

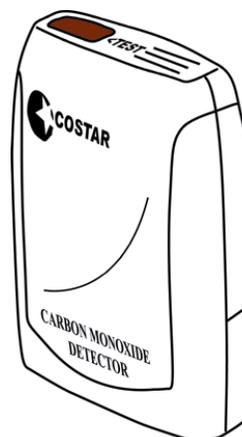


Personal Carbon Monoxide Detector Model P-1

OWNER'S MANUAL

PLEASE READ AND SAVE!

Personal & Automobile Use



Dear New COSTAR® Model P-1 Owner,

Congratulations as you have taken steps to help insure the health and life safety of you and your family. We are proud to offer you our unique, patented CO Sensor technology that detects CO in a manner similar to the human body's response. The COSTAR® P-1 is an ideal and low-cost way of warning you of both the acute and chronic effects of CO poisoning.

Please read this owner's manual carefully so you will have a better understanding of the effects of CO poisoning and the COSTAR® P-1 Detector, as we work together pursuing a safer, healthier air quality for us all.

To your good health and safety,

Mark Goldstein, Ph.D.

President

Quantum Group Inc.

1.0 WHAT YOU SHOULD KNOW ABOUT CO

Carbon monoxide (CO) is an insidious poison. It is a colorless, odorless and tasteless gas. It is a cumulative poison. Even low levels of CO have been shown to cause brain and other vital organ damage in unborn infants with no effect on the mother. The following symptoms are related to CARBON MONOXIDE POISONING and should be discussed with all members of the household:

- MILD EXPOSURE: Slight headache, nausea, vomiting, fatigue (often described as “flu-like” symptoms), giddiness
- MEDIUM EXPOSURE: Severe throbbing headache, drowsiness, confusion, fast heart rate
- EXTREME EXPOSURE: Unconsciousness, convulsions, cardio-respiratory failure, death

Many reported cases of CARBON MONOXIDE POISONING indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building/automobile or calling for assistance. Also, young children and household pets may be the first affected.

Your CO detector is designed to detect the toxic CO fumes that result from incomplete combustion, such as those emitted from appliances, furnaces, fireplaces and auto exhaust. (DO NOT put your detector next to the vehicle's tailpipe. It may damage the detector permanently.)

A CO detector is NOT A SUBSTITUTE for fire alarms, smoke alarms, or other combustible gas alarms. This carbon monoxide detector is designed to detect carbon monoxide gas from ANY source of combustion.

CAUTION: This detector will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas at a higher concentration than at the detector's location; therefore, immediately get fresh air.

WARNING: This product is not designed to comply with the Occupational Safety and Health Administration (OSHA) commercial or industrial standards. Individuals with medical problems may consider using detection devices that provide audible and visual signals for CO concentrations under 30 PPM.

2.0 WHAT YOU SHOULD DO IF THE ALARM SOUNDS



WARNING:

Actuation of this device indicates the presence of carbon monoxide (CO) which can KILL YOU.

If alarm sounds:

- 2.1 Operate reset/silence button;
- 2.2 Call your emergency services (____ - _____) [fire department or 911];
- 2.3 Immediately move to fresh air – outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises have been aired out, and your detector remains in its normal condition.
- 2.4 After following steps 2.1-2.3, if your detector reactivates within a 24 hour period, repeat steps 2.1-2.3 and call a qualified automobile or appliance technician (____-_____) to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturers' instructions or contact the manufacturers directly for more information about CO safety and this equipment. Make sure that motor vehicles are not and have not been operating in an attached garage or adjacent to the residence or RV.

WARNING: DO NOT remove the battery to silence the detector because you will not know when to re-enter your vehicle.

3.0 IMPORTANT CONSIDERATIONS

- 3.1 The COSTAR® P-1 has been designed and is warranted to operate for 5 years.
- NOTE:** The manufacturer recommends replacement of the detector 5 years after date of purchase. Under no circumstances should the product be used after 7 years from date of purchase.
- 3.2 The detector is designed to warn individuals before a blood level of 10% carboxyhemoglobin (COHB) is reached (mild exposure).

<u>CO Levels</u>	<u>Max. Response Time</u>
30 ppm	None
70 ppm	240 min
150 ppm	50 min
400 ppm	15 min

ppm = parts per million

- 3.3 When the detector sounds, do not stand too close to the detector. Prolonged exposure to the detector at a close distance may be harmful to your hearing.

WARNING: Activation of this device indicates the presence of carbon monoxide (CO), which can injure or even kill you. The sound produced by the detector is not designed to awaken a person in an emergency; it is designed to alert a driver without distracting the driver.

4.0 RECOMMENDATIONS

- 4.1 It is recommended to test the unit once every week. To test unit, push and hold detector Indicator/Test button until unit beeps (about 3 seconds). Detector will sound two cycles to indicate completion of the test. The detector will then resume normal operation.
- 4.2 CO may be from an outside source or from your vehicle. If you suspect your vehicle as the source, have the vehicle inspected by a qualified mechanic.
- 4.2.1 DO NOT cover detector ventilation holes.

5.0 LOCATION

- One of the most important considerations in any CO detector system is the location of the detector.
- 5.1 It is recommended to place the unit on the visor of the vehicle. Placement of the detector in a garage may cause the unit to go into alarm due to CO from automotive exhaust.

NOTE: The COSTAR® P-1 may also be used for personal protection from CO in the work place or while traveling.

