

## INKBIRDPLUS PTH-9C-US-2

# INKBIRDPLUS Indoor CO2 Meter User Manual

Model: PTH-9C-US-2

## 1. INTRODUCTION

The INKBIRDPLUS Indoor CO2 Meter is an advanced air quality monitor designed to accurately measure carbon dioxide (CO2) concentration, temperature, and humidity in various indoor environments. This device provides real-time data and features an alarm function to alert users to elevated CO2 levels, ensuring a healthier living or working space. It is suitable for use in homes, offices, grow tents, wine cellars, and cars.



Image: The INKBIRDPLUS Indoor CO2 Meter shown alongside its USB-C charging cable.

## 2. KEY FEATURES

- **Multi-Parameter Monitoring:** Simultaneously displays CO2 concentration, temperature, and humidity.
- **Warning Alarms:** Features 3 stages of CO2 concentration (Normal, Warning, Dangerous) with a customizable alarm function.
- **Premium Sensor:** Utilizes a highly sensitive NDIR CO2 sensor for quick and accurate readings.
- **Convenient Calibration:** Supports easy manual calibration to maintain measurement accuracy.
- **USB Charging:** Built-in 2400mAh Lithium battery, rechargeable via USB-C.
- **Large Backlit LCD:** Clear and easy-to-read display.
- **Wide Application:** Portable design with a hanging hole, suitable for various indoor environments.

# Indoor Carbon Dioxide Detector



Temperature



Carbon Dioxide



Humidity



Backlit LCD



°C/°F Selection



Calibration  
Function



CO<sub>2</sub> Alarm



USB Charging



Image: Visual representation of the meter's key features including temperature, CO<sub>2</sub>, humidity, backlit LCD, C/F selection, calibration, CO<sub>2</sub> alarm, and USB charging.

## 3. PACKAGE CONTENTS

- 1 x INKBIRDPLUS Air Quality Detector
- 1 x User Manual
- 1 x Type-C Charging Cable

## 4. PRODUCT OVERVIEW



Image: Front and back views of the INKBIRDPLUS CO2 Meter, highlighting display elements and button functions.

### Front Display:

- **Battery Life Indicator:** Shows current battery level.
- **CO2 Alarm Indicator:** Illuminates when CO2 levels exceed set thresholds.
- **CO2 Concentration (ppm):** Main numerical display for carbon dioxide levels.
- **Temperature:** Displays current ambient temperature.
- **Humidity:** Displays current relative humidity.

### Back Panel:

- **DOWN Button / Backlight ON/OFF:** Used for navigation and controlling display backlight.
- **Power Button:** Turns the device ON/OFF.
- **Hanging Hole:** For wall mounting.
- **UP Button / Alarm ON/OFF:** Used for navigation and toggling the alarm.

## 5. SETUP

### 5.1 Initial Charging

Before first use, fully charge the device using the provided Type-C charging cable and a 5V-1A USB adapter (not included). The built-in 2400mAh Lithium battery provides portable operation, but for continuous monitoring, it is recommended to keep the device connected to power due to the multiple sensors.



Image: The CO2 meter being charged via its USB-C port, connected to a wall adapter.

### 5.2 Powering On/Off

Press and hold the **Power Button** on the back of the device to turn it ON or OFF.

### 5.3 Placement

Place the CO2 meter in the area you wish to monitor. For accurate readings, avoid placing it directly in front of air vents, windows, or in drafty locations. The device can be placed on a flat surface or mounted on a wall using the integrated hanging hole.

