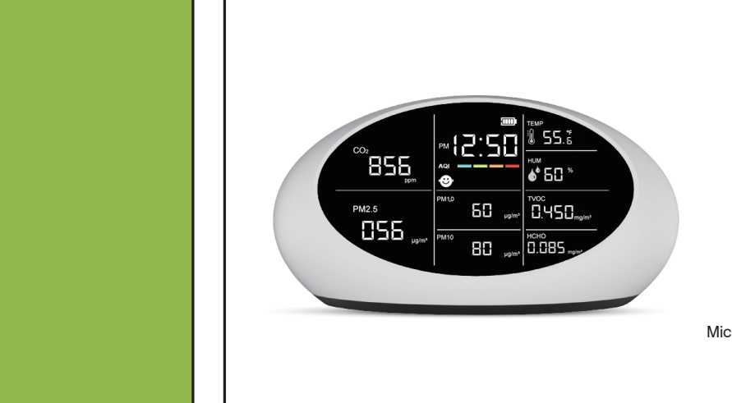
Product Manual

PROTECT YOUR AIR

This product is a multifunctional 10 in one air quality monitor that combines numerous different types of high-quality air sensors with a built-in fan to provide real-time monitoring of Carbon Dioxide (CO2), Formaldehyde (HCHO), Total Volatile Organic Compounds (TVOC), PM2.5, PM1.0, PM10, Air Quality Index (AQI) Indication, Temperature, Humidity and Time on its digital LCD display. This multi-functional air quality monitor combines ten functions to help you keep track of the air quality in your home.



GET STARTED - HOW TO USE

STEP 1: Power On

- Plug in the air quality monitor.
- Press the "⏻" buttons for 2 seconds to turn it on.
- **Note:** If the device doesn't power on immediately, make sure to charge it first.

STEP 2: Warm-Up

- Wait for 5 minutes to allow the device to warm up.

STEP 3: Time Setting

- Set the time using the step-by-step directions provided on the next page.

STEP 4: Enjoy

- Once set up, enjoy the added benefits of having a air quality monitor in your home!

TIME /TEMPERATURE ADJUSTMENT & CHARGING

Time Adjustment:

1. Press the "☼" buttons once quickly to enter the time setting mode. The "▲" or "▼" buttons allow you to switch between 12/24 hour system (when the time is 12 hour system, **AM/PM** will be shown on the **left** side of the time).

2. After confirming the time system, press the "☼" buttons again to set the time, and press the "▲" or "▼" buttons to adjust the hour.

3. Press the "☼" buttons again to switch to minutes. Use the "▲" or "▼" buttons to adjust the minutes.

4. After the adjustment, press the "☼" buttons to confirm and finish the time setting. (Note: If you don't perform any operation within 30s, your previous operation will be saved automatically.)

Charging Reminder:

Please use the supplied mains power adapter or any other adapter with an output of at least 1000mA for charging. Avoid charging from a computer USB port, and do not use any adapters with an output greater than **1000mA** to ensure the longest battery life.

Temperature Setting:

Press and hold the brightness key for 2-3s to easily switch from the default Fahrenheit temperature scale to the Celsius temperature scale.

Brightness settings:

We have a total of 6 brightness settings; you can switch between them by clicking the "▲" or "▼" buttons to find the one that suits you!

CO2 ALARM

The device is equipped with a built-in CO2 alarm option. When activated, this CO2 alarm will emit a beep when it detects CO2 levels above **1000 ppm** (outside the desired range). The purpose of the CO2 alarm is to alert you immediately so that you can take immediate action to improve CO2 levels, such as opening a window or door or stopping the activity that is causing the elevated reading.

Note 1:

The default setting for the CO2 alarm is **OFF**. To activate the device CO2 alarm, simply click the "⏻" button on the top of the monitor. Prolonged exposure to suboptimal CO2 levels may pose health risks, so it is advisable to turn on this CO2 alarm function.

