

**R9400**

# **REED** **INSTRUMENTS**

## **Carbon Monoxide Meter with Temperature**



**Instruction  
Manual**



**REED Instruments**

1-877-849-2127 | [info@reedinstruments.com](mailto:info@reedinstruments.com) | [www.reedinstruments.com](http://www.reedinstruments.com)

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## Introduction

Thank you for purchasing your R9400 Carbon Monoxide Meter with Temperature. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

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## Product Quality

This product has been manufactured in an ISO9001 facility and has been calibrated during the manufacturing process to meet stated product specifications. If a certificate of calibration is required please contact the nearest authorized REED distributor or authorized Service Center. Please note an additional fee for this service will apply.

## Safety

Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.



Carbon monoxide (CO) can be life threatening even at relatively low concentrations. Do not use this meter as a personal safety monitoring device.

**For safety reasons, we recommend  
that this unit be certified every year.**

### Effects of Carbon Monoxide (CO) Poisoning

0 to 1 ppm	Normal background levels
9 ppm	ASHRAE Standard 62-1989 for living areas
35 ppm	The average exposure level per U.S. OSHA workplace standards
50 ppm	OSHA enclosed space 8-hour average level*
100 ppm	OSHA exposure limit*
200 ppm	Mild headache, fatigue, nausea and dizziness
400 ppm	Headache occurs in 2.5 to 3.5 hours
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: The CO content 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%).*

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## Features

- Backlit LCD displays CO levels from 0 to 1000ppm and ambient temperature
- User adjustable alarm limit (audible beep frequency increases as CO level rises)
- Quick response and high accuracy
- Data hold and max functions
- Self test sequence on start-up
- Low battery indicator and auto shut off

## Specifications

### Carbon Monoxide

Measuring Range:	1 to 1000 ppm
Accuracy:	±5% or ±5 ppm
Resolution:	1 ppm
Sensor Type:	Stabilized electrochemical sensor

### Temperature

Measuring Range:	-4 to 158°F (-20 to 70°C)
Accuracy:	±1.5°F (0.8°C)
Resolution:	0.1°F (0.1°C)
Sensor Type:	Thermistor

### General Specifications

Display:	4-digit, dual LCD
Backlit Display:	Yes
F/C Switchable:	Yes
Alarm:	Audible (buzzer)
Alarm Limit:	User Adjustable
Max Hold:	Yes
Display Hold:	Yes
Warm-up Time:	60 seconds

*continued...*

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Response Time:	2x per second
Auto Shut-off:	Yes (after 30 mins, off)
Power Supply:	4 AA batteries
Battery Life:	Approx. 200 hours
Low Battery Indicator:	Yes
Product Certifications:	CE
Probe Length:	16" (406mm)
Operating Temperature:	32 to 122°F (0 to 50°C)
Storage Temperature:	14 to 140°F (-10 to 60°C)
Operating Humidity Range:	10 to 90%
Dimensions:	7.5 x 2.6 x 1.7" (190 x 65 x 45mm)
Weight:	8.3oz (235g)

## Included

- Soft Carrying Case
- Batteries

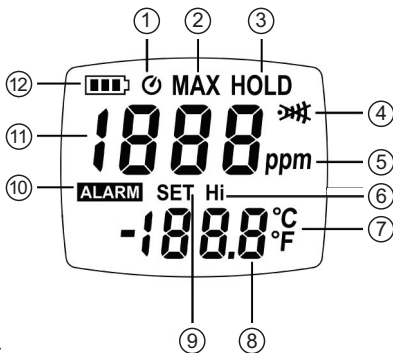
## Instrument Description

1. Sensor
2. LCD Screen
3. Data Hold Button
4. MAX/Down Button
5. Power Button
6. Battery Cover
7. Set Alarm Button
8. Backlight Button
9. Unit of Measure/Up Button



## Display Description

1. Auto Power Off Indicator
2. MAX Indicator
3. Data Hold Indicator
4. Beeper Off Indicator
5. Unit Indicator
6. High Alarm Indicator
7. Unit Indicator
8. Temperature Reading
9. SET Alarm
10. Alarm Indicator
11. CO Reading
12. Battery Capacity Indicator



# Operating Instructions

1. Push the Power button to turn the meter on. To turn the meter off, press and hold the Power button until the meter counts down from 3 to 0.
2. When turning the meter on it will perform a self-diagnostic test. During the test the LCD will count down from 60 to 0. Once the meter passes the self-test a beep will sound and the meter will begin taking measurements. If the meter does not pass the self-test the LCD will display "Err" and the meter will not take a measurement.

