



AJAX CombiProtect Wireless Combined Motion and Glass Break Detector User Manual

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AJAX CombiProtect Wireless Combined Motion and Glass Break Detector

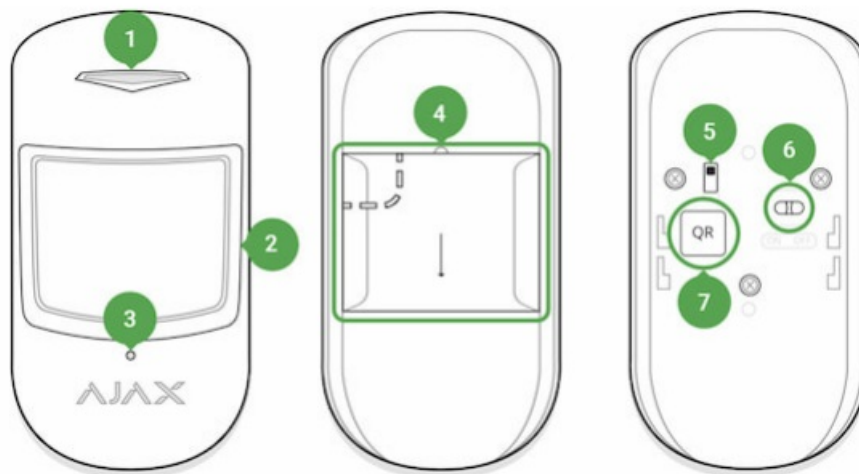


OVERVIEW

CombiProtect is a device combining a wireless motion detector with the viewing angle of 88.5° and distance up to 12 meters, as well as a glass break detector with the distance up to 9 meters. It can ignore animals and detects a person within the protected zone from the first step. It can operate for up to 5 years from a pre-installed battery and is used inside premises. CombiProtect operates within the Ajax security system, connected to the system via the protected protocol. The communication range is up to 1200 meters in the line of sight. In addition, the detector can be used as a part of third-party security central units via the integration modules. The detector is set up via a for iOS and Android based smartphones. The system notifies user of all events through push notifications, SMS messages and calls (if activated). The Ajax security system is self-sustaining, but the user can connect it to the central monitoring station of a private security company.

Functional Elements

1. LED indicator
2. Motion detector lens
3. Microphone hole
4. SmartBracket attachment panel (perforated part is required for actuating the tamper in case of any attempt to dismantle the detector)
5. Tamper button
6. Device switch
7. QR code



Operating Principle

CombiProtect combines two types of security devices – motion detector and glass break detector. Thermal PIR sensor detects intrusion into a protected room by detecting moving objects with a temperature close to the temperature of the human body. However, the detector can ignore domestic animals if the suitable sensitivity has been chosen in the settings. motion and glass break detector CombiProtect

CombiProtect does not detect glass breaking if the glass is covered with any lm:

shockproof, sunscreen, decorative or other. In order to detect the breaking of this type glass, we recommend using a wireless opening detector with shock and tilt sensor.

After actuation, the armed detector immediately transmits an alarm signal to the hub, activating the sirens and notifying the user and security company. To arm Ajax security system (including Ajax CombiProtect detector) you can use , key fob or . If before arming the system, the detector has detected motion, it will not arm immediately, but during the next inquiry by the hub.

Connecting the Detector to the Ajax security system

The detector is connected to the hub and set up via the Ajax Security system mobile application. To establish connection please locate the detector and the hub within the communication range and follow the device adding procedure.

Before starting connection:

DoorProtect Plus Ajax Security System app SpaceControl KeyPad

1. Following the hub manual recommendations, install the . Create an account, add the hub to the application, and create at least one room. Ajax application
2. Switch on the hub and check the internet connection (via Ethernet cable and/or GSM network).
3. Ensure that the Hub is disarmed and does not update by checking its status in the mobile application.

How to connect the detector to the hub:

For detection and pairing to occur, the detector should be located within the coverage of the wireless network of the hub (at a single protected object).

1. Select the Add Device option in the Ajax app.
2. Name the device, scan/write manually the QR Code (located on the body and packaging), and select the location room.