Note 2:

If you choose to activate the CO2 alarm, please note that it will automatically stop beeping even if the CO2 level remains above **1000 ppm**, as long as the level is falling.

AUTO RECALIBRATION

The device can also be recalibrated for you by means of the auto-calibration that occurs each time the product is turned off and then on again (Note: the product must be placed in a location with good air circulation for recalibration to occur when it is turned on again after being turned off).

MANUAL RECALIBRATION

If the device cannot be calibrated automatically, it can be calibrated manually:

1. Press and hold the "▲" button for 5 seconds to recalibrate the TVOC, the calibration time is **5 seconds**.
2. Press and hold the "▼" button for 5 seconds to recalibrate CO2, the calibration time is **300 seconds**.

Note: When calibrating manually, place the detector in a location with good air circulation for easier calibration.

TIPS

Tip 1: Odd Readings? Try This:

If you notice strange readings:
1. Turn off the device for a few minutes, then turn it back on (letting the sensors recalibrate).

OR

2. Take the device outside or crack a window to let the sensors clear any potential fumes and get the readings back to normal.

Tip 2: Not Using It? Power Down:

For accurate readings and a longer product life, it's a good idea to switch off the air quality monitor when not in use (overnight or during vacations). This preserves the battery, sensors, and fan.

Tip 3: Freshen Up with Outdoor Air:

A quick fix to get readings back on track is to open a window and let in some clean outdoor air.

Note: This may not work well in areas with compromised outdoor air quality, like during wildfires.

Tip 4: Cooking Impact:

Cooking releases more pollutants into the air, including CO2, PM2.5, PM1.0 and PM10, and TVOCS. The types of pollutants depend on how and what you cook.

Tip 5: Boost with Filters and Purifiers:

To improve indoor air quality, consider using not only a standard filter but also an air purifier, especially in areas where you spend the most time, like your home office or bedroom.

HOW TO INTERPRET READINGS

	Good	Acceptable	Unhealthy	Very Unhealthy
CO2	0 - 1000	1000 - 2000	2000 - 3000	3000+
HCHO	0.0-0.1	0.1-0.2	0.2-0.5	0.5+
TVOC	0-0.5	0.5-1.0	1.0-3.0	3.0+
PM2.5	0-50	50-100	100-150	150+
PM10	0-60	60-80	80-100	100+
PM1.0	0-20	20-45	45-65	65+
AQI	🙂	😐	☹	😟
Temperature	18°C-26°C, 65°F-79°F	<18°C or >26°C, <65°F or > 79°F		
Humidity	30-60%	<30% or >60%		

Note: The AQI indicator is calculated from a combination of the HCHO, PM2.5, PM1.0 and PM10 measurements. For example, if all of the above are in the "Good" range, the smiley face will appear. If one of the readings falls into a less healthy range, the emoji face corresponding to that lower range will appear.

Refer to the **"PARAMETERS"** section below for details of the measurement method, range, accuracy and resolution.

PARAMETERS

	Measurement Range	Measurement Method	Resolution	Measurement Accuracy
CO2	400 - 5000 PPM	Infrared (NDIR)	1 PPM	±50PPM 5%
PM2.5, PM10	0-999ug/m³	Laser Scattering	1ug/m³	±10ug/m³(0-100ug/m³) ±10% (≥100ug/m³)
PM1.0	0-100μg/m³	Laser Scattering	1ug/m³	±10ug/m³(0-100ug/m³) ±10% (≥100ug/m³)
HCHO	0.001-1.999mg/m³	Semiconductor	0.001mg/m³	±15%
TVOC	0.001-9.999mg/m³	Semiconductor	0.001mg/m³	±15%
Temperature	-10°C-50°C; 14°F-122°F	Semiconductor	0.1°C/°F	±1°C; ±1.8°F
Humidity	20%-85%	Semiconductor	1%	±4%

UNDERSTANDING YOUR AIR QUALITY: CO2 LEVELS

What is Carbon Dioxide (CO2)?

