Wireless universal transmitter

AUT-200

Firmware version 1.00

EN

aut-200_BW_en 08/26

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IMPORTANT

The device should be installed by qualified personnel.

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 (Wireless Universal Transmitter) enables wired detectors to be used in a wireless system. The manual applies to the transmitter installed in the BE WAVE system.

1. Features

- 2 NC inputs for connecting a detector.
- NC input for connecting the detector tamper protection.
- 3 VDC power output.
- 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: -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.
- Displacement sensor (tamper protection).

2. Description

Alarms

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).

The transmitter remembers its position at the moment of startup, arming and enabling the test mode in the controller.

Electronics board

Figure 1 shows the transmitter.

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:

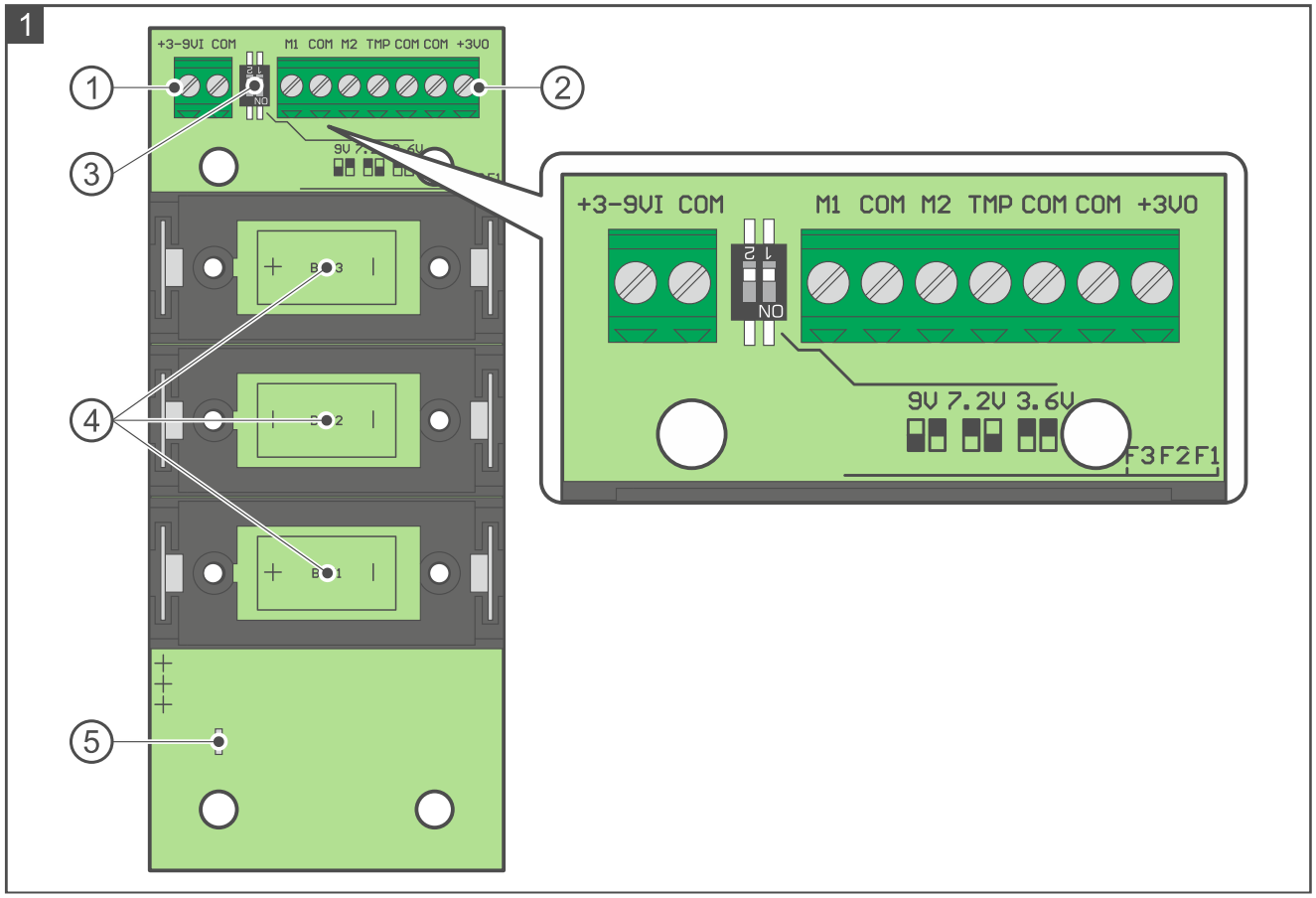
M1 - input for connecting a wired NC detector.
M2 - input for connecting a wired NC detector.
TMP - tamper input (NC).
COM - common ground.
+3VO - 3 VDC power output.

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.



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.

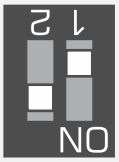
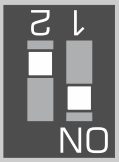
Supply voltage	DIP-switch setting	Power supply failure voltage threshold
9 V		5.4 V
7.2 V		4.3 V
3.6 V (default setting)		3.2 V

Table 1.

LED indicator

The LED indicator indicates:

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

When the diagnostic mode is enabled in the system, the LED indicator additionally indicates:

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

3. 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.