3. Select Add — the countdown will begin.
4. Switch on the device.



For detection and pairing to occur, the detector should be located within the coverage of the wireless network of the hub (at a single protected object). Request for connection to the hub is transmitted for a short time at the time of switching on the device. If connection to the Ajax Hub failed, switch off the detector for 5 seconds and retry. The detector connected to the hub will appear in the list of devices of the hub in the application. Update of the detector statuses in the list depends on the device inquiry time set in the hub settings, with the default value — 36 seconds.

Connecting the Detector to Third Party Security Systems

To connect the detector to a third party security central unit using the or integration module, follow the recommendations in the manual of the respective device.

States

1. Devices
2. CombiProtect

Parameter	Value
Temperature	Temperature of the detector. Measured on the process or and changes gradually
Jeweller Signal Strength	Signal strength between the hub and the detector
Battery Charge	<p>Battery level of the device. Displayed as a percentage</p> <p>How battery charge is displayed in Ajax apps</p>
Lid	The tamper mode of the detector, which reacts to the detachment of or damage to the body
Delay When Entering, sec	Delay time when entering
Delay When Leaving, sec	Delay time when exiting

ReX	Displays the status of using the ReX range extender	
Motion Detector Sensitivity	Sensitivity level of the motion detector	
Motion Detector Always Active	If active, the motion detector is always in the armed mode	
Glass Detector Sensitivity	Sensitivity level of the glass detector	
Glass Detector Always Active	If active, the glass detector is always in the armed mode	
Temporary Deactivation	<p>Shows the status of the device temporary deactivation function:</p> <p>No — the device operates normally and transmits all events.</p> <p>Lid only — the hub administrator has disabled notifications about triggering on the device body.</p> <p>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.</p> <p>By number of alarms — the device is automatically disabled when the number of alarms is exceeded (specified in the settings for Devices Auto Deactivation). The feature is configured in the Ajax PRO app.</p>	

Setting Up the Detector

1. Devices
2. CombiProtect
3. Settings

Setting	Value
First field	Detector name, can be edited

Room	Selecting the virtual room to which the device is assigned
Delay When Entering, sec	Selecting delay time when entering
Delay When Leaving, sec	Selecting delay time on exit
Delays in Night Mode	Delay turned on when using night mode
Arm in Night Mode	When turned on, the detector will switch to armed mode when using night mode
Alarm LED indication	<p>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</p> <p>How to find the firmware version or the ID of the detector or device?</p>
Motion Detector	If active, motion detector will be active
Motion Detector Sensitivity	<p>Choosing the sensitivity level of the motion detector:</p> <p>High Normal Low</p>

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)

Temporary Deactivation	<p>Allows the user to disconnect the device without removing it from the system.</p> <p>Two options are available:</p> <p>Entirely — the device will not execute system commands or participate in automation scenarios, and the system will ignore device alarms and other notifications</p> <p>Lid only — the system will ignore only notifications about the triggering of the device tamper button</p> <p>Learn more about temporary deactivation of devices</p> <p>The system can also automatically disable devices when the set number of alarms is exceeded.</p> <p>Learn more about auto deactivation of devices</p>
User Guide	Opens the detector User Guide
Unpair Device	Disconnects the detector from the hub and deletes its settings

Indication

Event	Indication	Note
Turning on the detector	Lights up green for about one second	
Detector connection to the hub , oc Bridge Plus and uartBridge	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, slowly lights up green and goes off	Replacement of the detector battery is described in the Battery Replacement manual

Detector Testing

The Ajax security system allows conducting tests for checking the functionality of connected devices. The tests do not start straight away but within a period of 36 seconds when using the standard settings. The time of the start depends on the settings of the detector polling period (the paragraph on “**Jeweller**” settings in the hub settings).

