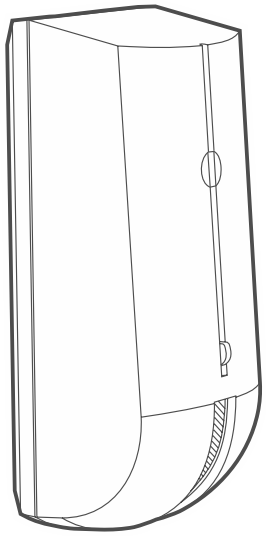
Outdoor Curtain Detector

AOCD-260

EN

Firmware version 1.03



CE

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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 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 AOCD-260 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

Signs in this manual

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

Note – suggestion or additional information.

CONTENTS

The AOCD-260 detector (Outdoor Curtain Detector) uses infrared and microwaves to detect motion in an area shaped like a curtain. It is designed for outdoor installation. The manual applies to the detector installed in the BE WAVE system.

1. Features

- Motion detection with passive infrared sensor (PIR) and microwave sensor (MW).
- Maximum coverage area: 10 m x 0.6 m, 6° (Fig. 6).
- Digital motion detection algorithm for both sensors.
- 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.
- Built-in temperature sensor (measuring range: -40 °C...+55°C).
- LED indicator.
- Supervision of motion detection system.
- Powered by CR123A 3 V battery.
- Battery status control.
- Tamper protection against enclosure opening and removal from mounting surface.
- Weatherproof enclosure.
- Angle-type mounting bracket included.

2. Description

Alarms

The detector reports alarm after:

- detecting motion in the protected area,
- detecting a fault in the motion detection system,
- opening the tamper switch (tamper alarm).

For the detector to report alarm, both sensors (infrared and microwave) must detect motion within less than 5 seconds apart. The detector can report alarm only when it is armed because the microwave sensor is inactive when the detector is disarmed.

Electronics board

Figure 1 shows the detector electronics board.

① battery holder (CR123A 3V).

② tamper switch activated by enclosure opening.

③ microwave sensor. The sensor is activated after motion is detected by the infrared sensor if the detector is armed or the diagnostic mode is enabled.

④ LED indicator. It is flashing for about 45 seconds after inserting the battery (detector warm-up). After that, it is only enabled while the diagnostics mode is started in the system. It indicates:

– periodical communication – short red flash.
– motion detected by the microwave sensor – ON in green for 4 seconds.
– motion detected by the PIR sensor – ON in blue for 4 seconds.
– alarm – ON in red for 2 seconds.

⑤ PIR sensor (dual element pyrosensor).

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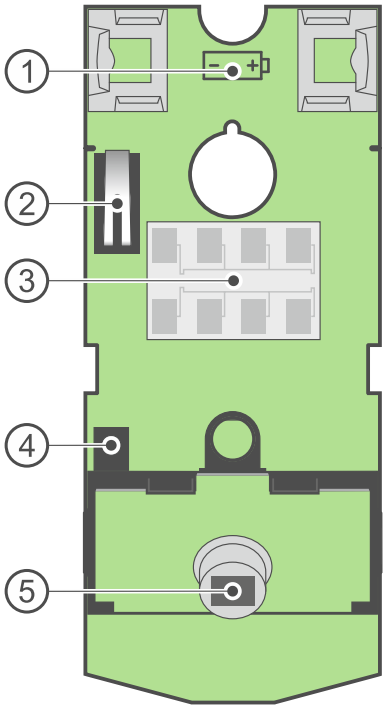


3. Installation

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.

