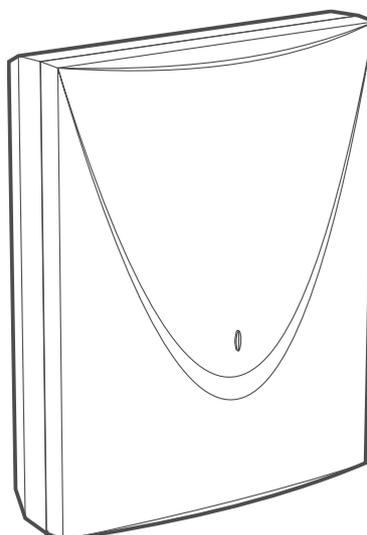




Smart Repeater
ARU-200

EN

Firmware version 2.01



CE

aru-200_BW_en 11/25

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 is designed for indoor installation.



The device meets the technical regulations of the Eurasian Customs Union.



Alternating current (AC).



Protection class II (protective insulation).

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 ARU-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.

CONTENTS

1. Features	2
2. Description	3
3. Installation	4
3.1 Tips for installation.....	4
3.2 Mounting.....	5
4. Specifications	7

The ARU-200 radio signal repeater (Smart Repeater) extends the range of radio communication in the BE WAVE system. This allows you to install wireless devices further away from the controller / control panel. The manual applies to the repeater installed in the BE WAVE system.



You can install one ARU-200 repeater in the system.

1. Features

- Retransmission of signals from 48 wireless devices.
- 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.
- LED indicator.
- Powered by 230 VAC.
- Backup battery.
- Battery charging circuit.
- Battery status control and low battery disconnect system.
- Tamper protection against enclosure opening.



The repeater does not support:

- APCAM-200 detector (Motion Detector Cam),
- AOCAM-210 detector (Outdoor Motion Detector Cam),
- ASP-200 siren (Outdoor Siren),
- ASP-215 siren (Indoor Siren).

If a wireless device communicates via the ARU-200 repeater, the device's firmware will not be updated remotely.

