USER MANUAL

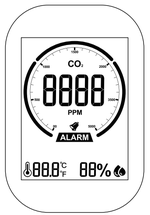
Made in China

CE RoHS

Please read this manual carefully before using this product and keep it properly for future use

USER MANUAL

CARBON DIOXIDE TESTER



Please read this manual carefully before using this product and keep it properly for future use

120*90mm

PRODUCT OVERVIEW

OUT OF BOX AUDIT

Please check whether the instrument is damaged in transit after receiving it. If obvious damage or abnormal operation function is found, please contact the seller.

1. PRODUCT OVERVIEW

The instrument adopts NDIR sensor, which can accurately measure the concentration of carbon dioxide in the air, monitor the concentration，temperature and humidity of carbon dioxide in the environment in real time, and make the alarm for excessive concentration of carbon dioxide. Therefore it's widely used in homes, shopping malls, offices, transportation vehicles, stations and other public places.

Carbon dioxide is a colorless, odorless and incombustible gas at normal temperature, which is denser than air, slightly soluble in water, and reacts with water to form carbonic acid. Its content in fresh air is about 0.03%.

2. FEATURES

> Adopt NDIR sensor with superior performance and high precision.

> The battery life of large capacity 18650 lithium battery is more than 10 hours.

> Simple operation, sensitive response and accurate detection.

INTRODUCTION OF PRODUCT APPEARANCE

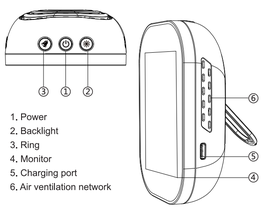
> HD VA reverse color screen, digital and analog dual display.

> Controllable sound and backlight, which makes long-term monitoring more energy-saving.

> Sound and screen double alarm.

> Back bracket and hanging buckle, for placing on the desktop or hanging on the wall for continuous monitoring.

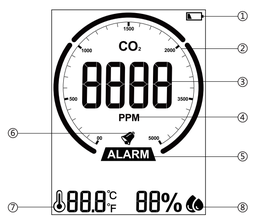
3. INTRODUCTION OF PRODUCT APPEARANCE



1. Power
2. Backlight
3. Ring
4. Monitor
5. Charging port
6. Air ventilation network

INTRODUCTION OF MONITOR

4. INTRODUCTION OF MONITOR



1.Battery capacity indication
2.Analog display
3.Numeric display
4.Measurement unit
5.Alarm symbol
6.Ring symbol
7.Temperature
8.Humidity

INTRODUCTION TO INSTRUMENT USE

5. SAFE OPERATION CRITERIA

1.Please check whether the instrument is damaged before use, such as deformation of the instrument shell, poor display and abnormal measurement. Please stop using the instrument once such damage is discovered.

2.Please keep sufficient power when the instrument is working continuously, and do not block the side and back ventilation nets in case of affecting the measurement results.

3.Please follow the instruction manual when measuring.

4.Please do not strongly impact, shake, disassemble or modify the instrument so as not to damage the instrument and affect the measurement data.

6.INTRODUCTION TO INSTRUMENT USE

1.Press the (⏻) key to turn on or off the power of the instrument.

2.Press the (☀) key shortly to decrease or increase the brightness of the screen, and press it long to change °C / °F.

3,Press the (🔔) key shortly to turn off or on the alarm bell.

4.After the instrument is turned on and preheated for about 30 seconds, the sensor starts to detect the carbon dioxide content in the air, and the detection data is updated every 3 seconds.

INSTRUMENT CHARGING INTRODUCTION

When the value reaches 2000ppm, the instrument starts to give the alarm prompt: an audible alarm and an ALARM flashing prompt on the screen.

7. INSTRUMENT CHARGING INTRODUCTION

1.The charging voltage is DC5V/1A.

2.Please use the adapter required by the symbol-related safety certification for charging in an environment with good ventilation and heat dissipation and pay attention to the electricity safety regulations.

3. When the instrument is charged, because the heat dissipation of the charging circuit will affect the ambient temperature measurement, the ambient temperature measurement can be detected normally when the instrument returns to normal temperature after charging.

4, When the screen of the instrument flashes (🔋), it means that the battery is insufficient. Please charge the instrument as soon as possible. The charging time is about 4 hours, and the actual time will be affected by various factors.

TECHNICAL PARAMETERS

8. TECHNICAL PARAMETERS

Product name	Carbon dioxide tester
Detecting gas	CO2
Gas resolution	1PPM
Temperature resolution	0.1°C / 0.2°F
Humidity resolution	1%RH
Gas measurement range	400-5000ppm/(5% reading +50PPM).
Temperature measurement range	0~50°C/32~122°F ± (1.5°C/3°F)
Humidity measurement range	0-100% ± (5%RH)
Calibration mode	Automatic baseline calibration
Power Supply	Built-in 3.7V/18650 lithium battery.
Charging interface	USB Type-C
USB charging	5V/1A
Charging time	About 4h
Working hours	> 10 hours (continuous work)
Response time	About 30 seconds.
Automatic shut-down	No
Color VA reverse display screen	Yes
Type of alarm	Sound and screen display.
Working temperature	0-50°C
Working humidity	0-70%RH
Storage environment	-10~50°C (5%—95%RH)
Size	110*76*35mm
Weight(including the battery)	186g

CARBON DIOXIDE CONCENTRATION

9.CARBON DIOXIDE CONCENTRATION AND HUMAN PHYSIOLOGICAL REACTION (FOR REFERENCE ONLY)

Concentration content	Physiological reaction of human body
350--450PPM	General outdoor environment
450--1000PPM	Fresh air and smooth breathing
1000-2000PPM	Feeling the air is cloudy and starting to feel drowsy
2000-5000PPM	Feeling headache,drowsiness,lethargy, inattention,rapid heartbeat and mild nausea.
> 5000PPM	May lead to severe hypoxia, resulting in permanent brain injury, coma and even death.

10. MAINTENANCE

> Do not fall or impact the instrument.

>It is forbidden to disassemble the instrument to avoid failure.

>It is forbidden to store or use the instrument under high temperature, high humidity, and flammable, explosive and strong electromagnetic environment.

> During the work of built-in 18650 lithium battery, please avoid high temperature or direct sunlight.

> For instrument cleaning, please use a soft cloth stained with a small amount of water or neutral detergent to wipe the instrument shell, and prohibit the use of abrasives and solvents to prevent corrosion and damage to the instrument.

MAINTENANCE/CALIBRATION

PACKING LIST

1. Carbon dioxide tester	×1
2. Product manual	×1
3. USB Type-C charging cable	×1

Automatic and manual calibration of datum points

Automatic calibration: In a well-ventilated environment, make the instrument continuously work over 24 hours under the charging state and automatically do the calibration when the lowest concentration point in 24 hours is 400PPM as the baseline.

Manual calibration: In shutdown state， press (☀) first and then (⏻) , and release (⏻) first and then (☀) key.The 400PPM calibration shall be made when the 300-second countdown is displayed at the lower left , and the instrument will be automatically on once the calibration is completed.

Tip: This method should be far away from animals or human bodies during calibration. It is recommended that the weather is sunny and the environment is well-ventilated !