

# DoorProtect Plus Jeweller User Manual

Updated September 1, 2022



**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. For indoor installation.

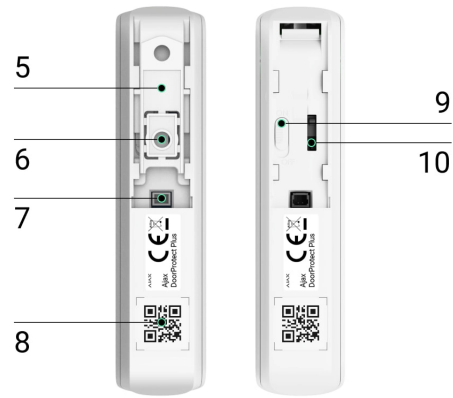
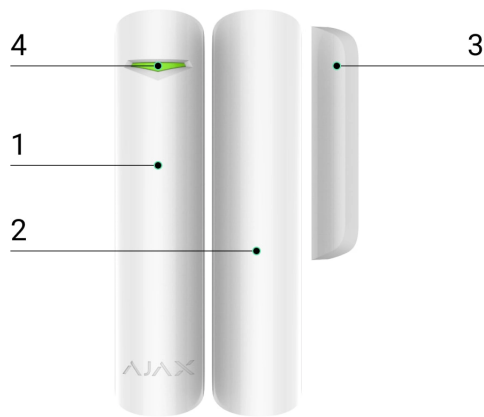


The detector is not compatible with [ocBridge Plus](#) and [uartBridge](#) integration modules.

DoorProtect Plus operates as part of the Ajax security system by connecting to the [hub](#) via the secure [Jeweller](#) radio protocol designed to transmit alarms and events. The hub communication range is up to 1,200 meters without obstacles.

[Buy DoorProtect Plus Jeweller detector](#)

## Functional elements



1. DoorProtect Plus opening detector.
2. Large magnet. Operates at a distance of up to 2 cm from the detector, and should be placed on the right.
3. Small magnet. Operates at a distance of up to 1 cm from the detector, and should be placed on the right.
4. LED indicator.
5. SmartBracket mounting panel. To remove the panel, slide it down.
6. Perforated part of the mounting panel. Necessary to trigger a tamper in case of any attempt to detach the detector from the surface. Do not break it off.
7. Connector for connecting a third-party wired detector with a normally closed (NC) contact type.
8. QR code with the device ID. Used for communication between Ajax security system devices.
9. Button to turn on/off the device.
10. Tamper button. Triggers when an attempt is made to detach the detector from the surface or remove it from the mounting panel.

## Operating principle

00:00

00:12

part is the magnet that is needed to detect opening.

**Opening** is detected by a reed switch and a magnet built into the detector. 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 large magnet. The small magnet operates at a distance of up to 1 cm from the reed switch, and the large one – up to 2 cm. If you do not need to detect 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°. This allows 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).

All sensors of the detector work independently. Each sensor of the detector can be enabled or disabled in Ajax apps.

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 app.

Users know exactly where and when an alarm is detected. The notifications contain the time of alarm, its type, name of the hub (name of the guarded object), name of the device, and the virtual room to which the detector is assigned.

# Jeweller radio technology

Jeweller is a radio protocol to provide fast and reliable two-way communication between the hub and connected devices. The protocol delivers instant data-rich alarms: security companies and users know exactly which detector has been triggered, and when and where it happened.

Jeweller uses encryption and authentication to protect against sabotage, and also regularly pings the system devices, displaying their status in Ajax apps. Jeweller operates at a distance of up to 1,200 m, providing reliable protection of objects and the best user experience for both system owners and installers.

## Sending events to the monitoring station

The Ajax security system can transmit events and alarms to the [Ajax PRO Desktop](#) monitoring app as well as the central monitoring station (CMS) via **SurGard (Contact ID)**, **SIA (DC-09)**, **ADEMCO 685**, and other proprietary protocols. See a complete list of supported protocols [here](#).

### Which CMSs can the Ajax security system be connected to

#### **DoorProtect Plus can transmit the following events:**

1. Alarm/recovery of the DoorProtect Plus tamper.
2. Alarm/recovery of a third-party wired detector connected to DoorProtect Plus.
3. Loss/recovery of connection between DoorProtect Plus and the hub (or radio signal range extender).
4. Temporarily turning DoorProtect Plus off/on.
5. Unsuccessful attempt to arm the security system (with the [system integrity check](#) enabled).

