

JA-150M (MB, AN, GR) Wireless magnetic detector with two universal inputs

It is a magnetic detector of the **Jablotron** system. It has two adjustable inputs and a tamper input. The detector can also be used to detect tampering with a roller shutter equipped with a CT-01 roller shutter motion sensor, or to detect flooding – by connecting an LD-81 detector. It occupies two positions in the system. The detector is designed for installation by a trained technician with a valid Jablotron certificate.

The product is compatible with JA-101K, JA-102K, JA-103K, JA-106K, JA-107K, JA-152KRY control panels.

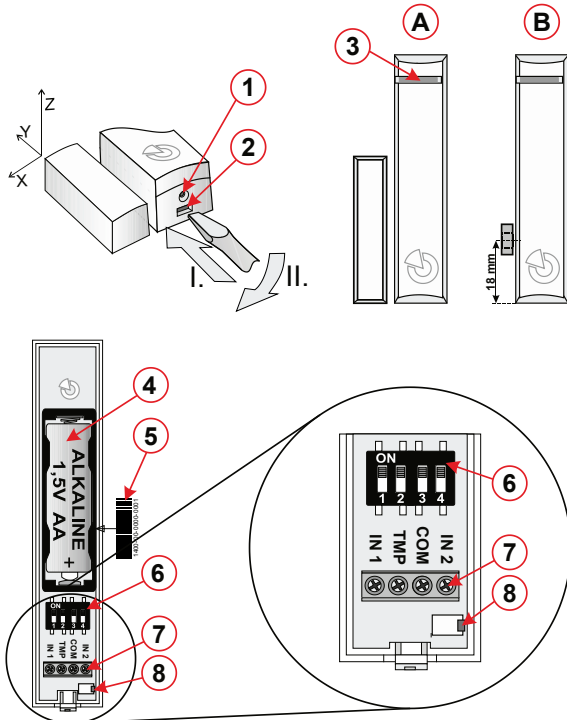


Figure: Description of internal and external parts of the product

1 – locking screw hole, 2 – cover latch, 3 – LED indicator, 4 – battery, 5 – serial number, 6 – DIP switch settings, 7 – terminal block, 8 – cover tamper contact

Axis	X	Y	Z
Distance for opening (mm)	25/7	14/9	44/25
Distance for trigger (mm)	24/6	13/8	43/24

Table 1: magnet reaction distances for opening and triggering on a non-magnetic substrate (ferrite magnet / ring magnet).

Axis	X	Y	Z
Distance for opening (mm)	17/9	11/4	43/18
Distance for trigger (mm)	16/8	10/3	42/17

Table 2: magnet reaction distances for opening and closing on a ferromagnetic substrate (ferrite magnet / ring magnet).

The detector is supplied with two magnets: a ferrite magnet in a plastic case (A) and a ring magnet (B). The correct position of both magnets is shown in Figure 1

Installation

- Open the cover by pressing the latch (2).
- Screw the rear plastic to the desired location and thread the cables through if necessary (max. cable length 3 m).
- Screw the selected magnet onto the moving part. The bottom edge of the ferrite magnet plastic should overlap the bottom edge of the detector housing. Use the non-magnetic screw from the package to mount the ring magnet.
- When using external sensors, connect the cables to the terminals.
- Unused terminals do not need to be connected to the COM terminal.
- Use the switches to set the detector properties (see Table 3).
- Teach the detector to the control panel (must include radio module JA-11xR). See control panel manual.
 - The enrolment signal is sent by the detector by inserting the battery (the detector takes 2 positions).
- Close the detector cover. To properly meet the requirements of the standards, the top part must be secured with the locking screw onto the prepared hole (1) from the package.

Setting the switches in the detector

The function of the switches (6) is described in Table 3.

Terminals (7):

IN1 - input for connection of detector No.1

IN2 - input for connection of detector No.2

TMP - input for connecting the detector protection contact

COM - common potential terminal for IN1, IN2 and inputs

Inputs IN1 and IN2 can be balanced by terminating resistor 1k. When the battery is inserted, the idle state of the terminals is automatically loaded.

Mode	DIP1	DIP2	DIP3	DIP4	MG	IN1	IN2
0					Norm	Off	Norm
1					Norm	Off	Pulse
2			-		Norm	Off	Ro1
3			-		Norm	Off	Ro2
4		-			Pulse	Off	Pulse
5		-			Pulse	Off	Ro1
6		-	-		Pulse	Off	Ro2
7		-	-		Off	LD-81	LD-81
8	-				Off	Norm	Norm
9	-				Off	Norm	Pulse
10	-				Off	Norm	Ro1
11	-				Off	Norm	Ro2
12	-	-			Off	Pulse	Pulse
13	-	-			Off	Pulse	Ro1
14	-	-			Off	Ro1	Ro1
15	-	-			Off	Ro2	Ro2

Table 3: Module property settings (- = ON switch position)

Norm - status mode, the switching on and off of terminals is transmitted

Pulse - pulse mode, only activation is transmitted (opening or closing of terminals depending on the initial resting state).

Off - input is disabled

Ro1, Ro2 - roller shutter mode, responds to repeated and short opening pulses with sensitivity adjustable in two stages: **Ro1** = activation after 3 pulses within 2 minutes; **Ro2** = activation after 5 pulses within 2 minutes. When using the Ro1/Ro2 modes, the module is in an idle state for 10 seconds after the activation is transmitted.

LD-81 = mode for connecting flood detectors type LD-81. When two flood detectors are used simultaneously, an alarm will always be raised only from the first flooded detector (logical OR function).

Replacing the battery in the detector

The system reports if the battery is about to run out. The system must be switched to Service mode before replacement (otherwise a tamper alarm will be triggered). **Caution when inserting a new battery, the inputs must be in the idle (default) state (default state is read).**

Technical parameters

Power	1x alkaline battery, type AA (LR6 1.5 V / 2.4 Ah)
	Please note: Battery is not included
Typical lifetime of battery	about 2 years
	(max. 10 activation daily)
LowBatt voltage	<0.92 V
Quiescent current consumption	40 µA
Maximum current consumption	120 mA
Communication frequency	868.1 MHz, JABLOTRON protocol
Maximum RF power (ERP)	<25 mW
RF range	approx. 300 m (open area)
The maximum length of cable for external detectors	3 m
Dimensions detector / magnet part	24 x 109 x 24 mm / 16 x 55 x 15 mm
Weight (without battery)	55 g
Classification	Security grade 2 / Environmental class II
	(according to EN 50131-1)
Operational environment	indoor general
Operational temperature range	-10 °C to +40 °C
Average operating humidity	75% RH, non-condensation
Certification body	Trezor Test s.r.o. (no. 3025)
Complies with	EN 50131-1, -2-6, -5-3, ETSI EN 300 220-2, EN 50130-4, EN 55032, EN 62368-1, EN IEC 63000
Can be operated according to	ERC/REC 70-03
Recommended screw	2x ø 3.5 x 40 mm (countersunk head)

JABLOTRON a.s. hereby declares that the product JA-150M, JA-150MB, JA-150M-AN and JA-150M-GR is designed and manufactured in compliance with the harmonisation legislation of the European Union: directives 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU, when used as intended. Original declaration of the Declaration of Conformity is available at www.jablotron.com in the Downloads section.

Note: Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.

