# JS-20 „LARGO" P.I.R. detector

This P.I.R. motion detector is used to protect interiors. It detects any movement of objects with a temperature close to that of the human body.

The signal from the sensor is electronically analyzed. This ensures that the detector provides excellent sensitivity and at the same time false alarms are basically eliminated. The detection analysis rate can be adjusted to increase its immunity if the JS-20 is installed in a problematic location.

The standard lens in the detector can be replaced with an optional corridor or pet immune lens. Extra terminals (GBS) can be used to facilitate wiring of the detector.

The JS-20 distinguishes itself with excellent RF immunity.

It can be mounted on a flat wall or in a corner.
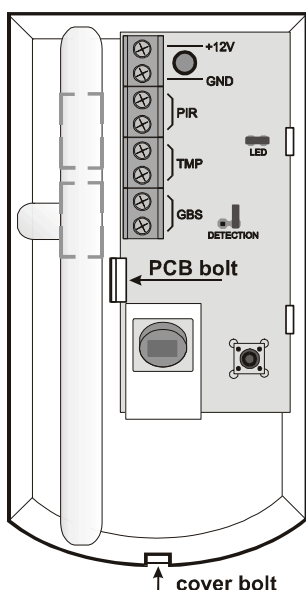
Installation

This detector is designed for indoor applications. It can be mounted on a flat wall or in a corner. Do not place the detector close to any heating/cooling vents or near any other object that often change temperature. The detector must have an unobstructed view of the protected area.

1. **Open the cover of the detector** (press in the plastic tab on the bottom part of the detector's housing with a screwdriver).
2. **Remove the PCB** by pressing the flexible tab inside the housing.
3. **Punch through the pre-formed holes** for cables and screws.
4. **Attach the housing to the wall** (2.5 meters above the floor).
5. **Return the PCB into the rear housing** and connect the cable wires to the terminals.
6. **Attach the cover**.

Note: Avoiding touching or scratching the PIR sensor!

Terminals

|	
+12V, GND	power supply
PIR, PIR	PIR alarm output (normally closed)
TMP, TMP	TAMPER output (normally closed)
GBS, GBS	auxiliary terminals – useful when wiring (see examples)

Jumpers

LED	the LED indicator can be disabled by opening this jumper
DETECTION	by opening this jumper you can set a higher rate of analysis and increase the immunity of the detector. This setting is suitable for problematic locations with sudden temperatures changes or electromagnetic interference. Reaction of the detector will be slightly slower in this setting.

Detector testing

- After switching on the power, wait for 1 minute. During this period the detector initializes and stabilizes its parameters (LED will be on if not disabled).
- Each detected movement will be indicated by the detector's LED (if not disabled)
- Confirm that the detector covers the protected area as you expected.

Lenses

Standard lens that is supplied with the JS-20 Largo detector covers an area of 120 degrees / 12 meters.
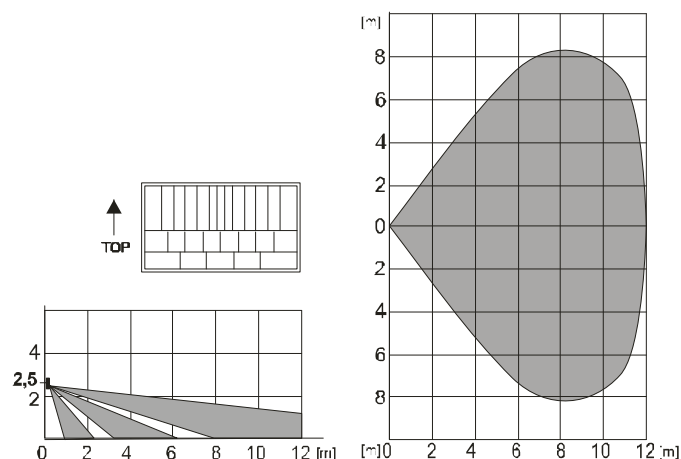
For special applications other lenses can be used. Optional lenses for long corridors and areas with small animals are supplied separately.

The Pet lens is marked **JS-7910**. This lens prevents animals smaller then 40 cm to be detected by the detector. The working range of this lens is reduced to 7 meters. It is recommended to test this lens carefully with the animal when installing the system, in order to prevent false alarms.

The Corridor lens is marked **JS-7904**. The working range of this lens is 25 meters long and only 3 meters wide. It is recommended to test the detector's sensitivity carefully when installing it into a corridor.

The curtain lens is marked **JS-7902**. By using this lens the PIR detector's working range is restricted to a "curtain". After using this lens, it is for example possible to secure part of a room etc. During the installation it is necessary to test the working range very carefully.

Lens characteristic diagrams can be seen in documents supplied with the lens or on the Jablotron website www.jablotron.com .

