

abax2

Wireless universal transmitter

AUT-200

Firmware version 1.00

EN

CE

aut-200_en 12/25

Satel  [®]

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IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual in order to avoid mistakes that can lead to malfunction or even damage to the equipment.

Disconnect power before making any electrical connections.

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).



Direct current (DC).

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 AUT-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

Signs in this manual



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



Note – suggestion or additional information.

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The AUT-200 transmitter enables wired detectors to be used in a wireless system. It is designed to work within the ABAX 2 two-way wireless system. It is supported by:

- ACU-220 / ACU-280 controller (firmware version 6.09 or newer),
- ARU-200 repeater.

1. Features

- 2 NC inputs for connecting a detector.
- NC input for connecting the detector tamper protection.
- 3 VDC power output.
- Encrypted two-way radio communication in the 868 MHz frequency band (AES standard).
- Transmission channel diversity – 4 channels for automatic selection of the one that will enable transmission without interference with other signals in the 868 MHz frequency band.
- Remote update of transmitter firmware.
- Remote configuration.
- Built-in temperature sensor (measuring range: -10 °C...+55°C).
- LED indicator.
- Powered by:
 - up to 3 CR123A 3 V batteries,
 - external 3...9 VDC power supply.
- Battery / external power supply status control.
- ECO option for longer battery life.
- Displacement sensor (tamper protection).

2. Description

The transmitter occupies 2 positions on the list of wireless devices:

- position 1: M1 and TMP input state and the displacement sensor,
- position 2: M2 input state.

Optionally, the transmitter can occupy only 1 position.



If the state of the TMP input and the displacement sensor is to be supervised, program the alarm control panel zone to which the first transmitter position is assigned as 2EOL/NC or 2EOL/NO.

Radio communication

The transmitter connects to the controller at regular time intervals to provide information about its state (periodical communication). Additional communication may take place as a result of alarm.

Alarm

The transmitter reports alarm:

- after opening the M1 or M2 input.
- after opening the TMP input (tamper alarm),
- after detecting a transmitter displacement (tamper alarm) – optionally, if transmitter displacement detection is enabled (see: ABAX 2 controller manual).



The transmitter remembers its position at the moment of startup, switching to active state and enabling the test mode in the controller.

Operating modes

Active – information about each alarm is sent immediately.

Passive – only information about tamper alarm is sent immediately. This operating mode prolongs the battery life.

The operating mode is turned on remotely. If the detector is used in the SATEL alarm system (e.g. INTEGRA, VERSA, PERFECTA 64 M etc.), the operating mode may depend on the partition state (partition disarmed – passive mode; partition armed – active mode) – refer to the ABAX 2 controller manual for more information.

Energy saving mode (ECO)

If you want to prolong the battery life, you can enable the *ECO* option in the device. When the *ECO* option is enabled, the periodical communication takes place every 3 minutes. This can increase the battery life by as much as four times.

Test mode

The transmitter LED indicator is enabled in the test mode, which makes testing the device easier. How to start and end the test mode is described in the ABAX 2 controller manual.

LED indicator

The LED indicator indicates:

- starting the transmitter – short flash,
- remembering the transmitter position – ON for 1 second,
- trouble – flashing rapidly.

The LED indicator also works in the test mode in which it additionally indicates:

- periodical communication – short flash,
- alarm – ON for 2 seconds.

Power

The transmitter can be powered from batteries or an external power source.



Do not install the batteries and connect an external power supply at the same time.

Batteries

You can install up to 3 CR123A 3 V batteries in the transmitter. The battery holders are connected in parallel, and as a result, the capacity of the installed batteries adds up.

External power supply

You can connect an external 3.6...9 VDC power supply with current limitation of up to 0.5 A to the +3-9VI transmitter terminals. You can use the APS-055 power supply by SATEL. The APS-055 is a flush-mounted 5 VDC / 0.5 A power supply.

Power supply control

Battery status control

When the battery voltage is below 2.75 V, a low battery report is sent during each transmission.

External power supply control

Using the DIP-switches (Fig. 1), specify the supply voltage connected to the +3-9VI terminals. This will set the correct voltage threshold for reporting a power supply failure.

