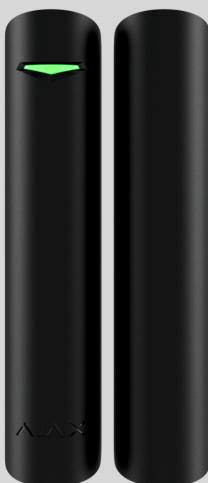


# Superior DoorProtect Plus Jeweller user manual

Updated June 3, 2025



**Superior DoorProtect Plus Jeweller** is a wireless opening, shock, and tilt detector. Supports connection of a third-party wired detector with a normally closed (NC) contact type. The device is designed for indoor use only.

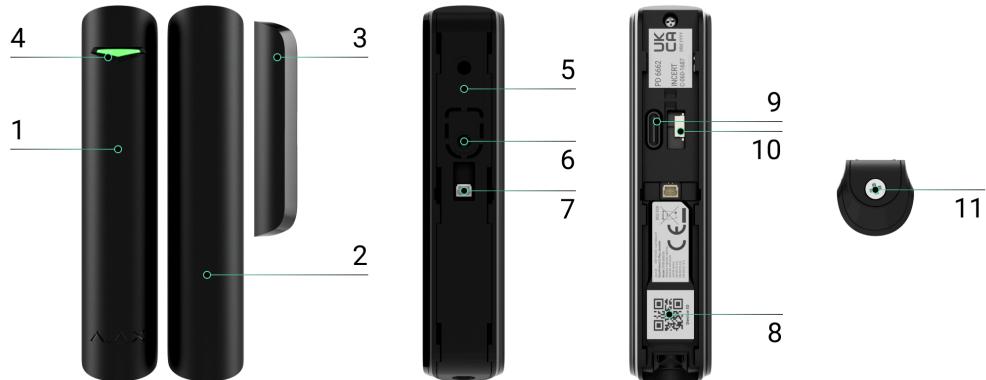
Superior DoorProtect Plus Jeweller communicates with a hub via the Jeweller secure radio protocol to transmit alarms and events. The communication range in an open space is up to 1,200 meters.



This product line is developed for projects. Only accredited Ajax Systems partners can sell, install and administer **Superior** products.

**Superior**, **Fibra**, and **Baseline** product lines are mutually compatible. This opens up numerous possibilities for building systems of any configuration.

# Functional elements



1. Superior DoorProtect Plus Jeweller opening detector.
2. Big magnet. Operates at a distance of up to 2 cm from the detector.
3. Small magnet. Operates at a distance of up to 1 cm from the detector.
4. LED indicator.
5. SmartBracket mounting panel. To remove the panel, slide it down.
6. Perforated part of the mounting panel. Do not break it off. It is needed for tamper triggering in case of any attempt to detach the detector from the surface.
7. Connector for a third-party wired detector with a normally closed (NC) contact type.
8. QR code with the device ID. It is used to add the detector to the Ajax system.
9. Device switch.
10. Tamper button. Triggers in case of an attempt to detach the detector from the surface or remove it from the mounting panel.
11. Holding screw.

## Compatible hubs and range extenders

An Ajax hub with the firmware [OS Malevich 2.16](#) and higher is required for the detector to operate.

## [Check devices compatibility](#)

## Operating principle

0:00 / 0:12

**Superior DoorProtect Plus Jeweller** is a wireless opening, shock, and tilt detector. If a standard installation method is used, the device consists of two parts. The first part is the detector with two reed switches, the shock and tilt sensor. The second part is the magnet that is needed to detect opening. All sensors of the detector work independently. Each sensor of the detector can be enabled or disabled in Ajax apps.

**Opening** is detected by a reed switch built into the detector and a magnet. When the magnet approaches or moves away, the reed switch changes the state of the contacts and notifies of opening/closing. The detector is equipped with one small and one big magnet.



The magnet can be attached to both sides of the detector. Superior DoorProtect Plus Jeweller works with one magnet on one side only. If magnets are attached on both sides, the detector cannot detect the opening correctly.

A small magnet works at a distance of 1 cm, and the big one – up to 2 cm. If you do not need to detect the opening of a door or window, you can install the detector without a magnet.

The **shock sensor** detects attempts to knock out a window or door and reacts to vibration when attempts are made to knock out a lock or break a door.

The **tilt sensor** detects vertical axis deviation of a device. Before the system is armed, the sensor remembers the initial position and is triggered if the deviation is more than 5° (depending on the settings). This helps to protect windows, including skylights, and arm the system when the window is in the ventilation mode (be sure to deactivate the main detector in the settings before you do this).

If triggered, the armed detector 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 alarms and events are recorded in the events feed of the Ajax apps.

