The JA-152M Wireless hidden magnetic detector

*The JA-152M is a wireless component of the **JABLOTRON** 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.* ***Compatibility with specific control panels can be verified using the QR code at the end of the manual.***

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.

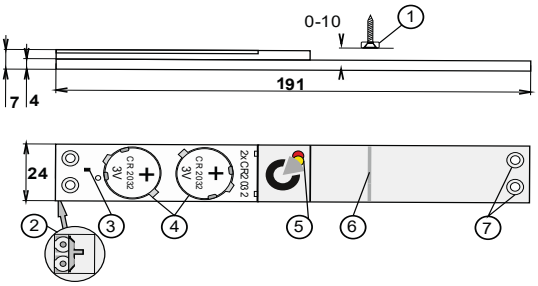


*Figure: **1** – magnet; **2** – tear-removal mechanism for removal detection (on the back side of the detector); **3** – cover tamper sensor; **4** – batteries (2x CR 2032); **5** – hidden LED indicators (under the logo); **6** – adjustment line; **7** – fixing holes*

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.

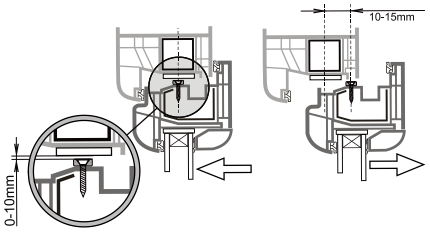
   Basic installation conditions:

   a) Avoid installing the detector around 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 three back-plates (two 2 mm and one 3 mm) 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 *Enrol* button to enter the *Enrolment* 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 enrolment signal is transmitted and the detector is enrolled into the selected position. The enrolment is confirmed by the yellow LED (5) turning off.

   c) Close and screw the detector cover on.

Notes:

- *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 considering battery lifetime 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 90 s 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 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*.

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.**

Technical specifications

Power	*2x lithium batteries, type CR2032 (3.0 V / 0.2 Ah)* *Please note: batteries are not included*
Typical lifetime of battery	*approx. 2 years*
LowBatt state	*<2.4 V*
Quiescent current consumption	*13.1 µA*
Maximal current consumption	*28 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	*security grade 2 / environmental class II (according to EN 50131-1)*
Environment	*extended indoor general*
Operating temperature range	*-20 °C to +60 °C*
Average operational humidity	*75 % RH, non-condensation*
Certification body	*Trezor Test s.r.o. (no. 3025)*
Complies with	*EN 50131-2-6, EN 50131-5-3, EN 50131-6, EN 62368-1 EN 50130-4, EN 55032, ETSI EN 300 220-2, EN IEC 63000*
Can be operated according to	*ERC REC 70-03*
Recommended screw	*4x ø 3 mm (countersunk head)*

JABLOTRON 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: 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.

Compatibility table:

JABLOTRON a.s.
Pod Skalkou 4567/33 | 46601 | Jablonec n. Nisou
Czech Republic | www.jablotron.com