

Carbon Monoxide Detector (Digital Display)

Model Number: OR-DC-619

Specifications:

Alarm Condition: EN50291 -1:2010 +A1:2012

Sensor: “ECO-cell” Electrochemical carbon monoxide sensor with more than 7 years lifetime

Power: 3 x1.5V AA alkaline batteries

Temperature: Operating range -20°C to 50°C

Humidity: Operating range 5%-100% relative humidity.

Mounting: Accessories supplied for wall mounting

Alarm: 85+ dB on 1m @ 3.4 ± 0.5 KHz pulsing alarm

Test/Reset Button: Test button verifies proper unit operation.

Accuracy of Digital Display: 25-999 ppm (±15%) when measured in condition of 20°C (±5°C). Atmosphere pressure ±10% and 40% (±5%) relative humidity.

Size & Weight: 122mm×77mm×35mm /120g without battery

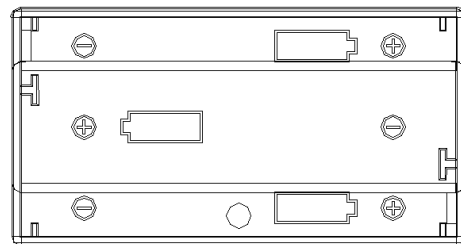
Sensor Life Time: six years from first powered on but no longer then seven years from production date printed on back side of unit.

Warranty: Six-year limited warranty from date of purchase against defects in material and workmanship on CO detector unit.

Quick Set Up

Remove the three enclosed AA batteries and install them into the battery box.









Observe the battery polarity markings at the bottom of the battery box.



When the batteries are first installed, the unit will beep one time and the red , green and yellow LEDs will flash one by one. “888 ppm” will be displayed with blue backlight. After approximately 1 minute -2 minutes, the display and backlight will be off and the green light will flash every 4 seconds indicating that the unit is operational. Fit on battery cover. Your CO detector is now operational.

Caution: Please do not press the test/reset button when you install the batteries!!!

Operating and Alarm Characteristics

| LCD Display | LCD Display Shows | Alarm Sound | Units Status | Recommendation |
|--|--|---|---|--|
|  "for example" | A display of CO concentration from 30-999 ppm. Blue backlight is lighted. Red LED flashes. | 4 quick beeps, Repeated every 5 seconds. | Concentration of CO detected. Alarm condition. | Refer to "What to do When the Alarm Sounds". |
|  | "ttt" displayed on the LCD. Red LED, Green LED, Yellow LED will flash one by one. | One short beep on the beginning of self-test. | "ttt" means the detector is on self-testing. | If the status of the detector is normal, the LCD will display "PAS". If the status is unnormal, "Err" will be displayed with two short beeps every 60 seconds. |
|  | Brief "888 ppm" for approximately 1minute~2minute s. Blue backlight led is lighted at the same time. | None. (beep one time when install batteries is normal) | Self test when first powered up. | CO has not been detected. Numbers shown for test purpose only. |
|  | Display is blank. Green LED flashes every 4 seconds. | None. | Normal DC operation with good batteries. (now detecting CO) | None. |
|  | "Lb" displayed. Yellow LED flashes every 60 seconds. | One quick beep every 60 seconds | Batteries need to be replaced. | Replace all three AA batteries immediately. |
|  | "Err" displayed Yellow LED flashes every 60 seconds. | Two quick beeps every 60 seconds. | Unit is Error condition. | Unit has malfunctioned. Replace immediately. |
|  | "HHH" displayed Blue backlight is lighted. Red LED flashes. | 4 quick beeps, Repeated every 5 seconds. | Concentration s of CO is more than 999 ppm. | MOVE TO FRESH AIR IMMEDIATELY!!! |
|  | "End" displayed. Red LED flashes every 20 seconds. | Two quick beeps every 20 seconds. | End of unit life. About 72 months from first powered on. | Replace unit immediately. |

PRESS TEST BUTTON:

(1) Press the test/reset button, the blue back light will be lighted. And the unit beeps four times with red led flashes four times. Then it will display the highest CO concentration which have been detected by the detector since it was tested from the last time to press TEST button.

(2) Then the unit will beep one time with red LED flashes one time. The the LCD will display “t t t” with the three LEDs flash one by one. This means that the units is on self-testing.

(3) When the self-test is completed, the LCD will display “PAS” with three beeps and three LEDs flash three times in the same time if the unit is working well. Then the LCD will display “CO” with no backlight and then display “0ppm”.

If the unit was tested with fault working status, the LCD will display “Err” with yellow LED flash two times and the buzzer will beep two times in the same time. And this will circulate every 60 seconds.

HUSH:

When the CO detector is alarming for the danger concentration of CO, you can press the test button and the detector will be hushed for 5 minutes. The alarm sound will be pulsed with blue back light turned off. And the green LED is lighted. The detector will resume to normal monitor status after 5 minutes. If the CO is still in dangerous level, the detector will continue to alarm.

