FireProtect 2 (Heat/Smoke) Jeweller user manual

FireProtect 2 (Heat/Smoke) Jeweller is a wireless fire detector with a built-in siren. Intended for indoor installation. Detects smoke and temperature rise. The detector also can work without a hub.

There are two available modifications: one with sealed batteries (has **SB** in the name) that run for 10 years, and another with replaceable batteries (has **RB** in the name) that run for up to 7 years.

FireProtect 2 (Heat/Smoke) detectors are compatible only with hubs on OS Malevich 2.14.1 or later. Hub (4G) Jeweller must have OS Malevich 2.28 or later to support FireProtect 2 SB (Heat/Smoke) Jeweller.

Hubs and range extenders compatible with FireProtect 2 RB (Heat/Smoke) Jeweller

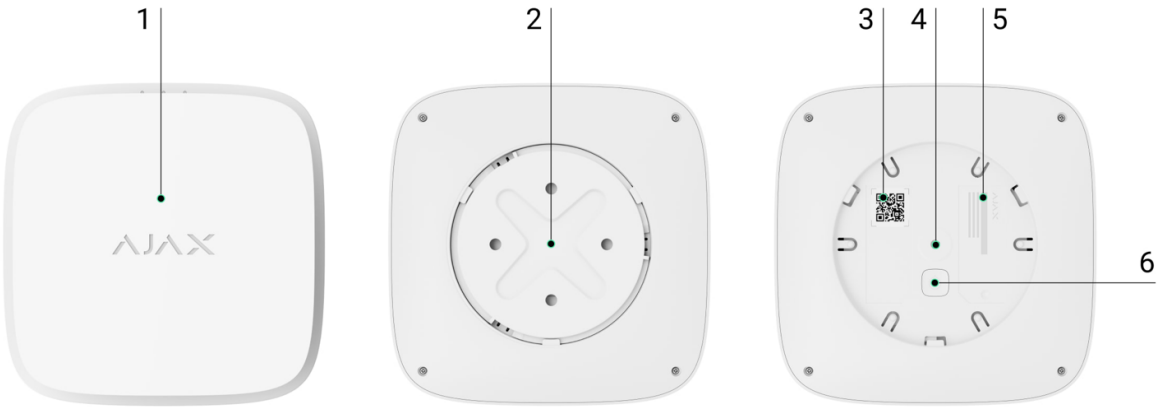
Hubs and range extenders compatible with FireProtect 2 SB (Heat/Smoke) Jeweller

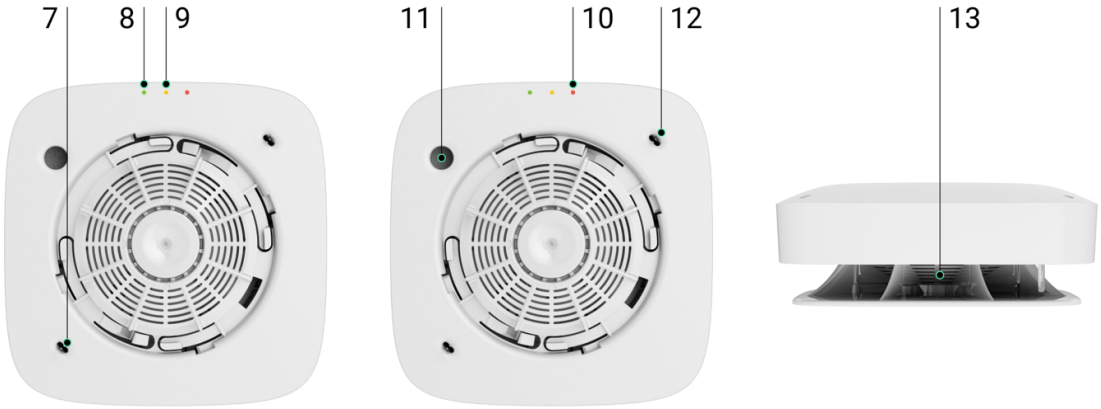
The detector operates as part of the Ajax system, communicating with the hub via the **Jeweller** secure radio protocol. The hub communication range is up to 1700 meters without obstacles.

Buy FireProtect 2 (Heat/Smoke)

Versions of the detector with other sensor combinations are also available. All Ajax fire detectors are available here.

Functional elements





1. The front panel of the detector with a **Test/Mute button**. To activate the button, press the central part of the panel.
2. SmartBracket mounting panel. To take off the panel, turn it counterclockwise.
3. Device QR code and ID (serial number). Used for detector connection to the Ajax system.
4. **Tamper button**. Triggers when trying to tear the detector off from the surface or to take it off the mounting panel.
5. Detector certification information.
6. Power button.
7. First thermistor. Detects dangerous temperatures.
8. Green LED indicator.
9. Yellow LED indicator.
10. Red LED indicator.
11. Siren.
12. Second thermistor. Detects dangerous temperatu
13. Smoke chamber lid.

The smoke chamber lid can be removed when the enclosure is disassembled completely. The system identifies this event as a malfunction, and the detector reacts with an audible signal. Users and the security company receive a malfunction notification.