## Jeweller data transfer protocol

Jeweller is a two-way wireless data transfer protocol that provides fast and reliable communication between hub and devices. The detector uses Jeweller to transmit alarms and events.

[Learn more](#)

## Sending events to the monitoring station

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

**Superior DoorProtect Plus Jeweller can transmit the following events:**

1. Tamper alarm. Tamper recovery.
2. Detector alarm/recovery.
3. Alarm/recovery of a third-party wired detector connected to Superior DoorProtect Plus Jeweller.

4. Loss of connection with the hub (or radio signal range extender).

Restoration of connection.

5. Permanent deactivation/activation of the detector.

6. One-time deactivation/activation of the detector.

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



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

## Adding to the system



**Superior DoorProtect Plus Jeweller** is incompatible with [Hub](#) and third-party security control panels.

To connect **Superior DoorProtect Plus Jeweller** to the hub, the detector must be located at the same secured facility as the system (within the range of the hub radio network). For the detector to work via the [ReX](#) or the [ReX 2](#) radio signal range extender, you must first add the detector to the hub, then connect it to **ReX** or **ReX 2** in the settings of the range extender.



The hub and the device operating at different radio frequencies are incompatible. The radio-frequency range of the device may vary by region. We recommend purchasing and using Ajax devices in the same region. You can check 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](#)



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.



This product line is developed for projects. Only accredited Ajax Systems partners can install, and administer Superior products.

## Connecting to the hub

1. Open the **Ajax PRO app**. Select the hub where you want to add the device.
2. Go to the **Devices**  tab and click **Add device**.
3. Name the device, scan, or type in the QR code (placed on the detector and the package box), and select a room and a group (if **Group Mode** is enabled).



4. Press **Add**.
5. Switch on the device.



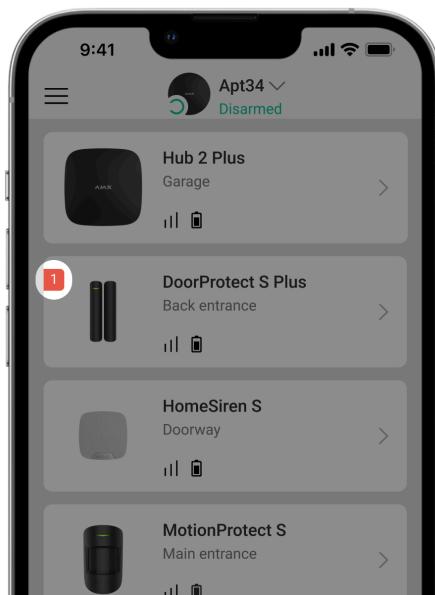
If the connection fails, turn the detector off and try again in 5 seconds. Note that if the maximum number of devices has already been added to the hub (**depending on the hub model**), you will be notified when you try to add a new one.

The detector connected to the hub will appear in the list of hub devices in the Ajax app. Updating the statuses of devices in the list depends on the **Jeweller** or **Jeweller/Fibra** settings; the default value is 36 seconds.



**Superior DoorProtect Plus Jeweller** works with one hub. When connected to a new hub, the detector stops sending events to the old one. When added to a new hub, the detector is not removed from the device list of the old hub. This must be done manually in the Ajax app.

## Malfunctions



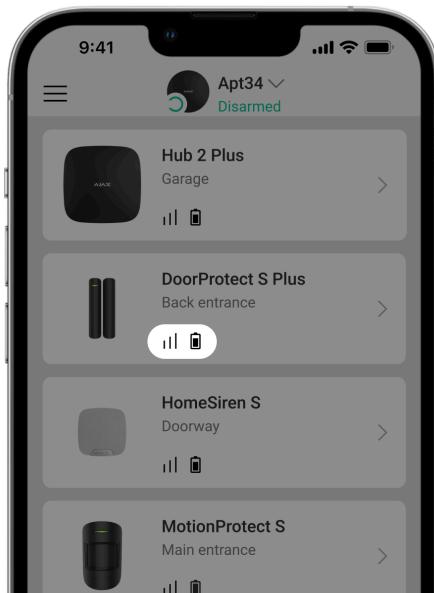
When a malfunction is detected, the Ajax app displays a malfunction counter on the device icon. All malfunctions are shown in the detector states. Fields with malfunctions will be highlighted in red.

### A malfunction is displayed if:

- The detector temperature is outside acceptable limits.
- The detector enclosure is open (tamper is triggered).
- No connection with the hub or radio signal range extender via Jeweller.

- The device battery is low.

