



## GB USER MANUAL CARBON MONOXIDE ALARM MODEL: CA107

**IMPORTANT:** Read this manual carefully before installing the product and save it for future use. This CO Alarm has a product life of 10 years from the production date.

### FEATURES

- Power indicator - green LED
- Fault indicator - yellow LED
- Alarm indicator - red LED
- TEST/SILENCE button
- Low battery warning
- Display showing CO concentration
- Alarm memory

### TECHNICAL SPECIFICATIONS

|                                      |  |
|--------------------------------------|--|
| Model No:                            | CA107                                      |
| Type of apparatus:                   | Type B                                     |
| Sensor type:                         | Electrochemical                            |
| Power source:                        | 2 x AA 1,5 V Alkaline                      |
| Standby current:                     | <20 uA                                     |
| Alarm current:                       | <50mA                                      |
| Alarm sound level:                   | 85 dB at 3 m                               |
| Operating temperature:               | -10 °C to +45 °C                           |
| Operation ambient condition:         | -10 °C to +45 °C, 25 to 95% non-condensing |
| Storage/transport ambient condition: | -20 °C to +50°C, 10 to 95% non-condensing  |
| Product standards:                   | Conforms to EN 50291-1:2018                |



|        |                                  |
|--------|----------------------------------|
| 30PPM  | Without alarm before 120 minutes |
| 50PPM  | Alarm between 60 to 90 minutes   |
| 100PPM | Alarm between 10 to 40 minutes   |
| 300PPM | Alarm within 3 minutes           |

**NOTE:** This CO alarm is designed to detect carbon monoxide gas from any source of combustion. It is not designed to detect any other gas.

### IMPORTANT INFORMATION ABOUT CARBON MONOXIDE ALARMS

#### WHAT IS CARBON MONOXIDE?

Carbon monoxide (CO) is a poisonous gas with no color, odor or taste. Carbon monoxide can be fatal if inhaled. Carbon monoxide binds to the hemoglobin in the blood and inhibits the body's ability to absorb oxygen. At high concentrations of carbon monoxide deaths can occur in just a few minutes.

#### SOURCES OF CARBON MONOXIDE

Apparatus operated with a fossil fuel, for example for heating or cooking, the most likely source of carbon monoxide in a home. Vehicles with engine running in the garage next to the residence, can also cause dangerous amounts of carbon monoxide. It can also produce carbon monoxide when burning fossil fuels such as gasoline, propane, natural gas, oil and wood. The gas could come from any fuel-powered device that is defective, not properly installed or not maintained properly, for example:

- Automobiles, furnaces, gas furnaces, gas stoves, gas-powered refrigerators, water heaters, portable heaters that uses fuel, generators, fireplaces, wood-burning stoves.
- Blocked ducts or exhaust ducts, back pressure and changes in air pressure, corroded or loose air pipes, loose or cracked heat exchanger.
- Vehicles and other combustion engines running in an open or closed garage, which is connected or near a dwelling.
- Burning charcoal or fuel in grills and the like in an enclosed area.

#### POSSIBLE CAUSES OF FORMATION OF CARBON MONOXIDE IN HOUSING:

- Large spillage or reverse venting of appliances using fuels caused by environmental conditions outside, for example, wind direction and / or wind speed, including strong winds, heavy air in the vent pipes (cold or humid air with extended periods between cycles).
- Negative pressure as a result of the use of exhaust fans.
- Simultaneous use of more fuel-driven machines that compete for the limited air in dwelling.
- Defective exhaust system and pipes in fireplaces or heating appliances, ovens and / or any devices with combustion.
- Clogged pipes or exhaust system.
- Widespread use of devices with incineration without sufficient ventilation (stove, oven, fireplaces etc.).
- Vehicle idling in an open or closed garage, or near a home.

You should be aware of potential sources of carbon monoxide in the home. Make sure appliances that use fuels and associated pipes and exhaust pipes work well. Read the early symptoms of carbon monoxide poisoning, do you suspect carbon monoxide poisoning, go out and get immediate help. The best way to prevent this is an annual inspection and regular maintenance of the potential sources of carbon monoxide.

