

# Superior MotionCam HD (PhOD) Jeweller user manual

Updated April 3, 2025



**Superior MotionCam HD (PhOD) Jeweller** is a wireless motion detector that provides high-quality alarm photo verification with support for both HD and HDR. It detects movement at a distance of up to 12 meters and does not react to pets when installed and configured correctly. The device is designed for indoor use only.

Superior MotionCam HD (PhOD) Jeweller communicates with a hub using two secure radio protocols: **Jeweller** to transmit alarms or events, and **TurboWings** to transmit photos. The communication range in an open space is up to 1,700 meters.

[Learn more](#)

This is a device of the Superior product line. Only accredited Ajax Systems partners can sell, install, and administer Superior products.

## Functional elements



1. LED indicator.
2. Motion detector lens.
3. Infrared (IR) illumination for taking photos in dark and low-light conditions.
4. Camera.
5. Perforated part of the mounting panel for triggering a tamper if an attempt is made to detach the detector from the surface. Do not break it off.
6. SmartBracket mounting panel. To remove the panel, slide it down.
7. Hole to secure the SmartBracket mounting panel with a holding screw.
8. Tamper button.
9. Power button.
10. QR code with the device ID for adding the device to an Ajax system.

## Compatible hubs and range extenders

The device requires a compatible Ajax hub with [OS Malevich 2.27](#) and later to operate.

### [Check devices compatibility](#)

## Operating principle

0:00 / 0:12



Superior MotionCam HD (PhOD) Jeweller is a wireless motion detector supporting HD photo verification. After detecting motion, it takes a series of photos, which allows for assessing the situation at the site as it unfolds. This helps avoid unnecessary anxiety for users and false patrol dispatches for security companies.

When an armed detector identifies motion, it instantly sends an alarm to the hub, which activates the [sirens](#) connected to the system, triggers [scenarios](#), and notifies users and the security company. All detector's alarms and events are recorded in the notification feed of Ajax apps.

Users and the monitoring company know exactly where motion is detected. The notifications include the name of a [space](#) (the name of a guarded facility), the device name, and the [virtual room](#) to which the device is assigned.

### [How does Ajax notify users about alarms](#)

### [Learn more about Ajax motion detectors](#)

## Protection from false alarms

Superior MotionCam HD (PhOD) Jeweller uses the **SmartDetect** algorithm to protect against false alarms. This algorithm allows the detector to analyze the thermal diagram read by the sensor: the intensity of infrared radiation, the size of the heat spot, the time spent in the detection area, and other parameters.

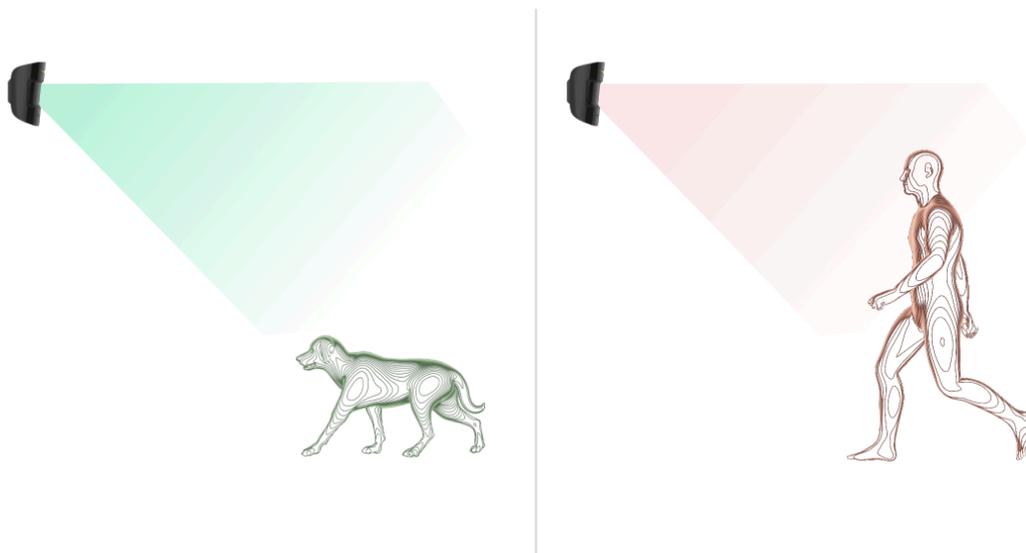
After this stage, the detector performs additional RF scanning of the detection zone with a built-in K-band microwave sensor to eliminate false alarms caused by IR interference, such as air flows, heated curtains and blinds, fans, fireplaces, air conditioners, etc. Depending on the result, the alarm will either be activated or not.

## Temperature compensation

Thanks to temperature compensation, the detector responds to movement, even if the temperature at the facility is close to the human body temperature. Read more about temperature compensation in [the article](#).

## Pet immunity

When properly installed and configured, the detector does not react to pets weighing up to 20 kg and below 50 cm in height. To [install](#) and [configure](#) the detector, follow our recommendations.



[Why motion detectors react to animals and how to avoid it](#)

[How to install the detector correctly](#)

## Jeweller and TurboWings data transfer protocols

**Jeweller** and **TurboWings** are two-way wireless data transfer protocols that provide fast and reliable communication between hub and devices. The detector uses Jeweller to transmit alarms and events. TurboWings is used to transmit photos.

[Learn more](#)

## Sending events to the monitoring station

The Ajax system can transmit alarms to both [PRO Desktop](#) monitoring app and the central monitoring station (CMS) in the formats of **SurGard (Contact ID)**, **SIA (DC-09)**, **ADEMCO 685**, and [other protocols](#).

**Superior MotionCam HD (PhOD) Jeweller can transmit the following events:**

1. Motion alarm.
2. Detector's visual alarm verifications.
3. Photo by scenario.
4. Photo by schedule.
5. Photo by arming/disarming.
6. Tamper alarm. Tamper recovery.
7. Loss of connection with the hub. Restoration of connection.
8. Permanent deactivation/activation of the detector.
9. One-time deactivation/activation of the detector.



Photos on demand are not sent to the security company monitoring station.

[PRO Desktop](#) users can take and view photos on demand only from a personal account if a hub administrator has granted them the appropriate access rights. Taking and viewing photos on demand is not available for a security company profile in the PRO Desktop app.

When an alarm is received, the operator at the security company's monitoring station knows what happened and precisely where to dispatch a rapid response team. The addressability of Ajax devices allows sending events to PRO Desktop or the CMS, including the device type, its name, security group, and virtual room. Note that the list of transmitted parameters may vary depending on the CMS type and the selected communication protocol for the monitoring station.



The ID and the number of the device can be found in its [states in the Ajax app](#).

Photos are sent to the security company monitoring station if the CMS software supports photo verification. A list of such CMSs is [available here](#). At the same time, [PRO Desktop](#) supports receiving photo verification without additional setup.