When an alarm is received, the operator of the security company monitoring station knows what happened and where to send the fast response team. Addressability of each Ajax device allows you to send not only events but also the type of the device, the name assigned to it, and the room to the PRO Desktop

or to the CMS. The list of transmitted parameters may differ depending on the type of the CMS and the selected communication protocol.



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

## Adding to the system


### Before adding a device

1. Install the [Ajax app](#) or [Ajax PRO](#).
2. Create an [account](#) if you don't already have one. Add a compatible hub to the app, set the necessary settings, and create at least one [virtual room](#).
3. Make sure that the hub is on and has Internet access via Ethernet, Wi-Fi, and/or mobile network. You can do this in the Ajax app or by looking at the LED on the hub enclosure. It should light up white or green.
4. Make sure the hub is not armed and does not start updates by checking its status in the Ajax app.



Only users with administrative rights can add a device to the hub.

## How to add DoorProtect Plus Jeweller

1. Open the [Ajax app](#). If your account has access to more than one hub or if you are using the PRO app, select the hub, to which you want to add the detector.
2. Go to the **Devices**  tab and click **Add device**.
3. Set the name of the detector, scan or type in the **QR code** (located on the detector enclosure and package), and select the room and group (if the [group mode](#) is enabled).




4. Press Add – a countdown will start.

5. Turn on the device.



## States

The states display information about the device and its operating parameters. States of DoorProtect Plus are available in Ajax apps. To view them:

1. Sign in to the Ajax app.
2. Select the hub if you have several of them or if you are using the PRO app.
3. Go to the **Devices**  tab.
4. Select DoorProtect Plus from the list.

Parameter	Value
Temperature	Detector temperature. It is measured on the processor of the detector and changes gradually.



	<p>Acceptable error between the value in the app and the ambient temperature is 2°C.</p> <p>The value is updated as soon as the detector identifies a temperature change of at least 1°C.</p>
Jeweller Signal Strength	<p>Signal strength between the detector and the hub (or the range extender) via the Jeweller channel. Recommended value is 2–3 bars.</p> <p>Jeweller is a protocol for transmitting DoorProtect Plus 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>
Name of ReX range extender	<p>Indicates if the detector is connected via a <b><u>radio signal range extender</u></b>.</p>
Battery Charge	<p>Battery charge level of the device. Displayed in percentage with increments: 0%, 10%, 20%, 30%, 50%, 75%, 100%.</p> <p><b><u>How battery charge is displayed in Ajax apps</u></b></p> <p><b><u>Battery life calculator</u></b></p>
Lid	<p>The status of the detector's tamper that responds to detachment of the device from the surface or opening of the body:</p> <ul style="list-style-type: none"> <li>• <b>Open</b> – the detector was removed from the SmartBracket mounting panel or the integrity of its body was compromised. Check the mounting of the detector.</li> <li>• <b>Closed</b> – the detector is installed on the SmartBracket mounting panel. The integrity of the body and the mounting panel was compromised. Normal state.</li> </ul>

	<p><a href="#"><u>Learn more</u></a></p>
Delay When Entering, sec	<p>Delay time when entering: 5 to 120 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, sec	<p>Delay time when leaving: 5 to 120 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the secured area after arming.</p> <p><a href="#"><u>Learn more</u></a></p>
Night Mode Delay When Entering, sec	<p>Delay time when entering in Night Mode: 5 to 120 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, sec	<p>Delay time when leaving in Night Mode: 5 to 120 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><a href="#"><u>Learn more</u></a></p>
Primary Detector	<p>Status of the detector's opening sensor:</p> <ul style="list-style-type: none"> <li>• <b>Open</b> – the detector has detected opening.</li> <li>• <b>Closed</b> – the detector is OK.</li> </ul>
External Contact	<p>External Contact</p> <ul style="list-style-type: none"> <li>• <b>Open</b> – a third-party detector has detected an alarm.</li> <li>• <b>Closed</b> – a third-party detector is OK.</li> </ul>



Shock Sensor	Displayed when the shock sensor is active.
Tilt Sensor	Displayed when the tilt sensor is active.
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> <p><a href="#">Learn more</a></p>
Temporary Deactivation	<p>Shows the status of the device temporary 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 system. The device does not follow system commands and does not report alarms or other events.</li> <li>• <b>By number of alarms</b> – the device is excluded from operation when the number of alarms is exceeded (specified in the <a href="#">Devices Auto Deactivation</a> settings).</li> </ul> <p><a href="#">Learn more</a></p>
Firmware	<p>Detector firmware version.</p> <p><a href="#">Learn more</a></p>
Device ID	<p>Detector ID. Used to add a detector to the hub.</p> <p>Also available on the QR code on the detector enclosure and the packaging.</p>
Device №	Device loop (zone) number.

