Hub 2

Security system control panel with support of photo verification

Hub 2 (4G) Version with LTE cellular module	**Hub 2 (2G)** Version with GSM cellular module

In control of security, not your private life

Hub 2 manages all the Ajax devices in the system to alert users about open doors, broken windows, threats of fire and flooding. If burglars break into your facility, Hub 2 will notify the monitoring station[1] and send photos from the MotionCam detectors. You won't need to live under the constant supervision of the security cameras to know what's going on.

Remote configuration and control	Jeweller / Wings Two-way communication TDMA Encryption Hopping Power adjustment	PRO anti-sabotage Tampers Pings Authentication
Data-rich notifications	Alarm photo verification in 9 seconds With no threats to privacy	3 independent communication channels out of the box 2G/4G · 2G/4G Ethernet
Hassle-free installation QR code Bracket App	Up to 16 hours of backup battery life[2]	Grade 2 EN 50131 PD 6662:2017 NIST (AES-128) UL Listed SIA CP-01
OS Malevich New features with every update	9 groups Flexible security management of the facility	Security automation Scenario — by alarm / by schedule / by arming/disarming

Alarm photo verification in 9 seconds

Hub 2 works with MotionCam and MotionCam Outdoor motion detectors. When detectors are triggered, they take a series of photos. It helps to evaluate the situation at the facility. Visual verification helps you instantly assess the situation, relieving users of unnecessary anxiety, and security companies — from false calls of patrols.

1. Motion detected
2. Alarm triggered
3. Evidence captured

> **Privacy first**
>
> The detector activates its camera when the security system is armed and the motion is detected. Photos are encrypted at every stage of transmission. While stored on the Ajax Cloud server, no pictures are processed or analysed. Visual alarm verifications can only be seen by users with access to the hub's event feed and by security company employees if the security system is connected to a monitoring station.

Always connected — via cable and cellular networks

Communication with the outside world is critical for the security system control panel. Its reliability and stability guarantee timely alarm transmission to the security company and users.

Hub 2 can be simultaneously connected to three Internet service providers — via Ethernet cable and 2G, 3G, and LTE[3] cellular networks. The automatic switching between channels takes seconds.

Guaranteed delivery of alarms and visual alarm verifications

To ensure reliable communications, we have equipped Hub 2 with four antennas and support of two proprietary radio protocols: Jeweller and Wings. Jeweller is responsible for the transmission of commands, events, and alarms, while Wings provides batch transmission of images. Ajax two-way radio communication uses frames to synchronize device communication sessions, authentication to prevent fraud, and encryption to protect against data theft.

- Alarm in 0.15 seconds
- The first photo in 9 seconds[4]

Flexibility at the core

The Hub 2 radio network covers several floors and separate buildings — thanks to the communication range of 2,000 meters and the ability to connect five range extenders. To manage access and security zoning of the facility, the hub allows connecting 50 users and creating 9 security groups. Hub 2 is a perfect choice for home and business security.

- 9 security groups
- 50 users
- 100 devices in the system
- 2,000 m of radio communication range

Controlled with apps

We refrained from control buttons on the control panel body and archaic interfaces — apps are more convenient and reliable. They connect to a hub via a secure channel through the Ajax Cloud server located in several AWS data centres. Server availability in 2021 was 99.995%

Apps allow system users with administrator rights to manage the security of the facility, change settings of the hub and the devices connected to it, create scenarios, and monitor events. From a smartphone or a PC. On the site and remotely.

Automates security

Hub 2 allows creating 32 scenarios and minimizing the impact of human factor on security. The hub can arm and disarm a facility or a group by schedule. Instantly activate a smoke machine if someone enters the premises. Blackout the premises and turn on emergency lighting in case of fire. Or shut off the water in case of a leak. Control lights, electric locks, roller shutters, and garage doors — by arming/disarming, button press, or a detector alarm.

- Flood prevention system
- Automatic doors and roller shutters
- Alarm-triggered site illumination

Resistant to sabotage

Whatever happens to Hub 2, the security company and the users will be notified. No one can disconnect the hub unnoticed when the facility is disarmed. If an intruder attempts to dismount the device, this will trigger the tamper immediately. The Ajax Cloud server can notify about the loss of connection with the hub in 60 seconds due to frequent polling. Even if the building is de-energized, the hub will protect the object for up to 16 hours with a built-in backup battery[2].

- Devices polling from 12 s
- Detection of hub connection loss in 60 s
- 16 hours of backup battery life[2]

Future-proof

Hub 2 runs OS Malevich — a real-time operating system developed by Ajax Systems. OS Malevich is extremely stable, immune to viruses, and protected from cyberattacks. Modular architecture simplifies the constant upgrading of OS Malevich.

Hub receives new features several times a year with over-the-air updates. The update process is automatic and takes minutes when the security system is disarmed. The hardware configuration will allow Hub 2 to evolve and remain relevant for years to come.

Hassle-free installation

Hub 2 is ready to operate out of the box. All communication modules, power supply, and backup battery are already installed. To start setting up the system, you need to connect the device to the power supply and the Internet, insert the SIM cards, and scan the QR code through the app. With the SmartBracket mounting panel, there is no need to disassemble the device body during installation.

Connecting security devices, video cameras, users, testing the radio signal, creating groups and scenarios, even sending a request for connection to the CMS — all system settings are always available in the Ajax apps. Whether you are at the site or not.

- **Connection.** Pairing with the system by a QR code
- **Installation.** Installing on the SmartBracket mounting panel without disassembling the body
- **Setting.** Setting in the app

Easy security system upgrade

To simplify updating hubs at the facilities, we have provided the ability to transfer data between them automatically. The import feature allows you to transfer settings, connected devices, groups, scenarios, and users from the old hub to Hub 2. In less than 15 minutes.

1 — If the hub is connected to the central monitoring station (CMS). Photos transfer to CMS only if the CMS software supports photo verification of alarms.

2 —Up to 15 hours of Li - ion 3 A⬜h battery life for Hub 2 (4G) Jeweller when Ethernet

connection is disabled. Up to 16 hours of Li - ion 2 A⬜h battery life for Hub 2 (2G) Jeweller

when Ethernet connection is disabled.

3 — Only Hub (4G) model supports 3G and LTE networks.

4 — The delivery time of one photo with 320×240 px resolution. Signal strength between hub and MotionCam is 2 or 3 bars. Hub is connected via Ethernet or LTE.