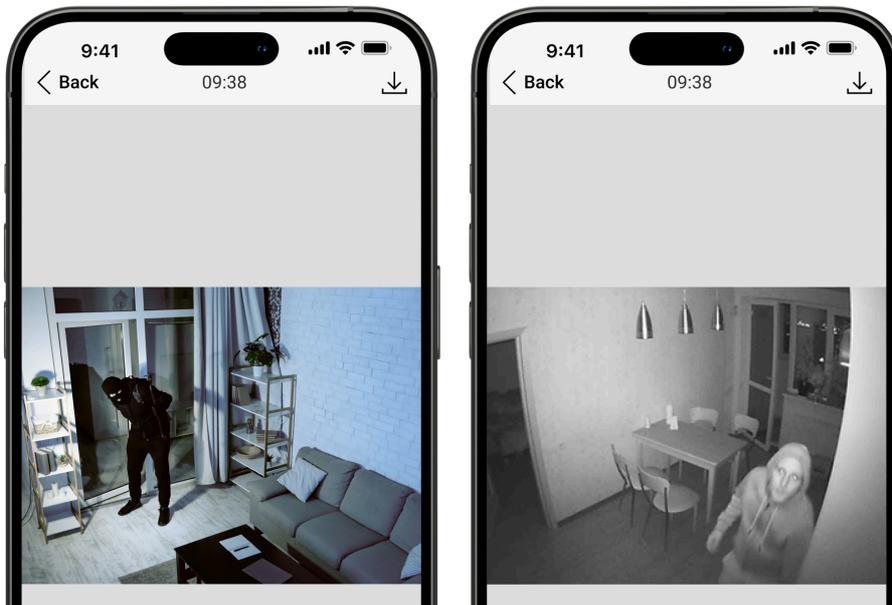
## Photo verification

Photo verification allows you to assess what is happening in the facility. The built-in camera can take from 1 to 5 images with a resolution of 160 × 120 and 320 × 240 pixels, as well as up to 3 images with a resolution of 640 × 480 and 960 × 720 pixels. The number of photos and their resolution are set in the [detector settings](#).

The **HDR image** feature improves the accuracy of detail in bright and dark scenes, allowing you to capture detailed images regardless of the lighting level. To do this, Superior MotionCam HD (PhOD) Jeweller takes two shots with different shutter speeds, and a special algorithm combines them to select the best combination of light and shadow.

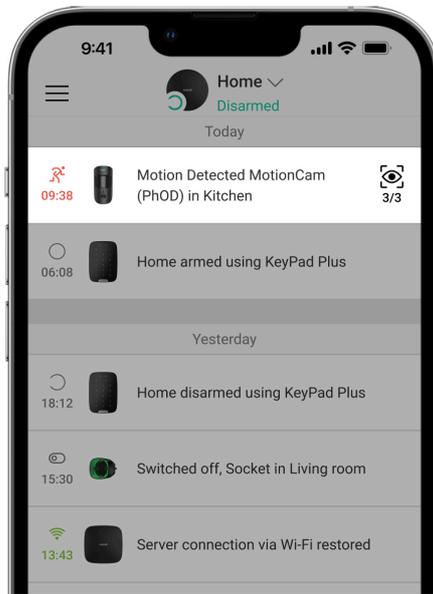
With photo verification, you can receive visual confirmations of alarms from Superior MotionCam HD (PhOD) Jeweller and other Ajax devices. Photo verification allows you to take an on-demand photo at any time to check the situation at the facility, find out the cause of the alarm, or see what the children are doing.

The detector has an IR illumination for shooting in the low-light conditions. Superior MotionCam HD (PhOD) Jeweller takes black and white photos when shooting in these conditions.

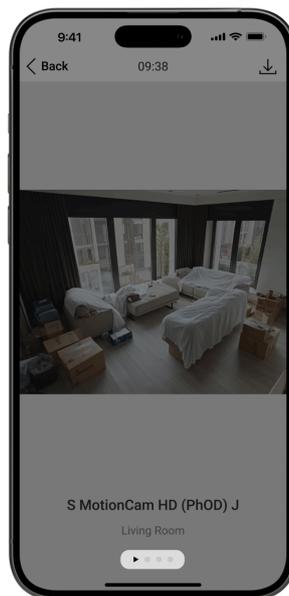


There are several types of photo verification: photo by alarm, photo by scenario, photo on demand, photo by schedule, and photo by arming/disarming.

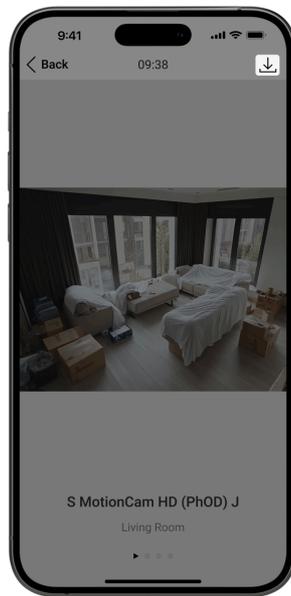
Photos can be displayed in the app as an image or an animated series (if more than 1 photo is taken). The number of images in the series can be configured in [Ajax apps](#). To view the received photos, tap on the corresponding Superior MotionCam HD (PhOD) Jeweller notification in the event feed.



You can view all the photos from the animated series individually by tapping the icon at the bottom of the screen.



You can save photo verification as video or images by tapping the download icon.



## Photo by alarm

The detector takes **photos by alarm** only if the movement is detected and only when the armed mode is on. By default, the **Photo by alarm** feature is enabled for all detectors. The number of images and their resolution can be changed in the [device settings](#). Photos by alarm are available to all users with access to the event feed.



The detector does not switch to the armed mode instantly. The switching time depends on two factors: the exit delay (specified in the detector settings) and the hub–detector ping interval (hub settings, **Jeweller** or **Jeweller/Fibra** section).

In the first case, the delay is set by an administrator or a PRO user with system configuration rights. In the second case, the delay occurs because the hub takes one ping interval to notify the detector of the security mode changing.

### Features of alarm photo verification

## Photo on demand

The **Photo on demand** feature is useful for checking the situation at the facility. Depending on the settings, photos can be taken anytime or when Superior MotionCam HD (PhOD) Jeweller is armed. By default, the **Photo on demand** feature is disabled for all users.

[More about the Photo on demand feature](#)

[How to set Photo on demand](#)

## Photo by scenario

When **Photo by scenario** is enabled, the detector takes pictures in case of alarm from other Ajax devices. By default, the **Photo by scenario** feature is disabled for all detectors.

[More about the Photo by Scenario feature](#)

[How to configure Photo by scenario](#)

## Photo by schedule

The **Photo by schedule** feature allows you to create a scenario for motion detectors supporting photo verification. These detectors will take pictures by schedule.

Enable the [Allow Photo by scenarios](#) option before creating a scheduled scenario. A hub admin or a user with access to privacy settings can enable this option.

