

# Operating Instructions Battery-Powered CO-Detector CM L 4050

## Important:

Read these operating instructions and keep them. Make note of and follow the safety notices.

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Battery Powered Carbon Monoxide (CO) Detector

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## 1. Introduction

These operating instructions must be read completely and carefully. They are a component of your newly purchased, battery-operated, carbon monoxide detector and contain important information concerning its operation and maintenance. In the following, it will be referred to only as the detector. All safety notices are to be observed in the use of this product. If you have any questions concerning the use of this product, contact your dealer or our service office. These operating instructions are to be kept and must if necessary be passed on to third parties.

## 2. Package contents

Immediately after unpacking the contents of your detector's package must be checked for completeness. Also check the detector itself for proper condition.

1 x CO-detector CM L 4050  
3 x 1.5 V AA batteries  
2 x screws  
2 x anchor bolts  
1 x operating instructions

## 3. Technical data

The CO-detector is calibrated so that it sounds in response to the following CO-values, in compliance with EN 50291-1:2010 + A1:2012.

CO concentration	No alarm	Alarm in the air	before	before
50 ppm	60 min.	90 min. 100 ppm	10 min.	40 min.
300 ppm	-	3 min.		

Protection class:	IP 20
Power:	4.5 V (3 x AA 1.5 V)
Max. current:	< 55 mA (alarm)
Sound level of signal:	85 dB (1 m distance)
Battery life:	5 years
Device service life:	7 years

## ATTENTION:

### IMPORTANT!

THIS IS NOT A SMOKE ALARM! This CO-detector was developed to detect carbon monoxide coming from ANY combustion source. It was NOT developed to detect smoke, fire or other gases.

### ⚠ WARNING!

This detector is only intended for use in dry rooms. Use outdoors or in moisture-prone rooms is not permitted. In order to assure the protective function of the detector, the LED POWER must be checked at regular intervals (see the table Alarm Signals and LED-Display). Cover the detector during remodelling work but remember to remove the covering after the remodelling is complete (excessive paint fumes, solvents, cleaning solutions, etc. can damage or impair the sensor). The CO-detector is no substitute for regular maintenance of heating plants or having the chimney swept.

### ⚠ WARNING!

This device is intended to protect persons from the acute effects of carbon monoxide. It cannot offer persons with special medical characteristics complete security. In case of doubt, you should consult a physician.

### ⚠ WARNING!

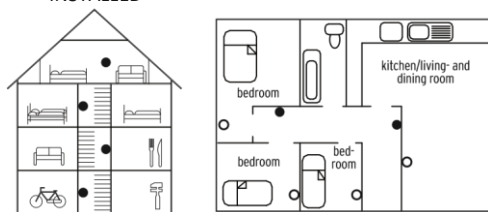
If the CO detector is manipulated, there is a risk of a malfunction and/or an electrical shock.

## 4. Operation and Mounting

In this chapter, the basic functions of the detector are explained. Read through this chapter carefully so that you understand and can use all functions.

### 4.1 Selection of the Mounting Site

## WHERE SHOULD THE CO-DETECTOR BE INSTALLED



Minimum protection (every floor, every sleeping area)  
Optimum protection (all rooms except kitchen and bathroom)

- A detector should be installed on every floor of the house, preferably in every room.
- The CO-detector is also suitable for boats and recreational vehicles.

The density of carbon monoxide is close to that of air (0.96716) at a room temperature of 20°C. It disperses in the air easily, like perfume, evenly in all directions. However, carbon dioxide is heavier than air at 0°C (density of 1.250). It is therefore possible to mount the detector onto the wall at a height of 1 m – 1.5 m in any room or hallway.

Important: The CO-detector should be located so that you can hear it when sleeping.

WARNING! The detector does not work without a power supply. The CO-detector is an early warning detector!! Please do not paint over the detector.

### 4.2 Environments that are not suitable for installation include areas

- Within 1.5 m of any combustion plant or fireplace that runs on gas.
- Locations with high concentrations of dust, dirt or oils/grease.
- In moisture prone rooms or rooms with high humidity. Install the detector at least 3 m from bathrooms.
- In very cold or hot locations, where the temperature can drop below -10°C or rise above 40°C.
- with an air humidity below 30% or above 90% relative humidity
- In direct sunlight, directly over a sink or cooking device.
- Behind curtains, drapes, furniture or locations where there is no air circulation.
- In unheated basement rooms and garages.
- In locations where the detector could be exposed to chemical solvents or cleaners.
- Near ventilation openings, exhaust pipes and chimneys.
- Near heaters or cooking equipment of any kind.
- In the vicinity of ceiling fans, heating vents, air conditioners and fresh air vents.

4.3 Installation and commissioning Mark two drill holes (spacing 58 mm) and drill holes in the wall using a 5 mm drill bit. Make sure you don't damage any lines! Push the plastic dowels into the drill holes and screw in the two included screws until the screw heads protrude approx. 3 mm. Place the hook openings in the mount on the screw heads and pull the mount down slightly.



The CO-detector should be installed by a professional.

### Installing batteries

The first time you start the unit, pull off the yellow strip to activate the batteries.

### Replacing batteries

Taking the polarity (+/-) into account, insert the three Mignon AA batteries into the device. First, a beep will sound and the green status LED will blink briefly, then the green LED will blink for 2 minutes, every 6 sec. When the green LED is blinking at a 30 sec. cycle, the device is ready for operation.