CO2 is a colorless, tasteless gas crucial for plant growth. When it comes to your well-being, too much CO2 can lead to drowsiness, reduced cognitive function, and poor decision-making. We aim for CO2 levels up to 1,000 ppm. Readings above 2,000 ppm may cause dizziness, tinnitus, or even suffocation.

Why are CO2 Levels High?

1. Poor Ventilation: Ensure your space has good airflow.

2. Cooking and Appliances: Cooking, especially with the oven, can contribute.

3. Soil Build-up / Mold: Watch out for these culprits.

Tips to Breathe Easier:

1. Boost Air Circulation: Keep things fresh with good ventilation. Outdoor air usually has CO2 levels around 400-450 PPM.

2. Green Allies: Bring in plants like Areca Palm, Philodendron, Rubber Plant, Peace Lily, Dracaena, Snake Plant, Boston Fern, Aloe Vera, English Ivy, and Spider Plant. They reduce CO2 and up your oxygen game, helping you feel more alert.

Breathe easy and let your space thrive! 🌿

UNDERSTANDING YOUR AIR QUALITY: TOTAL VOLATILE ORGANIC COMPOUNDS (TVOC)

What is TVOC?

- TVOC, or Total Volatile Organic Compounds, includes organic substances with high vapor pressure. These compounds can impact your well-being.

How TVOC Affects You:

- Breathing in TVOCs can lead to irritation in the nose, throat, and eyes. Symptoms may include fatigue, nausea, skin problems, and more. High levels can even affect organs like the lungs, liver, kidneys, or the nervous system.

Common Causes/Sources of High TVOC:

- **Cooking:** Especially when using certain methods.
- **Solvent-Based Paints:** Watch out for those fumes!
- **Cleaning with Chemicals:** Disinfectants and solvents can contribute.
- **Automobile Fumes:** Be mindful of enclosed spaces.
- **Aerosol Sprays, Hobby Supplies, Pesticides:** These products can release TVOCs.

Tips to Breathe Cleaner Air:

- **Follow Warning Labels:** Adhere to cautionary labels on paints, gases, and cleaning products.
- **Choose Wisely:** Opt for products that are not aerosol and solvent-based whenever possible.

Keep the air fresh and your surroundings healthy! 🌿

UNDERSTANDING YOUR AIR QUALITY: FORMALDEHYDE (HCHO)

What is Formaldehyde?

- Formaldehyde is a pungent, colorless gas typically released from burning products like kerosene, gas, wood, or tobacco.

How Formaldehyde Affects You:

- High levels can cause a burning sensation in the eyes, nose, and throat, significantly impacting breathing. Prolonged exposure has been linked to serious health issues, including leukemia.

Common Causes of High Formaldehyde:

- **New Furniture, Clothing, or Household Products:** Items that release formaldehyde.
- **Poorly Ventilated Appliances:** Make sure your appliances are properly vented.
- **Tobacco Smoke/Vaping Pens:** Smoking indoors increases formaldehyde levels.

Tips to Breathe Easier:

- **Ventilate Properly:** Ensure good ventilation and clean appliances to prevent formaldehyde release.
- **No Smoking Policy:** Establish a no-smoking policy in your home or building.

Breathe clean, live healthy! 🌿

UNDERSTANDING YOUR AIR QUALITY: PARTICULATE MATTER PM2.5

What is PM2.5?

- PM2.5 refers to fine particulate matter that is 2.5 microns or less in diameter.

How PM2.5 Affects You:

- Inhaling PM2.5 can lead to shortness of breath, fatigue, coughing, chest discomfort, and may contribute to heart attacks, strokes, asthma, bronchitis, and even premature death from heart ailments, lung disease, and cancer. PM2.5 is more concerning than PM10 due to its smaller size, enabling it to penetrate deeper into the lungs.

