/6/6	4:21	30.8	59.7	79	1427	0.021	0	102	48
2024/6/6	4:22	30.6	59.9	78	1414	0.02	0.369	104	50
2024/6/6	4:22	30.3	58.1	79	1438	0.02	0.369	99	45
2024/6/6	4:23	30	58.2	82	1374	0.019	0.376	104	48
2024/6/6	4:23	30	54.6	81	1334	0.018	0.371	104	48
2024/6/6	4:24	29.9	55.8	75	1213	0.015	0.371	95	43
2024/6/6	4:24	29.8	58.1	76	1246	0.019	0.371	97	45
2024/6/6	4:25	29.7	53.9	81	1381	0.011	0.365	103	47
2024/6/6	4:25	29.6	51.6	77	1310	0.011	0.385	101	48
2024/6/6	4:26	29.6	51.3	83	1042	0.011	0.379	110	53
2024/6/6	4:26	29.6	51.2	86	844	1.999	0.389	110	51
2024/6/6	4:27	29.6	51.2	84	775	0.009	0.405	109	51

Note :

(1) Quantity stored
The tester can store up to 4,000 pieces of datas.

(2) Interval
The interval for storing data is 30 seconds.

(3) Storage format
The default storage data format is * CSV.

(4) Reading method
Connect the charging port of the device to the USB of the computer, and view the data stored in the "USB drive" in "My Computer" to store the data content.

Note : Please do not make any changes or edits to this file on the USB drive. We suggest that you copy it directly to your computer and then view and analyze the datas.

(5) Precautions
Note that when the data reaches 4000 entries, the previous data will be automatically overwritten before continuing to be stored.

Exit data export mode
Same time press and hold the Left and Right buttons simultaneously to exit .

Tips

Tip 1: Strange Readings? Do This:

1. Turn the device off for some time and then turn it 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, PM2.5 and 10, and VOCs. Furthermore, how and what you cook determine the types of pollutants which will be released into the air.

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 should 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.

Product Specifications

Item	Air Quality Monitor
Product Size	145 x 78 x 97.2mm
Product Weight	235g
Display Method	LCD Screen
Measuring Item	CO2, PM2.5, PM10, PM1.0, AQI, HCHO (Formaldehyde), TVOC, Temperature, Humidity
Detection method for CO2	Infrared (NDIR)
Detection method for PM	Laser Scattering
Detection method for HCHO	Electrochemistry
Detection method for TVOC	Semiconductor
Concentration unit for CO2	ppm
Concentration unit for PM	ug / m^3
Concentration unit for HCHO and TVOC	mg / m^3
CO2 measuring range	400-5000 ppm
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
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	3000 mAh Rechargeable Lithium battery. 5V DC Power Charging via USB Port

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

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