## Icons



The icons display some detector states. To access them:

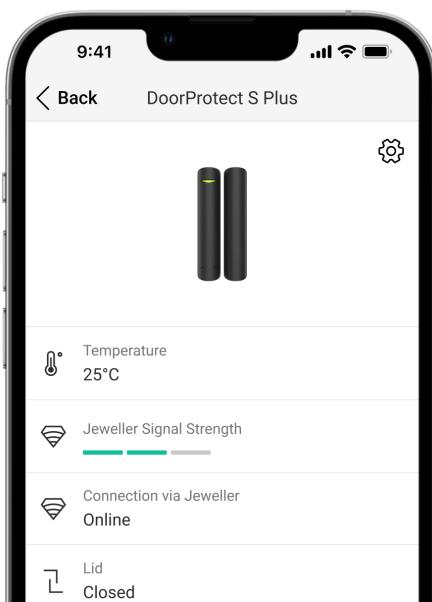
1. Sign in to the [Ajax app](#).
2. Select the hub.
3. Go to the **Devices**  tab.

Icon	Meaning
	Jeweller signal strength. Displays the signal strength between the hub and the detector. The recommended value is 2–3 bars.  <a href="#">Learn more</a>
	The detector battery charge level.  <a href="#">Learn more</a>

	<p>The detector has a malfunction. The list of malfunctions is available in the detector states.</p> <p><a href="#">Learn more</a></p>
	<p>Displayed when the detector is operating via a <a href="#">radio signal range extender</a>.</p>
	<p>The detector operates in the <b>Always Active</b> mode.</p> <p><a href="#">Learn more</a></p>
	<p><b>Delay When Entering</b> and/or <b>Delay When Leaving</b> enabled.</p> <p><a href="#">Learn more</a></p>
	<p>The device is in the signal attenuation test mode.</p> <p><a href="#">Learn more</a></p>
	<p>Detector is permanently deactivated.</p> <p><a href="#">Learn more</a></p>
	<p>Detector has tamper alarms permanently deactivated.</p> <p><a href="#">Learn more</a></p>
	<p>Detector is deactivated until the first event of disarming the system.</p> <p><a href="#">Learn more</a></p>
	<p>Detector has tamper alarms deactivated until the first event of disarming the system.</p> <p><a href="#">Learn more</a></p>
	<p>The device has lost connection with the hub or the hub has lost connection with the Ajax Cloud server.</p>

	<p>The device has not been transferred to the new hub.</p> <p><span>Not transferred</span></p> <p><a href="#">Learn more</a></p>
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## States



The states include information about the device and its operating parameters. The states of **Superior DoorProtect Plus Jeweller** can be found in Ajax apps:

1. Go to the **Devices**  tab.
2. Select **Superior DoorProtect Plus 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>

	<u>Learn more</u>
Malfunction	<p>Clicking on  opens the list of the detector's malfunctions.</p> <p>The field is displayed only if a malfunction is detected.</p>
Temperature	<p>Detector temperature. 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 module detects a temperature change of at least 1 °C.</p> <p>You can create a scenario by temperature to control automation devices.</p>
<u>Jeweller Signal Strength</u>	<p>Signal strength between the detector and the hub (or the range extender) via the Jeweller channel. The recommended value is 2–3 bars.</p> <p>Jeweller is a protocol for transmitting Superior DoorProtect Plus Jeweller events and alarms.</p>
Connection via Jeweller	<p>Connection status on the Jeweller channel between the detector and the hub (or the range extender):</p> <ul style="list-style-type: none"> <li>• <b>Online</b> – the detector is connected to the hub or the range extender.</li> <li>• <b>Offline</b> – the detector is not connected to the hub or the range extender. Check the detector connection.</li> </ul>
Transmitter power	Displays the selected power of the transmitter.

	<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="#">Learn more</a></p>
ReX range extender name	<p>Radio signal range extender connection status.</p> <p>Displayed when the detector works via <a href="#">radio signal range extender</a>.</p>
Battery Charge	<p>Battery level of the device. Displayed as a percentage.</p> <p><a href="#">How battery charge is displayed in Ajax apps</a></p>
Lid	<p>The status 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. Check the device.</li> <li>• <b>Closed</b> – the detector is installed on the SmartBracket mounting panel. The integrity of the device enclosure and the mounting panel is not compromised. Normal state.</li> </ul> <p><a href="#">Learn more</a></p>
Opening sensor	<p>Status of the detector's opening sensor:</p> <ul style="list-style-type: none"> <li>• <b>Disabled</b> – sensor is deactivated.</li> <li>• <b>Open</b> – sensor is open.</li> <li>• <b>Closed</b> – sensor is closed.</li> </ul>
External Contact	<p>The status of the external detector connected to Superior DoorProtect Plus</p>

