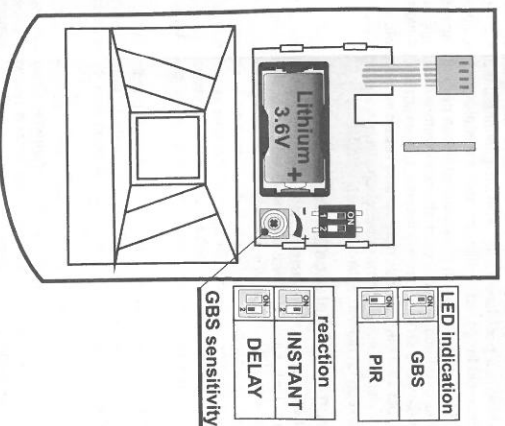
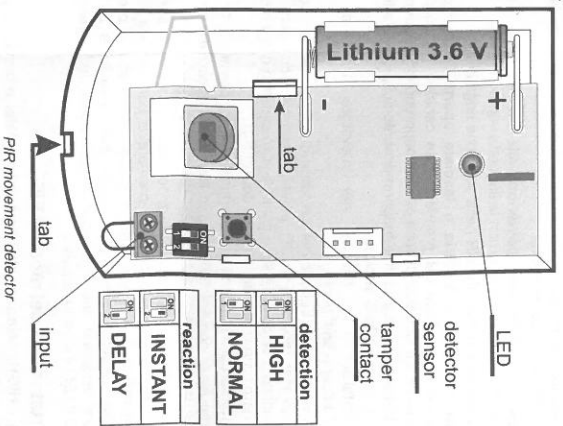


## The JA-180PB wireless PIR motion/glass-break detector

The JA-180PB is a component of Jablotron's alarm system. It consists of two independent detectors which occupy two separate enrollment addresses in the control panel. The motion detector uses a PIR sensor. The glass-break factor uses the analysis of air pressure variations combined with the characteristic sound of glass breaking. The product is designed for internal use in buildings. The battery-powered detector communicates via Jablotron radio protocol.

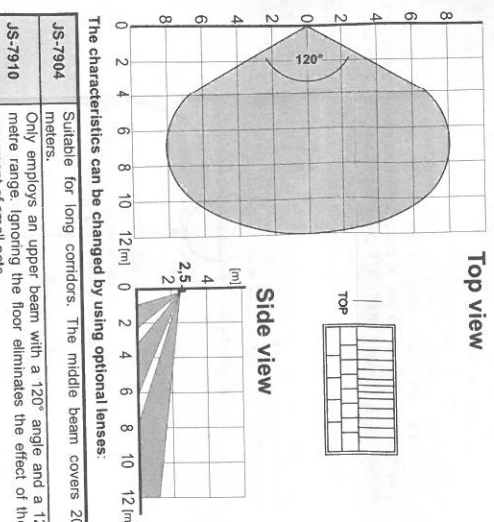


Glass-break detector

### Installation

Installation shall 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. Within the detection range of the PIR sensor avoid the presence of objects rapidly changing in temperature, such as electrical heaters, gas appliances etc. Moving objects with a temperature close to that of humans such as curtains moving above a radiator, and pets should also be avoided. Detectors should not face windows or spotlights or be near fast-moving air, e.g. near ventilation fans or open windows or doors. Because of its sensitivity to air pressure changes and sounds it should not be located close to air conditioning or ventilation outlets. There should also be no sources of vibration or audible sounds in the protected area. There should also be no obstacles obstructing the detector's 'view' of the protected area. Keep the detector away from metal objects which could interfere with radio communication. **Warning:** The most frequent cause of false alarms is bad detector-positioning. Do not aim this detector if there are any people or pets moving within the protected area.

**Detection characteristics of the PIR sensor**  
The detail lens supplied covers an angle of 120° and a distance of 12 metres. The area is covered by three beams as shown in the following picture.



