LeaksProtect User Manual

Miniature wireless detector **LeaksProtect** detects a minimal leakage, allowing for timely response and elimination of the problem.

LeaksProtect operates within the Ajax security system, by connecting via the protected Jeweller protocol to the hub. The communication range is up to 1300 meters if there are no obstacles. In addition, the detector can be used as part of third-party security central units due to the uartBridge or ocBridge Plus integration module.

The detector is set up via a mobile application for iOS and Android-based smartphones. The user is notified of all events through push notifications, SMS messages and calls (if activated).

The Ajax security system is self-sustaining, but the user can connect it to the central monitoring station of a private security company.

Buy leakage detector LeaksProtect

Functional Elements
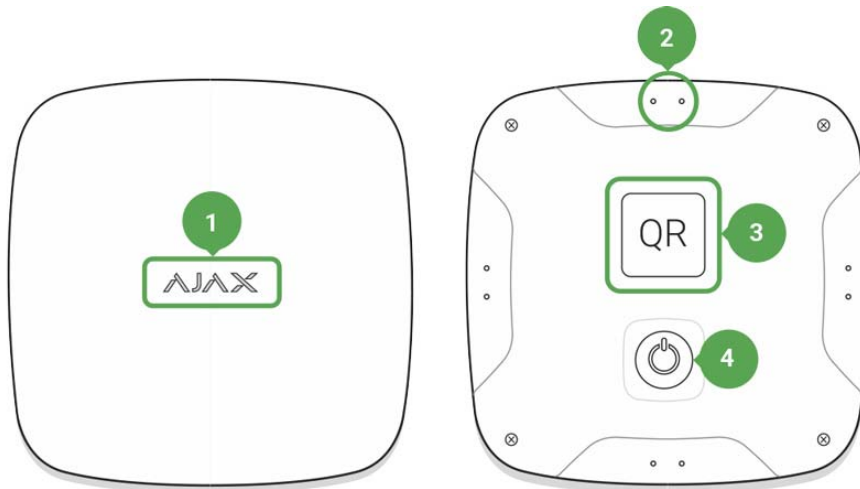
1. Light indicator

2. Moisture sensor contacts

3. QR code with a device registration key

4. On/off button of the device

LeaksProtect Operating Principle

LeaksProtect has contacts at the bottom of its body, sensitive to water leakage – if at least one contact pair gets wet, the detector will immediately transmit an alarm signal to the hub, notifying the user and private security company. Besides, the detector will notify that the location is already dry.

The detector is always in active mode and sends an alarm irrespective of the system status: disarmed or armed.

When detecting water leakage, LeaksProtect gives one notification, and the next alarm is emitted by the detector only after the contacts have dried out and gotten wet again.

Connecting the Detector to the Ajax Security System

Detector Connection to hub

Before starting connection:

1. Following the hub instruction recommendations, install the Ajax application on your smartphone. Create an account, add the hub to the application, and create at least one room.

2. Go to the Ajax application.

3. Switch on the hub and check the internet connection (via Ethernet cable and/or GSM network).

4. Ensure that the hub is disarmed and does not start updates by checking its status in the mobile application.

> Only users with administrative privileges can add the device to the hub.

How to connect the detector to the hub:

1. Select the **Add Device** option in the Ajax application.

2. Name the device, scan/write manually the **QR Code** (located on the body and packaging), and select the location room.

3. Select **Add** — the countdown will begin.

4. Switch on the device.

> The detector has a stiff "On" button — press down firmly to switch it on.

For the detection and interfacing to occur, the device should be located within the coverage area of the wireless network of the hub (at a single protected object).

Request for connection to the hub is transmitted for a short time at the time of switching on the device.

If the connection to the hub failed LeaksProtect will switch off after 6 seconds. To retry the connection, you do not need to turn off the device. If LeaksProtect was already assigned to another hub, switch it off, then perform the standard adding procedure.

The detector connected to the hub will appear in the list of devices of the hub in the application. Update of the detector statuses in the list depends on the device inquiry time set in the hub settings, with the default value – 36 seconds.


Connecting the Detector to Third Party Security Systems

To connect the detector to a third party security central unit using the uartBridge or ocBridge Plus integration module, follow the recommendations in the manual of the respective device.

The detector always operates in the active mode. When connecting LeaksProtect to third-party security systems, it is appropriate to place the detector in a permanently active protection zone.

States

1. Devices

2. LeaksProtect
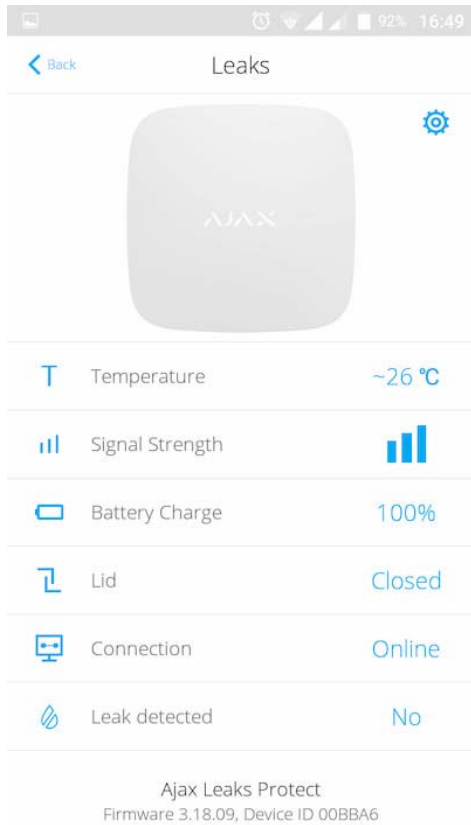
Parameter	Value
Temperature	Temperature of the Detector. This is measured on the proces and changes gradually.
Signal Strength	Signal strength between the hub and the detector
Connection	Connection status between the hub and the detector
Battery Charge	The battery charge level of the detector is displayed in increments of 25%
Lid	The inbuilt tamper mode, which reacts to the body being disassembled or damaged
Leak Detected	Alarm indication when the moisture sensor contacts close
Firmware	Detector firmware version
Device ID	Device identifier

Setting Up the Detector

You may rename the detector, change the location room, as well as delete it from the list of devices of the hub.