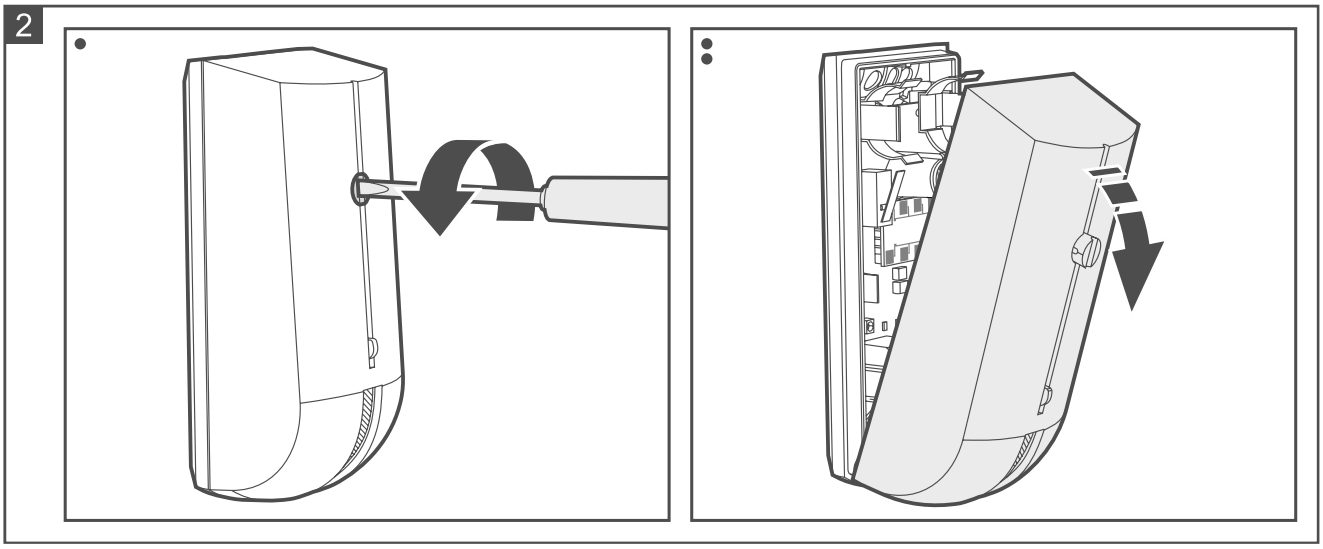
3.1 Tips for installation

- When selecting a place of installation, consider the radio communication range.

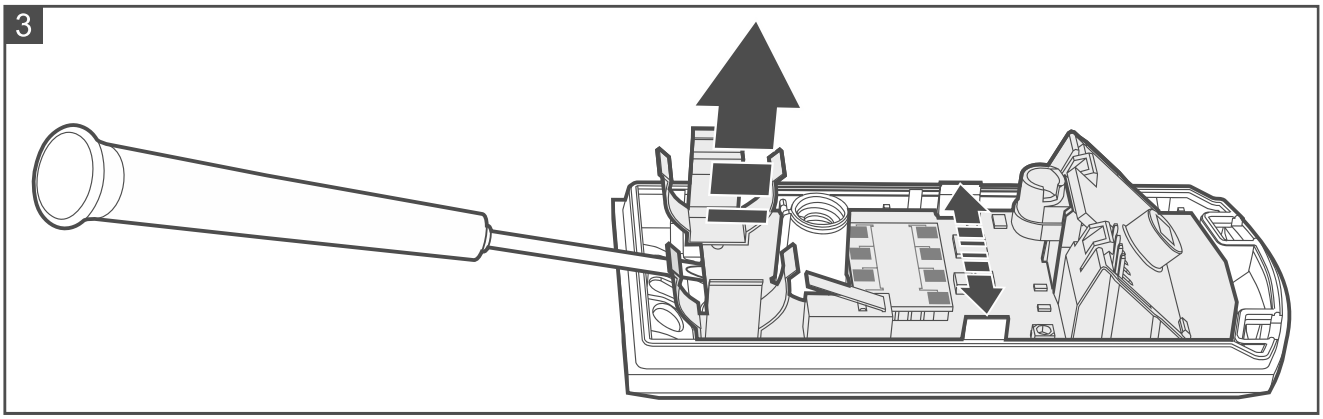
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- Install the detector at a roofed location or under a protective hood (HOOD A by SATEL), where streams of water from rain or melting snow will not run down the enclosure.
- Do not aim the detector directly at sunlight or at surfaces reflecting sunlight.
- Do not point the detector towards heat sources, air conditioners or fans.
- Objects that can be moved by the wind (e.g. branches, bushes, clotheslines, etc.) should be at least 3 m from the detector.
- No object should obstruct the detector's field of view.
- Install the detector at 2.4 m height.

3.2 Mounting

1. Remove the front cover (Fig. 2).



2. Push the fastening catches outward and remove the electronics board (Fig. 3).



3. Secure the enclosure base to the wall (Fig. 4) or to the bracket mounted on the wall (Fig. 5). 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.

If the detector is to detect removal from the surface, secure the detector to the wall (do not use a bracket). In order for the detector to detect removal from the surface, fasten the screw in place marked with the Ⓣ symbol in the figure 4.

The detector must detect removal from the surface if it is to meet the requirements of Standard EN 50131 for Grade 2.

To secure the tamper protection element (opening marked with the Ⓣ symbol in the figure), use a smaller screw.

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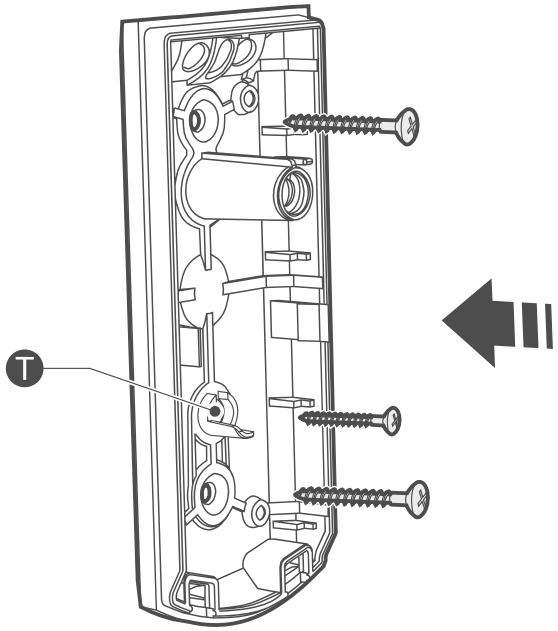