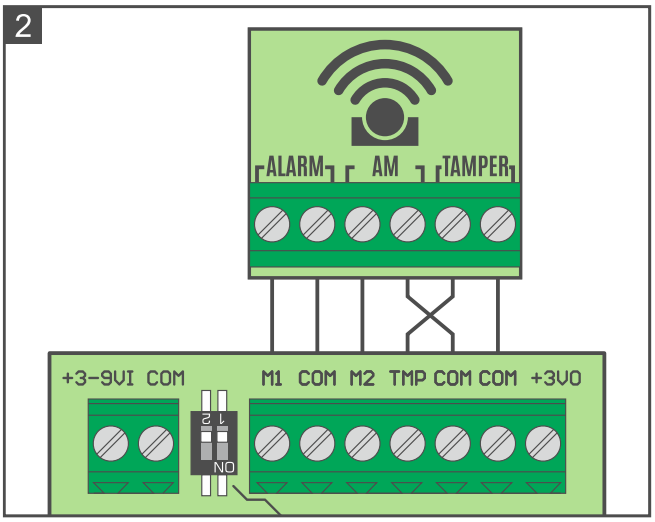
Be particularly careful during installation and replacement of the battery. The manufacturer is not liable for the consequences of incorrect installation of the battery.

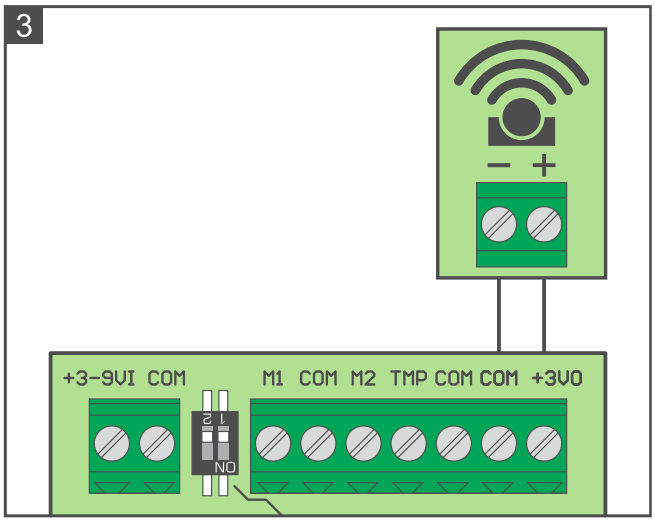
3.1 Tips for installation

- 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 mm^2.
- If the transmitter is not installed inside the detector enclosure, the length of the wires to connect the detector should not exceed 3 m.

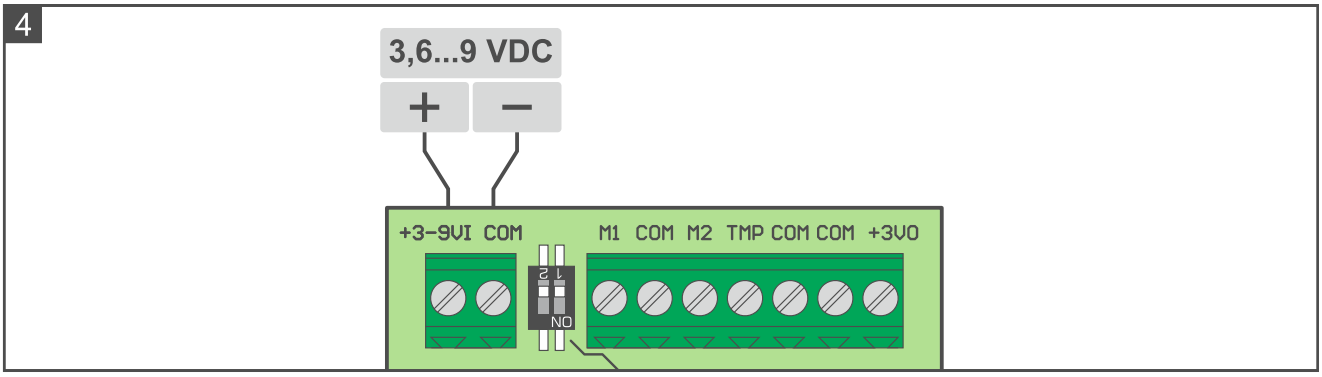
3.2 Mounting

1. Connect the detector to the transmitter inputs (Fig. 2). Figure 2 shows the example of connecting the detector (the detector anti-mask output is connected to the M2 input).
2. If the detector is to be powered from the transmitter, connect the detector power input to the +3VO and COM transmitter terminals (Fig. 3).





3. If the transmitter is to be powered by an external power source:
   – screw the power wires to the +3-9VI terminals (Fig. 4).
   – use the DIP switches to specify the supply voltage (see: External power supply control).



4. Add the transmitter 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 batteries (1 to 3 batteries) or power on the transmitter.
5. Insert the transmitter inside the detector enclosure or inside another enclosure.
6. Close the enclosure.

4. 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 transmitter batteries are low. The low batteries should be replaced as soon as possible.

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

5. Specifications

Operating frequency band ..... 868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area) ..... up to 1800 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 external 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.*