



AJAX AJ-HUBPLUS-W Hub Intelligent Security Control Panel User Manual

[Home](#) » [ajax](#) » AJAX AJ-HUBPLUS-W Hub Intelligent Security Control Panel User Manual 



Hub User Manual
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Contents

- 1 AJ-HUB PLUS-W Hub Intelligent Security Control Panel
- 2 Sockets and Indication
- 3 Connecting to the Network
- 4 Installation
- 5 Creating and Setting Up a Room
- 6 Connecting a Security Company
- 7 Maintenance
- 8 Safety Requirements
- 9 Tech Specs
- 10 Warranty
- 11 Documents / Resources
 - 11.1 References
- 12 Related Posts

AJ-HUB PLUS-W Hub Intelligent Security Control Panel

Hub is a central device of the Ajax security system, coordinating the connected devices, and interacting with the user and security company. Hub is developed only for indoor use. Hub requires Internet access to communicate with the cloud server Ajax Cloud—for configuring and controlling from any point of the world, transferring event notifications and updating the software. The personal data and system operation logs are stored under multilevel protection, and information exchange with Hub is carried out via an encrypted channel on a 24-hour basis. Communicating with Ajax Cloud, the system can use the Ethernet connection and GSM network.

i Please use both communication channels to ensure more reliable communication between the hub and Ajax Cloud.

Hub can be controlled via the app for iOS, Android, macOS, or Windows. The app allows responding promptly to any notifications of the security system.

Follow the link to download the app for your OS: [Android](#) [iOS](#)

The user can customize notifications in the hub settings. Choose what is more convenient for you: push notifications, SMS, or calls. If the Ajax system is connected to the central monitoring station, the alarm signal will be sent directly to it, bypassing Ajax Cloud.

Buy an intelligent security control panel Hub

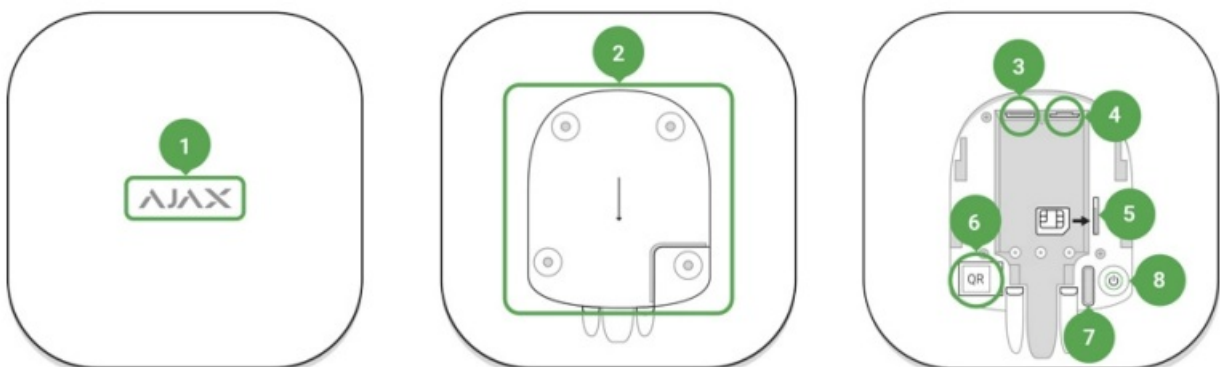
Up to 100 Ajax devices can be connected to the hub. The protected Jeweller radio protocol ensures reliable communication between the devices at a distance of up to 2 km in the line of sight.

List of Jeweller devices

Use scenarios to automate the security system and decrease the number of routine actions. Adjust the security schedule, and program actions of automation devices (Relay WallSwitch Socket, or) in response to an alarm, Button press, or by schedule. A scenario can be created remotely in the Ajax app.

