

Carbon monoxide alarm unit– instruction manual

Art. No. 725 003 022

Introduction

Thank you for purchasing the carbon monoxide alarm unit.

The carbon monoxide detector works independently, without any add-on devices and is battery-operated.

This instruction manual is an integral part of the product. Please read it thoroughly before you start the device.

Store the manual in a safe place for future reference and hand it over along with the device if it is passed on to third parties or sold.

Warning: The alarm unit produces a very loud beep. It must not be triggered in the direct vicinity of children or animals. Do not leave the device unattended in a non-installed condition and keep it away from animals, children and people with limited cognitive abilities!

Product view

Product features

- Device complies with the EN 50291-1:2010 standard
- LC display with blue background light
- 85 dB alarm sound
- Permanent carbon monoxide sensor
- Powered by 3 x 1.5 V AA batteries
- Operation: green LED flashes every 30 seconds
- Alarm: three short beeps and a flashing red LED
- Low battery: a short beep and flashing red LED once per minute
- Test/reset button to test the function and to reset the device after a CO alarm
- Alarm memory function for later display of the CO alarm when being absent



Functional principle

The carbon monoxide alarm checks the direct ambient air for its CO content. If it exceeds a limit value, the alarm will sound and the red LED will flash.

CAUTION: This alarm only indicates the presence of carbon monoxide around the sensor. However, carbon monoxide may also be present in other areas of the house without the alarm being triggered.

Technical specifications:

CO concentration and time period until the alarm is triggered:

50 ppm (0.005%)	alarm within 60 – 90 minutes
100 ppm (0.01%)	alarm within 10 – 40 minutes
300 ppm (0.03%)	alarm within 3 minutes

Operating conditions:

Ambient temperature: -10 up to +40 °C Rel. humidity: 20 to 90 % rh

Installation instructions

It is important that the CO alarm unit should be installed by trained specialists only.

The EN 50292 standard in its current version has to be complied with. If necessary, further general and local requirements also have to be observed.

Recommended locations for CO alarm units

In rooms with combustion systems:

- On the ceiling with a distance of at least 300 mm to each wall.
- On the wall near the ceiling, but with a distance of 150 mm to the ceiling.
- Above windows and doors.
- 1 to 3 m away from the source of danger.

In rooms without combustion systems:

- At eye level of the people being in the room, depending on their main positions (lying, sitting, standing).

Further guidance:

CO alarm units should be ideally installed in every room where a combustion system is. If this system has a smoke outlet, also the rooms where the smoke outlet passes through will have to be fitted. Additionally, alarm devices should also be installed in rooms where the residents of the house are spending a longer time.

If you have a limited number of devices available, only those rooms with combustion systems should be preferably fitted.

If the combustion system is in a remote room like the boiler room or utility room, you will have to check if all residents could hear the alarm signal in case of a danger.

If the alarm volume is too low, the detector should be installed in a more central place of the house.

These are the places a CO alarm unit should **not** be installed:

- Directly above a heating or a gas stove
- Directly above the sink
- Next to doors, windows, extractor hoods or fans
- In places with extreme temperatures of below -10 °C or above +40 °C
- In dusty and dirty environment

In no case may CO alarm units be covered or painted over.

Installation

The CO alarm unit consists of a mounting plate for the attachment to the wall or ceiling and the detachable detector. Twist both components against each other to separate them. Fasten the mounting plate on the surface by using the provided bores in the mounting plate as well as appropriate screws and plugs for a permanent safe hold of the mounting plate on that surface. Pull out the tabs between the batteries inserted ex-factory and the battery contacts to activate the voltage supply. Put the alarm unit onto the mounting plate and twist it clockwise until the unit audibly snaps into the latch.

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Test and Commissioning

CAUTION: The 85 dB alarm is very loud! Please press the test/reset button only while being an armlength away from it and with the greatest possible distance between your head and the alarm unit.

After the installation, press the test/reset button. Immediately 3 loud beeps will sound, and the display backlight will light up blue. “888PPM” will be displayed then. The alarm unit has now been activated. The green LED flashes once every 30 seconds to indicate the unit operates properly. As long as the CO content of the ambient air is less than 20 ppm, the LC display will indicate “0PPM”.

Operation

Battery change

Check the status of the CO detector daily. If there is a battery fault, the device will beep once every 30 seconds while the red LED is flashing and the display is showing “LO”. The batteries need to be changed in this case.

Weekly check

The test/reset button can be used for checking the alarm function at regular intervals. When pressing the button, 3 loud beeps will sound and the backlight of the display will light up blue. In this case, the alarm unit is functional and active. If required, remove dust from the unit and from the openings with a soft, dry paintbrush. Do not use any cleaning agents or solvents on the device. Change the battery if required.

Alarm

The following CO concentrations in the ambient air will trigger the alarm of the CO alarm unit:

50 ppm (0.005%)	alarm within 60 – 90 minutes
100 ppm (0.01%)	alarm within 10 – 40 minutes
300 ppm (0.03%)	alarm within 3 minutes

Reset

If you press the test/reset button during an alarm, it will mute. If the CO concentration that has triggered the alarm continues, the alarm will sound again after a certain time. If the CO concentration is between 70 and 200 ppm, it will take about 5 minutes. Should the CO concentration continue to be over 200 ppm, the alarm will sound again in a shorter time. Supposing that the CO concentration falls below 70 ppm, the alarm will not be triggered again.

Alarm memory function

In order to find out if an alarm was triggered while you were absent, hold the test/reset button for a few seconds after your return. If an alarm was triggered while you were away for a longer time, the green LED will flash 1x per second and the peak alarm level will be indicated on the LC display. In this event you should instantly check where the possible CO source is and resolve the problem. By pressing the test/reset button again or automatically after a minute, the CO alarm unit will return back to normal operation.

CAUTION: Whenever you press the test/reset button, 3 loud alarms will sound first!

How to react to a CO alarm

Carbon monoxide (CO) is a colour- and tasteless toxic gas that can be fatal when inhaled. It inhibits the blood's capacity to carry oxygen. Therefore:

NEVER IGNORE AN ALARM!

Call on all residents of the house to respect the following rules of conduct:

WHEN THE ALARM SOUNDS:

- 1) Call the fire brigade or emergency services immediately.
Following the rules of the firemen and rescue crew has absolute priority over any other instructions.
- 2) All residents in the house should go outside and into the fresh air immediately until the fire or emergency service have arrived, the building has been aired and the CO alarm unit has been reset.

A CO alarm can have various causes which have been found and eliminated by professionals. Never repair a possible error source yourself unless you are a professional.

Symptoms of a CO poisoning

Every resident of the house should be able to identify the following signs of a CO poisoning:

Mild exposure: A slight headache, nausea, vomiting, fatigue (often described as flu-like symptoms).

Medium exposure: A severe, throbbing headache, drowsiness, confusion, fast heart rate.

Extreme exposure: Unconsciousness, convulsions, heart failure, possible death.

In case of suspected CO poisoning, please contact the emergency service immediately. Many cases of reported carbon monoxide poisoning indicate that while victims are aware they are not well, they become so confused that they are unable to exit the building or to save themselves by calling for assistance. That is why it is so important for each resident to be familiar with the symptoms mentioned above.