You can precisely set when a detector supporting photo verification can take pictures according to a scheduled scenario: always or when it is armed.

Photos taken by schedule are available to all system users with access to the event feed. The event of taking a photo is sent to the CMS via **SIA DC-09 (SIA-DCS)** and other proprietary protocols. The event code is 731.

If the CMS software supports photo verification, photos taken by schedule are available to the CMS engineers. These photos are also available in [PRO Desktop](#).



Photos taken by schedule are not sent to the CMS if only a direct connection with the monitoring station is used.

## How to set up Photo by schedule

### Photo by arming/disarming

The **Photo by arming/disarming** feature allows users to receive photos from a built-in camera when the security state changes. With this feature, you can check the situation at the facility when the system is armed, disarmed, or switched to **Night mode**.

Before creating an arming/disarming scenario, enable the Allow photos by scenarios option. A space admin or a user with access to privacy settings can enable this option.

The **Photo by arming/disarming** scenario is available in the hub's settings with OS Malevich 2.29 and later. The feature allows you to configure conditions under which the selected detectors take photos: when arming, when disarming, when **Night mode** is enabled, or when **Night mode** is disabled. Also, you can set up whether to consider or ignore entry/exit delays.

Photos by arming/disarming are available to all system users with access to the event feed. The event of taking a photo is sent to the CMS via **SIA DC-09 (SIA-DCS)** and other proprietary protocols. The event code is 732.

If the CMS software supports photo verification, the CMS engineers can access photos by arming/disarming. These photos are also available in PRO Desktop.



Photos by arming/disarming will not be sent to the CMS if only a direct connection with the monitoring station is used.

## How to set up Photo by arming/disarming

### Photo delivery time

The photo delivery time to Ajax apps depends on the selected resolution, the detector's connection to the radio signal range extender, TurboWings signal strength, and the Internet connection speed. Alarm messages are delivered immediately.

Photo resolution	Delivery time <sup>1</sup>
160 × 120 pixels	up to 3 seconds
320 × 240 pixels	up to 4.5 seconds
640 × 480 pixels (default)	up to 11 seconds
960 × 720 pixels	up to 15.5 seconds

<sup>1</sup> When the detector is connected directly to the hub (without radio signal range extender ReX 2 Jeweller). The detector needs up to 3 seconds to start the Photo on demand shooting.

### Adding to the system

To connect Superior MotionCam HD (PhOD) Jeweller to the hub, the detector must be located at the same secured facility as the system (within the range of the hub's radio network). For the detector to work via the ReX 2 Jeweller radio signal range extender, you must first add the detector to the hub and then connect it to ReX 2 Jeweller in the range extender's settings.



The hub and the device must operate at the same radio frequency; otherwise, they are incompatible. The radio-frequency range of the device might vary based on the region. We recommend purchasing and using Ajax devices in the same region. You can verify the range of operating radio frequencies with the [technical support service](#).

## Before adding a device

1. Install an [Ajax PRO app](#).
2. Log in to a [PRO account](#) or create a new one.
3. Select a space or create a new one.

### [What is a space](#)

### [How to create a space](#)

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. Check the statuses in the Ajax app to ensure the space is disarmed, and the hub is not starting an update.

## Connecting to the hub



This is a device of the [Superior product line](#), only verified partners can add and configure it in [Ajax PRO apps](#).

[Types of accounts and their rights](#)

1. Open the [Ajax PRO app](#). Select the space to which you want to add the device.
2. Go to the **Devices**  tab and tap **Add Device**.
3. Scan or manually input the QR code located on the detector.
4. Assign a name to the device.
5. Tap **Add**.
6. Switch on the device by holding the power button for 3 seconds.

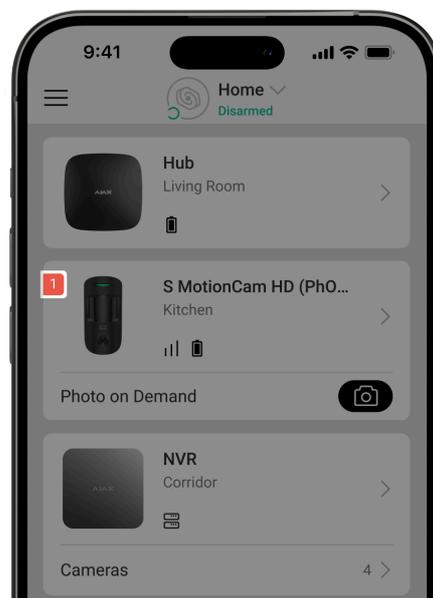
If the connection fails, turn off the detector and try again in 5 seconds. Note that if the maximum number of devices has already been added to the hub (depending on the hub model), you will be notified when you try to add a new one.

Once connected to the hub, the detector will appear in the list of hub devices in the Ajax app. The update frequency for device statuses in the list depends on the **Jeweller** or **Jeweller/Fibra** settings, with the default value of 36 seconds.



**Superior MotionCam HD (PhOD) Jeweller** works with only one hub. When connected to a new hub, it stops sending events to the old one. Adding the device to a new hub does not automatically remove it from the device list of the old hub. This must be done through the Ajax app.

## Malfunctions

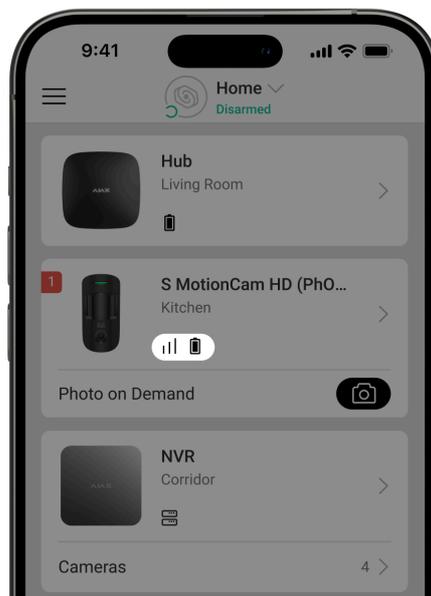


When a malfunction is detected, the Ajax app displays a malfunction counter on the device icon. All malfunctions are indicated in the device's states. Fields with malfunctions will be highlighted in red.

**A malfunction is displayed if:**

- The device enclosure is open (tamper is triggered).
- There is no connection with the hub or radio signal range extender via Jeweller.
- There is no connection with the hub or radio signal range extender via TurboWings.
- The device's battery is low.
- The device's temperature is outside acceptable limits.