1. Devices

2. LeaksProtect

3. Settings
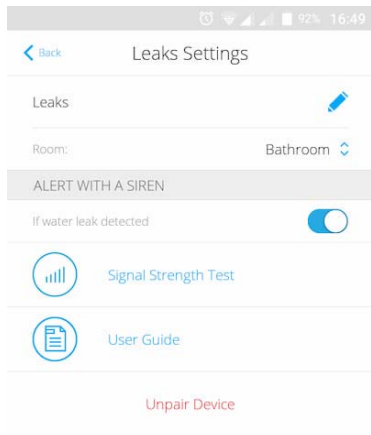
Setting	Value
First field	Detector name, can be edited
Room	Selecting the virtual room to which the device is assigned
Activate the siren if leak is detected	If active, HomeSiren and StreetSiren are activated when leakage is detected
Signal Strength Test	Switches the detector to the signal strength test mode
Attenuation Test	Switches the detector to the signal fade test mode (available in detectors with **firmware version 3.50 and later**)
User Manual	Opens the detector User Manual
Delete Device	Disconnects the detector from the hub and deletes its settings

Indication

The **LeaksProtect** light indicator may light up red or green depending on the device status.

Indication When Pressing the "On" button

Event	Indication
Pressing the power button (detector is switched on)	Lights up red while the button is held down
Switching on	Lights up green while the device is switching on
Switching off	Initially lights up red, then blinks three times

Turned-on detector indication

Event	Indication	Note
Detector connection to the hub, ocBridge and uartBridge	Lights up green for a few seconds	
Hardware error	Blinks red continuously	The detector requires repair, please contact Support Service
Leakage detected	Lights up red for about one second	
Battery needs replacing	During the alarm, it slowly lights up red and slowly goes out	Replacement of the detector battery is described in the **Battery Replacement** paragraph

Functionality Testing

The Ajax security system allows conducting tests for checking the functionality of connected devices.

The tests do not start straight away but within a period of 36 seconds when using the standard settings. The test time start depends on the settings of the detector scanning period (the paragraph on "**Jeweller**" settings in hub settings).

Signal Strength Test

Attenuation Test

Selection of the Detector Location

Location of the detector determines its remoteness from the hub (up to 1300 meters) and absence of any obstacles between the devices hindering the radio signal transmission: walls, inserted floors, large-size objects located within the room.

Check the signal level at the installation location

If the signal level is one division, we cannot guarantee stable operation of the security system. Take possible measures to improve the quality of the signal! As a minimum, move the device – even 20 cm shift can significantly improve the quality of reception.

If, after moving, the device still has a low or unstable signal strength, use a radio signal range extender ReX.

The sensor should be placed in the place of probable water leakage from the water supply, heating, sewage systems: on the floor under the bathroom, under the washbasin, under the washing machine, etc.

Do not install the detector:

- outside the premises (outdoors);

- nearby any metal objects or mirrors causing attenuation and screening of the signal;

- within any premises with the temperature beyond the range of permissible limit;

- on conductive surfaces;

- closer than 1 m from the hub.

Detector Testing

When the detector contacts are exposed to liquid, the resistance between them drops. To activate the alarm, it is sufficient that at least one contact pair of LeaksProtect is closed.

1. To check the flood detector, close the contact pair with a wet finger for 3 seconds (the delay will prevent any false actuation). If water is detected, the detector LED will light up red for 1 second.

2. Wipe the contacts with a dry napkin – when the detector detects that the flood has ceased, it will also switch on the red LED for 1 second.

   If you drown the detector with soapy water, it may continue signal flooding after getting dry. The issue is about the soapy film closing the contacts. To eliminate the problem, wipe the detector contacts with a napkin moistened with pure water and then dry them up.

Detector Maintenance and Battery Replacement

Check the operational capability of the LeaksProtect detector on a regular basis. We recommend cleaning the sensor contacts as it gets dirty, at least, once per 2-3 months. Use an alcohol solution for cleaning.

Clean the detector body from dust, spider web and other contaminations as they appear – they can conduct electricity and cause false actuation. Use soft dry napkin suitable for equipment maintenance.

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

The batteries installed in the detector ensure up to 5 years of autonomous operation on the average (with the inquiry frequency by the hub of 1 minutes). If the detector batteries are discharged, the security system will send respective notices and the detector LED will smoothly light up and go out green every hour, if the device is actuated.

Battery replacement

Tech specs

Frequency band	868.0 – 868.6 MHz or 868.7 – 869.2 MHz depending on the region of sale
Compatibility	Operates with Hub, Hub Plus, Hub 2, ReX, ocBridge Plus, uartBridge
Maximum RF output power	Up to 20 mW
Modulation of the radio signal	GFSK
Radio signal range	Up to 1,300 m (any obstacles absent)
Power supply	2 x AAA, 3 V
Battery life	Up to 5 years
Dust and moisture protection class	IP65

Operating temperature range	From 0°C to +50°C
Operating humidity	Up to 100%
Overall dimensions	56 x 56 x 14 mm
Weight	40 g

Complete Set of the Detector

1. LeaksProtect

2. Batteries AAA (pre-installed) – 2 pcs

3. Quick Start Guide

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 battery.

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

Technical support: support@ajax.systems

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