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AJAX DoorProtect Plus User Manual

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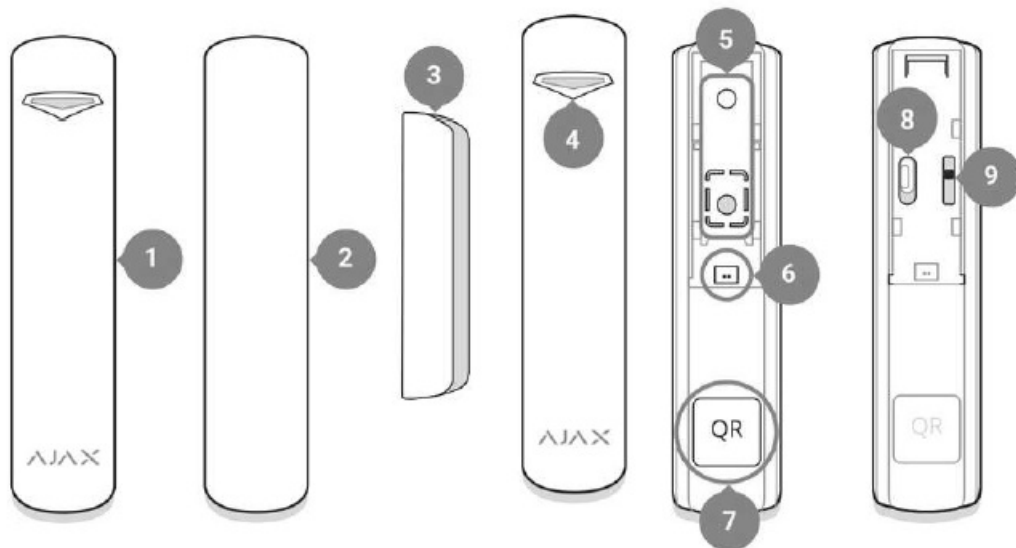
AJAX

AJAX DoorProtect Plus

DoorProtect Plus

DoorProtect Plus is a wireless opening, shock, and tilt detector, that operates within the Ajax security system, connecting via the protected Jeweller radio protocol. Is used inside the premises. The communication range is up to 1,200 m line of sight. DoorProtect Plus can operate up to 5 years from a pre-Installed battery and capable to detect more than one million openings. The user can configure the detector via the Ajax app for iOS, macOS, Windows, or Android. The app notifies the user of all events through push notifications, SMS, and calls (if activated).
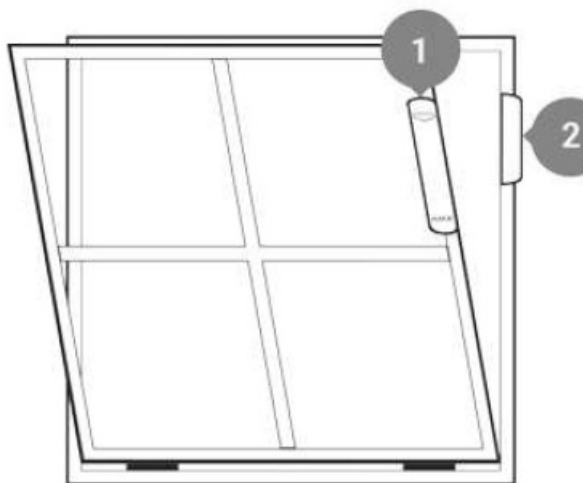
Functional Elements

1. DoorProtect Plus
2. Big magnet (should be placed to the right of the detector)
3. Small magnet (should be placed to the right of the detector)
4. LED indicator
5. SmartBracket attachment panel (perforated part triggers the tamper button in case of any attempt to tear off the detector from the surface)
6. External detector connection socket
7. QR code
8. Device switch
9. Tamper button

Operating Principle

DoorProtect Plus consists of two parts: the detector and the constant magnet. The socket for a third-party wired detector. Attach the detector to the door frame, while the magnet can be attached to the moving wing or sliding part of the door. If the sealed contact reed relay is within the coverage area of the magnetic field, it closes the circuit, which means that the detector is closed. The opening of the door pushes out the magnet from the sealed contact reed relay and opens the circuit. In such a way, the detector recognizes the opening. The DoorProtect Plus set includes two constant magnets. The small one works at a distance of 1 cm, and the big one – up to 2 cm. The detector can be positioned horizontally. If there is no need to detect an opening, use only the detector part (without magnets) and disable the primary detector in the settings. The accelerometer detects shocks and vertical deviation relative to the initial position of more than DoorProtect Plus can be installed on windows, including dormer windows, and the system can banned when they are slightly open (disable the primary detector in the settings previously)
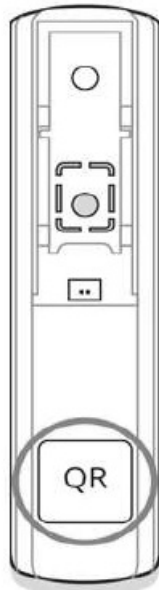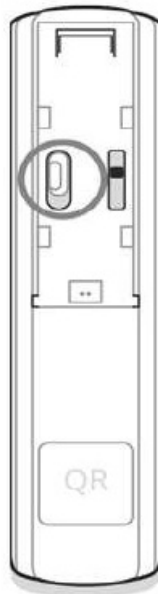

