Manuals+ — User Manuals Simplified.

AJAX Hub Intelligent Control Panel User Manual

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AJAX Hub Intelligent 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.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 Follow the link to download the app for your OS: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 intelligent security control panel Hub
Up to 100 Ajax devices can be connected to the hub. The protected radio protocol ensures reliable communication between the devices at a distance of up to 2 km in the line of sight.

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

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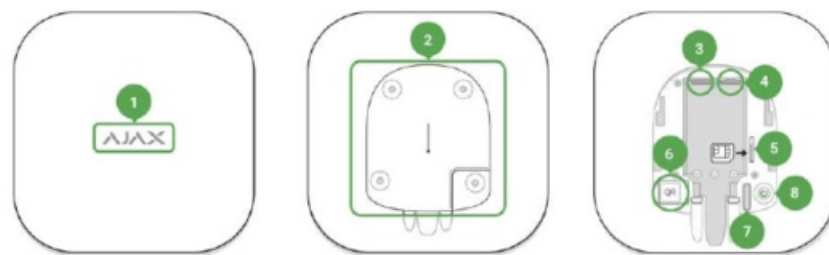
1. SmartBracket attachment panel (perforated part is required for actuating the tamper in case of any attempt to dismantle the hub)
2. Socket for the power supply cable
3. Socket for the Ethernet cable
4. Slot for the micro-SIM
5. QR code
6. Tamper button
7. On/Off button

LED Indication

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

Event	Light indicator
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	Lights up red

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!
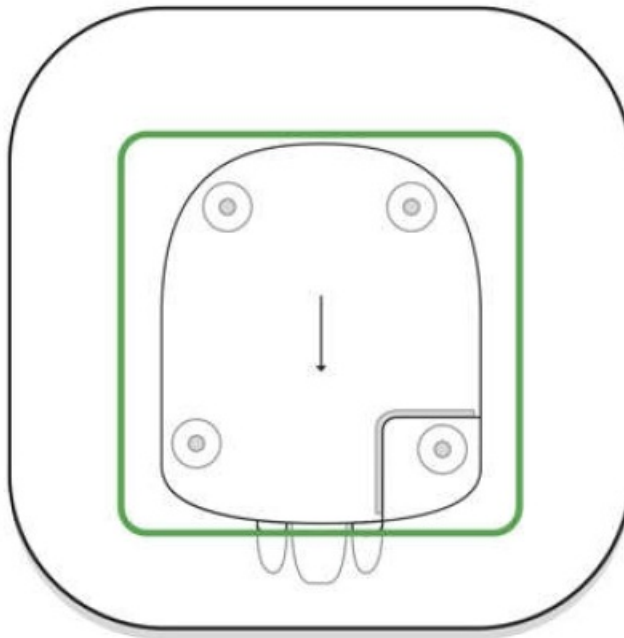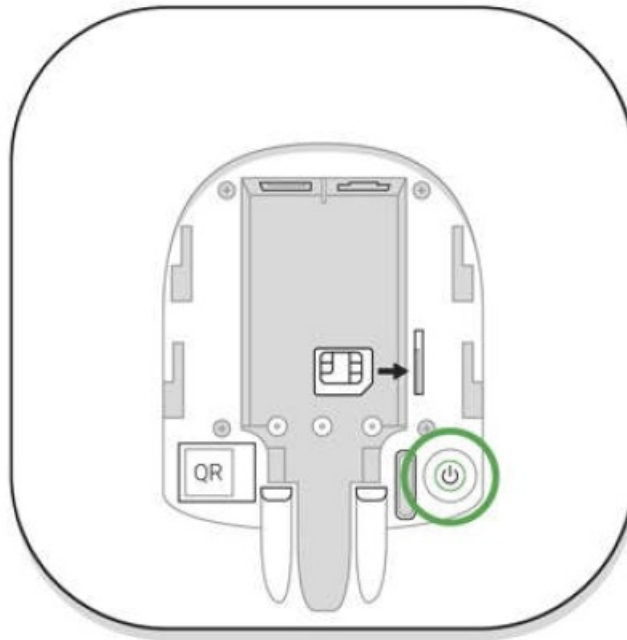
2. Connect the power supply and Ethernet cables to the sockets
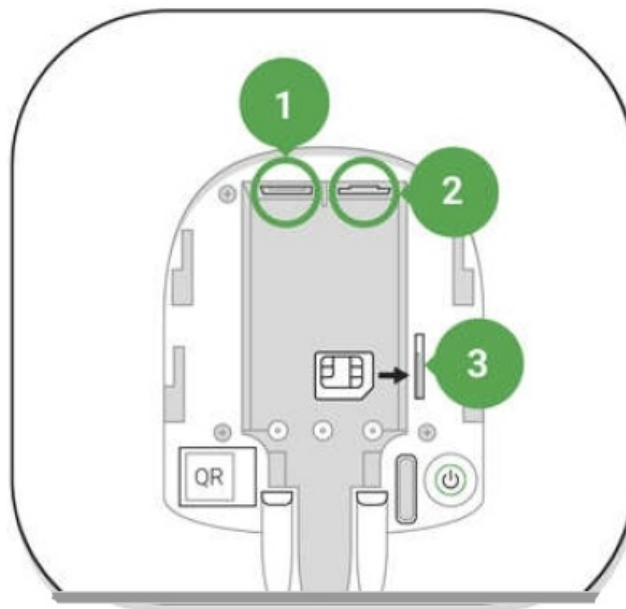
   1. Power Socket
   2. Ethernet socket
   3. SIM-card slot