	<p>Jeweller:</p> <ul style="list-style-type: none"> <li>• <b>Disabled</b> – the external contact is disabled (the option is disabled in the app).</li> <li>• <b>Open</b> – the external contact is connected and in the open state.</li> <li>• <b>Closed</b> – the external contact is connected and in the closed state.</li> </ul>
Shock Sensor	<p>Indicates if the shock sensor is active:</p> <ul style="list-style-type: none"> <li>• <b>On</b> – the shock sensor is on.</li> <li>• <b>Off</b> – the shock sensor is off.</li> </ul>
Tilt Sensor	<p>Indicates if the tilt sensor is active:</p> <ul style="list-style-type: none"> <li>• <b>On</b> – the tilt sensor is on.</li> <li>• <b>Off</b> – the tilt sensor is off.</li> </ul>
Always Active	<p>If the option is active, the detector is always in armed mode and notifies about alarms.</p> <p>This means that the detector will constantly respond to opening/shock/tilt and raise alarms regardless of the system arming mode.</p> <p><a href="#">Learn more</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> – detector's tamper triggering notifications are disabled.</li> <li>• <b>Entirely</b> – the detector is entirely excluded from the operation of the</li> </ul>

system. The device does not follow system commands and does not report alarms or other events.

- **By number of alarms** – the device is excluded from operation when the number of alarms is exceeded (specified in the [Devices Auto Deactivation](#) settings).
- **By timer** – the device is automatically disabled by the system when the recovery timer expires (specified in the hub settings for [Devices Auto Deactivation](#)). The feature is configured in the Ajax PRO app.

### [Learn more](#)

#### One-Time Deactivation

Shows the status of the device one-time deactivation setting:

- **No** – the device operates in the normal mode.
- **Lid only** – notifications on the tamper triggering are disabled until the first event of disarming the system.
- **Entirely** – the detector is entirely excluded from the operation of the system until the first event of disarming the system. The device does not execute system commands and does not report alarms or other events.

### [Learn more](#)

#### Alarm Reaction

#### Operating Mode

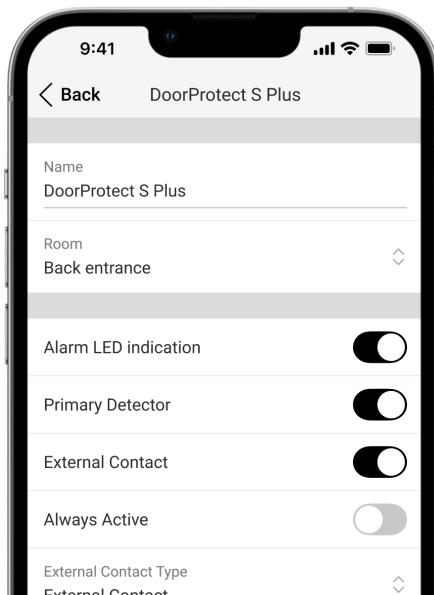
Shows how the detector reacts to alarms:

- **Instant Alarm** – the armed detector immediately reacts to a threat and raises the alarm.

	<ul style="list-style-type: none"> <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 Entry/Exit detectors. However, when the Follower is triggered individually, it immediately raises the alarm.</li> </ul>
Delay When Entering, sec	<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="#">Learn more</a></p>
Delay When Leaving, sec	<p>Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><a href="#">Learn more</a></p>
Arm in Night Mode	<p>When this option is enabled, the detector will enter the armed mode when the system is set to <b>Night Mode</b>.</p>
Night Mode Delay When Entering, sec	<p>Entry delay time in <b>Night Mode</b>. 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="#">Learn more</a></p>
Night Mode Delay When Leaving, sec	<p>Exit delay time in <b>Night Mode</b>. Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><a href="#">Learn more</a></p>
Firmware	Detector firmware version.
Device ID	Detector ID. Also available on the QR code on the detector enclosure and its package box.

Device №	Number of the device loop (zone).
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## Settings



To change the detector settings in the Ajax apps:

1. Go to the **Devices**  tab.
2. Select **Superior DoorProtect Plus Jeweller** from the list.
3. Go to **Settings** by clicking on 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, text of SMS and notifications in the events feed.</p> <p>To change the name of the detector, click on the text field.</p>

