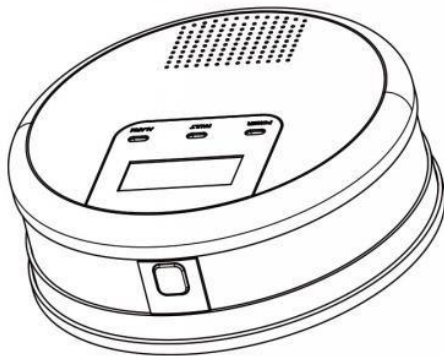


Carbon Monoxide Alarm

User Manual



PLEASE READ CAREFULLY AND SAVE!

Thank you for purchasing this carbon monoxide alarm equipped with digital LCD display! Please read these instructions carefully before using the carbon monoxide alarm. Retain this information in a safe and easily accessible place for future use and maintenance.

PRODUCT INTRODUCTION

Carbon Monoxide Detector(CO detector), use of high quality electrochemical sensors, combined with advanced electronic technology and sophisticated technology made of a stable work, long life and other advantages; can be placed on the ceiling or wall mount and other installation methods, simple installation, easy to use; Where carbon monoxide gas is present, once the concentration of carbon monoxide gas reaches the alarm setting value, the detector will emit an audible and visual alarm signal to remind you to quickly take effective measures to effectively avoid the occurrence of fire, explosion, suffocation, death and other malignancies.

△WARNING

Exceeding the temperature and humidity allowable range may reduce or lose the detection function.

1.MAIN SPECIFICATIONS

- Product name: Carbon Monoxide Detector
- Supply voltage: DC4.5V (3×1.5V DC PKCELL AA Battery)
- Battery low voltage: <3.6V
- Standby current: <10uA
- Alarm current: <70mA

- Standard: EN50291-1:2010+AI:2012
- Gas detected: Carbon Monoxide (CO)
- Alarm concentration: 50ppm, Alarm within 60~90min
100ppm, Alarm within 10~40min
300ppm, Alarm within 0~3min
- Operating environment: Humidity : 0°C~40°C ; Relative humidity : <95%No condensing ;
Atmospheric pressure: 86kPa~106kPa; Indoor use type
- Sampling Method: Natural diffusion
- Alarm Method: Sound、 Lighting Alarm
- Alarm volume: ≥85dB (1m)
- Sensors: Electrochemical sensor
- Max lifetime: 7years
- Type: B
- Weight: Around 195g
- Size: 106.0*37.5mm

2. WHAT IS CARBON MONOXIDE (CO)

Carbon monoxide (CO) is a highly poisonous gas that has no taste, colour or smell and therefore very difficult to detect

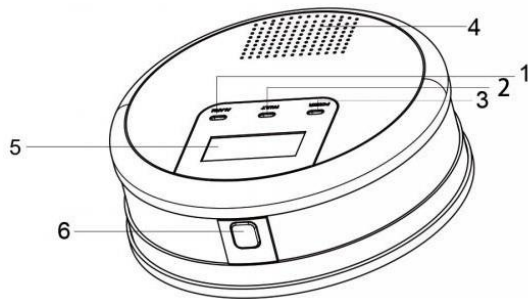
with the human sense. CO kills hundreds of people each year and injures many more. It binds to the hemoglobin in the blood and reduces the amount of oxygen being circulated in the body. In high concentration, CO can kill in minutes. CO is produced from poorly burning appliances, such as:

- Wood-burning stoves
- Gas boilers and Gas heater
- Oil and coal burning appliances
- Blocked flues and chimneys
- Waste gas from car garages
- Barbecues

Symptoms Indicated by Carbon Monoxide Concentration Poisoning

CO Concentration	Rough inhalation time and symptoms developed
50ppm	Maximum concentration bearable in 8 hours for healthy adults
200ppm	Light headache, weak, dim eyesight and nausea after 2-3 hours
400ppm	Forehead pain in 1-2 hours; threaten life after 3 hours
800ppm	Dim eyesight, nausea and spasm in 45 minutes; lose consciousness in 2 hours, death in 2-3 hours
1600ppm	Headache, dim eyesight and nausea in 20 minutes; death in 1 hour
3200ppm	Headache, dim eyesight and nausea in 5-10 minutes; death in 25-30 minutes
6400ppm	Headache, dim eyesight and nausea in 1-2 minutes; death in 10-15 minutes
12800ppm	Death in 1-3 minutes

