USER MANUAL

CARBON MONOXIDE DETECTOR

PCE-RCM 03

ENGLISH



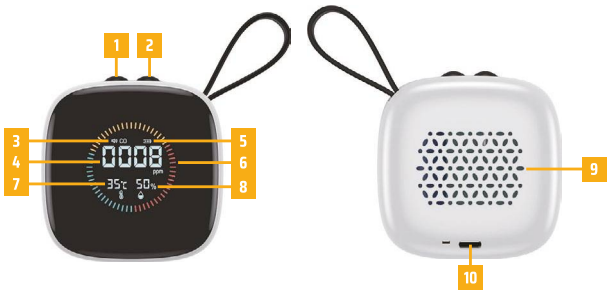
User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

PROTECT YOUR AIR

PCE-RCM 03 is a mini carbon monoxide detector that uses advanced sensor technology to quickly and accurately detect the concentration of carbon monoxide in the air. It does not require complex operating steps, just gently press the power button to start working. Real time display of carbon monoxide concentration, temperature, and humidity values, allowing you to have a clear understanding of the current air quality situation. This carbon monoxide detector can play an important role in heating homes in winter, kitchens using gas equipment, enclosed garages, boiler rooms, chemical workshops in industrial production, tents for outdoor exploration and camping, and other places. It is your powerful assistant in preventing carbon monoxide poisoning, making your living and working environment safer and healthier. Once exceeding the standard is detected, the instrument will immediately sound an alarm, allowing you to take immediate measures to avoid danger.

SYSTEM DESCRIPTION

1 - Left button
2 - Right button
3 - Alarm
4 - CO
5 - Battery
6 - CO level
7 - Temperature
8 - Humidity
9 - Air Inlet
10 - Type-C Charging Port



HOW TO USE

Turn On / Off
In power-on state, long-press Right Button to turn off the device.
In shutdown state, single-press Right Button to turn on the device.
Note: If you can't turn on the device, please plug in and charge it for a while first.

CO Range (ppm)
CO Detection Range: 0 ... 500ppm

	Green Color (Good)	Orange Color (Slight)	Red Color (Serious)
CO	0 ... 100ppm	101 ... 200ppm	201 ... 500ppm

CO Alarm

- 50PPM ... 99PPM: Regular alarm
- 100PPM or more: Urgent alarm
- Single-press Left Button to turn off/on the CO alarm sound
- Default: alarm function is open

Temperature Unit

Double-press Power Button to switch the temperature unit between Celcius (°C) and Fahrenheit (°F).

Sleep mode

Default: Sleep mode is off.

Activate sleep mode

- Long press Right button for 2 seconds, the buzzer beeps for a long time,it enters sleep mode.
- In sleep mode, if there is no operation for 60 seconds, the machine will automatically turn off the backlight and enter the off screen state. You need to click Left button to wake up and the screen will light up.
- Note: Although the machine is in sleep mode, it is working normally. When CO exceeds the standard, it will turn on the backlight and sound alarms

Exit sleep mode

Long press the Right button for 2 seconds, the buzzer beeps twice, it exits sleep mode.

Buzzer self-test

Press and hold Left button for 5 seconds to enter test mode. The buzzer beeps for 5 seconds before pausing, indicating that the buzzer is working normally.

CHARGING

When low battery icon is displayed, the device needs to be charged.
Insert the included or another compatible Type-C charging cable into the device. Attach the other end to a USB DC charger (such as a smartphone 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.

PARAMETER

	Measurement Range	Measurement Method	Resolution	Measurement Accuracy
CO	0 ... 500 ppm	Electrochemistry	1 ppm	±10%
Temperature	-10°C ... 50°C (14°F ... 122°F)	Semiconductor	1°C (1.8°F)	±1°C (±1.8°F)
Humidity	20% ... 85%	Semiconductor	1%	±4%

MOST ASKED QUESTIONS

What is carbon monoxide (CO)? Why is it dangerous?
Carbon monoxide (CO) is a colorless, odorless, and non irritating toxic gas. It is mainly produced by incomplete combustion of fuels such as natural gas, oil, coal, charcoal, gasoline, etc. When a person inhales CO, it quickly replaces oxygen in the blood, causing tissue hypoxia, leading to headaches, dizziness, nausea, vomiting, blurred consciousness, and in severe cases, coma or even death in a short period of time. Therefore, it is called the silent killer.

Why does my family need a carbon monoxide detector?
Many household appliances can become sources of CO, such as gas stoves, gas water heaters, fireplaces, fuel/gas heaters, cars (when starting in a closed garage), etc. Even if the equipment is installed correctly, it may accidentally produce CO due to blockage, malfunction, or poor ventilation. The carbon monoxide detector is the only device that can issue an alarm before the dangerous concentration reaches a hazardous level, providing crucial early warning for your and your family's safety.

Where should the carbon monoxide detector be installed?
To achieve the best protection effect, please follow the following principles:
Near potential CO sources: Install in corridors outside each bedroom and near gas equipment such as water heaters, stoves, and fireplaces.
Sleep area: Ensure that the alarm sound is heard in the bedroom, preferably installed in each bedroom or at the bedroom entrance.
Layered installation: If your house has multiple floors, please install at least one on each floor.
Avoid location:

- Do not install in places that generate steam or oil fumes (such as close to the stove or bathroom) to avoid false alarms or damage to the sensor.
- Do not install near ventilation openings, doors and windows, or in direct sunlight.
- Do not install in places where the temperature is too low (such as unheated garages) or too high (such as attic).
- Follow the manufacturer's instructions for specific installation height recommendations (usually 15-20 centimeters from the ceiling or about 1.5 meters from the ground).