How to create and conjure a scenario in the Ajax security system

Sockets and Indication



1. LED logo indicating the hub status
2. SmartBracket attachment panel (perforated part is required for actuating the tamper in case of any attempt to dismantle the hub)
3. Socket for the power supply cable
4. Socket for the Ethernet cable
5. Slot for the micro SIM
6. QR code
7. Tamper button
8. On/Off button

LED Indication

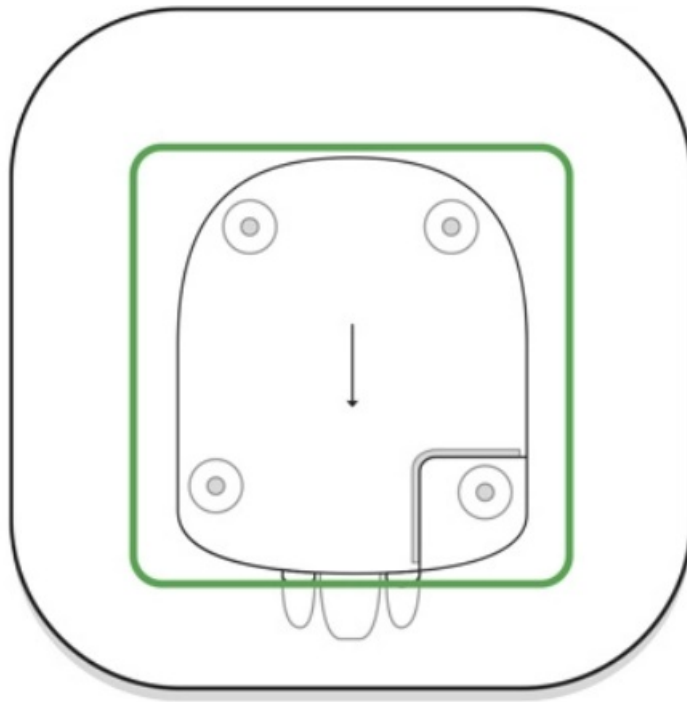


The LED logo can light up red, white, or green depending on the status of the device.

Event	Light indication
Ethernet and at least one SIM card are connected	Lights up white
Only one communication channel is connected	Lights up green
The hub is not connected to the internet or there is no connection with the Ajax Cloud service	Lights up red
No power	Lights up for 3 minutes, then blinks every 10 seconds. The color of communication channels.