1. **Open the detector cover** by pressing the tab and disconnect the cable to the module located in the front cover.
  2. **Remove the internal PIR module** held by an internal tab.
  3. **Punch screw holes through the rear plastic cover.** At least one screw should penetrate the tamper-sensitive section.
  4. **Screw the rear cover to the wall**, about 2 metres above the floor (vertically, with the tab down).
  5. **Return the PIR module to its original place.**
  6. **Leave the battery disconnected and the cover open** and then follow the control panel or receiver manual. The basics of enrollment are:
    - a. Enter enrollment mode on the control panel by keying in "1" in Service mode.
    - b. Install a battery in the PIR detector to activate its enrollment.
    - c. Install a battery in the glass-break detector and then connect its cable to the PIR module. This will activate its enrollment to the next vacant address in the control panel. This means that the glass-break detector enrolls after the PIR does.
    - d. Exit enrollment mode by pressing "#".
- To observe EN 50131-2-2 the tab must be secured by the supplied screw.
- To enroll a detector after having already connected batteries, first disconnect the batteries, and press and release the tamper sensor to discharge any remaining charge to ready the device for enrollment. After installing batteries into the detector, allow two minutes for stabilisation. During this period the LED is continuously lit.

### PIR module DIP switches

**NORM / HIGH**, selection of immunity to false alarms. The NORM position combines very good immunity with fast sensor reactions. The HIGH position gives increased immunity with a slower reaction time and is only used for problematic installations.

**INS / DEL**. DEL provides entrance & exit delays for detectors installed in a building entrance. INS allows the detector to instantly trigger alarm activation if the control panel is armed. If the control panel is armed, This DIP switch (INS/DEL) only has an effect if the detector has a natural reaction assigned to its address in the Jablotron control panel. It also has no effect when used with a JA-182N or JA-180N receiver.

### Glass-break module DIP switches

**DEL / INS** selects the reaction of the control panel if glass-breaking is detected. DEL provides entrance & exit delays and is recommended for detectors installed near a building's entrance door. INS allows the detector to instantly trigger alarm activation if the control panel is armed. This DIP switch (INS/DEL) only has an effect if the detector has a natural reaction assigned to its address in the Jablotron control panel. It also has no effect when used with a JA-182N or JA-180N receiver.

**PIR / GBS**. This selects whether PIR or glass-break triggering is shown by the LED. Changing this setting only has an effect during the first 15 minutes after closing the cover (test mode).

**Note:** Although both detectors are located in one housing, they do act independently. Each one has its own address. Each one also has its own selectable reaction via DIP switches in the detector or in SERVICE mode on the control panel.

### Testing the detector

15 minutes after closing the detector cover, the LED shows PIR or glass-break detector triggering according to what was previously selected by the PIR/GBS DIP switch during test mode. The strength and quality of detector signals can be measured by the control panel in SERVICE mode.

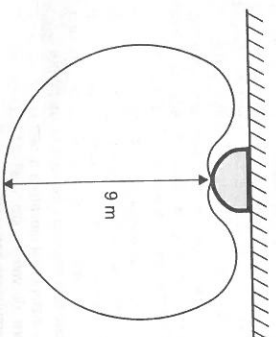
With the DIP switch in position **PIR**, short LED flashes indicate the processing of movement triggering the detector. Long flashes show that movement detection is being signalled to the control panel.

With the DIP switch in position **GBS**, the LED flashes very briefly when air pressure changes occur, e.g. a soft knock on a window. A long flash indicates triggering by breaking glass and the transmission of a signal to the control panel.

### Testing and adjusting the glass-break sensor

- Using a suitable tool or a hand protected by gloves, one by one, knock all the windows that should be under the detector's protection. A visible deformation of the glass should occur but without any damage.
- The deformation of glass causes a change in the air pressure of the room which makes the LED on the detector flash quickly. The DIP switch must be in the GBS position.
- The deformation of glass causes a change in the air pressure of the room which makes the LED on the detector flash quickly. The DIP switch must be in the GBS position.
- Sensitivity to air pressure changes can be adjusted by a potentiometer on the glass-break sensor PCB located inside the front cover of the detector. Turning clockwise increases sensitivity. Avoid selecting too high a sensitivity as this can cause a short battery lifetime.
- The complete function of the glass-break detector can be tested with a GBT-212 glass-break simulator. After knocking the glass, this simulator will automatically generate the characteristic sound of breaking glass to create the conditions for detector triggering.
- If there are any devices in the detector's protected area generating sound such as air conditioning, heating, fax machines, refrigerators, etc., check that they are not triggering alarms by emitting sounds like breaking glass.

page 2



Glass-break detector relative directional sensitivity

### Battery replacement

This detector has two batteries inside whose condition is regularly checked. If any of the batteries has expired, then the user or installer is informed. The detector continues to work and each movement in front of the detector is shown by a brief LED flash. The batteries should be replaced within two weeks by a qualified technician in SERVICE mode.