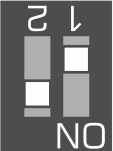
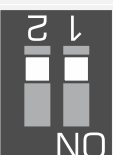
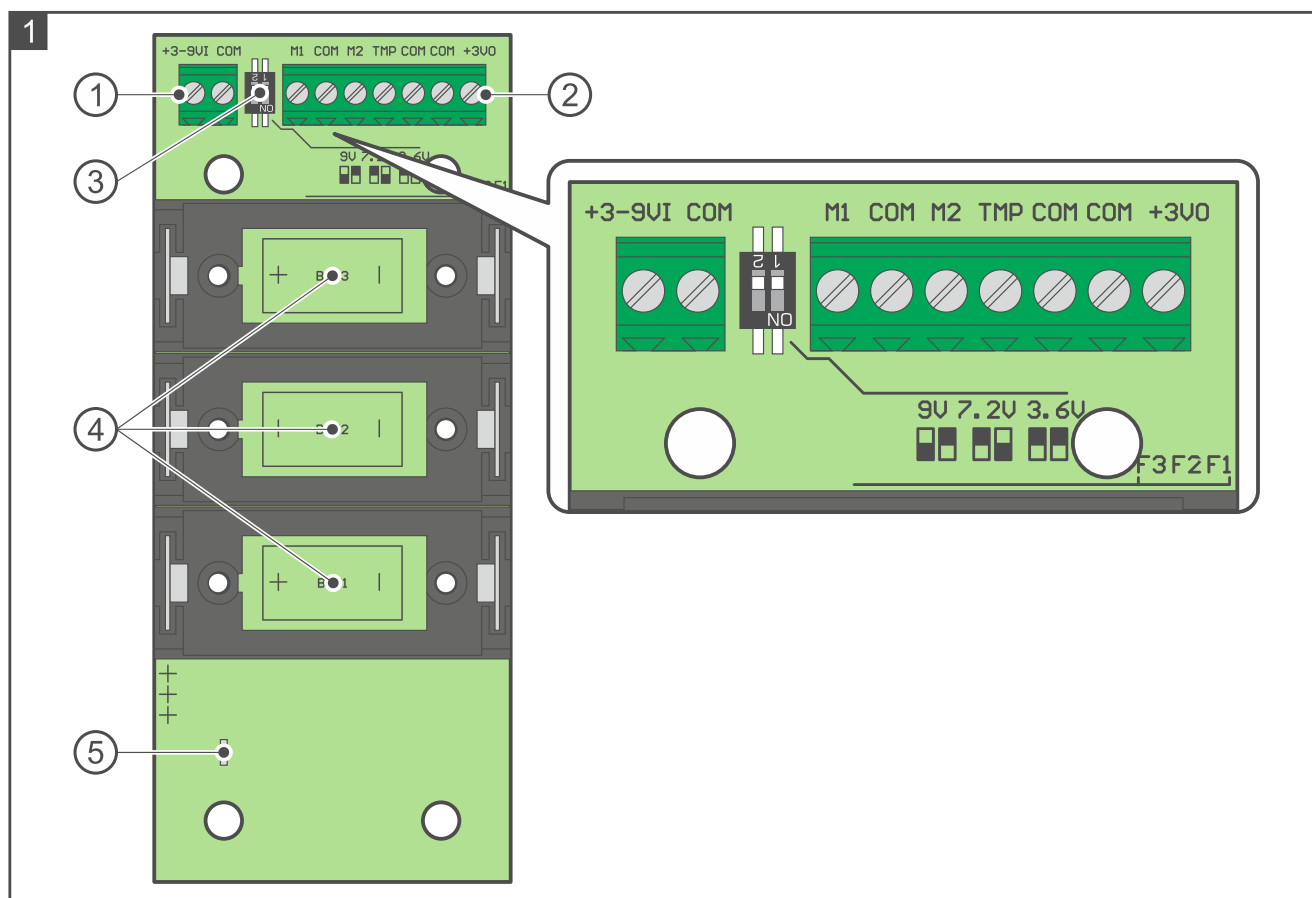
Supply voltage	DIP-switch setting	Power supply failure voltage threshold
9 V		5.4 V
7.2 V		4.3 V
3.6 V (default setting)		3.2 V

Table 1.