3.FUNCTION AND INDICATORS



No.	Function indicate
1	Green power indication
2	Yellow fault indication
3	Red alarm indication
4	Sound volume
5	Concentration display
6	Testing button

△WARNING

- Demolition, replacement, damage to parts, collisions, may reduce or lose the detection function
- Improper installation location may not be able to function as a probe

4. WHERE TO LOCATE THE CO ALARM

Install the alarm in the bedrooms or common activity places, or places where you think may generate or leak carbon monoxide. It's suggested to install at least one alarm in each floor of a multistory building to ensure everyone can hear the alarm in sleeping.

Ideally, it is advisable to install a detector in every room that has a fuel-use appliance. However, if there are more than one burning appliances and the number of detectors is limited, the following points need to be considered when determining the location:

- If the bedroom has a burning appliance, you need to install a detector in the bedroom;
- If there is a chimney-free or common flue gas appliance in the room, a detector must be installed in the room;
- If there is an electric appliance in a more-used room, such as a living room, a detector needs to be installed in the room;
- In a bedroom and living room, the detector should be as far away from cooking appliances and sleeping areas as possible;
- If the appliance is in an infrequent room, such as a boiler room, the detector needs to be installed outside the room so that the alarm sound can be heard easily.

Detectors and fuel use appliances should be located in the same room;

If the detector is mounted on a wall, its height should be higher than any window or door, but it must be at least 150mm from the ceiling. If the detector is mounted on the ceiling, it should be at least 300mm from any wall.

The detector is at least 1m to 3m away from the potential gas source;

If there is a partition in the room, the detector should be on the same side of the partition as the source of potential gas;

In a room with a beveled ceiling, the detector should be on the high side of the room;

The detector should be located very close to the area that the occupants often breathe.

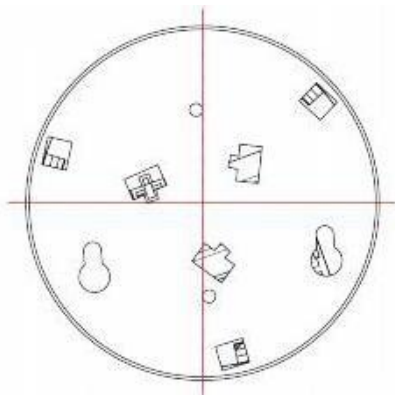
△WARNING

Drop, collision, may or complete loss of detection function.

Please avoid the following places unsuitable to install an alarm to avoid the damage or unnecessary false alarm or no alarm.

- Do not install the alarm behind drape or furniture
- Do not install the alarm in a path of air discharged from a furnace or air conditioning vent or ceiling fan
- Do not install the alarm in places that the temperature can easily drop to -10°C or rise to over 40°C
- Do not install the alarm in places with much lampblack or dust, which will easily block its sensor
- Do not install the alarm in too moist places
- Do not install the alarm directly above a sink or cooker

5.INSTALLATION DIAG



Note: Please use the same specification of 1.5V battery. If you use other low-capacity battery or mix the batteries of different manufacturers, it will shorten the life of the detector; when the battery is exhausted, the machine can not detect carbon monoxide, please Replace the battery with new one.

△WARNING

- Be sure to test the product to ensure that the detector is functioning properly.
- Water mist or drip may cause electric shock and reduce the detection function.
- Cut off the power supply will not be able to play the detection function.

6.HOW TO INSTALL THE CO ALARM

This CO alarm is powered by three LR6 AA batteries and requires no additional wiring. Make sure the alarm can be heard from all sleeping areas or place several alarms.