Operating principle

FireProtect 2 (Heat/Smoke) is a wireless fire detector designed for indoor installation. Available in two modifications:

- The version with sealed batteries (the detector has **SB** in its name) ensures 10 years of autonomous operation. Once the batteries are discharged, replace the detector with a new one.
- The version with replaceable batteries (the detector has **RB** in its name) ensures 7 years of autonomous operation. When the batteries are discharged, replace them with new ones.

The **Battery Life Optimization** feature must be enabled to ensure such battery lifetime.
Learn more

How to replace FireProtect 2 RB (Heat/Smoke) Jeweller batteries

The detector is equipped with a siren (piezoelectric buzzer) for sound notification of alarms and events with a volume of up to 85 dB (at a distance of 3 m from the detector). The detector is always active and reacts to a fire during 24/7, regardless of the system's security mode.

FireProtect 2 is protected by two tampers. The first tamper controls the removal of the detector from the SmartBracket mounting panel: the detector reacts with **LED indication** and sends notifications to users in Ajax apps and the security company monitoring station. The second tamper signals the removal of the smoke chamber lid, which is located under the front panel of the detector.

The **Ajax automation devices** can respond to FireProtect 2 alarms and perform user-defined actions using **automation scenarios**. For example, the **WallSwitch** relay can turn off the ventilation system and turn on emergency lighting when an alarm occurs.

Smoke sensor

FireProtect 2 detects smoke with a dual-spectrum optical sensor. Inside the smoke chamber, the sensor has blue and infrared LEDs that emit light at different wavelengths. This technology enables the detector to determine the size of volatile particles inside the chamber and respond to smoke.

The smoke chamber in FireProtect 2 is protected from dust, dirt, and insects. Even if dust gets inside and settles, this does not threaten or impair fire detection. The optical system is designed to prevent non-volatile particles from getting within the field of both blue and infrared LEDs at the same time. So that situation does not cause a false alarm.

The HazeFlow 2 software algorithm also protects against false alarms. When an alarm is detected, the algorithm additionally processes the data received from the detector and confirms the alarm.

Heat sensor

Inside FireProtect 2, there are two built-in A1R-class thermistors that detect a rapid temperature rise and temperatures exceeding the threshold. These thermistors notify of alarms when a rapid temperature rise or a static temperature in the range of +54 °C to +65 °C is detected.

FireProtect 2 reports a temperature exceeding the threshold as soon as its value surpasses +64 °C. The detector reports a rapid temperature rise if the indicator increases by 10 °C within 1 minute. If the temperature indicator rises rapidly by 20 °C or more, the detector signals immediately.

Test/Mute button

To activate the **Test/Mute button**, press lightly on the centre of the front panel with your hand. Use a suitable item (mop handle) if you can't reach up the detector with your hand. **Test/Mute** is a mechanical button placed under the front panel of the detector.

The button performs several functions:

- In normal mode, it starts the **detector self-test**.
- When operating in a network of fire detectors that propagate an **interconnected fire alarm without a hub**, it starts a network coverage area testing.
- In case of an alarm, it mutes the detector alarm or **Interconnected Alarm** of all fire detectors in the system for 10 minutes.
- In case of a fault or a low battery level, it mutes the sound and LED indication for 12 hours.

To run the self-test, wait at least 3 minutes after turning on the detector.

Interconnected Fire Detectors Alarm*

All FireProtect 2 RB/SB detectors in the system can synchronously notify about the fire alarm. There are two ways: **primary** and **fallback** (both work in parallel).

In case of danger, the initiating detector sends a fire alarm to the hub. The hub initiates the **primary** interconnect: all fire detectors will activate the built-in sirens in 20 seconds. Meanwhile, the initiating detector activates the **fallback** interconnection, directly sending the alarm to other fire detectors. Even if the connection with the hub is lost, raising the interconnected fire alarm takes a minute.

> The fallback interconnection functionality is available for FireProtect 2 RB/SB detectors with firmware version 5.59.2.XX and later and for hubs with OS Malevich 2.19 and later. Hub (4G) Jeweller must have OS Malevich 2.28 or later to support the fallback interconnection.
>
> Devices that support the fallback interconnected alarm are marked on the package with a “Fallback interconnect supported” label.

The **FireProtect 2** detectors have different sound and LED indications of alarm types to make it easier for users to distinguish between them. In case of interconnected alarm, all FireProtect 2 detectors indicate exactly the alarm type detected by the initiating detector.

How to set Interconnected Fire Detectors Alarms

How to mute Interconnected Fire Detectors Alarms

* To comply with AS3786:2014, EN 14604, and EN 50291 standards, **enable the fallback interconnection** in the hub settings.

Sending events to the monitoring station

The Ajax system can transmit events and alarms to the **PRO Desktop** monitoring app as well as the Central Monitoring Station (CMS) via **SurGard (Contact ID), SIA DC-09 (ADM-CID), ADEMCO 685**, and other protocols. The list of supported protocols is **available here**.

Which CMSs Ajax connects to

Addressability of Ajax devices allows you to send to the PRO Desktop and to the CMS not only events but also the type of the device, the name given to it, virtual room, and security group. The list of transmitted parameters may differ depending on the CMS type and the selected communication protocol.

The ID and detector loop (zone) number are available in the detector States.