**Note:** If the meter reads above 1000 ppm the LCD will display "OL" to indicate the measurement is out of range.

## *Unit of Measure Selection (Temperature)*

When the meter is powered on press the °C/°F button to toggle between Celsius and Fahrenheit.

**Note:** The default unit of measure is Celsius (°C). The meter will automatically save the last selected unit of measure when turned off.

## *Data Hold*

Press the **HOLD** button to freeze the current reading on the display. Press the button again to resume normal operation.

**Note:** When the Data Hold function is enabled the Max and °C/°F buttons are disabled.

## *Setting the Alarm Threshold*

1. Press and hold the **SET** button to set the CO High Alarm Threshold.
2. While holding the **SET** Button, press the Up and Down buttons to adjust the value.
3. Release the **SET** button to save and resume normal operation.

**Note:** The high alarm is set to 35 ppm by default and can be adjusted between 0 and 1000 ppm. As the concentration of carbon monoxide rises, the frequency of the beep increases.

*continued...*

## **MAX Function**

1. When pressing the **MAX** button once, the MAX Indicator will appear on the display. The maximum values (temperature and carbon monoxide) are displayed and will automatically update when new maximum data values are measured.
2. Press the **MAX** button again and the MAX indicator will blink continuously. The Maximum values will automatically update in the Max memory while the current temperature and humidity measurements are displayed. To view the Max measurements during this mode press the **MAX** button at any time to access stored values.
3. To exit MAX mode and resume normal operation, press and hold the **MAX** button for two seconds.

## **Auto Power Off**

To preserve battery life, the meter is programmed to turn itself off after 30 minutes of inactivity. To disable this feature, press and hold the **HOLD** button while powering on the meter. When the meter turns on, release both buttons simultaneously. The Auto Power Off indicator will not appear on the display, confirming this feature is now disabled. If the meter is turned off then back on, the "Auto Power Off" feature will be enabled again.

## **Backlight**

Press the Backlight Button to turn the LCD Backlight on and off.

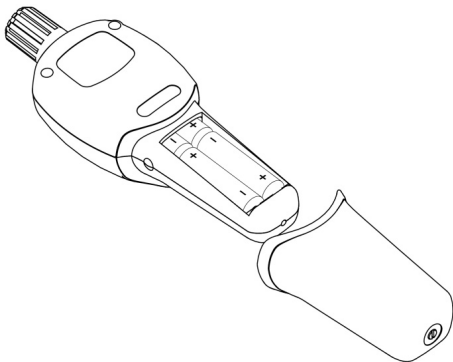
## **Beeper Off**

To turn the beeper off, press and hold the Backlight button while powering the meter on. The Beeper Off indicator will appear on the LCD. If the meter is turned off then back on, the beeper will be enabled again.



## Battery Replacement

1. Loosen the screw at the bottom of the meter and slide the cover away from the meter.
2. Replace the four (4) AA batteries.
3. Reinstall the battery door and tighten the screw to fasten in place.



## Accessories and Replacement Parts

### CA-05A Soft Carrying Case

Don't see your part listed here? For a complete list of all accessories and replacement parts visit your product page on [www.reedinstruments.com](http://www.reedinstruments.com).

## Applications

- Residential and commercial safety
- Verifying furnaces, cookers, water boilers and gas room heaters

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## Product Care

To keep your instrument in good working order we recommend the following:

- Store your product in a clean, dry place.
- Change the battery as needed.
- If your instrument isn't being used for a period of one month or longer please remove the battery.
- Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

## Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by email at 1-877-849-2127 or [info@reedinstruments.com](mailto:info@reedinstruments.com) to discuss the claim and determine the appropriate steps to process the warranty.

## Product Disposal and Recycling



Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

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## Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at [info@reedinstruments.com](mailto:info@reedinstruments.com).

Please visit [www.REEDINSTRUMENTS.com](http://www.REEDINSTRUMENTS.com) for the most up-to-date manuals, datasheets, product guides and software.

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