

**WIRELESS OUTDOOR
DUAL TECHNOLOGY CURTAIN DETECTOR
A OCD-250**



Firmware version 1.00

WARNING

The device should be installed by qualified personnel.

Read carefully this manual before proceeding to installation.

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

SATEL's goal is to continually upgrade the quality of its products, which may result in some changes of their technical specifications and firmware. The current information on the introduced modifications is available on our website.

Please visit us:
<http://www.satel.eu>

Hereby, SATEL sp. z o.o., declares that this detector is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The declaration of conformity may be consulted at www.satel.eu/ce

The following symbols may be used in this manual:



- note;



- caution.

The AOCD-250 detector makes it possible to detect motion at the moment of crossing the perimeter of protected area. It is designed for perimeter protection. The detector is designed for use as part of the ABAX two-way wireless system. This manual applies to the detector with firmware version 1.00, which is supported by:

- ACU-120 / ACU-270 controller with firmware version 5.02 2016-04-01 (or newer),
- ARU-100 repeater with firmware version 2.02 2015-06-01 (or newer),
- INTEGRA 128-WRL control panel with firmware version 1.15 2016-03-09 (or newer) and firmware version of processor used to operate ABAX system 3.05 (or newer).

1. Features

- Passive infrared (PIR) sensor and microwave sensor.
- Adjustable detection sensitivity of both sensors.
- Remote configuration.
- Digital motion detection algorithm.
- Digital temperature compensation.
- Tricolor LED indicator.
- Supervision of detector signal path.
- Battery status control.
- Tamper protection against cover removal and tearing enclosure from the wall.
- Weatherproof enclosure featuring a very high mechanical strength.
- Angle-type mounting bracket included.

2. Description

Alarms

The detector reports alarm in the following cases:

- both sensors have detected motion within a time interval of less than 5 seconds. This alarm can only be reported in the active mode (see: „Operating modes”).
- tamper switch has been opened (tamper alarm).

Operating modes

Switching between the operating modes is done remotely.

Active mode – motion detection alarm or tamper alarm can be triggered. The microwave sensor activates after motion is detected by the infrared sensor.

Passive mode – tamper alarm only can be triggered. The microwave sensor is inactive. During polling, the detector indicates whether motion has been detected by the infrared sensor. The passive mode prolongs the battery life.

The alarm information is sent instantly.

Test mode

If you want to test the detector, you can remotely enter the test mode. When in the test mode, the detector LED is working.

Supervision of detector signal path

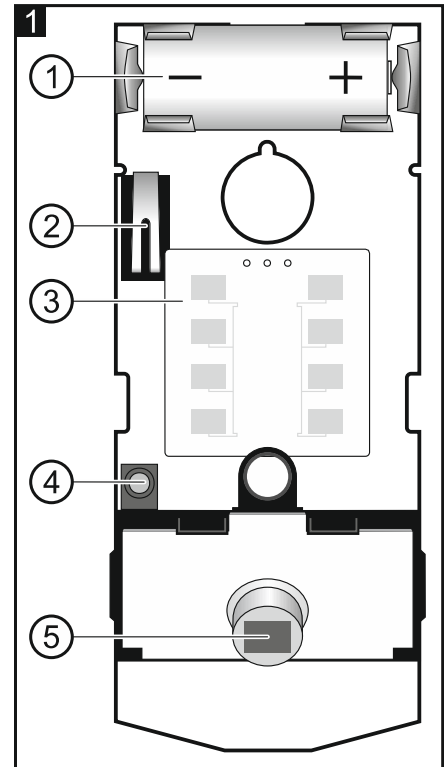
In case of signal path failure, the detector sends information about alarm during each transmission (constant violation).