Common Causes of High PM2.5:

- **Cooking (especially using the stovetop):** Cooking can release particles into the air.
- **Vacuuming:** Dust released into the air during vacuuming.
- **Wildfires, Gas, Oil, Diesel Fuel, and Burning Wood:** Outdoor sources that can affect indoor air quality.
- **Pollutants from Power Plants, Automobiles, and Industrial Buildings:** External sources impacting air quality.
- **Older Appliances (Stove):** Older appliances may produce higher levels of PM.

Tips to Breathe Fresher Air:

- **Stay Indoors During High External Levels:** If external levels are high, limit outdoor exposure.
- **Use Furnace Air Filter and/or Air Purifier:** Maintain these devices for improved indoor air quality.

Keep the air in your space clean and enjoy a breath of fresh air! 🌿

UNDERSTANDING YOUR AIR QUALITY: PARTICULATE MATTER PM10

What is PM10?

- PM10 refers to fine particulate matter that is 10.5 microns or less in diameter.

How PM10 Affects You:

- Inhaling PM10 can lead to nasal and upper respiratory tract health problems, causing long-term effects that vary depending on the source.

Common Causes of High PM10:

- **Cooking (especially using the stovetop):** Cooking releases particles into the air.
- **High Emissions from Gas, Oil, Diesel Fuel, and Burning Wood:** Outdoor sources affecting indoor air quality.
- **Pollutants from Power Plants, Automobiles, and Industrial Buildings:** External sources impacting air quality.

Tips to Breathe Cleaner Air:

- **Stay Indoors During High External Levels:** Limit outdoor exposure when external levels are high.
- **Use Furnace Air Filter and/or Air Purifier:** Maintain these devices for improved indoor air quality.

Enjoy the comfort of cleaner indoor air! 🌿

UNDERSTANDING YOUR AIR QUALITY: PARTICULATE MATTER PM1.0

What is PM1.0?

- PM1.0 refers to fine particulate matter that is 1.0 micron or less in diameter.

How PM1.0 Affects You:

- Inhaling PM1.0 can impact respiratory health, potentially causing long-term effects that vary depending on the source.

Common Causes of High PM1.0:

- **Cooking (especially using the stovetop):** Cooking activities can release particles into the air.
- **Emissions from Gas, Oil, Diesel Fuel, and Burning Wood:** Outdoor sources influencing indoor air quality.
- **Pollutants from Power Plants, Automobiles, and Industrial Buildings:** External sources affecting air quality.
- **Older Appliances (Stove):** Older appliances may produce higher levels of PM.

Tips to Breathe Fresher Air:

- **Limit Outdoor Exposure During High External Levels:** Stay indoors when external levels are elevated.
- **Utilize Furnace Air Filter and/or Air Purifier:** Maintain these devices for improved indoor air quality.

Breathe in cleaner air for a healthier living space! 🌿

UNDERSTANDING YOUR AIR QUALITY: AIR QUALITY INDEX (AQI)

What is AQI?

- AQI is an indication of overall air quality, considering the top four major pollutants: ground-level ozone, carbon monoxide, sulfur dioxide, and airborne particles (aerosols)/particulate matter.

How AQI Affects You:

- AQI impacts respiratory and circulatory systems, with effects varying based on the pollution source.

Common Causes of High AQI:

- **Cold Winter Air:** Certain weather conditions can contribute to higher readings.
- **Cooking:** Cooking activities can influence indoor air quality.
- **Traffic Pollution:** Emissions from vehicles may elevate AQI levels.
- **Smoke from Fires or Burning Wood:** Outdoor sources affecting indoor air quality.

Tips to Breathe Cleaner Air:

- **Ventilate Properly:** Open windows for ventilation and fresh outside air.
- **Avoid Burning:** Refrain from burning fireplace wood, gas logs, candles, or incense.
- **Reduce Vacuuming Frequency:** Vacuum less frequently to minimize particle disturbance.

UNDERSTANDING YOUR ENVIRONMENT: TEMPERATURE

What is Temperature?

- Temperature is a measurement of the heat or cold in the environment.

How Temperature Affects You:

- Temperature can impact respiratory and circulatory systems.