Adding to the system

Before adding a device

1. Install the **Ajax app**.
2. Log in to your **account** or create a new one.
3. Select a space or create a new one.

What is a space

How to create a space

The **space** functionality is available for apps of such versions or later:

- Ajax Security System 3.0 for iOS;
- Ajax Security System 3.0 for Android;
- Ajax PRO: Tool for Engineers 2.0 for iOS;
- Ajax PRO: Tool for Engineers 2.0 for Android;
- Ajax PRO Desktop 4.0 for macOS;
- Ajax PRO Desktop 4.0 for Windows.

4. Add at least one **virtual room**.
5. Add a **compatible hub** to the space. Ensure the hub is switched on and has internet access via Ethernet, Wi-Fi, and/or mobile network.
6. Ensure the space is disarmed, and the hub is not starting an update by checking statuses in the Ajax app.

Only a PRO or a space admin with the rights to configure the system can add a device to the hub.

Types of accounts and their rights

To connect to the hub, the detector should be within the coverage area of the hub radio network. To operate via a **radio signal range extender**, first connect the detector to the hub and then to the range extender. You can do this in the range extender settings in Ajax apps.

How to connect FireProtect 2 to a hub

1. Open the **Ajax app**.
2. Select the hub if you have several of them or if you are using the **Ajax PRO app**.
3. Go to the **Devices** tab. Press **Add Device**.
4. Enter the name of the device.
5. Scan the QR code or enter the ID manually. QR code is located on the rear part of the enclosure (under the mounting panel) and on the device packaging. The device ID can be found below the QR code.
6. Select the **virtual room** and security group (if the **group mode** is enabled).
7. Click **Add**; the countdown will begin.

> If the maximum number of devices is added to the hub, when adding the one, you will get a notification of exceeding the device limit. The number of devices that you can connect to the hub depends on the central unit model.

8. Turn on the detector by holding the power button for 3 seconds. The hub connection request is sent only if the detector is enabled. If the detector fails to connect to the hub, try again in 5 seconds.

> The detector cannot connect to the hub if they operate on different radio frequencies. The radio frequency range of the devices may vary by the region of sale. Please contact technical support for information on the operating frequency range of your devices.

Once connected, FireProtect 2 will appear in the hub device list in the Ajax app. Device status update depends on the ping interval set in the **Jeweller** or **Jeweller/Fibra** settings. The default value is 36 seconds.

FireProtect 2 works with only one hub. When connected to a new hub, the detector stops transmitting data to the old hub. Once added to a new hub,

FireProtect 2 is not removed from the list of devices of the old hub. This must be done manually in Ajax apps.

Autonomous operation mode

FireProtect 2 detectors can be used autonomously without connecting to an Ajax hub. In this case, the detector notifies of fire or smoke with only a built-in siren and LED **indication**. Users don't receive notifications on any **Ajax apps**, including **Ajax Translator**, or **PRO Desktop**.

To use the detector autonomously, follow these steps:

1. Select the optimal location of the detector using the recommendations in the **Selection of installation place** section.
2. Mount the detector on the SmartBracket panel as described in the **Installation** section.
3. Press the **power button to** switch on the detector.
4. Wait at least 3 minutes and start a **self-test** with the **Test/Mute button**. Press the centre of the front panel and hold it for 1.5 seconds.

During a self-test FireProtect 2 notifies about each step with a built-in siren and LED **indication**. Once a self-test is completed, the LED indication turns off, and the detector works autonomously.

In case of an alarm, press the **Test/Mute button** or eliminate the cause of the alarm to mute the siren.

Indication

LEDs and the built-in siren of the detector can report alarms, as well as some detector states.

LED indication	Sound indication	Event	Notes
The red LED flashes continuously.	The siren beeps in time with the LED indication.	Alarm by: • smoke; • rapid temperature rise; • temperature threshold exceeded.	The detector stops alarming as soon as its sources are eliminated. Also, you can mute the alarm by pressing the **Test/Mute button** or in the Ajax app. The LED and sound indications resume if the source of the alarm is still present after the muting timer (10 minutes) has expired.
The red LED flashes every 4 seconds.	No.	Muted alarm.	The detector stops alarming as soon as its source is eliminated.
			If the source of the alarm is removed,

The red LED flashes 2 times in a row.	No.	Restore after alarm.	the detector is restored automatically.
The yellow LED lights up for 1 second.	No.	Tamper alarm. The detector is removed from the SmartBracket mounting panel.	
The green LED lights up for 1 second.	No.	The detector is installed on the SmartBracket mounting panel.	Turns on when the tamper is triggered.
Green, yellow, and red LEDs light up in turn, then go out.	No.	Turning the detector on.	To turn off the detector, hold the power button for 1 second.
Green, yellow, and red LEDs light up at the same time, then go out in reverse order.	No.	Turning the detector off.	To turn off the detector, hold the power button for 2 seconds.
The green LED is permanently on.	No.	Connection to the hub in progress.	The indication turns off after the detector connection to the hub.
The green LED flashes 6 times in a row.	No.	The detector has been removed from the hub.	The indication turns on when the detector receives information that it has been removed from the hub.
The yellow LED flashes 2 times in a row every minute.	The siren beeps 2 times in time with the LED indication every minute.	Malfunction is detected.	All malfunctions are displayed in the detector **States** in Ajax apps. Fields with malfunctions are highlighted in red. If the detector needs to be