Connecting

Before starting connection

- Following the hub user guide, install the Ajax app. Create the account, add the hub, and create at least one room.
- Switch on the hub and check the internet connection (via Ethernet cable and/or GSM network).
- Make sure that the hub is disarmed and does not update by checking its status in the Ajax app.

How to connect the detector to the hub

1. Select Add Device in the Ajax app.
2. Name the device, scan or type the QR code (located on the detector body and packaging), and select the location room

3. Tap Add – the countdown will start.
4. Switch on the device.

For detection and pairing to occur, the detector should be located within the coverage area of the wireless network of the hub (at a single protected object). The connection request is transmitted for a short time: at the moment of switching on the device. If the device failed to pair (LED blinks once per second), switch it off for 5 seconds and retry. The detector connected to the hub appears in the list of devices in the app. The update of the detector statuses in the list depends on the device ping interval set in the hub settings (the default value is 36 seconds).

States

1. Devices
2. DoorProtect Plus

Jeweller Signal Strength	The signal strength between the hub and the detector
Battery Charge	Battery level of the device. Displayed as a percentage **How battery charge is displayed in Ajax apps**
Lid	The tamper mode of the detector, which reacts to the detachment of or damage of the body
Delay When Entering, sec	Entry delay (alarm activation delay) is the time you have to disarm the security system after entering the room **What is delay when entering**
Delay When Leaving, sec	Delay time when exiting. Delay when exiting (alarm activation delay) is the time you have to exit the room after arming the security system **What is delay when leaving**
ReX	Displays the status of using the radio signal range extender ReX
Connection	Connection status between the hub and the detector
Primary Detector	Indicates whether the opening sensor is active
External Contact	Status of the external detector connected to DoorProtect Plus
Always Active	Indicates whether the detector is always armed
Shock Sensor	Indicates whether the shock sensor is active
Tilt Sensor	Indicates whether the tilt sensor is active
Temporary Deactivation	Shows the status of the device temporary body. ● **Entirely** — the device is completely excluded from the system operation by the hub administrator. The device does not follow system commands and does not report alarms or other events. ● **By number of alarms** — the device is automatically disabled by the system when the number of alarms is exceeded (specified in the settings for Devices Auto Deactivation). The feature is configured in the Ajax PRO app. ● **By timer** — the device is automatically disabled by the system when the recovery timer expires (specified in the settings for Devices Auto Deactivation). The feature is configured in the Ajax PRO app.
Firmware	The detector firmware version
Device ID	Device identifier

SETTING

1. Devices
2. DoorProtect Plus

3. Settings

Setting	Value
First field	Detector name, can be edited
Room	Selecting the virtual room to which the device is assigned
	Selecting delay time when entering. Delay when

Setting	Value
Delay When Leaving, sec	Selecting the delay time when exiting. Delay when exiting (alarm activation delay) is the time you have to exit the room after arming the security system **What is delay when leaving**
Delays in Night Mode	Delay turned on when using Night mode **What is night mode**
Arm in Night Mode	If actived, the detector switches to armed state while Night mode is active. Kept in mind that in **Night mode**, all active sensor of the detector become armed. It is not possible to arm only certain sensors of the detector in **Night mode** (for example, only a tilt sensor)
Alarm LED indication	Allows you to disable the flashing of the LED indicator during an alarm. Available for devices with firmware version 5.55.0.0 or higher **How to find the firmware version or the ID of the detector or device?**
Primary Detector	If setting is active, the DoorProtect Plus primary detector reacts to opening/closing
External Contact	If setting is active, the detector registers external detector alarms
Shock Sensor	If active, shock-sensor will detect alarm after more than one impact
Sensitivity	Sensitivity level of the shock sensor
Ignore Simple Impact	If active, the detector ignores single hit

