JA-162PB, JA-162PB-GR, JA-162PB-AN Wireless combined PIR motion and glass-break detector

TYPE: 5PIRGBS2202OQ

*This device is a component of the **JABLOTRON** system. It is used for the detection of movement in building interiors and for the detection of breaking glass windows. This detector combines two sensors (PIR motion & GBS acoustic) in one housing. The detector occupies two positions in the system. The detector uses a Passive Infra-Red sensor for movement detection. Breaking glass is detected by a Glass Break sensor, which analyses air pressure changes and sounds to detect the breaking of a glass window. The detector should be installed by a trained technician with a valid certificate issued by an authorized distributor. **This device is compatible with JA-103K, JA-107K, JA-102K, JA-152K control panel units and upper models.***

Installation

The detector can be installed on the wall or in the corner of a room. It is important that there should be no objects which quickly change temperature (e.g. heating appliances) or which move (e.g. curtains hanging above a radiator, robotic vacuum cleaners, pets) in the detector's field of view. It is not recommended installing the detector opposite to windows or in places with intense air circulation (close to ventilators, heat sources, air conditioning outlets, unsealed doors, etc.). There should be no obstacles in front of the detector which might obstruct its view of the protected area.
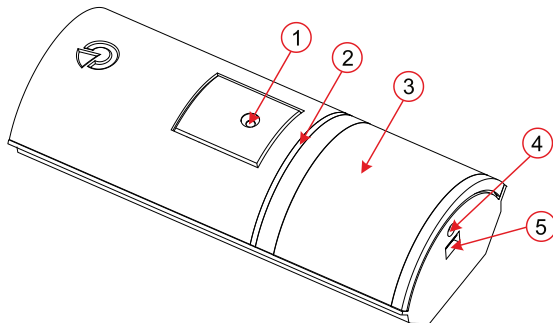

Fig 1: 1 – Glass Break sensor; 2 – LED indicator; 3 – PIR sensor lens; 4 – locking screw hole; 5 – cover tab

1. Open the detector cover (by pushing the cover tab (5). Avoid touching the PIR sensor inside (13) – it could be damaged.
2. Remove the locking screw (8) Take out the PCB – it is held by a tab (15).
3. The recommended installation height is 2.5 m above the floor.
4. Attach the plastic base to the wall using screws (vertically, with the cover tab facing downwards).
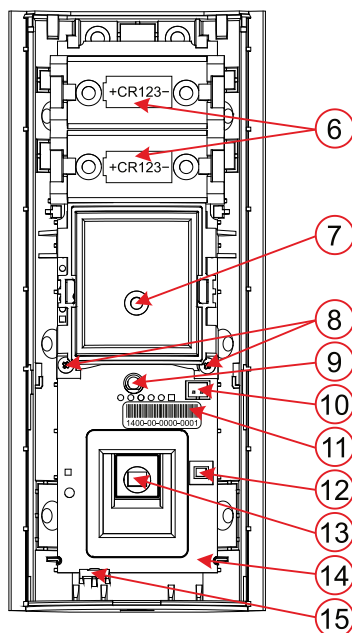5. Re-insert the PCB and secure it with a locking screw (8) and a tab (15).

Fig 2: 6 – Battery holder; 7 – GBS sensor; 8 – GBS module locking screws; 9 – LED indicator; 10 – external tamper connector; 11 – serial number; 12 – tamper switch; 13 – PIR sensor; 14 – PCB; 15 – PCB tab

6. Proceed according to the control panel installation manual.
   Basic procedure:
   a. The control panel must contain already enrolled JA-11xR radio module.
   b. Go to the **F-Link** software, select the required position in the **Devices** tab and launch the enrolment mode by clicking on the **Enroll** option.
   c. Insert the batteries (6; mind the correct polarity), an enrollment signal is transmitted to the control panel and the detector is enrolled to the selected position.
7. Close the detector cover and test its functionality.
8. Set the device parameters according to the *Internal settings* section

Notes:

- *The detector can be enrolled by entering the production code (11) in the F-Link software (or a bar code reader). Enter all digits located below the bar code (1400-00-0000-0001).*
- *If you want to remove the detector from the system, erase it from its position in the control panel. In case that only the GBS part (B) is removed, the PIR remains functional.*
- *In order to increase white light immunity, it is possible to utilize a grey PIR lens JS-LT82601B.*

Detector communication with the system

The detector is equipped with bi-directional asynchronous communication with the JA-11xR radio module which enables changing the internal settings with ease (just as it is with BUS detectors) while taking into account battery lifetime in normal operational mode.

When the detector is enrolled to the control panel it works in the so-called *accelerated 90-second mode* until Service mode is terminated (up to 24 h). The detector performs a check every 90 s to monitor whether the control panel remains in Service mode, whether it should apply new settings or should the LED light indicate motion during a walk test.

In the normal operational mode, the detector communicates periodically with the control panel 1x every 20 minutes. Therefore, it may take the detector up to 20 minutes to realize the control panel was switched to Service mode or to save changes made in the internal settings. This period of time can be shortened by triggering the detector which will switch it to the accelerated 90-second mode immediately (moving in front of it, opening it = triggering the tamper contact).

Important:

It is not necessary to wait for 90 s (or 20 minutes) for the detector to confirm a request to save the changes made in the internal settings. The control panel remembers such changes and transfers them to the detector the next time a periodical communication session occurs.

Property settings

Open the **F-Link** software, go to the **Devices** tab. Click on the **Internal settings** option at the siren's position to open a dialogue window where you can set the following options: (***** indicates default settings).

