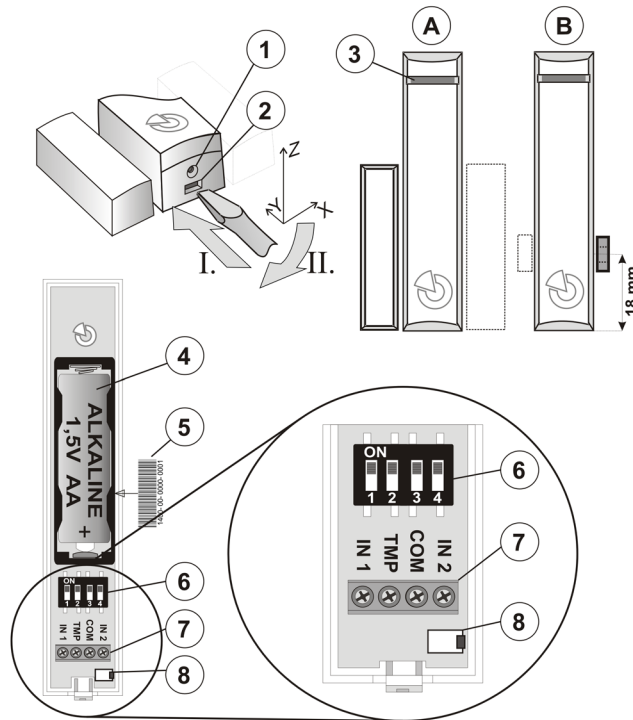


# The JA-150M/JA-150MB Wireless magnetic detector with 2 universal inputs

The JA-150M is a wireless component of the **JABLOTRON 100** system. It is a magnetic detector with two configurable independent inputs. The detector is also designed to detect the handling of roller blinds, if it is equipped with a CT-01 roller detector. Small movements are filtered out so that wind blasts do not cause false alarms. It occupies two separate enrollment addresses in the control panel. The JA-150M can be used with up to two LD-81 flood detectors.

The product can be installed by a trained technician with a valid certificate issued by an authorized distributor.

## Installation



**Figure:** 1 – Place for locking screw, 2 – Cover tab, 3 – LED indication, 4 – Battery, 5 – Production number, 6 – DIP switch settings, 7 – Terminals, 8 – Cover tamper contact

Axis	X	Y	Z
Switching distance (mm)	21/14	17/16	55/24
Disconnecting distance (mm)	25/16	17/18	60/27

**Table 1:** Spacing on a non-magnetic surface. Distances are issued for usual permanent magnet / whorl-shaped magnet.

There are two different types of permanent magnets in the package – a standard magnet in a plastic housing (A) and a whorl-shaped magnet (B) for use in places where there is not enough space for a standard magnet or for counter-sinking the magnet into a door or window's inner frame. The right positions for placing both types of magnets against the internal magnetic sensor are shown above (see Figure) as well as the reaction areas for magnets in millimetres in three axes of movement (see Table 1).

- Open the detector cover by pressing the cover tab (2).
- Screw the rear cover onto the required place. If it's needed, put the cables through the rear plastic base. The length of cables to the detector should not exceed 3 m; choose the place of installation accordingly.
- Attach the selected magnet to the moving part of the door (window) with screws. The lower edge of the standard magnet has to be at the same height as the lower edge of the detector (the magnet can be mounted on the left or right side). It is recommended to attach the whorl-shaped magnet with a special non-magnetic screw from the package.
- Connect the wires from external contact to the required terminals if they are used.
- It is not necessary to use any wire jumpers if none will be used (this is also valid for tamper).
- Set the DIP switches according to your needs (see Table 2).
- Proceed according to the control panel installation manual. Basic procedure:
  - 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.
  - Insert the batteries (mind the correct polarity). The enrolment signal is transmitted when the battery is inserted into

the detector. **Note** – the detector occupies 2 positions (each input has its own position). Should the second position be occupied, it will be automatically overwritten.

- Close the detector cover.

