

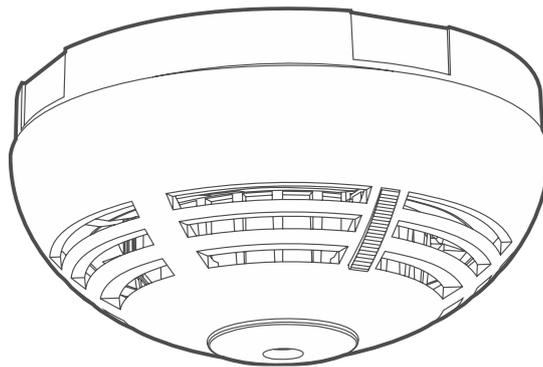


Carbon Monoxide Detector

# ACMD-200

Firmware version 1.03

EN



CE

acmd-200\_BW\_en 01/26

**Satel** ®

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## IMPORTANT

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

Description of symbols on the device:



The device meets the requirements of the applicable EU directives.



The device must not be disposed of with other municipal waste. It should be disposed of in accordance with the existing rules for environment protection (the device was placed on the market after 13 August 2005).



The device is designed for indoor installation.



The device meets the technical regulations of the Eurasian Customs Union.

SATEL aims to continually improve the quality of its products, which may result in changes in their technical specifications and software. Current information about the changes being introduced is available on our website.

Please visit us at:

<https://support.satel.pl>

**Hereby, SATEL sp. z o.o. declares that the radio equipment type ACMD-200 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: [www.satel.pl/ce](http://www.satel.pl/ce)**

### Signs in this manual



Caution – information on the safety of users, devices, etc.



Note – suggestion or additional information.

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The ACMD-200 detector (Carbon Monoxide Detector) detects hazardous concentration of carbon monoxide. The manual applies to the detector installed in the BE WAVE system.

## 1. Features

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- Electrochemical carbon monoxide sensor.
- Digital temperature compensation.
- Operation in the 868 MHz frequency band.
- AES encrypted two-way radio communication.
- Transmission channel diversity – 4 channels for automatic selection of the one that will enable transmission without interference with other signals.
- Remote settings programming.
- Remote firmware update.
- LED indicator.
- Built-in sounder.
- Built-in temperature sensor (measuring range: 0°C...+55°C).
- Carbon monoxide sensor supervision.
- Detector test / reset button.
- Powered by CR123A 3 V battery.
- Battery status control.
- Tamper protection against enclosure opening.



*The carbon monoxide sensor life is up to 10 years.*

## 2. Description

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### Alarms

#### ***Carbon monoxide detection***

The detector reports alarm if it detects a hazardous concentration of carbon monoxide:

- 50-75 ppm for 75 minutes,
- 75-120 ppm for 25 minutes,
- higher than 120 ppm for 1 minute.

#### ***Alarm signaling***

The alarm is signaled by a steady light of the LED indicator and a beep emitted continuously for up to 5 minutes. The alarm signaling will stop when the alarm is cleared.

#### ***Clearing the alarm***

The alarm will be cleared after:

- the test / reset button is pressed (Fig. 1),
- alarm is cleared in the system.

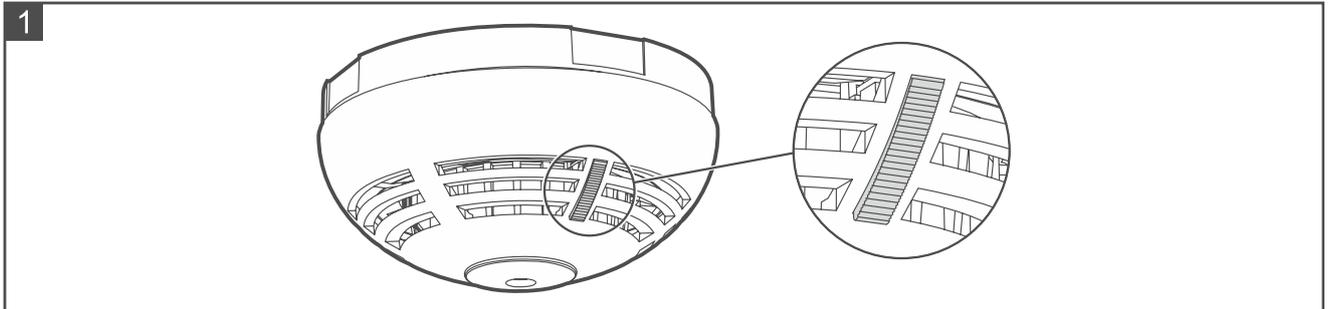
#### ***Signaling of hazardous concentration of carbon monoxide***

If the detector continues to detect hazardous concentration of carbon monoxide after the signaling has stopped (after 5 minutes or after alarm clearing), this will be indicated by two

short flashes of the LED indicator and two short beeps every 2 seconds. The signaling will stop when the concentration of carbon monoxide drops below the hazardous level.