	The name can contain up to 12 Cyrillic characters or up to 24 Latin characters.
Room	<p>Selecting the virtual room to which Superior DoorProtect Plus Jeweller is assigned.</p> <p>The room name is displayed in the text of SMS and notifications in the events feed.</p>
Alarm LED indication	When the option is disabled, the LED indicator of the detector doesn't inform about alarms and tamper triggerings.
Opening sensor	If active, Superior DoorProtect Plus Jeweller opening sensor responds to opening and closing.
External Contact	If active, Superior DoorProtect Plus Jeweller registers alarms of a third-party wired detector connected to it.
Always Active	<p>When this option is enabled, the detector is always armed.</p> <p>This means that the detector will constantly respond to opening/shock/tilt and raise alarms regardless of the system arming mode.</p>
<a href="#"><b>Learn more</b></a>	
External Contact Type	<p>Selecting the type of a third-party <u>wired detector</u> connected to Superior DoorProtect Plus Jeweller terminals:</p> <ul style="list-style-type: none"> <li>• <b>External Contact</b> – any third-party detector with NC (normally closed) contact.</li> <li>• <b>Roller Shutter</b> – roller shutter motion detector.</li> </ul>
Time Before Alarm, sec	The time for which the specified number of impulses should be counted: 5 to 30 seconds.

	<p>Counted after the first impulse from the roller shutter detector connected to Superior DoorProtect Plus Jeweller.</p> <p><b>This setting is displayed if the type of external contact is Roller Shutter.</b></p>
Impulses Before Alarm	<p>A number of impulses from the roller shutter detector connected to Superior DoorProtect Plus Jeweller, which is required to raise an alarm: 2 to 7.</p> <p><b>This setting is displayed if the type of external contact is Roller Shutter.</b></p>
Shock Sensor	<p>When this option is enabled, the detector detects shocks.</p>
Sensitivity	<p>Shock sensor sensitivity level.</p> <p>The choice depends on the type of the object, the presence of probable sources of false alarms, and the specifics of the protected area:</p> <ul style="list-style-type: none"> <li>• <b>Low</b> – there are likely sources of false alarms in the protected area. For example, vibration from freight machines driving by.</li> <li>• <b>Normal</b> (default value) – recommended value suitable for most objects. Do not change it if the detector works correctly.</li> <li>• <b>High</b> – there is no interference in the protected area; the maximum sensitivity of detection and the alarm detection speed are important.</li> </ul> <p>Before selecting the sensitivity level, conduct the <b>detection zone test</b>. If the detector doesn't react to shock in 5 cases out of 5 during the test, the sensitivity should be increased.</p>
Ignore Simple Impact	<p>When this option is enabled, the alarm is activated only if the sensor detects more</p>

	than one shock.
Tilt Sensor	When this option is enabled, the detector detects a change in the tilt angle.
Tilt	Selection of the initial value of the tilt angle of the detector. The sensor detects an alarm if the tilt angle value changes.
Tilt Alarm Delay	The time from the moment the detector is tilted to the alarm: 1 second to 1 minute.
<b>Alert with a siren</b>	
If opening detected	If active, <b>sirens added to the system</b> are activated when the opening is detected.
If an external contact is opened	If active, <b>sirens added to the system</b> are activated during an external detector alarm.  <b>This setting is displayed if the type of external contact is External Contact.</b>
If roller shutter triggered	If active, <b>sirens added to the system</b> are activated when the roller shutter connected to Superior DoorProtect Plus Jeweller detects an alarm.  <b>This setting is displayed if the type of external contact is Roller Shutter.</b>
If roller shutter is disconnected	If active, <b>sirens added to the system</b> are activated when the roller shutter detector connected to Superior DoorProtect Plus Jeweller is disabled.  <b>This setting is displayed if the type of external contact is Roller Shutter.</b>
If shock detected	If active, <b>sirens added to the system</b> are activated when Superior DoorProtect Plus Jeweller detects a shock.
If tilt detected	If active, <b>sirens added to the system</b> are activated when Superior DoorProtect Plus Jeweller detects a tilt.

Chime Settings	<p>Opens the <b>Chime</b> settings.</p> <p><b>How to set up Chime</b></p> <p><b>What is Chime</b></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 Entry/Exit detectors. However, when the Follower is triggered individually, it immediately raises the alarm.</li> </ul>
Delay When Entering, sec	<p>Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the premises.</p> <p><b>Learn more</b></p>
Delay When Leaving, sec	<p>Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><b>Learn more</b></p>
Arm in Night Mode	<p>When this option is enabled, the detector will enter the armed mode when the system is set to <b>Night Mode</b>.</p> <p><b>Learn more</b></p>
Night Mode Delay When Entering, sec	<p>Entry delay time in <b>Night Mode</b>. Delay when entering (alarm activation delay) is the time</p>

