# JA-150M 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 detector. The product can be installed by a certified technician with a valid certificate issued by an authorized distributor.

Installation
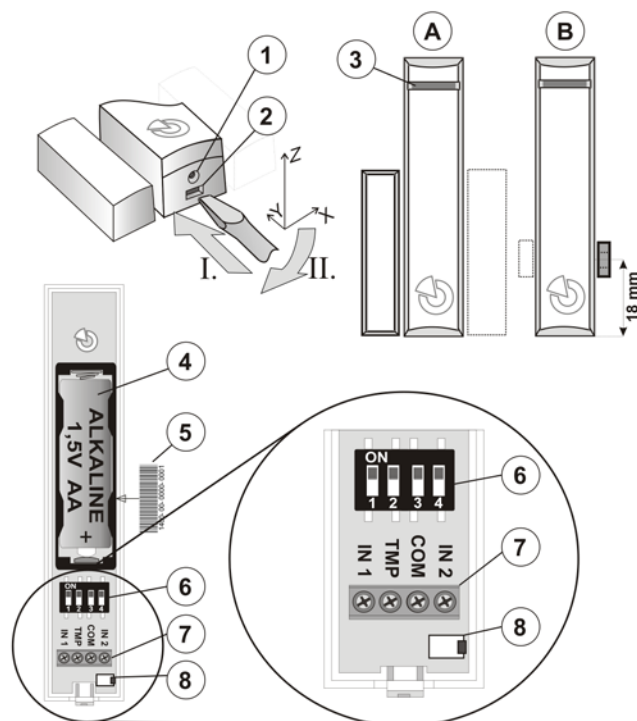
Figure: 1 – Place for locking screw, 2 – Cover tab, 3 – LED indication, 4 – Battery holder, 5 – Production code, 6 – DIP switch settings, 7 – terminals, 8 – Cover tamper contact

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 as well as the reaction areas for magnets in millimeters in three axes of movement (see. table 1).

1. Open the detector cover by pressing the tab (2).
2. Screw the rear cover onto the required place. If it´s needed, put the cables through the rear plastic base. The length of cabels to the detector should not exceed 3m; choose the place of installation accordingly.
3. Attach the permanent magnet to the moving part of the door (window) with screws. The lower edge of the permanent 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).
4. Connect the wires from external contact to the required terminals if they are used.
5. It is not necessary to use any wire jumpers if none will be used (this is also valid for tamper).
6. Set the DIP switches according to your needs (see Tab. 2).
7. Proceed according to the control panel installation manual. Basic procedure:
   a. There must a JA-110R radio module installed in 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. 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).
8. Close the detector cover and test its functioning.

Note: The detector can also be enrolled into the system by entering its production code (5) in the F-link software (or using a bar code scanner). All numbers stated under the bar code shall be entered (1400-00-0000-0001). You can find the production code on the sticker under the bar code, glued on the battery holder.

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
(Norm/Puls/Rol1/Rol2 can be set for IN1, IN2)
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. When this loop is disconnected longer then 0.5s, a tamper alarm is triggered. After input triggering in Rol4/Rol2 mode the detector doesn´t react to the next activation for 10sec.
LD-81 – mode for connecting LD-81 flood detectors

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).

Technical specifications

Power	1x alkaline battery AA (LR6) 1.5 V / 2400 mAh
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
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
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 module is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC, 2011/65/EU. The original of the conformity assessment can be found at www.jablotron.com - Technical Support section

Erro! Não é possível criar objectos a

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.