Battery status control

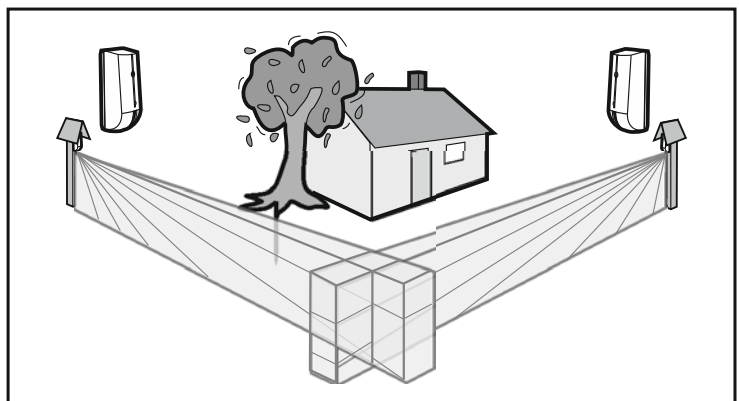
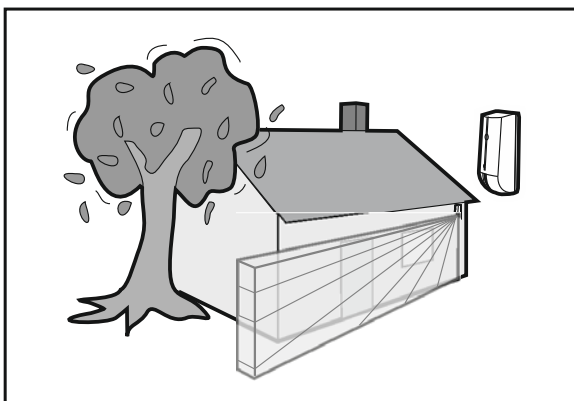
When the battery voltage is below 2.75 V, information about low battery is sent during each transmission.

3. Electronics module

- ① CR123A lithium battery.
- ② tamper switch activated by cover removal.
- ③ microwave sensor.
- ④ tricolor LED to indicate:
 - polling – short flash (80 milliseconds),
 - motion detection by the microwave sensor - the LED lights green for 4 seconds,
 - motion detection by the PIR sensor – the LED lights blue for 4 seconds,
 - alarm – the LED lights red for 2 seconds,
 - warm-up – flashing alternately red, green and blue for about 45 seconds.
 The LED is working for 2 minutes after battery is inserted, as well as in the test mode.
- ⑤ PIR sensor (dual element pyrosensor). **Do not touch the pyroelectric sensor, so as not to soil it.**