What does a carbon monoxide detector alarm mean? What should I do?
Alarm sounded, take action immediately!

- Stay calm and evacuate quickly: Immediately evacuate all personnel (including pets) to an outdoor or fresh air location.
- Do not search for the source: Do not attempt to locate the leakage point or operate any electrical switches (which may generate sparks).
- Make an emergency call: Call the local emergency rescue number or gas company repair number from a safe location (such as a neighbor's house or outdoors).
- Do not return: Do not return indoors until professionals have confirmed safety and resolved the issue.
- Seeking medical assistance: If someone experiences symptoms of CO poisoning (headache, dizziness, nausea, vomiting, fatigue, blurred consciousness), even if the symptoms are mild, they should seek medical attention immediately and be informed of possible exposure to carbon monoxide.

What concentration of carbon monoxide will trigger an malarm?

- Low concentration alarm: When the CO concentration reaches about 50-99 ppm, the normal speed alarm is triggered
- High concentration alarm: When the CO concentration reaches 100-500 ppm, an urgent alarm is triggered.

Will the carbon monoxide detector give a false alarm?

Although modern detector technology is reliable, false alarms may occur in certain situations:

- High humidity environment (such as near the bathroom after taking a shower).
- Certain chemical fumes (such as high concentration alcohol, solvents, paint, hairspray, certain cleaning agents).
- Hydrogen gas (which may be generated during the charging of some old batteries).
- Sensor aging or malfunction.
- The battery level is extremely low.

Important reminder: Never assume that an alarm is a false alarm!

Are carbon monoxide detectors and smoke alarms the same? Do I need to install everything?

Different, both are crucial! The carbon monoxide detector is specifically designed to detect toxic CO gas. Smoke detectors detect smoke particles generated by fires. They monitor completely different sources of danger.

For comprehensive home safety protection, it is strongly recommended that you install and maintain both devices at home.

Tips:

- The core of carbon monoxide safety lies in prevention+detection+rapid response.
- Regularly have professionals inspect and maintain your gas appliances, fireplace, and ventilation system.
- Do not use generators, charcoal grills, or camping stoves indoors.
- Ensure that vehicle exhaust does not enter the interior (such as when the garage door is open).
- The carbon monoxide detector is the last important line of defense for your home safety,
- Investing in a reliable carbon monoxide detector is buying a reassuring guarantee for your most beloved person!

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.

PRODUCT SPECIFICATIONS

Item	Carbon monoxide tester
Product Size	70*70*32mm (2.7*2.7*1.26 Inches)
Product Weight	119g (4.2 oz)
Display Method	LCD Screen
Measuring Item	CO, Temperature, Humidity
Detection Method for CO	Electrochemistry
Concentration Unit for CO	ppm
CO Measuring Range	0 ... 500 ppm
Atmospheric Pressure	12.5 PSI ... 15.4 PSI
Sampling Time	1.5 Seconds
Temperature Range	-10°C ... 50°C (14°F ... 122°F)
Storage Temperature	-10°C ... 60°C (14°F ... 140°F)
Relative Humidity	20% ... 85%
Humidity Range	20% ... 85%
Power Source	800 mAh Rechargeable Lithium Battery 5V DC Power Charging via Type-C Port

DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

PCE INSTRUMENTS CONTACT INFORMATION

Germany
PCE Deutschland GmbH
Im Langel 26
D-59872 Meschede
Deutschland
Tel.: +49 (0) 2903 976 99 0
Fax: +49 (0) 2903 976 99 29
info@pce-instruments.com
www.pce-instruments.com/deutsch

United Kingdom
PCE Instruments UK Ltd
Trafford House
Chester Rd, Old Trafford
Manchester M32 0RS
United Kingdom
Tel: +44 (0) 161 464902 0
Fax: +44 (0) 161 464902 9
info@pce-instruments.co.uk
www.pce-instruments.com/english

The Netherlands
PCE Brookhuis B.V.
Twentepoort West 17
7609 RD Almelo
Nederland
Telefoon: +31 (0)53 737 01 92
info@pcebenelux.nl
www.pce-instruments.com/dutch

France
PCE Instruments France EURL
2, rue Georges Kuhnmunch
67250 Soultz-sous-Forêts
France
Tel.: +33 (0) 972 35 37 17
Fax.: +33 (0) 972 35 37 18
info@pce-france.fr
www.pce-instruments.com/french

Italy
PCE Italia s.r.l.
Via Pesciatina 878 / B-Interno 6
55010 Loc. Gragnano
Capannori (Lucca)
Italia
Telefono: +39 0583 975 114
Fax: +39 0583 974 824
info@pce-italia.it
www.pce-instruments.com/italiano

United States of America
PCE Americas Inc.
1201 Jupiter Park Drive, Suite 8
Jupiter / Palm Beach
33458 FL
USA
Tel: +1 (561) 320-9162
Fax: +1 (561) 320-9176
info@pce-americas.com
www.pce-instruments.com/us

Spain
PCE Ibérica S.L.
Calle Mula, 8
02500 Tobarra (Albacete)
España
Tel. : +34 967 543 548
info@pce-iberica.es
www.pce-instruments.com/espanol

Turkey
PCE Teknik Cihazları Ltd.Şti.
Halkalı Merkez Mah.
Pehlivan Sok. No.6/C
34303 Küçükçekmece - İstanbul
Türkiye
Tel: 0212 471 11 47
Faks: 0212 705 53 93
info@pce-cihazlari.com.tr
www.pce-instruments.com/turkish

Denmark
PCE Instruments Denmark ApS
Birk Centerpark 40
7400 Herning
Denmark
Tel.: +45 70 30 53 08
kontakt@pce-instruments.com
www.pce-instruments.com/dansk

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