Satel®

CE 1471

APMD-150

WIRELESS DUAL TECHNOLOGY MOTION DETECTOR

apmd150_en 07/16

The APMD-150 detector allows detection of motion in the protected area. The detector is designed for use as part of the ABAX two-way wireless system. This manual applies to the detector with firmware version 6.00, which is supported by:

- ACU-120 / ACU-270 controller,
- ACU-100 / ACU-250 controller with firmware version 4.03 2014-05-15 (or newer),
- ARU-100 repeater with firmware version 2.00 2014-05-15 (or newer),
- INTEGRA 128-WRL control panel with firmware version 1.12 2013-12-20 (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.
- LED indicator.
- Capability of separate sensor testing.
- Supervision of detector signal path.
- Battery status control.
- Tamper protection against cover removal and tearing enclosure from the wall.
- Adjustable 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

The detector operating mode is defined 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. Depending on how the detector operation in test mode is configured, you can test either each sensor individually or both sensors simultaneously. When in the test mode, the detector LED is working.
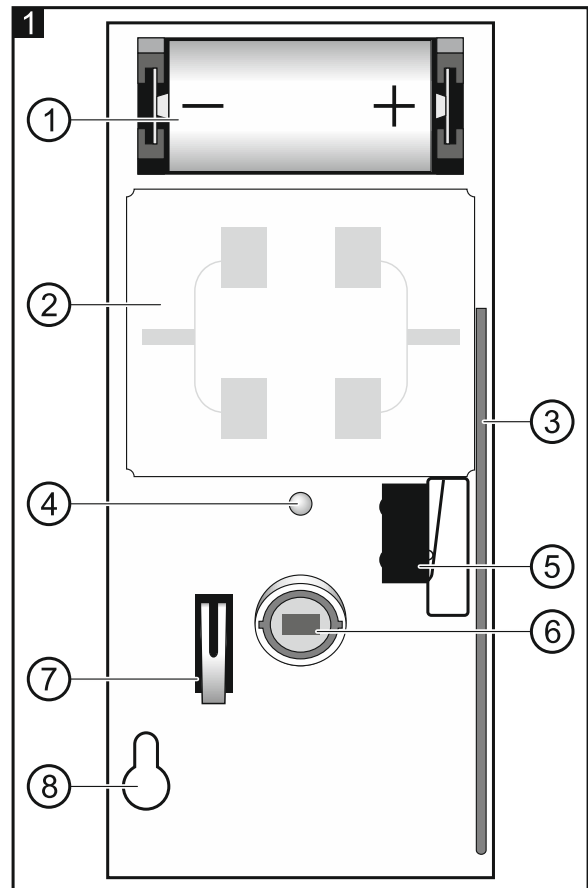
Supervision of detector signal path

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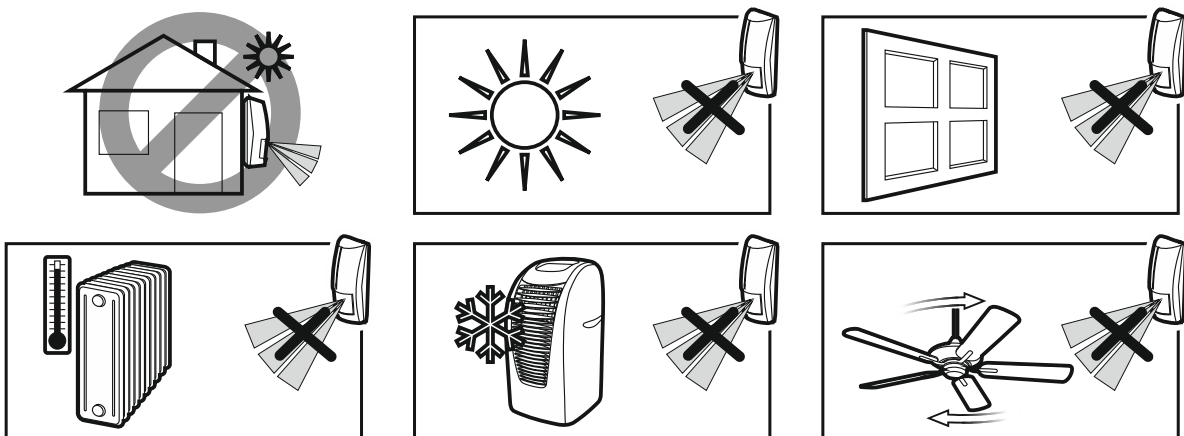
Battery status control

When the battery voltage is below 2.6 V, information about low battery is sent during each transmission.

