

AJAX AJAX DOOR PROTECT-B

Wireless DoorProtect Opening Sensor - User Manual

Model: AJAX DOOR PROTECT-B

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1. INTRODUCTION

The Ajax DoorProtect is a wireless opening detector designed to signal the first signs of intrusion into a room by detecting when a door or window is opened. It utilizes a high-quality reed switch that reacts to a magnetic field. This device can also function in transmitter mode, sending a signal from a wired sensor to the Hub.

The DoorProtect consists of two main modules: the sensor unit and a magnet. The package includes two magnets of different sizes to accommodate various installation scenarios.

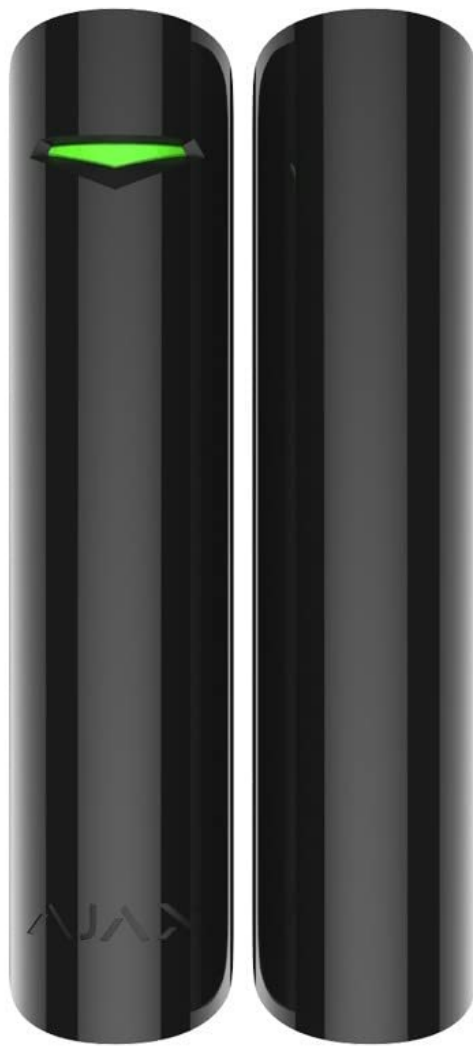


Figure 1: The Ajax DoorProtect sensor (left) and its magnetic component (right). The sensor unit features a green indicator light at the top and the Ajax logo at the bottom. Both components are black and cylindrical.

2. SETUP AND INSTALLATION

The Ajax DoorProtect is designed for quick and easy setup. The battery is pre-installed, eliminating the need to disassemble the detector before use.

2.1 Connecting to the Hub

1. Ensure your Ajax Hub is powered on and connected to the internet.
2. Open the Ajax mobile application on your smartphone or tablet.
3. In the application, navigate to the device addition section.
4. Follow the on-screen prompts to add the DoorProtect sensor. This typically involves scanning a QR code on the device or entering its ID manually.

5. With a simple click within the mobile application, the DoorProtect can be linked to your Hub.

2.2 Mounting the Device

The DoorProtect can be mounted on the SmartBracket in just a few minutes. It is suitable for installation on all types of doors and windows, including those with metal bases.

- Identify the desired installation location on your door or window frame.
- Mount the SmartBracket base plate securely using the provided screws.
- Attach the main sensor unit to the SmartBracket.
- Position the magnet component adjacent to the sensor unit. The set includes two magnets:
 - The large magnet should be installed at a maximum distance of 2 cm from the sensor.
 - The small magnet should be installed at a maximum distance of 1 cm from the sensor.
- Ensure proper alignment for reliable detection.

3. OPERATING INSTRUCTIONS

The DoorProtect operates by detecting the opening of doors or windows through the interaction of its reed switch with the magnetic field of the accompanying magnet.

3.1 Detection Principle

When the door or window is closed, the magnet is in close proximity to the sensor, keeping the reed switch in a specific state. Upon opening, the magnet moves away, changing the magnetic field and triggering the reed switch, which then sends an alarm signal to the Hub.

- **Alarm Signal Reception Time:** The Hub receives an alarm signal from the DoorProtect within 0.15 seconds of detection.
- **Transmitter Mode:** The device supports a transmitter mode, allowing it to relay signals from other wired sensors connected to it, extending the capabilities of your security system.

3.2 Jeweller Radio Technology

The DoorProtect utilizes Ajax's proprietary Jeweller radio technology for secure and reliable communication with the Hub.

- **Communication Range:** Up to 1200 meters in open space, ensuring wide coverage within your premises.
- **Bidirectional Communication:** Allows for constant feedback and status updates between the sensor and the Hub.
- **Operating Frequencies:** 868.0 - 868.6 MHz.
- **Self-Adjusting RF Output Power:** Up to 20 mW, optimizing power consumption and signal strength.
- **Data Encryption:** Packet data is encrypted based on the AES algorithm for enhanced security.
- **Sensor Polling Period:** The Hub checks the sensor's status at intervals of 12 to 300 seconds, configurable via the Ajax application.

3.3 Temperature Sensor

The DoorProtect includes a built-in temperature sensor, providing additional environmental monitoring capabilities.

4. MAINTENANCE

The Ajax DoorProtect is designed for minimal maintenance, offering long-term reliability.

