JA-150P Wireless PIR motion detector

*The JA-150P product is a component of the **JABLOTRON** system. It detects of human movement in building interiors. Its detection characteristics can be modified by using an alternative lens. False alarm immunity is available in two levels. The detector has a pulse reaction (only reports its triggering), uses wireless communication and is powered with two alkaline batteries. The detector should be installed by a trained technician with a valid certificate issued by an authorized distributor.*

Installation

The detector can be installed onto a wall or in the corner of the room. There should be no objects which quickly change temperature (electric heaters, gas appliances, etc.) or which move (e.g. curtains hanging above a radiator) or pets in the detector's field of sight. It is not recommended to install the detector opposite windows or floodlights or in places with over-intense air circulation (close to ventilators, heat sources, air conditioning outlets, non-airtight doors, etc.). There should be no obstacles in front of the detector which might obstruct its view.

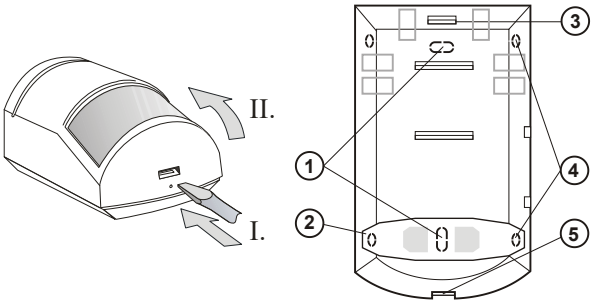


Figure: 1 – holes for installing on a flat wall; 2, 4 – holes for installing at an angle (in a corner); 3 – PCB tab; 5 – cover tab

1. **Open the detector cover** (by pushing the tab 5). Avoid touching the PIR sensor inside (11) – you could damage it.
2. **Take out the PCB** – it is held by a tab (3).
3. **Punch through the holes** for the screws in the plastic base and attach it on the wall. The recommended detector installation height is 2.5 m above the floor.
4. Set the *Immunity* jumper (8) as required – see the detector settings.
5. **Insert the PCB back** and proceed further according to the control panel installation manual. Basic procedure:
   a. There must be a JA-11xR radio module installed in the control panel.
   b. Go to the **F-Link** program, select the required position in the ***Devices*** window and launch the enrollment mode by clicking on the *Enroll* option.
   c. Insert the batteries (mind the correct polarity). When the second battery has been inserted into the detector, an enrollment signal is transmitted to the control panel and the detector is enrolled to the selected position. This is followed by up to three minute detector stabilization phase indicated with LED indicator flashing.
6. Close the detector cover. In order to comply with norms, the cover tab (4) must be secured with the supplied screw.

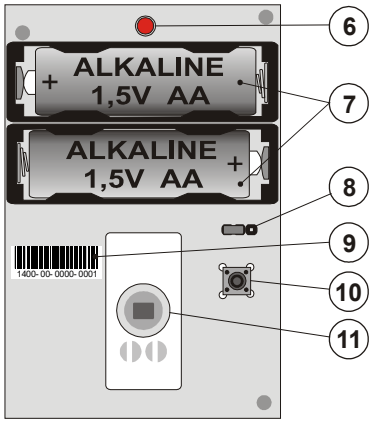


Figure: 6 – red detector activation indicator; 7 – battery; 8 – immunity setting jumper; 9 – production code; 10 – tamper contact; 11 – PIR sensor;

Note:
The detector can also be enrolled into the system by entering its production code (9) in the F-Link program (or using a bar code scanner).

Detector settings

Immunity level can be set with a jumper on a PCB inside the detector and it determines false alarm immunity. The **NORM** level ***(default setting)*** combines basic immunity with a rapid reaction. The **HIGH** level provides increased immunity, but the detector reaction is slower.

Detector function modes

The detector can work in two modes:

Smartwatch is a default setting intended for the permanent monitoring of movement in the guarded area. If 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 movement, it sends a report and goes into standby mode for 1 minute. When the time is over, the detector wakes-up and remains active until the next detection of movement.

To change the mode, press and hold the tamper contact in the cover, insert the battery and release the tamper contact 3–5 seconds after the battery insertion. The detector then flashes either once (smartwatch) or twice (one minute interval) to indicate the currently selected mode.

Detector testing

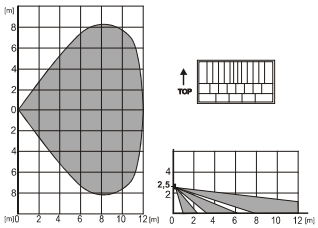
When you close the detector cover, its LED indicates all movement for a period of 15 minutes and reports it to the control panel. After this time the detector switches to the mode which was selected during the battery insertion. Detector function can also be checked via the ***Diagnostics*** window in the **F-Link** program**.**

Battery replacement

The system sends a report automatically when the battery is low. Batteries should be replaced within one week. Remember to switch the system to Service mode before changing the batteries (otherwise a tamper alarm will be triggered).

Detection characteristics

The standard lens that is supplied with the JA-150P detector covers an area of 110 degrees/12 m. The area is covered by 3 beams – see the following figure.



This detection characteristic is valid for standard PIR immunity.

The characteristic can be changed by using an alternative lens:

JS-7904	**Coridor lens** Designed for long corridors – with a working range of up to 20 m **Increased analysis cannot be used with such a lens!**
JS-7910	**Pet lens** Equipped only with the upper beam covering 120 degrees/12 m and not covering the floor (can eliminate the movement of small pets on the floor)
JS-7902	**Vertical curtain lens** It does not cover an area but creates a detection wall (can be used to create a barrier and report its breach)

***Note**: when a lens is replaced with a different type, test whether the detector covers the area correctly (a wrongly installed lens can cause detection errors).*

Technical specifications

Power	*2x Alkaline battery, type LR6 (AA) 1.5 V* *Please note: Batteries are not included*
Typical lifetime of batteries	*about 2 years* *(the longest lifetime is achieved in smartwatch mode)*
LowBatt state	*< 2.2 V*
Quiescent current consumption	*15 µA*
Maximum current consumption	*50 mA*
Communication frequency	*868.1 MHz, JABLOTRON protocol*
Maximum radio-frequency power (ERP)	*25 mW*
Communication range	*approx. 300 m (unrestricted area)*
Recommended installation height	*2.5 m above the floor*
Detection angle/detection coverage	*110 degrees/12 m (with standard lens)*
Dimensions	*60 x 95 x 55 mm*
Weight (without batteries)	*80 g*
Classification	*Security grade 2/Environmental class II (according to EN 50131-1)*
Operational environment	*Indoor general*
Operating temperature range	*-10 °C to +40 °C*
Average operating humidity	*75 % RH, without condensation*
Certification body	*Trezor Test s.r.o. (no. 3025), Telefication B.V.*
Complies with	*EN 50131-1, EN 50131-2-2, EN 50131-5-3, EN 50131-6, ETSI EN 300 220-1,-2, EN 50130-4, EN 55032, EN 62368-1, EN 50581, T 031*
Can be operated according to	*ERC/REC 70-03*
Recommended screw	*2 x ø 3,5 x 40 mm (countersunk head)*

JABLOTRON ALARMS a.s. hereby declares that the JA-150P product is in a compliance with the relevant Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU if it is used as intended. The original of the conformity assessment can be found at www.jablotron.com - Section Downloads.

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.

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