Turn the CO alarm on the mount until it locks into place and then perform a final check of the functionality of the CO alarm by pressing on the test/reset button. To protect your hearing, stay an arm's length from the unit.

### ALARM SIGNAL & LED- DISPLAY

Note: means "peep, peep, peep"

Detector function	Green Energy display Power	Red Alarm signal Alarm	Red Error signal Fault	Alarm tone
Normal operation	Blinks every 30 sec.	--	--	--
Alarm status	--	4 beeps + blinker	--	■■■■ - 5s- ■■■■ - 5s- ■■■■ --
Empty battery – Warning	--	--	1 beep + blinking every 30 sec.	■ - 30 sec.- ■ - 30 sec.■ --
Sensor error	--	--	2 beeps + blinks every 30 sec.	■■ - 30 sec.■ ■ - 30 sec.- ■■ - 30 sec.-
Warning: End of the sensor service life	blinks every 30 sec. Beep	blinks	--	■ - 30 sec.- ■ - 30 sec.■ --

### 4.4 Additional Functions

The CO-detector is provided with the following additional user-friendly functions:


#### Alarm function:

This function is used to turn off the alarm for 5 minutes.

Press the "Test / Reset" button on the alarm. If the CO-concentration reaches 200 ppm (parts per million), the alarm will reactivate. The detector returns to normal function automatically in 5 minutes.

If the concentration increases during the mute function, the function is overridden and the detector sounds.

 **ATTENTION:** If the CO-concentration is at 200 ppm, the mute function cannot be activated.

 **Warning when the battery is empty:** If the capacity of the battery decreases, the detector will beep once. The red FAULT LED will blink every 30 seconds.

#### **Error warning:**

If the detector discovers an error, it will beep twice. The red FAULT LED will blink every 30 seconds.

**Warning at the end of the detector's service life:** If the CO detector reaches the end of its service life, the green and red LEDs will blink and the detector will beep every 30 sec.  
If this happens, the detector has to be replaced.

#### 4.5 What to do in case of alarm

##### NEVER IGNORE THE CO-ALARM


CO is called the »silent killer« because it is an invisible, odourless and tasteless gas. It arises from the incomplete combustion of fossil fuels.

Among these fuels are: wood, coal, wood charcoal, oil, natural gas, gasoline, kerosine and propane.

Many cases of observed CO-poisoning show that the victims do notice that they feel unwell, but are so disoriented that they are not able to save themselves.

CO-poisoning produces flu-like symptoms such as headaches, tightness in the chest, vertigo, tiredness, confusion and difficulty breathing. Since CO poisoning drives up the victim's blood pressure, the victim's skin can take on pink or red tones.

1. If the CO-detector goes off or you suspect a gasleak, never ignore it!
2. Get out into fresh air immediately or open all doors and windows so that the CO can disperse.
3. Call the fire department from outside the building.
4. Make sure that EVERYONE has left the building.
5. Wait at an open window or outside the building until the emergency services arrive.
6. Consult a qualified technician to localise the CO source.

 Extreme CO-concentrations can cause permanent injury, lead to impairment or death.

##### COMMON RISKS WHICH CAN LEAD TO CO-POISONING

- Technical problems with the device, caused by a fault, inadequate maintenance or care.
- Defective chimney or ventilation shafts.
- Incorrect airflow, a so-called back draught.
- Incorrect installation of a furnace.
- Chimney of the wrong size, etc.
- Barbecues that are used inside.



#### 4.6 Function check/-test

**Important:** The function test must be performed weekly.

Check to ensure that the green LED blinks on a cycle of approx. 30 sec. to ensure the detector is ready for operation.

If the green LED does not blink every 30 sec. or the detector does not react when the test button is pressed:

1. Replace the battery.
2. Make sure the battery is installed correctly.
3. Make sure that the detector is properly cleaned.
4. Check the detector for obvious damage.

If the detector still doesn't work, it must be replaced immediately. Do not attempt to repair it yourself. This would cancel the guarantee.

Note: In normal testing mode the cut-off for the warning signal is not active.

#### 5. Maintenance

The detector may not be exposed to water or dust.

- Test it with the test button at least once per week.
- Vacuum the openings on the detector with a vacuum cleaner.
- Wipe off the alarm's surface with a damp cloth.
- Never use cleaning solutions, since this can damage the sensor.
- Test the alarm after cleaning.
- Check to ensure the green "POWER" LED blinks approx. every 30 sec.

The battery lasts for more than a year. Approximately one month before the battery is completely empty, the CO detector will issue a short signal and the red LED will blink every 30 seconds. This signal indicates that the battery has to be replaced. During this time, the alarm works normally. Test the alarm every time you replace the batteries.

**WARNING:** The battery should be replaced by a trained professional.

#### **6. Disposal**



When this product has reached the end of its operational lifetime, it cannot be disposed of in the regular household waste. This product

must be taken to a collection site for the processing of electrical and electronic devices for disposal. Inquire with your city or municipal government about options for the environmentally sound and proper disposal of the product.

#### **7. Guarantee**

We grant a 3 year guarantee on this article.

Repairs must be done by authorised dealers.

Damages from improper use, disregarding the operating instructions and parts subject to wear are excluded from the guarantee.