AJAX GlassProtect

1. FEATURES

Wireless sensor Ajax GlassProtect is designated for glassbreak detection indoors. It functions as a part of Ajax security system.

2. SPECIFICATIONS

SPECIFICATION	MEANING
Sensor type	wireless
Uses	indoors
Detecting element	electret microphone (glassbreak)
Glassbreak detection distance	up to 9 m (29.5 ft)
Glassbreak sensitivity	3 levels adjustable (low, medium, high)
Detection angle	180°
Tamper protection	available
Radio signal power	20 mW
Radio-frequency range	868 MHz (Europe); 915 MHz (USA)
Maximum distance between sensor and central unit	2000 m (6552 ft) (open area)
Power supply	CR123A battery
Power supply voltage	3V
Battery life	Up to 7 years
Operation temperatures range	from 0°C (+32°F) to +50°C (+122°F)
Operation humidity	up to 90%
Dimensions	Ø20x90 mm (0.78x3.54 in)

3. COMPONENTS

GlassProtect sensor, external contact, battery CR123A, installation set, manual

4. SETTING-UP PROCEDURES

4.1 Before installing the sensor, it is required to register it with the Ajax security system. In order to register the sensor, it is necessary to switch the Ajax security system's receiver to «Add Device» mode (the receiver's manual explains how to accomplish it) and to put the switch «2» (PICTURE 3) on the sensor to the «ON» position. Sensor's light must blink at the moment of switching on. The registration request is transmitted at the moment the sensor is switched on only. In case the registration was not successful, switch off the sensor, wait for 5 seconds and switch it on again. If the sensor's light blinks constantly (each second during one minute), it means that the sensor is not registered. The light blinks in the same way if the sensor is deleted from the registration list. Non-registered sensor blinks also throughout 3 seconds during each activation.
4.2 Having registered the sensor successfully, select an appropriate location to install it.
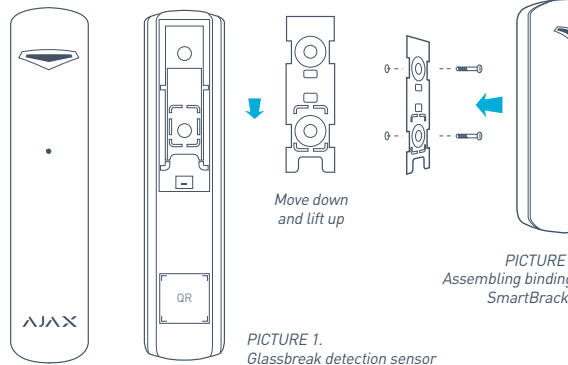
> ⚠ **ATTENTION!**
> Make sure that in the installation location sensor has a stable radio contact with the central unit or the receiver! A maximum distance of 2000 m (6562 ft) between the

sensor and the receiver is mentioned as a comparison with other devices. This distance was found as a result of open area tests. Connection quality and distance between the sensor and the receiver can vary depending on installation location, walls, compartments, bridgings, as well as the thickness and constructional material. Signal coming through obstacles, loses power. For example, distance range between the sensor and receiver, divided with two reinforced concrete bearing walls, constitutes approximately 30 m (98.4 ft). Please note that moving the sensor even 10 cm (3.9 in), it is possible to improve the signal reception considerably.

RECEIVER	SENSOR'S LIGHT EMITTING DIODE	DESCRIPTION
3 indication bars	lights almost permanently, with short breaks each 1.5 seconds	excellent signal
2 indication bars	blinks 5 times per second	medium signal
1 indication bar	blinks twice per second	low signal
0 bars	short flashes each 1.5 seconds	no signal

5. INSTALLATION

5.1 Install the sensor in the location you have chosen, with the microphone turned to the window. Before final assembling, it is required to check the sensor's functioning in the assumed assembling location (paragraph 4.2)! Do not install the sensor near the points of powerful air circulation or near the doorbells of more than 5 cm (1.97 in) in diameter.

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PICTURE 1.
Glassbreak detection sensor

Move down and lift up

PICTURE 2.
Assembling bindings SmartBracket

5.2 In order to install the sensor, move the plastic fastening clip SmartBracket (PICTURE 1) alongside the frame and remove it.