			repaired, contact our **Technical Support**.
The yellow LED flashes once per minute.	The siren beeps in time with the LED indication once per minute.	Low battery charge level.	You can replace batteries in a detector with replaceable batteries only (has **RB** in its name). A detector with sealed batteries (has **SB** in its name) should be replaced with a new one after the batteries are discharged. **How to replace FireProtect 2 RB batteries (Heat/Smoke)**
The yellow LED constantly flashes.	No.	The battery is completely discharged.	You can replace batteries in a detector with replaceable batteries only (has **RB** in its name). A detector with sealed batteries (has **SB** in its name) should be replaced with a new one after the batteries are discharged. **How to replace FireProtect 2 RB batteries (Heat/Smoke)**
The red LED flashes	The siren beeps 5		The test can be started by pressing

5 times during the smoke chamber test.	times during the smoke chamber test.	Performing a self-test.	the **Test/Mute button** or in the Ajax app in the detector settings.
Green, yellow, and red LEDs flash at the same time.	No.	The detector decides in which role it will switch to the pairing mode: master or slave.	The indication turns on when the power button is pressed 3 times on the detector that is switched on and not added to any hub. The indication lasts up to 10 seconds. The detector switches to the pairing mode to set up a network of detectors that can propagate an interconnected fire alarm without the hub. **Learn more**
Green, yellow, and red LEDs light up and go off in turn. Then, light up and go out in reverse order.	No.	The detector becomes a master after switching to the pairing mode.	The indication turns on when the detector chooses its role after switching to the pairing mode without the hub. It turns off when the network of detectors is formed. **Learn more**
The green LED		The detector becomes a slave	The indication turns on when the detector chooses its role after switching to the pairing mode without the hub. It

flashes every 2 seconds.	No.	after switching to the pairing mode.	turns off when the network of detectors is formed. **Learn more**
All LEDs flash 3 times.	No.	Removing the device from the network of fire detectors and resetting its settings.	The indication turns on after pressing the power and Test/Mute buttons on the switched-on detector. It is possible to reset the detector added to the hub in such a way only if there is no connection between the hub and the detector. **Learn more**
The yellow LED flashes 3 times.	No.	Failure when adding the detector in the pairing mode without the hub.	The indication turns on after the detector switches to the pairing mode if: • The detector is added to the hub. • There are already 50 fire detectors in the network. • The slave detector is within the coverage area of two master detectors in the pairing mode.

			• There is another fault when adding. **Learn more**

Detector testing

Functionality testing

The test allows you to check the status of the detector's sensors. You can run it in two ways: by pressing the detector Test/Mute button and in Ajax apps.

To run the self-test, wait at least 3 minutes after turning on the detector.

If the detector is in an alarm state, the self-test is not available.

To run the test using the Test/Mute button, press the center of the detector front panel and hold it for 1.5 seconds.

To run the test in the Ajax app:

1. Open the Ajax app.
2. Select the hub if you have several of them or if you are using the **Ajax PRO app**.

3. Go to the **Devices** menu.
4. Select **FireProtect 2 (Heat/Smoke)**.
5. Go to the settings by clicking on the gear icon.
6. Click on the **Device Self-test** field.

After starting the test, the red LED of the detector flashes 5 times in a row. The detector's siren beeps in time with an LED indication. When the test is over, users receive a notification of the detector state in Ajax apps.

The detector also notifies of the test result with sound and LED indications. If the test is failed and a malfunction is detected, 3 seconds after the start of the test, the detector starts the indication **Malfunction detected**: the yellow LED flashes twice, the siren beeps two times in time with the LED indication.

The self-test does not start immediately, but no later than 30 seconds after pressing the **Test/Mute** button or running from the Ajax app.

To stop a self-test, press the **Test/Mute** button again.

If there were no sound and LED indications during the self-test, the detector cannot be used. Contact our Technical Support.

Testing at the place of installation

Ajax system provides several tests to select the correct installation place of devices. **Jeweller Signal Strength Test** is available for FireProtect 2. The test determines the strength and stability of the signal at the intended location of the device.

To run the test in the Ajax app:

1. Select the hub if you have several of them or if you are using the **Ajax PRO app**.
2. Go to the **Devices** menu.
3. Select **FireProtect 2 (Heat/Smoke)**.
4. Go to the settings by clicking on the gear icon.
5. Select **Jeweller Signal Strength Test**.
6. Perform the test following the tips in the app.

> The test does not start immediately, but the waiting time does not exceed the duration of one detector ping interval. The default value is 36 seconds. You can change the detector ping interval in the **Jeweller** (or **Jeweller/Fibra**) menu in the hub settings.

Coverage area testing

The test allows you to check if all fire detectors will still respond to an alarm in case the connection with the hub is lost. It involves detectors that support the fallback interconnected alarm function.

What is interconnected fire detectors alarms

To run the test in the Ajax app:

1. Select the space if you have several of them or if you are using a **PRO app**.
2. Go to the **Devices** tab.
3. Select hub.
4. Go to the **Settings** by clicking on the gear icon.
5. Select **Service**.