PIR Immunity level – Determines immunity to false alarms. The *Standard** level combines basic immunity with a rapid reaction. The *High* level provides increased immunity, but the detector reaction is slower.

Glass break sensitivity: adjusts the sensitivity to pressure change may be adjusted by a slider.

Operating mode: *Smartwatch** is a setting intended for the permanent monitoring of movement in the guarded area. If a permanent movement is detected, three reports are sent every 20 s. The next report is then sent after 2 minutes. If the detector does not detect any movement for 10 minutes, the mode with three reports every 20 s is used again.

The other available detector mode is *one minute interval**. When the detector detects a movement, it sends a report and is switched into standby mode for 1 minute. When 1 minute runs out, the detector wakes-up and remains active until it is triggered by movement again. The settings remain the same after the batteries are replaced.

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Sensor of tearing-off from the wall: turns on/off the monitoring of an optional additional tamper contact on a JA-191PL joint holder.

Detection characteristics

The standard lens that is supplied with the JA-162PB detector covers an area of 90 degrees /12 m– see the following figure 3.
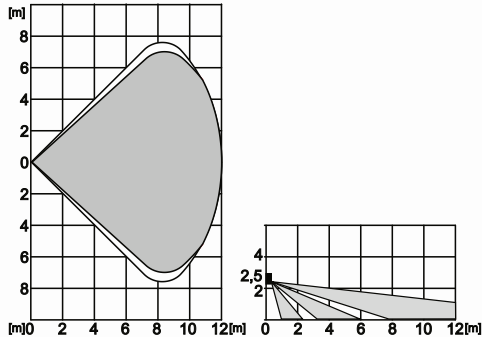

Figure 3: Detection characteristics of PIR detector
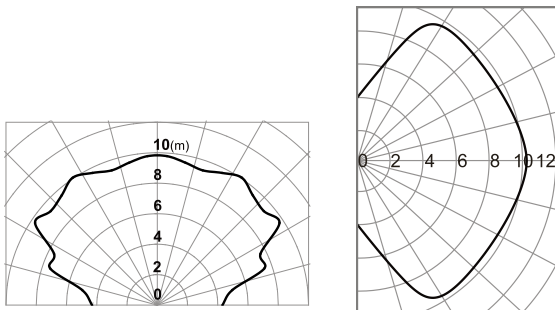

Fig 4: Detection characteristics of the GBS sensor.

Detector with a white lens (JA-162PB) offers standard protection against white light as required by regulation (up to 6000 Lux). Detector with a grey (JA-162PB-GR) and black (JA-162PB-AN) lens offer increased protection against white light, well above the limits given by regulation (up to 10000 Lux).

<u>*Note:*</u> *when utilizing an alternative lens, test whether the detector covers the area correctly (an incorrectly installed lens can cause detection errors).*

Detector testing

While in service mode, the detector indicates each activation with its LED indicator. Once service mode is exited, the device enters normal operation. During normal operation, LED indication is off, including fault indication – yellow LED indication. Each activation may be viewed within the **F-Link** software, within the **Diagnostics** tab.

Battery replacement

The control panel automatically detects and reports low battery status. We recommend replacing the batteries within two weeks of the low battery status being reported. The batteries should be replaced by a service technician while the control panel is in Service mode. Always replace both batteries!

After battery removal, it is necessary to wait for at least 10 s or close the detector without batteries before replacing them (this will activate the tamper contact (12) and discharge the remaining energy).

<u>*Notes:*</u>
- *If you insert an discharged battery, the detector immediately detects it and starts indicating low battery status during the stabilization period (at least 15 s).*
- *The battery status can be monitored in the Diagnostics tab in the F-Link software.*
- *In order to make sure the detector works correctly, we recommend using the batteries supplied by a distributor (BAT-3V0-CR123A) or other quality lithium batteries.*
- *Do not discard the battery into the trash; dispose of it at a waste collection point.*

Technical parameters

Power	2x Lithium battery CR123A (3.0 V/1.5 Ah)
	Please note: Batteries are not included.
Typical battery lifetime	approx. 3 years
Low battery voltage	<2.7 V
Quiescent current consumption	50 uA
Maximal current consumption	50 mA
Communication band	868.1 MHz, protocol JABLOTRON
Maximum radio-frequency power (ERP)	<25 mW
RF range	500 m (open area)
Recommended installation height	2.5 m above the floor
PIR detection angle/range	90°/12 m
GBS detection angle/range	90°/9 m
Dimensions	150 x 63 x 40 mm
Weight (w/o batteries)	135 g
Classification	Security grade 2/Environmental class II
	(According to EN 50131-1)
Environment	indoor general
Operating temperature range	-10 °C to +40 °C
Average operational humidity	75% RH, w/o condensation
Certification body	Trezor Test s.r.o. (no. 3025)
In compliance with	ETSI EN 300 220-1,2, EN 50130-4, EN 55032,
	EN IEC 62368-1, EN IEC 63000, EN 50131-1, EN 50131-2-2,
	EN 50131-2-7-1, EN 50131-5-3, EN 50131-6.
Can be operated according to	ERC REC 70-03
Recommended screw	2 x ⌀ 3.5 x 40 mm (countersunk head)

JABLOTRON ALARMS a.s. hereby declares that product 5PIRGBS2202OQ is in a compliance with the relevant European Union harmonisation legislation: Directives No: 2014/35/EU, 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com – the Downloads section.

Note: Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.