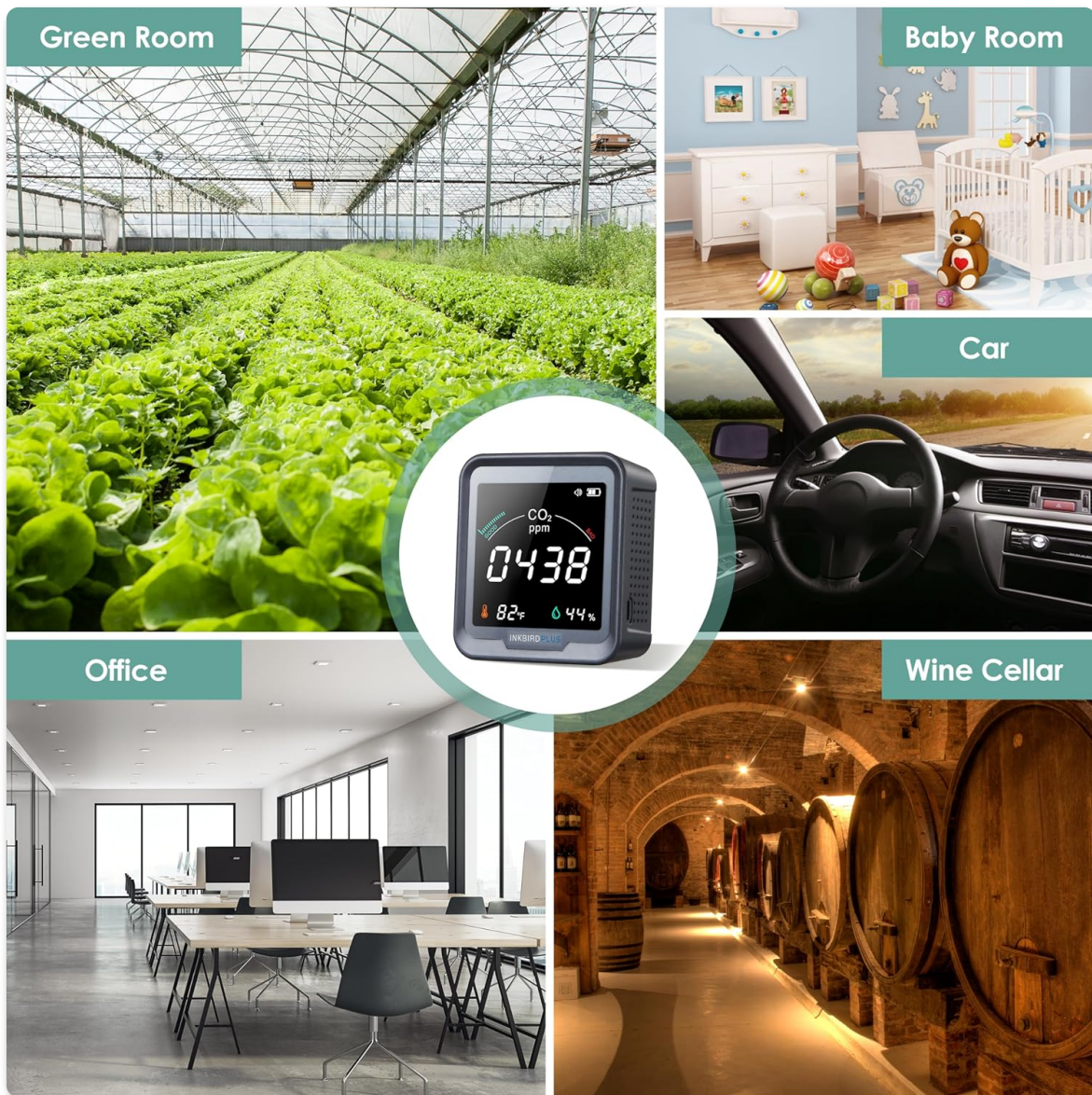


Image: Examples of suitable environments for the CO2 meter, including a green room, baby room, car, office, and wine cellar.

## 6. OPERATION

### 6.1 Reading the Display

Once powered on, the large LCD will display the current CO2 concentration in parts per million (ppm), temperature in degrees Fahrenheit or Celsius, and relative humidity percentage.

### 6.2 CO2 Concentration Levels

The device categorizes CO2 levels into three stages, indicated by visual cues on the display and potentially an alarm:

- **Normal:** 400-700 ppm (Good air quality)
- **Warning:** 700-1500 ppm (Moderate air quality, ventilation recommended)
- **Dangerous:** 1500-5000 ppm (Poor air quality, immediate ventilation required)

## 3 Stages Of CO<sub>2</sub> Concentration



Image: The CO<sub>2</sub> meter display illustrating the three stages of CO<sub>2</sub> concentration: Normal (400-700 ppm), Warning (700-1500 ppm), and Dangerous (1500-5000 ppm).

### 6.3 Alarm Function

The CO<sub>2</sub> detector is equipped with an audible alarm that activates when the detected CO<sub>2</sub> concentration exceeds a preset value. You can customize this alarm threshold.

- **Setting Alarm Value:** Double-press the power button to enter the alarm setting mode. Use the UP and DOWN buttons to adjust the desired CO<sub>2</sub> threshold.
- **Toggling Alarm ON/OFF:** Press the UP button on the back panel to enable or disable the audible alarm.

# CO<sub>2</sub> Warning Alarm

The detector will alarm you when the concentration of CO<sub>2</sub> reaches a preset value

Double-press it to enter the setting of alarming value



Image: Instructions on how to double-press the button to enter the setting for the alarming CO2 value.

## 6.4 Calibration

To ensure the accuracy of measurements, the CO<sub>2</sub> meter supports a calibration function. It is recommended to calibrate the device in an open, fresh air environment, especially when using it for the first time.