2. Description

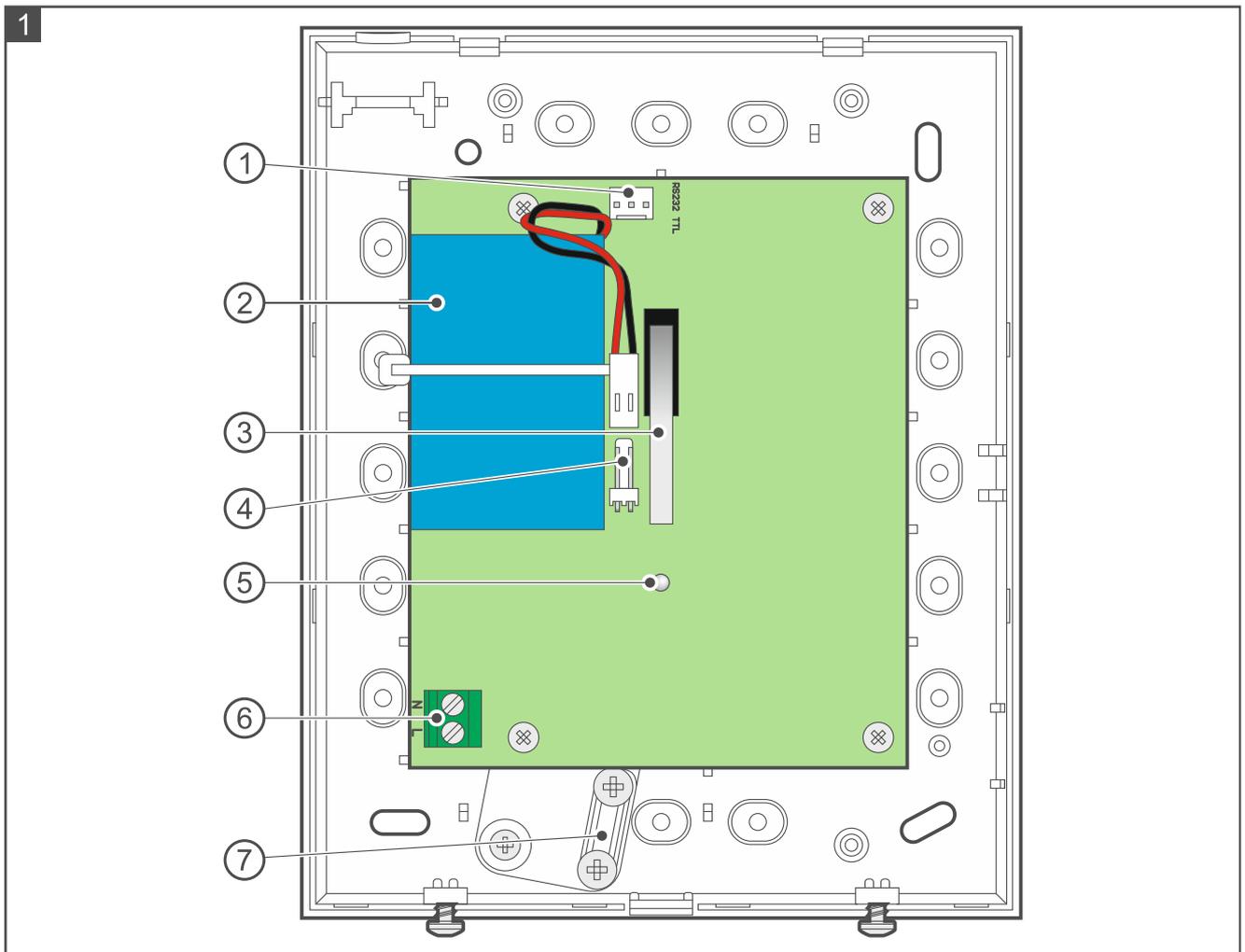


Figure 1 shows the inside of the repeater after removing the cover.

- ① RS-232 (TTL) port – unused.
- ② battery.
- ③ tamper switch.
- ④ battery connector.
- ⑤ LED indicator:
ON in green – normal operation,
flashing in green – no 230 VAC power,
flash in red – communication with the controller / control panel.
- ⑥ 230 VAC terminals.
N - for connecting neutral wire.
L - for connecting phase wire.
- ⑦ element fastening the power cable.

3. Installation



The device should be installed by qualified personnel.

Disconnect power before making any electrical connections.

Connect the repeater to a single-phase network according to the applicable standards.

Do not install the repeater at locations above 2000 m above sea level.

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.