6. Select **Fire detectors settings**.
7. Select **Interconnected fire detectors alarm**.
8. Enable the **Fallback interconnection if hub connection lost** feature.
9. Tap **Coverage area testing** and perform the test following the tips in the app.

> **Coverage area testing** is available only when the **Fallback interconnection if hub connection lost** feature is enabled.

Icons

The icons show some detector states. You can view them in Ajax app in the **Devices** tab.

Icon	Meaning
	Jeweller signal strength between the detector and the hub or the radio signal range extender. The recommended values is two or three bars. Learn more
	Battery charge level of the device. Learn more
	The **Interconnected Fire Detectors Alarm** feature is activated. Learn more
	The detector operates in the **Always Active** mode. The icon is displayed permanently. FireProtect 2 is always active and responds to a fire 24/7, regardless of the system's security mode.

	Learn more
RE	The detector operates through the **radio signal range extender**.
	The detector is permanently deactivated. **Learn more**
	The detector has detected a rapid temperature rise.
	The detector has detected that the temperature threshold has been exceeded.
	The detector has detected smoke.
	The detector was removed from the SmartBracket mounting panel, or the enclosure integrity was violated in another way. Check the mounting of the detector.
	The detector's siren plays an alarm sound.
	Malfunction detected. The list of malfunctions is available in the detector **States**.
	The detector has tamper triggering events deactivated. **Learn more**
Offline	The device has lost connection with the hub or the hub has lost connection with the Ajax Cloud server.
Not transferred	The device has not been transferred to the new hub. **Learn more**

States

The states include information about the device and its operating parameters. You can see FireProtect 2 (Heat/Smoke) states in Ajax apps.

To access them:

1. Open the Ajax app.
2. Select a hub if you have several of them or if you are using the Ajax PRO app.
3. Go to the **Devices** tab.
4. Select the device from the list.

Ajax apps display three FireProtect 2 temperature parameters. The first one shows the air temperature in the room where the detector is installed. The other two **Temperature Threshold Exceeded** and **Rapid Temperature Rise** show whether fire-related temperature changes are detected. These values may differ from the temperature in the room.

Parameter	Meaning
Data import	Displays the error when transferring data to the new hub: • **Failed** — the device has not been transferred to the new hub. Learn more
Temperature	Air temperature in the room where FireProtect 2 is installed. Measured in Celsius or Fahrenheit degrees depending on the app settings. In the normal state, the temperature value is displayed in black. When the temperature rises, the field is highlighted with red. You can create a scenario by temperature to control automation devices.

	Learn more
Jewellers Signal Strength	Jeweller signal strength between FireProtect 2 and the hub or radio signal range extender. The recommended value is two or three bars. Jeweller is a protocol for transmitting FireProtect 2 events and alarms.
Connection via Jeweller	Connection status between FireProtect 2 and the hub or radio signal range extender via Jeweller: • **Online** — the detector is connected to the hub or range extender. Normal state. • **Offline** — no connection between the detector and the hub or range extender. Check the detector connection.
Battery Charge	The battery charge level of the device: • **OK** — detector batteries have sufficient charge. Normal state. • **Battery low** — detector batteries are discharged. When the batteries are discharged, users and the CMS receive a notification. After the low battery notification, the detector is able to operate for another month under normal conditions. In case of an alarm, the battery charge is enough to ensure 4 minutes of the sound and LED indication operation. How the battery charge is displayed

	Battery life calculator You can replace batteries in a detector with replaceable batteries only (has **RB** in its name). A detector with sealed batteries (has **SB** in its name) should be replaced with a new one after the batteries are discharged. **How to replace batteries in FireProtect 2 RB (Heat/Smoke)**
Lid	The state of the detector's tamper that responds to detachment of the device from the surface or opening of the enclosure: • **Open** — the detector is removed from the SmartBracket mounting panel, or the enclosure integrity is violated in another way. Check the mounting of the detector. • **Closed** — the detector is installed on the SmartBracket mounting panel. The integrity of the device enclosure and the mounting panel is not violated. Normal state. **Learn more**
Smoke	Smoke sensor state: • **Clear** — normal state, the detector does not detect smoke. • **Alarm** — the detector detects smoke. If smoke is detected, the text field highlights red. **Learn more**
	Alarm state if temperature threshold is exceeded:

Temperature Threshold Exceeded	• **No** — normal state, the detector does not detect temperature threshold exceeding. • **Alarm** — the detector has detected temperature threshold exceeding. If temperature threshold exceeding is detected, the text field highlights red. Learn more
Rapid Temperature Rise	Alarm by the rapid temperature rise: • **No** — normal state, the detector does not detect a rapid temperature rise. • **Alarm** — the detector has detected a rapid temperature rise. If a rapid temperature rise is detected, the text field highlights red. Learn more
Permanent Deactivation	Shows the status of the device permanent deactivation function: • **No** — the device operates in normal mode. • **Lid only** — detector's tamper triggering notifications are disabled. • **Entirely** — the detector does not execute system commands, does not participate in automation scenarios, and does not send notifications of alarms, malfunctions, and other events to the CMS and system users. In this case, the detector will continue to operate autonomously and indicate alarms using the built-in siren.