To change the detector settings in the Ajax app:


1. Select the hub if you have several of them or if you are using a PRO app.
2. Go to the **Devices**  tab.
3. Select **DoorProtect Plus** from the list.
4. Go to **Settings** by clicking on the gear icon .
5. Set the parameters.
6. Click **Back** to save the settings.

Configuration	Value
Name	<p>Detector name. Displayed in the list of hub devices, in the text of SMS and notifications in the events feed in Ajax apps.</p> <p>To change the detector name, tap on the input 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 DoorProtect Plus is assigned.</p> <p>The room name is displayed in the text of SMS and notifications in the events feed in Ajax apps.</p>
Delay When Entering, sec	<p>Delay time when entering: 5 to 120 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, sec	<p>Delay time when leaving: 5 to 120 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the secured area after arming.</p> <p><a href="#"><u>Learn more</u></a></p>

Arm in Night Mode	<p>If active, the detector switches to armed mode when <b>Night Mode</b> is enabled.</p> <p><a href="#"><u>Learn more</u></a></p>
Night Mode Delay When Entering, sec	<p>Delay time when entering in <b>Night mode</b>: 5 to 120 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, sec	<p>Delay time when leaving in <b>Night mode</b>: 5 to 120 seconds.</p> <p>Delay when leaving (arming delay) is the time the user has to leave the premises after arming.</p> <p><a href="#"><u>Learn more</u></a></p>
Alarm LED indication	<p>When the option is disabled, the LED indicator of the detector doesn't inform about alarms and tamper triggerings.</p> <p>Available for devices with firmware version 5.55.0.0 or higher.</p> <p><a href="#"><u>How to find the firmware version or the ID of the detector or device?</u></a></p>
Primary Detector	<p>When the option is enabled, DoorProtect Plus opening sensor responds to opening and closing.</p>
External Contact	<p>When the option is enabled, DoorProtect Plus registers alarms of a third-party wired detector connected to it.</p>
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>

	<p><a href="#">Learn more</a></p>
External Contact Type	<p>Selecting the type of a third-party <a href="#">wired detector</a> connected to DoorProtect Plus 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> <p>The option is available for detectors with firmware version 5.53.1.0 and higher.</p> <p><a href="#">Learn more about connecting the motion detector of the roller shutter</a></p>
Time Before Alarm, sec	<p>The time for which the specified number of impulses should be counted: 5 to 30 seconds.</p> <p>Counted after the first impulse from the roller shutter detector connected to DoorProtect Plus.</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 DoorProtect Plus, 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. 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> </ul>

	<ul style="list-style-type: none"> <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><u>detection zone test</u></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	When this option is enabled, the alarm is activated only if the sensor detects more 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.
Alert with a siren if opening detected	If this option is enabled: <b><u>security system sirens</u></b> are activated when DoorProtect Plus detects opening.
Alert with a siren if an external contact is opened	<p>If this option is enabled: <b><u>security system sirens</u></b> are activated when a third-party detector connected to DoorProtect Plus detects an alarm.</p> <p><b>This setting is displayed if the type of external contact is External Contact.</b></p>
Alert with a siren if roller shutter triggered	<p>If this option is enabled: <b><u>security system sirens</u></b> are activated when the roller shutter connected to DoorProtect Plus detects an alarm.</p> <p><b>This setting is displayed if the type of external contact is Roller Shutter.</b></p>
Alert with a siren if roller shutter is disconnected	If this option is enabled: <b><u>security system sirens</u></b> are activated when the roller shutter detector connected to DoorProtect Plus is disabled.