## Icons



The icons in the app display some device states. To access them:

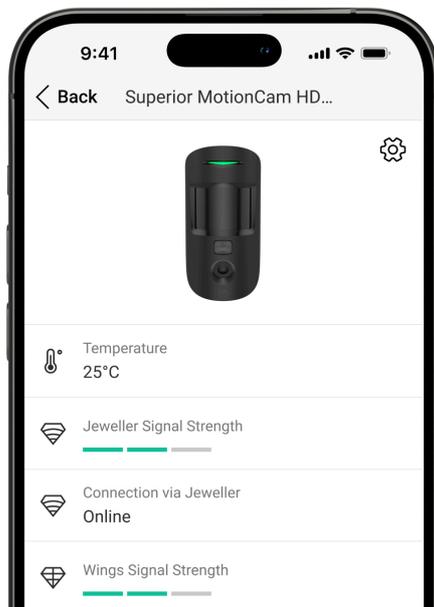
1. Sign in to the Ajax app.
2. Select the space.
3. Go to the **Devices**  tab.

Icon	Meaning
	Jeweller signal strength. Displays the signal strength between the hub and the detector. The recommended value is 2–3 bars.

	<p><a href="#"><u>Learn more</u></a></p>
	<p>The device has a malfunction. The list of malfunctions is available in the device states.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>The device battery charge level.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Other users have access to <b>Photo on Demand</b>.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Displayed when the detector is operating via a <a href="#"><u>radio signal range extender</u></a>.</p>
	<p>The detector operates in the <b>Always Active</b> mode.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Delay when entering and / or leaving is enabled.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>The device will operate when <b>Night mode</b> is enabled.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>The device has detected motion. It detects motion in the armed mode only.</p>
	<p>The device is in the signal attenuation test mode.</p> <p><a href="#"><u>Learn more</u></a></p>

	<p>The device is permanently deactivated.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>The device is deactivated until the first disarming of the system.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Superior MotionCam HD (PhOD) Jeweller is deactivated due to exceeding the preset number of alarms.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Tamper alarm notifications are permanently deactivated.</p> <p><a href="#"><u>Learn more</u></a></p>
	<p>Tamper alarm notifications are deactivated until the first disarming of the system.</p> <p><a href="#"><u>Learn more</u></a></p>
<div data-bbox="261 1249 379 1294" style="border: 1px solid red; border-radius: 5px; padding: 2px; display: inline-block;">Offline</div>	<p>The device has lost connection with the hub or the hub has lost connection with the Ajax Cloud server.</p>
<div data-bbox="225 1424 416 1458" style="border: 1px solid red; border-radius: 5px; padding: 2px; display: inline-block;">Not transferred</div>	<p>The device has not been transferred to the new hub.</p> <p><a href="#"><u>Learn more</u></a></p>

## States



The states provide information about the device and its operating parameters. The states of Superior MotionCam HD (PhOD) Jeweller can be found in the Ajax apps:

1. Go to the **Devices**  tab.
2. Select **Superior MotionCam HD (PhOD) Jeweller** from the list.

Parameter	Value
Data import	<p>Displays the error when transferring data to the new hub:</p> <ul style="list-style-type: none"> <li>• <b>Failed</b> – the device has not been transferred to the new hub.</li> </ul> <p><a href="#"><u>Learn more</u></a></p>
Malfunction	<p>Tapping the  icon opens the detector's malfunctions list.</p> <p>The field is displayed if a malfunction is detected.</p>
Temperature	Detector temperature.

	<p>The acceptable error between the value in the app and the temperature at the installation site: 2°C.</p> <p>The value is updated as soon as the detector detects a temperature change of at least 1°C.</p> <p>You can create a scenario by temperature to control automation devices.</p> <p><a href="#"><u>Learn more</u></a></p>
<p>Jeweller Signal Strength</p>	<p>Signal strength between the hub or range extender and the detector on the Jeweller channel. The recommended value is 2–3 bars.</p> <p>Jeweller is a protocol for transmitting Superior MotionCam HD (PhOD) Jeweller events and alarms.</p>
<p>Connection via Jeweller</p>	<p>Connection status on the Jeweller channel between the device and the hub (or the range extender):</p> <ul style="list-style-type: none"> <li>• <b>Online</b> – the device is connected to the hub or the range extender.</li> <li>• <b>Offline</b> – the device is not connected to the hub or the range extender.</li> </ul>
<p>Wings Signal Strength</p>	<p>Signal strength between the hub or the range extender and the detector on the Wings channel. The recommended value is 2–3 bars.</p> <p>Wings is a protocol for transmitting Superior MotionCam HD (PhOD) Jeweller photo verifications.</p>
<p>Connection via Wings</p>	<p>Connection status on the Wings channel between the device and the hub (or the range extender):</p>

	<ul style="list-style-type: none"> <li>• <b>Online</b> – the device is connected to the hub or the range extender.</li> <li>• <b>Offline</b> – the device is not connected to the hub or the range extender.</li> </ul>
Transmitter power	<p>Displays the selected power of the transmitter.</p> <p>The parameter appears when the <b>Max</b> or <b>Attenuation</b> option is selected in the <b>Signal attenuation test</b> menu.</p> <p><a href="#"><u>Learn more</u></a></p>
Battery Charge	<p>The battery charge level of the device:</p> <ul style="list-style-type: none"> <li>• <b>OK.</b></li> <li>• <b>Battery low.</b></li> </ul> <p>When the batteries are low, the Ajax apps and the security company will receive appropriate notifications.</p> <p>After sending a low battery notification, the detector can work for up to 2 months.</p> <p><a href="#"><u>How the battery charge is displayed</u></a></p> <p><a href="#"><u>Battery life calculator</u></a></p>
Lid	<p>The state of the detector tamper that responds to detachment or opening of the device enclosure:</p> <ul style="list-style-type: none"> <li>• <b>Open</b> – the detector was removed from the SmartBracket or its integrity was compromised.</li> <li>• <b>Closed</b> – the detector is installed on the SmartBracket mounting panel. The integrity of the device enclosure and the</li> </ul>

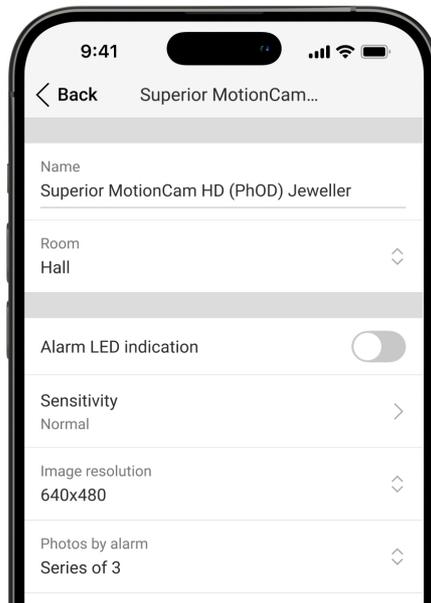
	<p>mounting panel is not compromised. Normal state.</p> <p><a href="#"><u>Learn more</u></a></p>
Sensitivity	<p>Shows the sensitivity level of the motion detector:</p> <ul style="list-style-type: none"> <li>• <b>Low</b> – recommended for premises with a high possibility of false alarm sources.</li> <li>• <b>Normal</b> (by default) – recommended for premises with a low possibility of false alarm sources.</li> <li>• <b>High</b> – recommended for detecting any motion in the detector’s field of view.</li> <li>• <b>Very high</b> – the highest level of sensitivity that has to be set for INCERT compliance.</li> </ul>
Always Active	<p>When this option is enabled, the detector is constantly armed, detects motion, and raises alarms.</p> <p><a href="#"><u>Learn more</u></a></p>
Permanent deactivation	<p>Shows the status of the device permanent deactivation function:</p> <ul style="list-style-type: none"> <li>• <b>No</b> – the device works in the normal mode.</li> <li>• <b>Lid only</b> – the hub administrator has disabled notifications about triggering of the device tamper.</li> <li>• <b>Entirely</b> – the detector is entirely excluded from the operation of the system. The device does not execute system commands and does not report alarms or other events.</li> <li>• <b>By number of alarms</b> – the device is automatically disabled when the preset</li> </ul>