Jeweller Signal Strength Test

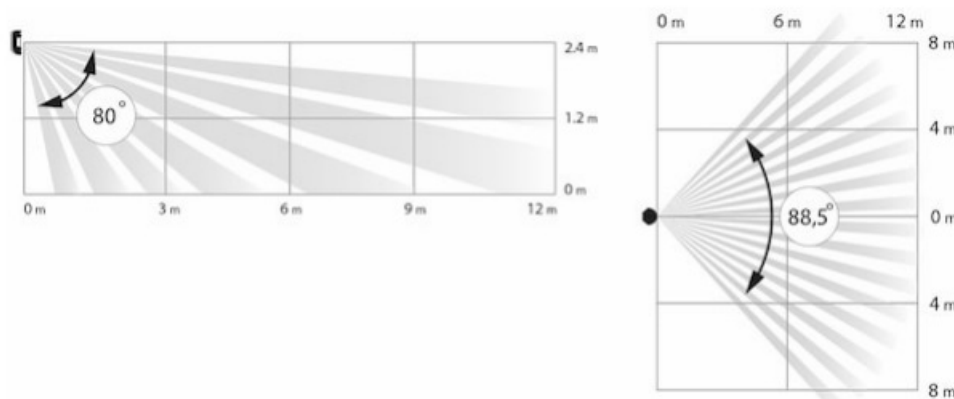
Detection Zone Test

- Glass break detection zone
- TestMotion detection zone Test

Installing the detector

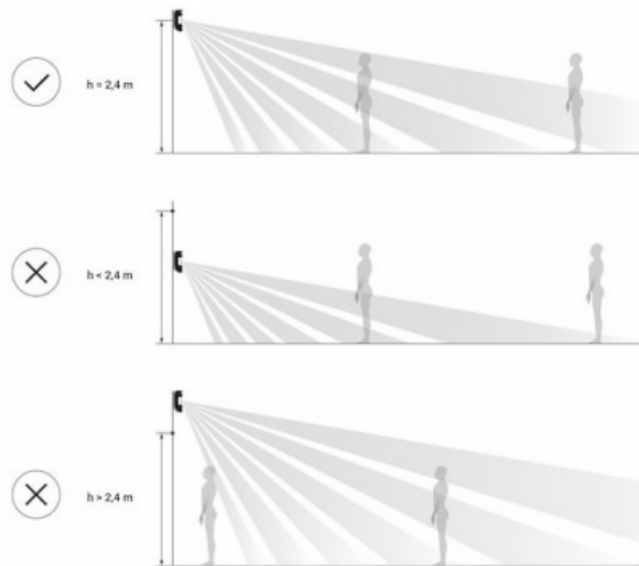
Selection of the installation site

The controlled area and the efficiency of the security system depends on the location of the detector. Location of the CombiProtect depends on the remoteness from the hub and presence of any obstacles between the devices hindering the radio signal transmission: walls, inserted floors, large-size objects located within the room. If the signal level is at one bar, we cannot guarantee stable operation of the security system. Take all possible measures to improve the quality of the signal! As a minimum, move the device – even 20 cm shift can significantly improve the quality of reception



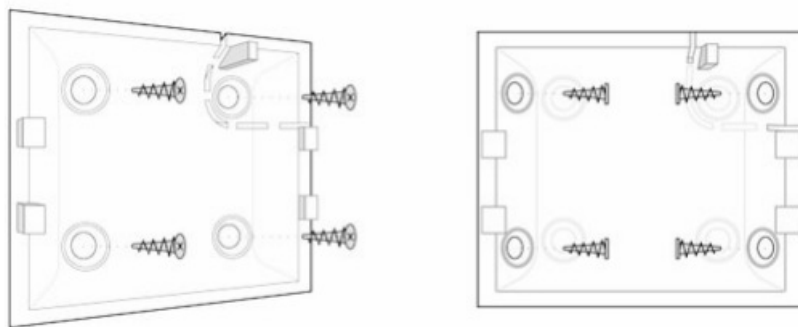
The direction of the detector lens should be perpendicular to the probable way of intrusion into the room. The detector microphone should be positioned at the angle of no more than 90 degrees relative to the window. Make sure that any furniture, domestic plants, vases, decorative or glass structures do not block the field of view of the detector. We recommend installing the detector at the height of 2.4 meters. If the detector is not installed at the recommended height, this will reduce the area of the motion detection zone and impair the operation of the function of ignoring animals

Why motion detector react to animal;s and how to avoid it



Installation of the detector

Before installing the detector, make sure that you have selected the optimal location and it is in compliance with the guidelines contained in this manual. CombiProtect detector can be attached to a vertical surface or in a corner.



1. Attach the SmartBracket panel to the surface using bundled screws, using at least two xing points (one of them – above the tamper). If you select other attachment hardware, make sure that they do not damage or deform the panel.
2. Put the detector on the attachment panel. When the detector is xed in SmartBracket, it will blink with an LED — this will be a signal that the tamper on the detector is closed.