> ⚠ **ATTENTION!**
> Be careful while SmartBracket installing. Overexertion while installing can cause deformation and, as a result, impossibility to install the sensor or to its unreliable

Be careful while SmartBracket installing. Overexertion while installing can cause deformation and, as a result, impossibility to install the sensor or to its unreliable fastening. Fix the SmartBracket with the set's assembling units only! Other fixing system use, for example, self-tapping screws of big diameter, can damage fastening clip. Together with self-tapping screws, there is a double stick tape in the set. It can be used for temporary sensor fixing only. It is recommended not to use the tape for the permanent fixing, as the tape is drying up over a time and the sensor may fall down which can interfere with its functions or even cause a breakdown.

5.3 Install the fastening clip SmartBracket on the wall with a help of the expansion bolts and self-tapping screws included in the set (PICTURE 2). The sensor is not to be fastened directly to the glass!

5.4 Put the sensor on the SmartBracket. Once the sensor is fixed on the SmartBracket, its light must blink. It means that the tamper on the sensor is shut. In case the sensor does not blink, the tamper status must be checked at the receiver configuration software!

5.5 The sensor is installed!

5.6 Make sure that curtains, house plants, furniture and other objects do not cover the sensor's microphone. Its small opening is on the front panel. In case there are curtains of dense texture on windows, the sensor is to be installed between the curtains and the window, for example on window jamb. Otherwise, the curtains might silence the sound of glass crash sound.
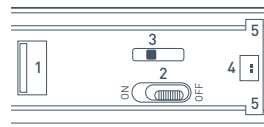
5.7 With a help of receiver's configuration software, select the necessary level of the sensor's sensitivity. It is necessary that the sensor will not react to the background noise in the room. To perform a check, the device imitating the high-frequency glass breaking sound is necessary. In case there is no such device, a light metal object can be used, such as a spoon. With configuration application, choose detection zone test to put the sensor to the detection zone test mode (the receiver's manual explains how to accomplish it). In the detection zone test mode, the sensor's light is on permanently, switching off when the alarming sound is registered – it is very easy to observe. In order to check the sensor, fist a solid surface (preferably a glass one, without breaking it). The sensor must react to a low-frequency sound by switching off the light for 0.2 seconds. When it happens, during 1.5 seconds throw a metal object (such as a spoon) to the solid surface or tap the glass with a spoon. The sensor will switch off the light for one second. It means that in security mode the sensor will react to the glass breaking. Reduce the sensor's sensitivity and repeat the check until the sensor stops reacting to alarming sounds. Then, get back to the previous sensitivity level when the sensor was reacting normally. Thus, the sensor's false triggering probability is reduced and the reliable protection is guaranteed. For the maximum protection from the false triggering, switch on all devices which normally function in the room – generator units, air-conditioning, etc. In a case, these devices' turning on from time to time provokes the sensor's triggering, the location for its installation should be chosen more carefully.

5.8 In order to connect an additional wire opening sensor, plug in its wire to the socket "4" (PICTURE 3) and pass the wire through the opening of the main unit having broken out the cover 5 on the body frame (PICTURE 3).

5.9 In "security" mode if the glassbreak is detected, the sensor sends the alarm signal not more frequently than once in 5 seconds switching on the light simultaneously.

1 – Front cover trigger
2 – Switch
3 – Tamper button
4 – Socket for wire sensors' connection
5 – Cover on the board for the wire of wire sensors

PICTURE 3. Sensor's backboard

6. MAINTENANCE

6.1 Maintenance is done once every 6 months. The sensor's board must be cleared of dust, spider web, and other eventual impurities.

6.2 Replace the batteries up to date. If the battery level is low, the sensor sends an appropriate signal to the alarm system receiver unit. When the battery has run down, the sensor once in an hour turns on the light and turns it off placidly. The same indication is observed when the tamper triggers. In order to replace the battery, undo the trigger "1" (PICTURE 3) and remove the sensor's front cover. Replace the battery with a new one, type CR123A observing the polarity. Having replaced the battery, make sure to check the sensor's working capacity!

7. WARRANTY

7.1 The sensor's warranty period is 24 months. The warranty does not cover the battery!

8. VIDEO GUIDE

8.1 A detailed video guide for Ajax GlassProtect glassbreak detection sensor assembling and assessing is available online on our website.