3. Electronics board

① CR123A lithium battery.

② microwave sensor.

③ antenna.

④ LED to indicate:

polling – short flash (80 milliseconds),
motion detection – ON for 2 seconds,
warm-up – blinking.
The LED is working for 2 minutes after battery is inserted, as well as in the test mode.

⑤ tamper contact activated by detector removal from the back tamper unit.

⑥ PIR sensor (dual element pyrosensor). **Do not touch the pyroelectric sensor, so as not to soil it.**

⑦ tamper contact activated by cover removal.
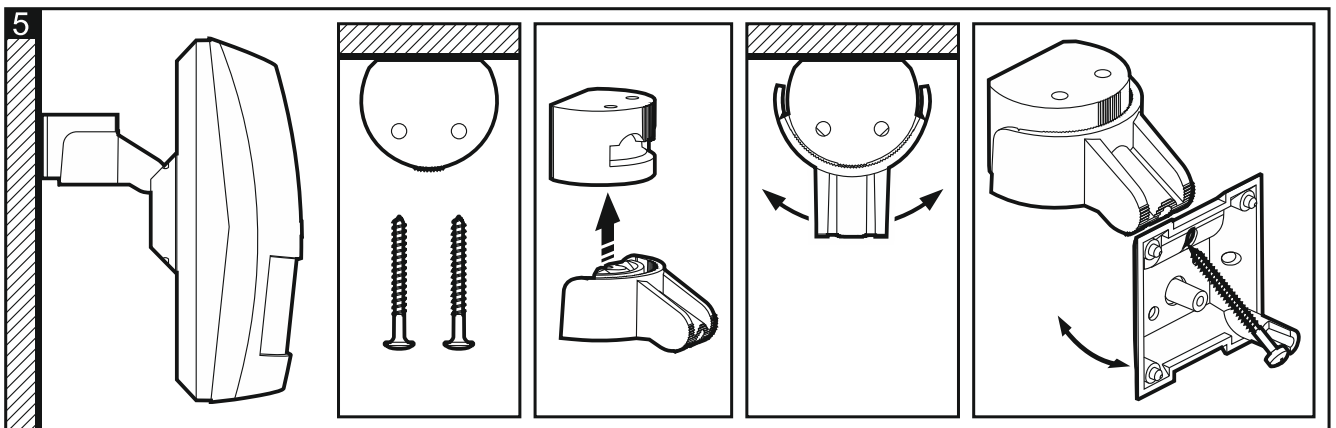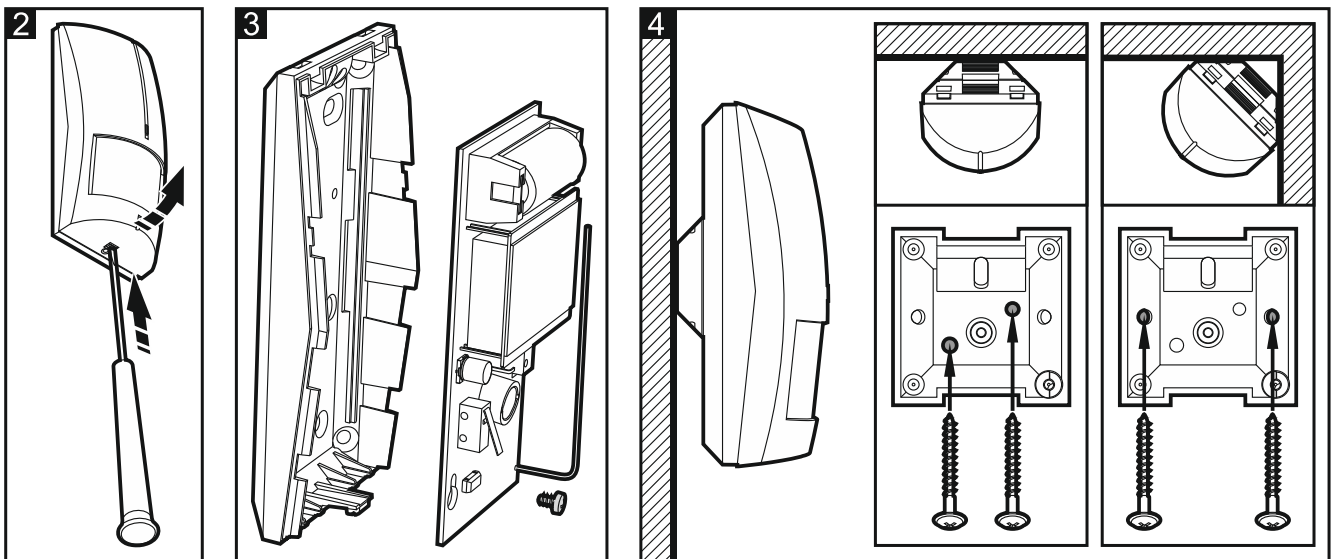
⑧ fixing screw hole.