4. Installation

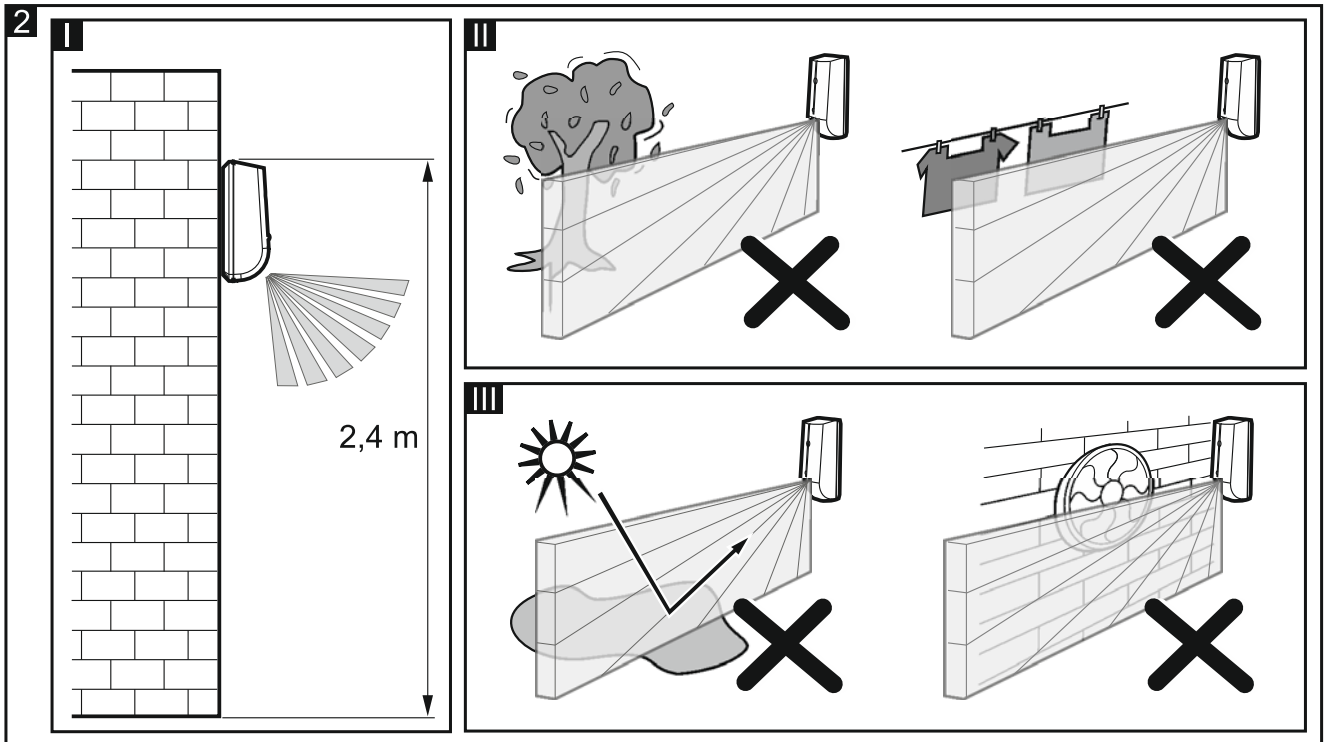


There is a danger of battery explosion when using a different battery than recommended by the manufacturer, or handling the battery improperly.

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

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

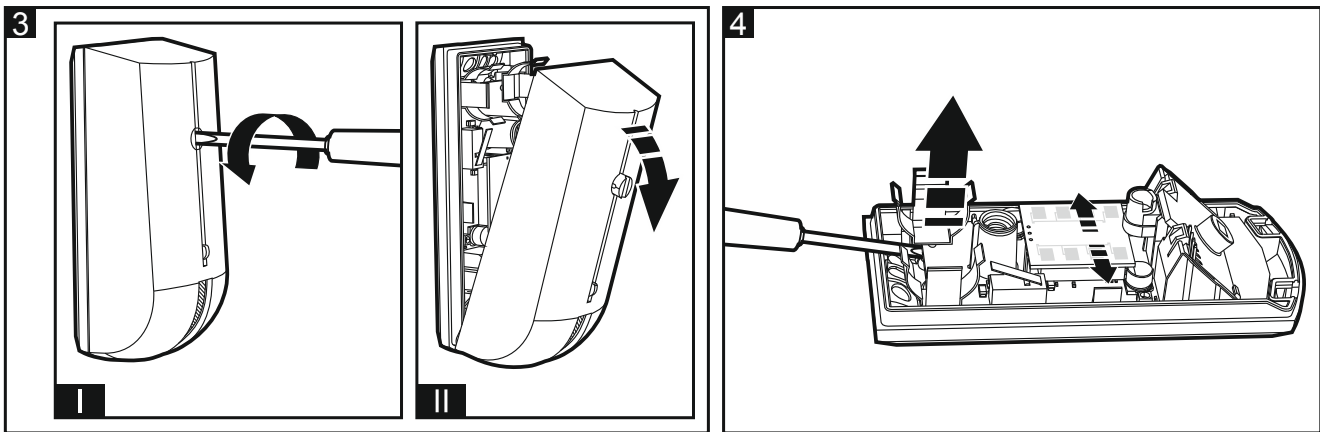
- Install the detector at the recommended height (Fig. 2-I).
- Install the detector at a roofed location or under a protective roof, where streams of water from rain or melting snow will not run down the enclosure.
- Don't install the detector closer than 3 meters from the moving objects (eg. tree branches, bushes, laundry etc.) (Fig. 2-II).
- Don't direct the detector on reflective surfaces or on fans or a heat sources (Fig. 2-III).
- Do not install the detector at any location directly exposed to sun rays.



1. Remove the front cover (Fig. 3).
2. Install the battery and add the detector to the wireless system (see the ABAX controller manual or the INTEGRA 128-WRL / VERSA / VERSA Plus / VERSA IP control panel installer manual). The sticker with serial number which shall be entered when registering the detector in the system can be found on the electronics board.
3. Replace the cover.
4. Place the detector in the location intended for its installation.
5. Check the level of signal received from the detector by the ABAX controller or the INTEGRA 128-WRL control panel. If the signal level is lower than 40%, select another place for installation. Sometimes, it is sufficient to shift the device ten or twenty centimeters to obtain a considerable improvement in the signal quality.
6. Remove the front cover (Fig. 3).
7. Push the fastening catches outward and remove the electronics board (Fig. 4).
8. Make the openings for screws.

