

Protmex PTH-24E

Protmex PTH-24E 4-in-1 Carbon Monoxide and Gas Detector Instruction Manual

Model: PTH-24E | Brand: Protmex

1. INTRODUCTION

Thank you for choosing the Protmex PTH-24E 4-in-1 Carbon Monoxide and Gas Detector. This device is designed to provide real-time monitoring of carbon monoxide (CO) and combustible gas levels, along with temperature and humidity, to enhance safety in your home or while traveling. Please read this manual carefully before use to ensure proper operation and safety.

2. SAFETY INFORMATION

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas that can be fatal. Combustible gases can also pose serious risks. This detector is an important safety device, but it is not a substitute for proper maintenance of fuel-burning appliances or ventilation systems. Always follow local regulations and safety guidelines.

- Do not block the ventilation openings on the device.
- Do not paint the device.
- Test the device regularly as per operating instructions.
- In case of an alarm, immediately ventilate the area and evacuate. Contact emergency services if necessary.
- This device is designed for indoor use only.

3. PRODUCT OVERVIEW

The Protmex PTH-24E integrates multiple detection capabilities into a compact, plug-in design.

Key Features:

- Real-time monitoring of Carbon Monoxide (CO) and combustible gas.
- Integrated temperature and humidity monitoring.
- Large 2.0" P5 LCD display for clear readings.
- Dual semiconductor and electrochemical sensors for accuracy.
- Loud audible alarm ($\geq 85\text{dB}$) and visual flashing alarms.
- Plug-in design (110V-220V) with replaceable plug for versatility.
- Flame-retardant ABS plastic housing.



Figure 1: Protmex PTH-24E 4-in-1 CO and Combustible Gas Detector. This image highlights the device's capabilities including CO and gas detection, temperature and humidity monitoring, and its plug-in design.

4. SETUP

The Protmex PTH-24E is designed for easy, plug-and-play installation.

1. **Unpack:** Carefully remove the detector from its packaging.
2. **Choose Location:** Select a suitable location for the detector. For CO detection, place it near sleeping areas and on every level of your home. For gas detection, place it near gas-burning appliances (e.g., kitchen, fireplace). Ensure it is not obstructed by furniture or curtains.
3. **Plug In:** Insert the detector directly into any standard 110V-220V electrical outlet. The device will power on automatically.
4. **Initial Calibration:** The device will perform an initial self-test and calibration upon first power-up. Allow a few minutes for the readings to stabilize.

Replaceable Plug:

The device features a replaceable plug, allowing it to be used with different outlet types. To change the plug, press the quick-release button, rotate the current plug to unlock, and replace it with the desired plug type. Ensure it locks securely into place.

INTERCHANGEABLE PLUG

Easy to Use

ADJUSTABLE
TILT SCREEN



• Quick-Release Button

Figure 2: Interchangeable Plug. The quick-release button allows for easy replacement of the plug, making the device compatible with various international outlets.

5. OPERATING INSTRUCTIONS

The PTH-24E features three intuitive buttons for various functions:



Figure 3: Easy-to-Use Controls. This diagram illustrates the functions of the three buttons on the device for self-testing, unit toggling, alarm control, screen orientation, brightness, and gas sensitivity.

- **"U" Button (Top):**

- Short Press: Initiates a self-test of the device.
- Long Press: Toggles between Fahrenheit (°F) and Celsius (°C) for temperature display.

- **Buzzer Button (Right):**

- Short Press: Turns the alarm sound on or off.
- Long Press: Flips the screen display 180 degrees, useful if the outlet orientation is inverted.

- **Screen Brightness Button (Left):**

- Short Press: Adjusts the screen brightness.
- Long Press: Switches between Gas Sensitivity 1 (S1) and Gas Sensitivity 2 (S2).