3. Electronics board



- ① terminals for connecting an external power supply:
+3-9VI - 3.6...9 VDC power input.

COM - common ground.

② terminals for connecting a detector:

M1 - input for connecting a wired NC detector.

M2 - input for connecting a wired NC detector.

TMP - tamper input (NC).

COM - common ground.

+3VO - 3 VDC power output.



If no detector is connected to the M1 / M2 / TMP input, the terminal must be connected to common ground.

③ DIP-switches for setting the external power supply voltage (see *External power supply control*).

④ battery holders (CR123A 3 V).

⑤ LED indicator.

4. Installation



Disconnect power before making any electrical connections.

Do not install the batteries and connect an external power supply at the same time.

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.

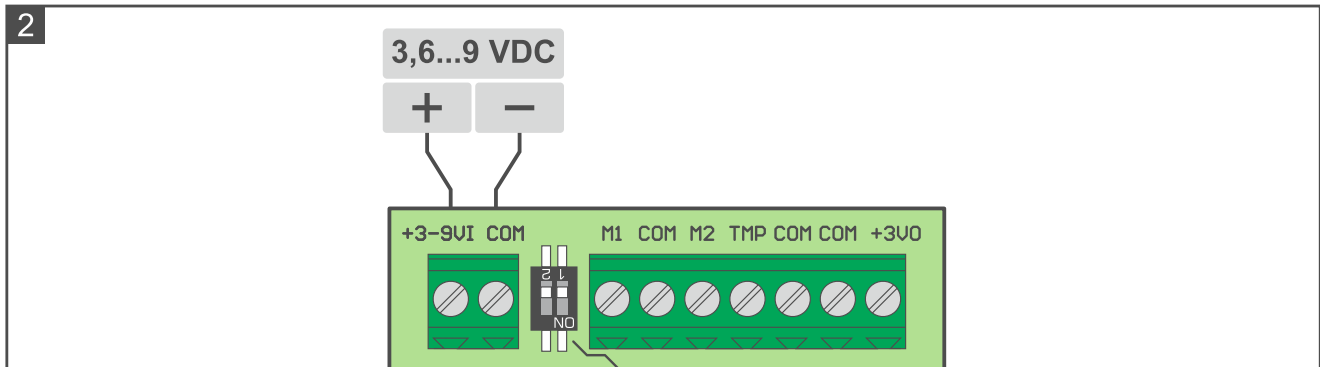
The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.

4.1 Tips for installation

- The transmitter should be installed inside the detector enclosure. It can be a detector designed for indoor or outdoor installation.
- If the detector is too small to house the transmitter inside its enclosure, install the transmitter in another enclosure designed for installation of radio devices. The enclosure should be environmentally resistant to the conditions in the place of installation.
- When selecting a place of installation, consider the radio communication range.
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- To connect the power and the detector, use wires with a cross-section of 0.5-0.75 mm².
- If the transmitter is not installed inside the detector enclosure, the length of the wires to connect the detector should not exceed 3 m.

4.2 Mounting

1. Depending on the selected method of transmitter powering, install the battery (insert just 1 battery into any of the battery holders) or screw the power wires to the +3-9VI terminals (Fig. 2) and turn on the power.



2. Add the transmitter to the wireless system (see the ABAX 2 controller manual). The sticker with the serial number required to register the transmitter in the system can be found on the electronics board.