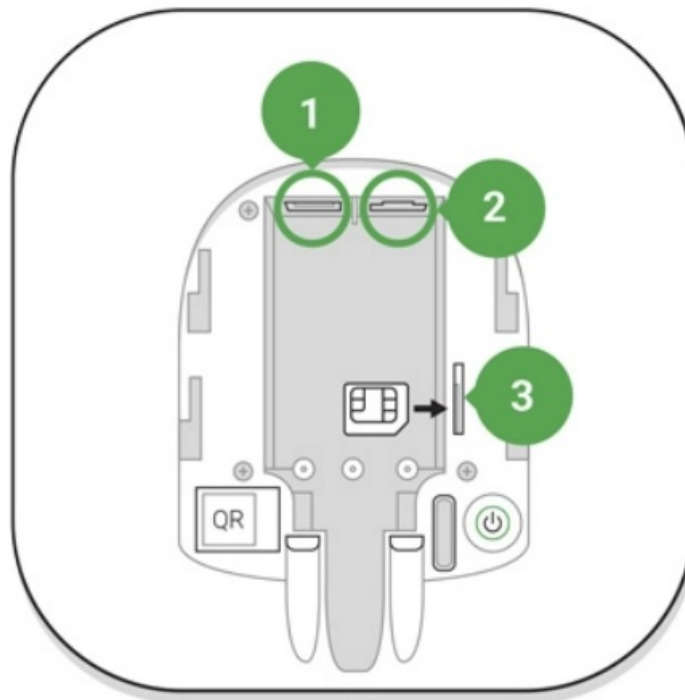
Connecting to the Network

1. Open the hub lid by shifting it down with force.



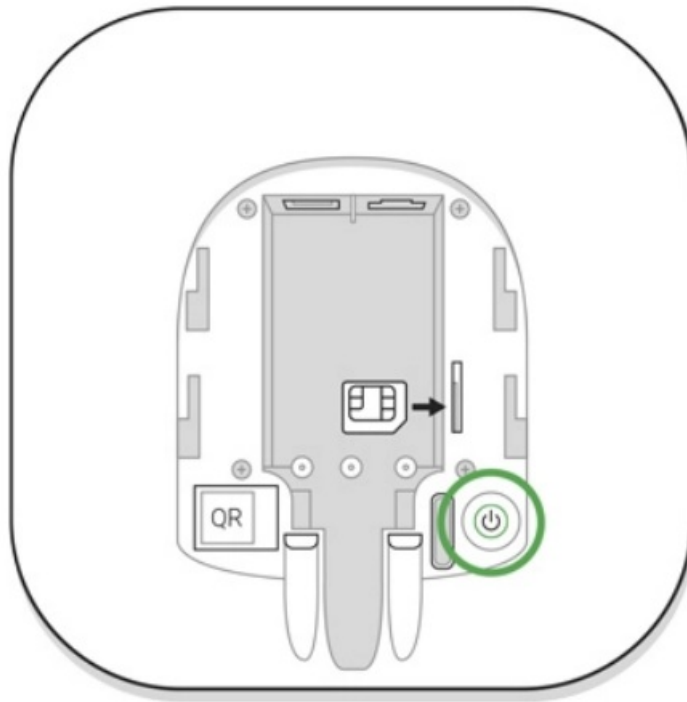
Be careful and do not damage the tamper protecting the hub from dismantling!

2. Connect the power supply and Ethernet cables to the sockets.



- 1 — Power Socket
- 2 — Ethernet socket
- 3 — SIM card slot

3. Press and hold the power button for 2 seconds until the logo lights up. The hub needs approximately 2 minutes to identify the available communication channels.



i The bright green or white logo color indicates that the hub is connected to Ajax Cloud.

If the Ethernet connection does not occur automatically, disable proxy, and filtration by MAC addresses and activate the DHCP in the router settings: the hub will receive an IP address. During the next setup in the mobile app, you will be able to set a static IP address.

To connect the hub to the GSM network, you need a micro-SIM card with a disabled PIN code request (you can disable it using the mobile phone) and a sufficient amount on the account to pay for the GPRS, SMS services, and calls.

i In some regions, Hub is sold with a SIM card along

If the hub does not connect to Ajax Cloud via GSM, use Ethernet to set up the network parameters in the app. For the proper setting of the access point, username, and password, please contact the support service of the operator.

Ajax Account

The user with administrator rights can configure the Ajax security system via the app. The administrator account with the information about the added hubs is encrypted and placed on Ajax Cloud. All the parameters of the Ajax security system and connected devices set by the user are stored locally on the hub. These parameters are inextricably linked with the hub: changing the hub administrator does not affect the settings of the connected devices.

One phone number may be used to create only one Ajax account.

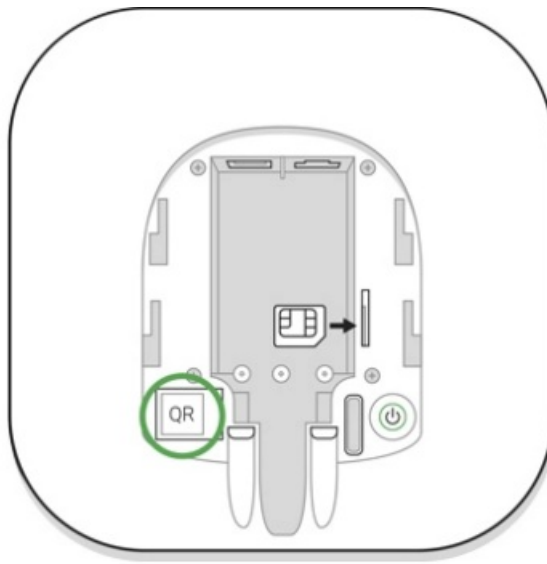
Create the Ajax account in the app following the step-by-step guide. As part of the process, you need to confirm your email and phone number.

Ajax account allows to combine the roles: you can be the administrator of one hub, as well as the user of another hub.

Adding the hub to the Ajax app

Granting access to all system functions (to display notifications in particular) is a mandatory condition for controlling the Ajax security system via the smartphone.

1. Login into your account.
2. Open the Add Hub menu and select the way of registering: manually or step-by-step guidance.
3. At the registration stage, type the name of the hub and scan the QR code located under the lid (or enter a registration key manually).



4. Wait until the hub is registered.

Installation

i Prior to installing the hub, make sure that you have selected the optimal location: the SIM card demonstrates consistent reception, all the devices have been tested for radio communication and the hub is hidden from direct view.

! The device was developed only for indoor use.

