JA-155P Wireless ceiling PIR motion detector

*The detector is a wireless device of the **JABLOTRON** series. It is intended to be used for movement detection in building interiors. The detector should be installed on a ceiling. Its guaranteed detection coverage is 360° with a radius of up to 5.5 metres when installed 3.5 metres above the floor. False alarm immunity is configurable at two levels. The detector has a pulse reaction, takes one position in the system and it should be installed by a trained technician with a valid certificate issued by an authorized distributor.* ***This product is compatible with the JA-102K, JA-103K, JA-107K and JA-152KR control panels.***

Installation

It is necessary to take into consideration that there should be no obstacles in the detector's view which quickly change temperature (electrical heaters, gas appliances, etc.), which move (e.g. curtains hanging above a radiator, robotic vacuum cleaners); or any undesirable movement of house pets. Despite the detector being very resistant to false alarms, it is not recommended to install the detector opposite windows, floodlights or in places with over-intense air circulation (close to ventilators, heat sources, air conditioning outlets, unsealed doors, etc.). There should be no obstacles in front of the detector obscuring its view over the monitored space.

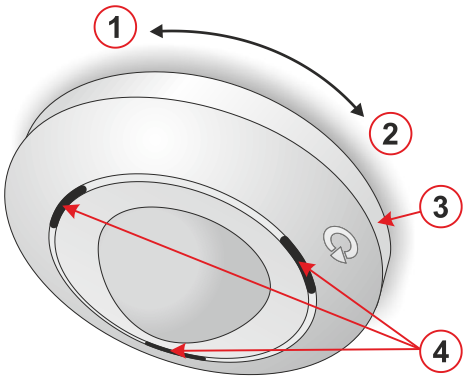

Figure 1: ***1*** *– release direction;* ***2*** *– fixing direction;*
3 *– hole for a fixing screw;* ***4*** *– Indication LEDs*

1. Turn the top part counterclockwise (1) to open up the detector.
2. Attach the detector base to a selected place on a ceiling.
3. **Follow the instructions stated in the control panel installation manual.** Basic procedure:
   a. Open the F-Link software, select an unused position in the ***Devices*** tab and click on the *Enrol* button to enter the *Enrolment mode*.
   b. **Inserting the first battery** will send an enrolment signal to the control panel – the yellow LED (4) will light up until the detector has been enrolled. The LED switching off serves as confirmation of the detector being successfully enrolled to the selected position in the control panel (mind the correct polarity of the batteries in the battery holder).
   c. When a battery is inserted, 4 red LED indicators will also light up to indicate the detector is being stabilized (up to 1 minute).
   d. **Insert the second battery** into the battery holder.

We recommend always using the detector with two CR123A type batteries!

4. Attach the detector back onto its base and fasten it by turning it clockwise (2). The detector can only be attached at one position marked by alignment arrows and also the JABLOTRON logo (5) on both parts.
5. In order to comply with norms and their requirements, it is necessary to attach the top part to the base (3) using a fixing screw included in the packaging.
6. Configure the detector by following the instructions in the *Property settings* section.

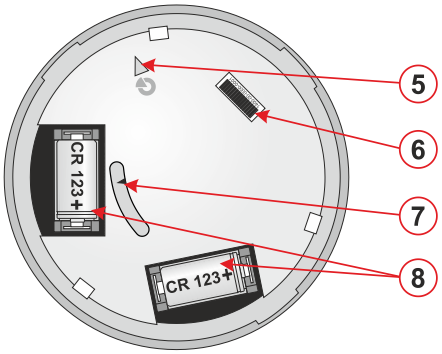

Figure 2: 5 – alignment arrow / logo; 6 – serial number;
7 – tamper contact; 8 – battery holders

Notes:

- *The detector can also be enrolled into the system by entering its production code in the F-Link software. You can find the production code on the sticker placed inside the detector (6). All numbers under the bar code shall be entered (1400-00-0000-0001).*
- *If you want to remove the device from the system, erase it from its position in the F-Link software.*

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 shorten 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).

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.

Operational 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.

Detector testing

When in Service mode, the LED indicators in the detector indicate every movement. Upon leaving Service mode, the detector switches to an operating mode selected in the internal settings. Triggering the detector can be monitored in the ***Diagnostics*** tab in the **F-Link** software.

The LED indicators, including the yellow fault indicator, are disabled in normal operating mode.

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 (7) and deplete the remaining charge).

Notes:

- *If you insert a depleted 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.*

JABLOTRON a.s.
Pod Skalkou 4567/33 | 46601 | Jablonec n. Nisou
Czech Republic | www.jablotron.com

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Detection characteristics

The detector is fitted with a 360° lens which covers the monitored space with 3 main circular zones separated into 64 beams. The lens cannot be replaced by a different type.

The maximum recommended installation height is 3.5 m (installing the detector higher will lead to a lower sensitivity underneath the detector).

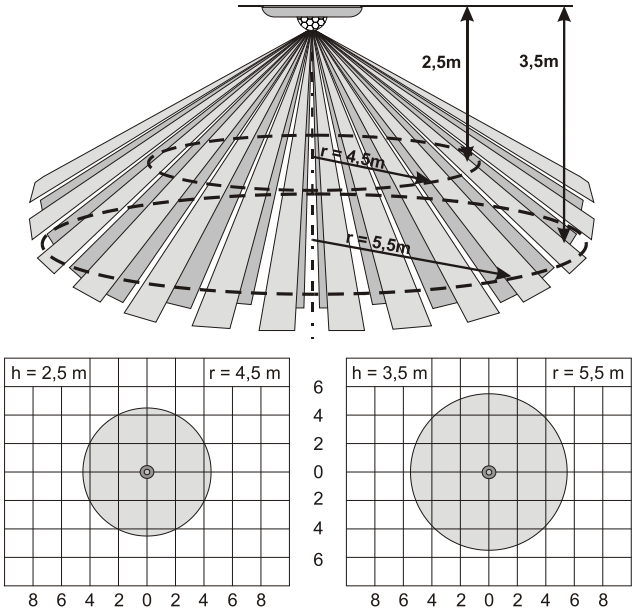

Figure 3: The above diagrams apply only to the standard immunity level.

Technical specifications

Power	*2x Lithium battery, type CR123A (3 V / 1.4 Ah)*
	Please note: Batteries are not included.
Number of batteries	*1 pcs / 2 pcs*
Battery lifetime (in smartwatch mode)	*2 years / 4 years*
Low battery voltage	*< 2.4 V*
Quiescent current consumption	*30 µA*
Maximum current consumption	*85 mA*
Recommended installation height	*2.5-3.5 m above the ground level*
Detection angle/detection coverage	*360° / 10 m (at 3 m installation height)*
Dimensions	*Ø 125 x 40 mm*
Weight (without batteries)	*134 g*
Communication frequency	*868.1 MHz, JABLOTRON protocol*
Maximum radiofrequency power (ERP)	*<25 mW*
Classification	*security grade 2 / environmental class II (according to EN 50131-1)*
Environment	*indoor general*
Operating temperature range	*-10 °C to +40 °C*
Average operating humidity	*75% RH, non-condensation*
Certification body	*Trezor Test s.r.o. (no. 3025), Kiwa Nederland b. v.*
Complies with	*EN 50131-1, -2-2, -5-3, -6, ETSI EN 300 220-1,-2, EN IEC 62368-1, EN 50130-4, EN 55032, EN IEC 63000, T 031*
Can be operated acoording to	*ERC 70-03*
Recommended screw	*2x ø 3,5 x 40 mm (countersunk head)*

JABLOTRON a.s. hereby declares that the JA-155P detector 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.