	Learn more
Firmware	FireProtect 2 firmware version.
Device ID	ID (serial number) of FireProtect 2. Also available on the detector's enclosure (under the mounting panel) below the QR code and on the packaging box.
Device No	The number of FireProtect 2 loop (zone). Events are sent to the CMS with this number.

Settings

To change FireProtect 2 (Heat/Smoke) settings in the Ajax app:

1. Open the Ajax app.
2. Select the hub if you have several of them or if you are using the **Ajax PRO app**.
3. Go to the **Devices** tab.
4. Select the device from the list.
5. Go to **Settings** by clicking on the gear icon.
6. Set the required settings.
7. Click **Back** to save the new settings.

Settings	Meaning
	Detector name. Displayed in the list of hub devices, text of SMS and notifications in the events feed.

Name	To change the name, click on the text field. The name can contain up to 12 Cyrillic characters or up to 24 Latin characters.
Room	Selecting the virtual room to which FireProtect 2 is assigned. The room name is displayed in the text of SMS and notifications in the events feed. To change the room, click on the field.
Activate the siren	
If temperature threshold exceeded	When this option is enabled, the **Ajax sirens** connected to the system are activated when the detector detects a temperature threshold exceeding.
If rapid temperature rise detected	When this option is enabled, the **Ajax sirens** connected to the system are activated when the detector detects a rapid temperature rise.
If smoke detected	When this option is enabled, the **Ajax sirens** connected to the system are activated when the detector detects smoke.
Jeweller Signal Strength Test	Switches the detector to the Jeweller signal strength testing mode. The test helps determine the optimal place for installing FireProtect 2. The test shows the signal strength between the detector and the hub or radio signal range extender via the Jeweller wireless data transfer protocol. The recommended value is two or three bars. **Learn more**
	Runs a detector self-test.

Smoke Sensor Self-test	Learn more
User Guide	Opens FireProtect 2 User Manual in the Ajax app.
Permanent Deactivation	Allows to deactivate the device without removing it from the system. Three options are available: • **No** — the device operates in normal mode. • **Lid only** — detector's tamper triggering notifications are disabled. • **Entirely** — the detector does not execute system commands, does not participate in automation scenarios, and does not send notifications of alarms, malfunctions, and other events to the CMS and system users. In this case, the detector will continue to operate autonomously and indicate alarms using the built-in siren. Learn more
Unpair Device	Unpairs FireProtect 2 from the hub and deletes its settings.

Battery life optimization setting

The **Battery Life Optimization** feature is provided to save the detectors' battery charge. It is available only for hubs on **OS Malevich 2.14** or higher with FireProtect 2 detectors connected. This feature is enabled by default.

When the **Battery Life Optimization** feature is enabled, the hub increases the ping interval for FireProtect 2 detectors.

This feature doesn't affect alarm notification delivery time.

To disable the **Battery Life Optimization** feature:

1. Open the Ajax app.
2. Select the hub with FireProtect 2 detectors connected.
3. Go to:

   Hub → Settings → Service → Fire Detectors Settings.

4. Disable the **Battery Life Optimization toggle.**
5. Click **Back** to save the settings.

If the **Battery Life Optimization** feature is disabled:

- **FireProtect 2 SB (Heat/Smoke)** built-in battery life is 5 years (instead of 10).
- **FireProtect 2 RB (Heat/Smoke)** pre-installed battery life is 3.5 years (instead of 7).

Selection of installation place

The detector is designed for indoor installation only.

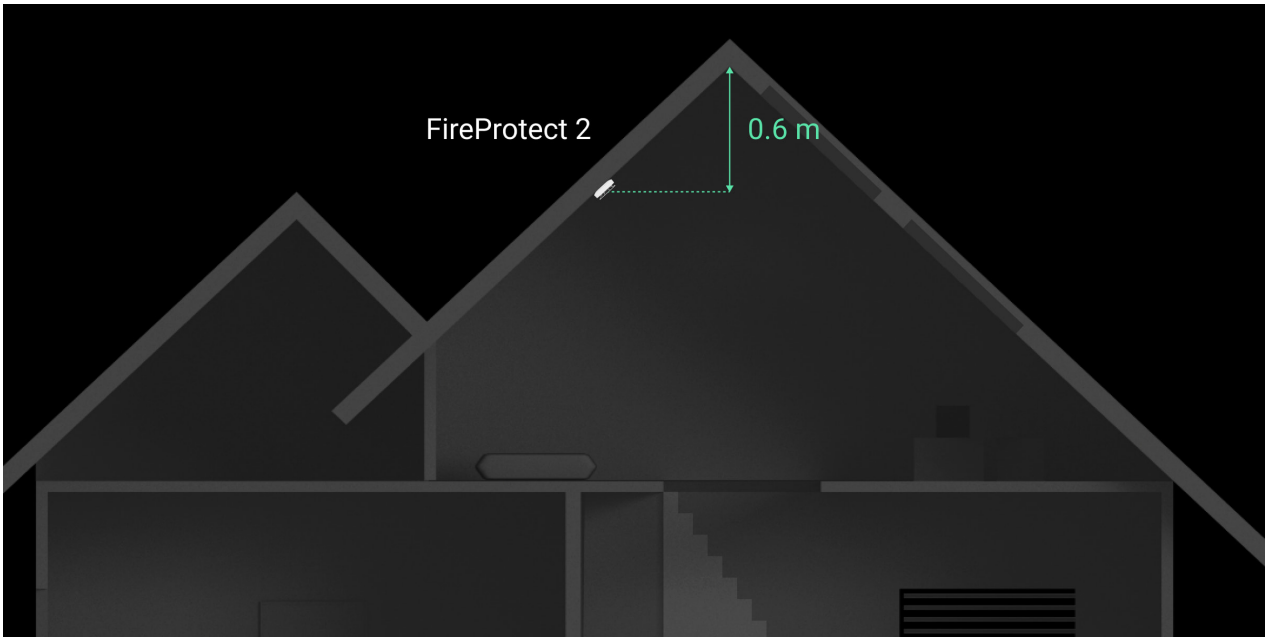
The coverage area of one FireProtect 2 (Heat/Smoke) is 50 to 60 m², depending on the type of premises.