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.

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, 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. 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
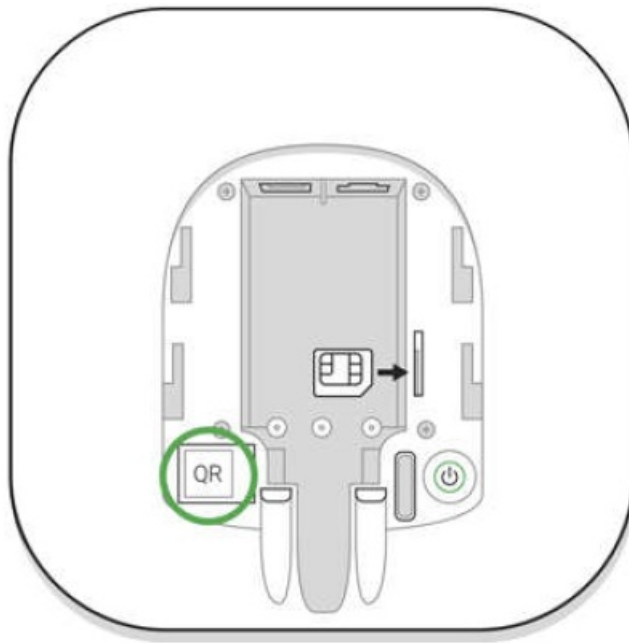
3. Wait until the hub is registered.

Installation

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 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); 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.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 lid with screws prevents any accidental shifting of the hub and minimizes the risk of device theft.
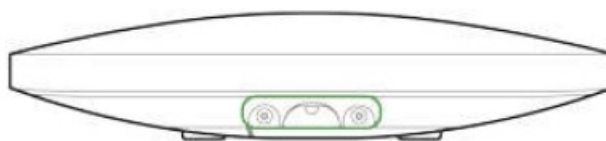
If the hub is firmly fixed, the attempt to tear it off triggers the tamper, and the system sends a notification.
Rooms in the Ajax app
The virtual rooms are used to group the connected devices. The user can create up to 50 rooms, with each device located only in one room. The room is created in the app 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

on 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
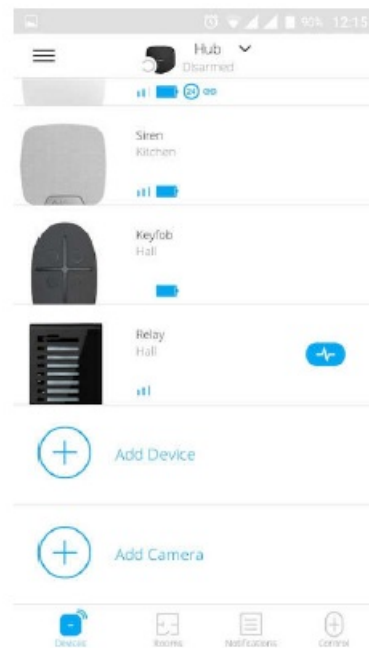
During the first hub registration in the app, you will be prompted to add devices to guard the room. However, you can refuse and return to this step later. When the app starts searching and launches a countdown, switch on the device: its LED will blink once. For detection and pairing to occur, the device 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 statuses. You can see them in the Ajax app, in the Devices menu .