Install the alarm in places easy to test and operate and to replace batteries. At the time of fixing the alarm on the wall, the installation height must be over 1.5m and 0.3m lower than the ceiling, with 1.5m away from room corners, wall edges and large furniture.

Wall mounting installation steps:

- 1) Having established the mounting location ensure that there is no electrical wiring or pipe work in the area adjacent to the mounting surface.
- 2) Mark the two mounting hole locations in a wall 5.5cm (2.165in) and drill holes in the marked position. Insert wall plugs into the holes.
- 3) Lock the mounting bracket with the screws. Tighten the screws properly.
- 4) Insert three AA batteries in the battery compartment with correct polarity mark on the rear of the detector. After a beep, close the battery cover, and then test whether the alarm is functioning properly by press the “TEST” button on the flank of the detector to make sure it is normal functioning.

5) Clip in the alarm into the mounting bracket.

CAUTION: for safety of the user the CO alarm cannot be mounted without its batteries. When replace the battery, test the alarm to make sure it is normal functioning.

7. OPERATION INSTRUCTIONS

1) The battery is correctly loaded into the detector with positive and negative polarity, The buzzer emits a "beep" sound and the detector starts to warm up for 40s. the LCD screen displays the count down, at this time, the detector has no detection function; after 40s, The detector enters the normal monitoring state and the LCD screen is normally closed. When the measured value of the measured gas in the air is bigger than 20×10^{-6} , the LCD displays the real-time concentration of the measured gas in the environment.

2) When the concentration of the measured gas in the environment reaches the alarm setting value, the detector emits an audible and visual alarm indication.

3) Green power indicator, flashing once every 35 seconds, indicating that the detector is working.

4) Red alarm indicator. When the detector enters the alarm state, the red alarm indicator flashes rapidly and the buzzer sounds at the same time. The alarm of the alarm signal makes four cycles, each cycle is 100ms on/100ms off. Then turn off for 2 seconds until the CO concentration drops below the alarm setting value.

5) This CO alarm has an automatic self-test function to detect any failure of hardware, which is performed about every 1 minute in normal standby status.

Yellow fault indicator keeps on, the buzzer sounds 2 times per 8 second, indicating that the sensor has failed, at this time, there is no detection alarm function. Please contact Dealer for repair. It is extinguished after lighting for 50ms every 35 seconds, at the same time, sounds a "drip", indicates that the battery is under voltage ($\leq 3.6V$) and a new battery needs to be replaced.

Fault/Failure or error messages may be due to permanent damages such as short or open circuit of the sensor, or electric damage. Also, there may be temporary failures or errors due to slight shock of volatile chemical gases such as ethyl alcohol. In this case, the alarm can be recovered after 24 hours in pure air.

A permanent damage occurs when the failure or error information from the alarm is unrecoverable after 24 hours in pure air.

△WARNING

Please stop using permanently damaged alarm! Do not make unauthorized disassembly, repairing, or delivery to those authorized service points that are not designated by the manufacturer.

6) This CO alarm is provided with alarm and concentration data record function.

Test button: short press this button, the green light, the yellow light is always on, the red light is flashing, the buzzer sounds, the display shows the maximum peak concentration of the most recent alarm, if any of the indicator, display or buzzer is abnormal, Please repair it in time to prevent the detector from alarming when the danger occurs.

Press and hold the test button for more than 5 seconds, the peak record is cleared and the screen displays "000".

△WARNING

Alarm record viewing is only a minor additional function for user to easily view and understand whether a carbon monoxide alarm occurred. The data record is only for reference and not for evidence of medical, accident and scientific data.

8. MAINTENANCE

The machine has been calibrated before leaving the factory. It is only necessary to clean the detector housing frequently during use to ensure that the hole in front of the detector is not blocked by dirt or dust. Basic maintenance is not required.

When cleaning the detector housing, wipe it with a clean, soft-bristled or dry flannel. Do not use cleaners, bleach, or polishes.