#### SYMPTOMS OF CARBON MONOXIDE POISONING

|          |   |
|----------|---|
| 35 PPM   | Maximum concentration for continuous exposure in a period of eight hours for adults.                              |
| 200PPM   | Moderate headache, fatigue, dizziness, nausea after two to three hours.   |
| 400 PPM  | Severe headache within one to two hours, life threatening after three hours.                                      |
| 800 PPM  | Dizziness, nausea, and seizures within 45 minutes. Unconsciousness within two hours and death within three hours. |
| 1600 PPM | Headache, dizziness and nausea within 20 minutes. Death within one hour.  |

|          |   |
|----------|---|
| 6400 PPM | Headache, dizziness and nausea within one to two minutes. |
|----------|---|

#### THE FOLLOWING SYMPTOMS MAY BE SIGNS OF CARBON MONOXIDE POISONING

**Low exposure:** Slight headache, nausea, vomiting, fatigue (often described as symptoms flu-like).

**Moderate exposure:** Strong, throbbing headache, drowsiness, confusion, rapid pulse.

**High Exposure:** Unconsciousness, convulsions, cardio-respiratory failure, death.

Many reported cases of carbon monoxide poisoning indicate that the victims were aware that something was wrong, however, they have been so confused that they have not managed to save themselves or call for help. Young children and the elderly are most often affected first.

#### IMPORTANT SAFETY DEVICES

**The installation of carbon monoxide detectors are only part of the safety plan. You and your family should learn about sources and symptoms of carbon monoxide poisoning and how to use the detector.**

- Test the CO alarm every week
- Change the battery routinely.

#### DEVICES THAT ARE POTENTIAL SOURCES OF CARBON MONOXIDE

- Buy appliances that are approved by a recognized testing laboratory.
- Install the unit properly, in accordance with the manufacturer's instructions.
- Leave any installation to a professional.
- Make sure appliances are regularly checked by a qualified service technician.
- Clean lines and exhaust ducts every year.
- Make regular visual inspections of all appliances that use fuel.
- Check for rust and flaking on the apparatus.
- Do not use the grill indoors or in a garage attached to the house.
- Be aware of the symptoms of carbon monoxide poisoning.

#### YOU SHALL NOT:

- Burn charcoal in homes, caravans, tents and cabins.
- Install, upgrade or perform maintenance on equipment that uses fuel, without the knowledge, skills and expertise required.
- Do not use devices that use kerosene or natural gas, in a closed room without ventilation.
- Use kerosene powered engines indoors or in poorly ventilated areas.
- Ignore the alarm from a CO alarm.

#### LOCATION OF THE CO-ALARM

##### Average house with a floor:

Place the detector as close to bedrooms as possible and make sure that the detector will be heard when there are people in the bedroom.

##### Ordinary residence with several floors or levels:

Install at least one alarm on each floor.

**NOTE:** For maximum protection, install one alarm in each room containing equipment that uses fuels such as gas stoves, ovens, grills, propane-powered appliances, etc.

#### IMPORTANT INFORMATION ABOUT THE LOCATION OF the CO ALARM AND EXCEPTIONS

Carbon monoxide has a density corresponding to the hot air. The detector can be mounted at different locations. To ensure that the detector is working as efficiently as possible if it is mounted on a wall, the detector should be installed at least 1,8 meters above floorlevel and at least 1-3 meters from potential CO sources.

#### DO NOT INSTALL YOUR CO ALARM AS FOLLOWS

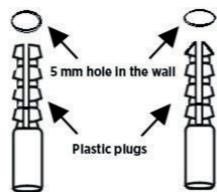
Incorrect placement can affect the detector's function. The points below describe how to avoid damaging the device so that you can achieve maximum performance and avoid unnecessary false alarms. The detector should not be located:

1. At a distance less than 1 meters from a stove.
2. In places where the temperature can drop below -10 ° C or rise above +45 ° C.
3. In humid areas, such as near the bathroom or shower.
4. In areas with emissions that contain much dust, dirt or grease, which can dirty or block the sensor.
5. Behind curtains or furniture.
6. Near the airways from fireplaces, air conditioning, ventilation or fans.
7. Outside the building.
8. Over a sink or stove

**WARNING:** This carbon monoxide alarm is designed for indoor use. It should not be exposed to rain or moisture and do not work if the battery is discharged. DO NOT open the detector, as this can lead to malfunction and warranty loss.

