

# mumbi Carbon monoxide detector / m-CM100

User manual



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<b>DE</b>	<b>Bedienungsanleitung</b>	<a href="http://www.mumbi.de/manuals">www.mumbi.de/manuals</a>
<b>FR</b>	<b>Mode d'emploi</b>	<a href="http://www.mumbi.de/manuals">www.mumbi.de/manuals</a>
<b>IT</b>	<b>Istruzioni per l'uso</b>	<a href="http://www.mumbi.de/manuals">www.mumbi.de/manuals</a>
<b>ES</b>	<b>Manual de instrucciones</b>	<a href="http://www.mumbi.de/manuals">www.mumbi.de/manuals</a>

# User Manual

## m-CM100 — carbon monoxide detector

### Scope of supply

- Carbon monoxide detector with electrochemical sensor
- Holder incl. screws and wall plugs
- 3 batteries type AA
- Instructions

This operating manual contains important information about the installation and operation of your carbon monoxide detector. Before you start to install the device please read the manual carefully and keep it handy for subsequent reference.



### Spezifikationen

Voltage:	DC 4,5V (3xAA alkaline batteries)
Sensortype:	electrochemical
Type of gas detected:	carbon monoxide
Sensor service life:	7 years
Exposure action level:	50 ppm (between 60-90 min.) 100 ppm (between 10-40 min.) 300 ppm (within 3 min.)
Operating temperature:	8°C – 45°C
Humidity:	0% – 90% RH
Beeper volume:	≥ 85dB at 1 minute intervals
Battery life expectancy:	minimum 1 year

The exposure action level indicates the concentration of carbon monoxide and the reaction time of the detector in minutes. For example, if the device detects 100 ppm then the alarm sounds after 10 – 40 minutes.

### What is carbon monoxide?

Carbon monoxide (CO) is a colourless, odourless, tasteless and therefore deadly gas that is released when fuel is burned. It is toxic because it combines with haemoglobin and as a result impedes the transport of oxygen to the blood. In high concentrations carbon monoxide kills within just a few minutes. Every year, hundreds of people die of carbon monoxide poisoning. CO is released due to incomplete combustion e. g. of wood, charcoal, coal, fuel oil, kerosene, petrol, natural gas, propane and butane etc.



### Examples of carbon monoxide sources

- Engine running in garage
- Oil and gas burners
- Wood-burning stoves

- Barbecues/grills
- Wood and gas fires/fireplaces
- Gas household appliances
- Portable generators
- Gas or oil heaters
- Blocked chimneys/flues
- Heating boilers

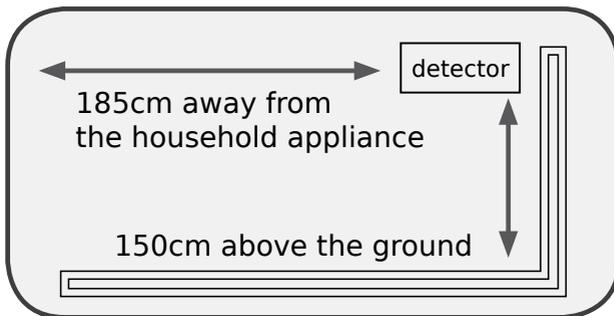
### Examples of CO levels and symptoms

The following symptoms may result from a specific CO level:

35 ppm	This is the maximum allowable concentration that adults can be exposed to during an 8-hour period
200 ppm	Slight headache, tiredness, dizziness, nausea after 2-3 hours
400 ppm	Frontal headache within 1-2 hours, life-threatening after 3 hours
800 ppm	Dizziness, nausea and convulsions within 45 minutes, unconsciousness within 2 hours, death within 3 hours
1600 ppm	Headache, dizziness and nausea within 20 minutes, death within 1h
6400 ppm	Headache, dizziness within 1-2 minutes, death in just a few min.

### Position of CO detector

As carbon monoxide has a similar specific gravity to warm air, the CO detector should be installed at least 1,5m above the ground and 1,85m away from the household appliance it is monitoring.



### Avoid the following areas

- Areas where the temperature may drop below -10°C or exceed 40°C
- Damp areas or areas with high humidity
- Any areas where larger amounts of dust, dirt or oily/greasy emissions can contaminate or clog the sensor
- Behind curtains or furniture
- In the path of air discharged from heaters, air conditioning vents or ceiling fans
- Directly above sinks or cookers / Outdoors

## Installation of CO detector

This CO detector is battery-operated and does not need to be connected to an external power source. It can be fitted to the wall using the fixings provided or placed on a flat surface.



- Once you have determined the best position for the detector make sure that there are no power cables or pipes in this area.
- Wireless systems are exposed to interference from cordless phones, microwave ovens and other electronic devices operating in the 2.4 GHz frequency range. Maintain a MINIMUM DISTANCE OF AT LEAST 3 METRES during installation and operation.

1. Mark the two mounting holes and then drill the marked locations.
2. Put the wall plugs into the drill holes.
3. Screw in the holder (DO NOT OVERTIGHTEN SCREWS).
4. Insert the three batteries firmly into the battery compartment ① on the back of the detector.
5. Mount the detector onto the holder (for your own safety, the detector cannot be closed unless there are batteries in it).
6. Test the device by pressing the test button ⑤ on the front for 2 seconds and then releasing it. Four beeps signal that the device is operational and the red LED ④ flashes.