	<p>number of alarms is exceeded (specified in the <a href="#">Devices auto deactivation</a> settings).</p> <p><a href="#">Learn more</a></p>
<p>One-time deactivation</p>	<p>Shows the status of the device one-time deactivation setting:</p> <ul style="list-style-type: none"> <li>• <b>No</b> – the device operates in the normal mode.</li> <li>• <b>Entirely</b> – the device is entirely excluded from the operation of the system for a time the armed mode is active. The device does not execute system commands and does not report alarms or other events.</li> <li>• <b>Lid only</b> – notifications on the tamper triggering are disabled for a time the armed mode is active.</li> </ul> <p><a href="#">Learn more</a></p>
<p>Photo on demand access</p>	<p>Displayed if <b>Photo on demand</b> is enabled in the hub settings in the <b>Privacy</b> section.</p> <p><a href="#">Learn more</a></p>
<p><b>Alarm Reaction</b></p>	
<p>Operating Mode</p>	<p>Shows how the detector reacts to alarms:</p> <ul style="list-style-type: none"> <li>• <b>Instant alarm</b> – the armed detector immediately reacts to a threat and raises the alarm.</li> <li>• <b>Entry/Exit</b> – when a delay is set, the armed device starts the countdown and doesn't raise the alarm even if triggered until the countdown ends.</li> <li>• <b>Follower</b> – the detector inherits the delays from <b>Entry/Exit</b> detectors. However, when the Follower is triggered</li> </ul>

	<p>individually, it immediately raises the alarm.</p>
Delay when entering	<p>Delay time when entering: from 5 to 255 seconds.</p> <p>Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the secured area.</p> <p><a href="#"><u>Learn more</u></a></p>
Delay when leaving	<p>Delay time when leaving: from 5 to 255 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the secured area after the security system arming.</p> <p><a href="#"><u>Learn more</u></a></p>
Arm in Night mode	<p>When this option is enabled, the device will enter the armed mode when the system is set to <b>Night mode</b>.</p> <p><a href="#"><u>Learn more</u></a></p>
Night mode delay when entering	<p>Delay time when entering in the <b>Night mode</b>: from 5 to 255 seconds.</p> <p>Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the premises.</p> <p><a href="#"><u>Learn more</u></a></p>

Night mode delay when leaving	<p>Delay time when leaving in the <b>Night mode</b>: from 5 to 255 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the premises after the security system arming.</p> <p><a href="#">Learn more</a></p>
Firmware	Detector firmware version.
ID	Detector ID. Also available on the QR code on the detector enclosure and its package box.
Device №	Number of the device loop (zone).

## Settings



To change the device settings in an Ajax app:

1. Go to the **Devices**  tab.
2. Select **Superior MotionCam HD (PhOD) Jeweller** from the list.
3. Go to **Settings** by tapping the gear icon .

4. Set the required parameters.

5. Click **Back** to save the new settings.

Settings	Value
Name	<p>Name of the detector. Displayed in the list of hub devices, SMS texts, and notifications in the events feed.</p> <p>To change the name of the device, tap the text field.</p> <p>The name can contain up to 12 Cyrillic characters or up to 24 Latin characters.</p>
Room	<p>Selecting the virtual room to which Superior MotionCam HD (PhOD) Jeweller is assigned.</p> <p>The name of the room is displayed in the SMS text and the event feed.</p>
Alarm LED indication	<p>When the option is disabled, the detector's LED indicator doesn't notify about alarms or tamper triggers.</p>
Sensitivity	<p>Sensitivity level of the motion detector.</p> <p>The choice depends on the type of the facility, the presence of probable sources of false alarms, and the specifics of the secured area:</p> <ul style="list-style-type: none"><li>• <b>Low</b> – recommended for premises with a high possibility of false alarms.</li><li>• <b>Normal</b> (by default) – recommended for premises with a low possibility of false alarms.</li><li>• <b>High</b> – recommended for detecting any motion in the detector's field of view.</li><li>• <b>Very high</b> – the highest level of sensitivity required for INCERT</li></ul>

	compliance.
Image resolution	<p>Selecting the image resolution (in pixels):</p> <ul style="list-style-type: none"> <li>• 160 × 120.</li> <li>• 320 × 240.</li> <li>• 640 × 480 (default).</li> <li>• 960 × 720.</li> </ul> <p>The higher the resolution, the more detailed the image, but it takes longer to transmit the photos. This setting applies to visual photo verification by alarm, scenario, schedule, arming/disarming, and photo on demand.</p> <p><a href="#"><u>Learn more</u></a></p>
Photos by alarm	<p>Selecting the number of photos in case of an alarm:</p> <ul style="list-style-type: none"> <li>• No photo.</li> <li>• 1 photo.</li> <li>• Series of 2.</li> <li>• Series of 3.</li> <li>• Series of 4 (only available with 320 × 240 or 160 × 120 resolutions).</li> <li>• Series of 5 (only available with 320 × 240 or 160 × 120 resolutions).</li> </ul> <p>Applies to Superior MotionCam HD (PhOD) Jeweller photos by alarm.</p>
Alarms with photo verification	<p>Selecting the number of alarms accompanied by photos.</p> <p>You can choose whether a photo is transmitted each time the device is</p>

	<p>triggered or specify the exact number of alarms (1 to 10).</p> <p>The alarm counter with photo verification is reset when the security system is disarmed and re-armed.</p> <p>The setting is available if the <b>Always Active</b> option is disabled. When the detector is in the <b>Always Active</b> mode, it will transmit a photo every time it is triggered.</p>
Photos on demand	<p>Select the number of photos on demand:</p> <ul style="list-style-type: none"> <li>• 1 photo.</li> <li>• Series of 2.</li> <li>• Series of 3.</li> <li>• Series of 4 (only available with 320 × 240 or 160 × 120 resolutions).</li> <li>• Series of 5 (only available with 320 × 240 or 160 × 120 resolutions).</li> </ul>
Always active	<p>When this option is enabled, the detector is always armed and detects motion.</p> <p><a href="#"><u>Learn more</u></a></p>
HDR image	<p>When enabled, the device improves detail accuracy in both bright and dark scenes.</p>
Alert with a siren if motion detected	<p>When this option is enabled, the <a href="#"><u>sirens</u></a> added to the system are activated when Superior MotionCam HD (PhOD) Jeweller detects motion.</p>