4.1 Battery Life

The device is powered by a CR123A battery (3V) with an impressive lifespan of up to 7 years under typical operating conditions. Since the battery is pre-installed, there is no need to disassemble the detector for initial setup.

4.2 Environmental Conditions

To ensure optimal performance and longevity, operate the DoorProtect within the specified environmental limits:

- **Operating Temperature Range:** 5°C to 40°C.
- **Allowed Humidity:** Up to 75%.

4.3 Cleaning

Periodically wipe the device with a soft, dry cloth to remove dust and dirt. Avoid using abrasive cleaners or solvents.

5. TROUBLESHOOTING

If you encounter issues with your DoorProtect sensor, consider the following common troubleshooting steps:

- **No Detection:**
 - Verify that the magnet is positioned within the specified activation threshold (1 cm for small magnet, 2 cm for large magnet) when the door/window is closed.
 - Check the sensor's status in the Ajax mobile application to ensure it is online and communicating with the Hub.
- **Communication Issues:**
 - Ensure the DoorProtect is within the effective communication range of the Hub (up to 1200m in open space). Walls and obstacles can reduce this range.
 - Check for potential radio interference from other wireless devices.
 - Confirm the Hub is functioning correctly and has a stable internet connection.
- **Low Battery Indication:**
 - The Ajax application will notify you when the battery level is low. Although the battery has a long life, it will eventually need replacement.
 - While the battery is pre-installed, replacement instructions can be found in the full Ajax documentation or by contacting support.
- **Anti-Sabotage Triggered:**
 - The device features anti-sabotage protection. If an alarm is triggered due to tampering, ensure the device is securely mounted and not being interfered with.

For persistent issues, refer to the comprehensive Ajax security system documentation or contact Ajax technical support.

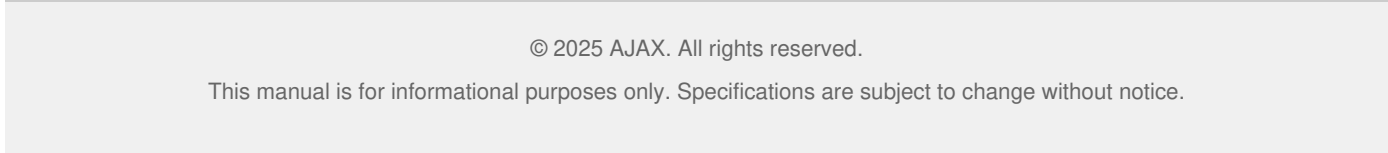
6. TECHNICAL SPECIFICATIONS

Detector Type	Wireless
Installation Method	Indoor




Compatibility	Works with Hub, Hub Plus, ReX, ocBridge Plus, uartBridge
Sensor Element	Reed switch
Alarm Signal Reception Time	0.15 s
Activation Threshold (Small Magnet)	1 cm
Activation Threshold (Large Magnet)	2 cm
Power Supply	CR123A battery, 3 V
Battery Life	Up to 7 years
Radio Technology	Jeweller
Communication Range (Open Space)	Up to 1200 m
Operating Frequencies	868.0 - 868.6 MHz
RF Output Power (Self-Adjusting)	Up to 20 mW
Data Encryption	AES algorithm
Sensor Polling Period	12 - 300 s
Temperature Sensor	Available
Operating Temperature Range	5°C to 40°C
Allowed Humidity	Up to 75%
Anti-Sabotage	Yes
Dimensions	Diameter: 20 mm, Height: 90 mm
Weight	29 g
Certification	Grade 2, CE

7. WARRANTY INFORMATION

The Ajax DoorProtect Wireless Opening Sensor comes with a **2-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by improper installation, misuse, unauthorized repairs, accidents, or natural disasters. For detailed warranty terms and conditions, please refer to the official Ajax website or contact customer support.



This manual is for informational purposes only. Specifications are subject to change without notice.

<p>DoorProtect user manual</p>  <p>DoorProtect is a wireless door and window opening detector designed for indoor use in the range of opening doors that feature openings. DoorProtect has a socket for connecting to external detectors.</p> <p>Technical details: DoorProtect is a wireless detector that is connected to the external detector via a socket. It is not a detector of external openings.</p> <p>DoorProtect operates within the Ajax system, connecting to the external detector via the Ajax system. Communication range is up to 100m in the line of sight. Using the gateways or satellite the range is unlimited. DoorProtect can be used as part of the Ajax security system.</p>	<p>DoorProtect User Manual: Wireless Door and Window Detector</p> <p>Comprehensive user manual for the Ajax DoorProtect, a wireless door and window opening detector. Learn about its features, installation, pairing, settings, and troubleshooting.</p>
<p>ReX User manual</p>  <p>ReX is a range extender of communication signals that expands the communication range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system.</p> <p>The device is configured via the Ajax app for iOS and Android smartphones. ReX is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system.</p> <p>The device is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system. ReX is used to extend the range of Ajax devices that work in the Ajax system.</p> <p><input type="checkbox"/> ReX range extender</p>	<p>Ajax ReX Range Extender User Manual and Setup Guide</p> <p>This user manual provides comprehensive information on the Ajax ReX, a radio signal range extender designed to expand the communication range of Ajax security devices. It covers functional elements, operation, connection, configuration, installation, maintenance, and technical specifications for optimal system performance.</p>
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