	<p><b>This setting is displayed if the type of external contact is Roller Shutter.</b></p>
Alert with a siren if shock detected	<p>If this option is enabled: <a href="#">security system sirens</a> are activated when DoorProtect Plus detects a shock.</p>
Alert with a siren if tilt detected	<p>If this option is enabled: <a href="#">security system sirens</a> are activated when DoorProtect Plus detects a tilt.</p>
Chime Settings	<p>Opens the Chime Settings.</p> <p><a href="#">How to set up Chime</a> <a href="#">What is Chime</a></p>
Jeweller Signal Strength Test	<p>Switches the detector to the Jeweller signal strength test mode.</p> <p>To determine the optimal installation location for the device, the test allows you to check the communication signal strength between the detector and the hub (or the range extender) over the Jeweller wireless data transfer protocol.</p> <p>Recommended value is 2–3 bars.</p> <p><a href="#">Learn more</a></p>
Detection Zone Test	<p>Switches the detector to the detection zone test mode.</p> <p>The test checks how the detector responds to opening/shock/tilt and determines the optimum installation place.</p> <div style="border: 1px solid black; border-radius: 10px; padding: 10px; margin: 10px 0;"> <p> To check the tilt and shock sensor before starting the test, enable these sensors in the detector settings.</p> </div> <p>If the detector does not respond to opening/shock/tilt in 5 cases out of 5 during the test, increase the sensitivity of the detector.</p>

	<p><a href="#"><u>Learn more</u></a></p>
Signal Attenuation Test	<p>Switches the detector to the Signal Attenuation Test mode.</p> <p>During the test, the power of the radio transmitter is reduced or increased to simulate a change in the situation at the object and check the stability of communication between the detector and the hub (or the radio signal range extender).</p> <p><a href="#"><u>Learn more</u></a></p>
User Guide	<p>Opens DoorProtect Plus User Manual in the Ajax app.</p>
Temporary Deactivation	<p>Allows the user to disable the device without removing it from the system. There are three options:</p> <ul style="list-style-type: none"><li>• <b>No</b> – the detector is operating in the normal mode.</li><li>• <b>Entirely</b> – the device does not execute system commands or participate in automation scenarios, and the system ignores alarms and other device events.</li><li>• <b>Lid only</b> – the system ignores the detector's tamper button triggering notifications.</li></ul> <p><a href="#"><u>Learn more</u></a></p> <p>You can also separately configure disabling of the device:</p> <ul style="list-style-type: none"><li>• <b>By number of alarms</b> – the device is automatically disabled by the system when the set number of alarms is exceeded.</li><li>• <b>By timer</b> – the device is automatically disabled when the recovery timer expires.</li></ul> <p>The feature is configured in the Ajax PRO apps.</p> <p><a href="#"><u>Learn more</u></a></p>
Unpair Device	<p>Unpairs the detector, disconnects it from the hub, and deletes its settings.</p>



# How to set up Chime

Opening notifications — a sound signal that indicates 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](#)

### Detector settings

1. Go to the **Devices**  menu.
2. Select the Door Protect Plus detector.
3. Go to its settings by clicking on the gear icon  in the upper right corner.
4. Go to the **Chime Settings** menu.
5. Select the events that the siren should notify about:
  - If opening detected.
  - If an external contact is opened (available if the External contact option is enabled).
6. Select the Chime Sound: 1 to 4 short beeps. Once selected, the Ajax app will play the sound.
7. Click **Back** to save the settings.
8. Set up the siren.

## [How to set up a siren for Chime](#)

## LED indication



00:00

00:03



triggered and about its other states.

LED indication	Event	Note
Lights up for a few seconds.	Detector connection to the <a href="#">hub</a> .	
Lights up green for 1 second.	Alarm in case of opening, shock, tilt, or tamper triggering.	The detector records movement once every 5 seconds.
In case of an alarm, it slowly lights up green and slowly goes out.	Detector batteries need to be replaced.	The procedure for replacing batteries is described in the <a href="#">How to replace batteries in a DoorProtect Plus detector</a> article.

## Functionality testing

The Ajax security system has several tests for choosing the right installation place for the devices. DoorProtect Plus tests do not start straight away but begin no later than a single hub–detector ping period (36 seconds by default). You can change the ping period of devices in the **Jeweller** menu of the hub settings.

### To run a test in the Ajax app:

1. Select the desired hub.
2. Go to the **Devices**  menu.
3. Select **DoorProtect Plus**.
4. Go to **Settings** .

5. Choose a test:

1. Jeweller Signal Strength Test

2. Detection Zone Test

3. Signal Attenuation Test

6. Run the test.

## Placement



The device is for indoor use only.



