

The JA-152M Wireless hidden magnetic detector

The JA-152M is a wireless component of the **JABLOTRON 100** system. It is used to detect the opening of doors and windows and is designed for hidden installation (between a frame and a wing). The detector has a status reaction that can be switched to a pulse reaction if necessary. The detector takes one position in the system and it should be installed by a trained technician with a valid certificate issued by an authorized distributor. **This product is compatible with the JA-103K, JA-107K and subsequent control panels.**

Installation

The detector should be placed into the gap between the frame (non-moving part) and the wing (moving part) of a door or window. There are various door/window frames, therefore it is wise to verify before installation that the detector fits the given door/window type. In the case of a wooden frame with too narrow a profile it is usually possible to mill out a groove for detector insertion.

The detector electronics should be installed onto the non-moving part and the magnet onto the moving part. The detector reacts to the removal of its magnet. If the supplied magnet does not exactly match the door/window construction you can ask the window/door supplier for a magnet of a suitable type. Alternatively, you can adjust the magnet's position using a suitable back-plate.

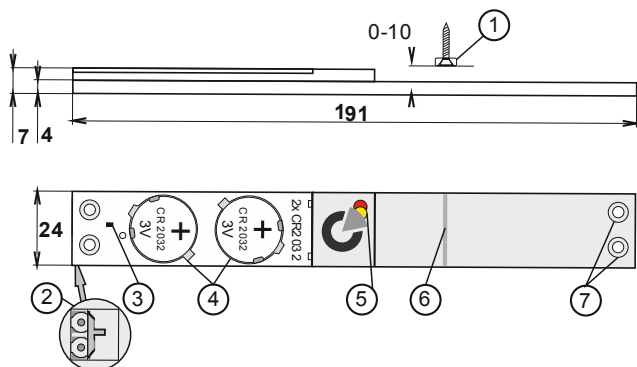
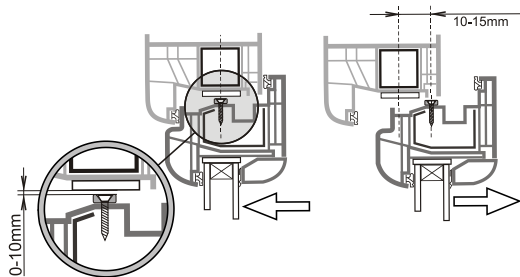


Figure: 1 – magnet; 2 – tear-removal mechanism for removal detection (on the back side of the detector); 3 – cover tamper sensor; 4 – batteries (2x CR 2032); 5 – hidden LED indicators (under the logo); 6 – adjustment line; 7 – fixing holes

1. Find a suitable place for the detector's location so that the magnet is aligned with the adjustment line (6) when the door/window is closed. After opening the door/window, the magnet's distance from the detector should increase by at least 2 cm.

Basic installation conditions:

- a) Avoid installing the detector in the area of the metal fitting mechanism (there shouldn't be any metal close to the detector due to interference to radio communication),
 - b) We do not recommend installing the detector onto the bottom part of the door/window frame due to possible water condensation,
 - c) There are two 2mm and one 3mm back-plates designed to compensate for possible unevenness on the frame (e.g. frame grooves); the detector must always lie with its whole surface on the mounting surface.
2. Screw the magnet onto the moving part of the door/window according to the following picture.



3. Unscrew the battery cover and screw the detector on with four screws so that the magnet is aligned with the adjustment line (6) when the door/window is closed. Be careful not to use too much force while tightening the screws, otherwise the tear-removal mechanism (2) could be damaged.
4. Try out if the detector or the magnet makes no obstruction when closing the door/window.
5. **Follow the instructions stated in the control panel installation manual.** Basic procedure:
 - a) Open the **F-Link** software, select an unused position in the **Devices** tab and click on the **Enroll** button to enter the **Enrollment** mode.

- b) Insert both batteries (4) into the detector. Mind the correct polarity (for both batteries the positive terminal points upwards). After the second battery is inserted into the detector the enrollment signal is transmitted and the detector is enrolled into the selected position. The enrollment is confirmed by the yellow LED (5) turning off.
- c) Close and screw the detector cover on.

Note:

The detector can also be enrolled into the system by entering its production code in the F-Link software. You can find the production code on the sticker placed on the back side of the detector. All numbers under the bar code shall be entered (1400-00-0000-0001).

- If you want to remove the device from the system, erase it from its position in the F-Link software.

Detector communication with the system

The detector is equipped with bi-directional asynchronous communication with the JA-11xR radio module which enables changing the internal settings with ease (just as it is with BUS detectors) while taking into account battery life time in normal operational mode.

When the detector is enrolled to the control panel it works in the so-called **accelerated 90-second mode** until the Service mode is terminated (up to 24h). The detector performs a check every 90s to monitor whether the control panel remains in the Service mode, whether it should apply new settings or should the LED light indicate opening of the door/window.

In the normal operational mode, the detector communicates periodically with the control panel 1x every 20 minutes. Therefore, it may take the detector up to 20 minutes to realize the control panel was switched to the Service mode or to save changes made in the internal settings. This period of time can be shortened by triggering the detector which will switch it to the accelerated 90-second mode immediately (increasing the magnet's distance from the detector by at least 2 cm, opening it = triggering the tamper contact).

Important:

It is not necessary to wait for 90s (or 20 minutes) for the detector to confirm a request to save the changes made in the internal settings. The control panel remembers such changes and transfers them to the detector the next time a periodical communication session occurs.

Setting the detector properties

Impulse behaviour: (*OFF) If set ON, the detector generates an activation, but does not detect the status/position of the door/window. If set to OFF, standard status behaviour is enabled, meaning the system knows about the status of the door/window the whole time a door/window is open and the detector remains active.

Disabled rear tamper sensor: (*OFF) The parameter enables/disables the rear tamper sensors which monitor detector removal from the surface.

Detector testing

When in Service mode, the LED indicators (5) in the detector indicate every activation when opening/closing. Individual activations of the detector can also be monitored in the **Diagnostics** tab in the **F-Link** software.

The LED indicators, including the yellow fault indicator, are disabled in normal operating mode.

Battery replacement

The system automatically reports a low battery status. Remember to switch the system to Service mode before changing the batteries (otherwise a tamper alarm will be triggered). Use only high-quality lithium batteries, type CR2032. **Always replace both batteries at the same time.**

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Technical specifications

Power	2x lithium battery, type CR2032 (3.0 V / 0.2 Ah) <i>Please note: batteries are not included</i>
Typical battery lifetime	approx. 2 years
Low battery voltage	< 2.4 V
Current consumption	4 µA
Maximum current consumption	40 mA
Communication band	868.1 MHz, JABLOTRON protocol
RF range	approx. 300 m (open area)
Dimensions	191 x 24 x 7 mm
Weight (without batteries)	32 g
Classification	Grade 2 / II. indoor general (According to EN 50131-1)
Operational environment	extended indoor general
Operational temperature range	-20 °C to +60 °C
Average operational humidity	75 % RH, non-condensing
Certification body	Trezor Test s.r.o. (no. 3025)
Also complies with	EN 50131-1 ed. 2+A1+A2, EN 50131-2-6, EN 50131-5-3+A1, EN 50131-6 ed. 2+A1, ETSI EN 300 220-1-2, EN 50130-4 ed. 2+A1, EN 55032, EN 62368-1, EN 50581
Can be operated according to	ERC REC 70-30



JABLOTRON ALARMS a.s. hereby declares that the JA-152M 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 – 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.