*The carbon monoxide sensor reaction to a decrease in the hazardous gas concentration is delayed, hence the restore of alarm can take place even a few minutes after the danger is over.*



### LED indicator

The LED indicates:

- low battery – 3 short flashes every 30 seconds,
- carbon monoxide sensor trouble – 4 short flashes every 30 seconds,
- alarm – ON (for up to 5 minutes),
- hazardous concentration of carbon monoxide (after the alarm signaling has stopped) – 2 short flashes every 2 seconds.

Additionally, when the diagnostics mode is started in the system, the LED indicator also indicates periodical communication – 1 short flash.

### Sounder

The sounder indicates:

- low battery – 3 short beeps every 30 seconds,
- carbon monoxide sensor trouble – 4 short beeps every 30 seconds,
- alarm – continuous beep (for up to 5 minutes),
- hazardous concentration of carbon monoxide (after the alarm signaling has stopped) – 2 short beeps every 2 seconds.

## 3. Installation



**There is a danger of battery explosion when using a different battery than recommended by the manufacturer, or handling the battery improperly.**

**Do not crush the battery, cut it or expose it to high temperatures (throw it into the fire, put it in the oven, etc.).**

**Do not expose the battery to very low pressure due to the risk of battery explosion or leakage of flammable liquid or gas.**

**Be particularly careful during installation and replacement of the battery. The manufacturer is not liable for the consequences of incorrect installation of the battery.**

**If the detector is mounted higher than 2 meters above the ground, it may cause harm if it falls off.**

### 3.1 Tips for installation

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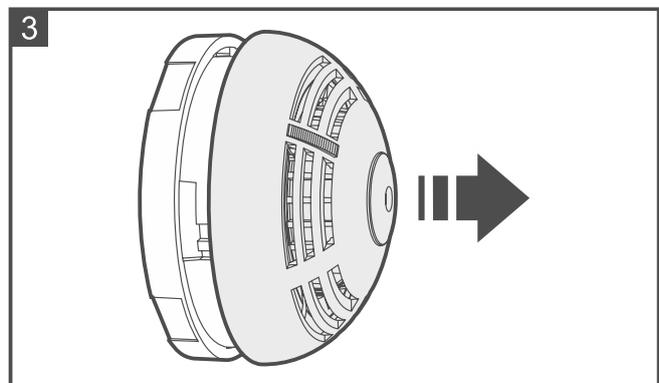
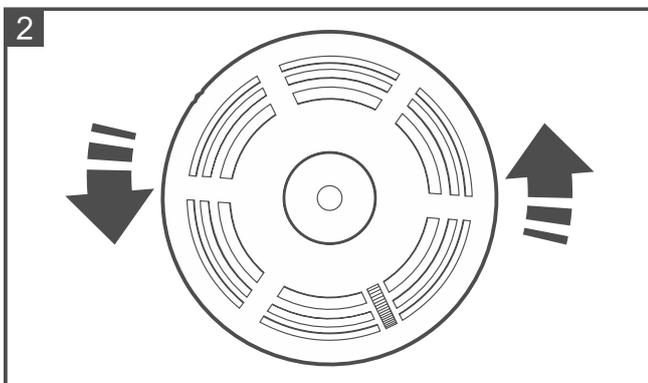
- The detector should be installed indoors, in spaces with normal air humidity.
- Do not install the detector outdoors.
- When selecting a place of installation, consider the radio communication range.
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- Recommended place of installation:
  - bedroom,
  - room with a fireplace / combustion equipment, where there is a risk that carbon monoxide is produced.
- Install the detector at a height of about 1.5-2 meters from the ground.
- Do not install the detector in places where lacquers, glues, paint removers or aerosols are used. It may cause damage to the gas sensor.
- If you are using a double-sided mounting tape, remember to press it properly. Stick the tape to the device and keep pressing for several seconds, then stick the device to the surface and keep pressing for several seconds.