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

Specification

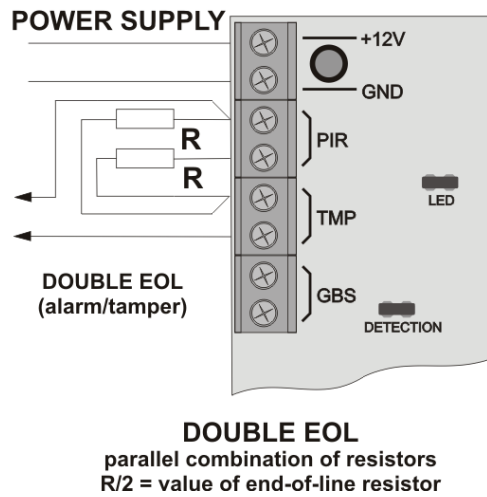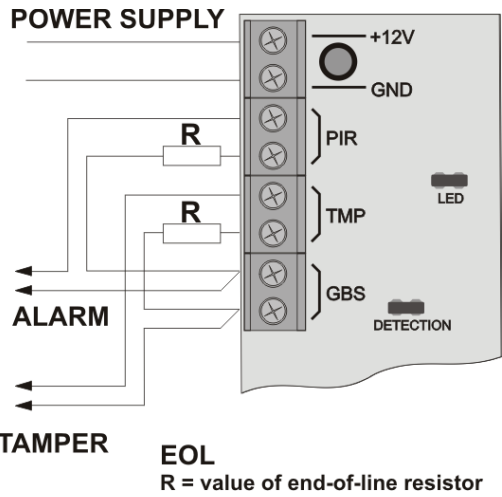|	
Power supply:	12 V DC ± 25%
Power consumption (LED off):	max. 10 mA
Maximum consumption (LED on):	max. 35 mA
Terminals size:	max. 1 mm^2
Mounting height:	2.5 m above floor
Detection range:	120° / 12 m (standard lens)
Initialization:	aprox. 1 minute
Alarm output:	normally closed, max. 60V / 50 mA, internal resistance max.30 Ohm
Tamper output:	normally closed, max. 60 V / 50 mA, internal resistance max.16 Ohm
Environment - class	II. – general indoor, (EN 50131-1)
Operating temperatures	-10 to +40 °C
Security level	grade 2, EN 50131-1, EN 50131-2-2
EMC	EN 50130-4, EN 55022

CE — JABLOTRON ALARMS a.s. hereby declares that the JS-20 is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC. The original of the conformity assessment can be found on the web site www.jablotron.com, Technical Support section.
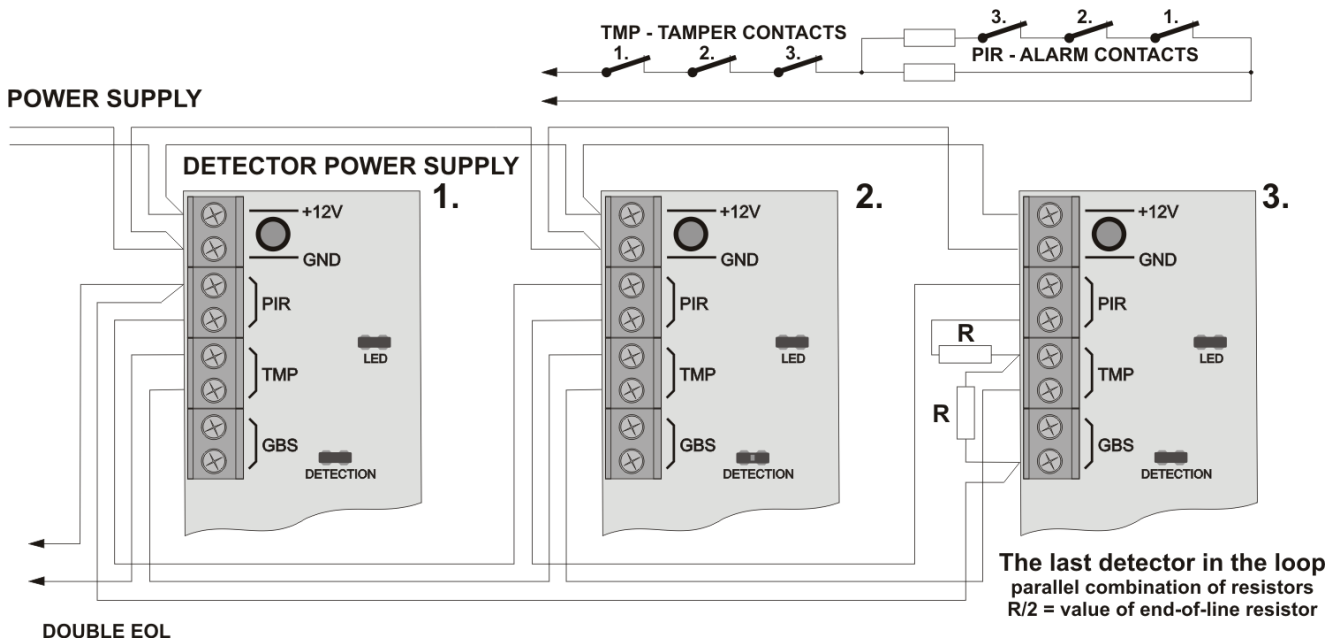
Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the manufacturer after use.