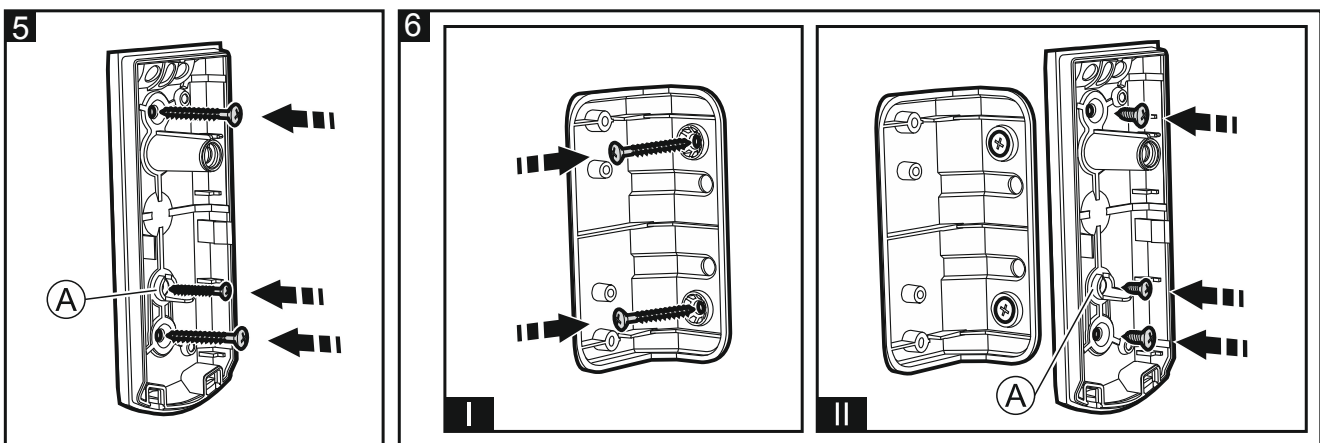


To ensure tightness of the enclosure, make the holes only at places specially intended for this purpose.



9. Mount the enclosure base directly to the wall (Fig. 5) or to the angle bracket screwed down to the wall (Fig. 6). Wall plugs and screws are delivered with the detector. For the hole designated by letter A on the figures 5 & 6, use the smaller screw. Fig. 7 shows the possible ways of detector installation (the detector can also be mounted on the adjustable brackets, BRACKET A and BRACKET B, offered by SATEL).

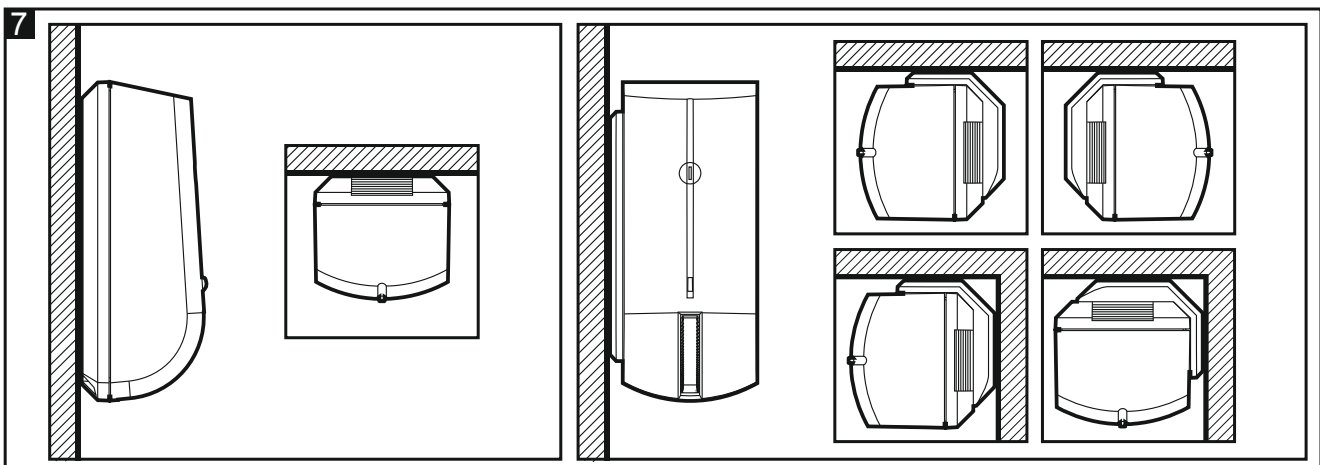
i If the detector is to meet the requirements of EN50131 standard for Grade 3, it must not be mounted on any bracket.