Tips for Temperature Comfort:

- Adjust the temperature inside your home gradually to avoid drastic changes. Maintain a comfortable environment for your well-being.

UNDERSTANDING YOUR ENVIRONMENT: HUMIDITY

What is Humidity?

- Humidity is the level of water vapor in the atmosphere.

How Humidity Affects You:

- With an increase in humidity by 35% or more, formaldehyde emissions may increase and remain suspended in the air.

Common Causes of High Humidity:

- **Humid Outdoor Weather:** External conditions can impact indoor humidity levels.
- **Activities Releasing Steam / Moisture:** Drying laundry, hot baths or showers, boiling water/liquid.

Tips to Maintain Healthy Humidity:

- **Use Dehumidifiers:** Control humidity levels with dehumidifiers.
- **Seasonal Recommendations:** Aim for around 50% humidity in the summer and around 30% in the winter.

UNDERSTANDING YOUR ENVIRONMENT: TIME

- While the measurement of time is self-explanatory, it's crucial to note that air quality readings are dynamic and constantly changing.
  Every small change in the surrounding environment influences these readings.

Stay informed about your air quality, as it evolves with time and environmental shifts.

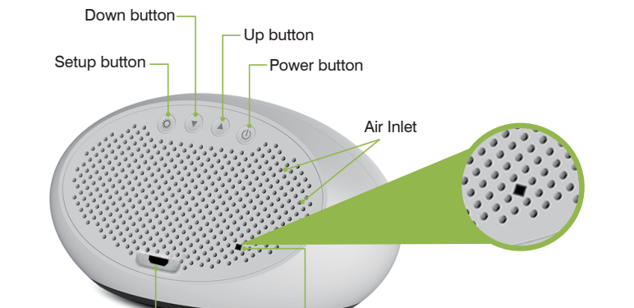
CONSIDERATIONS & PRECAUTIONS

Indoor Use and Dry Storage:

- This air quality monitor is designed for indoor use and should always be kept dry.
- Store it in a cool, dry place for optimal performance.

Sampling Frequency:

- The device has a sampling frequency of 1.5 seconds, providing updated readings every 1-2 seconds.
- **Note:** that the device has a continuously running mini fan to offer constantly updated, real-time readings, producing a slight buzzing sound.



Avoid Touching the Temperature/Humidity Sensor:

- **Do NOT** touch the temperature/humidity sensor on the back of the unit.
- Touching or poking the sensor can damage the device and result in inaccurate temperature and humidity readings.

Environmental Exposure:

- Avoid exposure to sunlight or usage in extremely polluted, dusty, or smoky environments for prolonged periods, as this may damage the sensors over time.

Air Intake Areas:

- **DO NOT** cover the air intake areas during use to prevent inaccurate measurements.

Cleaning Caution:

- **DO NOT** use chemicals or solvents to clean the product, as residual fumes can affect air quality readings.

Avoid Liquids and Unauthorized Modifications:

- **DO NOT** put water or other liquids on or near the product to prevent electrical damage.
- **DO NOT** allow unauthorized modification or repair of the product.

Avoid Disassembly:

- **DO NOT** take apart or disassemble this monitor, as it may damage the product and void the warranty.

Follow these precautions to ensure the longevity, accuracy, and warranty validity of your device monitor.

PRODUCT SPECIFICATIONS

Item	Air Quality Monitor
Power Source	Rechargeable Lithium-Ion Battery
Battery Capacity	3000 mAh
Charging Input	AC100-240V, 5V Micro USB Connection
Product Size	6.3 x 3.6 x 3.2 Inches
Display Method	LCD VA Screen
Atmospheric Pressure	12.47 PSI-15.37 PS
Sampling Frequency	1.5 Second
Operating Temperature / Humidity	-10°C - 50°C (14°F-122°F) / 10%-80%
Storage Temperature / Humidity	-10°C - 60°C (14°F-140°F) / 10%-80%

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.

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