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. The list of authorized Ajax partners is [available here](#).

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

- Detection zone.
- Jeweller Signal Strength.
- Distance between the detector and the hub.

- Presence of barriers for radio signal passage between devices: walls, interfloor ceilings, large objects located in the room.

The detector is placed on a movable part inside or outside the door frame/window frame.

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.



If parts of DoorProtect Plus are mounted on the same plane, use a large magnet. The distance between the large magnet and the detector should not exceed 2 cm.

**The magnet is attached to the right of the detector.** The side on which the magnet is attached is marked with an arrow on the detector enclosure. 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.**

## Signal strength

The Jeweller Signal Strength is determined by the number of undelivered or corrupted data packets exchanged between the hub and the detector within a certain period of time. Signal strength is indicated by the icon  in the **Devices**  tab:

- **Three bars** – excellent signal strength.
- **Two bars** – good signal strength.
- **One bar** – low signal strength, stable operation is not guaranteed.
- **Crossed out icon** – signal is missing.



Check the Jeweller Signal Strength at the installation site. If the signal strength is low (a single bar) or zero, we cannot guarantee the stable operation of the security system. Relocate the device, as repositioning even by 20 cm can significantly improve the signal reception. If the detector still has a low or unstable signal strength after 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, run a [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 damage to the detector.
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. In rooms with temperature and humidity out of the permitted operating range. This may lead to the detector damage.

## Detector installation

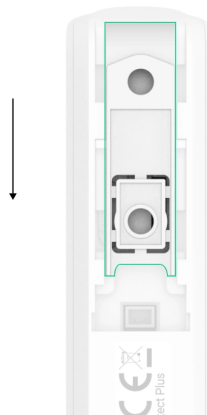
Before installing DoorProtect Plus, make sure that you have selected the optimal



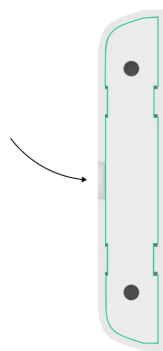
location and that it meets the requirements of this manual.

## To install the detector:

1. Remove the SmartBracket mounting panel from the left side of the detector by gently pushing and pulling it down.



2. If you are using a large magnet, remove the SmartBracket mounting panel from it by slightly pushing and pulling it down as shown in the previous step. If you are using a small magnet, disassemble its enclosure by prying up the back with a flat object. Use a slotted screwdriver for this.



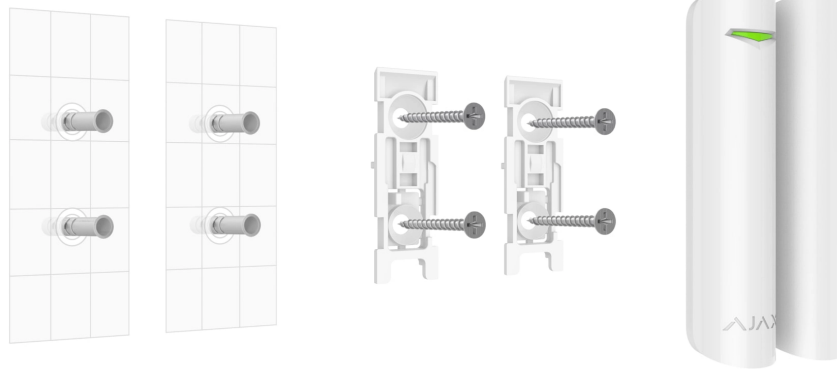
If there is no need to detect opening, the magnet is not installed.

3. Secure SmartBracket mounting panel to the door or window frame surface using double-sided adhesive tape or other temporary fasteners.



Use double-sided adhesive tape for temporary fixing only, as the device may come off the surface at any time and get damaged if dropped. As long as the device is taped, the tamper will not be triggered when the detector is detached from the surface.