Installation Location:

If you have only one detector, place it near sleeping areas, not near fuel burning appliances, such as fireplaces, furnaces or hot water heaters.



Where To Install Your CO Detector

The following suggestions are intended to help you with the placement and installation of your CO detector.

- Place out of the reach of children. Under no circumstance should children be allowed to handle the CO detector.
- Install in a bedroom or hallway located close to the sleeping area. Take special care to verify the alarm can be heard in sleeping areas.
- It is recommended that a CO detector be installed on each level of a multilevel home.
- Locate at least 5 feet away from all fuel burning appliances.
- Placing at eye level (around 150cm -300cm from the floor) allows for optimum monitoring of the red and green indicator lights.
- It is permissible to mount the detector on the height of bed in the bedroom or lay it on the bedside night table (CAUTION ! - please take into account the very loud alarm!)
- In exceptional circumstances, the detector can be used as a portable device and take it where you want to detect a threat. The detector should move with caution. Moving the sensor can cause damage and void the warranty.

Where Not To Install Your CO Detector !

- ✧ Do not install in kitchens, garages or furnace rooms that may expose the sensor to substances that could damage or contaminate it.
- ✧ Do not install within 60cm of heating or cooking appliances.
- ✧ Do not install near vents, flues, chimneys or any forced/unforced air ventilation openings.
- ✧ Do not install near ceiling fans, doors, windows or areas directly exposed to the weather.
- ✧ Do not install in dead air spaces, such as peaks of vaulted ceilings or gabled roofs, where CO may not reach the sensor in time to provide early warning.
- ✧ Do not install this unit near deep-cell large batteries. Large batteries have emissions that can cause the alarm to perform at less than optimum performance.
- ✧ Do not obstruct the vents located on the alarm. Do not place the alarm where drapes, furniture or other objects block the flow of air to the vents.

Installation Instructions

Mounting

1. Using the template provided. Mark the position of the two mounting holes by using the template.
2. Drill two holes using a 6mm drill for the plastic plugs supplied, (ensure you don't drill into the house wiring).
3. Screw the unit to the wall.

Danger CO Levels

| Concentration of CO in Air (ppm = parts per million) | Approximate Inhalation Time and Symptoms Developed |
|---|---|
| 50 ppm | The maximum allowable concentration for continuous exposure for healthy adults in any 8-hour period. |
| 200 ppm | Slight headache, fatigue, dizziness, nausea after 2-3 hours. |
| 400 ppm | Frontal headaches within 1-2 hours, life threatening after 3 hours. |
| 800 ppm | Dizziness, nausea and convulsions within 45 minutes. Unconsciousness within 2 hours. Death within 2-3 hours. |
| 1,600 ppm | Headache, dizziness and nausea within 20 minutes. Death within 1 hour. |
| 3,200 ppm | Headache, dizziness and nausea within 5-10 minutes. Death within 25-30 minutes. |
| 6,400 ppm | Headache, dizziness and nausea within 1-2 minutes. Death within 10-15 minutes. |
| 12,800 ppm | Death within 1-3 minutes. |

Your detector detects a threat only where it is installed. Carbon monoxide must reach detector in described level and time to start alarming.

This CO alarm meets these alarm response times (As required in EN50291)

- At 50 PPM, the unit must alarm within 60-90 minutes**
- At 100 PPM, the unit must alarm within 10-40 minutes**
- At 300 PPM, the unit must alarm within 3 minutes**

Caring for your Carbon Monoxide Detector

To keep your CO detector in good working order, you must follow these simple steps:

- Test the detector once a month by pressing the Test/Reset button
- Vacuum the detector cover once a month to remove accumulated dust. Use the soft brush attachment of your vacuum cleaner, and unplug the detector from the electrical outlet before vacuuming.
- Instruct children never to touch, unplug or otherwise interfere with the unit. Warn children of the dangers of CO poisoning.
- Never use detergents or solvents to clean the detector. Chemicals can permanently damage or temporarily contaminate the sensor.
- Avoid spraying air fresheners, hair spray, paint or other aerosols near the CO detector.

- Do not paint the CO detector. Paint will seal the vents and interfere with proper sensor operation.
- Do not mount the CO detector directly above or near a diaper pail, as high amounts of methane gas can cause temporary readings on the digital display.

What to do When the Alarm Sounds

- (1) Operate the Test/Reset button;
- (2) Call your emergency services;
- (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 alarm remains in its normal condition.
- (4) After following steps 1-3, if the alarm reactivates within a 24 hour period, repeat steps 1-3 and call a qualified appliance technician to investigate sources of CO from fuel burning equipment and appliances, and to inspect for proper operation of 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 manufacturer's instructions, or contact the manufacturer's directly for more information about CO safety and the equipment. Make sure that motor vehicles are not, or have not been, operating in a garage attached or adjacent to the residence.

If the alarm is sounding, pressing the test/reset button will terminate the alarm. If the CO condition that caused the alert in the first place continues, the alarm will reactivate. If the unit alarms again within five minutes, it is sensing high levels of CO which can quickly become a dangerous situation.