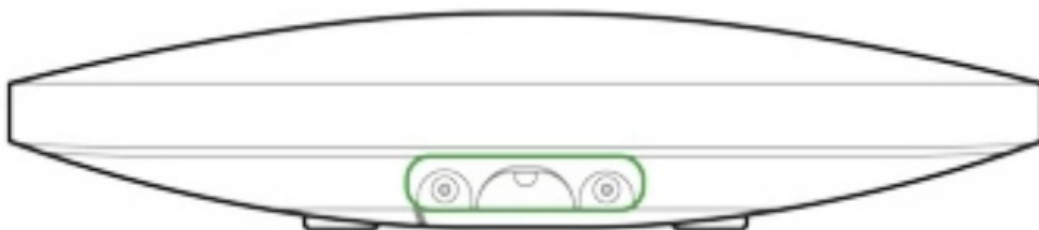
The hub should be reliably attached to the surface (vertical or horizontal). We do not recommend using double-sided adhesive tape: it cannot guarantee secure attachment and simplifies the removal of the device.

Do not place the hub:

- outside the premises (outdoors);
- nearby or inside any metal objects that cause attenuation and shielding of the radio signal;
- in places with a weak GSM signal;
- close to radio interference sources: less than 1 meter from the router and power cables;
- in premises with temperature and humidity over the permissible limits.

Hub installation:

1. Fix the hub lid on the surface using bundled screws. When using any other fixing accessories, make sure that they do not damage or deform the hub lid.
2. Put the hub on the lid and fix it with bundled screws.



i Do not flip the hub when attaching vertically (for instance, on a wall). When properly fixed, the Ajax logo can be read horizontally.

Fixing the hub on the lid with screws prevents any accidental shifting of the hub and minimizes the risk of device theft.

If the hub is firmly fixed, the attempt to tear it off triggers the tamper, and the system sends a notification.

Rooms in the Ajax app

The virtual rooms are used to group the connected devices. The user can create up to 50 rooms, with each device located only in one room.



Without creating the room, you are not able to add devices in the Ajax app!

Creating and Setting Up a Room

The room is created in the app using the Add Room menu.

Please assign a name for the room, and optionally, attach (or make) a photo: it helps to find the needed room in the list quickly.

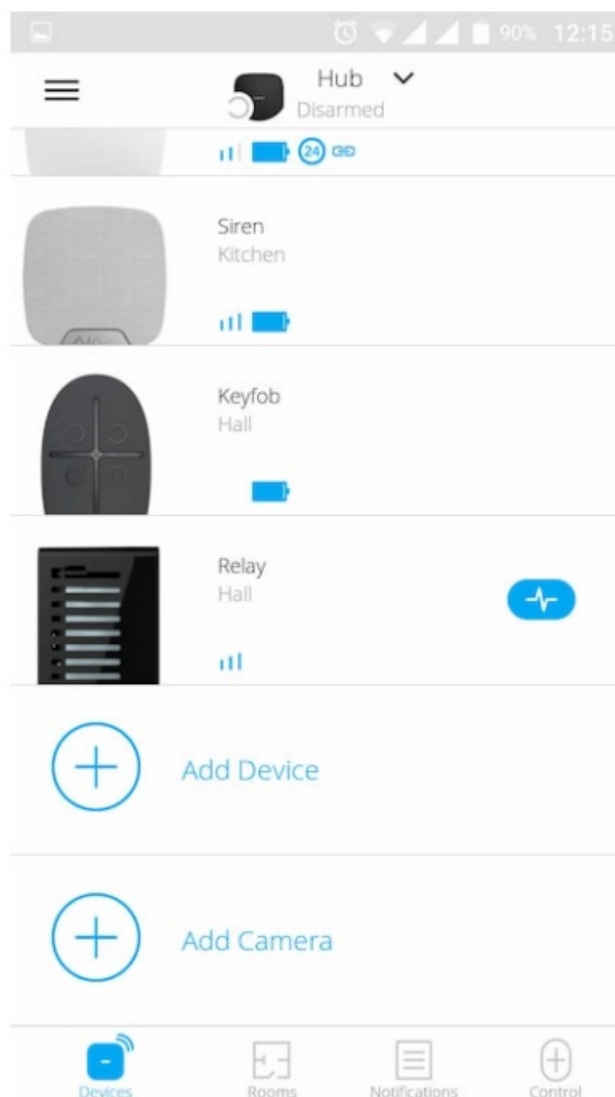
By pressing the gear button  go to the room settings menu.