4. Mount the detector and magnet (if used) on the mounting panels. Once the detector is fixed in SmartBracket, the device LED will flash, signaling that the tamper on the detector is closed.
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) or zero, we cannot guarantee the stable operation of the security system. Relocate the device, as repositioning even by 20 cm can significantly improve the signal reception. If the detector still has a low or unstable signal strength after relocation, use a radio signal range extender.
6. Run the Detection Zone Test:
  1. Run a test to check the opening sensor. Open/close the door or window, and monitor the reaction of the LED: it should flash every time the door/window is opened or closed. If the detector fails to respond to opening in 5 cases out of 5 during the test, reduce the distance between the detector and the magnet.
  2. To check the tilt and shock sensor, enable these sensors in the detector settings before starting the test. Remove the left side of 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. Fasten the SmartBracket panels and back of the small magnet (if used) with the bundled screws using all fixing points. When using other fasteners, make sure they do not damage or deform the mounting panel.



**8.** Fix the detector and magnet to the mounting panels.

## Connection of a third-party wired detector

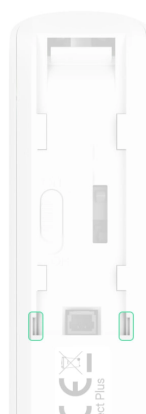
You can connect a wired detector with NC (normally closed) contact type to DoorProtect Plus. It can be a motion, opening, or vibration detector.

DoorProtect Plus 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.

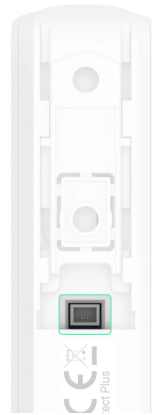
Install the third-party detector no more than 1 meter away from DoorProtect Plus. Increasing the length of the wire degrades the quality of communication between devices.

### 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 DoorProtect Plus enclosure.
4. Connect the wired detector to DoorProtect Plus terminals.



5. In DoorProtect Plus settings, enable the **External Contact** option.
6. Check operation of the connected wired detector.

To receive an alarm when the roller shutters open, connect a wired roller shutter motion detector with a normally closed contact to DoorProtect Plus. The feature is available for devices with firmware version 5.53.1.0 and higher.

### How to find out the firmware version or detector ID

### How to connect a roller shutter motion detector to DoorProtect Plus

## Maintenance

Check the functioning of the detector on a regular basis. The optimal frequency of checks is once every three months. Clean the detector body of dust, cobwebs, and other contaminants as they emerge. Use a soft dry cloth suitable for equipment care.

Do not use substances that contain alcohol, acetone, gasoline, and other active solvents to clean the detector.

The pre-installed batteries provide up to 5 years of the detector's battery life at the rate of 10 openings/closings per day with the standard Jeweller or Jeweller/Fibra settings. When the detector batteries are discharged, the security



system will send an appropriate notification to the Ajax apps, and the LED will light up and go out gradually when the detector raises an alarm.

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 long Ajax devices operate on batteries, and what affects this

### How to replace the batteries in the DoorProtect Plus detector

## Technical specifications

Detector actuation threshold	1 cm (small magnet) 2 cm (big magnet)
Sensor resource	2,000,000 openings
Tilt sensor activation threshold	5° or more (customizable)
Shock sensitivity	3 levels
Ignore first shock option	Yes
Tamper protection	Yes
Radio communication protocol	Jeweller <a href="#">Learn more</a>
Radio frequency band	866.0–866.5 MHz 868.0–868.6 MHz 868.7–869.2 MHz 905.0–926.5 MHz 915.85–926.5 MHz 921.0–922.0 MHz Depends on the region of sale.
Compatibility	Operates only with all Ajax <a href="#">hubs</a> , and <a href="#">radio signal range extenders</a>
Maximum RF output power	Up to 20 mW
Modulation of the radio signal	GFSK

Radio signal range	Up to 1,200 m (any obstacles absent)
Socket for connecting wire detectors	Yes, NC
Power supply	1 battery CR123A, 3 V
Battery life	Up to 5 years
Installation method	Indoors
Protection class	IP50
Operating temperature range	From -10°C to +40°C
Operating humidity	Up to 75%
Dimensions	Ø 20 × 90 mm
Weight	29 g
Service life	10 years

### Compliance with standards

## Complete set

1. DoorProtect Plus Jeweller.
2. SmartBracket mounting panel.
3. CR123A battery (pre-installed).
4. Big magnet.
5. Small magnet.
6. Terminal to connect a third-party detector.
7. Installation kit.
8. Quick Start Guide.

## Warranty

Warranty for the AJAX SYSTEMS MANUFACTURING Limited Liability Company 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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