ExternalAntenna user manual

Updated November 21, 2024



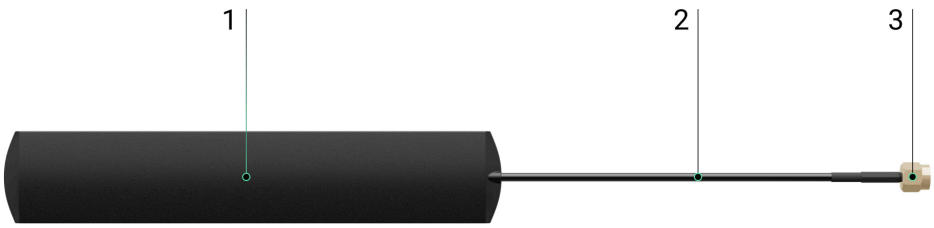
ExternalAntenna is an antenna for LTE or radio communication.

ExternalAntenna is an accessory and cannot be added or controlled through Ajax apps.

Buy ExternalAntenna

Buy Hub BP Jeweller

Functional elements



1. Antenna.

2. Coaxial cable.

3. Male SMA connector.

Compatible hubs

A compatible Ajax hub is required for the antenna to operate.

The device is **compatible** with:

- **Hub BP Jeweller**

ExternalAntenna is sold separately.

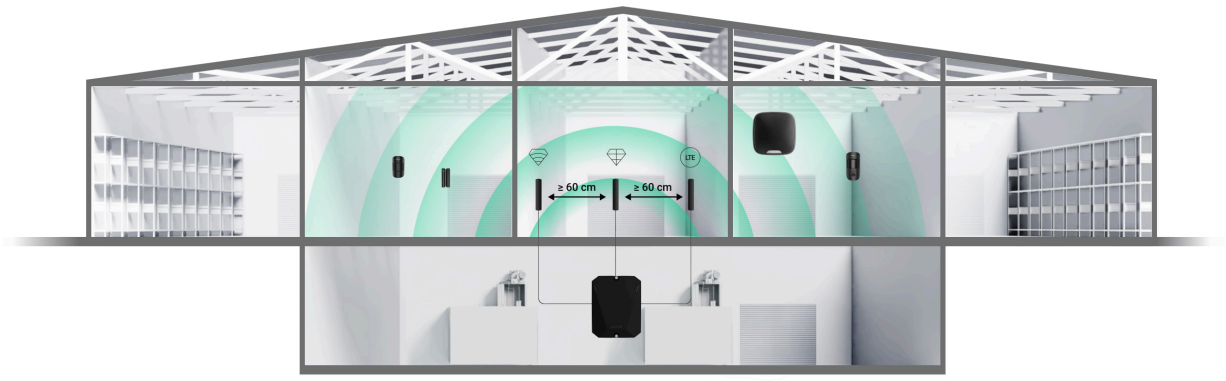
Operating principle

ExternalAntenna improves the communication between the hub and connected devices or cellular networks. It helps when installing the hub in a vault, a reinforced concrete room, or other places where the signal must pass through obstacles. The antenna can be connected to the required Jeweller, Wings, or Cellular connectors.

Selecting the installation site

When choosing the location of the antenna, consider the factors that affect its operation:

- The signal strength of the chosen communication channel (Jeweller, Wings, or Cellular).
- The distance between the antenna and the hub. When using two or more antennas, the distance between them should be at least 60 cm.
- Obstacles that affect the radio signal: walls, interfloor ceilings, and large objects in the room.



Consider the placement recommendations when designing your Ajax system. The security system must be designed and installed by specialists. The list of recommended Ajax partners is **available here**.

Where the antenna cannot be installed

1. Inside premises with temperature and humidity outside the permissible limits. This could damage the antenna.

2. In a place with a low signal level. This may result in the connection loss.
3. In places near metal objects and mirrors. Objects made of conductive materials can shield the antenna.