If the light indicator of the detector is not actuated after installation in SmartBracket, check the tamper mode in the and then the xing tightness of the panel. If the detector is torn off from the surface or removed from the attachment panel, you will receive the motivation.

Do not install the detector:

1. outside the premises (outdoors);
2. in the direction of the window, when the detector lens is exposed to direct sunlight;
3. opposite any object with the rapidly changing temperature (e.g., electrical and gas heaters);
4. opposite any moving objects with the temperature close to that of the human body (oscillating curtains above the radiator);
5. opposite any reective surfaces (mirrors);

6. at any places with fast air circulation (air fans, open windows or doors);
7. nearby any metal objects or mirrors causing attenuation and screening of the signal;
8. within any premises with the temperature and humidity beyond the range of permissible limits;
9. closer than 1 m from the hub.

Detector Maintenance

Check the operational capability of the CombiProtect detector on a regular basis. Clean the detector body from dust, spider web and other contaminations as they appear. Use soft dry napkin suitable for equipment maintenance. Do not use for cleaning the detector any substances containing alcohol, acetone, gasoline and other active solvents. Wipe the lens very carefully and gently – any scratches on the plastic may cause reduction of the detector sensitivity. The pre-installed battery ensures up to 5 years of autonomous operation (with the inquiry frequency by the hub of 3 minutes). If the detector battery is discharged, the security system will send respective notices and the LED will smoothly light up and go out, if the detector detects any motion or if the tamper is actuated. To change the battery, switch off the device, loosen three screws and remove the front panel of the detector. Change the battery for a new one of type CR123A, observing the polarity

Tech Specs

Sensitive element	PIR sensor (motion) electret microphone (glass break)
Motion detection distance	Up to 12 m
Motion detector viewing angles (H/V)	88.5° / 80°
Time for motion detection	From 0.3 to 2 m/s
Pet immunity	Yes, weight up to 20 kg, height up to 50 cm Why motion detectors react to animals and how to avoid it >
Glass break detection distance	Up to 9 m

Microphone coverage angle	180°
Tamper protection	Yes
Frequency band	868.0 – 868.6 MHz or 868.7 – 869.2 MHz depending on the region of sale
Compatibility	Operates with all Ajax hubs, range extenders, ocBridge Plus, uartBridge
Maximum RF output power	Up to 20 mW
Radio signal modulation	GFSK
Radio signal range	Up to 1,200 m (any obstacles absent)
Power supply	1 battery CR123A, 3 V
Battery life	Up to 5 years
Installation method	Indoors
Operating temperature range	From -10°C to +40°C
Operating humidity	Up to 75%
Overall dimensions	110 × 65 × 50 mm
Weight	92 g
Certification	Security Grade 2, Environmental Class II in conformity with the requirements of EN 50131- 1, EN 50131-2-7-1, EN 50131-2-2, EN 50131-5-3

Complete Set


1. CombiProtect
2. SmartBracket mounting panel
3. Battery CR123A (pre-installed)
4. Installation kit
5. Quick Start Guide

Warranty

Warranty for the “AJAX SYSTEMS MANUFACTURING” LIMITED LIABILITY COMPANY products is valid for 2 years after the purchase and does not apply to the pre-installed battery.

Technical support: The full text of the warranty User Agreement support@ajax.systems

Documents / Resources

 <p>CombiProtect is a 2-in-1 wireless motion and glass break detector with the mounting bracket and 3 AAA batteries. It is designed to be installed in a secure location with the detector up to 10 meters from the protected area. It is a compact, white, cylindrical device with a mounting bracket and 3 AAA batteries. It is designed to be installed in a secure location with the detector up to 10 meters from the protected area.</p> <p>CombiProtect operates within the Ajax security system, connected to the base station via a radio signal. The detector is designed to be installed in a secure location with the detector up to 10 meters from the protected area.</p> <p>The detector is not an alarm system and is not a security system. It is a detector only and is not a security system. It is a detector only and is not a security system.</p> <p>The Ajax security system is a security system and is not a security system. It is a security system and is not a security system.</p>	<p><u>AJAX CombiProtect Wireless Combined Motion and Glass Break Detector</u> [pdf] User Manual</p> <p>CombiProtect Wireless Combined Motion and Glass Break Detector</p>
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