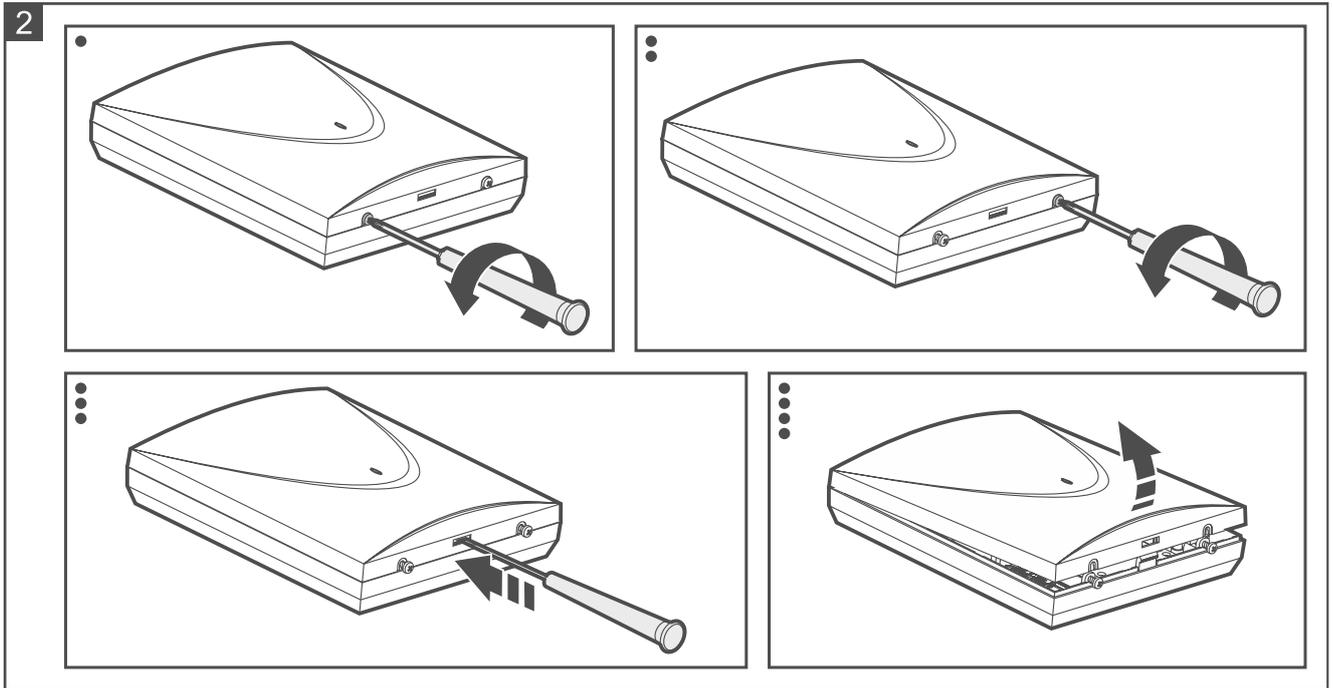
The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.

3.1 Tips for installation

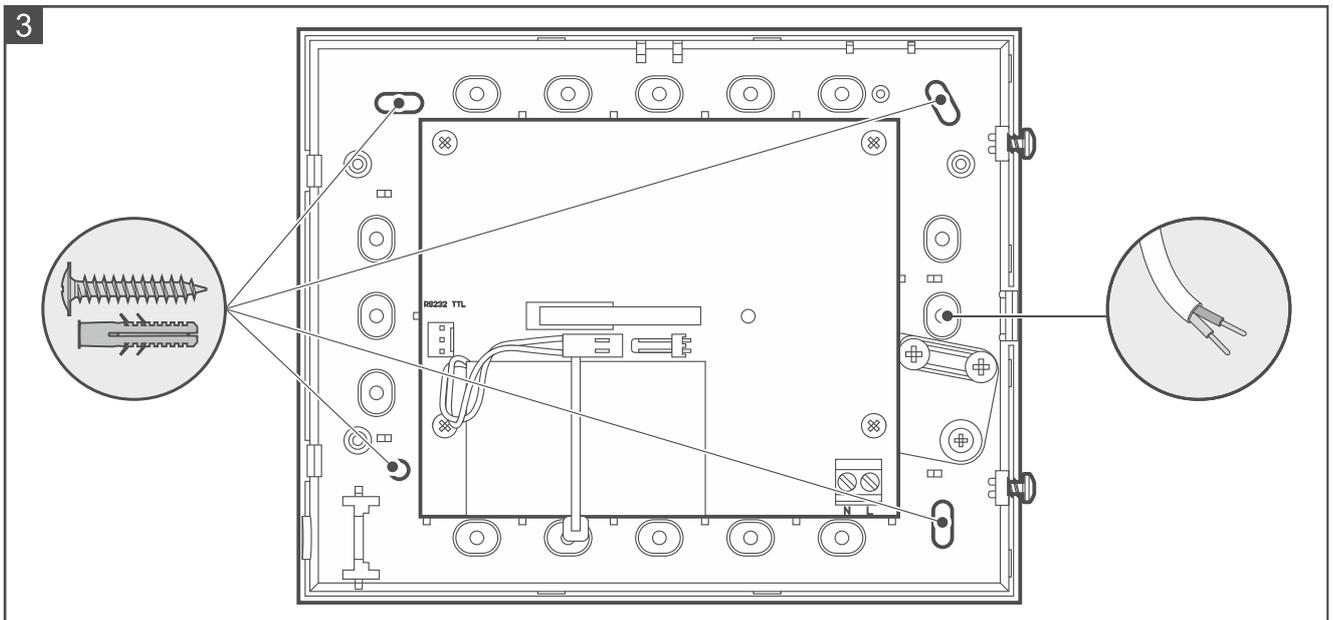
- The repeater should be installed indoors, in spaces with normal air humidity.
- Do not install the repeater outdoors.
- When selecting a place of installation, consider the radio communication range.
- Prior to installation you should plan the arrangement of the wireless devices whose signals are to be retransmitted. Select the place of installation so that the repeater is located within the operating range of the devices.
- It is recommended that the repeater be mounted high above the floor. This will allow you to get a better range of radio communication and eliminate the risk of the repeater being covered by people moving around the premises.
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- The radio communication range depends not only on the installation location, but also on the position of the repeater antenna, i.e. on how the enclosure is mounted (horizontally, vertically, diagonally). Before you install the repeater, check in which position the range of the repeater is the best.
- The repeater should be permanently connected to the 230 VAC mains supply.
- The electrical circuit to which the repeater is to be connected must have suitable protection (2-pole switch disconnecter and/or 16 A slow-blow fuse).
- Instruct the owner / user of the system on how to disconnect the repeater from the mains supply (e.g. indicate the fuse or circuit breaker protecting the repeater supply circuit).