Verifying CO Detector Functionality:

To verify the CO detector is working properly, you can perform a simple test:

1. Place a lit cigarette (or a source of CO, such as a small amount of smoke from a match) over the detector's back vent.
2. Within 1-2 minutes, you should observe the CO value increase on the display.
3. When the carbon monoxide concentration exceeds 50 PPM, the CO detector will sound an alarm. The CO value can display up to 999 PPM. This confirms the detector is working correctly.

Your browser does not support the video tag.

Video 1: Protmex 4-in-1 CO Detector Plug-in Demonstration. This video shows the device being plugged into an outlet, demonstrating its compact size and the functionality of its display and buttons, including the screen flip feature and the display of temperature and humidity.

6. DISPLAY INFORMATION

The large LCD screen provides clear, real-time data:

- **CO PPM:** Displays the concentration of carbon monoxide in parts per million.
- **GAS:** Indicates the level of combustible gas detected. This is often represented by a colored bar or numerical value.
- **Temperature:** Shows the ambient temperature in either Celsius or Fahrenheit.
- **Humidity:** Displays the relative humidity percentage.
- **Alert Icons:** Visual indicators for alarms (e.g., bell icon) and status (e.g., green for safe, yellow/orange for caution, red for danger).

CO AND COMBUSTIBLE GAS DETECTOR

PTH-24E

SOCKET-TYPE

- ✓ REAL TIME MONITORING OF CARBON MONOXIDE
- ✓ COMBUSTIBLE GAS DETECTION
- ✓ REVERSE COMPATIBLE SOCKET
- ✓ DUAL-PARAMETER TEMPERATURE AND HUMIDITY MONITORING
- ✓ FLAME-RETARDANT PROTECTION AGAINST FIRE



Figure 4: Clear LCD Display. The image shows the detector's screen with readings for CO concentration, gas levels, temperature, and humidity, designed for ultimate clarity.

7. MAINTENANCE

To ensure optimal performance and longevity of your detector:

- **Regular Cleaning:** Gently wipe the exterior of the detector with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Keep Vents Clear:** Ensure that the ventilation openings on the device are free from dust, debris, or obstructions.
- **Avoid Extreme Conditions:** Do not expose the detector to direct sunlight, high humidity, or extreme

temperatures outside its operating range (14°F to 122°F / -10°C to 50°C).

- **Test Regularly:** Perform the self-test function weekly or monthly to confirm proper operation.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Alarm sounds frequently without apparent cause.	High CO/Gas levels, sensor malfunction, or false alarm.	Immediately ventilate the area and evacuate. If safe, check for gas leaks. If alarms persist without a clear cause, contact emergency services or a qualified technician.
Display is blank or not responding.	No power, device malfunction.	Ensure the device is securely plugged into a working outlet. Try a different outlet. If the issue persists, contact customer support.
Inaccurate temperature/humidity readings.	Device placed near heat/cold source, blocked sensors.	Relocate the device away from direct heat sources, vents, or windows. Ensure sensors are not obstructed.

9. SPECIFICATIONS

- **Product Model:** PTH-24E
- **Input Voltage:** 100-220V
- **Power Source:** Corded Electric
- **Operating Temperature:** 14°F to 122°F (-10°C to 50°C)
- **Alarm Volume:** ≥85dB
- **CO Detection Range:** 0-999 PPM
- **Gas Detection:** 5% LEL (Lower Explosive Limit)
- **Product Dimensions:** 1.18"D x 2.99"W x 2.76"H (30mm D x 76mm W x 70mm H)
- **Item Weight:** 0.22 Pounds (approx. 100g)
- **Material:** Flame-retardant ABS Plastic
- **Certifications:** CE, FC, UL, RoHS



Figure 5: Detector in Use. The image shows the compact design of the detector plugged into a standard wall outlet, providing continuous monitoring.

10. WARRANTY AND SUPPORT

The Protmex PTH-24E Carbon Monoxide and Gas Detector comes with a **48-month manufacturer's warranty**. For any product inquiries, technical support, or warranty claims, please contact Protmex customer service through the details provided on the product packaging or the official Protmex website.

Manufacturer: Protmex International Group Co., Ltd.