To delete the room, move all the devices to other rooms using the device setup menu. Deleting the room erases all its settings.

Connecting Devices



The hub doesn't support cartridge and Oxbridge Plus integration modules.



During the first hub registration in the app, you will be prompted to add devices to guard the room. However, you can refuse and return to this step later.



The user can add the device only when the security system is disarmed!

1. Open the room in the app and select the Add Device option.
2. Name the device, scan the QR code (or insert the ID manually), select the room, and go to the next step.
3. When the app starts searching and launches the countdown, switch on the device: its LED will blink once. For detection and pairing to occur, the device should be located within the coverage area of the wireless network of the hub (at a single protected object).

Connection request is transmitted for a short time at the moment of switching on the device.

If the connection fails on the first try, switch off the device for 5 seconds and retry.

Up to 10 cameras or DVRs that support RTSP protocol can be connected to Hub.

How to configure and connect an IP camera to the Ajax security system

Hub statuses

Icons

Icons display some of Hub's statuses. You can see them in the Ajax app, in the Devices menu

Icons	Meaning
	2G connected
	SIM card is not installed
	The SIM-card is defective or has a PIN code on it
	Hub battery charge level. Displayed in 5% increments
	Hub malfunction is detected. The list is available in the hub states' list
	The hub is directly connected to the central monitoring station of the security organization
	The hub have lost connection with the central monitoring station of the security organization via direct connection

States

States can be found in the Ajax app :



1. Go to the Devices tab
2. Select Hub from the list.

Parameter	Meaning
Malfunction	Click to open the list of Hub malfunctions. The field appears only if a malfunction is detected

Cellular signal strength	Shows the signal strength of the mobile network for the active SIM card. We recommend installing the hub in places with a signal strength of 2-3 bars. If the signal strength is weak, the hub will not be able to dial up or send an SMS about an event or alarm
Battery Charge	The battery level of the device. Displayed as a percentage How battery charge is displayed in Ajax apps
Lid	Status of the tamper that responds to hub dismantling: Closed — the hub lid is closed Opened — the hub removed from the SmartBracket holder What is a tamper?
External power	External power supply connection status: Connected — the hub is connected to external power supply Disconnected — no external power supply
Connection	Connection status between the hub and Ajax Cloud: Online — the hub is connected to Ajax Cloud Offline — the hub is not connected to Ajax Cloud
Cellular data	The hub connection status to the mobile Internet: Connected — the hub is connected to Ajax Cloud via mobile Internet Disconnected — the hub is not connected to Ajax Cloud via mobile Internet If the hub has enough funds on the account or has bonus SMS/calls, it will be able to make calls and send SMS messages even if the Not connected status is displayed in this field
Ethernet	Internet connection status of the hub via Ethernet: Connected — the hub is connected to Ajax Cloud via Ethernet Disconnected — the hub is not connected to Ajax Cloud via Ethernet
Average Noise (dBm)	The noise power level at Jeweller frequencies at the hub installation site. The acceptable value is –80 dBm or lower
Monitoring Station	The status of direct connection of the hub to the central monitoring station of the security organization: Connected — the hub is directly connected to the central monitoring station of the security organization Disconnected — the hub is not directly connected to the central monitoring station of the security organization If this field is displayed, the security company uses a direct connection to receive events and security system alarms What is a direct connection?
Hub model	Hub model name
Hardware version	Hardware version. Unable to update
Firmware	Firmware version. Can be updated remotely
ID	ID/serial number. Also located on the device box, on the device circuit board, and on the QR code under the SmartBracket panel

Settings

Settings can be changed in the Ajax app :

1. Go to the Devices tab .
2. Select Hub from the list.
3. Go to Settings by clicking on the icon .



Note that after changing the settings, you should click the Back button to save them.

Avatar	▼
Hub name	▼
Users	▼
Ethernet	▼
Cellular	▼
Geofence	▼
Groups	▼
Security schedule	▼
Detection zone test	▼
Jeweler	▼
Service	▼
Monitoring Station	▼
Installers	▼
Security Companies	▼
User Guide	▼
Data Import	▼
Unpair hub	▼

Settings Reset

To return the hub to the factory default settings, switch it on, then hold the power button for 30 seconds (the logo will start blinking red). At the same time, all the connected detectors, room settings, and user settings will be deleted. User profiles will remain connected to the system.