6.0 LOCATIONS TO AVOID

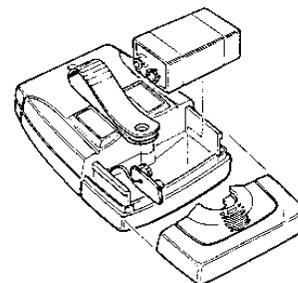
- 6.1 Avoid prolonged exposure to direct sunlight.
- 6.2 Do not keep detector on your dashboard.
- 6.3 Avoid unit coming into contact with water.
- 6.4 Do not locate detector near an open window because unit will not detect accurate levels of CO in your automobile.
- 6.5 Do not use as a garage or home detector.
- 6.6 Do not use in closed compartments such as glove box or purse.
- 6.7 DO NOT PLACE DIRECTLY BEHIND A TAILPIPE OR IN THE PATH OF HOT EXHAUST!

WARNING: The COSTAR® P-1 CO Detector is not designed for marine use.

7.0 INSTALLATION INSTRUCTIONS

Caution! Read Carefully

- 7.1 This unit comes with a visor clip that can be clipped onto a vehicle's visor.
7.2 The battery is not connected [for shipping]. Remove battery door and install the battery in the correct orientation (snap battery to correct polarity to install properly). Once battery is installed properly, replace battery door. The detector will beep once indicating proper battery installation.



8.0 DETECTOR SIGNALS

8.1 NORMAL OPERATION

In normal operation the detector will flash the detector Indicator/Test button once every 30 seconds.

8.2 DETECTOR CONDITION

If the COSTAR® P-1 senses unsafe levels of CO, the detector Indicator/Test button will light up and the detector will sound. The detector signal is a repetitive alarm sounding pattern of 4 short beeps followed by 5 seconds of silence. Move all persons into fresh air. Pushing and holding the test button for 3 seconds will silence the detector for about 4 minutes. After 4 minutes, the detector will once again sound until the unsafe CO concentration is reduced.

8.3 TROUBLE CONDITION

The detector self-tests every 10 minutes. The detector will beep and the Indicator/Test button will flash twice every 30 seconds if a fault is detected. This is an indication of a malfunction and that the detector requires immediate servicing.

8.4 LOW-BATTERY CONDITION

This detector has a low battery monitor circuit which will cause the red LED to flash and the alarm to “chirp” once every 30 seconds when the battery gets low. Replace the battery when this condition occurs.

9.0 MAINTENANCE/BATTERY REPLACEMENT

9.1 The COSTAR® P-1 CO Detector uses one (1) 9-volt alkaline battery. A fresh battery should last for more than one year under normal operating conditions.

9.2 REPLACEMENT BATTERY: 9-VOLT ALKALINE DURACELL MN1604

WARNING: Use only the battery specified. Use of different batteries may have a detrimental effect on the CO detector. Constant exposures to high or low temperatures or to high humidity may reduce battery life.

10.0 TESTING DETECTOR

Push and hold detector Indicator/Test button until unit beeps once (about 3 seconds). Unit will sound 2 alarm cycles. This indicates the detector is working properly.

NOTE: TEST THE UNIT ONCE EVERY WEEK.

WARNING: DO NOT attempt to test this detector by placing it at tailpipe exhaust. The hot exhaust will damage the unit's sensor.

11.0 CLEANING YOUR DETECTOR

To clean your detector, wipe exterior case with a damp cloth.

WARNING: DO NOT use any household/automotive cleaning agents, petroleum-based cleaners, paints, varnishes or any other solvents on or near your P-1 detector. DO NOT attempt to open the detector. This will void your warranty.

12.0 SERVICE AND WARRANTY

If, after reviewing this manual, you feel that your CO detector is defective in any way, do not tamper with the unit. Contact Quantum Group to receive a return material authorization number (RMA). Once the RMA number is given, you should return the product with the RMA number on the outside of the packaging to:



QUANTUM GROUP INC.

7737 Kenamar Court

San Diego, CA 92121-2425

Or call us toll free 1-800-432-5599

E-mail address: CustomerService@QGinc.com

NOTE: COSTAR® and the COSTAR® emblem are trademarks of Quantum Group Inc., San Diego, CA U.S.A.

LIMITED WARRANTY
COSTAR® Model P-1

Quantum Group Inc. offers you this limited warranty on your new carbon monoxide alarm, including all of its component parts. This limited warranty extends solely to the original end-user purchaser of this product, provided your purchase was made from an authorized vendor. Transfer or resale of this product will automatically terminate warranty coverage.

Quantum Group Inc. warrants the enclosed carbon monoxide alarm to be free from defects in materials and workmanship under authorized use and service, as specified in the owner's manual, for a period of five (5) years from the date of purchase. During the initial one (1) year period commencing with the date of purchase, any repair or replacement shall be made without charge with proof of purchase. During the latter four (4) years of the warranty period, any repair or replacement shall be made at a charge to the purchaser not to exceed the manufacturer's cost of repair or replacement. All replaced items become the property of Quantum Group Inc.

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This limited warranty does not cover: (1) 9 volt alkaline battery (when applicable); (2) products which have been improperly installed, repaired, maintained, modified, or which have been subjected to misuse, abuse, accident, neglect, exposure to fire, water, or excessive changes in climate or temperature, or combined with non-Quantum Group Inc.-approved accessories; (2) physical damage caused from use other than normal and proper operation or handling, as specified in the owner's manual; (3) cosmetic damage; (4) products on which warranty stickers or product serial numbers have been removed, altered, or rendered illegible; (5) the cost of installation, removal or reinstallation.

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