Icons	Meaning
2G	2G connected
	SIM card is not installed
	The SIM-card is defective or has a PIN-code on it

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 the 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	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 SmartBracket holder

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 is a customized title image for Ajax security system. It is displayed in the hub selection menu and helps to identify the required object. To change or set an avatar, click on the camera icon and set up the desired Users user settings for a security system: what rights are granted to users and how the security system notifies them of events and alarms. To change the user settings, click on opposite the user name.How the Ajax security system notifies users of alerts how to add new users to the hub

Ethernet settings for wired Internet connection.

- Ethernet allows you to enable and disable Ethernet on the hub
- DHCP / Static selection of the type of the hub IP address to receive: dynamic or static
- IP Address hub IP Address
- Subnet mask subnet mask in which the hub operates
- Router gateway used by the hub
- DNS DNS of the hub
- Disable Ping Before Connectingwhen this setting is activated, the hub ignores operator communication errors. Activate this option if the SIM card cannot connect to the network
- SIM card 1 — displays the number of the SIM card installed. Click on the field to go to the SIM card settings

SIM card settings

Connection settings

- APN, User name, and Password — settings for connecting to the Internet via a SIM card. To find out the settings of your cellular operator, contact your provider's support service.How to set or change APN settings in the hub

Mobile data usage

- Incoming the amount of data received by the hub. Displayed in KB or MB.
- Outgoing the amount of data sent by the hub. Displayed in KB or MB. Keep in mind that data is counting on the hub and may differ from your operator's statistics.system when crossing a specified area. The user location is determined using the smartphone GPS module.What geofences are and how they function

Groups group mode configuration. This allows you to:

- Manage the security modes for separate premises or groups of detectors.
- For example, the office is armed while the cleaner works in the kitchen.
- Delimit access to control of security modes.
- For example, the marketing department employees do not have access to the law office.

Jeweler configuring the hub-detector ping interval. The settings determine how frequently the hub communicates with devices and how quickly the loss of connection is detected.

- Detector Ping Interval the frequency of connected devices polling by the hub is setting in the range of 12 to 300 s (36 s by default)
- Number of undelivered packets to determine connection failure — a counter of undelivered packets (8 packets by default).

The time before raising the alarm by the communication loss between hub and device is calculated with the following formula: Ping interval * (number of undelivered packets + 1 correction packet). The shorter ping interval (in seconds) means faster delivery of the events between the hub and the connected devices; however, a short ping interval reduces the battery life. At the same time, alarms are transmitted immediately regardless of the ping interval. We do not recommend reducing the default settings of the ping period and interval.LED Brightness Adjustment of the hub logo LED backlight brightness. Set in the range of 1 to 10. The default value is 10. Firmware Auto-Update Configuring automatic OS Malevich firmware updates.

- If enabled, the firmware is automatically updated when a new version is available, when the system is not armed, and external power is The setting allows you to select the transmission channel for the hub logs or disable their recording:
- Ethernet
- No logging is disabled We do not recommend disabling logs as this information may be helpful in the event of errors in the operation of the system!

Advanced settings

Advanced settings	Advanced settings
Advanced settings	Advanced settings
Advanced settings	Advanced settings
Advanced settings	Advanced settings

- Server Ping Interval (sec). Frequency of sending pings from the hub to Ajax Cloud server. It is set in the range of 10 to 300 s. The recommended default value is 60 s.
- Connection Failure Alarm Delay (sec). It is a delay to reduce the risk of a false alarm associated with the Ajax Cloud server connection loss. It is activated after 3 unsuccessful hub-server polls. The delay is set in the range of 30 to 600 s. The recommended default value is 300 s.The time to generate a message regarding the loss of communication between the hub and the Ajax Cloud server is calculated using the following formula:With the default settings, Ajax Cloud reports the hub loss in 9 minutes:
- Disable alerts when the connection with the server is lost. Ajax apps can notify about the hub-server communication loss in two ways: with a standard push notification signal or with a siren sound (enabled by default). When the option is active, the notification comes with a standard push notification signal. You can disable the sirens reaction when pressing the panic button on the SpaceControl key fob in the key fob settings (Devices → SpaceContol → Settings

Settings of siren after-alarm indication

The siren can inform about triggering in armed system by means of LED indication. Thanks to this feature, system users and passing security companies patrols can see that the system was triggered.

