Instruction Manual





23-11-V2-77

PROTECT YOUR AIR

It is an advanced CO2 monitor that combines high-quality air sensors to allow real-time monitoring of carbon dioxide (CO2), temperature and humidity and on its digital LED display.

HOW TO USE

Step 1: Press Power Button to turn it the monitor.
Note : If your monitor does not turn on, please plug in and charge it for a while first.

Step 2: Auto/Manual Calibrate the monitor. See step-by-step details instructions on the next page.

Step 3: Set the CO2 alarm and threshold. See step-by-step instructions on the next page.

Step 4: Enjoy the added benefits of having a good air quality monitor in your home!

SET THE CO2 ALARM LEVEL

The CO2 alarm's default threshold is **1000 PPM** (which is above the desired range). It is recommended to keep the CO2 alarm set at this 1000 PPM threshold to ensure the highest probability of maintaining optimal indoor CO2 levels (below 1000 PPM).

Step 1: Press **Power Button** two times quickly.
The CO2 value will start flashing.

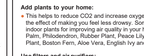
Step 2: Press **Left / Right Buttons** to increase or decrease the CO2 alarm threshold to your desired level.

Step 3: Press **Power Button** to finish setting the CO2 alarm level.

CO2 ALARM

The CO2 monitor was designed with a built-in CO2 alarm.
This CO2 alarm beeps when the CO2 levels surpass the threshold (which you can set). The purpose of the CO2 alarm is to notify you right away so the appropriate action can be taken immediately to improve CO2 levels (i.e., by opening a window / door or stopping the activity causing the high reading).

Note 1:
The CO2 alarm's default setting is **ON** . The CO2 alarm can be turned on or off by simply pressing and holding **Right Button** for 3 seconds until you hear a beep sound. Exposure to less-than-optimal CO2 levels for an extended period of time may not be healthy and it is therefore recommended to keep this CO2 alarm function turned on. On the next page, the picture alarm signal shows whether the CO2 alarm is turned on or off.



Note 2: If you have elected to keep the CO2 alarm on, please be aware that the CO2 alarm will stop beeping automatically even when CO2 levels are still above your specified threshold if the CO2 levels are decreasing.

CALIBRATION

Auto Calibration:
Take the monitor outside or in a well-ventilated area with very high air quality.

Manual Calibration:
a. Long press **Left Button** for 5-10 seconds until you hear a beep sound and the CO2 value starts flashing.
b. Wait 5-10 minutes for the flashing to stop.

Note :
When the CO2 value stops flashing, this signifies the CO2 sensor calibration is complete.

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.

PARAMETERS AND INTERPRETATION OF READINGS

HOW TO INTERPRET READINGS

	Good	Acceptable	Unhealthy
CO2	400 - 1000	1001 - 2000	2001 - 5000
CO2 Level Indicator	☺	😐	☹
Temperature	18°C - 26°C	< 18°C	> 26°C
Humidity	30% - 60%	< 30%	> 60%

PARAMETERS

	Measurement Range	Measurement Method	Resolution	Measurement Accuracy
CO2	400 - 5000 PPM	Infrared (NDIR)	1 PPM	± 50 PPM or 5%
Temperature	-10°C - 50°C	Semiconductor	1°C	± 2°C
Humidity	20% - 85%	Semiconductor	1%	± 4%

UNDERSTANDING THE METRICS

1.CARBON DIOXIDE (CO2)

Definition:
Carbon Dioxide is a gas which is colorless, tasteless, and important for plant photosynthesis.

Impact on Health:
Too much CO2 may cause drowsiness, reduced cognitive function, and poor decision making. CO2 is generally allowable up to 1,000ppm. With readings above 2,000, it can cause dizziness, confusion, or even suffocation.

Possible Causes of High Reading:
- Poor ventilation and recycled indoor air (Note: A newer home may trap and accumulate higher levels of CO2 as newer homes are constructed to be more air tight)
- Cooking (especially using the oven) and use of certain appliances
- Soil build-up / mold (which releases CO2)

Tips to Improve:
- Increase air circulation. It is imperative that a room or building has proper ventilation to ensure lower, healthy levels of CO2. Outdoor air typically contains CO2 levels between 400 - 450PPM (although certain areas may have less healthy outdoor air and be above this).

Add plants to your home:
- This helps to reduce CO2 and increase oxygen which can have the effect of making you feel less drowsy. Some recommended indoor plants for improving air quality in your home are Area Palm, Philodendron, Rubber Plant, Peace Lily,Dracaena, Snake Plant, Boston Fern, Aloe Vera, English Ivy and Spider Plant.

Use filters and air purifiers:
- To improve indoor air quality, it is highly recommended to use not only a standard pleated or HEPA furnace filter, but also an air purifier in the areas in which you spend the most time; perhaps maybe your home office or bedroom.

2.TEMPERATURE

Definition:
Measurement of the heat or cold of the environment.

Impact on Health:
Issues with your respiratory and circulatory systems.

Tips to Improve:
Temperature inside the home is typically a controllable element. It is advised to adjust temperature slowly rather than allow drastic changes.

3.HUMIDITY

Definition:
Humidity is the level of water vapor in the atmosphere.

Impact on Health:
With an increase of humidity by 35% or more, formaldehyde emissions will increase and remain suspended in the air.

Possible Causes of High Reading:
- Humid outdoor weather
- Activities which release steam / moisture into the air such as drying laundry, taking a hot bath or shower, or boiling water / liquid

Tips to Improve:
Utilize dehumidifiers to control levels of humidity. It is recommended to keep humidity in your home around 50% in the summer and around 30% in the winter.

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 CO2 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 CO2 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 increasing 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 CO2 monitor is 1.5 seconds. This means that your CO2 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 CO2 monitor, you will see a brief "H-03" appear on the screen. This is normal. This is not an error message.
- This air CO2 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 using 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	CO2 Monitor
Product Size	80*70*35mm
Product Weight	115g
Display Method	LED Screen
Measure	CO2, Temperature, Humidity
Detection Method for CO2	Infrared (NDIR)
Detection Unit for CO2	PPM
CO2 Measuring Range	400-5,000 PPM
Atmospheric Pressure	12.5 PSI - 15.4 PSI
Sampling Time	1.5 Seconds
Temperature Range	-10°C ~ 50°C
Storage Temperature	-10°C ~ 60°C
Relative Humidity	20%-85%
Humidity Range	20%-85%
Power Source	1000 mAh Rechargeable Lithium Battery ; 5V DC Power Charging via Micro 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 value to improve your health or save your life.

LEGAL DISCLAIMER:
The use or misuse of this CO2 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 carbon dioxide monitor.

Product List

CO2 Monitor	x 1
Micro USB Charging Cable	x 1
Product Manual	x 1