### Note:

- The detector can also be enrolled into the system by entering its production number (5) in the F-link software (1400-00-0000-0001). You can find the production code on the sticker under the bar code, glued on the battery holder.
- If only the first input is used, the second input can be deleted by pressing "Delete" to release the position for another device.
- By deleting the first input position, the module will always be deleted completely.

## Setting the detector properties

This can be done by DIP switches 1-4 on the detector PCB. Select the required mode according to Table 2. The detector immediately reads the NO/NC status of all input terminals when the battery is inserted. The detected NC or NO state is taken as the default (standby). The input terminals IN1 and IN2 also work with 1k resistor-balancing.

**Example:** When there is a requirement to change the default logic of IN1 from NC to NO it is necessary to insert the battery when the input is disconnected.

### Description of inputs:

- IN1** – Input terminal for connection to detector no. 1
- IN2** – Input terminal for connection to detector no. 2
- TMP** – Input terminal for tamper contact connection
- COM** – Common terminal for inputs IN1, IN2 and TMP
- MG** – Internal magnetic detector

### Description of input modes:

**Norm** – status mode, the detector signals activation and deactivation of the input terminals

**Pulse** – pulse mode, the detector just signals activation (whether turning off or turning on depends on the default NO/NC standby mode)

**Off** – input disabled

**Rol1, Rol2** – roller mode, which reacts to repeated pulses and short activating (NO) pulses with a sensitivity selectable in to two levels: **Rol1** = activation after 3 pulses within a 2-minute period; **Rol2** = activation after 5 pulses within a 2-minute period. After input triggering in Rol1/Rol2 mode the detector doesn't react to the next activation for 10 secs.

**LD-81** – mode for connecting one or two LD-81 flood detectors. If there are two flood detectors used simultaneously, alarm will always be triggered only from the first detector (logic OR function).

Mode	DIP1	DIP2	DIP3	DIP4	MG	IN1	IN2
0					Norm	Off	Norm
1				•	Norm	Off	Pulse
2			•		Norm	Off	Rol1
3			•	•	Norm	Off	Rol2
4		•			Pulse	Off	Pulse
5		•		•	Pulse	Off	Rol1
6		•	•		Pulse	Off	Rol2
7		•	•	•	Off	LD-81	LD-81
8	•				Off	Norm	Norm
9	•			•	Off	Norm	Pulse
10	•		•		Off	Norm	Rol1
11	•		•	•	Off	Norm	Rol2
12	•	•			Off	Pulse	Pulse
13	•	•		•	Off	Pulse	Rol1
14	•	•	•		Off	Rol1	Rol1
15	•	•	•	•	Off	Rol2	Rol2

**Table 2:** Setting the detector properties (• = DIP switch ON)

## Battery replacement

The system sends a report automatically when the battery is low. Remember to switch the system to Service mode before changing the batteries (otherwise a tamper alarm will be triggered). **Warning: The input terminals have to be in standby mode because when a new battery is inserted, the detector reads the inputs and takes the current status as default. (This is not valid for an internal magnetic contact).**

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## Technical specifications

Power	1x alkaline battery type LR6 (AA) 1.5 V Please note: Battery is not included
Typical battery lifetime	about 2 years
Communication band	868.1 MHz, JABLOTRON protocol
RF range	approx. 300 m (open area)
The maximum length of cable for external detectors	3 m
Maximum radio-frequency power	10 mW
Dimensions	109 x 24 x 22 mm
Classification	Grade 2
According to	EN 50131-1, EN 50131-3 EN 50131-2-6, EN 50131-5-3
Operational environment	EN 50131-1 II. Indoor general
Operational temperature range	-10 °C to +40 °C
Also complies with	ETSI EN 300220, EN 50130-4 EN 55022, EN 50950-1
Can be operated according to	ERC REC 70-03



JABLOTRON ALARMS a.s. hereby declares that the JA-150M(B) is in compliance with the relevant European Union harmonisation legislation: Directives No: 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU, when used as intended. The original of the conformity assessment can be found at [www.jablotron.com](http://www.jablotron.com) – the Downloads Section.



**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. For more detailed information visit [www.jablotron.com](http://www.jablotron.com).