External Contact Enabled	Selecting the type of **external wired detector**
Time before alarm, sec (available for roller shutter motion detector only)	The time in seconds during which a given number of impulses should be counted. This time is counted after the first impulse of the detector.
Impulses before alarm (available for roller shutter motion detector only)	Number of detector impulses required to raise an alarm
Alert with a siren if opening detected	If active, **sirens added to the system** are activated when opening detected
Alert with a siren if an external contact is opened	If active, **sirens added to the system** are activated during an external detector alarm
Alert with a siren if shock detected	If active, **sirens added to the system** are activated during a shock alarm
Alert with a siren if tilt detected	If active, **sirens added to the system** are activated during a tilt alarm
Jeweller Signal Strength Test	Switches the detector to the signal strength test mode
Detection Zone Test	Switches the detector to the detection area test
Attenuation Test	Switches the detector to the signal fade test mode (available in detectors with **firmware version 3.50 and later**)
	Allows the user to disconnect the device without removing it from the system. Two options are available: • **Entirely** — the device will not execute system commands or participate in automation scenarios, and the system will ignore device alarms and other notifications

Indication

Event	Indication	Note
Switching on the detector	Lights up green for about one second	
Detector connection to the **hub**	Lights up continuously for a few seconds	
Alarm / tamper activation	Lights up green for about one second	Alarm is sent once in 5 seconds
Battery needs replacing	During the alarm, it slowly lights up green and slowly goes out	Replacement of the detector battery is described in the **Battery Replacement** manual

Performance testing

The Ajax security system allows conducting tests for checking the functionality of connected devices. The tests do not start immediately but within 36 seconds by default. The starting
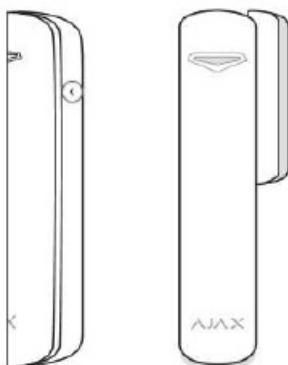
Installing the Detector

The location of DoorProtect Plus depends on its remoteness from the hub, and obstacles hindering the radio signal transmission: walls, floors, large objects inside the room. If the signal level is low (one bar), we cannot guarantee the stable operation of the detector. Take all possible measures to improve the quality of the signal. At least, move the detector: even a 20 cm shift can significantly improve the quality of signal reception. If the detector

has low or unstable signal strength even after moving, use a ReX radio signal range extender.

Do not install the detector:

1. outside the premises (outdoors);
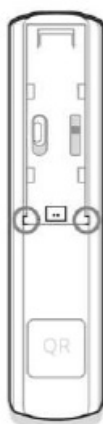2. nearby any metal objects or mirrors causing attenuation or screening of the signal;

Detector Testing

Having defined the location, fix the detector and magnet with the doubled adhesive tape and check Its operation of using the Detection Zone test. In the test mode. the DoorProtect Plus LED lights continuously, switching off for a second If the detector Is triggered. Check the correct operation of the device by opening/closing the door several times.

To put out the wire from the detector body, break out the plug

How to connect the roller shutter motion detector to DoorProtect Plus

Installation

- Fix the SmartBracket attachment panel using bundled screws. If you use any other attachment tools, make

sure that they do not damage or deform the attachment panel

- Put the detector on the attachment panel. When the detector is fixed in SmartBracket, it blinks with LED, signaling that the tamper is closed.
- If the door opens 10 times a day and the detector ping interval is 60 seconds, then DoorProtect Plus operates 7 years from the pre-installed battery. For instance, a 12- seconds ping interval reduces the battery life to 2 years.

How long Ajax devices operate on batteries, and what affects this

If the detector battery is low, the system notifies the user, and the LED indicator smoothly lights up and goes off if a glass break is detected or the tamper is triggered.

Tech specs

Detector actuation threshold	1 cm (small magnet) 2 cm (big magnet)
Tilt sensor activation threshold	5° or more (customizable)
Shock sensitivity	3 levels
Ignore first shock option	Yes
Tamper protection	Yes
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
Certification	Security Grade 2, Environmental Class II in conformity with the requirements of EN 50131-1, EN 50131-2-6, CLC/TS-50131-2-8, EN 50131-5-3

Complete Set

1. DoorProtect Plus
2. SmartBracket mounting panel
3. Battery CR123A (pre-installed)
4. Big magnet
5. Small magnet
6. Outside-mounted terminal clamp

Warranty

The full text of the warranty

User Agreement
Technical support: **support@ajax.systems**

Documents / Resources

AJAX DoorProtect Plus [pdf] User Manual
DoorProtect Plus