JA-160PC Wireless PIR motion detector combined with a camera

*The JA-160PC is wireless component of the **JABLOTRON 100** ystem. It serves for the detection of human movement in building nteriors and visual alarm confirmation. The camera takes colour hotos with a resolution of up to 640 x 480 pixels by detecting uman movement while the system is set. The camera is equipped ith a visible flash for taking photos in the dark. The images are aved in the internal memory of the detector and then they are rwarded to the control panel. From the control panel they can be ent to an external mass storage area, ARC and a user. The etector can also take a photo on command if it is required (e.g. fire larm confirmation). The detector should be installed by a trained echnician with a valid certificate issued by an authorised istributor.*

Installation

The detector can be installed onto a wall or in the corner of a oom. There should be no obstacles which quickly change emperature (electric heaters, gas appliances, etc.) or which move e.g. curtains hanging above a radiator) or pets in the detector´s eld of sight. It is not recommended to install the detector opposite windows or floodlights or in places with over-intense air irculation (close to ventilators, heat sources, air conditioning utlets, unsealed doors, etc.). There should be no obstacles in front f the detector which might obstruct its view.

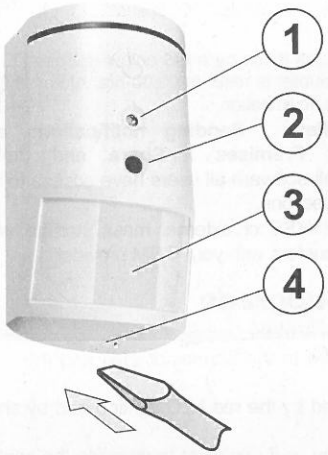

Figure: 1 – flash for illumination; 2 – camera lens; 3 – PIR detector lens; 4 – cover tab;

1. Open the detector cover by pushing the tab (4). Avoid touching the PIR sensor inside (15) – you could damage it.
2. Take out the PCB – it is held by a tab (9).
3. The recommended installation height is 2.5 m above the floor.
4. Screw the rear cover to the wall (vertically, cover tab down).
5. Return the PCB.

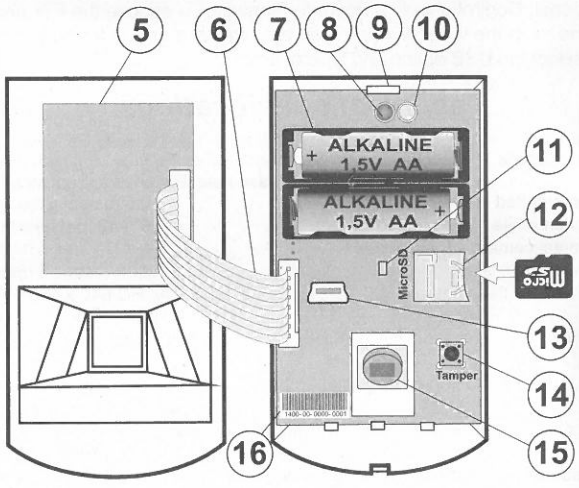

Figure: 5 – Camera module; 6 – connection cable; 7 – batteries; 8 – red LED; 9 – PCB tab; 10 – yellow LED; 11 – yellow LED of micro SD card; 12 – Micro SD memory card; 13 – mini USB connector; 14 – tamper contact; 15 – PIR sensor; 16 – production code.

5. Leave the battery disconnected and the cover open and then follow the control panel installation manual. The basics of detector stabilization phase indicated by the LED indicator flashing. If the discharged batteries have been inserted the red LED indicator flashes for 3 minutes. If the detector is enrolled as the first PIR camera or the control panel is not connected to an external mass storage area, F-link shows a dialogue window with the question: "Enable image transfer to the IMG server?" We strictly recommend enabling this option with the agreement of the customer and confirming this acceptance by recording it in the system service log with his signature.

Note: If the transmission is not enabled, photos will be saved in the internal memory of the detector and the control panel. Then it is impossible to send them to users' cell phones and e-mails.

7. Close the detector cover and check its functions. When the detector has been closed, it starts the 15 minute test mode when every detected movement is indicated by the red LED and sent to the control panel.

Notes:

If you want to enroll the detector to the control panel when the battery has already been inserted, remove the battery first and then press the tamper contact (14) a few times (for discharging the rest of the energy) and then enroll the detector.

The detector can also be enrolled to the system by entering its production code (16) in the F-link software (or using a bar code scanner). All numbers stated under the bar code shall be entered (1400-00-0000-0001).

Detector internal settings

The detector properties can be set by ***F-Link*** software (version 1.1.1 and higher) – ***Devices*** tab. When at the detector position, use the *Internal settings* option to open a dialog window where you can configure the settings (* default settings):

PIR immunity level: Defines false alarm immunity. The **Standard* level combines basic immunity with a rapid reaction. The Increased level provides higher immunity but the detector reaction is slower.

PG output reaction: select the PG outputs, by whose activation a photo is taken (** No*, camera does not react to PG). For further info see Installation recommendations, cautions

Taking picture after PG activation*: No flash, *With flash*

Photo taking during entrance delays: **No flash, With flash*

Photo taking during alarms: *No flash, *With flash*

Send pre-alarm image: When this parameter is enabled the detector will send photos from a set section when an alarm has not been triggered yet (for example: during an entrance delay).

Test: takes a test picture with a flash and F-link shows it. When the ***Detail*** button is pressed, F-Link shows the picture with a 640 x 480 pix resolution. Pictures are sent to the external mass storage area (if it is enabled).

Camera and basic reactions

The processing of how the camera takes pictures depends on the settings in the ***F-link*** software – ***Devices*** tab. Choose the Reaction button on a particular detector line.

Instant: During one setting period the camera can be triggered 4 x (then it is auto-bypassed). For every detected movement it takes 2 photos maximum. Photos are sent to the control panel (8 photos maximum).

Delay: The first activation (entrance delay) takes up to 2 photos according to the detected movement and saves them into the internal memory *(Send pre-alarm image disabled)*. When an alarm is triggered, photos are sent from the internal memory to the control panel. Then the behaviour is the same as an instant reaction. (10 photos maximum).

Caution: When in ***Settings/Parameters*** "Bypass after 3 x triggering" is enabled, then taking photos is blocked after the 3rd repetition. The number of taken and transferred photos could be 3 times bigger (max. 3 x 4 activations during one setting period).

Detection characteristics

The standard lens that is supplied with the JA-160PC detector covers an area of 55°/12 m – see picture. The detection characteristics don't have an influence on the camera part. The