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## Operating your CO detector

**Normal operation:** As long as the device does not detect any carbon monoxide the green LED ② flashes about every 45 seconds to show that the detector is operational.

**Alarm signal:** If the device detects a dangerous level of carbon monoxide the alarm sounds and the red LED ④ flashes. This continues until the dangerous CO level subsides. Only then does the alarm stop sounding and the detector reverts to standby mode.

**Fault:** The yellow LED status display ③ lights up if the unit is malfunctioning. This indicates a defect that may have been caused e. g. by dirt.



## Low battery capacity

In normal operation the battery will last at least a year. However, battery life may be reduced if the alarm has been sounding for a longer period of time or if a defect occurs in the battery. The device identifies in good time that the battery needs replacing. A simultaneous beep and flashing green LED ② provide a low battery warning for up to 7 days before battery capacity is exhausted. Replace the battery immediately if this happens.

## Battery replacement

1. Remove the detector from the holder.
2. Take the batteries out of the battery compartment ①.
3. Press the test button ⑤ to discharge the remaining voltage.
4. Insert the new, unused batteries (make sure polarity is correct).
5. Let the detector “warm up” for 2 minutes.
6. Test it using the test button ⑤.
7. Put the detector back into the holder.

## What to do if the alarm sounds

-  Move to the fresh air immediately. Go outdoors or open all windows and doors to ventilate the area until the carbon monoxide has dissipated.
- In case of doubt evacuate the building.
- If possible, switch off all types of fuel-burning appliances.
- Do not enter the area again or move away from windows or door until the emergency services have arrived or the rooms have been aired and the detector has reverted to normal mode.
- Get immediate medical help for anyone complaining of headache, confusion or nausea etc.
- Do not use the relevant household appliances again until they have been inspected by qualified service personnel and the malfunction has been eliminated.

## Maintenance

 Installing a CO detector is the first step towards a safer living space. Make sure that you and all other members of the household are familiar with the use of the CO detector and how it works as well as with the symptoms of carbon monoxide poisoning. Ensure that everyone knows how to operate the device:

- Test the device once a month by pressing the test button ⑤ on the front of it for 2 seconds. Four beeps signal that the unit is functional and the red LED ④ flashes.
- Replace dead batteries immediately.
- Clean the device regularly, particularly the front grille area and the sides, to prevent accumulation of dust. You can use a vacuum cleaner or dry cloth to do this. DO NOT USE any cleaning products.
- Do not paint the detector.

- Keep all parts away from children.
- Do not keep the device in a damp, very cold or hot environment, as this can cause damage to the electronic circuits.
- Avoid hard knocks to the device, as this can also damage the electronic circuits.
- The device should be opened and repaired only by authorised specialists.
- If you are renovating, e.g. painting or wall-papering, or when using adhesives and aerosols, remove the device and put it in a safe place to protect it from damage.
- High concentrations of the following substances can damage the sensor and lead to a lot of false alarms: methane, propane, isopropyl butane, ethylene, ethanol (alcohol), isopropanol, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulphate and sulphur dioxide.
- Aerosols, alcohol products, paint, solvents, adhesives, hairspray, after-shave, perfume and certain cleaning products can also damage the device.

### Important safety advice

- Make sure that all electrical connections and cable connections to other devices comply with the relevant guidelines and their operating manuals.
- Make sure not to overload sockets and extension cables, as this can cause fire and electric shock.
- Always look out for signs of carbon monoxide poisoning.
- Buy only tested and certified combustion equipment
- Install combustion equipment correctly, adhering strictly to manufacturer's instructions.
- Have the equipment installed by a specialist.
- Have the equipment inspected regularly by a specialist.
- Have chimneys and flues cleaned once a year.
- Check all combustion units regularly.
- Make sure that your equipment is free of rust and damage.
- Never barbecue or grill in enclosed spaces.
- Ensure adequate ventilation when operating an open fire or a multi-fuel burner.
- If you are in any doubt at all about the functioning, safety or connection of your devices please consult a specialist.

### Never ...

- ... burn charcoal in enclosed spaces, mobile homes, caravans or campervans, tents or huts.
- ... repair, test or install combustion furnaces unless you are authorised to install them and have the necessary specialist knowledge.
- ... use gas stovetops or ovens, hairdryers or clothes dryers for heating.
- ... use combustion furnaces in closed rooms without ventilation.

- ... operate petrol or diesel stoves inside the house or in enclosed spaces.
- ... ignore the safety cut-out of a device.
- ... ignore an alarm from a CO detector.

This CO detector is only suitable for detecting carbon monoxide from combustion processes. It is NOT suitable for alerting to the presence of smoke, fire or other gases.

### Protecting the environment



At the end of its service life this product must not be disposed of with the normal domestic waste but has to be taken to a collection point for recycling electrical and electronic devices. This is indicated by the symbol on the product, operating manual or packaging. The active substances can be recycled as designated.

Re-utilising, recycling or repurposing used devices makes an important contribution to protecting the environment. Please contact your local authority regarding the location of an appropriate disposal centre. Dead batteries should be disposed of at municipal or other known collection points. WEEE-Reg.-Nr.: 83627387

This product is not designed for use in recreational vehicle or mobile home. This unit is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully protect individuals with specific medical conditions. Please contact a doctor in case of doubt.

This product complies with the standards: ITEM #11774  
 EN 61000-6-3:2007+A1:2011+AC:2012  
 EN 50130-4:2011  
 EN 50291-1:2010+A1:2012



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