3.2 Mounting

1. Loosen the cover locking screws and remove the enclosure cover (Fig. 2).

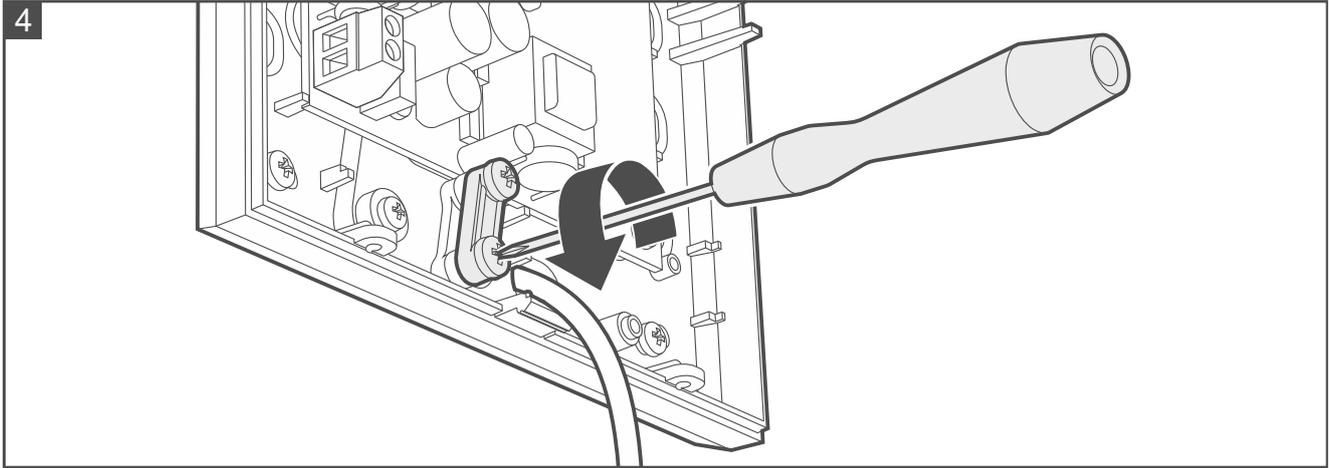


2. Make an opening for the power cable in the enclosure base (Fig. 3).

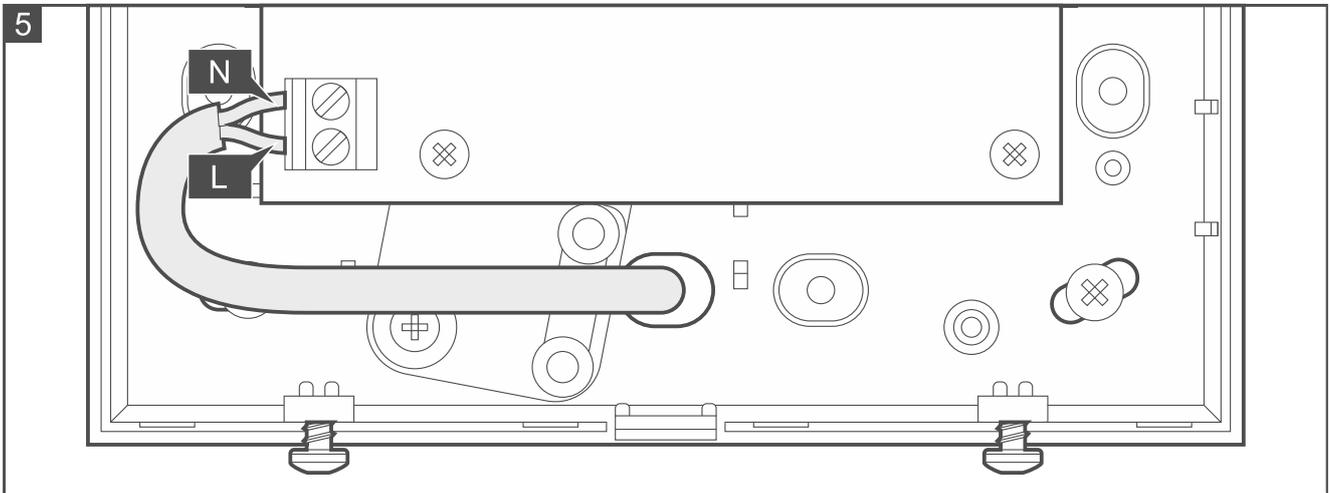


3. Place the enclosure base against the wall and mark the location of the mounting holes (Fig. 3).