### 3.2 Mounting

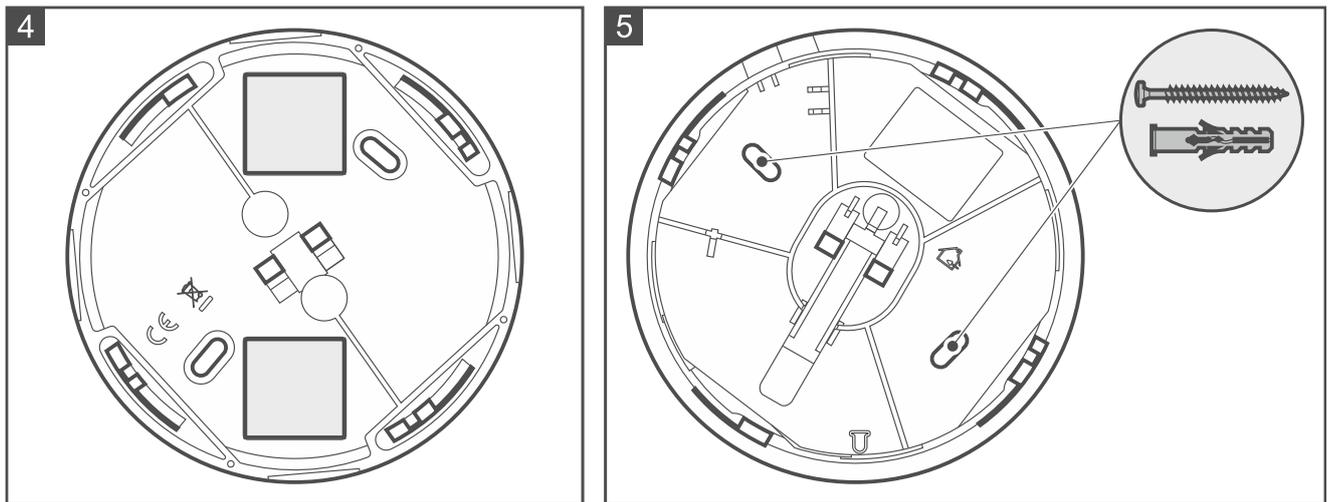
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**i** | Do not remove the jumper from the pins on the detector electronics board.

1. Turn the cover counter-clockwise (Fig. 2) and remove it (Fig. 3).
2. If the detector is to be mounted on the ceiling using a double-sided mounting tape (Fig. 4):
  - stick the tape to the enclosure base.
  - stick the enclosure base to the ceiling.



3. If the detector is to be mounted on the ceiling with screws:
  - place the enclosure base against the ceiling and mark the location of the mounting holes (Fig. 5).
  - drill the holes in the ceiling for wall plugs (anchors). The wall plugs provided with the detector are intended for concrete or brick. For other types of surface (drywall, styrofoam), use other appropriately selected wall plugs.
  - secure the enclosure base to the ceiling with screws.



4. Add the detector to the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel). When a request to turn on the device will be displayed, install the battery in the detector.
5. Replace the detector cover and lock it with a screw. The screw is provided in the bag together with the wall plugs and screws for mounting.



*The cover cannot be replaced when there is no battery inside the detector.*

## 4. Test

1. Press the test / reset button (Fig. 1). An alarm should be generated soon after. The alarm will be signaled by the detector (continuous beep, indicator ON). You will receive a notification from the Be Wave app.
2. Press again the test / reset button to clear the alarm.



*The detector is tested during production process with special gas mixtures. It is forbidden to test the detector by any improvised methods.*

## 5. Battery replacement



**The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.**

When the detector battery is low:

- the LED indicator and sounder indicate low battery (3 short flashes of the LED indicator and 3 short beeps every 30 seconds),
- the Be Wave app will indicate that the battery in the detector is low.

The low battery should be replaced as soon as possible.

1. In the Be Wave app / BE WAVE Soft program, tap / click the room in which the detector is installed.
2. Tap / click the detector name.
3. Start the *Battery replacement* function.
4. Open the detector enclosure.
5. Remove the low battery.
6. Wait 1 minute.
7. Install the new battery.

8. Close the enclosure.
9. Start the *Unbypass device* function in the Be Wave app / BE WAVE Soft program.

## 6. Specifications

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|  |                       |
|--|-----------------------|
| Operating frequency band.....                  | 868.0 MHz ÷ 868.6 MHz |
| Radio communication range (in open area) ..... | up to 1500 m          |
| Battery.....                                   | CR123A 3 V            |
| Battery life expectancy .....                  | up to 2 years         |
| Standby current consumption .....              | 62 µA                 |
| Low battery voltage threshold .....            | 2.75 V                |
| Temperature measurement range .....            | 0°C...+55°C           |
| Temperature measurement accuracy .....         | ±1°C                  |
| Operating temperature range.....               | 0°C...+55°C           |
| Maximum humidity .....                         | 93±3%                 |
| Dimensions .....                               | ø108 x 54 mm          |
| Weight.....                                    | 153 g                 |