- Feature implementation in HomeSiren
- Feature implementation in StreetSiren
- Feature implementation in StreetSiren DoubleDeck
- Fire detectors settings

Alarm Confirmation
Alarm confirmation is a special event that the hub sends to the CMS and system users if several certain devices have triggered within a specified period of time. By responding to confirmed alarms only, the security company and the police reduce the number of visits on false alarms.The Ajax security system can ignore alarms or other events of devices without removing them from the system. Under certain settings, notifications about events of a specific device will not be sent to the CMS and security system users. There are two types of Devices Auto Deactivation: by the timer and by the number of alarms.

- Protocol — the choice of the protocol used by the hub to send alarms to the central monitoring station of the security company via a direct connection. Available protocols: Ajax Translator (Contact-ID) and SIA.
- Connect on demand. Enable this option if you need to connect to the CMS (Central Monitoring Station) only when transmitting an event. If the option is diasabled, the connection is maintained continuously. The option is available only for the SIA protocol.
- Object number — the number of an object in the monitoring station (hub).
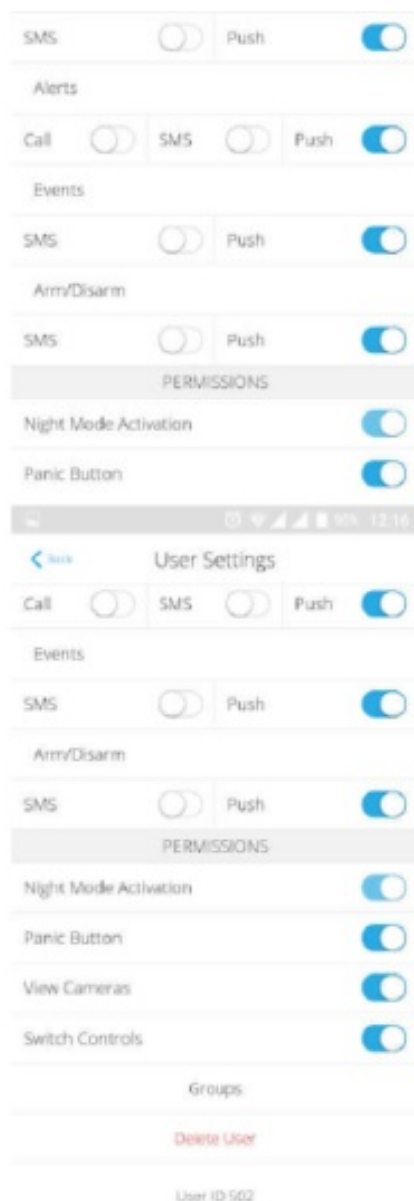
Primary IP address

- IP address and Port are settings of the primary IP address and port of the security company server to which events and alarms are sent.
- IP address and Port are settings of the secondary IP address and port of the security company server to which events and alarms are sent.
- Encryption — if enabled, events and alarms transmitted to the central monitoring station in SIA format are encrypted.
- Encryption key — encryption key of transmitted events and alarms. Must match the value on the Central Monitoring Station.
- Send coordinates — if enabled, the pressing of a panic button in the app sends the coordinates of the device on which the app is installed and panic button is pressed, to the central monitoring station.

User Guide opens the Hub user guide.
Data Import a menu for automatical transferring devices and settings from another hub. Keep in mind that you are in the settings of the hub on which you want to import data.

Learn more about data import
Unpair hub removes your account from the hub. Regardless of this, all the settings and connected detectors remain saved.

- 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

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 on the connection.

1. Ethernet cable
2. Installation kit
3. GSM start package (available not in all countries)
4. 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.

Documents / Resources

AJAX Hub Intelligent Control Panel [pdf] User Manual
Hub Intelligent Control Panel