4. Drill the holes in the wall for wall plugs (anchors). Use wall plugs specifically intended for the mounting surface (different for concrete or brick wall, different for plaster wall, etc.).
5. Run the 230 VAC power cable through the opening in the enclosure base.
6. Secure the enclosure base to the wall with screws.

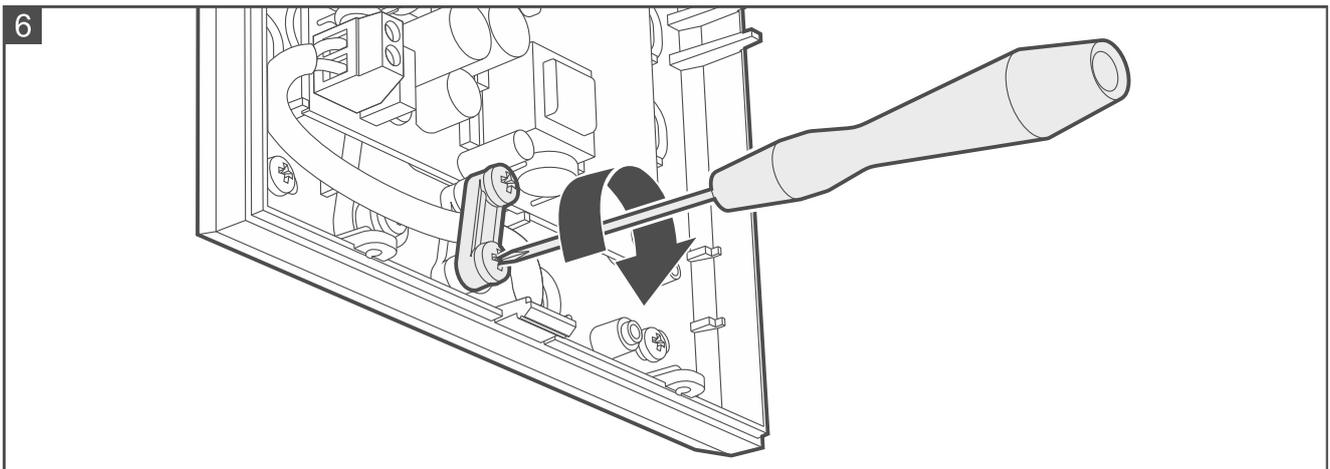
7. Unscrew the element fastening the power cable (Fig. 4).