	<p>the user has to disarm the security system after entering the premises.</p> <p><b>Learn more</b></p>
Night Mode Delay When Leaving, sec	<p>Exit delay time in <b>Night Mode</b>. Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><b>Learn more</b></p>
Jeweller Signal Strength Test	<p>Switches the detector to the Jeweller signal strength test mode.</p> <p><b>Learn more</b></p>
Detection Zone Test	<p>Switches the detector to the detection zone test mode.</p> <p><b>Learn more</b></p>
Signal Attenuation Test	<p>Switches the device to the signal attenuation test mode.</p> <p><b>Learn more</b></p>
User Guide	<p>Opens Superior DoorProtect Plus 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 in normal mode and transmits all events.</li> <li>• <b>Entirely</b> – the device does not execute system commands and does not participate in automation scenarios, and the system ignores alarms and other device notifications.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Lid only</b> – the system ignores the detector tamper triggering notifications.</li> </ul> <p><a href="#">Learn more</a></p> <p>The system can also automatically deactivate devices when the preset number of alarms is exceeded or when the recovery timer expires.</p> <p><a href="#">Learn more</a></p>
One-Time Deactivation	<p>Allows the user to disable events of the device until the first event of disarming the system.</p> <p>Three options are available:</p> <ul style="list-style-type: none"> <li>• <b>No</b> – the device operates in the normal mode.</li> <li>• <b>Lid only</b> – notifications on the tamper triggering are disabled until the first event of disarming the system.</li> <li>• <b>Entirely</b> – the detector is entirely excluded from the operation of the system until the first event of disarming the system. The device does not execute system commands and does not report alarms or other events.</li> </ul> <p><a href="#">Learn more</a></p>
Unpair Device	Unpairs the detector, disconnects it from the hub, and deletes its settings.

## How to set Chime

Chime is a sound signal that indicates the triggering of the opening detectors when the system is disarmed. The feature is used, for example, in stores, to notify employees that someone has entered the building.

Chime is set in two stages: setting up opening detectors and setting up sirens.

### Learn more about Chime

### How to set up a siren for Chime

## Indication

Superior DoorProtect Plus Jeweller LED indicator lights up when the detector is triggered, and it can notify about its other states.

LED indication	Event	Note
Lights up green for about one second	Turning on the detector	
Lights up for a few seconds	Pairing the detector with the <u>hub</u>	
Lights up green for 1 second	Alarm in case of opening, shock, tilt, or tamper triggering	An alarm is sent once in 5 seconds
During the alarm, it slowly lights up green and slowly goes out	Detector batteries need to be replaced	Replacement of the detector battery is described in <u>this article</u>

## Functionality testing

The Ajax system offers several tests to help select the device installation place. Tests do not start immediately. However, the waiting time does not exceed the duration of one “hub–device” polling interval. The polling 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 hub.
2. Go to the **Devices**  tab.
3. Select **Superior DoorProtect Plus Jeweller** from the list.
4. Go to **Settings** .
5. Select a test:
  1. Jeweller Signal Strength Test
  2. Detection Zone Test
  3. Signal Attenuation Test
6. Run the test.

## Detector placement

0:00 / 0:05



The device is designed for indoor use only.

When choosing where to place Superior DoorProtect Plus Jeweller, consider the parameters that affect its operation:

- Detection zone.

- Jeweller signal strength.
- Distance between the detector and the hub or range extender.
- Presence of obstacles for radio signal passage: walls, interfloor ceilings, large objects located in the room.

Consider the recommendations for placement when developing a project for the security system of the facility. The security system must be designed and installed by specialists. A list of recommended partners is [available here](#).

## Tips for installing

For detecting openings, it is recommended that the magnet be placed on the moving part and the detector on the door frame or window frame.



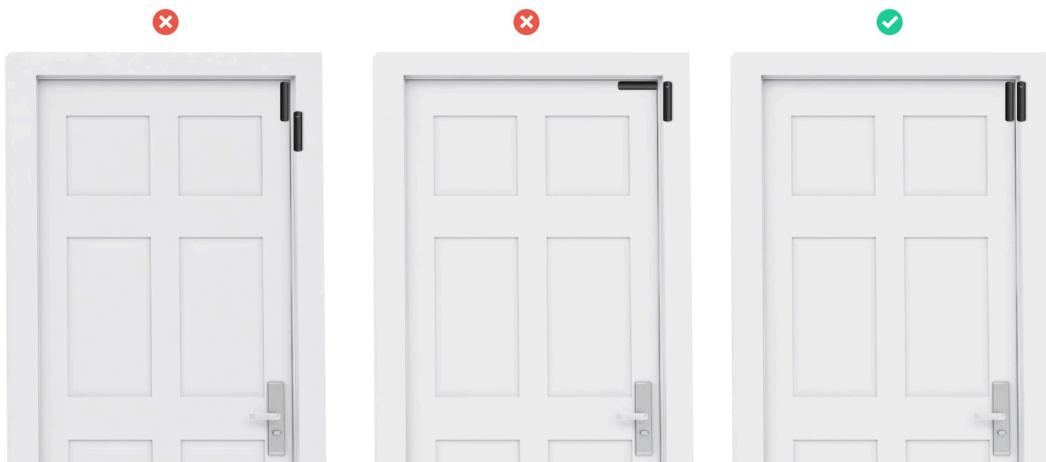


The detector must be placed on a moving part for Superior DoorProtect Plus Jeweller to detect shock and tilt.