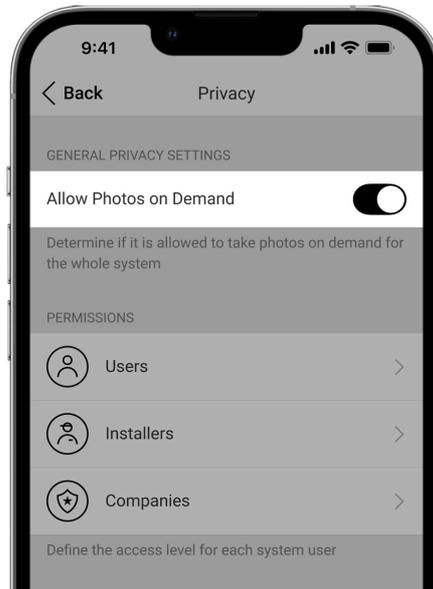
Scenarios	<p>This opens the menu for creating and setting scenarios for Superior MotionCam HD (PhOD) Jeweller. The menu allows you to create a scenario in which the detector takes pictures when specified Ajax devices are triggered or by schedule.</p> <p><a href="#"><u>Learn more</u></a></p>
<b>Alarm Reaction</b>	
Operating mode	<p>Specify how this device will react to alarms:</p> <ul style="list-style-type: none"> <li>• <b>Instant alarm</b> – the armed detector immediately reacts to a threat and raises the alarm.</li> <li>• <b>Entry/Exit</b> – when a delay is set, the armed device starts the countdown and doesn't raise the alarm even if triggered until the countdown ends.</li> <li>• <b>Follower</b> – the detector inherits the delays from <b>Entry/Exit</b> detectors. However, when the Follower is triggered individually, it immediately raises the alarm.</li> </ul>
Delay when entering	<p>Selecting delay time when entering: from 5 to 255 seconds.</p> <p>Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the premises.</p> <p><a href="#"><u>Learn more</u></a></p>
Delay when leaving	<p>Selecting delay time when leaving: from 5 to 255 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the premises after arming the system.</p> <p><a href="#"><u>Learn more</u></a></p>

Arm in Night mode	<p>When this option is enabled, the detector will enable the armed mode when the system is set to <b>Night mode</b>.</p> <p><a href="#"><u>Learn more</u></a></p>
Night mode delay when entering	<p>Selecting delay time when entering in the <b>Night mode</b>: from 5 to 255 seconds.</p> <p>Delay when entering (alarm activation delay) is the time the user has to disable <b>Night mode</b> after entering the premises.</p> <p><a href="#"><u>Learn more</u></a></p>
Night mode delay when leaving	<p>Selecting delay time when leaving in the <b>Night mode</b>: from 5 to 255 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the premises after enabling <b>Night mode</b>.</p> <p><a href="#"><u>Learn more</u></a></p>
Jeweller Signal Strength Test	<p>Switches the device to the Jeweller signal strength test mode.</p> <p><a href="#"><u>Learn more</u></a></p>
Wings Signal Strength Test	<p>Switches the device to the Wings signal strength test mode.</p> <p><a href="#"><u>Learn more</u></a></p>
Detection zone test	<p>Switches the detector to the detection zone test mode.</p> <p><a href="#"><u>Learn more</u></a></p>

Signal attenuation test	<p>Switches the device to the signal attenuation test mode.</p> <p><a href="#"><u>Learn more</u></a></p>
User guide	<p>Opens the Superior MotionCam HD (PhOD) Jeweller user manual in the Ajax app.</p>
Permanent deactivation	<p>Allows the user to disable the device without removing it from the system.</p> <p>Three options are available:</p> <ul style="list-style-type: none"><li>• <b>No</b> – the device operates normally and transmits all events.</li><li>• <b>Entirely</b> – the device does not execute system commands, does not participate in automation scenarios, and the system ignores alarms and other device notifications.</li><li>• <b>Lid only</b> – the system ignores the device tamper triggering notifications.</li></ul> <p><a href="#"><u>Learn more</u></a></p> <p>The system can also automatically deactivate devices when the preset number of alarms is exceeded.</p> <p><a href="#"><u>Learn more</u></a></p>
One-time deactivation	<p>Allows the user to disable events of the device until the first disarming.</p> <p>Three options are available:</p> <ul style="list-style-type: none"><li>• <b>No</b> – the device operates normally and transmits all events.</li><li>• <b>Entirely</b> – the device is entirely excluded from the operation of the system until the first disarming. The device does not execute system commands and does not report alarms or other events.</li></ul>

	<ul style="list-style-type: none"><li>• <b>Lid only</b> – notifications on the tamper triggering are disabled until the first disarming.</li></ul> <p><a href="#">Learn more</a></p>
Delete device	Unpairs the detector, disconnects it from the hub, and deletes its settings.

## Configuring the Photo on demand feature



An admin or a user with access to privacy settings can enable and configure the **Photos on demand** feature. To do this, in the Ajax app:

1. Select a space.
2. Go to the **Control**  tab.
3. Go to the space **Settings** .
4. Go to the **Privacy** settings.
5. Enable the **Allow photos on demand** option.
6. Select the user category:

- Users
  - Installers
  - Companies
7. Select a specific user, a PRO, or a company. A list of cameras, DVRs, and detectors supporting photo verification added to the space will open.
  8. Select the device to which you want to provide access.
  9. Enable the **Take & view photos** option.
  10. Specify when the user can take on-demand photos: either **Always** or **When device armed**.
  11. Tap **Back** to save the settings.
  12. Repeat steps 6–11 for any other user and devices to which you want to provide access.

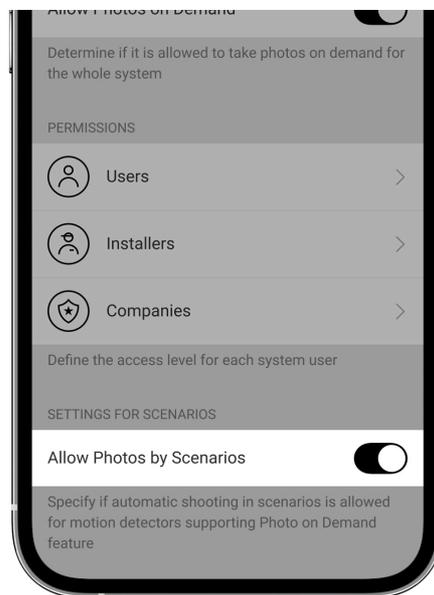
After saving the privacy settings, all users who have access to the event feed will receive a notification indicating who has received access rights and which user has granted these rights.

