

# Carbon Monoxide Meter Instruction Manual



version: 02

## 1. Introduction:

The Carbon Monoxide Meter detects the percentage of carbon monoxide (CO) and measures concentration from 1 to 1000 parts per million (PPM).

This meter indicates the percentage of carbon monoxide in two ways:

- PPM reading on the LCD display.
- Beeper tone.

## 2. Safety information:

Do not use the meter as a personal safety monitor.

Learn and recognize the effects of CO poisoning:

0-1 PPM	Normal background level
1-9 PPM	ASHRAE Standard 62-1989 for living areas
50 PPM	OSHA enclosed space 8 hours average level
100 PPM	OSHA exposure limit
200 PPM	Mild headache, fatigue, nausea and dizziness
800 PPM	Dizziness, nausea and convulsions. Death within 2 to 3 hours

U.S. Department of Labor, Occupational Safety & Health Administration (OSHA) Regulation 1917.24 states: The CO concentration in any enclosed space shall be maintained at not more than 50 PPM (0.005%). Remove employees from enclosed space if the CO concentration exceeds 100 PPM (0.01%)

## 3. What the meter does:

The meter indicates the CO level by LCD display and beeper tone.

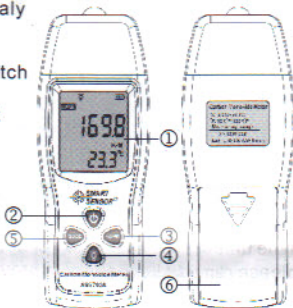
The beeper indicates when CO level is above setting level (default 100ppm).

## 4. Specifications:

Operating temperature	0°C ~ +50°C
Storing temperature	-30°C ~ +60°C
Operating humidity	0%RH-99%RH (non-condensing)
Measurement range	0 ~ 1000PPM
Resolution	1PPM
Accuracy	±10%
Response Time	<60 Seconds
Power supply	3*AAA batteries
Auto power shut off	Meter auto shutdown after 10 minutes without operation
Sensor type	Stabilized electrochemical Gas-specific (CO)
Typical sensor life	3 years

## 5. Diagram:

- LCD display
- ON/OFF button
- °C/°F switch button
- Backlight button
- Mode button
- Battery door



## 6. Turn on/off

6.1 Press the on/off button to turn on or off this meter. Press on/off button in calibration mode would go back to detect mode.

### 6.2 Modes Introduction

The meter would get into detect mode when turn on, the CO level would be showing as the scanner mode. There is 4 modes in detect mode (Scan, Max, Min and Hold), press the mode button to switch into different mode

- Hold: Keep showing the same level when switch to this mode
- Max: Keep scanning and showing the maximum level
- Min: Keep scanning and showing the minimum level
- Scan: Keep scanning and showing the current level

### 6.3 Backlight button

Press the backlight button would turn on the backlight, the icon would show at the same time; Press again to turn off.

### 6.4 Temperature unit switch

In detect mode, press the °C/°F button to switch the temperature unit.

### 6.5 Enable/disable auto power off setup

Press and hold the °C/°F button to get into auto power off setting: Monitor would show ON (Enable) or OFF (Disable) as the function is on or off. Press the °C/°F button to switch, press and hold °C/°F button to return.

### 6.6 Indication level setup

Press and hold the mode button in detect mode to get into indication level setup: Press the °C/°F button to switch between digits, press the backlight button to change the number. Press and hold the mode button to return.

## 7. Battery replacement:

7.1 When the battery power is not sufficient, the indicator will appear on the LCD display. Please replace new 3x1.5v AAA battery.

7.2 If the unit will not being use for a long time, please remove the battery to prevent the damage result form a battery leak.

## 8. Notes:

### 8.1 Common sources of CO:

Poorly maintained fossil fuelled boilers, heaters or fireplaces.  
Dirty or blocked chimneys and flue exhausts.  
Poorly maintained gas, oil, or kerosene appliances. Internal combustion engines (e.g. Vehicles, lawnmowers, blowers).

### 8.2 Co and appliance Malfunctions:

The following table identifies typical problems that can produce high level of carbon monoxide.



### Specific Declarations

- We reserve the rights of the update and amendment of the product design and the manual which are subject to change without further notification.
- Dispose of battery should in accordance with local laws and regulations.

Appliance	Fuel	Typical problem
Gas furnaces (Room heaters)	Oil, natural gas, or LPG (liquefied petroleum gas)	1. Cracked heat exchanger 2. Not enough air to burn fuel properly 3. Defective / blocked flue 4. Maladjusted burner 5. Building not properly pressurized
Central heating furnaces	Coal or Kerosene	1. Cracked heat exchanger 2. Not enough air to burn fuel properly 3. Defective grate
Room heaters Central heaters	Kerosene	1. Improper adjustment 2. Wrong fuel (not K-1) 3. Wrong wick or wick height 4. Not enough air to burn fuel 5. System not properly vented
Water heaters	Natural gas or LPG	1. Not enough air to burn fuel properly 2. Defective / blocked flue 3. Maladjusted burner 4. Building not properly pressurized
Ranges Ovens	Natural gas or LPG	1. Not enough air to burn fuel 2. Maladjusted burner 3. Misuse as a room heater 4. System not properly vented
Stoves Fireplaces	Gas, wood, coal	1. Not enough air to burn fuel properly 2. Defective / blocked flue 3. Green or treated wood 4. Cracked heat exchanger 5. Cracked firebox