Preparing to install

Before installing the external antenna, ensure the following:

- The hub is compatible with **ExternalAntenna**.
- The hub has a stable signal strength of 2–3 bars with a cellular network at the installation site.
- There is a stable signal strength of 2–3 bars with all added devices at the installation site.
- The length of the cable going from the hub to the installation site is sufficient.

Cable arrangement

When preparing for cable routing, check the electrical and fire safety regulations in your region. Strictly follow these standards and regulations. Tips for cable arrangement are available in **this article**.

Cable routing

We recommend you read the **Selecting the installation site** section carefully before installation. Avoid deviations from the system project. Violating the basic installation rules and the recommendations of this manual may lead to the device's incorrect operation.

Learn more

Installation

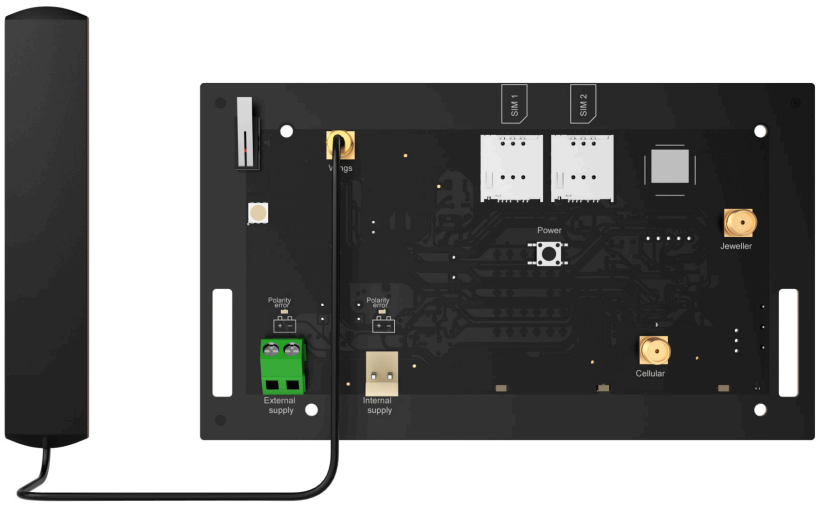
Before installation, ensure that you have selected the optimal device location that meets the requirements of this manual.

> Only a professional electrician should install the device.

How to install ExternalAntenna

> Before installing the antenna, read the manual of the appropriate hub. Before starting the installation, make sure that the hub is not powered.

1. Remove the hub's front casing.
2. Identify the Jeweller, Wings, or Cellular connectors on the board.
3. Remove the insulating cap from the proper connector.
4. Connect the antenna's male SMA connector to the female SMA connector on the board.

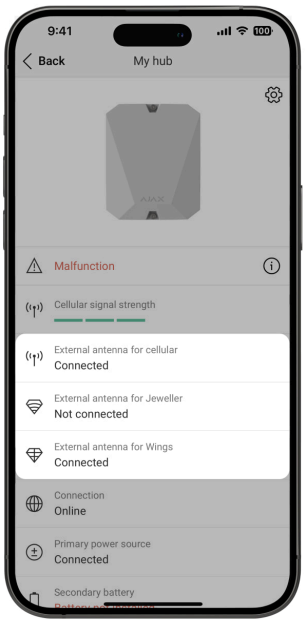


5. Turn on the hub.
6. Close the hub’s casing.
7. Remove the protective film from the pre-applied double-sided adhesive tape.
8. Install the antenna at the selected location.
9. Check the connection status in the app.

States

The hub states include information about the antenna connection status. These states can be found in **Ajax apps**:

1. Go to the **Devices** tab.
2. Select the hub from the list.



In case of ExternalAntenna breakage, the system will notify the user and CMS.

Maintenance

ExternalAntenna does not require maintenance.

Technical specifications

All technical specifications

Compliance with standards

Warranty

Warranty for products of Limited Liability Company “Ajax Systems Manufacturing” is valid for 2 years after purchase.

If the device does not function correctly, please contact Ajax Technical Support first. In most cases, technical issues can be resolved remotely.

Warranty obligations

User Agreement

Contact Technical Support:

- **e-mail**
- **Telegram**

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