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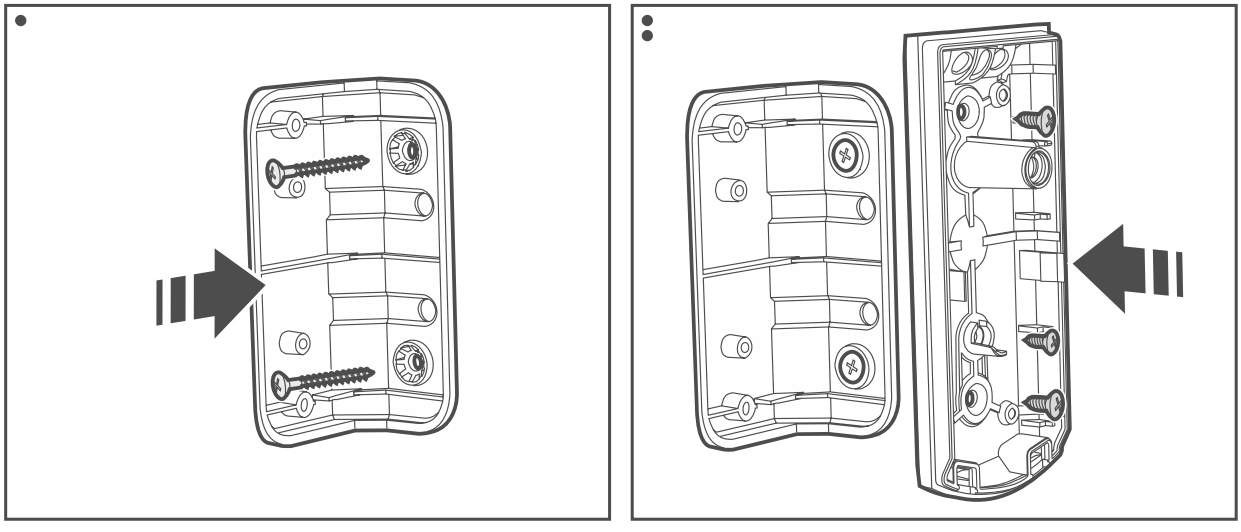

4. Fasten the electronics board in the enclosure.
5. Add the detector to the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel). When a request to turn on the device will be displayed, install the battery in the detector.
6. Replace the cover.

4. Test

1. Enable the diagnostics mode in the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel). When the diagnostic mode is enabled, the microwave sensor is active.

After the diagnostic test is enabled, automatic calibration of the microwave sensor is carried out. For 10 seconds after the diagnostic mode is enabled, there should be no moving object in the detection area of the microwave sensor, as this will prevent proper calibration of the sensor.

2. Check if moving within the detector coverage area will make the LED indicator turn ON. Figure 6 shows the maximum coverage area of the detector.
3. Disable the diagnostics mode.

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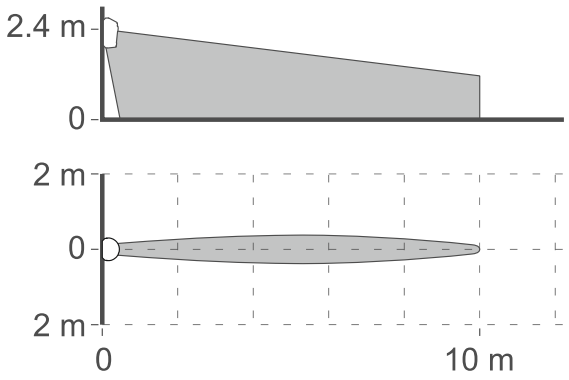

5. Battery replacement

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

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. Remove the front cover.
5. Remove the low battery.
6. Wait 1 minute.
7. Install the new battery.
8. Replace the cover.
9. Start the *Unbypass device* function in the Be Wave app / BE WAVE Soft program.

6. Specifications

Operating frequency band..... 868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area) ..... up to 1300 m
Battery..... CR123A 3 V
Battery life expectancy..... up to 2 years

Standby current consumption	70 µA
Low battery voltage threshold	2.75 V
Temperature measurement range	-40°C...+55°C
Temperature measurement accuracy	±1°C
Microwave frequency	24.125 GHz
Detectable speed	0.3...3 m/s
Warm-up period	45 s
Recommended installation height	2.4 m
Maximum coverage area	10 m x 0.6 m, 6°
Complied with standards	EN 50131-1, EN 50130-4, EN 50130-5
Security grade according to EN 50131-2-4 (detector mounted directly to the wall)	Grade 2
Environmental class according to EN 50130-5	IIIa
Operating temperature range	-40°C...+55°C
Maximum humidity	93±3%
IP code	IP54
Dimensions	44 x 105 x 40 mm
Weight	118 g