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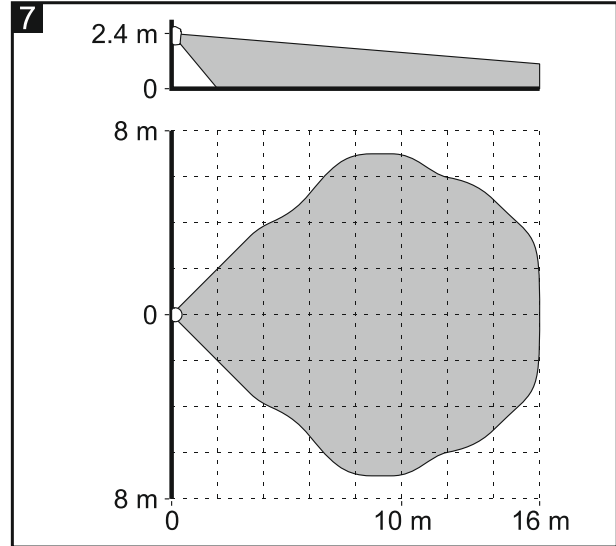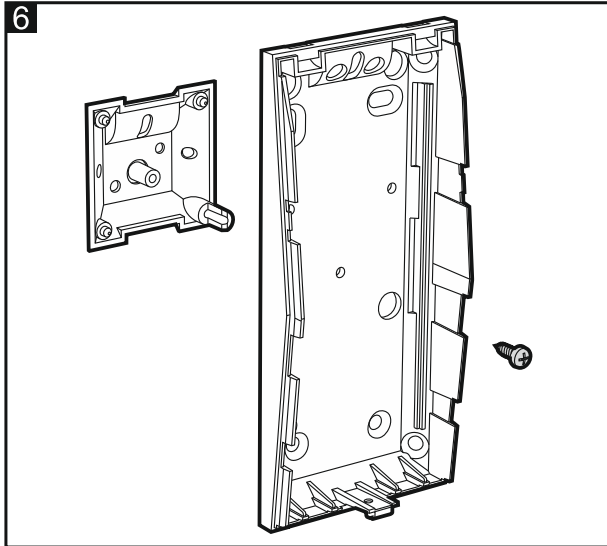
The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.

1. Remove the front cover (Fig. 2).
2. Install the battery and add the detector to the wireless system (see the ACU-100 / ACU-250 / ACU-120 / ACU-270 controller manual or the INTEGRA 128-WRL / VERSA / VERSA Plus / VERSA IP control panel installer manual). The sticker with 7-digit 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. Fasten the detector temporarily at the place of its future installation.
5. Check the level of signal received from the detector by the ACU-100 / ACU-250 / ACU-120 / ACU-270 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. 2).
7. Remove the electronics board (Fig. 3).
8. Make the openings for screws in the back tamper unit.
9. Screw the back tamper unit to the wall (Fig. 4) or to the bracket fixed to the wall (Fig. 5).

10. Screw the enclosure base to the back tamper unit (Fig. 6).
11. Fasten the electronics board.

12. Replace the cover.
13. Configure the detector settings (sensitivity of PIR sensor, sensitivity of microwave sensor, the way of operation in test mode). For description on how to configure the detector, refer to the ACU-100 / ACU-250 / ACU-120 / ACU-270 controller manual or the INTEGRA / VERSA / VERSA Plus / VERSA IP control panel programming manual.
14. Start the test mode and check that the motion within the detector area will light up the LED. Fig. 7 shows the maximum coverage area.
15. 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	approx. 3 years
Standby current consumption	50 µA
Maximum current consumption	30 mA
Microwave frequency	10.525 GHz
Detectable speed	0.3...3 m/s
Warm-up period	45 s
Recommended installation height	2.4 m
Environmental class according to EN50130-5	II
Operating temperature range	-10...+55 °C
Maximum humidity	93±3%
Dimensions	62 x 136 x 49 mm
Weight	154 g