Users

After adding the hub to the account, you become the administrator of this device. One hub can have up to 50 users/administrators. The administrator can invite users to the security system and determine their rights.

Events and Alarms Notifications

Back

User Settings

USER ROLE

Admin ☒

NOTIFICATIONS

Malfunctions

SMS ☐ Push ☒

Alerts

Call ☐ SMS ☐ Push ☒

Events

SMS ☐ Push ☒

Arm/Disarm

SMS ☐ Push ☒

PERMISSIONS

Night Mode Activation ☒

Panic Button ☒

Call ☐ SMS ☐ Push ☒

Events

SMS ☐ Push ☒

Arm/Disarm

SMS ☐ Push ☒

PERMISSIONS

Night Mode Activation ☒

Panic Button ☒

View Cameras ☒

Switch Controls ☒

Groups

Delete User

User ID 502

The hub notifies users of events in three ways: push notifications, SMS and calls. Notifications are set in the menu Users:

Event types	For what it is used	Types of notifications
Arming / Disarming	Notices are received after arming/disarming	<ul style="list-style-type: none"> • SMS • Push-notification
Alarm	Notices of intrusion, fire, flood	<ul style="list-style-type: none"> • SMS • Push-notification • Call
Events	Notices of events related to the Ajax WallSwitch, Relay control	<ul style="list-style-type: none"> • SMS • Push-notification
Malfunctions	Notices of lost communication, jamming, low battery charge, or opening of the detector body	<ul style="list-style-type: none"> • SMS • Push-notification

- **Push notification** is sent by Ajax Cloud to the Ajax Security system app if an Internet connection is available.
- **SMS** is sent to the phone number indicated by the user when registering the Ajax account.
- The **phone call** means that the hub calls the number specified in the Ajax account.

The hub calls only in case of an alarm to get your attention and reduce the feasibility of you missing a critical alert. We recommend enabling this type of notification. The hub consecutively calls all users who have enabled this type of notification in the order specified in the Users Settings. If the second alarm occurs, the hub will make a call again but not more than once in 2 minutes.



The call is automatically dropped as soon as you answer it. We recommend you save the phone number associated with the hub SIM card in your contacts list.

Notification settings may be only changed for registered users.



The hub does not notify users of opening detectors triggering in the Disarmed mode when the Chime feature is enabled and configured. Only the sirens connected to the system notify about the opening.

What is Chime

How Ajax notices users of alerts

Connecting a Security Company



The list of organizations connecting the Ajax system to the central monitoring station is provided in the Security Companies menu of the hub settings:

Contact representatives of the company providing services in your city and negotiate the connection.

Connection to the central monitoring station (CMS) is possible via the Contact ID or SIA protocols.

Maintenance

Check the operational capability of the Ajax security system on a regular basis.

Clean the hub body from dust, spider webs and other contaminants as they appear.

Use a soft dry napkin suitable for equipment maintenance.

Do not use any substances containing alcohol, acetone, gasoline, and other active solvents for cleaning the hub.

How to replace the hub battery

Complete Set

1. Ajax Hub
2. SmartBracket mounting panel
3. Power supply cable
4. Ethernet cable
5. Installation kit
6. GSM start package (available not in all countries)
7. Quick Start Guide

Safety Requirements

While installing and using the hub, follow the general electrical safety regulations for using electrical appliances, as well as the requirements of regulatory legal acts on electrical safety. It is strictly prohibited to disassemble the device under voltage! Do not use the device with a damaged power cable.

Tech Specs

Devices	up to 100
Groups	up to 9
Video surveillance	up to 50
Rooms	Up to 10 cameras or DVRs
Scenarios	up to 50
Connected	up to 5
ReX	1
Number of connected sirens	up to 10
Power supply	110 – 240 V AC, 50/60 Hz
Accumulator unit	Li-Ion 2 A·h (up to 15 hours of autonomous operation in case of inactive Ethernet connection)
Energy consumption from the grid	10 W
Tamper protection	Yes
Radio communication protocol with Ajax devices	Jeweler
Radiofrequency band	866.0 – 866.5 MHz 868.0 – 868.6 MHz 868.7 – 869.2 MHz 905.0 – 926.5 MHz 915.85 – 926.5 MHz 921.0 – 922.0 MHz Depends on the region of sale.
Effective radiated power	8.20 dBm / 6.60 mW (limit 25 mW)
Modulation of the radio signal	GFSK
Radio signal range	Up to 2,000 m (any obstacles absent) Learn more
Communication channels	GSM 850/900/1800/1900 MHz GPRS, Ethernet
Installation	Indoors
Operating temperature range	From -10°C to +40°C
Operating humidity	Up to 75%
Overall dimensions	163 × 163 × 36 mm
Weight	350 g