## Magnet placement relatively to the detector

The magnet should be installed in parallel to the detector enclosure.



When mounting the detector on perpendicular planes, use a small magnet. The distance between the small magnet and the detector should not exceed 1 cm.

Use a big magnet if parts of Superior DoorProtect Plus Jeweller are mounted on the same plane. The distance between the big magnet and the detector should not exceed 2 cm.



**The magnet can be attached to the right or to the left side of the detector.**  
Superior DoorProtect Plus Jeweller works with one magnet on one side only. If magnets are attached on both sides, the detector cannot detect the opening correctly.

If there is no need to detect opening, the magnet is not installed. In this case, it is necessary to disable the opening sensor in the [detector settings](#) in the Ajax apps.



If necessary, the detector can be positioned horizontally.



Do not install the detector with the LED indicator facing down, as this may cause it to fall and fail due to damage.

Do not install the detector on the window or door hinge side – it may not respond to opening.

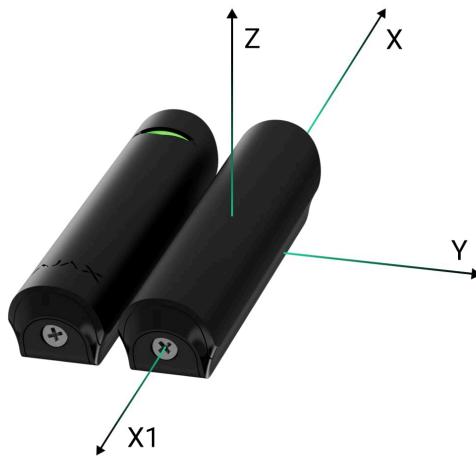


## The Superior DoorProtect Plus Jeweller working distances\*

Relatively to the detector, the magnet can move along three axes: X (X1), Y, or Z. It depends on the Superior DoorProtect Plus Jeweller installation

location. For example:

- X-axis (or X1): on the roller shutter.
- Y-axis: on the sliding door.
- Z-axis: on the window.



Axis	Big magnet on the non-ferromagnetic surfaces (e.g., wooden doors)		Big magnet on the ferromagnetic surfaces (e.g., metal doors)	
	Removal distance, mm	Approach distance, mm	Removal distance, mm	Approach distance, mm
X	19	11	19	11
X1	23	15	22	14
Y	26	17	18	10
Z	33	20	24	10

\* – For small magnet all measurements will be reduced.

## Signal strength

The Jeweller 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** – signal is missing.



Check the Jeweller 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 a poor or unstable signal after the relocation, use a [radio signal range extender](#).

## Detection zone

Consider the operating area of the magnet when choosing the installation location. Smaller magnets act at distances up to 1 cm from the reed switch, while larger ones act at distances up to 2 cm.

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 detector reacts to movement.

## Do not install the detector

1. Outdoors. This can lead to false alarms and detector failure.
2. Inside metal structures. This may result in the loss of the radio signal.
3. Near mirrors. This may result in the shielding or attenuation of the radio signal.
4. Inside premises with temperature and humidity outside the permissible limits. This could damage the detector.

5. Closer than 1 meter from the hub or radio signal range extender. This can lead to a loss of communication with the detector.
6. In a place with a low signal level. This may result in the loss of the connection with the hub.

## Installation



Before installing Superior DoorProtect Plus Jeweller, ensure that you have selected the optimal location that complies with the requirements of this manual.

### To mount a detector:

1. Remove the SmartBracket mounting panel from the detector by sliding it down. Unscrew the holding screw first.



2. Fix the SmartBracket panel using double-sided tape to the selected installation spot.



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

**3.** Place the detector on SmartBracket. The device LED indicator will flash. It is a signal indicating that the tamper on the detector is closed.



If the LED indicator doesn't light up during placing the detector on SmartBracket, check the tamper status in the Ajax app, the integrity of the fastening, and the tightness of the detector fixation on the panel.

**4.** Fix the magnet on the surface with double-sided tape.



If there is no need to detect opening, the magnet is not installed.

**5.** Run the Jeweller signal strength test. 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 relocating 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 a radio signal range extender.