[Learn more](#)

## Configuring the Photo by scenarios feature

First, you need to enable the **Photo by scenario** feature in the space **Privacy** settings. After that, it is possible to create scenarios for taking photos in case of alarms from the specified devices.

### Enabling the Photo by scenario feature



An admin or a user with access to privacy settings can enable and configure the **Photo by scenario** feature. To do this, in the Ajax app:

1. Select a space.
2. Go to the **Control**  tab.
3. Go to the space **Settings** .
4. Go to the **Privacy** settings.
5. Enable the **Allow photos by scenarios** option.
6. Tap **Back** to save the settings.

[Learn more](#)

## Creating a scenario for taking photos by an alarm of a specified device

An admin or PRO with system configuration rights can create and configure a scenario by alarm. To do this, in the Ajax app:

1. Select a space.
2. Go to the **Devices**  tab.
3. Select a detector supporting photo verification from the device list.
4. Go to its **Settings** .

5. Go to **Scenarios** and tap **Add scenario**.

6. Select the scenario type **By alarm**.

7. Select the devices and type of alarms that will trigger the photo verification.

8. Specify:

- **Name** of the scenario.
- **Devices triggering the scenario**. Select which devices trigger the scenario (available if two or more devices are selected for this scenario):

**Any** – the scenario will run if any selected device is triggered.

**All selected** – the scenario will run if all selected devices are triggered.

- **Max actuating time for all selected devices**. The time frame within which all selected devices should be triggered to run the scenario. Available only for the **All selected** option.
- **Device action** – only **Take photo** by default. The number of photos equals the number of **Photos by alarm** specified in the settings.
- **When the detector takes photos: Always** or **When armed**. By default, the motion detector takes photos by scenario only when armed.



Note that only an admin can specify when the detector takes photos.

9. Tap **Save**. The scenario will appear in the list of device scenarios.

## Configuring the Photo by schedule feature

An admin or PRO with system configuration rights can create and set up a scenario by schedule. To do this, in the Ajax app:

1. Select a space.
2. Go to the **Devices**  tab.
3. Select a detector supporting photo verification from the device list.
4. Go to its **Settings** .
5. Go to **Scenarios** and tap the **Add scenario** button.
6. Select the **By schedule** scenario type.
7. Specify:
  - **Name** of the scenario.
  - **Device action** – only **Take photo** by default. The number of photos equals the number of **Photos on demand** specified in the settings.
  - **Execution time** – the time of a day when the detector takes photos by schedule.
  - **Repeat** – the days of the week when the detector takes photos by schedule.
  - **When the detector takes photos: Always** or **When armed**. By default, the motion detector takes photos by schedule only when armed.



Note that only an admin can specify when the detector takes photos.

8. Tap **Save**. The scenario will appear in the list of device scenarios.

## Indication

The Superior MotionCam HD (PhOD) Jeweller LED indicator can light up red or green, depending on the device's state.

### Indication upon pressing the power button

Indication	Event
Lights up green.	Turning the detector on.
Lights up red and then flashes three times.	Turning the detector off.

### Enabled detector indication

Indication	Event	Note
Lights up green for 1 second.	Motion alarm triggering.	The detector records movement once every 7 seconds.
Lights up green for 1 seconds.	Taking photos on demand or by scenario.	When taking a photo on demand or by scenario, the indicator lights up even if the LED indication is turned off in the detector settings.
Lights up green for a few seconds.	Connecting the detector to the hub.	

Lights up red and blinks after the first activation.	Hardware error.	The detector needs to be repaired, please contact our <a href="#"><b>Technical Support</b></a> .
In case of an alarm, it slowly lights up green and goes out.	Detector batteries need to be replaced.	The procedure for replacing the batteries is described in <a href="#"><b>the article</b></a> .
Blinks green frequently.	The batteries are completely discharged. The detector stopped detecting motion and transmitting alarms to the hub.	The procedure for replacing the batteries is described in <a href="#"><b>the article</b></a> .

## Functionality testing

The Ajax system offers several types of tests to help select the correct installation place for the devices. Tests do not start immediately. However, the waiting time does not exceed the duration of one “hub-device” ping interval. Ping interval can be checked and configured at hub settings (**Hub** → **Settings**  → **Jeweller** or **Jeweller/Fibra**).

**To run a test, in the Ajax app:**

1. Select the required space.
2. Go to the **Devices**  tab.
3. Select **Superior MotionCam HD (PhOD) Jeweller** from the list.
4. Go to **Settings** .
5. Select a test:
  - [Jeweller signal strength test](#)
  - [Wings signal strength test](#)
  - [Detection zone test](#)
  - [Signal attenuation test](#)

## 6. Run the test.

### Detector placement



The device is designed for indoor use only.

When choosing where to place Superior MotionCam HD (PhOD) Jeweller, consider the parameters that affect its operation:

- Motion detection zone.
- The camera's viewing angle and the presence of obstacles in front of it.
- Jeweller and Wings signal strength.
- Distance between the detector and the hub.
- Presence of obstacles for radio signal passage: walls, interfloor ceilings, large objects located in the room.

Follow [these recommendations](#) when designing the Ajax system project for a facility. The security system should be designed and installed by professionals. The list of authorized Ajax partners is [available here](#).

### Signal strength

The Jeweller and Wings signal strength is determined by the number of undelivered or corrupted data packages over a certain period of time. The icon  on the **Devices**  tab indicates the signal strength:

- **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.

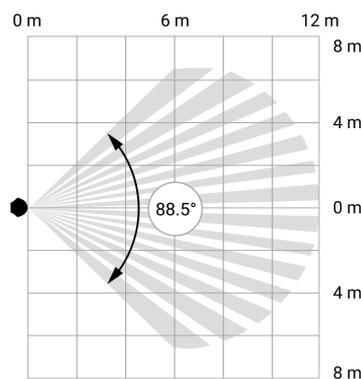


Check the Jeweller and Wings signal strength before final installation. With a signal strength of one or zero bars, we do not guarantee stable operation of the device. Consider to relocate the device as repositioning even by 20 cm can significantly improve the signal strength. If there is still poor or unstable signal after the relocation, use [ReX 2 Jeweller](#) radio signal range extender. **Superior MotionCam HD (PhOD) Jeweller is incompatible with ReX radio signal range extenders.**

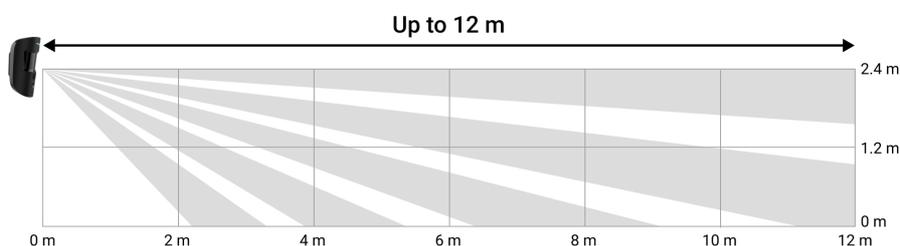
## Motion detection zone

The detector location determines the area to be monitored and the effectiveness of the security system. When selecting the installation place, consider the direction of the detector sensors and camera, viewing angles, and the presence of obstacles to the detector's view.