The CO alarm will alert you to potentially hazardous CO concentration in the home when maintained properly. For the CO alarm proper working, it is recommended:

- Test your CO alarm every month.
- Vacuum cleaning regularly to prevent dust.
- Do not use cleaning solutions on the alarm.
- Keep away from solvents or detergents.
- Avoid spraying air-freshener, hair-spray near the alarm.
- Do not paint the alarm.

ATTENTION:

The following substances can affect the sensor and cause false alarms:

Methane, Propane, Benzene, Toluene, Ethyl acetate, Iso-butane, Iso-propanol, Ethylene, Hydrogen Sulphide, Hydrogen,

Sulphur Dioxide, alcohol based products, paints, thinners, solvents, adhesives, hair-sprays, aftershaves or perfumes and some cleaning agents.

CAUTION:

This CO alarm is designed for indoor use only. Do not expose to rain or moisture. Do not open or tamper with the alarm as this could cause malfunction and risk of electric shock.

Coverage detectors, improper use or maintenance may reduce or lose detection capabilities.

8.WHAT TO DO IN THE EVENT OF THE ALARM SOUND

ΔWARNING:

Activation of the alarm indicates the dangerous CO level presence.

If the alarm sounds:

- 1) Immediately move to fresh air outdoor or open all doors and windows to ventilate the area and allow the carbon monoxide to disperse. Stop using all fuel-burning appliances and ensure, if possible, that they are turned off;
- 2) Immediately inform all other people to evacuate to safe outdoor regions with fresh air and count noses; ask for help from first-aid agencies by dialing or other means, safely ventilate the house after first-aid personnel arrives to eliminate the

dangerous source. Professionals without oxygen supply and gas defense equipment shall not enter the dangerous regions again before the alarm removes the alarm status. If someone is poisoned by carbon monoxide or is suspected of having been poisoned by carbon monoxide, please turn to the emergency medical institutions for help immediately.

3) If the alarm continues to sound, then evacuate the premises, alerting other occupants to the risk. Leave doors and windows open. Do not re-enter the premises.

4) Get medical help for anyone suffering the effects of carbon monoxide poisoning.

5) Telephone the appropriate appliance servicing and maintenance agency necessary, the relevant fuel supplier on their emergency number, so that the source of carbon monoxide emissions can be identified and corrected. Unless the reason for the alarm is obviously spurious, do not use the fuel-burning appliances again, until they have been checked and cleared for use by a competent person according to national regulations.

△WARNING:

The installation of the apparatus should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.

This product cannot prevent, detect and control your gas appliance and exhaust system.

ΔWARNING:

Carbon monoxide alarm could not function as a replacement of smoke or gas alarm.

If multiple alarms occur again in 24 hours after a carbon monoxide leakage has occurred and been eliminated professionally, ask qualified agencies or professionals for troubleshooting your gas appliances and exhaust ventilation systems.

ΔWARNING:

This apparatus is designed to protect individuals from the acute effects of carbon monoxide exposure. It may not however, prevent the chronic effects of carbon monoxide exposure and will not fully safeguard individuals at special risk or with specific medical conditions. If in doubt consult a medical practitioner.

9. COMMON FAULTS AND SOLUTIONS

Fault phenomenon	Cause of failure	Solution
The green power indicator is off	The power cable is not connected	Connect the power cable
	The indicator lamp has failed	Contact dealer or manufacturer for repairs
No alarm when press the "Test" button	Circuit failure	Contact dealer or manufacturer for repairs

No response to the test gas	Preheating is not completed	Wait for the end of warm-up
	Circuit failure	Contact dealer or manufacturer for repairs
After the warm-up period is over, the detector continuous alarm	Smoking, drinking, or heavy use of volatile organics such as perfume, gasoline, banana water, and paint in the environment	Move to clean air and test whether its performance is normal
	Storage time is too long	Continue to burn more than 2 Hours
	Circuit failure	Contact dealer or manufacturer for repair

This instruction book is very important for proper use of this alarm, please read carefully and keep properly. Our company assumes no responsibility for any consequence of damage and failure resulted from **human factors**.

Thank you for purchasing our products!

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