**6.** Run the Detection Zone Test:

1. Run a test to check the opening sensor: open and close the window or door where the device is installed several times. Monitor the reaction of the LED: it should flash every time the door/window is opened or closed. If the detector doesn't respond in 5 out of 5 cases during the test, try to change the installation spot or method. The magnet may be too far from the detector.
2. To check the tilt and shock sensor, enable these sensors in the detector settings before starting the test. Remove the detector from the mounting panel and place it on a flat surface. Run the test. To test the tilt sensor, lift the detector off the surface and tilt it vertically. To test the shock sensor, simulate a shock on the surface on which the detector is placed. Monitor the reaction of the LED: it should flash with each registered tilt and shock.

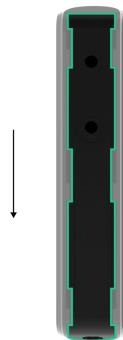
**7. Run Signal Attenuation Test.** During the test, the signal strength is artificially reduced and increased to simulate different conditions at the installation location. If the installation spot is chosen correctly, the detector will have a stable signal strength of 2–3 bars.

**8. If the tests are passed successfully, secure the detector and magnet with bundled screws. Use all fixing points.**

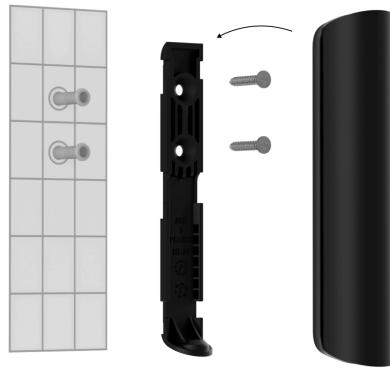
- 1. To mount the detector:** remove it from the SmartBracket mounting panel. Then fix the SmartBracket panel with bundled screws. Install the detector on the panel.



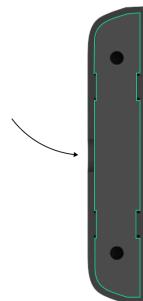
- 2. To mount a big magnet:** remove it from the SmartBracket mounting panel.



Then fix the SmartBracket panel with bundled screws. Install the magnet on the panel.



**3. To mount a small magnet:** disassemble its enclosure by prying up the back with a flat object. Use a slotted screwdriver for this. Fix the part with magnets on the surface; use the bundled screws for this. Then install the front panel in its place.



**9.** Tighten the holding screw on the bottom of the detector's and magnet's enclosure. The screw is needed for more reliable fastening and protection of the detector and the magnet from quick dismantling.





If using screwdrivers, set the speed to the minimum so as not to damage the SmartBracket mounting panel during installation. When using other fasteners, ensure they do not damage or deform the panel. To make mounting the detector or magnet easier, you can pre-drill the screw holes while the mount is still secured with double-sided tape.

## Connecting a third-party wired detector

A wired detector with an NC (normally closed) contact type can be connected to Superior DoorProtect Plus Jeweller. It can be a motion, opening, or vibration detector.

Superior DoorProtect Plus Jeweller will not power the third-party detector. The detector should be connected separately. To learn the type and input voltage of the third-party detector, refer to the device documentation or contact the manufacturer's technical support.

Install the third-party detector no more than 1 meter away from Superior DoorProtect Plus Jeweller. Increasing the length of the wire degrades the quality of communication between devices.

### To connect the third-party wired detector:

1. Remove the detector from the mounting panel if already installed.
2. Carefully break out the plugs in the detector enclosure for the output of wires.



**3. Route the cable of the third-party wired detector into the Superior DoorProtect Plus Jeweller enclosure.**

**4. Connect the wired detector to Superior DoorProtect Plus Jeweller terminals.**



**5. In Superior DoorProtect Plus Jeweller settings, enable the **External Contact** option.**

**6. Check operation of the connected wired detector. If the external detector is actuated, you will receive a notification.**

To receive an alarm when the roller shutters open, connect a wired roller shutter motion detector with a normally closed contact to Superior DoorProtect Plus Jeweller.

**How to connect a roller shutter motion detector to Superior DoorProtect Plus Jeweller**

## **Maintenance**

Check the functioning of the detector regularly. 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, petrol, and other active solvents to clean the detector.

Superior DoorProtect Plus Jeweller runs for up to 5 years with bundled batteries at 10 openings/closings per day with the standard **Jeweller** or **Jeweller/Fibra** settings. 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.

We recommend you replace the batteries immediately upon notification. It is advisable to use lithium batteries. They have a large capacity and are less affected by temperatures.

### How to replace batteries

## Technical specifications

### All technical specifications of Superior DoorProtect Plus Jeweller

### Compliance with standards

### Setup in compliance with EN requirements

## 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 difficulties can be resolved remotely.

### Warranty Obligations

### User Agreement

## Contact Technical Support:

- e-mail

- Telegram

Manufactured by "AS Manufacturing" LLC