

# CARBON DIOXIDE MONITOR PTH USER MANUAL

## PROTMEX

Please read this manual carefully before using the product and keep it properly. Thank you for purchasing the carbon dioxide monitor PTH-4/PTH-5! This product uses a carbon dioxide sensor based on the principle of non-dispersive infrared absorption, which can accurately measure the concentration of carbon dioxide in the air with a concentration range of 0 ppm to 5000 ppm. Long-term inhalation of high concentration of carbon dioxide by the human body can easily induce hypoxic suffocation. This product can keep you away from these troubles. It is suitable for cars, baby rooms, homes, Offices and other densely staffed occasions, it is also suitable for greenhouses, breeding farms, etc.

### Specification

- 1) Using non-dispersive infrared technology (NDIR), full-scale temperature range correction;
- 2) Various air quality warning forms such as indicator lights and facial comfort expressions;
- 3) The screen backlight will automatically turn off in 10 minutes and wake up with one key;
- 4) Large-capacity 18650 lithium battery, long battery life;
- 5) Support USB charging method;
- 6) There is a bracket stand on the back of this product, which is convenient to place on a flat surface for continuous monitoring

### Packing List

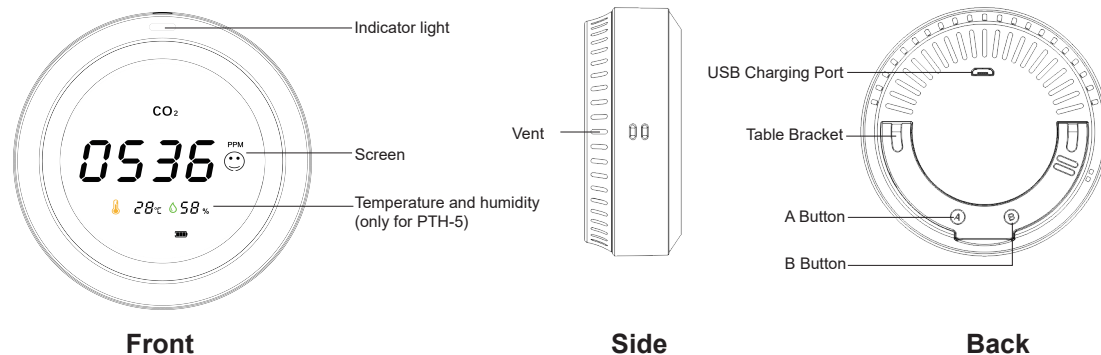
Please check the accessories list of the instrument you purchased according to different models.

1. PTH host × 1
2. 18650 lithium battery × 1 (built-in)
3. user manual × 1
4. USB cable × 1
5. Product certificate × 1

Special statement: The illustrations of the products, accessories and user interface in the manual are all schematic diagrams and are for reference only. If there is a difference between the actual product and the schematic diagram due to product updates and upgrades, please refer to the actual product received and the manufacturer will not notify you separately.

## Product Operation Instruction

### 1. Product Introduction



### 2. Charging

When charging with the Micro USB that comes with the instrument, please use a power adapter with a specification of 5V 1A". When using a third-party USB cable, please be careful not to exceed 1m in length to prevent excessive voltage drop from being unable to recharge. Please use qualified chargers and chargers, not non-standard power adapters. In general, the battery is fully charged and takes about 4 to 6 hours. (This data is for reference only, the actual time will be affected by various factors and vary). The following is a comparison table of the changes in the battery charge icon displayed on the screen and the charging status.

LCD	Status
Icon displays	Full
Icon flicker	Charging
Icon flicker	Low power

### 3. Measuring

Press A button, the instrument starts to work, the screen will display Carbon dioxide levels and comfort expressions.

### 4.Button

Button	Operation	PTH-4	PTH-5
A	Long	Power on / off	Power on / off
	Short	/	Switching temperature units between °C & °F
B	Long	Switching Backlight mode	Switching Backlight mode
	Short	Backlighton-off	Backlighton-off
A+B	Press at the same time	Put it in a ventilated place to perform manual calibration data, Automatic calibration is completed after 200 seconds countdown	Put it in a ventilated place to perform manual calibration data, Automatic calibration is completed after 200 seconds countdown




### Description:

In the state of the information screen, the indicator light is the breath gradient effect, the user can wake up the backlight by pressing any key. After each awakening, if there is no keystroke operation, the product will automatically turn off the backlight of the screen after 10 minutes, but the indicator light still indicates the current air quality.

If you need to switch the backlight mode, you can press the B key for a long time. The backligh mode can be the constant light mode or auto turn off the backlight mode after 10 minutes.

### 5.Alert

Whether the Carbon dioxide value exceeds the standard is indicated by the expression icon and indicator light, as shown in the following table:

		
Bad	Normal	Good

When the measured value is between 0-700ppm, the Carbon dioxide value belongs to the safe range;

When the measured value is between 700-1500 ppm, the Carbon dioxide value belongs to the warning range and needs close observation;

When the measured value exceeds 1500ppm, the Carbon dioxide value exceeds the standard and must be open the window for ventilation.

You can also directly judge whether the formaldehyde value exceeds the standard through the indicator light. The following is the comparison table of indicator light color and its meaning:

Light	Meaning
Green	Good
Yellow	Normal
Red	Bad

### 6.Specifications

The following table provides the specifications of the measurement parameters

Specification	PTH- 4	PTH- 5
Temperature Range	/	-10~40°C(±1°C)
Humidity Range	/	20%-80%(±5%RH)
Carbon dioxide value	Resolution: 1 ppm; Range: 0 ~ 5000 ppm	Resolution: 1 ppm; Range: 0 ~ 5000 ppm
Power Supply	18650 lithium battery / 2400 m Ah	18650 lithium battery / 2400 m Ah
Indicator light	✓	✓
Input	DC 5 V $\overline{\text{---}}$ 1 A	DC 5 V $\overline{\text{---}}$ 1 A
Size	83 × 83 × 32 mm	83 × 83 × 32 mm

### Notice

- 1)This product should not be dipped in water, nor should it be placed in a high temperature environment exceeding 60 °C .
- 2)This product belongs to precision measuring instrument and shall not be dismantled without authorization.
- 3)It can not be measured in the environment of organic gas with too high concentration for a long time.
- 4) Built-in lithium battery, when measuring the air quality in the car, please do not put the carbon dioxide monitor with lithium battery in the sun;