# ReX

Boosts the range of all Ajax security system devices

## Secures large premises

ReX is the Ajax security system radio signal range extender, that expands the boundaries of the protected area. It controls the system devices connected to it enabling the user to place them at a considerable distance from the hub — in a multi-storey office, in a detached garage or in a large production plant. ReX doubles the signal range which potentially extends the Ajax radio coverage area up to 16 km².

* Extends radio coverage area up to 16 km²
* Alarms communicated in 0.3 seconds
* Connects to the system in 2 minutes

## Increases the flexibility of the Ajax ecosystem

ReX acts as a reliable link between the hub and Ajax devices. Depending on the requirements, all detectors or only some of them can operate via the intelligent range extender. Meanwhile, the number of devices connected to ReX does not affect the speed of alarm delivery.

* Hub + ReX + 99 devices
* Hub Plus + Rex + 149 devices
* ReX signal range is up to 1,800 meters

## Enhances the security system

Installation of regular range extenders can increase the risk of losing the alarm signal during transmission — so they become the weakest link in the security systems. But ReX takes the reliability and resilience of Ajax to a new level. After the hub, ReX is the second decision-making center. It integrates detectors into an autonomous group within the system. If the connection with the hub is interrupted for some reason, ReX will assume control: it will receive an alarm signal from the detector and activate the siren to attract attention to the incident and scare off the burglar.

## As smart as Hub

ReX is run by the intelligent OS Malevich. This operating system has already proved its reliability — it is used in Ajax hubs ensuring the security of hundreds of thousands of premises all over the world. ReX knows the same as Ajax central panel, and controls the devices connected to the system, makes decisions with lightning speed, and is always on guard. The capabilities and the role of ReX in the security system will continue to grow with OS Malevich updates that are free for all users.

* A powerful ARM processor for solving critical tasks
* Cargo protocol for uninterrupted data synchronization with the hub
* Replication of system information for immediate response to events
* Over-the-air firmware updates for new features

## Ready to resist intruder attacks

ReX is protected against software and hardware attacks. The OS Malevich operating system running ReX is not vulnerable to viruses or exploits, which prevents disruptions resulting from attacks on the firmware code. It is not possible to hack ReX by intercepting the signal — the information that the device receives and sends is encrypted. A sudden power supply interruption will not be a problem — ReX has a powerful battery that will not compromise the security of the premises.

* Functions up to 35 hours after power outage
* All data is encrypted using a block cipher with a dynamic key
* Notifies of jamming and tampering with the device body

## Set up in 2 minutes

In order to connect ReX to the system, scan the QR code, name the device, and turn it on. Then, you just need to select the Ajax devices that will operate via the range extender. In order to mount the device, there is no need to disassemble ReX — the range extender can be mounted on SmartBracket in one simple action.

* QR code for simple connecting to the system
* SmartBracket mount for quick set up
* Mobile application for configuring and testing

## Tech specs

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| Classification | Radio channel range extender |
| Device type | Wireless |
| Installation method | Indoors |
| Compatibility | Hub and Hub Plus featuring OS Malevich 2.7.1 and later |
| Alarm signal delivery time | 0.3 seconds |
| Maximum connected devices | Hub — up to 99  Hub Plus — up to 149 |
| Max number of connected ReX per hub | 1 |
| Operating system | OS Malevich  [Learn more about firmware updates >](https://ajax.systems/blog/ajax-updating-procedure/) |
| Power supply | Mains supply: 110−240 V  Battery backup: Li-Ion 2 А⋅h  Up to 35 hours of offline operation |
| Jeweller radio technology | Communication range with detectors — up to 1,800 m in an open space  Two-way communication between devices  Operating frequencies — 868.0-868.6 MHz  Self-adjusting RF output power — up to 25 mW  Block encryption based on AES algorithm  Detector polling period — 12−300 s  Frequency hopping  [Learn more about Jeweller >](https://ajax.systems/jeweller/) |
| Operating temperature range | From −10°С to +40°С |
| Permissible humidity | Up to 75% |
| Anti-sabotage | Protection against fraud  Jamming detection  Tamper-resistant |
| Dimensions | 163 х 163 х 36 mm |
| Weight | 330 g |
| Warranty | Within 24 months from the date of sale  [Learn more >](https://ajax.systems/warranty/) |
| Complete set | Intelligent radio signal range extender ReX  SmartBracket mounting panel  Power cable  Installation kit  Quick Start Guide |