

# JA-186P wireless dual-zone PIR motion detector

The JA-186P is a component of Jablotron's alarm system. It is designed to detect human body movement inside buildings. Detection in two zones is more immune to moving pets. The battery-powered detector communicates via Jablotron radio protocol.

of the indicator light. Movement in both zones – an alarm - is indicated by longer flashing. The strength and quality of detector signals can be measured with the control panel in Service mode.

## 5 minutes / 1 minute sleep time

To save battery energy, the detector switches to battery-save mode 15 minutes after its cover is closed. When the detector detects movement, it informs the control panel and **ignores all movement for the next 5 minutes** (sleep time). When this time expires, the sensor keeps guarding the area continuously until the next movement etc.

The sleep time can be **shortened to 1 minute** by holding the tamper switch on during battery installation (if you install the battery without holding the tamper switch on, a 5-minute sleep time is set).

## Battery replacement

The detector monitors its battery voltage and if it is too low, it informs the user (or a service technician). The detector continues to function and shows each detected movement by a short flash of its LED. We recommend replacing the battery within 2 weeks. The battery should be replaced in service mode by a technician. After battery replacement, the detector needs approx. 60 seconds to stabilize – the indicator lights continuously. When it switches off, test the detector functions.

**If a weak battery is inserted in the detector, its indicator flashes for approx. 60 seconds. Then the detector starts functioning but it will report a discharged battery.**

*Expired batteries should not be thrown into the garbage, but disposed of according to local regulations.*

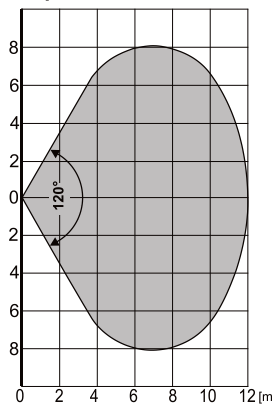
## Removing the detector from the system

If a detector is removed, the system announces the removal. The detector has to be removed (deleted) in the control panel or a bypass must be performed before intentional removal.

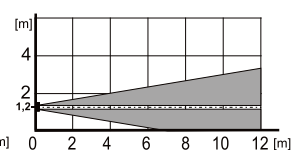
## Detection characteristics

The detector has two detection zones each of which covers an angle of 120° and a distance of 12m. The imaginary dividing line between both zones is determined by the detector installation height. Recommended installation height is about 120cm.

Top view



Side view



## Technical parameters

Voltage LS(T)14500 (3.6V AA / 2 Ah) type lithium battery  
 Typical battery lifetime approx. 3 years (5 min. sleep mode)  
 Communication band 868,1 MHz, Jablotron protocol  
 Communication range approx 300m (open area)  
 Recommended installation height 1.2 m above the floor  
 Detection angle/detection range 120° / 12 m (with basic lens)  
 Operational environment according to EN 50131-1 II. indoor general  
 Operational temperature range -10 to +40 °C  
 Dimensions, weight 180 x 60 x 55 mm, 200 g  
 EN 50131-1, EN 50131-2-2, EN 50131-5-3 classification: grade 2  
 Complies with ETSI EN 300220, EN 50130-4, EN 55022, EN 60950-1  
 Can be operated according to ERC REC 70-03

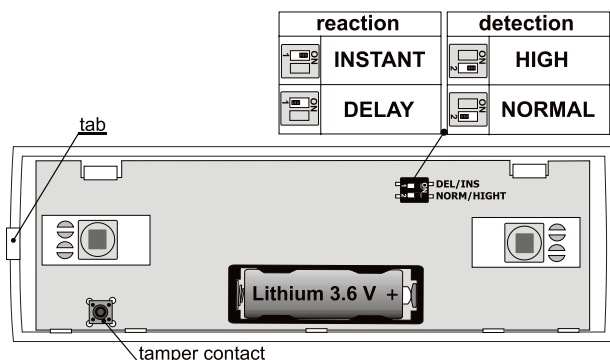


JABLOTRON ALARMS a.s. hereby declares that the JA-186P is in a compliance with the relevant Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com) - Section Downloads.

Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the producer after use.



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## Installation

Installation should only be undertaken by technicians holding a certificate issued by an authorized distributor. The detector can be installed on a flat wall or in the corner of a room. The expected installation height is 120 cm above the floor. Objects rapidly changing temperature, (electrical heaters, gas appliances etc) should not be positioned within the detection field. Moving objects with a temperature close to that of a human body (such as curtains moving above a radiator) should also be avoided. The detector should not face windows or spotlights or be installed in places with obvious air flow (e.g. near ventilation fans, air holes or badly sealed doors etc.).

There should be no obstacles blocking the detection field and the detector should be kept away from metal objects (they could interfere with radio communication).

1. **Open the detector cover** (by pressing the tab) – do not touch the PIR sensors inside and avoid damaging the semicircular antenna
2. **Remove the PCB** – it is held by two internal tabs
3. **Punch through the pre-formed holes** for cables and screws (at least one screw should go through the tamper-sensitive section)
4. **Screw the rear cover to the wall** approximately 120 cm above the floor (vertically, with the tab down)
5. **Return the PCB** to its original place (with the antenna to the cover tab)
6. **Leave the battery disconnected and the cover open.** Then follow the control panel (receiver) installation manual.  
The basic procedure:
  - a. Switch the control panel to service mode and press the "1" key to start enrollment mode
  - b. Install a battery into the detector to activate enrollment
  - c. Exit enrollment mode by pressing "#" key
7. To observe EN 50131-2-2 the tab must be **secured by the supplied screw.**

*If you want to enroll the detector when its battery has already been connected, first disconnect it, press and release the tamper switch (to dissipate any remaining energy) and then reconnect the battery to perform enrollment.*

**When the battery is reconnected, the detector needs approx. 1 minute to stabilize.** Its indicator is lit permanently for the whole period.

## DIP switches

**Switch 1: DEL / INS** defines whether the detector covers a building entrance and provides entrance & exit delays = DEL position. If the detector is in the INS position, it triggers an immediate reaction in an armed control panel. Using the switch only makes sense when the detector is used together with an Jablotron control panel and the NATUR reaction has been set. It is useless if a different reaction is set in the control panel or if you are using the detector together with a JA-182N or JA-180N receiver.

**Switch 2: NORM / HIGH** defines the immunity to false alarms.

The **NORM** position combines very good immunity with fast sensor reactions. The detector is activated if it detects movement in one zone and then in the second zone within 3 seconds.

The **HIGH** position increases sensor immunity at the expense of speed (it is used with problematic installations). The detector is activated if there are two NORM activations in 10 seconds.

Warning: The most frequent cause of false alarms is wrong detector positioning.

The detector always sends a sabotage signal **if the cover is removed**

## Detector testing

The indicator shows detector activation for 15 minutes after closing the detector cover. Movement in one zone is signalled by a short flash

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