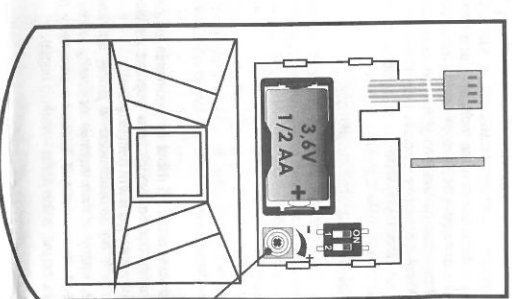
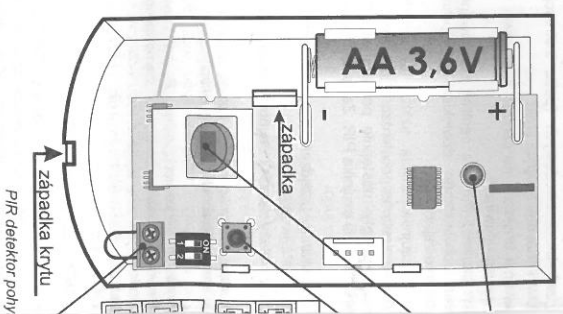
After battery replacement the detector needs two minutes to stabilise during which the LED is permanently lit. After battery replacement test the functioning of both sensors. Expired batteries should not be thrown into the garbage, but disposed of according to local regulations.

### Removing the detector from the system

If a detector is removed, the control panel announces the removal. The detector has to be deleted from its two addresses in the control panel

## Bezdrôtový detektor

Detektor JA-180PB je komponentom systému Jablotron. Jeho funkcia spočíva v dvoch nezávislých detekciách, ktoré sa nachádzajú na dvoch rôznych adresách v ovládací paneli. Detektor pohybu osôb využíva PIR senzor, ktorý tvorí časť chráneného priestoru. Detektor rozbitia skla detekuje zmeny v tlaku vzduchu a charakteristický zvuk rozbitia skla. Produkt je navrhnutý na vnútorné použitie v budovách. Detektor komunikuje bezdrôtovo prostredníctvom Jablotron protokol.



detektor rozbitia skla

### Instalácia

Výrobok má inštalovať preškolený technik s certifikátom autorizovaného distribútora. Detektor sa inštaluje na stenu alebo do rohu miestnosti. V rámci dosahu detektora PIR sa vyhýbajte prítomnosti objektov, ktoré majú rýchlo sa meniacu teplotu, napríklad elektrické ohrievače, plynové spotrebiče atď. Zariadenie by nemalo byť umiestnené pri oknách alebo svetlých zdrojoch. Detektor by nemal byť namierený na otvorené okná alebo dvere. Kvôli svojej citlivosti na zmeny tlaku vzduchu a zvuk rozbitia skla by nemal byť umiestnený v blízkosti ventilátora, prídavných jednotiek klimatizácie, rýchlo sa pohybujúcich predmetov alebo zdrojov zvuku.

Pred detektorom nesmú byť žiadne prekážky, ktoré by mohli zasahovať do jeho pohľadu na chránenú oblasť. Udržujte detektor ďalej od kovových predmetov, ktoré by mohli zasahovať do jeho funkcie. **Upozornenie:** Najčastejšou príčinou falošných alarmov je nesprávne nastavenie detektora. Nepoužívajte detektor, ak v chránenej oblasti sú prítomní ľudia alebo zvieratá.

- Vhodným nástrojom alebo rukou v ochranných rukaviciach vyberte detektor z chránenej oblasti.
- Na prírýchov skla (zmenu tlaku v miestnosti) a detekciu pohybu osôb (využitie PIR) sa vyhýbajte prítomnosti objektov, ktoré majú rýchlo sa meniacu teplotu, napríklad elektrické ohrievače, plynové spotrebiče atď. Zariadenie by nemalo byť umiestnené pri oknách alebo svetlých zdrojoch. Detektor by nemal byť namierený na otvorené okná alebo dvere. Kvôli svojej citlivosti na zmeny tlaku vzduchu a zvuk rozbitia skla by nemal byť umiestnený v blízkosti ventilátora, prídavných jednotiek klimatizácie, rýchlo sa pohybujúcich predmetov alebo zdrojov zvuku.

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### Detekčná charakteristika PIR detektora

Z výroby je detektor osadený sošovicou so zorným uhlom 120° a dosahom 12 metrov. Oblasť je pokrytá tromi zvislými lúčmi, ako je znázornené na obrázku.