The detector should be installed in every room. The detector is placed in the center of the ceiling at a distance of 30 cm from light fixtures, chandeliers, or any other decorative objects that may interfere with alarm detection.

If there are beams on the ceiling protruding 30 cm or more, then the detector must be installed between every two such beams. If the beams protrude by less than 30 cm, installation on a beam in the central part of the ceiling is allowed.

In halls or narrow corridors, detectors should be installed at a distance of no more than 7.5 m from each other.

If the ceiling is sloping, the detector is installed at a distance of 60 cm from the top point of the ceiling. To select an installation place, draw a straight line down from the top of the ceiling. Then, draw a perpendicular from this line to the sloping part of the ceiling. The detector is installed at this point.



We do not recommend mounting the detector on a wall. This installation is acceptable if closely spaced beams or other obstacles interfere with the installation of the detector. Wall mounting is possible only if the detector is placed at a distance of 15–30 cm below the ceiling but above the doorways.

When installing on the wall, ensure the LEDs are visible to the user. It means FireProtect 2 must be installed upside down.

When choosing location of the detector, consider the parameters that affect its operation:

- Jeweller signal strength.
- Distance between the detector and the hub.
- Presence of barriers for radio signal passage between devices: floor slabs, walls, interfloor ceilings, large objects located in the premise.

Consider the placement recommendations when designing the project of Ajax system for the object. The security system must be designed and installed by specialists. The list of recommended partners is **available here**.

Signal strength

The Jeweller signal strength is determined by the ratio of the number of undelivered or corrupted data packets that are exchanged between the hub and the detector to expected ones within a certain period of time. Signal strength is indicated by the icon on the **Devices** tab:

- **Three bars** — excellent signal strength.
- **Two bars** — good signal strength.
- **One bar** — low signal strength; stable operation is not guaranteed.
- **Crossed out icon** — no signal; stable operation is not guaranteed.

Check the Jeweller signal strength at the installation place. If the signal strength is as low as one or zero bars, we cannot guarantee stable operation of the device. In this case, move the device. Repositioning even

by 20 cm can significantly improve the signal reception.

If after relocation the detector still has a low or unstable signal strength, use a **radio signal range extender**.

Do not install the detector

1. Outdoors. This can lead to the detector failure.
2. In places with low or unstable Jeweller signal strength. This can result the connection loss.
3. Inside premises with temperature and humidity outside the permissible limits. This could damage the detector.
4. In places with fast air circulation. For example, near fans, vents, open windows, or doors. This may interfere with fire detection.
5. Opposite any objects with rapidly changing temperature. For example, electric and gas heaters. This can lead to false alarms.
6. In the corners of the room. This may interfere with fire detection.
7. In bathrooms, showers, or other areas where the temperature changes rapidly. This can lead to false alarms.
8. In premises where the generation of gases/vapours/smoke is part of the operating process. For example, in a garage, where the possibility of a detector‘s alarm due to vehicle exhaust gases exists. For such premises, we recommend using a detector without a smoke sensor: **FireProtect 2 (Heat/CO)**.
9. In very dusty areas or places with a lot of insects. Insects, dust, and other contaminants can settle on the smoke chamber lid and prevent fire detection.
10. Near lighting fixtures, decorations, and other interior items that may interfere with the circulation of air in the premise. This may interfere with fire detection.
11. On surfaces that are usually warmer or colder than the rest of the

premise. For example, roof traps. Temperature fluctuations can interfere with fire detection.

12. In high or inconvenient places. Access to the Test/Mute button is required to mute the alarm and test the detector if it's used without connection to a hub.

Installation

Make sure that you have selected the optimal installation place, and it complies with the requirements of this manual.

Don't remove the smoke chamber lid during installation. The smoke chamber lid can be removed when the enclosure is disassembled completely. The system identifies this event as a malfunction and the detector reacts with an audible signal. Users and the security company receive a malfunction notification.

Only a competent specialist should install this device.

To install the detector:

1. Remove the SmartBracket mounting panel from the detector. To remove the panel, turn it counterclockwise.
2. Fix the SmartBracket panel to a surface using double-sided adhesive tape or other temporary fasteners. The mounting panel has an UP sign, which indicates the correct position.

Use double-sided adhesive tape for temporary fixation only. The device fixed by the adhesive tape can peel off the surface at any time, which can lead to damage if the device is dropped.