10. Fasten the electronics board.

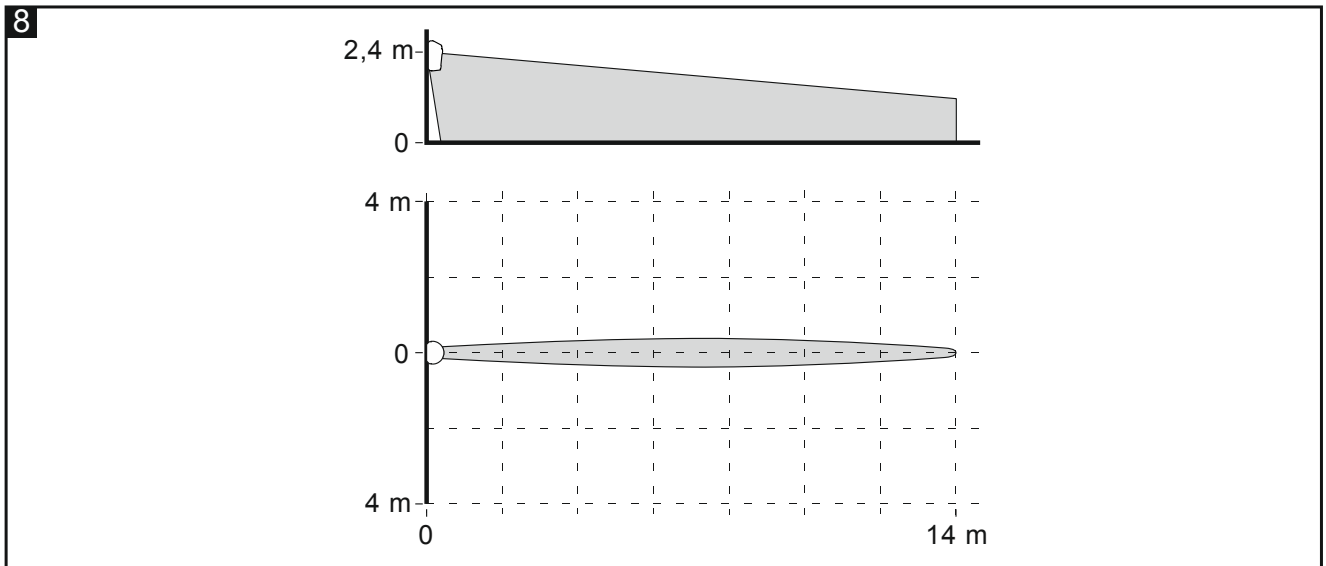
11. Replace the cover.

12. Configure the detector settings (sensitivity of PIR sensor, sensitivity of microwave sensor). For description on how to configure the detector, refer to the ABAX controller manual or the INTEGRA / VERSA / VERSA Plus / VERSA IP control panel programming manual.



13. Start the test mode and check that the motion within the detector area will light up the LED. Fig. 8 shows the maximum coverage area.

14. End the test mode.



5. Specifications

Operating frequency band	868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area)	up to 500 m
Battery	CR123A 3 V
Battery life expectancy	up to 3 years
Standby current consumption	35 µA
Maximum current consumption	20 mA
Microwave frequency	24.125 GHz
Detectable speed	0.3...3 m/s
Warm-up period	45 s
Recommended installation height	2.4 m
Security grade (detector mounted directly to the wall)	Grade 2
Standards complied with	EN50131-1, EN50130-4, EN50130-5
IP code	IP54
Environmental class according to EN50130-5	IIIa
Operating temperature range	-40...+55 °C
Maximum humidity	93±3%
Dimensions	44 x 105 x 40 mm
Weight	118 g