#### HOW TO INSTALL YOUR CO ALARM

1. Drill two 5 mm holes in the wall, the distance between two holes center is 52 mm, insert two plastic plugs provided into the holes.
2. Insert the plastic plugs and the two screws provided until the screw heads are approximately 5 mm from wall.
3. Test the unit by using the TEST/SILENCE button. Ensure that the unit sounds correctly (4 quick beeps, 2 second pause etc.).
4. Hook the unit over the screws.



#### UNDERSTANDING YOUR CO ALARM

After connecting the batteries the first time, green LEDs flashes every second, this is preheated state. 60 seconds later the green LED will flash every 40 seconds, this indicates that the unit is working properly. The LCD displays all segments for 4s and count down. When the countdown is "0", the product goes into normal operation.

**1. Normal operation:** Green LED flashes every 40 seconds.

**2. Fault warning:** If the CO-alarm chirps twice every 40 seconds with corresponding yellow LED flashing, it indicates your CO alarm has malfunctioned. The LCD displays "ERR" which means your CO-Alarm has no detection function and no response to CO concentration. Replace the alarm immediately.



**3. Fault warning silence:** When the device is in a fault mode, press the TEST/SILENCE button, it will enter the fault warning mute state for about 9 hours, while displaying " " on the LCD, and the FAULT indicator (yellow) remains flashing.

**4. Low battery voltage warning:** If yellow LED flashes and the alarm chirps every 40 seconds it indicates that the battery is low. Replace the battery immediately when the alarm enters this mode. LCD display shows " " .

**5. Low battery voltage silence:** When the alarm is under the low battery warning, pressing the TEST/SILENCE button, it will come into silence mode for about 9 hours, yellow LED will still flash once.

**6. CO alarm warning:** When the alarm detects a dangerous level of CO it will emit a loud alarm pattern. The alarm signal pattern is 4 quick beeps followed by 2 seconds of silence. This cycle repeats as long as a dangerous CO condition exists. The red alarm LED will flash the same pattern.

**7. CO alarm warning silence:** Pressing the TEST/SILENCE button during an alarm, the CO alarm will go into silence mode for 10 minutes and the red LED will keep on flashing.

**NOTE:** The audible alarm signal will reactivate about 10 minutes from the time the TEST/SILENCE button is operated, if the concentration of CO surrounding the alarm remains at 50 ppm or greater. The alarm can not be silenced if the concentration is above 200 PPM.

**8. Alarm memory:** 48 hours alarm memory function. When the device goes from alarm mode back to normal mode, and the CO concentration <20PPM, LCD displays "AL" and ALARM indicator (red) flash every 40 seconds. Reset alarm memory by pressing the TEST/SILENCE button.



**9. Test the device:** Press and hold the TEST/SILENCE button, you should hear alarm sound pattern (<85dB) and with a corresponding ALARM indicator (red) flashing. After the eighth sound, the device will issue a normal alarm volume (≥85dB). Test process will stop when release the button.

**10. End of life warning:** If the alarm chirps 3 times every 40 seconds, with corresponding yellow LED flashing and the LCD displays "END". It indicates end of CO alarm. You need to immediately replace the CO alarm.



**11. End of life warning silence:** Press the TEST/SILENCE button, it will enter the End-of-life warning mute state for about 9 hours, while displaying " " on the LCD, and the FAULT indicator (yellow) remains flashing.NOTE: The silence feature of fault warning is a temporary action to cancel warning sound effect, you need replace the device as soon as possible.

