

# JA-120PC BUS PIR motion detector with a camera

The JA-120PC is a component of the **JABLOTRON JA-100** system. It serves for the detection of human movement in building interiors and visual alarm confirmation. The camera takes colour photos with a resolution of up to 640 x 480 pixels. Taking photos is triggered by detecting human movement; this is so that the reason for the alarm is always recorded. The camera is equipped with a visible flash for taking photos in the dark. The images are saved in the internal memory of the detector and then they are forwarded to the control panel. And from the control panel they can be sent to an external mass storage area, ARC and a user. The detector can also take a picture if it is required. The detector should be installed by a trained technician with a valid certificate issued by an authorised distributor.

## Installation

The detector can be installed onto a wall or in the corner of a 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, unsealed doors, etc.). There should be no obstacles in front of the detector which might obstruct its view.

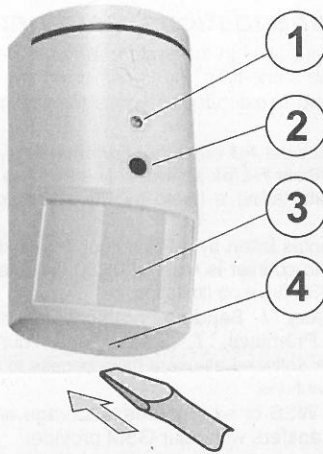


Figure: 1 – flash for illumination; 2 – camera lens; 3 – PIR detector lens; 4 – cover tab;

1. Open the detector cover (by pushing the tab (4)). Avoid touching the PIR sensor inside (14) – you could damage it.
2. Take out the PCB – it is held by a tab (9).
3. Punch through the holes for the screws and the cable in the plastic base. The recommended detector installation height is 2.5m above the floor.
4. Insert the BUS cable and attach the plastic base to the wall using screws

(vertically, with the cover tab facing downwards).



**When connecting the detector to the system BUS, always switch the power off.**

5. Re-insert the PCB and connect the BUS cables to the terminals (11).

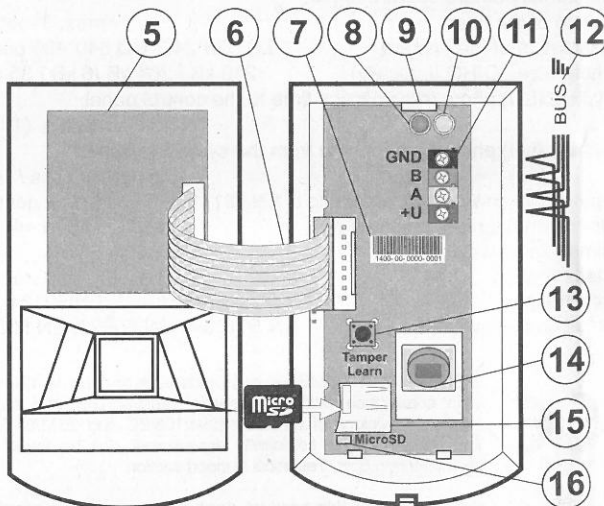


Figure: 5 – Camera module; 6 – connecting cable; 7 – production code; 8 – red LED; 9 – PCB tab; 10 – yellow LED; 11 – BUS terminals; 12 – BUS cable; 13 – tamper contact; 14 – PIR sensor; 15 – Micro SD memory card; 16 – yellow LED of micro SD card.

6. Proceed according to the control panel installation manual. Basic procedure:

- a. When the device is switched on, the yellow LED (10) starts flashing repeatedly to indicate that the module has not been enrolled into the system.
- b. Go to the **F-Link** software, select the required position in the **Devices** window and launch the enrollment mode by clicking on the **Enroll** option.
- c. Press the tamper contact in the detector (13) – the detector is thus enrolled and the yellow LED indicator goes off. If the detector is enrolled as a first camera PIR or a 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, images will be saved in the internal memory of the detector and the control panel. Then it is impossible to send image reporting to users' cell phones and e-mails.*

7. Close the detector cover.

## Detector internal settings

Settings 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):

**LED movement indication:** \*Enabled; allows you to disable movement indication with the red LED.

**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 PG outputs, by whose activation picture taking is triggered (\* No, camera does not react to PG). For further info see Installation recommendations, cautions.

**PG-state-triggered picture taking:** No flash, \*With flash

**Photo taking during entrance delay:** \*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 pictures from the 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 the alarm state the camera can be triggered 4 x (then it is auto-bypassed). Every movement takes 2 photos maximum, this depends on the detected movement. 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<sup>rd</sup> triggering" is enabled, then taking photos is blocked after the 3<sup>rd</sup> repetition. The number of taken and transferred photos could be 3 times bigger.

## Detection characteristics

The standard lens that is supplied with the JA-120PC detector covers an area of 55°/12m – see picture. The detection characteristics have an influence on the camera part. The lens does not have to be changed for any other type.

The camera always has a viewing angle of 43°, the camera flash has a 3 m range (distance).