- **Manual Calibration:**

1. Turn off the device.
2. Take the device to an open outdoor environment with fresh air.
3. Simultaneously press and hold all three buttons (UP, Power, DOWN) on the back of the device.
4. The display will show a 200-second countdown. Keep the device still and do not breathe near it during this period.
5. Calibration will complete automatically after the countdown.

- **Automatic Calibration:** The automatic calibration function is off by default. If turned on, the first self-calibration occurs 24 hours after power-on, and subsequent self-calibrations occur every 7 days. If the device is turned off and on again, the timer for self-calibration will reset.

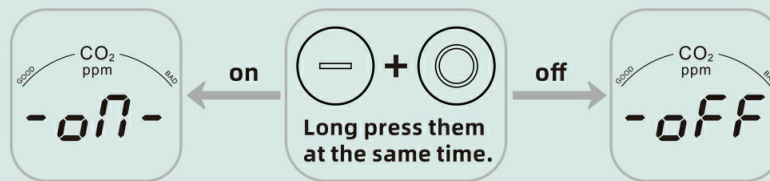


## Convenient Calibration

Press three buttons at the same time in an open environment after shutdown and let it stand for 200 seconds to calibrate this CO2 meter easily.

NOTE: We recommend calibrating the device in an open environment when using the CO2 detector for the first time to ensure accuracy.

Image: A hand demonstrating pressing the three buttons simultaneously for convenient calibration.



### The automatic calibration function is off by default

After the automatic calibration function is turned on, the first self-calibration period after power-on is 24 hours, and the subsequent self-calibration period is 7 days. It will recalculate the time if the device is turned off and on again.

Image: Diagram illustrating how to toggle the automatic calibration function on or off by long-pressing the '-' and '+' buttons simultaneously.

## 6.5 Backlight Control

Press the **DOWN** button on the back panel to toggle the display backlight ON or OFF.

## 7. MAINTENANCE

- Keep the device clean by wiping it with a soft, dry cloth.
- Do not use abrasive cleaners or solvents.
- Ensure the ventilation holes on the device are not obstructed to allow for proper air circulation and accurate readings.
- Store the device in a cool, dry place when not in use for extended periods.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Inaccurate CO2/Temp/Humidity readings	Device needs calibration; placed in a drafty area; sensor obstruction.	Perform manual calibration in fresh air. Relocate the device to a stable environment. Ensure ventilation holes are clear.
Battery drains quickly	Multiple sensors consume power; continuous use without charging.	For continuous monitoring, keep the device connected to a 5V-1A USB power adapter.
Device does not turn on	Low battery; faulty charging cable/adaptor.	Charge the device for at least 30 minutes. Try a different USB-C cable and adapter.
Alarm not sounding	Alarm function is disabled; CO2 level below threshold.	Press the UP button to enable the alarm. Check if the CO2 concentration has reached the set alarm threshold.

## 9. SPECIFICATIONS



Parameter	Value
Model Number	PTH-9C-US-2
CO2 Measurement Range	400 - 5000 ppm
CO2 Measurement Accuracy	±(50ppm + 5%)
Temperature Range	-10°C ~ 40°C (14°F ~ 104°F)
Temperature Accuracy	±2°C (±3.6°F)
Humidity Range	20 ~ 80% RH
Humidity Accuracy	±5% RH
Power Source	Battery Powered (Built-in Lithium Battery 2400mAh)
Input Parameter	DC 5V - 1A
Item Weight	10.8 ounces
Product Dimensions	3.86 x 3.54 x 1.57 inches
Alarm Type	Audible

## 10. WARRANTY AND SUPPORT

Specific warranty details are not provided in this manual. For warranty claims, technical support, or any inquiries regarding your INKBIRDPLUS Indoor CO2 Meter, please refer to the product packaging or contact INKBIRDPLUS customer service directly through their official website or the retailer where the product was purchased.

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### Related Documents

	<p><a href="#">INKBIRDPLUS PTH-9A Multi-Function Air Quality Detector User Manual</a></p> <p>Comprehensive user manual for the INKBIRDPLUS PTH-9A Multi-Function Air Quality Detector, covering product introduction, specifications, operation instructions, time/date setting, and warranty information. Monitor PM2.5, PM10, CO2, temperature, and humidity.</p>
	<p><a href="#">INKBIRDPLUS T01 Prise Thermostat Minuterie Manuel de l'Utilisateur</a></p> <p>Manuel d'utilisation pour la prise thermostat minuterie INKBIRDPLUS T01. Guide complet sur les fonctions de contrôle de température et de minuterie, les modes de fonctionnement, le calibrage et les spécifications techniques.</p>