POWER SUPPLY

+12V
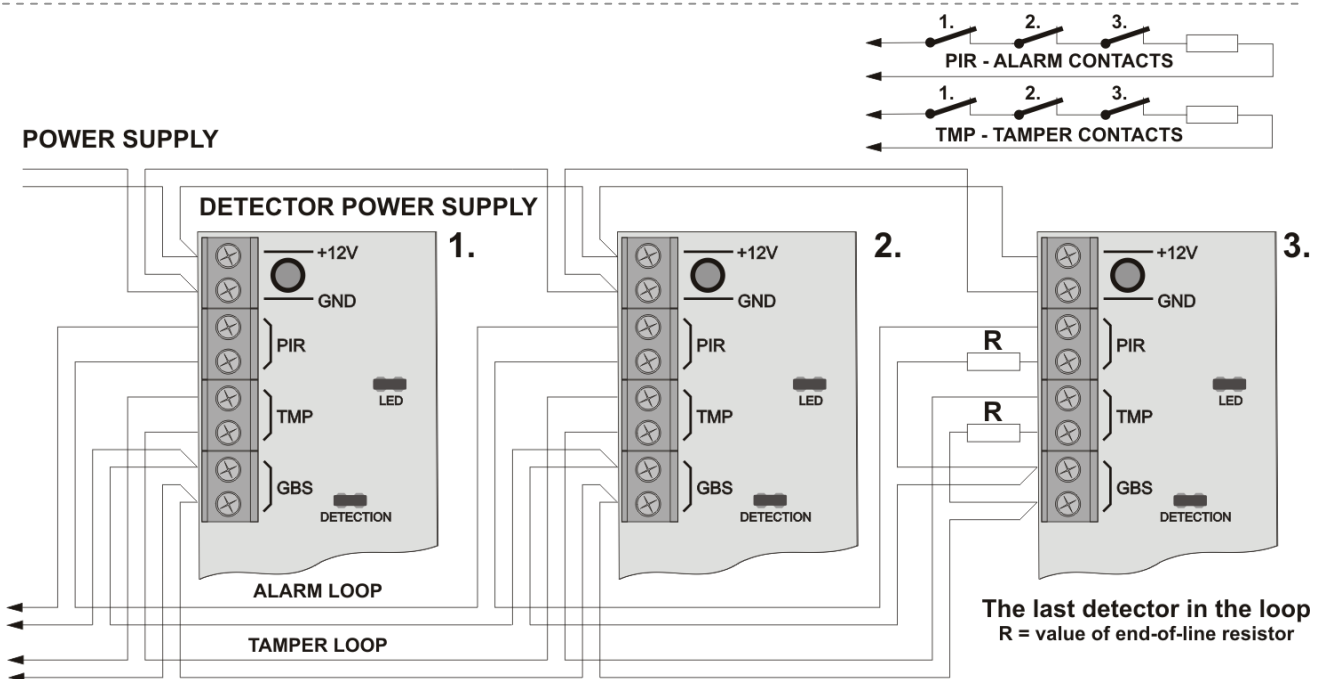GND
PIR
R
TMP
R
GBS
LED
DETECTION

ALARM

TAMPER

EOL
R = value of end-of-line resistor

POWER SUPPLY

+12V
GND
PIR
R
R
TMP
GBS
LED
DETECTION

DOUBLE EOL
(alarm/tamper)

DOUBLE EOL
parallel combination of resistors
R/2 = value of end-of-line resistor

Examples of wiring the JS-20 Largo detector using end-of-line resistors and double end-of-line resistors
(Auxiliary GBS terminals are used to facilitate the wiring)

TMP - TAMPER CONTACTS
1.   2.   3.   3.   2.   1.
PIR - ALARM CONTACTS

POWER SUPPLY

DETECTOR POWER SUPPLY

1.
+12V
GND
PIR
TMP
GBS
LED
DETECTION

2.
+12V
GND
PIR
TMP
GBS
LED
DETECTION

3.
+12V
GND
PIR
R
TMP
R
GBS
LED
DETECTION

The last detector in the loop
parallel combination of resistors
R/2 = value of end-of-line resistor

DOUBLE EOL

Example of wiring of several JS-20 Largo detectors into the double EOL loop
(Auxiliary GBS terminals are used to facilitate wiring)

1.   2.   3.
PIR - ALARM CONTACTS
1.   2.   3.
TMP - TAMPER CONTACTS

POWER SUPPLY

DETECTOR POWER SUPPLY

1.
+12V
GND
PIR
TMP
GBS
LED
DETECTION

2.
+12V
GND
PIR
TMP
GBS
LED
DETECTION

3.
+12V
GND
R
PIR
R
TMP
GBS
LED
DETECTION

ALARM LOOP

TAMPER LOOP

The last detector in the loop
R = value of end-of-line resistor

Example of wiring of several JS-20 Largo detectors into the EOL loop
(Auxiliary GBS terminals are used to facilitate the wiring)