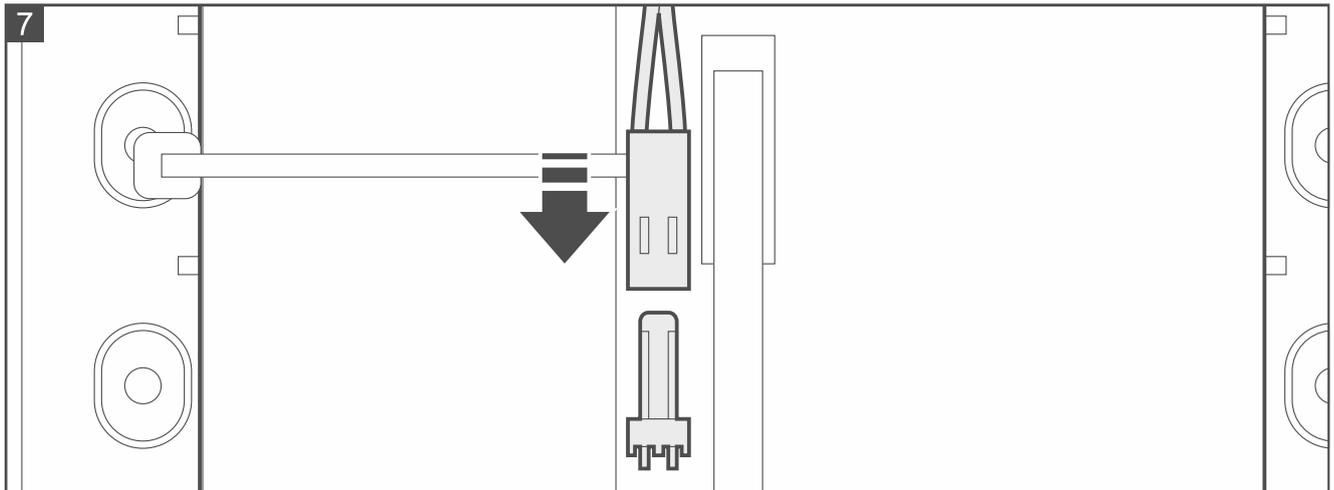
8. Screw the 230 VAC power wires to terminals: phase wire to L terminal, neutral wire to N terminal (Fig. 5).



9. Screw the element fastening the power cable (Fig. 6).



10. Connect the battery to the connector (Fig. 7). The repeater will start up.



11. Replace the cover and lock it with a screw.

12. Power on the circuit to which the repeater is connected.

13. Add the repeater to the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel).

4. Specifications

Operating frequency band	868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area)	up to 2000 m
Supply voltage	230 VAC, 50 Hz
Standby current consumption	8 mA
Maximum current consumption	15 mA
Battery (lithium-ion).....	3.7 V / 1800 mAh
Environmental class according to EN 50130-5	II
Operating temperature range.....	-10°C...+55°C
Maximum humidity	93±3%
Electronics board dimensions	87 x 104 mm
Enclosure dimensions.....	126 x 158 x 32 mm
Weight.....	265 g