

# AN-868 and AN-868-2PIN external antennas

The AN-868 external antenna serves as an extension to the communication range of Jablotron wireless devices, which use a frequency band of 868 MHz. The special PIFA design ensures not only very good transmission characteristic on surfaces made out of various materials, but also the detection of tampering or shorting the connecting wires (this has to be supported by a connected device). The antenna can be installed indoors or outdoors.

The product should be installed by a trained technician with a valid certificate issued by an authorised distributor.

## Radiation characteristics

The antenna design suppresses the negative influence of the surface on the transmission properties and its radiation pattern. The maximum transmitted power radiates perpendicularly to the installed pad. Directional characteristic of the antenna inside premises is not so much relevant since the radio frequency of 868 MHz is spread out not only by line-of-sight but also by reflections. To achieve the maximum transmission range in an outdoor environment is to aim front part of the antenna in the direction of the radio module or the receiver.

## Description

The supplied antenna is sealed, with 1,9 m of connection cable. Another part of the set is an installation pad (fig. 2 – B) which allows installation with screws or on a rod holder.

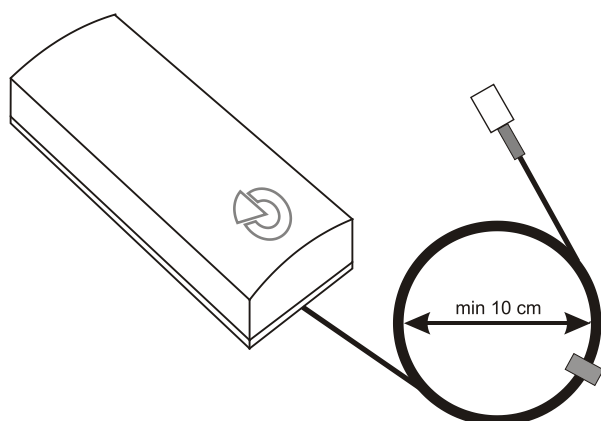


Fig. 1 antenna AN-868(AN-868-2PIN)

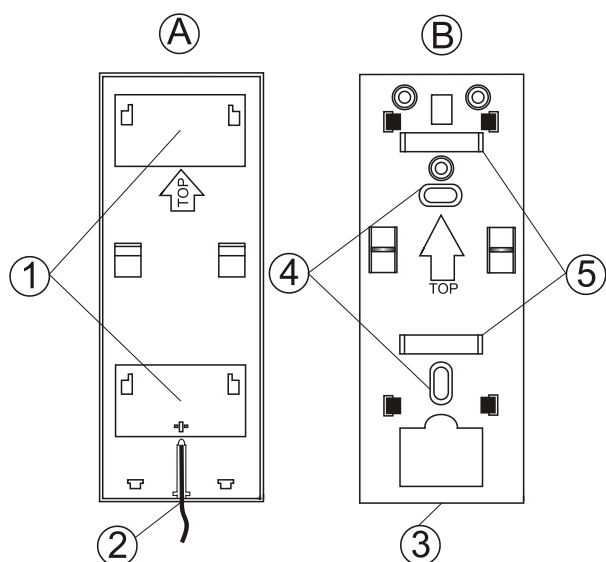


Fig. 2 Installation description:

- A – Rear antenna side, B – installation pad,
- 1 – position for double-sided adhesive tape,
- 2 and 3 – preparation for cabling, 4 – holes for screws
- 5 – cut-outs for ties (rod holder installation)

## Placement and installation

The installation can be done on a wall of any material, even on metal surfaces. The design of the antenna allows installation indoors or outdoors. The product is sealed and ready for installation using stickers, glue, screws or to be placed on a rod holder. The correct position is marked by an arrow and a “TOP” label on the rear plastic pointing out the correct direction.

### Procedure:

1. Choose an adequate place for the installation.
2. Install according to the chosen place:
  - Installation with screws, use the installation pad (Fig. 2 – B). First of all, install the installation pad on the selected place (use the holes prepared for screws – 4), then snap the body of the antenna unit onto the installation pad and gently push it down.
  - Installation on a flat surface, can be done by using double-sided stickers (included in the accessories). There are two prepared positions with no indentation (1) on the rear side of the antenna unit (Fig. 2 – A)
  - Installation using glue. Use quality glue with a high resistance to weather conditions (not supplied). Apply the glue on the rear side where the indentation is prepared.
  - Installation on a rod holder. It is necessary to use the installation pad (B). First install the installation pad onto the rod holder using zip ties. Use the holes (5) intended for this purpose. Then snap the body of the antenna unit onto the installation pad (B) and gently push it down.
3. If you want to run the connecting cable directly on the surface, punch a hole through the softened plastic part (2, 3) of the antenna unit and push the cable through in the required direction. If you want to run the cable through a wall, make a hole in the wall using a drill with an auger (diameter 10 mm – because of the connector dimensions).
4. Don't extend or shorten the connecting cable. Fix the surplus cable according to figure 1. Keep a minimum circle diameter of 10 cm! Don't bend the cable at acute angles, which could significantly increase losses.
5. Connect the antenna unit to the Jablotron products, see the chapter called Connection.

## Connection

Connect this antenna exclusively to Jablotron products which are equipped with the correct connector. Use the AN-868-2PIN version for older products. Antenna version AN-868 is intended to be used with newer products. To determine if AN-868 or AN-868-2PIN should be used, and how should be connected, proceed according to the installation manual of the specific product.

## Technical specifications

Communication band	868 MHz
Antenna gain	max. 3 dBi
Impedance	50 Ω
Connection cable length	1.9 m
Dimensions (H x W x D)	130 x 50 x 30 mm
When a JABLOTRON alarm system is used:	
Classification	security grade 2/Invrnmental class IV
<i>Note: valid only for AN-868 in combination with device, which detect a sabotage of external antenne.</i>	
- according to	EN 50131-1, EN 50131-5-3
- operational temperature range	-20 °C až +60 °C
- maximal operational humidity	90% RH, non condensing



JABLOTRON ALARMS a.s. hereby declares that the AN-868 is in a compliance with the relevant Union harmonisation legislation: Directive No: 2011/65/EU. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com) - Technical Support section.



**Note:** Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.