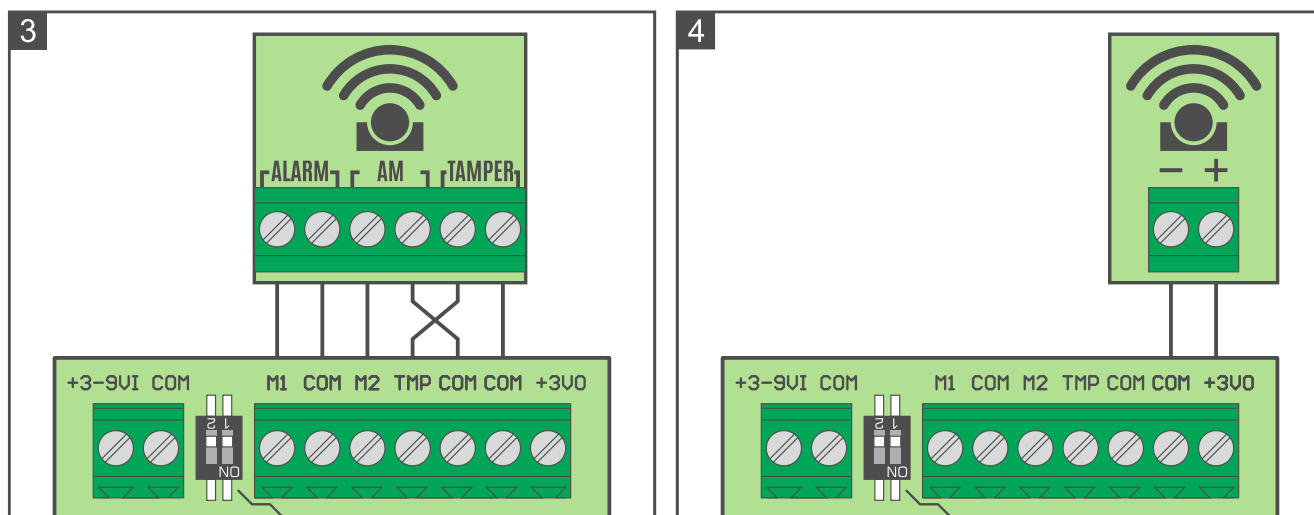
In the VERSA alarm system, you can add and configure the AUT-200 transmitter only by using the DLOADX program.

3. Insert the transmitter inside the detector enclosure or another enclosure and close the enclosure.
4. Place the transmitter at the selected place of installation.
5. Check the level of radio signal received from the transmitter by the ABAX 2 controller. If it is lower than 40%, select another place of installation. Sometimes, it is sufficient to shift the device ten or twenty centimeters. If the transmitter is installed in an enclosure other than detector enclosure, you can also try to turn the enclosure to check what effect the change of antenna position will have on the signal strength.



The ARF-200 tester makes it possible to check the radio signal strength at the place of installation without having to put the transmitter there.

6. Open the enclosure.
7. Remove the battery / turn off the power.
8. Connect the detector to the transmitter inputs. Figure 3 shows the example of connecting the detector (the detector anti-mask output is connected to the M2 input).
9. If the detector is to be powered from the transmitter, connect the detector power input to the +3VO and COM transmitter terminals (Fig. 4).
10. If the transmitter is to be battery powered, install 1 to 3 batteries.
11. If you connected an external power supply, use the DIP switches to specify the supply voltage (see *External power supply control* p. 4).
12. Close the enclosure.
13. If you connected an external power supply, turn on the power.
14. Configure the transmitter settings (see the ABAX 2 controller manual).



5. Specifications

Operating frequency band	868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area)	
ACU-220.....	up to 2000 m
ACU-280.....	up to 1600 m
Batteries.....	CR123A 3 V
Battery life expectancy.....	up to 5 years
Standby current consumption from battery	82 µA
Low battery voltage threshold	2.75 V
Supply voltage (external power supply)	3.6...9 VDC
Maximum current consumption from power supply.....	30 mA
External power supply failure voltage threshold	
9 V supply voltage	5.4 V
7.2 V supply voltage	4.3 V
3.6 V supply voltage	3.2 V
Power output.....	30 mA / 3 V DC
Complied with standards.....	EN 50130-4, EN 50130-53
Environmental class according to EN50130-5	II
Operating temperature range.....	-10°C...+55°C
Maximum humidity.....	93±3%
Dimensions	
without batteries	43 x 102 x 19 mm
with batteries	43 x 102 x 22 mm
Weight.....	80 g



The Battery life expectancy given above applies to a transmitter with 3 batteries installed and a connected detector with an average current consumption of 18 µA. If the transmitter is powered by 1 or 2 batteries or the detector current consumption is higher, the battery life expectancy will be shorter.