The detector can recognize motion at a distance of up to 12 m. The direction of the detector sensors should be perpendicular to the intended entry path into the site. Ensure that no structures or objects obstruct the detector's view.



Horizontal viewing angle of the detector



## Vertical viewing angle of the detector

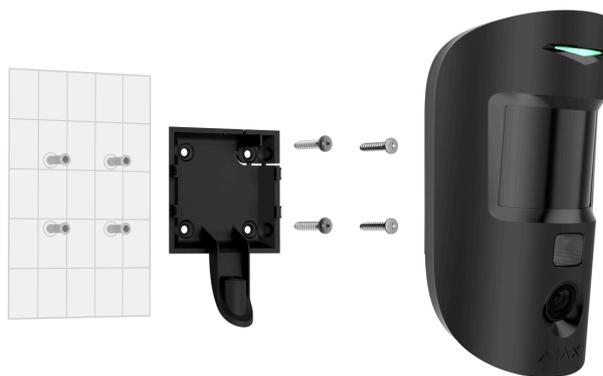
When installing the detector, perform the [Detection zone test](#). This allows you to check the operation of the device and accurately determine the sector in which the device detects movement. Refer to the [Functionality testing](#) section to learn how to run the tests.

Take several photos with Superior MotionCam HD (PhOD) Jeweller camera at the installation site to ensure that the detector captures the required area.

## Do not install the detector

1. Outdoors. This can lead to false alarms and detector failure.
2. In the direction where direct sunlight hits the detector lens. This can lead to false alarms.
3. Opposite any objects with rapidly changing temperature like any electric or gas heater. This can lead to false alarms.
4. Opposite any moving objects with a temperature close to the human body. For example, in front of swaying curtains above a radiator. This can lead to false alarms.
5. In places with fast air circulation. For example, near fans, open windows, or doors. This can lead to false alarms.
6. In places where objects and structures can block the detector's view. For example, behind a flower or a column. In this case, the view will be limited, and it will be more difficult for MotionCam (PhOD) to detect motion.
7. In places where glass structures may block the detector's view. The detector does not register motion behind glass.
8. Inside premises with temperature and humidity outside the permissible limits. This could damage the detector.
9. In places with low or unstable Jeweller or Wings signal strength.
10. Closer than 1 m to the hub or radio signal range extender.

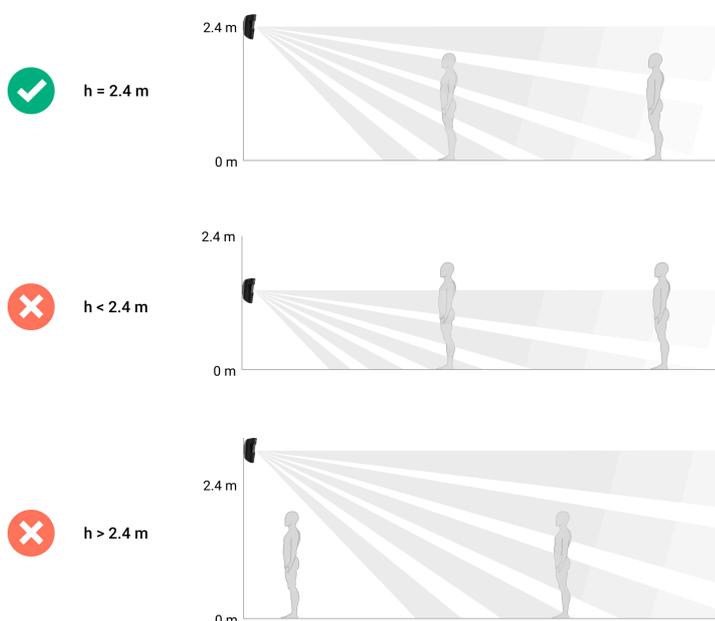
# Installation



Before installing Superior MotionCam HD (PhOD) Jeweller, ensure that you have selected the optimal location that complies with the requirements of this manual.

## To mount a detector:

1. Unscrew the holding screw and slide the SmartBracket mounting panel down.
2. Temporarily secure the SmartBracket panel to a vertical surface or corner using double-sided adhesive tape or other temporary fasteners. This is necessary to run the detector tests. The installation height is 2.4 m.





Double-sided tape can only be used for temporary installation. The device attached by the tape may come unstuck from the surface at any time. As long as the device is taped, the tamper will not be triggered when the device is detached from the surface.

3. Place the detector on the SmartBracket mounting panel.
4. Connect the detector to the hub.
5. Perform the Jeweller and Wings signal strength tests. The recommended signal strength is two or three bars. If the signal strength is low (a single bar), we do not guarantee stable operation of the device. Consider to relocate the device as repositioning even by 20 cm can significantly improve the signal strength. If there is still poor or unstable signal after the relocation, use ReX 2 radio signal range extender.
6. Perform the Detection zone test. To check the motion detector, walk around the premises while observing the LED and determine the detection zone of the detector. The maximum range of motion detection is 12 meters. If the detector did not respond to movement during the test in 5 out of 5 cases, relocate the device.

#### How to run the functionality testing

7. Take some test photos to make sure that the camera is capturing the required area and no obstacles are blocking its view.
8. SmartBracket has special holes that need to be drilled to fix the panel with the bundled screws. Attach the SmartBracket mounting panel with the bundled screws using all fixation points (one of them is in the perforated part of the mounting panel above the tamper). When using other fasteners, make sure they do not damage or deform the mounting panel.
9. Place the detector on the SmartBracket mounting panel.

## Maintenance

Check the functioning of the detector on a regular basis. The optimal frequency of checks is once every three months. Clean the device

enclosure of dust, cobwebs, and other contaminants as they emerge. Use a soft dry wipes suitable for equipment care.

Do not use substances that contain alcohol, acetone, gasoline, and other active solvents to clean the detector. Wipe the detector lens and camera gently: scratches can result in decreased sensitivity of the detector, poor-quality images, and camera failure.

Superior MotionCam HD (PhOD) Jeweller runs for up to 4 years with bundled batteries when **Photo on demand** toggle **is disabled** and up to 3 years when **Photo on demand** toggle **is enabled**. The security system will send an early warning about replacing the batteries. In case of an alarm, the LED will slowly light up green and go out.

[MotionCam battery life and what affects it](#)

[How to replace batteries](#)

## Technical specifications

[All technical specifications of Superior MotionCam HD \(PhOD\)](#)

[Jeweller](#)

[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. In most cases, technical issues can be resolved remotely.

[Warranty obligations](#)

[User agreement](#)

## Contact Technical Support:

- [e-mail](#)
- [Telegram](#)

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