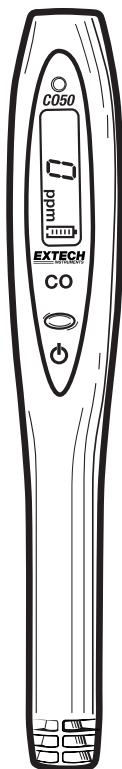


User's Guide



Carbon Monoxide Meter

Model CO50



Introduction

Congratulations on your purchase of the Extech C050 Carbon Monoxide Meter. The CO50 detects the presence of carbon monoxide (CO) and measures and displays concentrations between 0 and 10000 parts per million (ppm). Careful use of this meter will provide years of reliable service.

Safety Information



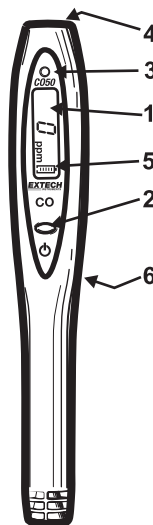
Carbon monoxide is life threatening even at relatively low concentrations; learn and recognize the effects of CO poisoning (see Table below). Do not use this meter as a personal safety monitoring device.

Effects of CO poisoning

0-1 PPM	Normal background levels
9 PPM	Maximum indoor air quality level
35 PPM	Maximum 8 hour average exposure level
200 PPM	Mild headache, fatigue, nausea and dizziness
400 PPM	Frontal headache, life threatening after 3 hours
800 PPM	Dizziness, nausea, convulsions, DEATH WITHIN 2 TO 3 HOURS
1600 PPM	Nausea within 20 minutes, DEATH WITHIN 1 HOUR
12800 PPM	DEATH WITHIN 2 TO 3 MINUTES

Meter Description

1. LCD display
2. Power ON/OFF key
3. Backlight Photo Electric Sensor
4. CO Sensor
5. Battery Indicator
6. Battery compartment (Rear)



IMPORTANT: Ensure that the meter is turned on in an area free of CO. If not, the meter will read incorrectly when subsequently measuring CO.

Digital display.

The CO50 has a digital concentration display showing carbon monoxide levels in the range of 0-999ppm in 1ppm steps. Above 999ppm the display will show "Hi".

Automatic Back Light.

The CO50 has an automatic blue back light for the display, which switches on automatically in low light conditions.

Batteries.

2 AA size batteries may be used. The battery compartment is located at the rear of the CO50. Fit the batteries in accordance with the diagram found within the molding. The CO50 can use standard alkaline or rechargeable NiCd or NiMH batteries. Expect 50 hours of use with no back light operation and 30 hours use with back light operation from standard AA alkaline batteries. Remaining battery life is indicated in the bottom of the digital display. If the batteries are fresh, 5 segments will be displayed.

Switch Off.

Switch the CO50 off by pressing the single on/off key. Store the CO50 in a warm dry place.

Warning Storing in a damp environment will damage the sensor!

Leak Detection

1. Ensure you are in a fresh air area. Press the on key to turn the meter on. After 2 seconds the battery status will be displayed. 5 bars indicate a fresh battery; if only one bar or no bar is displayed the battery needs replacing.
2. While the unit is warming up and the sensor stabilizes, the display shows three dashes and the ppm symbol flashes. The sounder will tick during this warm up period.
3. After 20 seconds the sensor reading will be set to zero and will be displayed on the digital display. The sounder will emit a steady tick.
4. Trace the CO50 around the source of suspected leak. When a carbon monoxide leak is found the sounder will increase in pitch with increasing gas concentration up to 30ppm. Above this a two-tone alarm is emitted. This alarm automatically resets when the concentration falls back below 30ppm.

Ambient Level Detection

1. Ensure you are in a fresh air area. Press the on key to activate the instrument. After 2 seconds the battery status will be displayed 5 bars indicate a fresh battery; if only one bar or no bar is displayed the battery needs replacing.
2. While the unit is warming up and the sensor stabilizes, the display shows three dashes and the ppm symbol flashes. The sounder will tick during this warm up period.
3. After 20 seconds the sensor reading will be set to zero and will be displayed on the digital display. The sounder will emit a steady tick.
4. To monitor ambient CO levels do not subject the CO50 to any potential CO source after the power up test. Place the CO50 in the test position and, after 15 minutes, that maximum recorded value over this period will be logged.
5. If the reading climbs above this maximum the new higher reading is displayed.
6. The maximum reading can be reset to zero by switching off and on again allowing the CO50 to be used again for leak tracing.

Specifications

Measurement range	0-10000 ppm
Resolution	1 ppm (up to 999ppm)
Response Time	Less than 5 seconds
Accuracy	<100ppm ± 5 ppm >100ppm ± 5 %
Sensor Type	Cross filtered electrochemical
Sensor Life (Typical)	3 years
Warm-up Period	20 seconds
Power supply	2 x AA 1.5V
Battery life	Approx. 50 hours with alkaline battery with no backlight Approx. 30 hours with backlight operation
Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-22 to 140°F (-30 to 60°C)
Operating Humidity	5 to 95% RH (non condensing)
Dimensions	1.5 x 10 x 1.1" (38 x 254 x 28mm)
Weight	3.5oz (100g)

Warranty

EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website at www.extech.com (click on 'Contact Extech' and go to 'Service Department' to request an RA number). A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

Calibration and Repair Services

Extech offers repair and calibration services for the products we sell. Extech also provides NIST certification for most products. Call the Customer Service Department for information on calibration services available for this product. Extech recommends that annual calibrations be performed to verify meter performance and accuracy.

Support Hotline (781) 890-7440

Tech support: Ext. 200; Email: support@extech.com

Repair>Returns: Ext. 210; Email: repair@extech.com

Website: www.extech.com

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