3. Run the **Jeweller** signal strength test. The recommended value is two or three bars.
   If the signal strength is a single bar or lower, we cannot guarantee the stable operation of the detector. Consider to relocate the device as repositioning even by 20 cm can significantly improve the signal strength. If there is still low or unstable signal after the relocation, use a **radio signal range extender**.

4. Remove the detector from the mounting panel.

5. Attach the SmartBracket panel with the bundled screws using all fixation points. When using other fasteners, make sure they do not damage or deform the mounting panel.

6. Place the detector on the SmartBracket mounting panel.

7. Adjust the position of the detector if necessary.

It is necessary to perform a self-test after the installation is finished

Actions to take in case of Fire alarm (Smoke/Heat)

NEVER IGNORE THE ALARM! Assume that it is a real fire alarm, and you have to evacuate from the premises immediately, even if you doubt about the cause of the alarm signal.

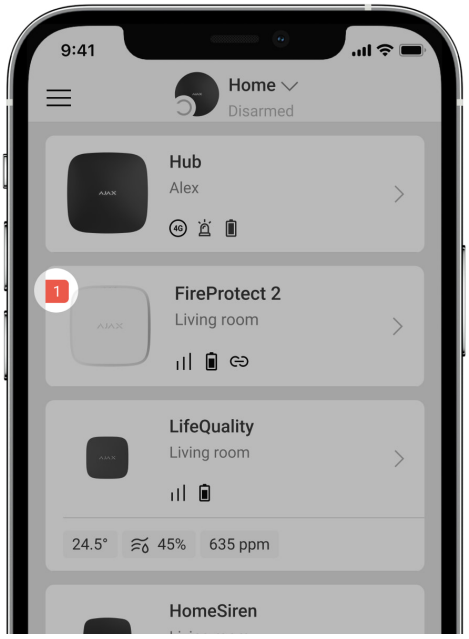
1. Don’t open the doors if you feel heat or smoke behind them. Check other entries and use an alternative way to escape. Close all doors behind you as you leave.

If heavy smoke enters a room, stay close to the floor and crawl out. If possible, breathe through a wet cloth or hold your breath. Please note that more people die because of smoke inhalation than fire.

2. Evacuate as quickly as you can, don’t panic. Save time, and don’t pack your things. Arrange a meeting place outside for everybody in the building. Check if everyone got out safely.
3. Call the fire department immediately by yourself or ask someone nearby. Remember, even the smallest fire can spread quickly, so do not hesitate to call the fire department. Call the fire department even if the alarm is automatically transmitted to a monitoring station.

NEVER come back to the house on fire.

Malfunctions



If FireProtect 2 malfunction is detected (for example, there is no connection with the hub), the malfunction counter is displayed in the

device field in the Ajax apps.

All malfunctions are displayed in the detector **States**. Fields with malfunctions are highlighted in red.

The device can report malfunctions to the CMS, as well as to users through push notifications and SMS.

FireProtect 2 (Heat/Smoke) malfunctions:

- There is no connection with the hub or radio signal range extender.
- The detector‘s enclosure is open.
- Low battery charge level.
- Hardware malfunction (failure of one or more sensors of the detector).

Maintenance

The detector has a self-test system and does not require the user or installer intervention. The smoke chamber is protected from dust and insects, so there is no need to clean it. We recommend running a **self-test** periodically to familiarize people with the alarm sound and LED indication.

FireProtect 2 devices connected to the Ajax hubs generally do not require routine testing. All connected devices are constantly monitored for possible Faults, Low battery, and EOL signals.

However, we encourage all users to test FireProtect 2 devices periodically (monthly)* to allow residents of the building to become familiar with the fire alarm signals of the system.

**Please be aware that your local regulation might require more frequent testing (e.g., weekly).*

Clean the detector enclosure of dust, cobwebs, and other contaminants as they appear. Use a soft dry cloth suitable for equipment care. Do not use substances that contain alcohol, acetone, gasoline, and other active solvents.

The service life of the detector is 10 years. After this period, the sensitivity of the sensors decreases. We recommend replacing the detector with a new one to ensure uninterrupted fire protection at the premises.

The version of the detector with replaceable batteries (has **RB** in the name) operates from pre-installed to detector batteries for up to 7 years. When the batteries are discharged, replace them with new ones.

How to replace FireProtect 2 RB batteries (Heat/Smoke)

A detector with sealed batteries (has **SB** in the name) should be replaced with a new one after the batteries are discharged.

Ensure the batteries are installed with the correct polarity. The polarity is marked inside the enclosure. Please run a self-test with Ajax apps or by pressing the Test/Mute button after the batteries are replaced to check the correct operation of the detector.

Buy FireProtect 2 SB (Heat/Smoke)

Technical specifications

All technical specifications of FireProtect 2 RB (Heat/Smoke)

All technical specifications of FireProtect 2 SB (Heat/Smoke)

Compliance with standards

Warranty

Warranty for the Limited Liability Company “Ajax Systems Manufacturing” products is valid for 2 years after the purchase.

If the device does not function correctly, please contact the Ajax Technical Support first. Iwe recommend that you first contact the support service: in most cases, technical issues can be resolved remotely.

Warranty obligations

User Agreement

Contact Technical Support:

- email
- Telegram

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