#### MEANING OF DIFFERENT LED AND ALARM SIGNALS

| LÄGE                             | LJUD  | LED  | LCD  |
|----------------------------------|---|--|--|
| Normal                           | -   | Green LED flash every 40 seconds                               | CO concentration below 20PPM will display "0PPM"   |
| Test                             | pattern: 4 quick beep, 2 second pause         | Red LED pattern  |  |
| Alarm signal                     | pattern: 4 quick beeps, 2 seconds of silence. | Red LED 4 quick flashes, 5 seconds break, 4 quick flashes etc. | Shows Co concentration. If CO concentration overruns 20PPM, the temperature will be disabled |
| Pause the alarm signal (Silence) | Silent for 10 minutes                         | Red LED flashes as CO Alarm mode                               | -  |
| Fault warning                    | chirps twice every 40 seconds                 | Yellow LED flashing twice                                      | LCD displays "ERR"   |
| Low battery alarm                | Chirps once every 40 seconds                  | Yellow LED flashing  | Indicates that the battery is low -  |
| End of life warning              | Chirps 3 times every 40 sec.                  | Yellow LED flashes 3 times every 40 sec.                       | Displays "END"   |

#### TEST THE UNIT WEEKLY!

**WARNING!** ACTIVATION OF YOUR CO ALARM INDICATES THE PRESENCE OF DANGEROUS LEVELS OF CARBON MONOXIDE. CARBON MONOXIDE CAN BE FATAL..

#### REPLACING THE BATTERY

When the unit chirps every 40 seconds with a corresponding FAULT indicator (yellow LED) flashing it indicates that the battery is low. You must replace the battery with the same type or an equivalent type.

Replace the battery in unit, please perform the following steps:

1. Unhook the unit from screw heads to take down from To the wall.
2. Open battery compartment, remove the old battery.
3. Install the new battery.
4. Close battery compartment.
5. Hook the alarm body over the screw heads onto keyholes in back of the unit.
6. Test the alarm using the TEST/SILENCE button, if the testing alarm is ok, this means the product can work normally.

**WARNING!** Use only the specified batteries. Use of different battery than specified may damage the CO alarm. A good safety measure is to replace the battery at least once a year.

#### TYPE OF BATTERY

|                        |                                |
|------------------------|--------------------------------|
| Voltage:               | DC 3V                          |
| Type:                  | Alkaline (2st)                 |
| Battery life:          | Approx. 2-3 years              |
| Recommended batteries: | Gold Peak GN15A, Energizer E91 |

#### CLEANING THE CO-ALARM

Clean the CO alarm at least once a month to remove dust, dirt and debris. Use a soft brush or a special nozzle and vacuum all sides and cover of the detector. Check that there are no blockages in the air holes. If necessary, use a damp cloth to clean the casing of the detector.

**IMPORTANT:** Do not attempt to remove the cover to clean the inside of the detector. If so, will void the warranty.

#### NOTICE:

- Never use detergents or solvents to clean the detector. The chemicals can contaminate the sensor or doing permanent damage to it.
- Avoid spraying air removers, hair spray, paint or other aerosols near the detector.
- Do not paint the detector. Color blocking vent and enables the sensor is not working properly..

Move the detector to prevent any pollution or damage to the sensor before you paint or scratch the floor or wooden furniture, paint or wallpaper, or via aerosols or glue.

**WARNING:** Install the detector back as soon as possible so that you can ensure continuous protection. The following is a list of substances which in high concentrations can damage the sensor or give an occasional false alarm is a warning of carbon monoxide: Ethylene, ethanol, alcohol, isopropanol, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulphide and sulfur dioxide. This also applies to most areolspray, alcohol-based products such as paint, solvents, adhesives, hair spray, aftershave, perfume, auto exhaust (cold start) and some cleaning agents.

#### WARRANTY

This CO alarm comes with a 5-year limited warranty against manufacturing defects (Valid from date of purchase.) The batteries are not covered by the warranty. Liability under the warranty is limited to the value of an equivalent gas alarm. Defective alarms should be returned to the retailer, along with a description of the problem. If the claim is approved, the faulty goods will be replaced with a new gas alarm of the same or an equivalent type. Any claim must be accompanied by a receipt confirming the date of purchase.

Sunmatic The Safety Company hereby declares that Housegard model CA107 complies with the essential requirements and other relevant provisions of Standard EN50291-1:2018. The Declaration of Conformity is available upon request from kundservice@gpbmnordic.se

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