Service life	10 years
Certification	Security Grade 2, Environmental Class II SP2 (GSM-SMS), SP5 (LAN) DP3 in conformity with the requirements of EN 50131-1, EN 50131-3, EN 50136-2, EN 50131-10, EN 50136-1, EN 50131-6, EN 50131-5-3

Compliance with standards

Warranty

Warranty for the “AJAX SYSTEMS MANUFACTURING” LIMITED LIABILITY COMPANY products is valid for 2 years after the purchase and does not apply to the pre-installed accumulator.

If the device does not work correctly, you should first contact the support service— in half of the cases, technical issues can be solved remotely!

The full text of the warranty User Agreement

Subscribe to the newsletter about safe life. No spam



Documents / Resources

The image shows the cover of the user manual for the AJAX AJ-HUBPLUS-W Hub. It features a white hub device against a dark background. The title "Hub User Manual" is at the top. Below the image, there is a small paragraph of text and a green checkmark icon.	<p>AJAX AJ-HUBPLUS-W Hub Intelligent Security Control Panel [pdf] User Manual</p> <p>AJ-HUBPLUS-W Hub Intelligent Security Control Panel, AJ-HUBPLUS-W, Hub Intelligent Security Control Panel, Intelligent Security Control Panel, Security Control Panel, Control Panel, Panel</p>
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References

- [End user agreement - Ajax Systems](#)
- [How to connect security cameras to the Ajax security system](#)
- [Jeweller radio technology | Ajax Systems](#)
- [Wireless panic button with control mode | Ajax Systems](#)
- [Hub — Intelligent security control panel | Ajax Systems](#)
- [Ajax wireless security system devices](#)
- [ocBridge Plus — Module for Ajax devices integration with wired systems](#)
- [Relay — Low current remote control relay with dry contact](#)
- [ReX — Intelligent radio signal range extender | Ajax Systems](#)
- [Socket \(type F\) — Wireless smart plug with energy monitor](#)
- [uartBridge — Module for Ajax devices integration with third-party wireless alarms systems](#)
- [Ajax WallSwitch — Wireless power relay with energy monitor](#)
- [Jeweller and Wings radio protocols in the Ajax security system](#)

- [!\[\]\(eae20f1adff742df783f6f7e3bbe72d1_img.jpg\) Software | Ajax Systems](#)
- [!\[\]\(43c6e08c5a1618d745b54da5c843274e_img.jpg\) Ajax devices standards compliance list](#)
- [!\[\]\(f5ee48910650695cea680b2433c1d60d_img.jpg\) Warranty - Ajax Systems](#)
- [!\[\]\(da0f02caffeb5a74776a1d5d1892b059_img.jpg\) How battery charge is displayed in Ajax apps | Ajax Systems Support](#)
- [!\[\]\(edb096eed27f3ac1241ba8d18d05acad_img.jpg\) What is the direct connection? | Ajax Systems Support](#)
- [!\[\]\(554d866cfdb5a2c8f73998019542d337_img.jpg\) What is a tamper | Ajax Systems Support](#)
- [!\[\]\(c1170582320733ace24db86bc6d97423_img.jpg\) How Ajax notifies users of alerts | Ajax Systems Support](#)
- [!\[\]\(51c4b897e692428305845816e97ca71e_img.jpg\) How to replace Hub battery? | Ajax Systems Support](#)
- [!\[\]\(810c0da19263e18e2f95623517bed1dc_img.jpg\) Jeweller radio protocol: technology and capabilities | Ajax Systems Support](#)
- [!\[\]\(8982e3c27257070d79f8096c6d667915_img.jpg\) How to create and configure a scenario in the Ajax system | Ajax Systems Support](#)
- [!\[\]\(cf565e63df317467714cf7de070ecedc_img.jpg\) What is Chime, and how does this function work | Ajax Systems Support](#)